

# Fisheries Economics of the United States 2012

## Economics and Sociocultural Status and Trends Series

U.S. Department of Commerce  
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National Marine Fisheries Service  
NOAA Technical Memorandum NMFS-F/SPO-137  
February 2014







Front cover photo:  
Bluefish on the line, Cape Cod, Massachusetts  
(photo credit: Paula Prior)

Inside cover photo:  
Commercial fishing vessel near the Aleutian Islands  
(photo credit: US Seafoods)



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# Fisheries Economics of the United States, 2012

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-137**  
**February 2014**



U.S. Department of Commerce  
Penny Pritzker, Secretary of Commerce

National Ocean and Atmospheric Administration  
Kathryn D. Sullivan, Acting Administrator of NOAA

National Marine Fisheries Service  
Sam Rauch, Acting Assistant Administrator for Fisheries

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

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# Preface

## **Fisheries Economics of the U.S., 2012**

*Fisheries Economics of the U.S., 2012* 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 2003 to 2012 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**

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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



# National Overview



Salmon fishing, Monterey Bay, California  
(photo credit: Sue Sogard)

## 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 is the federal agency with delegated authority from the Secretary of Commerce to oversee fishing activities in federal waters. Federal fisheries are generally defined as fishing activities that 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 46 fishery management and ecosystem plans<sup>1</sup> that provide a framework for managing the harvest of 446 fish stocks and stock complexes. 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
- Pacific Fishery Management Council
- Gulf of Mexico Fishery Management Council
- South Atlantic Fishery Management Council
- Caribbean Fishery Management Council
- Mid-Atlantic Fishery Management Council
- New England Fishery Management Council

There are 230 major fish stocks and stock complexes out of the total of 446 fish stocks and stock complexes. These 230 major fish stocks and stock complexes contribute over 90 percent of total fishery landings, overfishing status is known for 85 percent and overfished status for 77 percent. Currently, 41 stocks or stock complexes are categorized as overfished and 29 are categorized as subject to overfishing<sup>1</sup>.

### *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

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>1</sup>, and the list by ocean basin is provided below.

#### Pacific

- North Pacific Anadromous Fish Commission
- Pacific Salmon Commission
- International Pacific Halibut Commission
- Inter-American Tropical Tuna Commission
- Western and Central Pacific Fishery Commission

#### Atlantic

- International Commission for the Conservation of Atlantic Tuna
- North Atlantic Salmon Conservation Organization
- Northwest Atlantic Fisheries Organization

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<sup>1</sup> established in 1995.

Another issue of particular concern for NOAA Fisheries is illegal, unreported, and unregulated (IUU) fishing activities in international waters. IUU fishing generally refers to fishing conducted in violation of national laws or internationally agreed conservation and management measures in effect in oceans around the world. IUU fishing can include fishing without a license or quota for certain species, unauthorized transshipments to cargo vessels, failing to report catches or making false reports, keeping undersized fish or fish that are otherwise protected by regulations, fishing in closed areas or during closed seasons, and using prohibited fishing gear. Experts estimate that the global value of economic losses from IUU fishing range between \$10

<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>1</sup>2012 Status of Stocks. The NOAA Fisheries Office of Sustainable Fisheries. [http://www.nmfs.noaa.gov/sfa/statusoffisheries/2012/2012\\_SOSTC.pdf](http://www.nmfs.noaa.gov/sfa/statusoffisheries/2012/2012_SOSTC.pdf)

<sup>1</sup>[http://www.nmfs.noaa.gov/sfa/reg\\_s\\_vcs/Council%20stuff/council%20orientation/2007/2007TrainingCD/TabR-International/RFMOinformation\\_Oct07.pdf](http://www.nmfs.noaa.gov/sfa/reg_s_vcs/Council%20stuff/council%20orientation/2007/2007TrainingCD/TabR-International/RFMOinformation_Oct07.pdf)

<sup>1</sup><http://www.fao.org/docrep/005/v9878e/v9878e00.HTM>

<sup>1</sup><http://www.mrag.co.uk/Documents/ExtentGlobalIllegalFishing.pdf>.



billion and \$23.5 billion annually, representing between 11 and 26 million tons<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. Such strategies include strengthening enforcement and data collection programs around the world, and restrict port entry and access to port services to vessels included on the IUU lists of RFMOs with U.S. membership.

### *Threatened and Endangered Species*

NOAA Fisheries is also the lead agency for the conservation and protection of marine and anadromous species that fall within the purview of the Endangered Species Act (ESA). Currently, NOAA Fisheries has jurisdiction over 94 marine and anadromous listed species, and a list, by species group, is provided below.

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

Species Group	Number of Species
Marine and Anadromous Fish	44
Marine Mammals: Whales	29
Marine Turtles	16
Marine Invertebrates and Plants	5
<b>Total</b>	<b>94</b>

In addition to the threatened and endangered marine and anadromous species, NOAA Fisheries also engages in activities for candidate and proposed species. Candidate species are those petitioned species that are actively being considered for listing as endangered or threatened under the ESA, as well as those species for which NOAA Fisheries has initiated a status review that it has announced in the Federal Register. Proposed species are those candidate species that were found to warrant listing as either threatened or endangered and were officially proposed as such in a Federal Register notice after the completion of a status review and consideration of other protective measures. Currently there are 18 candidate species for listing, and 75 proposed species for listing.

NOAA Fisheries is also responsible for providing protection for marine mammals under the Marine Mammal Protection Act<sup>1</sup>. Enacted in 1972, Congress recognized that marine mammal species or stocks may be in danger of extinction or depletion as a result of human activities; marine mammal species or stocks should not be allowed to fall below their optimum sustainable population levels; measures should be taken to replenish marine mammal species or stocks; there is inadequate knowledge of the marine mammal ecology and population dynamics; and marine mammals have proven to be resources of great international significance. NOAA Fisheries engages in activities such as preventing the harassment, capture, or killing of marine mammals, preparing marine mammal stock assessments, and studying interactions between marine mammals and fisheries.

### *Essential Fish Habitats*

Sustainable commercial and recreational fisheries depend on healthy habitats. These habitats include rivers, estuaries, 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>1</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 FMCs 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. The HAPC designation alone does not confer additional protection or restrictions to an area, but helps to focus EFH conservation, management, and research priorities. HAPC designation is a valuable way to acknowledge areas where there is detailed information on ecological function and habitat vulnerability, indicating a greater need for conservation and management. To date, approximately 100 HAPCs have been designated including specific coral, seamount, and spawning areas. A recent effort undertaken by the NOAA Fisheries was to create a Habitat Assessment Improvement Plan<sup>1</sup> to advance NOAA Fisheries' ability to identify EFH and HAPCs and provide the 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); fishing cooperatives; and sector allocation programs<sup>1</sup>.

In 2010, the NOAA catch shares policy<sup>1</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.

Catch share programs are helping to improve economic efficiency and encourage more sustainable fishing practices. They are also designed to produce more fish at lower costs, improve fishermen's safety and profits, and strengthen the biological and economic benefits in a fishery. Catch share programs are a unique fishery management tool because they dedicate a secure share of fish to individual fishermen, fishing cooperatives, or fishing communities.

<sup>1</sup>The U.S. Fish and Wildlife Service provides protection for walrus, manatees, otters, and polar bears.

<sup>1</sup>The 1996 reauthorization of the Magnuson-Stevens Fishery-Conservation and Management Act included this requirement.

<sup>1</sup>The Habitat Assessment Improvement Plan is available at: <http://www.st.nmfs.noaa.gov/st4/documents/habitatAssesmentImprovementPlan052110.PDF>

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

<sup>1</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: [http://www.nmfs.noaa.gov/msa2007/docs/042808\\_312\\_b6\\_r\\_eport.pdf](http://www.nmfs.noaa.gov/msa2007/docs/042808_312_b6_r_eport.pdf) and *National Assessment of Excess Harvesting Capacity in Federally Managed Fisheries* available at: <http://spo.nmfs.noaa.gov/tm/spo93.pdf>.

<sup>1</sup>[http://www.nmfs.noaa.gov/sfa/domes\\_fish/catchshare/index.htm](http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm)

**Existing Catch Shares Programs**

Region	Program	Year Implemented
Northeast	Mid-Atlantic Surfclam & Ocean Quahog ITQ	1990
	Mid-Atlantic Golden Tilefish ITQ	2009
	Northeast Multispecies Sectors	2010
	Northeast General Category Atlantic Sea Scallop IFQ	2010
Alaska	Western Alaska CSQ	1992
	Alaska Halibut and Sablefish IFQ	1995
	American Fisheries Act Pollock Cooperatives	1999
	Bering Sea and Aleutian Island Crab Rationalization	2005
	Non-pollock Trawl Catcher or Processor Groundfish Cooperatives (Amendment 80)	2008
	Central Gulf of Alaska Rockfish Cooperatives	2012
Southeast	South Atlantic Wreckfish ITQ	1992
	Gulf of Mexico Red Snapper IFQ	2007
	Gulf of Mexico Grouper-Tilefish IFQ	2010
Northwest	Pacific Coast Sablefish Permit Stacking	2001
	Pacific Groundfish Trawl Rationalization Program	2011

*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>1</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 currently 205 fisheries worldwide that meet MSC sustainability standards<sup>1</sup>, 19 of which are U.S. fisheries.

**U.S. Fisheries with MSC Certification**

Region	Fishery	Certified
North Pacific	Alaska Flatfish - Bering Sea and Aleutian Islands	June 2010
	Alaska Flatfish - Gulf of Alaska	June 2010
	Alaska Pacific Cod - Bering Sea and Aleutian Islands	Jan 2010
	Alaska Pacific Cod - Gulf of Alaska	Jan 2010
	Alaska Pollock - Bering Sea and Aleutian Islands	Dec 2010
	Alaska Pollock - Gulf of Alaska	Sept 2010
	American Western Fish Boast Owners Association albacore tuna North Pacific	Mar 2010
	US North Pacific halibut	Apr 2006
	US North Pacific sablefish	May 2006
Pacific	American Albacore Fishing Association Pacific albacore tuna - north	Aug 2007
	American Albacore Fishing Association Pacific albacore tuna - south	Aug 2007
	Oregon Dungeness crab	Dec 2010
	Oregon pink shrimp	Oct 2011
	Pacific hake	Oct 2009
Southeast	Atlantic deep-sea red crab	Sept 2009
	Louisiana blue crab	Mar 2012
Northeast	Maine Lobster trap fishery	Mar 2013
	US Atlantic spiny dogfish	Aug 2012
	US North Atlantic swordfish	Mar 2013

<sup>1</sup>This total excludes three buyback programs associated with Northwest Pacific salmon disasters in 1994, 1995, and 1998 because data were not available.

<sup>1</sup><http://www.msc.org/track-a-fishery/fisheries-in-the-program>

## Commercial Fisheries

Commercial fishermen in the U.S. harvested 9.6 billion pounds of finfish and shellfish in 2012, earning \$5.1 billion for their catch. Sea scallop (\$559 million) followed by shrimp (\$490 million), Pacific salmon (\$489 million), and American lobster (\$429 million) contributed most to total revenue in the U.S. In terms of pounds landed, walleye pollock (2.9 billion pounds), menhaden (1.8 billion), and Pacific salmon (636 million) comprised over half of total pounds landed in 2012.

### 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 (611 million pounds) and earned \$441 million for their catch in 2012. 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 (127 million pounds) and earned \$340 million for their catch in 2012. In Massachusetts, sea scallop was a major contributor to total revenue, earning \$365 million for 37 million pounds landed. More blue crab was caught in Louisiana (45 million pounds) than any other state, earning fishermen in this state over \$43 million. Louisiana landed over half of the menhaden in 2012 with fisherman landing 1 billion pounds and generating \$65 million in landings revenue.

The highest ex-vessel price per pound in 2012 was for Eastern oyster, which received \$252.43 per pound in New York, \$38.96 per pound in Massachusetts, and \$5.90 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: spiny lobster (\$15.67 per pound in California), sea scallop (\$11.68 per pound in New Hampshire) and bloodworms (\$11.35 per pound in Maine).

In the Gulf of Mexico, shrimp is a highly valued species. Fishermen in Texas earned \$160 million for their catch (69 million pounds). Louisiana fishermen landed 102 million pounds worth about \$148 million. The ex-vessel price in Texas (\$2.31) was greater than that in Louisiana (\$1.44). The higher price is due to differences in product form; the Texas fleet targets larger shrimp caught in off-shore areas.

## Commercial Fisheries Facts

### Landings revenue

- The ten key U.S. key species or species groups accounted for 61% of total landings revenue in 2012.
- Finfish and other fishery products (\$2.4 billion) contributed slightly less than shellfish (\$2.7 billion) to total landings revenue in the U.S. in 2012.
- Together, Pacific salmon and walleye pollock accounted for 35% of total finfish revenue.
- Sea scallop, shrimp, and American lobster earned the most in shellfish revenue in 2012, contributing 20.7% 18.2%, and 15.9%, 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 63% of total landings in 2012.
- Finfish and other fishery products accounted for 86% of total U.S. landings in 2012 or 8.3 billion pounds.
- Walleye pollock and menhaden contributed 34% and 21%, respectively, to U.S. finfish landings.
- Shrimp and blue crab contributed 23% and 14%, 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 (\$9.83), Pacific halibut (\$4.48), and sablefish (\$3.42) had the highest ex-vessel price per pound in 2012.
- Walleye pollock (\$0.12) and menhaden (\$0.07) had the lowest ex-vessel price per pound in 2012.
- 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.

<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 2012, this industry supported approximately 1.3 million full- and part-time jobs and generated \$141 billion in sales impacts, \$39 billion in income impacts, and \$59 billion in value added impacts.

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

	2009	2010	2011	2012
Jobs	1,029,542	1,196,683	1,233,204	1,270,141
Income	31,556,643	36,269,724	36,568,695	38,721,983
Sales	116,224,548	133,135,986	129,386,335	140,660,993
Value Added	48,282,319	55,434,189	55,321,482	59,017,417
Total Revenue	3,926,583	4,528,964	5,335,522	5,099,456

Seafood retailers, which generated the largest job and value added impacts, contributed 610,000 jobs, \$32 billion in sales impacts, \$12.9 billion in income, and \$17.6 billion in value added impacts to the national economy in 2012. The seafood import sector, which generated the largest sales impacts, contributed 207,000 jobs, \$57 billion in sales impacts, over \$9 billion in income, and \$17.3 billion in value added impacts. Wholesalers and distributors constituted the smallest of the seafood industry sectors and contributed 57,000 jobs, almost \$8 billion in sales, \$2.6 billion in income, and \$3.5 billion in value added impacts to the national economy.

Employment impacts from the U.S. seafood industry were 3% higher in 2012 than in 2011. Similarly, industry-wide economic impacts in terms of income (up 5.9%), sales (up 8.7%), and value added (up 8.7%) were also higher. Year-over-year increases in economic impacts were concentrated in three sectors: importers (employment up 18%), processors and dealers (employment up 11%) and wholesalers and distributors (employment up 5.8%). Economic impacts in the commercial harvesting and retail sectors were actually somewhat lower in 2012 relative to 2011. For example, employment impacts were 6% lower in the commercial harvesting sector and 1.3% lower in the retail sector.

The greatest employment impacts generated by the seafood industry were generated in California with 145,000 jobs, followed by Massachusetts (107,000 jobs), Florida (82,000 jobs), and Washington (61,000 jobs). The lowest number of jobs were supported in Delaware (367 jobs). The highest sales impacts were generated by the seafood industry in California with \$24 billion in sales, followed by Florida (\$17 billion), Massachusetts (\$8.5 billion), and New Jersey (\$7.9 billion). The importers sector generated the highest level of sales impacts in all four states. The lowest sales were generated in Delaware (\$47 million). The greatest value added impacts were generated by the seafood industry in California with \$8.6 billion in sales, followed by Florida (\$5.5 billion), Massachusetts (\$3.4 billion), and Washington (\$3.1 billion). The smallest value added impacts were generated in Delaware (\$16 million).

**Jobs supported by the U.S. Seafood Industry (2012)**

State	Jobs	State	Jobs
United States	1,270,141	Oregon	16,051
California	145,433	Maryland	15,622
Massachusetts	107,064	Georgia	14,124
Florida	82,141	Hawai'i	10,544
Washington	60,955	Rhode Island	10,509
Alaska	55,890	Alabama	9,947
New York	51,681	North Carolina	8,800
New Jersey	50,754	Mississippi	8,532
Louisiana	33,391	New Hampshire	4,971
Maine	32,971	Connecticut	3,857
Texas	25,911	South Carolina	1,766
Virginia	19,052	Delaware	367

**Total sales generated by the U.S. Seafood Industry (2012)**  
(thousands of dollars)

State	In-State Sales	State	In-State Sales
United States	140,660,993	Maryland	1,800,489
California	24,043,813	Virginia	1,538,449
Florida	16,553,480	Rhode Island	1,224,565
Massachusetts	8,483,740	Oregon	1,174,111
New Jersey	7,921,903	Hawai'i	855,139
Washington	7,533,447	North Carolina	782,684
New York	6,366,436	New Hampshire	609,187
Alaska	4,232,307	Connecticut	603,308
Texas	2,499,832	Alabama	460,514
Georgia	1,962,985	Mississippi	377,374
Louisiana	1,927,986	South Carolina	119,975
Maine	1,875,020	Delaware	46,713

**Total value added impacts generated by the U.S. Seafood Industry (2012)**

(thousands of dollars)

State	Value Added	State	Value Added
United States	59,017,417	Maryland	686,761
California	8,582,461	Virginia	673,068
Florida	5,532,209	Oregon	550,045
Massachusetts	3,381,475	Rhode Island	468,920
Washington	3,055,370	Hawai'i	382,849
New Jersey	2,871,912	North Carolina	325,893
New York	2,243,446	New Hampshire	232,000
Alaska	2,228,884	Alabama	229,316
Texas	1,036,657	Connecticut	212,505
Louisiana	920,873	Mississippi	193,349
Maine	892,006	South Carolina	57,683
Georgia	717,018	Delaware	15,690

*Landings Revenue*

Landings revenue in the U.S. totaled \$5.1 billion in 2012. This was a 52% increase (9.2% increase in real terms) from 2003 levels (\$3.3 billion) and a 4.4% decrease (4% decrease in real terms) relative to 2011 (\$5.3 billion). Totalling \$2.4 billion in 2012, finfish revenue experienced a 58% increase (13% increase in real terms) from 2003 to 2012 and decreased 7% (6.7% decrease in real terms) from 2011 to 2012. U.S. shellfish revenue totaled \$2.7 billion in 2012, increasing 47.4% (5.7% increase in real terms) from 2003 to 2012 and decreased 2% (a 1.5% decrease in real terms) from 2011 to 2012.

**Total Landings Revenue by Region (2012)**  
(thousands of dollars)

Region	Total Revenue	Region	Total Revenue
US Total	5,099,456	Pacific	661,994
North Pacific	1,703,726	Mid-Atlantic	488,316
New England	1,191,363	South Atlantic	170,938
Gulf of Mexico	762,514	Western Pacific	91,513

The ten U.S. key species and species groups comprised 61% of total revenue in 2012. Of these, sea scallop, shrimp, Pacific salmon, American lobster, and walleye pollock contributed most to total revenue in the U.S. in 2012. These species or groups totaled approximately \$2.3 billion in 2012 or 45% of total revenue.

**Total Landings Revenue by State (2012)**  
(thousands of dollars)

State	Total Revenue	State	Total Revenue
Alaska	1,703,726	Rhode Island	80,787
Massachusetts	618,247	Maryland	77,859
Maine	448,544	North Carolina	72,912
Louisiana	331,165	East Florida	57,736
Washington	275,585	Mississippi	49,295
California	231,683	Alabama	46,340
Texas	194,044	New York	39,136
New Jersey	187,732	South Carolina	23,978
Virginia	175,640	New Hampshire	23,176
West Florida	141,671	Connecticut	20,608
Oregon	128,030	Georgia	16,315
Hawai'i	91,513	Delaware	7,897

The largest increases in total revenue among the national key species or species groups from 2003 to 2012 were experienced by: Pacific salmon (146%, 76% in real terms), sea scallop (144%, 75% in real terms), and tunas (89%, 35% in real terms).

Four key species or species groups showed decreases in real revenue from 2003 to 2012: blue crab (down 13%), Pacific halibut (down 39%), sablefish (down 5%) and shrimp (down 23%). Relative to 2011 totals, key species or species groups with the largest increases in total revenue in 2012 were: tunas (20%, 21% in real terms), blue crab (4.9%, 5.3% in real terms), and American lobster (1.5%, 2% in real terms). Overall, the greatest

portion of the nation's landings revenue was generated in Alaska (\$1.7 billion), which contributed 33% to the U.S. total. Alaska also contributed more than any other state to total U.S. finfish revenue (\$2.4 billion), accounting for 59% of total finfish revenue. More than half of Alaska's finfish landings revenue came from walleye pollock and salmon. Massachusetts (\$490 million) and Maine (\$372 million) contributed most to total U.S. shellfish revenue, contributing 18.2% and 13.8%, respectively. Sea scallop accounted for most of the revenue generated in Massachusetts and American lobster contributed the most to revenue in Maine.

*Landings*

In 2012, U.S. commercial fishermen landed 9.6 billion pounds of finfish and shellfish. Relative to 2003 levels, this was an 1.4% increase and a 2.3% decrease relative to 2011 (9.9 billion pounds). Finfish landings totaled 8.3 billion pounds in 2012, a 0.4% decrease from 8.4 billion pounds in 2003 and a 2% decrease from 2011 (8.5 billion pounds).

**Total Landings by Region (2012)**  
(thousands of pounds)

Region	Total Revenue	Region	Total Revenue
US Total	9,637,821	Mid-Atlantic	751,144
North Pacific	5,261,421	New England	664,243
Gulf of Mexico	1,652,446	South Atlantic	107,802
Pacific	1,068,691	Western Pacific	29,289

Over 60% of total catch in 2012 was made up of the ten U.S. key species and species groups. Walleye pollock and menhaden had the highest landings totals in 2012 with 2.9 billion pounds and 1.8 billion pounds landed, respectively. These two species accounted for 48% of total U.S. landings in 2012.

**Total Landings by State (2012)**  
(thousands of pounds)

State	Total Landings	State	Total Landings
Alaska	5,261,421	Maryland	73,415
Louisiana	1,217,453	West Florida	63,032
Virginia	461,944	North Carolina	56,673
California	352,700	New York	30,029
Massachusetts	297,561	Hawai'i	29,289
Oregon	295,892	East Florida	28,565
Mississippi	263,622	Alabama	26,347
Maine	262,581	South Carolina	12,260
Washington	213,578	New Hampshire	12,138
New Jersey	180,502	Georgia	10,304
Rhode Island	83,290	Connecticut	8,673
Texas	81,991	Delaware	5,239

The greatest increases in landings between 2003 and 2012 occurred in American lobster (109%), menhaden (11%), and blue crab (6%). During the same time period, decreases were seen in Pacific halibut (57%), walleye pollock (15%), and sablefish

(14%). The largest increase in landings of key species or groups between 2011 and 2012 was experienced by tunas (19%) and the largest decrease was experienced by Pacific halibut (21%).

Alaskan fishermen harvested the majority of the nation's total landings. Alaska contributed 56% to the U.S. total in 2012, landing 5.3 billion pounds of finfish and shellfish. Alaska also contributed most to the U.S. finfish total, landing 5.1 billion pounds or 62% of the U.S. finfish total. Walleye pollock comprised much of landings in Alaska (55%). More shellfish was landed in California (251 million pounds) and Louisiana (166 million pounds) than any other single state. The landings in these two states comprised 32% of all shellfish landed in the United States in 2012.

### Prices

Of the ten U.S. key species and species groups, sea scallop, Pacific halibut, and sablefish received the highest ex-vessel prices in 2012 at \$9.83 per pound, \$4.48 per pound, and \$3.42 per pound respectively.

Significant increases in price were observed for Pacific salmon, which increased 157% (84% in real terms) from 2003 to 2012, but experienced a decrease of 2.5% (2.1% in real terms) from 2011 to 2012. Sea scallop ex-vessel price experienced the next largest change between 2003 and 2012, with an increase of 140% (72% in real terms). The greatest change in price between 2011 and 2012 was experienced by sablefish (19.7% decrease a 19.5% decrease in real terms), followed by blue crab with a 15.4% increase (a 15.9% increase in real terms).

Menhaden and walleye pollock had the lowest ex-vessel prices in 2012 at \$0.07 and \$0.12 per pound, respectively. However, landings of menhaden and walleye pollock were the largest among the U.S. key species and groups: 1.77 billion pounds of menhaden and 2.87 billion pounds of walleye pollock.

### Recreational Fisheries

In 2012, there were approximately 11 million recreational saltwater anglers across the U.S. who took 72 million saltwater fishing trips around the country. These anglers spent \$4.6 billion on fishing trips and \$20 billion on durable fishing-related equipment. These expenditures contributed \$58 billion in sales impacts to the U.S. economy, generated \$30 billion in value added impacts, and supported over 381,000 job impacts.

Of the U.S. key recreational species or species groups, seatrout (52 million fish), and Atlantic croaker and spot (31 million fish) were the most often caught by recreational saltwater anglers in 2012.

### Key United States Recreational Species

- Atlantic croaker and spot
- Seatrout
- Little tunny and Atlantic bonito
- Pacific halibut
- Rockfishes and scorpionfishes
- Salmon
- 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 381,000 full- and part-time jobs across the U.S. in 2012. Sales impacts from recreational angling trips and durable expenditures totaled \$58 billion and value added impacts totaled \$30 billion.

Durable equipment impacts contributed most to these totals, accounting for 82% of employment impacts, 82% of total sales impacts, and 81% 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 6.9% of employment impacts. For-hire sales (\$2.5 billion) and value added impacts (\$1.5 billion) were approximately half the magnitude of impacts generated by either private boat (\$4.5 billion, \$2.3 billion) or shore-based trips (\$3.7 billion, \$1.9 billion).

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

	2009	2010	2011	2012
Jobs	327,124	326,188	363,932	380,898
Income	14,574,464	14,570,210	18,176,957	19,014,945
Sales	49,811,961	49,832,341	55,843,020	58,420,792
Value Added	23,196,423	23,170,932	29,100,691	30,441,884
Total Trips <sup>1</sup>	75,608	73,456	71,322	72,018

U.S. anglers spent a total of \$4.6 billion on expenditures related for fishing trips in 2012. Of this total, expenditures for private boat-based fishing trips contributed the most (\$2 billion), followed by shore-based fishing trips (\$1.6 billion), and for-hire-based fishing trips (\$1.1 billion). Expenditures on fishing-related equipment totaled over \$20 billion in 2012. Anglers spent more on boat expenses (\$10 billion) than any other durable good. Other major expenditures include fishing tackle (\$3.7 billion), vehicle expenses (\$2.6 billion) and second home expenses (\$2 billion).

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



**Jobs supported by the U.S. Recreational Fishing Industry (2012)**

State	Jobs	State	Jobs
West Florida	75,268	South Carolina	4,095
East Florida	34,073	Washington	3,794
North Carolina	18,202	New York	2,959
Louisiana	16,972	Oregon	2,958
Texas	13,944	Georgia	2,787
New Jersey	13,131	Rhode Island	1,794
California	12,134	Maine	1,664
Virginia	8,143	Mississippi	1,649
Alabama	7,501	Delaware	1,242
Massachusetts	6,942	Hawai'i	1,171
Maryland	5,683	Connecticut	1,137
Alaska	4,824	New Hampshire	442

The greatest employment impacts from expenditures on recreational angling were generated in West Florida with 75,000 jobs, followed by East Florida (34,000 jobs), North Carolina (18,000 jobs), and Louisiana (17,000 jobs). The lowest number of jobs were supported in New Hampshire (442 jobs). The highest sales impacts from expenditures on recreational angling were also generated in West Florida with \$9.1 billion in sales, followed by East Florida (\$4 billion), Louisiana (\$2 billion), and New Jersey (\$2 billion). The lowest sales were generated in New Hampshire (\$48 million).

**Total Sales generated by the U.S. Recreational Fishing Industry (2012)***(thousands of dollars)*

State	Sales	State	Sales
West Florida	9,142,920	Washington	494,583
East Florida	4,007,766	South Carolina	383,622
Louisiana	1,964,494	New York	381,299
New Jersey	1,888,249	Oregon	325,880
North Carolina	1,867,621	Georgia	298,791
Texas	1,719,709	Rhode Island	192,367
California	1,701,218	Maine	163,679
Massachusetts	848,039	Connecticut	148,140
Virginia	834,499	Mississippi	143,890
Alabama	691,547	Hawai'i	139,142
Maryland	637,237	Delaware	117,752
Alaska	558,078	New Hampshire	47,926

*Participation<sup>1</sup>*

Nationwide, there were 11 million recreational saltwater anglers who fished in their home states in 2012. Approximately 9.4 million of these anglers were residents of a U.S. coastal county and 1.6 million anglers were residents of a non-coastal county. Between 2003 and 2012, the total number of U.S. anglers fishing in their home states decreased 8.8%. However, the number of anglers increased 3.9% between 2011 and 2012. The number of

coastal county anglers decreased 10% from 2003 to 2012 and increased 3.1% from 2011 to 2012. The number of non-coastal county anglers decreased 0.3% between 2003 and 2012 and from 2011 to 2012, there was a 9.1% increase.

*Fishing Trips<sup>2</sup>*

The total number of fishing trips taken in the U.S. decreased 16% from 2003 to 2012. Relative to 2011, total fishing trips taken in the U.S. increased 1% with largest increase occurring in the shore mode (4%)

*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 2012. These species or groups were caught in large numbers relative to the other key species or groups: seatrout (52 million fish), Atlantic croaker and spot (31 million fish), summer flounder (17 million fish), and striped bass (6.9 million fish). Anglers fishing in the Mid-Atlantic and New England caught most of the Atlantic croaker, summer flounder, and striped bass in 2012, 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 2012 with 724,000 fish and 711,000 fish caught, respectively. Bigeye and mackerel (608,000 fish) comprised 33% of fish caught by anglers in the Western Pacific in 2012.

Recreational catch of striped bass experienced a 61% decrease between 2003 and 2012, the largest change during this 10 year time period. There were 3.3 million sharks caught in 2012. Other key species or groups with large changes in recreational catch include: salmon (39% decrease), seatrout (29% increase), large Atlantic tuna (27% decrease), and Atlantic croaker and spot (22% decrease).

From 2011 to 2012, decreases occurred in the recreational catch of Atlantic croaker and spot, salmon, striped bass, and summer flounder. Of these, the largest decreases occurred in summer flounder (23%), striped bass (18%), and salmon (6%). The largest increase observed for this time period was for large Atlantic tuna, which experienced a 48% increase.

<sup>1</sup>Participation estimates do not include Alaska and Texas. Hawai'i is included for 2003-2012; Numbers include the Caribbean.

<sup>2</sup>Effort numbers do not include Alaska and Texas. They include Hawai'i only for 2003-2011. California numbers were estimated differently from 2004-2012.

### Recreational Fishing Facts

#### Participation

- An average of 12 million anglers fished in United States annually from 2003 to 2012.
- In 2012, 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 2004 and 2005, increasing 11%, from 10 million anglers to 11 million anglers. The largest one-year decrease during the same period for coastal anglers occurred between 2007 and 2008, decreasing 14%, 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 2003 to 2012.
- Private or rental boat and shore-based fishing trips accounted for 36 million and 33 million fishing trips, respectively in 2012. Together, these made up 95.3% 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 2006 and 2007, increasing 2.8%, from 86 million trips to 89 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 87 million trips to 76 million trips.

#### Harvest and release

- Seatrout was the most commonly caught key species or species group, averaging 47 million fish caught over the 10 year time period. Of these, 61% were released rather than harvested.
- Of the ten 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).
- Salmon (100% harvested), followed by large Atlantic tuna (88% harvested), and rockfishes and scorpionfishes (75% harvested) were key species or groups that experienced the greatest proportion of harvests rather than releases.

### Marine Economy<sup>3</sup>

In 2011, there were 7.4 million establishments throughout the entire U.S economy (including marine and non-marine related establishments). These establishments employed over 113 million full- and part-time employees and had a total annual payroll of \$5.2 trillion. From 2003 to 2011, the number of establishments increased 1.4%, employee numbers increased 0.025%, and total annual payroll increased 28% (a 7.4% increase in real terms) nationwide.

The nation's gross domestic product was \$15 trillion in 2011, a 35% increase (a 3.6% decrease in real terms) relative to 2003

levels (\$11 trillion) and a 4% increase (a 3.3% decrease in real terms) relative to 2010 levels (\$11.1 trillion). Employee compensation in 2003 was \$8.3 trillion, a remained unchanged (a 29% 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 2011, there were 1,757 nonemployer firms engaged in seafood product preparation and packaging, a 69% increase from 2003 levels. Annual receipts increased 58% (13% increase in real terms) from \$70 million (2003) to \$111 million (2011). More of these firms were located in Florida (294 firms), California (187 firms), and New York (142 firms) than any other state.

The number of employer establishments in seafood product and packaging decreased 19% from 764 in 2003 to 620 in 2011. These firms employed approximately 31,000 full- and part-time employees in 2011 and had a total annual payroll of \$1.2 billion. Relative to 2003 levels, this was a 21% decrease in workers and a 1.9% increase (a 27% decrease in real terms) in annual payroll. More than one-third of these establishments were located in Alaska (122 establishments) and Washington (90 establishments).

There were over 2,000 employer establishments involved in seafood wholesale activities in 2011. Almost half of these establishments were in California (404 firms), New York (291 firms), and Florida (250 firms) Establishments in the seafood wholesaling sector employed 20,622 workers and had an annual payroll of \$848 million. From 2003 to 2011, the number of establishments in the seafood wholesale sector decreased 6.9%, the number of employees decreased 11%, and the annual payroll increased 14% (a 19% decrease in real terms).

In 2011, there were 2,514 nonemployer firms engaged in retail seafood sales, a 7.2% increase from 2003 levels. Annual receipts increased 1.2% (28% decrease in real terms) from \$210 million (2003) to \$213 million (2011). More of these firms were located in Florida (362 firms), California (209 firms), and Louisiana (192 firms) than any other state.

The number of employer establishments engaged in seafood retail activities decreased 7.8% from 2,100 in 2003 to 2,000 in 2011. These firms employed approximately 10,000 full- and part-time employees in 2011 and had a total annual payroll of \$223 million. Relative to 2003 levels, this was a 3.3% decrease in workers and a 20% increase (a 15% decrease in real terms) in annual payroll. The employer establishments for retail seafood sales were primarily located in New York (391 firms),

<sup>3</sup>Information for 2011 is reported in this section; 2012 data were not available for this report.

California (157 firms), and Florida (145 firms). There were just over 2,500 non-employer firms in the retail sector in 2011, many of which were located in Florida (362 firms), California (209 firms), and Florida (192 firms).

*Transport, Support, and Marine Operations*

In the U.S. transport, support, and marine operations industry sector, marinas had the highest number of establishments. In 2011, there were almost 3,900 marinas that employed 27,000

full- and part-time workers. Compared to 2003 levels, this was a 6.1% decrease in establishment numbers and a 4.9% decrease in number of employees.

Annual payroll for this industry was \$953 million in 2011, a 23% increase (12% decrease in real terms) over 2003 levels. Over half of these marinas were located in New York (431), Florida (411), California (269), New Jersey (206), Massachusetts (176), Maryland (172), and Texas (144).

**2012 Economic Impacts of the United States Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	1,270,141	140,660,993	38,721,983	59,017,417
Commercial Harvesters	175,565	13,540,128	4,498,124	6,992,405
Seafood Processors & Dealers	219,523	30,222,606	9,538,057	13,258,966
Importers	207,310	57,026,447	9,139,576	17,384,158
Seafood Wholesalers & Distributors	57,434	7,966,730	2,617,923	3,745,890
Retail	610,310	31,905,082	12,928,302	17,635,998

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	3,346,066	3,769,942	3,952,692	4,233,299	4,204,578	4,392,127	3,926,583	4,528,964	5,335,522	5,099,456
Finfish & other	1,518,330	1,777,802	1,860,060	2,107,034	2,067,933	2,254,771	1,886,446	2,183,275	2,588,568	2,404,515
Shellfish	1,827,736	1,992,140	2,092,632	2,126,265	2,136,645	2,137,356	2,040,137	2,345,689	2,746,954	2,694,941
American lobster	283,516	374,306	415,415	404,395	368,528	325,122	311,184	404,092	422,794	429,249
Blue crab	153,685	145,905	140,818	126,034	149,163	160,711	163,284	205,957	181,761	190,645
Menhaden	71,988	75,045	62,520	70,553	92,725	90,995	99,104	107,132	143,679	127,733
Pacific halibut	172,846	176,893	177,599	202,131	227,348	217,726	140,613	207,282	213,465	152,403
Pacific salmon	198,946	302,775	330,816	310,865	381,589	395,253	369,744	554,798	618,330	489,068
Sablefish	102,983	94,526	97,077	101,478	99,439	112,806	115,499	126,533	175,986	141,182
Sea scallop	229,097	320,039	432,514	386,341	386,045	370,053	375,569	455,770	585,157	558,809
Shrimp	441,622	446,043	412,718	452,979	429,993	444,578	379,152	409,209	537,173	489,892
Tunas	86,818	89,952	86,358	86,324	93,875	106,867	96,069	108,262	136,143	163,699
Walleye pollock	203,018	271,612	306,906	329,879	297,460	323,212	270,595	282,399	362,592	343,311

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	9,505,337	9,688,745	9,712,427	9,552,024	9,313,573	8,359,716	8,062,089	8,257,443	9,866,014	9,637,821
Finfish & other	8,367,711	8,516,634	8,630,877	8,356,824	8,230,436	7,299,533	6,793,240	6,950,505	8,500,118	8,332,966
Shellfish	1,137,626	1,172,111	1,081,550	1,195,200	1,083,137	1,060,183	1,268,849	1,306,938	1,365,896	1,304,855
American lobster	71,683	90,073	87,809	96,119	81,039	87,749	100,775	117,586	126,224	149,535
Blue crab	170,890	174,561	159,242	166,122	157,080	162,233	176,388	199,765	199,010	181,160
Menhaden	1,590,510	1,495,240	1,243,807	1,306,632	1,484,230	1,344,468	1,570,735	1,473,337	1,875,009	1,770,587
Pacific halibut	78,862	79,181	76,264	71,891	69,967	67,000	59,812	56,467	42,864	33,988
Pacific salmon	669,998	738,746	899,759	663,567	886,054	659,196	705,063	787,712	780,073	635,773
Sablefish	47,998	52,851	51,296	46,842	43,884	43,314	42,826	40,318	41,278	41,292
Sea scallop	55,968	64,108	56,626	60,123	58,450	53,384	57,921	57,540	59,193	56,875
Shrimp	324,170	316,566	264,163	332,491	273,636	248,628	305,701	249,010	311,715	300,264
Tunas	61,762	56,323	44,252	49,826	50,642	47,878	49,062	48,002	49,766	59,448
Walleye pollock	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	2,872,186

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	3.96	4.16	4.73	4.21	4.55	3.71	3.09	3.44	3.35	2.87
Blue crab	0.90	0.84	0.88	0.76	0.95	0.99	0.93	1.03	0.91	1.05
Menhaden	0.05	0.05	0.05	0.05	0.06	0.07	0.06	0.07	0.08	0.07
Pacific halibut	2.19	2.23	2.33	2.81	3.25	3.25	2.35	3.67	4.98	4.48
Pacific salmon	0.30	0.41	0.37	0.47	0.43	0.60	0.52	0.70	0.79	0.77
Sablefish	2.15	1.79	1.89	2.17	2.27	2.60	2.70	3.14	4.26	3.42
Sea scallop	4.09	4.99	7.64	6.43	6.60	6.93	6.48	7.92	9.89	9.83
Shrimp	1.36	1.41	1.56	1.36	1.57	1.79	1.24	1.64	1.72	1.63
Tunas	1.41	1.60	1.95	1.73	1.85	2.23	1.96	2.26	2.74	2.75
Walleye pollock	0.06	0.08	0.09	0.10	0.10	0.14	0.15	0.15	0.13	0.12



**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	18,587	2,546,961	995,199	1,542,836
Private Boat	26,232	4,493,442	1,287,960	2,267,146
Shore	24,534	3,714,039	1,098,985	1,894,850
Total Durable Equipment Impacts	311,545	47,666,350	15,632,801	24,737,052
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>380,898</b>	<b>58,420,792</b>	<b>19,014,945</b>	<b>30,441,884</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)<sup>1</sup>**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
For-Hire	NA	1,050,120	Fishing Tackle	3,734,317
Private Boat	NA	2,002,425	Other Equipment	1,487,342
Shore	NA	1,582,867	Boat Expenses	10,089,212
<i>total</i>	NA	4,635,413	Vehicle Expenses	2,552,889
			Second Home Expenses	1,979,856
			<i>Total Durable Equipment Expenditures</i>	19,843,616
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>24,479,029</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	10,434	10,199	11,330	11,644	12,219	10,533	9,268	9,375	9,099	9,384
Non-Coastal	1,562	1,579	1,492	1,685	1,616	1,591	1,747	1,502	1,428	1,558
<b>Total Anglers</b>	<b>11,996</b>	<b>11,779</b>	<b>12,822</b>	<b>13,329</b>	<b>13,835</b>	<b>12,124</b>	<b>11,015</b>	<b>10,877</b>	<b>10,527</b>	<b>10,941</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	3,368	3,543	3,633	3,902	4,333	3,567	3,404	2,725	3,346	3,406
Private	46,022	45,016	44,203	43,712	47,369	45,818	38,569	38,627	36,281	35,635
Shore	36,200	38,019	37,343	38,693	37,025	37,219	33,635	32,104	31,695	32,977
<b>Total Trips</b>	<b>85,590</b>	<b>86,578</b>	<b>85,179</b>	<b>86,307</b>	<b>88,727</b>	<b>86,604</b>	<b>75,608</b>	<b>73,456</b>	<b>71,322</b>	<b>72,018</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Drum (Atlantic croaker and spot)	H	20,879	19,796	20,356	22,936	26,567	24,018	15,765	13,356	13,319	11,951
	R	18,199	17,819	23,758	19,378	21,369	24,975	20,371	15,978	18,092	18,621
Drum (seatrouts)	H	15,228	16,953	16,099	18,903	17,563	21,077	20,189	16,739	22,240	20,881
	R	25,549	27,216	30,629	30,345	28,976	32,354	25,807	23,937	28,649	31,557
Little tunny & Atlantic bonito <sup>4</sup>	H	252	407	182	313	295	203	233	190	283	386
	R	864	1,101	468	869	1,220	725	808	598	701	853
Pacific halibut	H	403	483	500	463	585	516	440	398	394	388
	R	290	369	380	353	438	359	321	304	311	324
Rockfishes & scorpionfishes	H	3,742	2,595	3,616	2,677	2,453	2,067	2,200	2,418	3,084	3,589
	R	1,796	984	1,348	896	691	636	838	735	680	1,032
Salmon	H	1,479	1,432	1,419	821	1,231	695	1,466	699	958	899
	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sharks <sup>5</sup>	H	171	149	205	135	150	111	130	161	102	93
	R	2,795	3,063	3,988	3,520	3,961	4,127	3,986	4,026	2,577	3,177
Striped bass	H	2,580	2,621	2,491	2,741	2,449	2,345	1,994	1,977	2,250	1,509
	R	14,997	17,479	18,229	23,418	16,220	12,697	8,118	6,357	6,177	5,384
Summer flounder	H	4,579	4,390	4,105	4,035	3,110	2,363	1,828	1,510	1,845	2,277
	R	15,977	16,059	21,868	17,511	17,626	20,547	22,297	22,227	19,724	14,255
Tunas (large Atlantic species) <sup>6</sup>	H	891	774	669	567	730	798	528	595	423	676
	R	113	134	110	137	96	89	55	53	68	52

<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. Hawaii participation estimates are not available for 2007-2012.<sup>3</sup>This table excludes all Texas harvest and release.<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' State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>7</sup>
2003	7,254,745	113,398,043	4,040,889	6,368,258	11,067,829	1
2011	7,354,043	113,425,965	5,164,898	8,273,723	14,959,778	1
%change	1.37 %	0.02 %	27.82 %	29.92 %	35.16 %	--

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	1,038	1,110	1,080	1,142	1,303	1,308	1,383	1,617	1,757
	Receipts	70,071	81,871	78,745	80,066	88,230	89,670	92,358	104,990	110,745
Seafood sales, retail	Firms	2,346	2,260	2,098	2,089	2,610	2,522	2,407	2,513	2,514
	Receipts	210,231	210,450	203,951	211,186	231,776	233,002	198,495	199,810	212,679

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	764	734	717	670	685	663	645	638	620
	Employees	39,580	38,102	37,684	35,894	33,169	33,323	30,894	31,789	31,261
	Payroll	1,177,582	1,151,780	1,180,396	1,205,890	1,196,086	1,161,637	1,091,727	1,116,305	1,200,263
Seafood Sales, wholesale	Establishments	2,456	2,330	2,314	2,222	2,438	2,063	2,099	2,183	2,287
	Employees	23,091	22,501	22,666	22,013	24,232	20,116	19,290	19,386	20,622
	Payroll	743,479	771,749	781,459	826,720	924,654	782,178	758,332	798,794	848,454
Seafood sales, retail	Establishments	2,125	2,151	2,155	2,115	2,094	2,044	1,967	1,982	1,972
	Employees	10,346	10,714	10,381	10,545	10,380	9,732	9,439	9,857	10,006
	Payroll	186,087	192,187	194,602	200,971	209,404	205,423	211,264	219,045	222,508

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	606	579	610	579	573	513	513	547	549
	Employees	22,449	21,928	21,025	22,172	22,568	21,019	20,919	17,528	18,590
	Payroll	1,183,071	1,179,549	1,232,342	1,376,033	1,552,467	1,694,613	1,470,159	1,288,001	1,400,267
Deep sea freight transportation	Establishments	472	435	465	456	427	365	376	372	378
	Employees	12,175	11,314	11,357	11,473	11,308	10,231	11,180	10,288	10,362
	Payroll	734,781	735,804	801,863	825,752	855,683	852,063	863,363	867,797	921,990
Deep sea passenger transportation	Establishments	99	83	87	87	92	71	78	56	55
	Employees	12,093	12,017	11,376	11,387	0	0	0	0	0
	Payroll	541,131	652,443	628,793	667,949	ND	ND	ND	ND	ND
Marinas	Establishments	4,150	4,092	4,143	4,025	4,085	3,972	3,891	3,937	3,896
	Employees	27,928	28,100	27,511	28,339	28,788	28,686	26,643	26,657	26,557
	Payroll	773,538	814,821	839,848	894,097	945,355	954,032	905,488	927,499	953,497
Marine cargo handling	Establishments	542	551	549	540	552	532	541	507	545
	Employees	50,644	58,618	59,670	61,905	62,941	63,736	56,386	57,275	59,517
	Payroll	2,422,537	2,899,703	3,034,672	3,261,953	3,428,126	3,272,723	2,776,791	3,026,861	3,159,964
Navigational services to shipping	Establishments	782	804	803	802	830	868	846	847	836
	Employees	11,795	11,881	10,819	12,043	12,997	13,419	12,689	13,529	13,441
	Payroll	629,541	591,510	584,689	699,375	756,552	847,938	826,384	937,980	893,889
Port & harbor operations	Establishments	223	234	244	229	223	268	258	287	255
	Employees	6,413	6,888	7,453	7,002	6,573	5,608	5,100	4,844	4,933
	Payroll	279,970	300,692	319,338	323,554	318,608	282,671	250,358	290,467	306,882
Ship & boat building	Establishments	1,739	1,793	1,799	1,764	1,771	1,782	1,615	1,540	1,497
	Employees	133,395	137,633	141,620	142,057	148,864	157,512	137,759	127,691	127,522
	Payroll	5,119,596	5,499,783	5,654,818	5,877,830	6,405,570	7,269,306	6,674,187	6,529,523	6,845,322

<sup>7</sup>The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which states CFLQs can be compared.

ND- these data are confidential and therefore not available

NA- these data are not available

# North Pacific

- Alaska



### Management Context

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

#### North Pacific Region FMPs

1. Bering Sea/Aleutian Islands (BSAI) Groundfish
2. Gulf of Alaska (GOA) Groundfish
3. BSAI King and Tanner Crabs
4. Alaska Scallop Fishery
5. Salmon in the EEZ
6. Arctic

Of the stocks or stock complexes covered in these fishery management plans, only the Blue king crab - Pribilof Islands stock is currently listed as overfished, and the Bering Sea/Aleutian Island octopus complex is currently subject to overfishing. The North Pacific Region has six catch share programs, more than any other region. These are the: 1) Western Alaska community development quota program; 2) Pacific halibut and sablefish individual fishing quota program; 3) Bering Sea pollock cooperative; 4) Bering Sea king and tanner crab (Crab Rationalization) program; 5) Central Gulf of Alaska rockfish pilot sector program; and 6) Bering Sea groundfish (non-pollock) cooperative. The landings revenues for these programs totaled over \$1.1 billion in 2011, which exceeds the total landings revenue of any other state. Below is a description of these catch share programs and their performance.

**Western Alaska Community Development Quota (CDQ) Program** This program was originally implemented in 1992 as part of a restructuring of the Bering Sea/Aleutian Islands (BSAI) groundfish fishery. Under this program, a percentage of the total allowable catch for groundfish, prohibited species, halibut, and crab is apportioned to 65 eligible villages in western Alaska that are organized into six CDQ groups. The purpose of the program is to 1) support economic development in western Alaska; 2) alleviate poverty and provide economic and social benefits to residents; and 3) achieve sustainable and diversified local economies.

Annual CDQ allocations provide a revenue stream for CDQ groups through various channels, including the direct catch and sale of some species and the leasing of quota to various harvesting partners. CDQ groups use the revenue derived from the harvest of their fisheries allocations to fund economic development activities and provide employment opportunities. In 2011, 261 million pounds of pollock were caught under the BSAI CDQ program, with an estimated ex-vessel value of approximately \$43 million.

**Pacific Halibut and Sable fish Individual Fishing Quota (IFQ) Program** The Pacific Halibut and Sablefish IFQ Program was developed by the North Pacific Fishery Management Council and implemented by NMFS in 1995. The primary objectives of the IFQ Program are to 1) eliminate gear conflicts; 2) address safety

concerns; and 3) improve product quality. The performance results of the Halibut IFQ program since implementation through 2011, show that Halibut quota, landings and active vessels decreased while Halibut revenue and price per fish increased. Similarly, the performance results of the Sable fish IFQ program show that Sable fish quota, landings and active vessels decreased while Sable fish revenue and price per fish increased between 1995 and 2011.

**Bering Sea Pollock Cooperative** This program was established 1998 and manages two allocations of Bering Sea and Aleutian Islands walleye pollock. The program objectives were to settle allocation disputes between inshore (catcher vessels) and offshore (catcher/processors) sectors and rationalize the fishery. Key performance indicators of this program show that since the program implementation in 1999 through 2011, quota, landings, revenue and price per fish have increased while the number of active vessels has decreased.

**Central Gulf of Alaska Rockfish Pilot Sector Program** The Central Gulf of Alaska Rockfish Program was initially established as a two-year (2007 - 2008) pilot program by the U.S. Congress and later extended to five years. The North Pacific Council modified this program and implemented this Catch Share Program in 2012. The objectives of this program are to reduce bycatch and discards; encourage conservation-minded practices; improve product quality and value; and provide stability to the processing labor force. Since this program was just recently implemented, not enough data has been collected to evaluate its performance.

**Bering Sea Groundfish (non-Pollock) Cooperative** This program began implementation in 2008 to create economic incentives to improve retention of all fish caught and reduce bycatch by commercial fishing vessels using trawl gear in the non-pollock groundfish fisheries. The key performance indicators of this program show that since implementation from 2008 through 2011, active vessels and average price per fish have remained constant while revenue and revenue per active vessel increased. Also, fish discards were reduced by 52%.

**Bering Sea and Aleutian Islands Crab Rationalization** In 2005, the BSAI Crab Rationalization Program was implemented to address the race to harvest, high bycatch and discard mortality, product quality issues and balance the interests of those who depend on crab fisheries. The BSAI Crab Rationalization Program includes share allocations to harvesters and processors. Processor quota was incorporated to preserve the viability of processing facilities in dependent communities and particularly to maintain competitive conditions in ex-vessel markets. Community interests are protected by Community Development Quota (CDQ) and Adak Community allocations, and regional landings and processing requirements, as well as several community protection measures.

**Commercial Fisheries**

(211% increase), and salmon (163% increase).

North Pacific fishermen earned over \$1.7 billion from their commercial harvest (5.3 billion pounds) in 2012. Landings revenue was dominated by salmon (\$441 million), walleye pollock (\$343 million), crab (\$276 million), and Pacific cod (\$191 million). Walleye pollock contributed the most to landings in 2012, accounting for 55% of total landings (2.9 billion pounds) and 20% of landings revenue, with an average annual price of \$0.12 per pound. In contrast, salmon accounted for 12% of total landings (611 million pounds) and generated 26% of landings revenue, with an average annual price of \$0.72 per pound in 2012.

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

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

Alaska’s seafood industry generated \$4.2 billion in sales impacts, \$1.8 billion in income impacts, and over 56,000 jobs in 2012. Seafood processing and dealer operations contributed 25% to in-state sales for Alaskan businesses, with over \$1.1 billion generated in 2012. The commercial harvester sector generated more impacts than any other sector with approximately 69% of total impacts. The importer sector consisted of less than one percent of the total impacts for the state in 2012.

**Key North Pacific Commercial Species**

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

*Landings Revenue*

In 2012, landings revenue for finfish and shellfish totaled over \$1.7 billion, a 66% increase from total revenue generated in 2003. When adjusting for inflation, real landings revenue increased 19%. Landings revenue in 2012 was a 7.7% decrease relative to 2011 (\$1.8 billion). Finfish and other catch contributed more than shellfish to the 2012 total, accounting for 83% or \$1.4 billion. This was a 66% increase (19% increase in real terms) from 2003 finfish revenue totals. Similarly, shellfish revenues increased 68% (20% increase in real terms) from \$174 million in 2003 to \$293 million in 2012. The largest changes in landings revenue between 2003 and 2012 were for Atka mackerel (400% increase), flatfish

**Commercial Fisheries Facts**

*Landings revenue*

- On average, the key species or species groups account for 98% of total revenue, (\$1.7 billion) generated in the North Pacific Region.
- Salmon contributed more than any other species or species group, averaging \$357 million in landings revenue from 2003 to 2012.
- Atka mackerel had the largest one-year increase in landings revenue over the 10 year time period, increasing 257% from \$3 million in 2003 to \$11 million in 2004.
- Pacific cod had the largest decrease in landings revenue over the 10 year time period, decreasing 60% from \$241 million in 2008 to \$97 million in 2009.

*Landings*

- Key species or species groups contributed an average of 99% annually to total landings between 2003 and 2012.
- Walleye pollock, contributed the most to landings in the region, averaging 2.8 billion pounds from 2003 to 2012.
- 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.
- Salmon had the largest one-year decrease in landings over the 10 year time period, decreasing 27% from 872 million pounds in 2005 to 634 million pounds in 2006.

*Prices*

- Pacific halibut had the highest average annual ex-vessel price per pound (\$3.13) over the time period, followed by sablefish (\$2.92), and crab (\$2.47).
- Walleye pollock had the lowest average annual ex-vessel price per pound (\$0.11) over the time period, followed by Atka mackerel (\$0.13), and flatfish (\$0.16).
- The largest annual increase in ex-vessel price during the 10 year period was for Atka mackerel had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 228% from \$0.03 per pound in 2003 to \$0.10 in 2004.
- Pacific cod had the largest decrease in ex-vessel price over the 10 year time period, decreasing 60% from \$0.49 per pound in 2008 to \$0.20 in 2009.

*Landings*

In 2012, North Pacific commercial fishermen landed 5.3 billion pounds of finfish and shellfish, a 0.3% decrease from 2003 totals. Finfish and catch other than shellfish accounted for 98% of this total (5.1 billion) and decreased 1.3% from 2003 (5.2 billion pounds) and decreased 1% from 2011 (5.2 billion pounds). Shellfish landings in 2012 increased 88% from 62 million pounds in 2003 to 117 million pounds in 2012. Between 2011 and 2012, shellfish landings increased 38%. Overall, an average of 5 billion pounds were landed annually in the North Pacific from 2003 to

<sup>1</sup>The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: [www.st.nmfs.noaa.gov/documents/commercial\\_seafood\\_impacts\\_2007-2009.pdf](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf))



2012, ranging from a low of 4 billion pounds (2009) to a high of 5.6 billion pounds (2005).

In terms of key species or species groups, walleye pollock landings contributed the most to landings during the 10 year period, accounting for 55% of total landings in 2012 (2.9 billion pounds). Landings of Pacific cod (717 million pounds), flatfish (647 million pounds), and salmon (611 million pounds) also significantly contributed to the total landings.

Relative to 2003, landings of flatfish, crab, and Pacific cod in 2012 increased more than any other key species or group, increasing 123%, 96.5%, and 26% respectively. In contrast, the largest decreases between 2003 and 2012 were experienced by Pacific halibut (58%) and sablefish (17%).

#### *Prices*

In all, 2012 ex-vessel prices per pound for seven of the key species and species groups were above their average annual price for the 10 year time period. When comparing 2012 ex-vessel prices to those in 2003 the largest changes occurred in Atka mackerel (379% increase, 243% increase in real terms), salmon (171% increase, 94% increase in real terms), Pacific halibut (106% increase, 48% increase in real terms), and Pacific herring (100% increase, 43% increase in real terms). Relative to ex-vessel prices in 2011 the largest changes in the ex-vessel values were for Pacific herring (107% increase, 108% increase in real terms), Atka mackerel (30% decrease, 30% decrease in real terms), sablefish (21% decrease, 21% decrease in real terms), and crab (20% decrease, 20% decrease in real terms),

#### **Recreational Fisheries**

Recreational fishermen spent approximately 808,000 days fishing in Alaska in 2012. These anglers numbered over 278,000, with 58% of them non-residents. Pacific halibut was the most caught species or species group, with approximately 711,000 harvested or released in 2012. Rockfish and coho salmon were also caught in large numbers, with 351,000 and 313,000 caught, respectively. Together, these three species accounted for 74% of total catch by anglers in the North Pacific Region.

#### *Economic Impacts and Expenditures<sup>2</sup>*

In 2012, approximately 4,800 jobs in the North Pacific were generated by recreational fishing activities and over \$397 million was spent by anglers who fished in the region. Most of these employment impacts were generated by industries that provided services to anglers who fished from a for-hire boat (2,000 jobs) or a private boat (1,500). These fishing trip modes also generated the most in trip-related expenditures: \$148 million for for-hire fishing trips (55% of total trip expenditures) and \$109 million for private boat trips (40% of total trip expenditures). Over 75% of total trip-related expenditures in Alaska came from non-resident anglers.

#### **Key North Pacific Recreational Species**

- Chinook salmon,
- Chum salmon,
- Coho salmon,
- Greenlings (lingcod)
- Pacific halibut,
- Pink salmon,
- Rockfish,
- Sockeye salmon

In addition to jobs generated by recreational fishing activities, other economic impacts include sales impacts and the contribution of recreational fishing activities to gross domestic product (value added impacts). For-hire fishing trips generated \$212 million in sales (49% of total trip-related sales) and \$145 million in value added impacts (56% of total trip-related value added impacts) in 2012. Private boat trips contributed \$204 million in sales (47%) and \$104 million (40%) in value added impacts. Shore-based fishing trips contributed \$17 million in trip-related sales (4%) and \$9 million in trip-related value added impacts (3.5%).

Anglers spent almost \$126 million on durable equipment in 2012, contributing 32% to total expenditures in the region (trip and durable equipment combined). Most of this was spent on boat expenses (\$79 million). Expenditures related to vehicles were \$1.8 million; second home expenses, \$2.18 million; other equipment, \$20.2 million; and fishing tackle, \$23 million.

Economic impacts from durable equipment expenditures in 2012 include over 1,100 jobs, \$125 million in sales impacts, and \$81 million in value added impacts. These impacts represented 23% of the employment impacts, 22% of the sales impacts, 24% of the income impacts, and 24% of the value added impacts generated by recreational fishing activities.

#### *Participation*

In 2012, there were 278,000 recreational saltwater anglers who fished in Alaska. This was a 6.9% decrease from 2003 (299,000 anglers) and a 2.6% decrease from 2011 (286,000 anglers). Recreational fishermen in Alaska are categorized as either a resident of Alaska or a non-resident. In 2012, non-resident anglers made up 58% of total anglers (160,000 anglers). There was a 5.6% decrease in the number non-resident of anglers from 2003 and a 0.6% decrease from 2011 (161,000 anglers). In terms of resident anglers, there were 118,000 resident anglers who fished in the North Pacific Region in 2012, which was a 8.7% decrease from 2003 and a 5.2% decrease from 2011.

#### *Days Fished<sup>1</sup>*

Anglers who fished in Alaska spent approximately 808,000 days fishing in 2012. This was a 6.9% decrease from the 868,000 days spent fishing in 2003. From 2011 to 2012, there was a 0.4% decrease in the number of days fished (811,000 days) in 2011.

#### *Harvest and Release*

<sup>2</sup>Expenditure estimates were generated from the 2011 National Marine Recreational Fishing Expenditure Survey. Economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see The Economic Contribution of Marine Angler Expenditures in the United States, 2006, available at: <http://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2006>)

<sup>1</sup>In Alaska, information related to how often a recreational fisherman fishes is collected in terms of the number of days spent fishing rather than the number of fishing trips taken.

Of Alaska's key species and species groups, Pacific halibut, rockfish, and coho salmon were most frequently caught by recreational fishermen. In 2012, 711,000 Pacific halibut, 351,000 rockfish, and 313,000 coho salmon were caught by anglers in Alaska. Coho salmon (84% harvested), sockeye salmon (77%), and rockfish (65%) were more often harvested than released, while chum salmon were more often released (66% released).

### Recreational Fish Facts

#### Participation

- An average of 304,000 anglers fished in North Pacific annually between 2003 to 2012.
- In 2012, residents made up 42% of total anglers in this region and averaged 41% of total anglers annually over the 10 year time period.
- The largest annual increase in anglers was a 14% increase in Alaska non-resident anglers from 2003 to 2004.
- The largest annual decrease in anglers was a 17% decrease in the number of non-resident anglers from 2008 to 2009.

#### Harvest and release

- Pacific halibut was the most commonly caught key species or species group, averaging 802,000 fish caught over the 10 year time period.
- Chum salmon had the largest annual increase in catch, increasing 98% from 2010 to 2011. Pink salmon had the largest annual decrease in catch, decreasing 53% from 2005 to 2006.

Between 2003 and 2012, three of the North Pacific's key species or groups experienced increases in catch totals. Those with the largest increases include: rockfish (40%), greenlings (lingcod) (6%), and Pacific halibut (3%). Over the same time period, decreases were experienced by sockeye salmon (16%) and chinook salmon (38%).

In the short term, the largest increases were experienced by pink salmon and rockfish from 2011 to 2012. Decreases over the same time period occurred in four species or species groups, the largest of which were experienced by chum salmon (48%) and coho salmon (34%). The dramatic changes in pink salmon catch between 2011 and 2012 can at least be partially attributed to the biannual biological cycle.

## Marine Economy<sup>2</sup>

Across the entire economy in Alaska, approximately 255,000 full- and part-time employees were employed by about 20,000 establishments in 2011. Annual payroll totaled \$13 billion, employee compensation totaled \$24 billion and gross state product totaled \$51 billion. The Bureau of Labor Statistics did not disclose Commercial Fishing Location Quotient data for Alaska for 2011.

### Seafood Sales and Processing

The number of nonemployer firms (businesses that have no paid employees and are subject to federal income tax) engaged in seafood product preparation and packaging decreased 24% from 34 firms in 2003 to 26 firms in 2011. However, annual receipts increased 55% to \$2.9 million in 2011 (a 30% increase in real terms).

Employer establishments engaged in seafood product preparation and packaging increased 12% from 109 firms in 2003 to 122 firms in 2011. The number of employees increased 32% to 8,600 in 2011. Annual payroll increased 44% to \$297 million in 2011 (a 21% increase in real terms).

Employer establishments in the wholesale seafood sales sector decreased 47% from 90 firms in 2003 to 48 firms in 2011. The number of employees decreased 30% to 159 in 2011. Annual payroll, however, increased 41% to \$10 million in 2011 (a 18% increase in real terms).

The number of nonemployer firms in the seafood retail sales sector decreased 6.2% from 16 firms in 2003 to 15 firms in 2011. However, annual receipts increased 44% to \$903,000 in 2011 (a 21% increase in real terms).

Employer establishments in the seafood retail sales sector increased 25% from 8 firms in 2003 to 10 firms in 2011. Annual payroll increased 86% to \$2.5 million in 2011 (a 56% increase in real terms).

### Transport, Support, and Marine Operations

Data for the transport, support, and marine operations sector of Alaska's economy were largely suppressed for confidentiality reasons. However, Navigational Services to Shipping plays an important role in Alaska's economy, with over \$27 million in payroll in 2011.

<sup>2</sup>Information for 2011 is reported in this section; 2012 data were not available for this report.

**2012 Economic Impacts of the Alaska Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	55,890	4,232,307	1,781,616	2,228,884
Commercial Harvesters	39,177	2,933,218	1,228,011	1,534,902
Seafood Processors & Dealers	13,083	1,074,127	468,745	581,151
Importers	134	36,801	5,898	11,219
Seafood Wholesalers & Distributors	404	43,110	14,761	19,275
Retail	3,093	145,052	64,201	82,338

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total Revenue</b>	1,026,015	1,118,334	1,205,235	1,245,485	1,412,817	1,628,212	1,257,795	1,570,325	1,846,216	1,703,726
Finfish & other	851,572	952,928	1,045,850	1,121,518	1,231,971	1,376,574	1,064,561	1,368,465	1,583,617	1,410,972
Shellfish	174,443	165,406	159,385	123,967	180,846	251,638	193,234	201,860	262,599	292,754
Atka mackerel	3,022	10,795	14,893	15,703	14,253	19,523	26,732	27,523	23,499	15,106
Pacific cod	162,397	104,170	101,532	142,391	178,798	241,050	96,555	143,285	159,857	191,358
Crab	165,834	153,430	146,131	110,572	168,195	240,747	180,264	189,553	248,693	275,746
Flatfish	39,945	41,502	61,305	68,159	74,497	96,358	69,301	79,486	110,073	124,198
Pacific halibut	165,906	168,658	170,075	192,905	217,399	208,983	134,603	200,454	205,211	144,801
Pacific herring	8,930	14,029	13,429	7,455	14,817	22,912	29,294	23,026	12,305	19,430
Rockfish	7,968	6,582	5,663	7,237	7,082	7,854	7,599	9,099	6,927	9,076
Sablefish	84,166	77,296	76,711	78,487	78,455	85,527	81,018	90,556	131,113	113,076
Salmon	168,093	255,000	293,562	276,513	347,625	368,218	344,655	505,693	564,788	441,284
Walleye pollock	203,018	271,612	306,906	329,879	297,460	323,212	270,595	282,399	362,592	343,311

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total Landings</b>	5,276,714	5,306,169	5,610,287	5,373,085	5,253,164	4,471,034	4,005,498	4,275,477	5,272,554	5,261,421
Finfish & other	5,214,835	5,247,370	5,545,864	5,299,194	5,177,143	4,366,531	3,910,859	4,190,949	5,187,877	5,144,866
Shellfish	61,879	58,799	64,423	73,891	76,021	104,503	94,639	84,528	84,677	116,555
Atka mackerel	99,542	108,423	129,482	130,814	126,961	127,029	156,887	145,206	112,596	103,987
Pacific cod	568,660	583,747	547,849	520,955	488,496	494,429	490,568	538,201	662,976	716,725
Crab	56,956	52,434	57,310	69,002	70,700	99,445	89,532	79,875	80,463	111,914
Flatfish	290,926	270,675	341,699	383,194	423,338	599,882	506,393	564,170	649,689	647,396
Pacific halibut	76,616	76,558	73,922	69,154	67,242	64,639	57,749	54,857	41,291	32,422
Pacific herring	68,984	70,893	85,701	79,845	67,137	83,787	86,951	108,116	98,600	75,058
Rockfish	26,465	23,197	22,694	23,308	24,424	25,725	24,974	28,626	25,441	31,710
Sablefish	35,794	39,946	37,554	33,124	32,254	30,336	27,004	25,263	27,139	29,712
Salmon	630,527	697,897	872,318	634,227	861,254	640,070	671,181	756,826	738,122	611,163
Walleye pollock	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	2,872,186

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atka mackerel	0.03	0.10	0.12	0.12	0.11	0.15	0.17	0.19	0.21	0.15
Pacific cod	0.29	0.18	0.19	0.27	0.37	0.49	0.20	0.27	0.24	0.27
Crab	2.91	2.93	2.55	1.60	2.38	2.42	2.01	2.37	3.09	2.46
Flatfish	0.14	0.15	0.18	0.18	0.18	0.16	0.14	0.14	0.17	0.19
Pacific halibut	2.17	2.20	2.30	2.79	3.23	3.23	2.33	3.65	4.97	4.47
Pacific herring	0.13	0.20	0.16	0.09	0.22	0.27	0.34	0.21	0.12	0.26
Rockfish	0.30	0.28	0.25	0.31	0.29	0.31	0.30	0.32	0.27	0.29
Sablefish	2.35	1.94	2.04	2.37	2.43	2.82	3.00	3.58	4.83	3.81
Salmon	0.27	0.37	0.34	0.44	0.40	0.58	0.51	0.67	0.77	0.72
Walleye pollock	0.06	0.08	0.09	0.10	0.10	0.14	0.15	0.15	0.13	0.12

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)<sup>3</sup>**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	2,030	211,838	97,327	144,512
Private Boat	1,541	203,725	59,890	103,629
Shore	142	17,339	5,332	8,995
Total Durable Equipment Impacts	1,111	125,176	50,975	80,605
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>4,824</b>	<b>558,078</b>	<b>213,524</b>	<b>337,741</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	22,555
For-Hire	129,615	18,302	Other Equipment	20,244
Private Boat	62,424	47,045	Boat Expenses	78,769
Shore	10,250	3,709	Vehicle Expenses	1,803
<i>Total Trip Expenditures</i>	<i>202,289</i>	<i>69,056</i>	Second Home Expenses	2,181
			<i>Total Durable Equipment Expenditures</i>	<i>125,553</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>396,898</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Out of State	170	193	207	197	205	190	158	159	161	160
In State	129	130	127	120	127	119	127	122	124	118
<b>Total Anglers</b>	<b>299</b>	<b>323</b>	<b>334</b>	<b>317</b>	<b>332</b>	<b>309</b>	<b>284</b>	<b>281</b>	<b>286</b>	<b>278</b>

**Recreational Fishing Effort by Mode (thousands of days)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total Days Fished</b>	<b>868</b>	<b>1,007</b>	<b>1,054</b>	<b>941</b>	<b>1,052</b>	<b>935</b>	<b>914</b>	<b>811</b>	<b>811</b>	<b>808</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)<sup>1,1</sup>**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Chinook salmon	H	96	110	116	117	110	71	89	78	85	63
	R	105	124	127	104	110	80	96	66	95	62
Chum salmon	H	23	24	17	14	18	12	22	11	21	11
	R	51	61	42	34	34	28	34	19	38	20
Coho salmon	H	537	560	695	395	506	403	418	350	386	263
	R	156	193	191	107	122	89	94	74	88	50
Greenlings (lingcod)	H	22	31	38	35	42	37	32	32	33	33
	R	44	52	67	53	70	65	46	39	36	36
Pacific halibut	H	403	483	500	463	585	516	440	398	394	388
	R	290	369	380	353	438	359	321	304	311	324
Pink salmon	H	111	132	149	65	133	88	117	82	72	78
	R	291	297	343	167	280	151	224	121	135	141
Razor clam	H	590	551	451	483	389	593	556	357	436	NA
	R	0	0	0	0	0	0	0	0	0	NA
Rockfish	H	118	180	184	173	198	226	209	224	211	230
	R	132	227	199	165	178	171	149	151	122	121
Sockeye salmon	H	29	24	27	21	32	29	34	28	31	28
	R	14	10	11	7	21	10	10	6	10	8

<sup>3</sup>Data reported in this table is includes saltwater fishing activities only.<sup>1</sup>Information reported in this table is from the Sport Fish Division of the Alaska Department of Fish and Game (ADF&G) and includes saltwater fishing activities only<sup>1</sup>In this table, '(1)' = 0-999 fish.

## Alaska's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	19,176 (0.3%)	216,807 (0.2%)	8,694 (0.2%)	16,048 (0.3%)	30,886 (0.3%)	4.63
2011	20,119 (0.3%)	254,996 (0.2%)	13,394 (0.3%)	24,032 (0.3%)	51,237 (0.3%)	ND
%change	4.92%	17.61%	54.06%	49.75%	65.89%	NA

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	34	26	17	22	33	31	32	28	26
	Receipts	1,864	1,731	1,315	1,055	1,837	1,455	1,699	2,482	2,882
Seafood sales, retail	Firms	16	ND	11	12	12	13	ND	23	15
	Receipts	625	ND	752	649	1,358	1,431	ND	1,595	903

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	109	113	124	113	114	122	121	119	122
	Employees	6,493	6,749	6,621	6,866	6,506	7,707	7,572	8,074	8,578
	Payroll	205,702	216,599	235,457	246,067	262,127	254,894	255,403	268,208	296,851
Seafood Sales, wholesale	Establishments	90	93	88	77	68	57	54	52	48
	Employees	228	187	177	224	167	143	ND	ND	159
	Payroll	7,103	7,561	7,928	8,509	8,528	8,389	8,445	9,141	9,985
Seafood sales, retail	Establishments	8	6	11	7	7	9	10	10	10
	Employees	21	ND	22	ND	ND	37	44	ND	ND
	Payroll	1,340	ND	1,175	ND	ND	1,839	1,824	1,986	2,487

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	30	30	43	46	46	49	50	55	63
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	27,357	33,888	33,132	ND	ND
Deep sea freight transportation	Establishments	5	4	5	5	3	3	3	3	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Deep sea passenger transportation	Establishments	NA	1	1	1	6	1	1	NA	1
	Employees	NA	ND	ND	ND	ND	ND	ND	NA	ND
	Payroll	NA	ND	ND	ND	ND	ND	ND	NA	ND
Marinas	Establishments	22	22	22	21	13	14	13	14	14
	Employees	ND	62	71	ND	48	66	56	ND	ND
	Payroll	ND	2,367	2,612	ND	1,763	2,303	2,181	1,932	2,053
Marine cargo handling	Establishments	15	13	13	11	17	12	13	13	14
	Employees	621	488	703	503	677	ND	ND	ND	ND
	Payroll	20,443	21,078	20,827	22,876	35,345	ND	ND	ND	ND
Navigational services to shipping	Establishments	28	29	32	31	31	25	23	25	22
	Employees	273	280	318	ND	ND	296	312	303	321
	Payroll	20,758	20,676	20,334	ND	25,058	23,233	25,630	27,543	27,156
Port & harbor operations	Establishments	2	3	2	2	2	7	8	9	8
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	1,790
Ship & boat building	Establishments	10	14	14	17	16	17	21	22	23
	Employees	ND	286	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	8,815	ND	ND	ND	ND	ND	ND	ND

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

ND- these data are confidential and therefore not available

NA- these data are not available



# Pacific

- California
- Oregon
- Washington



### Management Context

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

#### Pacific Region FMPs

1. Pacific coast groundfish
2. Pacific coast salmon
3. Coastal pelagic species
4. West coast highly migratory species

Of the stocks or stock complexes covered in these fishery management plans, five are currently listed as overfished: canary rockfish, cowcod, Pacific ocean perch, chinook salmon (one stock), and yelloweye rockfish. Two stock complexes are currently subject to overfishing: bigeye tuna and Pacific Bluefin tuna. Interesting management techniques are employed in the Pacific Region's fisheries. For example, the Pacific groundfish and salmon fisheries are subject to 'weak stock management', where access to the harvestable surplus of healthier stocks is often restricted to protect weaker stocks with which they co-mingle in the ocean. These weaker stocks include seven rebuilding groundfish stocks, salmon listed under the Endangered Species Act, and other non-listed stocks that also constrain the fishery.

Salmon management is further complicated by the need to ensure equitable allocation of harvest among diverse user groups and to coordinate with other entities that have jurisdiction over other aspects of salmon management. Decades of habitat modification, hatchery practices, harvest, and growing competition for water have affected the viability of salmon stocks and made them more vulnerable to adverse environmental conditions including the prolonged drought and adverse ocean conditions experienced in recent years. Low returns of salmon to the Klamath River in 2006 and to the Sacramento River in 2008 and 2009 resulted in unprecedented closures of ocean and in-river fisheries and federal disaster relief to affected entities. Fishing rebounded in 2010-2012 but remains below the levels prior to the closures.

Coastal pelagic species (CPS) are highly variable, environmentally sensitive stocks that provide forage for marine mammals, birds, and fish. These species include Pacific sardine, northern anchovy, Pacific and jack mackerel, and market squid. Of these, Pacific sardine is the most commonly targeted CPS finfish and is managed via an innovative harvest control rule whereby allowable harvest varies with sea surface temperature. Because the geographic range of sardine tends to expand with abundance, harvest allocation between California and Pacific Northwest fisheries is an ongoing and dynamic issue.

Catch limits for Pacific halibut, a transboundary fish stock, are set in January by the International Pacific Halibut Commission (IPHC). This bilateral commission between the U.S. and Canada determines total allowable catch levels (TACs) for Pacific halibut that will be caught in the U.S. and Canadian Exclusive Economic

Zones (EEZs). Once catch levels are determined, the PFMC develops a catch-sharing plan for tribal and non-tribal (commercial and recreational) fisheries conducted in the federal waters of California, Oregon, and Washington.

The annual sardine harvest guideline is allocated coast-wide on a seasonal basis. Recent decreases in harvest guideline limits have contributed to the development of an intense derby fishery.

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

Market-based management tools are used by fishery managers to reduce overcapitalization, increase the economic viability of fisheries, and promote individual accountability for harvest and harvesting practices. Limited access privilege programs (LAPPs) and other catch share programs comprise a category of such tools. For example, in 2001, the PFMC implemented the Pacific sablefish permit stacking program, whereby vessels are allowed to stack multiple vessel permits on a single vessel in order to improve economic efficiency through rationalization of the fixed gear fleet, increase benefits for fishing communities, promote equity, mitigate reallocation effects of previous harvest regulations, promote safety, and improve product quality and value. The results from this program show that the number of entities holding shares and number of active vessels decreased, while revenue per vessel and total revenue increased.

More recently (2011), the PFMC implemented the Pacific trawl rationalization program that involves individual fishing quotas (IFQs) for non-whiting groundfish and whiting trawlers, and coops for whiting mothership and catcher processor sectors, that was implemented in January 2011. The objectives of this program are to provide a mechanism for total catch accounting; provide for a viable, profitable and efficient groundfish; promote practices that reduce bycatch and discard mortality and minimize ecological impacts; increase operational flexibility; minimize adverse effects from IFQ Program on fishing communities and other fisheries; promote measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry; provide quality product for the consumer; and increase safety in the fishery. Results from this program show that the number of active vessels declined while whiting price, total landings, revenue per vessel, and total revenue increased.

Ecolabels are another market-based management tool that is intended to encourage fishermen to adopt harvest practices that are considered sustainable by an organization such as the Marine Stewardship Council (MSC). The Oregon pink shrimp fishery, Pacific hake midwater trawl, the American Albacore Fishing Association albacore tuna fishery, and the Oregon dungeness crab fishery have received certifications from the MSC.

### Commercial Fisheries

In 2012, commercial fishermen in the Pacific Region landed roughly 1.1 billion pounds of finfish and shellfish, earning \$662 million in landings revenue. Landings revenue was dominated by crab (\$177 million) and other shellfish (\$138 million). These species groups commanded ex-vessel prices of \$3.35 and \$5.25 per pound, respectively, and comprised 48% of total landings revenue, but only 7.4% of total landings in the Pacific Region.

Washington had the highest landings revenue in the region with \$276 million in 2012, followed by California (\$232 million) and Oregon (\$128 million). In terms of pounds landed, California contributed the most (353 million pounds), followed by Oregon (296 million pounds) and Washington (214 million pounds).

#### Key Pacific Region Commercial Species

- |                   |             |
|-------------------|-------------|
| • Albacore tuna   | • Rockfish  |
| • Crab            | • Sablefish |
| • Flatfish        | • Salmon    |
| • Hake            | • Shrimp    |
| • Other shellfish | • Squid     |

#### Economic Impacts<sup>1</sup>

In 2012, the Pacific Region's seafood industry generated \$24 billion in sales impacts in California, \$1.2 billion in sales impacts in Oregon, and \$7.5 billion in sales impacts in Washington. California also generated the largest income, value added, and employment impacts (\$5.2 billion; \$8.6 billion; 145,000 jobs). The smallest income impacts were generated in Oregon (\$385 million) and the smallest employment impacts were also generated in Oregon (16,000 jobs).

The sector that generated the greatest employment impacts in California was the importers sector (66,000 jobs) followed by the retail sector with 57,000 jobs. In Washington the retail sector (21,000 jobs) generated the largest employment impacts, followed by the seafood processors & dealers sector (16,000 jobs). In Oregon the retail sector (8,200 jobs) generated the largest employment impacts, followed by the commercial harvesters sector (4,400 jobs). The importers sector contributed more to the total value added impacts than any other single sector in California and Washington. In California, the importers sector generated \$5.5 billion, followed by the retail sector with \$1.7 billion in value added impacts. The commercial harvester sector generated a larger portion (25%) of total state value added impacts in Oregon, than in any other state in the Pacific Region. In Washington, other than the importers sector, the seafood processors and dealers sector contributed the most to value added impacts (25%).

#### Landings Revenue

Landings revenue in the Pacific Region totaled \$662 million in 2012. This was a 56% increase (a 12% increase in real terms)

from 2003 levels (\$423 million) and a 6.6% decrease (a 6.2% decrease in real terms) relative to 2011 (\$709 million). Totalling \$416 million in 2012, shellfish revenue experienced a 56% increase (a 12% increase in real terms) from 2003 to 2012 and experienced a 7.2% decrease (6.8% decrease in real terms) from 2011 to 2012.

Hake and squid had the highest annual landings in the Pacific Region in 2012, with 347 million pounds and 215 million pounds, respectively. Although they together accounted for 53% of the total landings in the Pacific Region, they only accounted for 17% of the total landings revenue generated in 2012.

#### Commercial Fisheries Facts

##### Landings revenue

- On average, between 2003 and 2012, the key species or species groups accounted for 92% of total revenue, generating \$472 million in the Pacific Region.
- Crab had higher landings revenues than any other species or species group, averaging \$133 million in landings revenue from 2003 to 2012.
- Squid had the largest one-year increase in landings revenue over the 10 year time period, increasing 114% from \$27 million in 2008 to \$57 million in 2009.
- Hake had the largest one-year decrease in landings revenue over the 10 year time period, decreasing 76% from \$58 million in 2008 to \$14 million in 2009.

##### Landings

- Key species or species groups contributed an average of 76% annually to total landings between 2003 and 2012.
- Hake (whiting), contributed the most to landings in the region, averaging 435 million pounds from 2003 to 2012.
- Squid had the largest one-year increase in landings over the 10 year time period, increasing 141% from 85 million in 2008 pounds to 206 million pounds in 2009.
- Hake had the largest one-year decrease in landings over the 10 year time period, decreasing 52% from 531 million pounds in 2008 to 253 million pounds in 2009.

##### Prices

- Other shellfish had the highest average annual ex-vessel price per pound (\$4.29) over the time period, followed by crab (\$2.16), and sablefish (\$2.01).
- Hake (whiting) had the lowest average annual ex-vessel price per pound (\$0.08) over the time period, followed by squid (\$0.26), and flatfish (\$0.42).
- Salmon had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 116% from \$0.74 per pound in 2009 to \$1.60 in 2010.
- Salmon had the largest decrease in ex-vessel price over the 10 year time period, decreasing 48% from \$1.42 per pound in 2008 to \$0.74 in 2009.

Between 2003 and 2012, the greatest changes in landings were experienced by squid (increasing 117%), shrimp (increasing 70%), and salmon (decreasing 38%). In the short term, between 2011 and 2012 the largest changes were experienced by salmon

<sup>1</sup>The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: [www.st.nmfs.noaa.gov/documents/commercial\\_seafood\\_impacts\\_2007-2009.pdf](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf))

(decreasing 42%), hake (decreasing 30%), and albacore tuna (increasing 26%). In terms of finfish, Washington contributed the most (\$91 million) followed by Oregon (\$72 million), and California (\$56 million). Shellfish landings revenue was also dominated by Washington, which contributed the most (\$184 million) followed by California (\$176 million), and Oregon (\$56 million).

Crab and other shellfish had the highest landings revenue in the Pacific Region in 2012, with \$177 million and \$138 million, respectively. Together they accounted for 48% of the total landings revenue generated in 2012. Between 2003 and 2012, the landings revenue for crab increased 35% and increased 54% for other shellfish.

From 2003 to 2012, species or species groups with large changes in landings revenue include hake (increased 174%), squid (increased 152%), and albacore tuna (increased 88%). Species or species groups with large changes in landings revenue between 2011 and 2012 include sablefish (decreasing 37%), other shellfish (decreasing 14%), and salmon (decreasing 11%).

Between 2008 and 2009, hake experienced a 76% decrease in landings revenue from \$58 million to \$14 million (a 76% decrease in real terms). A major driver of this decrease was the 52% reduction in landings resulting from a forecast of lower stocks and rockfish bycatch restrictions. Other drivers of this decrease in revenue include international economic conditions and the conditions in fisheries which produce product closely related to hake such as walleye pollock.

#### *Landings*

Fishermen in the Pacific Region landed 1.1 billion pounds of finfish and shellfish in 2012. This was a 7.5% increase from the 994 million pounds landed in 2003 but a 9.1% decrease from the 1.2 billion landed in 2011. Finfish landings contributed 67% of total landings in the Pacific Region (719 million pounds) in 2012. From 2011 to 2012, finfish landings experienced a 4.9% decrease. Over the same time period, shellfish landings experienced a 17% decrease from 418 million pounds in 2011 to 349 million in 2012 and a 47% increase from 237 million pounds in 2003.

#### *Prices*

The ex-vessel prices for the Pacific Region's key species and species groups in 2012 were higher than their 10 year average for eight of the key species (six of the species in real terms). Ex-vessel prices for salmon and hake experienced the biggest increases between 2003 and 2012, increasing 150% (79% in real terms) and 130% (67% in real terms), respectively. Relative to the ex-vessel prices in 2011, the Pacific Region's salmon experienced the greatest increase (52.3%, 53% in real terms) from \$1.28 in 2011 to \$1.95 in 2012; sablefish experienced the greatest decrease (23%, 23% in real terms) from \$3.17 to \$2.43.

In California, the species or species group with the largest change in ex-vessel price from 2003 to 2012 was salmon (170%

increase, 94% increase in real terms) from \$1.66 to \$4.49. The largest change in ex-vessel price experienced in Oregon was for Hake (whiting) (180% increase, 101% increase in real terms from \$0.05 to \$0.14 and in Washington the largest change in ex-vessel price was experienced by salmon (267% increase, 163% increase in real terms from \$0.39 to \$1.43).

### **Recreational Fishing**

In 2012, almost 1.6 million recreational anglers took 7.4 million fishing trips in the Pacific Region. Over 72% of these anglers were residents of a regional coastal county. Of the total saltwater fishing trips taken, 24% of them were taken from a private or rental boat and another 67% were shore-based.

#### *Economic Impacts and Expenditures<sup>2</sup>*

The contribution of recreational fishing activities in the Pacific Region are reported in terms of economic impacts at the state level (employment, sales, income, and value added impacts) and expenditures on fishing trips and durable equipment at the regional level. Employment impacts in California were the highest in the region with over 12,000 full- and part-time employment impacts generated by recreational fishing activities in the state. Washington (3,800 jobs), and Oregon (3,000 jobs) followed in terms of employment impacts generated by recreational fishing activities.

#### **Key Pacific Region Recreational Species**

- Albacore and other tunas
- Barracuda, bass and bonito
- Croakers
- Flatfishes
- Greenlings
- Mackerel
- Rockfishes and scorpionfishes
- Salmon
- Sculpins
- Surfperches

In addition to employment impacts, the contribution of recreational fishing activities to Pacific Region's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value added impacts). In 2012, sales impacts were also the highest in California (\$1.7 billion in sales impacts), followed by Washington (\$495 million), and Oregon (\$326 million). In California, shore-based fishing trips had the highest employment impacts relative to the other fishing models; in Oregon and Washington, private boat fishing trips contributed the most to employment impacts.

Throughout the Pacific Region, most of the employment impacts in 2012 were generated by expenditures on durable equipment: 81% in Oregon, 72% in Washington, and 65% in California. In the same year value added impacts were the highest in California (\$1 billion in value added impacts), followed by Washington (\$292 million), and Oregon (\$199 million).

<sup>2</sup>Expenditure estimates were generated from the 2011 National Marine Recreational Fishing Expenditure Survey. Economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see The Economic Contribution of Marine Angler Expenditures in the United States, 2006, available at: <http://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2006>)

The total saltwater fishing trip and durable equipment expenditures were \$1.8 billion across the Pacific Region in 2012. Approximately 64% of these expenditures were related to durable equipment purchases. The greatest expenditures were for boat expenses (\$504 million), followed by fishing tackle (\$336 million), and vehicle expenses (\$163 million). Fishing trip related expenditures by Pacific Region's non-residents totaled over \$41 million of which the greatest portion can be attributed to for-hire-based fishing trips (\$25 million). Residents of the Pacific Region spent \$613 million on trip-related expenses with the majority of these expenses related to shore trips (\$290 million).

### *Participation*

There were 1.6 million recreational anglers who fished in the Pacific Region in 2012. This was a 17% decrease from 2003 (2 million anglers). These anglers were Pacific Region residents from either a coastal (1.2 million anglers) or non-coastal county (468,000 anglers). Over 72% of total anglers in 2012 were residents of a coastal county. Coastal county angler participation in 2012 experienced a 18% decrease relative to 2003 (1.4 million anglers) and experienced a 10% increase between 2011 and 2012. Non-coastal county angler participation experienced a 13% decrease relative to 2003 (538,000 anglers) and experienced a 20% increase relative to 2011 (390,000 anglers).

### *Fishing Trips*

Recreational fishermen took 7.4 million fishing trips in the Pacific Region in 2012. This was a 11% decrease from 2003 (8.3 million trips) and was 1.3 million more trips than were taken in 2011. Of the total trips taken in the Pacific Region in 2012, approximately 67% of the trips were shore based (5 million trips). The other most popular mode of fishing was private or rental boat based with 1.8 million trips in 2012.

### *Harvest and Release*

The Pacific region's species and species groups caught most frequently in 2012 were rockfishes and scorpionfishes (4.3 million fish), surfperches (2.4 million fish), mackerel (1.2 million fish), and barracuda, bass and bonito (1.1 million fish) in 2012. Between 2003 and 2012, NA of the Pacific Region's key species or species groups showed decreases in catch totals. Key species or groups with the largest decreases were barracuda, bass and bonito (80%), croakers (70%), and greenlings (58%).

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

Across all sectors of the economy in California, Oregon, and Washington nearly 16 million full- and part-time employees were employed by about 1.1 million establishments in 2011. Annual payroll totaled \$838 billion. Total employee compensation in the Pacific region totaled \$1.3 trillion and the combined gross state product of all states totaled about \$2.5 trillion. In 2011, the

commercial fishing location quotient (CFLQ) for Washington was the highest in the region at 11.90. Washington's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately 11.90 times higher than the level of employment in these industries nationwide. The 2011 CFLQ in Oregon was second highest in the region at 3.54.

### *Seafood Sales and Processing*

In 2011, there were 240 nonemployer firms engaged in seafood product preparation and packaging across the Pacific region, with California (187 firms) accounting for the vast majority of nonemployer firms. Nonemployer firms in the seafood product preparation and packaging sector in the Pacific region had receipts totaling \$14 million in 2011. The number of employer establishments in this sector decreased 15% from 189 in 2003 to 160 in 2011. The largest number of employer establishments (90) engaged in seafood product preparation and packaging was located in Washington. The number of employees in the seafood product preparation and packaging sector decreased 16% from 9,584 employees in 2003 to 8,034 in 2011. Payroll in this sector was \$386 million in 2011, an 18% decline from 2003.

There were 538 seafood wholesale establishments in the Pacific region in 2011, a decrease of 29% from 2003. Most of these firms were in the located in California. There were 4,416 employees in the seafood wholesale sector across the region in 2011 with annual payroll of \$195 million.

Nonemployer firms engaged in seafood retail sales in the Pacific region totaled 259 in 2011, a 11% increase from 2003 levels. California, with 187, had a large majority of firms in this sector. Nonemployer firms in the seafood retail sector in the had receipts totaling \$22 million in 2011. Region-wide, there were 221 employer establishments in the seafood retail sales sector in 2011, a decrease of 5.2% from 2003. Most of these firms were in the located in California (157). The number of employees in the seafood retail sector increased 20% from 1,252 employees in 2003 to 1,504 in 2011. Payroll in this sector was \$37 million in 2011.

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

The size of the Transport, Support, and Marine Operations sectors in the Pacific region is difficult to assess because much of the state-level data is suppressed for confidentiality purposes. It is clear, however, that these sectors play an important role in the regional economy. For example, there were 416 establishments classified as marinas, employing 3,020 workers and spending \$104 million on payroll in 2011. Marine cargo handling accounted for employment 22,722 workers and contributing \$1.7 billion in payroll in California and Washington alone. The Ship and Boat Building Sector consisted of 277 establishments employing 15,576 workers and contributing \$766 million in payroll across all three states in the region.

<sup>1</sup>Information for 2011 is reported in this section; 2012 data were not available for this report.



**2012 Economic Impacts of the Pacific Region Seafood Industry (thousands of dollars)**

	Landings Revenue		Jobs	Sales		Income	Valued Added	
California	231,683		145,433	24,043,813		5,172,755		8,582,461
Oregon	128,030		16,051	1,174,111		385,350		550,045
Washington	275,585		60,955	7,533,447		2,002,804		3,055,370

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total revenue	423,244	440,474	414,584	471,788	459,772	500,447	491,183	553,909	708,925	661,994
Finfish & other	156,596	178,693	166,922	176,425	176,104	215,784	168,495	202,527	260,605	245,831
Shellfish	266,647	261,781	247,662	295,363	283,668	284,663	322,688	351,383	448,320	416,163
Albacore tuna	24,366	27,242	20,574	23,767	21,612	28,845	27,541	28,780	43,347	45,736
Crab	130,952	115,365	97,127	143,758	121,136	107,107	123,865	132,843	182,085	176,804
Flatfish	13,441	12,741	13,816	12,974	14,462	15,738	14,155	10,511	11,225	11,637
Hake (whiting)	17,150	21,819	29,139	34,425	32,603	58,492	14,104	27,316	52,869	47,054
Other shellfish	89,222	102,423	107,438	116,161	120,569	129,947	131,593	129,561	160,270	137,696
Rockfish	7,803	6,832	6,559	6,848	7,541	9,257	8,974	9,226	9,446	9,424
Sablefish	18,817	17,230	20,366	22,991	20,984	27,279	34,481	35,977	44,873	28,106
Salmon	30,773	47,676	37,188	34,306	33,865	26,992	24,986	48,986	53,454	47,508
Shrimp	28,175	30,586	15,706	12,433	17,298	25,132	16,594	21,941	40,636	40,318
Squid	25,340	19,748	31,516	26,998	29,169	26,585	56,928	71,173	66,578	63,846

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total landings	993,985	1,138,763	1,301,649	1,169,906	1,109,222	1,091,673	897,222	1,063,491	1,175,142	1,068,691
Finfish & other	756,538	932,610	1,070,529	935,523	902,887	906,773	582,120	650,822	756,721	719,339
Shellfish	237,447	206,153	231,120	234,383	206,335	184,900	315,102	412,669	418,421	349,352
Albacore tuna	36,577	31,764	19,649	28,117	25,483	24,507	27,055	25,477	24,284	30,585
Crab	81,892	69,247	61,849	85,301	51,888	45,075	59,158	61,668	66,518	52,831
Flatfish	31,849	29,895	31,495	27,689	33,502	37,409	40,599	33,281	25,557	24,439
Hake (whiting)	309,300	474,460	569,273	558,078	454,533	531,277	253,053	355,216	496,363	347,171
Other shellfish	27,884	31,275	30,907	30,611	29,543	28,557	28,911	26,159	27,598	26,233
Rockfish	9,275	8,057	7,406	6,633	7,447	9,469	10,458	11,038	9,910	10,406
Sablefish	12,204	12,905	13,742	13,718	11,630	12,978	15,822	15,055	14,139	11,580
Salmon	39,234	40,609	27,249	29,172	24,600	19,040	33,742	30,693	41,799	24,303
Shrimp	38,997	29,422	26,069	20,290	26,497	35,799	33,456	46,191	66,686	66,317
Squid	99,115	88,215	123,090	108,561	109,464	85,200	205,643	288,678	268,078	214,828

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Albacore tuna	0.67	0.86	1.05	0.85	0.85	1.18	1.02	1.13	1.78	1.50
Crab	1.60	1.67	1.57	1.69	2.33	2.38	2.09	2.15	2.74	3.35
Flatfish	0.42	0.43	0.44	0.47	0.43	0.42	0.35	0.32	0.44	0.48
Hake (whiting)	0.06	0.05	0.05	0.06	0.07	0.11	0.06	0.08	0.11	0.14
Other shellfish	3.20	3.27	3.48	3.79	4.08	4.55	4.55	4.95	5.81	5.25
Rockfish	0.84	0.85	0.89	1.03	1.01	0.98	0.86	0.84	0.95	0.91
Sablefish	1.54	1.34	1.48	1.68	1.80	2.10	2.18	2.39	3.17	2.43
Salmon	0.78	1.17	1.36	1.18	1.38	1.42	0.74	1.60	1.28	1.95
Shrimp	0.72	1.04	0.60	0.61	0.65	0.70	0.50	0.48	0.61	0.61
Squid	0.26	0.22	0.26	0.25	0.27	0.31	0.28	0.25	0.25	0.30

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Trips	Jobs	Sales	Income	Value Added
California	5,570,000	12,134	1,701,218	629,208	1,007,312
Oregon	679,000	2,958	325,880	126,477	198,687
Washington	1,177,000	3,794	494,583	183,754	292,083

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	335,836
For-Hire	25,195	121,996	Other Equipment	146,537
Private Boat	7,936	200,720	Boat Expenses	504,241
Shore	7,542	290,232	Vehicle Expenses	163,437
<i>Total Trip Expenditures</i>	40,672	612,947	Second Home Expenses	6,406
			<i>Total Durable Equipment Expenditures</i>	1,156,457
<b>Total State Trip and Durable Equipment Expenditures</b>				1,810,076

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	1,437	1,168	1,028	1,257	1,184	1,065	1,136	1,047	1,069	1,181
Non-Coastal	538	429	409	481	379	385	638	384	390	468
Out-of-State <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total Anglers</b>	1,975	1,597	1,437	1,738	1,563	1,450	1,774	1,431	1,459	1,649

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	619	649	624	635	605	514	492	455	654	647
Private Boat	4,247	1,752	1,849	1,761	1,828	1,421	1,471	1,432	1,659	1,806
Shore	3,445	4,255	3,962	4,548	3,818	3,846	4,345	3,739	3,792	4,973
<b>Total Trips</b>	8,311	6,656	6,435	6,944	6,251	5,781	6,308	5,626	6,105	7,426

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Albacore & other tunas	H	168	80	23	45	106	51	80	90	53	153
	R	83	10	2	2	7	0	13	0	4	34
Barracuda, bass & bonito	H	1,888	2,126	1,015	668	537	434	412	373	435	371
	R	3,727	2,597	2,011	1,660	1,407	1,093	1,211	991	738	775
Croakers	H	758	619	572	456	427	321	427	173	128	256
	R	871	660	618	553	631	272	362	340	98	231
Flatfishes	H	680	499	560	325	260	344	329	417	641	561
	R	948	343	513	520	338	361	297	277	222	296
Greenlings	H	510	208	268	234	192	169	188	158	227	272
	R	860	344	283	209	153	141	194	197	292	306
Mackerel	H	918	945	1,023	1,158	823	940	753	479	590	438
	R	2,011	1,715	1,872	3,287	1,209	1,765	1,267	1,272	1,050	806
Rockfishes & scorpionfishes	H	3,624	2,415	3,432	2,504	2,255	1,841	1,991	2,194	2,873	3,359
	R	1,664	757	1,149	731	513	465	689	584	558	911
Salmon	H	706	607	432	223	450	104	808	162	384	467
	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sculpins	H	104	72	72	55	49	60	59	53	91	68
	R	297	246	238	222	208	228	200	198	238	229
Surfperches	H	1,139	1,297	945	1,164	861	832	752	638	1,017	1,144
	R	1,180	1,561	1,242	1,675	861	817	706	452	931	1,279

<sup>1</sup>NA = data are not available because out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified

<sup>2</sup>Due to changes in data collection methods, the Pacific Region's effort (number of trips) and catch (number of fish harvested or released) estimates for 2003 are not comparable to the 2004-2012 estimates.

**2012 Economic Impacts of the California Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	145,433	24,043,813	5,172,755	8,582,461
Commercial Harvesters	4,810	463,907	157,473	231,557
Seafood Processors & Dealers	5,416	558,577	207,125	274,835
Importers	65,538	18,028,000	2,889,331	5,495,724
Seafood Wholesalers & Distributors	12,860	1,854,311	601,446	840,262
Retail	56,808	3,139,018	1,317,380	1,740,084

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	136,152	140,615	116,084	129,907	127,580	120,861	150,752	176,252	201,300	231,683
Finfish & other	56,402	58,798	46,640	43,164	50,363	46,968	46,682	44,291	55,785	55,531
Shellfish	79,750	81,816	69,444	86,743	77,217	73,893	104,070	131,960	145,515	176,153
Crab	37,455	43,381	19,653	46,483	28,626	24,227	32,508	43,016	53,762	88,189
Pacific sardine	2,874	3,957	3,150	5,100	8,218	7,575	5,544	4,366	4,398	4,564
Rockfish	4,761	4,447	4,145	4,630	4,924	5,781	5,330	5,453	5,644	5,174
Sablefish	4,721	3,724	4,295	4,892	4,873	6,224	9,765	11,491	15,121	8,988
Salmon	12,153	17,770	12,804	5,261	7,835	6	ND <sup>3</sup>	1,215	5,095	12,842
Sea urchins	7,906	7,300	6,156	5,145	5,400	6,550	7,806	7,413	8,102	8,319
Shrimp	3,520	3,783	4,338	4,213	4,064	5,696	5,462	4,951	8,596	8,483
Spiny lobster	5,278	6,160	6,039	8,111	6,916	8,008	7,934	11,386	12,971	13,703
Squid	25,333	19,740	31,467	26,959	29,131	26,477	56,877	71,165	66,567	63,838
Swordfish	7,850	4,834	1,896	2,695	3,127	2,365	1,932	2,203	3,348	2,089

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	382,146	379,591	442,353	341,661	384,826	323,884	374,795	437,847	408,199	352,700
Finfish & other	252,764	257,944	301,993	203,107	258,625	223,912	147,934	120,103	108,119	101,777
Shellfish	129,381	121,647	140,360	138,554	126,200	99,972	226,861	317,744	300,080	250,923
Crab	23,922	27,016	12,028	27,391	12,393	9,845	16,660	23,352	22,206	27,586
Pacific sardine	76,528	97,509	76,324	102,683	178,480	126,945	82,842	73,814	60,993	50,660
Rockfish	4,399	3,843	3,181	3,252	3,136	3,933	3,984	3,949	3,450	3,458
Sablefish	3,636	3,158	3,645	3,617	3,240	3,507	5,089	5,501	5,646	3,916
Salmon	7,328	7,113	4,962	1,184	1,743	1	ND <sup>1</sup>	255	1,132	2,860
Sea urchins	11,107	12,219	11,304	10,664	11,131	10,283	12,205	11,230	11,465	11,441
Shrimp	3,498	3,520	2,944	1,197	2,015	3,011	3,596	4,522	8,217	7,254
Spiny lobster	736	860	761	886	663	741	706	716	751	874
Squid	99,088	88,167	122,887	108,410	109,150	84,071	205,278	288,497	267,985	214,707
Swordfish	4,706	2,613	653	1,187	1,210	1,168	898	815	1,364	886

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Crab	1.57	1.61	1.63	1.70	2.31	2.46	1.95	1.84	2.42	3.20
Pacific sardine	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.06	0.07	0.09
Rockfish	1.08	1.16	1.30	1.42	1.57	1.47	1.34	1.38	1.64	1.50
Sablefish	1.30	1.18	1.18	1.35	1.50	1.77	1.92	2.09	2.68	2.29
Salmon	1.66	2.50	2.58	4.44	4.50	4.16	ND <sup>1</sup>	4.76	4.50	4.49
Sea urchins	0.71	0.60	0.54	0.48	0.49	0.64	0.64	0.66	0.71	0.73
Shrimp	1.01	1.07	1.47	3.52	2.02	1.89	1.52	1.09	1.05	1.17
Spiny lobster	7.18	7.16	7.93	9.15	10.44	10.80	11.24	15.91	17.27	15.67
Squid	0.26	0.22	0.26	0.25	0.27	0.31	0.28	0.25	0.25	0.30
Swordfish	1.67	1.85	2.90	2.27	2.58	2.03	2.15	2.70	2.46	2.36

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

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	1,573	224,565	95,922	145,066
Private Boat	709	124,506	38,439	65,210
Shore	1,909	296,629	92,745	156,363
Total Durable Equipment Impacts	7,943	1,055,518	402,102	640,673
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>12,134</b>	<b>1,701,218</b>	<b>629,208</b>	<b>1,007,312</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	243,047
For-Hire	21,860	98,537	Other Equipment	102,918
Private Boat	3,276	90,807	Boat Expenses	238,858
Shore	5,736	259,818	Vehicle Expenses	118,698
<i>Total Trip Expenditures</i>	<i>30,871</i>	<i>449,162</i>	Second Home Expenses	4,406
			<i>Total Durable Equipment Expenditures</i>	<i>707,926</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>1,187,959</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	1,113	865	740	991	878	819	888	803	714	921
Non-Coastal	378	280	263	335	226	246	490	241	238	316
Out of State	115	98	79	109	65	83	71	69	93	86
<b>Total Anglers</b>	<b>1,606</b>	<b>1,243</b>	<b>1,082</b>	<b>1,435</b>	<b>1,169</b>	<b>1,148</b>	<b>1,449</b>	<b>1,113</b>	<b>1,045</b>	<b>1,323</b>

**Recreational Fishing Effort by Mode (thousands of angler-trips)<sup>1</sup>**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	483	521	504	522	489	424	385	357	560	544
Private	3,117	708	902	896	768	640	676	655	682	799
Shore	2,699	3,509	3,216	3,802	3,072	3,100	3,599	2,993	3,046	4,227
<b>Total Trips</b>	<b>6,299</b>	<b>4,738</b>	<b>4,622</b>	<b>5,220</b>	<b>4,329</b>	<b>4,164</b>	<b>4,660</b>	<b>4,005</b>	<b>4,288</b>	<b>5,570</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Albacore & other tunas	H	146	49	6	9	22	5	13	20	8	39
	R	83	10	2	3	7	(1)	13	2	6	36
Barracuda, bass & bonito <sup>1</sup>	H	1,888	2,126	1,015	668	537	434	412	373	435	371
	R	3,727	2,597	2,011	1,660	1,407	1,093	1,211	991	738	775
Croakers	H	758	619	572	456	427	321	427	173	128	256
	R	871	660	618	553	631	272	362	340	98	231
Flatfishes	H	603	410	478	241	187	276	258	353	575	492
	R	850	295	465	471	292	313	241	231	176	249
Greenlings	H	357	72	125	104	69	48	64	38	88	118
	R	717	239	179	113	67	53	83	96	178	200
Mackerel	H	918	945	1,023	1,158	823	940	753	479	590	438
	R	2,011	1,715	1,872	3,287	1,209	1,765	1,267	1,272	1,050	806
Rockfishes & scorpionfishes	H	3,035	1,778	2,725	1,891	1,674	1,318	1,383	1,613	2,348	2,780
	R	1,621	701	1,058	668	456	402	605	494	483	839
Salmon	H	95	223	144	98	48	(1)	1	15	50	123
	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sculpins	H	70	41	39	25	19	29	27	21	58	37
	R	140	98	87	74	58	78	50	46	86	77
Surfperches	H	878	1,046	694	913	610	581	501	387	766	892
	R	1,016	1,402	1,083	1,516	702	658	546	292	771	1,119

<sup>1</sup>Due to changes in data collection methods, California's participation (number of anglers), effort(number of trips), and catch (number of fish harvested or released) estimates for 2003 are not comparable to 2004-2012 estimates.

<sup>2</sup>Salmon harvest estimates exclude release mortality.

<sup>1</sup>This species may not be equivalent to species with similar names listed in the commercial tables.

## California's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>2</sup>
2003	827,472 (11.4%)	12,991,795 (11.5%)	520,597 (12.9%)	826,026 (13.0%)	1,461,072 (13.2%)	0.83
2011	849,316 (11.5%)	12,698,427 (11.2%)	663,571 (12.8%)	1,053,000 (12.7%)	1,908,985 (12.8%)	0.57
%change	2.64%	-2.26%	27.46%	27.48%	30.66%	-31.3 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	77	98	88	91	121	139	156	184	187
	Receipts	9,858	14,312	10,207	8,298	10,842	11,460	10,432	9,695	9,788
Seafood sales, retail	Firms	192	193	166	163	222	210	200	203	209
	Receipts	19,771	19,092	16,892	19,875	19,703	19,892	17,047	19,021	18,006

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	60	55	48	47	49	45	47	48	48
	Employees	2,896	2,931	2,963	2,592	2,229	2,024	2,167	1,820	1,842
	Payroll	74,637	72,178	92,642	78,065	75,886	65,215	69,529	62,480	60,411
Seafood Sales, wholesale	Establishments	269	263	258	252	300	278	289	314	404
	Employees	3,536	3,744	3,925	4,063	4,429	3,321	3,183	3,223	3,505
	Payroll	115,669	124,657	134,576	144,758	159,672	132,139	128,813	137,810	149,302
Seafood sales, retail	Establishments	175	169	180	184	182	161	153	158	157
	Employees	968	945	999	1,031	1,004	932	976	985	1,088
	Payroll	19,919	16,686	18,832	19,900	21,224	20,585	21,785	22,718	25,168

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	22	20	26	22	29	28	30	25	21
	Employees	1,341	ND	1,346	ND	ND	ND	ND	554	395
	Payroll	117,982	ND	129,262	ND	ND	ND	ND	30,431	24,708
Deep sea freight transportation	Establishments	51	50	54	54	51	43	41	54	51
	Employees	902	901	ND	957	1,643	ND	ND	2,562	2,464
	Payroll	62,417	69,815	ND	84,199	116,628	ND	ND	236,235	256,962
Deep sea passenger transportation	Establishments	14	15	15	16	13	5	5	3	2
	Employees	ND	ND	ND	1,552	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	72,119	ND	ND	ND	ND	ND
Marinas	Establishments	263	271	263	268	276	277	276	270	269
	Employees	2,485	2,476	2,426	2,457	2,680	2,652	2,514	2,390	2,401
	Payroll	70,640	73,338	71,318	74,778	80,216	85,315	78,890	80,631	82,958
Marine cargo handling	Establishments	56	54	54	52	56	61	62	63	71
	Employees	15,557	20,456	19,303	20,975	22,395	22,086	17,428	18,449	18,812
	Payroll	1,040,515	1,179,221	1,273,698	1,448,623	1,484,308	1,453,281	1,211,572	1,273,268	1,333,805
Navigational services to shipping	Establishments	35	38	37	36	39	40	39	41	45
	Employees	850	ND	ND	817	858	815	804	765	760
	Payroll	53,162	ND	ND	63,893	63,610	65,225	61,720	58,899	62,065
Port & harbor operations	Establishments	19	20	20	20	18	17	19	21	19
	Employees	417	ND	ND	582	443	256	345	435	508
	Payroll	23,110	ND	ND	32,523	30,001	23,316	26,889	37,560	41,688
Ship & boat building	Establishments	141	143	141	132	136	136	123	117	108
	Employees	8,574	8,865	10,132	9,801	9,250	11,630	10,483	9,720	9,165
	Payroll	314,706	354,404	410,446	453,255	433,846	477,300	460,239	448,338	434,449

<sup>2</sup>The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which states CFLQs can be compared.

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Oregon Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	16,051	1,174,111	385,350	550,045
Commercial Harvesters	4,363	240,186	99,292	139,007
Seafood Processors & Dealers	1,482	128,118	49,205	64,289
Importers	1,423	391,373	62,725	119,308
Seafood Wholesalers & Distributors	611	74,585	25,302	33,936
Retail	8,172	339,849	148,826	193,505

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	86,779	101,022	88,196	106,093	97,298	103,042	104,706	104,719	148,354	128,030
Finfish & other	40,889	49,634	53,192	46,326	47,589	56,912	52,749	58,730	76,718	72,205
Shellfish	45,890	51,388	35,005	59,767	49,709	46,130	51,957	45,990	71,636	55,825
Albacore tuna	6,169	9,145	8,815	8,067	9,468	10,666	10,191	12,425	18,766	15,077
Crab	37,122	42,960	26,603	53,810	38,208	29,168	42,413	32,757	44,696	29,130
Flatfish	6,632	6,460	7,281	7,547	7,930	9,163	8,468	6,861	6,780	7,316
Hake (whiting)	3,642	4,641	7,107	7,974	6,501	6,830	3,783	5,414	16,518	14,611
Oysters	3,292	3,292	1,232	1,163	1,847	2,748	2,253	1,658	1,869	1,661
Pacific sardine	2,941	4,870	6,199	3,743	4,551	5,665	5,291	5,252	3,192	8,977
Rockfish	2,327	1,633	1,387	1,564	2,002	2,610	2,500	2,520	2,473	2,660
Sablefish	7,381	6,935	8,657	9,787	9,494	13,737	15,919	15,069	17,351	11,529
Salmon	8,869	12,995	10,437	4,940	4,647	4,166	3,546	7,698	6,737	6,924
Shrimp	5,051	4,740	6,901	4,494	9,365	13,937	6,813	11,006	24,607	24,685

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	226,317	294,866	312,636	282,846	253,543	195,688	198,895	201,560	274,533	295,892
Finfish & other	180,788	254,330	278,646	236,998	216,134	155,837	154,147	153,588	208,445	237,655
Shellfish	45,529	40,536	33,990	45,848	37,410	39,851	44,747	47,972	66,088	58,237
Albacore tuna	9,165	10,754	8,087	8,534	10,468	8,876	10,082	10,703	9,682	9,886
Crab	23,934	27,276	17,734	33,291	17,007	13,875	21,848	15,817	17,240	8,656
Flatfish	14,372	14,846	16,910	16,385	19,697	23,842	26,047	22,226	15,958	15,322
Hake (whiting)	80,648	130,238	135,503	122,804	81,481	55,511	53,466	57,017	142,092	102,651
Oysters	823	823	308	255	197	162	563	415	467	415
Pacific sardine	55,683	79,610	99,450	74,669	90,037	49,298	45,902	44,743	23,479	91,354
Rockfish	3,434	2,574	2,007	1,967	2,905	3,820	4,207	4,533	3,819	3,918
Sablefish	4,798	5,627	5,834	5,838	5,349	6,514	7,219	6,269	5,074	4,738
Salmon	6,720	5,914	4,666	1,810	1,370	1,860	2,311	2,765	2,386	1,916
Shrimp	20,546	12,207	15,784	12,128	19,990	25,400	22,019	31,429	48,198	49,009

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Albacore tuna	0.67	0.85	1.09	0.95	0.90	1.20	1.01	1.16	1.94	1.53
Crab	1.55	1.58	1.50	1.62	2.25	2.10	1.94	2.07	2.59	3.37
Flatfish	0.46	0.44	0.43	0.46	0.40	0.38	0.33	0.31	0.42	0.48
Hake (whiting)	0.05	0.04	0.05	0.06	0.08	0.12	0.07	0.09	0.12	0.14
Oysters	4.00	4.00	4.00	4.56	9.40	16.96	4.00	4.00	4.00	4.00
Pacific sardine	0.05	0.06	0.06	0.05	0.05	0.11	0.12	0.12	0.14	0.10
Rockfish	0.68	0.63	0.69	0.80	0.69	0.68	0.59	0.56	0.65	0.68
Sablefish	1.54	1.23	1.48	1.68	1.78	2.11	2.21	2.40	3.42	2.43
Salmon	1.32	2.20	2.24	2.73	3.39	2.24	1.53	2.78	2.82	3.61
Shrimp	0.25	0.39	0.44	0.37	0.47	0.55	0.31	0.35	0.51	0.50



**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	144	17,078	7,878	11,757
Private Boat	320	37,741	12,891	22,119
Shore	112	12,852	4,299	7,371
Total Durable Equipment Impacts	2,382	258,209	101,409	157,440
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>2,958</b>	<b>325,880</b>	<b>126,477</b>	<b>198,687</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	45,344
For-Hire	704	11,093	Other Equipment	22,356
Private Boat	2,487	32,502	Boat Expenses	119,032
Shore	1,109	9,916	Vehicle Expenses	25,084
<i>Total Trip Expenditures</i>	<i>4,299</i>	<i>53,510</i>	Second Home Expenses	1,228
			<i>Total Durable Equipment Expenditures</i>	<i>213,044</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>270,853</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	91	90	87	82	86	79	85	82	81	84
Non-Coastal	135	125	123	125	130	120	128	124	122	128
Out of State	15	16	14	15	15	14	15	14	14	15
<b>Total Anglers</b>	<b>241</b>	<b>231</b>	<b>224</b>	<b>222</b>	<b>231</b>	<b>213</b>	<b>228</b>	<b>220</b>	<b>217</b>	<b>227</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	67	64	58	56	61	48	56	51	52	57
Private	426	426	382	373	399	353	396	378	370	389
Shore	233	233	233	233	233	233	233	233	233	233
<b>Total Trips</b>	<b>726</b>	<b>723</b>	<b>673</b>	<b>662</b>	<b>693</b>	<b>634</b>	<b>685</b>	<b>662</b>	<b>655</b>	<b>679</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)<sup>1</sup>**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Albacore tuna	H	11	17	5	12	59	24	43	38	29	63
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Baitfishes	H	220	221	220	220	220	220	220	223	221	220
	R	124	124	124	124	124	124	124	125	125	125
Flatfishes	H	15	27	21	21	22	21	17	14	15	17
	R	6	7	7	7	6	8	9	5	5	6
Greenlings	H	94	97	104	97	95	92	90	90	97	111
	R	79	80	79	74	67	69	72	79	85	83
Rockfishes	H	405	381	400	331	321	307	363	373	290	320
	R	23	31	58	40	38	47	51	64	53	50
Salmon	H	154	128	42	16	68	14	91	23	24	35
	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sculpins	H	17	14	16	14	15	16	16	16	16	15
	R	56	57	60	57	59	59	59	61	61	61
Sturgeon	H	12	12	12	12	12	12	12	12	12	12
	R	24	24	24	24	24	24	24	25	25	25
Surfperches	H	118	118	118	118	118	118	118	118	118	118
	R	39	39	39	39	39	39	39	39	39	39

<sup>1</sup>Salmon harvest estimates exclude release mortality.

## Oregon's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>2</sup>
2003	103,064 (1.4%)	1,338,825 (1.2%)	44,347 (1.1%)	73,830 (1.2%)	124,566 (1.1%)	3.26
2011	106,340 (1.4%)	1,341,841 (1.2%)	56,092 (1.1%)	93,021 (1.1%)	188,981 (1.3%)	3.54
%change	3.18%	0.23%	26.48%	25.99%	51.71%	8.59 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	ND	ND	9	7	ND	19	15	15	16
	Receipts	ND	ND	309	54	ND	957	469	510	467
Seafood sales, retail	Firms	10	11	7	11	11	16	12	15	16
	Receipts	428	507	985	914	1,210	2,101	1,133	1,907	1,896

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	19	18	20	21	22	23	20	21	22
	Employees	720	738	762	896	819	850	812	806	805
	Payroll	21,980	20,593	19,022	25,881	27,394	27,616	26,202	27,007	32,438
Seafood Sales, wholesale	Establishments	26	21	23	16	18	18	19	22	27
	Employees	ND	126	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	4,446	ND	ND	ND	ND	ND	ND	ND
Seafood sales, retail	Establishments	21	24	24	22	23	21	23	21	20
	Employees	ND	171	204	306	171	178	151	162	163
	Payroll	ND	3,259	3,464	3,294	3,185	3,370	3,515	3,651	3,613

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	8	8	9	9	13	8	9	8	8
	Employees	ND	ND	ND	ND	476	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	25,206	ND	ND	ND	ND
Deep sea freight transportation	Establishments	6	6	6	6	5	4	3	3	3
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Deep sea passenger transportation	Establishments	NA	NA	NA	NA	2	NA	NA	NA	NA
	Employees	NA	NA	NA	NA	ND	NA	NA	NA	NA
	Payroll	NA	NA	NA	NA	ND	NA	NA	NA	NA
Marinas	Establishments	42	41	40	37	38	37	33	30	33
	Employees	122	133	113	ND	138	106	109	102	102
	Payroll	2,742	2,988	3,550	ND	3,754	2,178	2,602	2,290	2,382
Marine cargo handling	Establishments	8	8	8	9	9	13	13	12	13
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Navigational services to shipping	Establishments	21	21	21	20	17	20	17	18	18
	Employees	ND	ND	ND	ND	183	200	189	144	152
	Payroll	ND	ND	ND	ND	11,331	11,808	10,154	9,577	9,592
Port & harbor operations	Establishments	1	NA	NA	NA	2	1	1	3	3
	Employees	ND	NA	NA	NA	ND	ND	ND	ND	ND
	Payroll	ND	NA	NA	NA	ND	ND	ND	ND	ND
Ship & boat building	Establishments	43	50	43	41	40	41	35	34	34
	Employees	1,284	1,285	1,298	1,230	1,441	1,692	1,886	980	1,179
	Payroll	42,270	43,357	45,183	43,416	47,950	74,583	90,446	42,004	55,068

<sup>2</sup>The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which states CFLQs can be compared.

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Washington Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	60,955	7,533,447	2,002,804	3,055,370
Commercial Harvesters	6,467	548,724	230,821	326,152
Seafood Processors & Dealers	16,288	1,548,940	581,759	769,869
Importers	15,049	4,139,680	663,463	1,261,956
Seafood Wholesalers & Distributors	2,560	335,395	112,371	153,311
Retail	20,591	960,709	414,391	544,082

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	172,829	166,247	193,317	217,030	216,119	232,841	227,773	255,332	329,785	275,585
Finfish & other	47,415	55,906	50,145	68,201	59,386	68,213	61,115	81,902	98,627	91,409
Shellfish	125,414	110,342	143,172	148,829	156,733	164,628	166,658	173,430	231,159	184,177
Clams	36,060	42,297	48,503	55,786	56,428	64,141	72,646	73,625	88,739	69,412
Crab	56,374	29,024	50,872	43,464	54,302	53,712	48,944	57,070	83,627	59,485
Hake (Whiting)	1,601	2,341	4,937	7,296	7,121	7,249	2,334	4,105	7,183	5,882
Halibut	5,991	7,264	6,512	8,303	8,842	7,525	4,879	5,764	6,740	6,122
Mussels	2,513	3,096	3,729	6,564	3,820	5,293	4,851	4,318	4,740	6,065
Oysters	26,142	31,257	33,697	38,302	37,437	34,794	34,993	30,370	43,021	37,576
Sablefish	6,675	6,517	7,395	8,307	6,608	7,312	8,796	9,402	12,378	7,578
Salmon	9,941	17,316	14,319	24,586	22,026	23,376	22,003	40,622	42,434	28,398
Shrimp	3,723	3,648	4,335	3,602	3,746	5,380	4,139	5,677	7,140	6,986
Tuna, Albacore	15,621	15,657	10,643	15,176	10,439	17,225	16,390	14,575	22,253	28,440

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	189,479	192,181	213,502	241,606	194,449	173,176	163,937	189,486	210,282	213,578
Finfish & other	132,940	155,224	156,902	191,717	151,762	128,208	120,452	142,608	158,113	173,506
Shellfish	56,539	36,957	56,600	49,889	42,687	44,968	43,485	46,878	52,169	40,072
Clams	3,127	3,319	3,621	4,617	3,363	4,070	4,266	3,876	4,023	3,664
Crab	34,037	14,955	32,086	24,619	22,487	21,355	20,651	22,500	27,072	16,590
Hake (Whiting)	35,124	69,117	93,654	120,058	91,272	67,159	36,378	58,900	73,494	38,524
Halibut	1,868	2,254	1,948	2,451	2,428	2,055	1,731	1,371	1,301	1,295
Mussels	337	427	504	774	475	593	568	589	547	559
Oysters	9,649	11,058	12,190	12,306	11,189	10,258	9,386	8,650	9,389	8,143
Sablefish	3,736	4,064	4,240	4,259	3,035	2,954	3,514	3,277	3,410	2,916
Salmon	25,493	27,918	17,926	26,570	21,938	17,641	31,821	28,086	38,706	19,839
Shrimp	8,867	6,599	7,279	6,926	4,455	7,355	7,775	10,153	10,193	10,009
Tuna, Albacore	23,672	18,044	10,505	19,133	13,129	14,801	16,112	13,148	13,209	19,275

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Clams	11.53	12.74	13.40	12.08	16.78	15.76	17.03	19.00	22.06	18.95
Crab	1.66	1.94	1.59	1.77	2.41	2.52	2.37	2.54	3.09	3.59
Hake (Whiting)	0.05	0.03	0.05	0.06	0.08	0.11	0.06	0.07	0.10	0.15
Halibut	3.21	3.22	3.34	3.39	3.64	3.66	2.82	4.20	5.18	4.73
Mussels	7.46	7.26	7.40	8.48	8.05	8.93	8.54	7.33	8.66	10.85
Oysters	2.71	2.83	2.76	3.11	3.35	3.39	3.73	3.51	4.58	4.61
Sablefish	1.79	1.60	1.74	1.95	2.18	2.48	2.50	2.87	3.63	2.60
Salmon	0.39	0.62	0.80	0.93	1.00	1.33	0.69	1.45	1.10	1.43
Shrimp	0.42	0.55	0.60	0.52	0.84	0.73	0.53	0.56	0.70	0.70
Tuna, Albacore	0.66	0.87	1.01	0.79	0.80	1.16	1.02	1.11	1.68	1.48

## 2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	171	22,814	9,931	14,951
Private Boat	690	107,776	32,981	56,428
Shore	206	28,895	8,969	15,124
Total Durable Equipment Impacts	2,727	335,098	131,873	205,580
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>3,794</b>	<b>494,583</b>	<b>183,754</b>	<b>292,083</b>

## 2012 Angler Trip &amp; Durable Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	47,445
For-Hire	2,631	12,366	Other Equipment	21,263
Private Boat	2,173	77,411	Boat Expenses	146,351
Shore	697	20,498	Vehicle Expenses	19,655
<i>Total Trip Expenditures</i>	<i>5,502</i>	<i>110,275</i>	Second Home Expenses	772
			<i>Total Durable Equipment Expenditures</i>	<i>235,487</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>351,264</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	233	213	201	184	220	167	163	162	274	176
Non-Coastal	25	24	23	21	23	19	20	19	30	24
Out of State	20	19	18	17	19	15	16	15	17	19
<b>Total Anglers</b>	<b>278</b>	<b>256</b>	<b>242</b>	<b>222</b>	<b>262</b>	<b>201</b>	<b>199</b>	<b>196</b>	<b>321</b>	<b>219</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	69	64	62	57	55	42	51	47	42	46
Private	704	618	565	492	661	428	399	399	607	618
Shore	513	513	513	513	513	513	513	513	513	513
<b>Total Trips</b>	<b>1,286</b>	<b>1,195</b>	<b>1,140</b>	<b>1,062</b>	<b>1,229</b>	<b>983</b>	<b>963</b>	<b>959</b>	<b>1,162</b>	<b>1,177</b>

Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)<sup>1</sup>

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Albacore tuna	H	11	14	12	24	25	22	24	32	16	51
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Flatfishes	H	62	62	61	63	51	47	54	50	51	52
	R	92	41	41	42	40	40	47	41	41	41
Greenlings	H	59	39	39	33	28	29	34	30	42	43
	R	64	25	25	22	19	19	39	22	29	23
Rockfishes <sup>1</sup>	H	184	256	307	282	260	216	245	208	235	259
	R	20	25	33	23	19	16	33	26	22	22
Salmon	H	457	256	246	109	334	90	716	124	310	309
	R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sculpins	H	17	17	17	16	15	15	16	16	17	16
	R	101	91	91	91	91	91	91	91	91	91
Sharks & Skates	H	15	1	1	1	(1)	1	1	(1)	(1)	(1)
	R	203	14	12	14	9	12	10	3	1	3
Smelt & herring	H	2,487	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,486
	R	136	126	126	126	126	126	126	126	126	126
Sturgeon	H	8	8	8	7	8	8	9	NA	NA	NA
	R	18	25	30	21	18	12	17	NA	NA	NA
Surfperches	H	143	133	133	133	133	133	133	133	133	134
	R	125	120	120	120	120	120	121	121	121	121

<sup>3</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>1</sup>Salmon harvest estimates exclude release mortality.<sup>1</sup>This species may not be equivalent to species with similar names listed in the commercial tables.

## Washington's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>2</sup>
2003	167,272 (2.3%)	2,293,222 (2.0%)	90,587 (2.2%)	141,093 (2.2%)	247,056 (2.2%)	13.3
2011	173,511 (2.4%)	2,355,123 (2.1%)	118,648 (2.3%)	196,338 (2.4%)	357,056 (2.4%)	11.9
%change	3.73%	2.70%	30.98%	39.16%	44.52%	-10.8 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	59	53	54	53	63	44	44	39	37
	Receipts	5,680	4,446	5,568	4,149	4,698	5,167	4,007	4,228	3,859
Seafood sales, retail	Firms	32	30	31	29	32	33	40	30	34
	Receipts	1,623	2,202	1,836	1,727	1,458	1,807	2,132	1,273	2,370

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	110	101	98	96	98	96	86	93	90
	Employees	5,968	5,851	5,743	5,705	5,249	5,893	4,860	5,296	5,387
	Payroll	231,153	247,316	239,962	255,129	275,662	306,213	232,543	254,592	293,112
Seafood Sales, wholesale	Establishments	121	116	126	115	127	107	108	105	107
	Employees	1,112	883	1,094	1,015	1,086	996	1,103	970	911
	Payroll	39,206	37,292	42,852	42,934	46,085	48,251	48,044	45,871	45,543
Seafood sales, retail	Establishments	37	40	47	49	50	44	43	47	44
	Employees	284	222	291	292	244	247	239	282	253
	Payroll	6,363	6,578	9,322	8,998	8,001	7,947	8,324	9,098	7,786

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	36	38	41	43	37	24	24	30	28
	Employees	1,607	2,039	1,672	2,353	1,903	2,222	2,245	1,731	1,684
	Payroll	112,319	128,786	122,000	145,144	136,543	168,832	168,783	130,398	132,068
Deep sea freight transportation	Establishments	27	23	24	23	30	21	25	20	14
	Employees	276	311	378	197	227	263	305	209	ND
	Payroll	16,147	20,559	22,655	14,390	19,692	24,843	28,897	24,711	ND
Deep sea passenger transportation	Establishments	3	2	3	3	3	4	5	4	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	102	96	96	103	114	116	110	117	114
	Employees	430	449	442	466	485	573	570	560	517
	Payroll	12,400	12,763	13,556	14,269	15,623	18,931	18,811	18,783	18,364
Marine cargo handling	Establishments	23	30	30	29	28	25	27	26	32
	Employees	ND	ND	4,459	3,764	4,913	4,821	2,953	ND	3,910
	Payroll	ND	ND	318,873	303,375	334,601	334,193	239,490	ND	323,286
Navigational services to shipping	Establishments	52	53	53	56	61	76	69	79	78
	Employees	834	ND	841	942	950	1,213	1,168	1,225	1,207
	Payroll	51,092	ND	60,034	72,120	72,912	100,542	102,934	102,766	94,781
Port & harbor operations	Establishments	3	4	6	5	6	11	11	9	9
	Employees	ND	ND	ND	53	129	111	118	74	75
	Payroll	ND	ND	ND	3,436	4,631	6,359	6,437	4,662	4,937
Ship & boat building	Establishments	138	141	154	164	167	169	162	152	135
	Employees	6,056	6,474	7,154	7,669	7,742	8,067	6,710	5,406	5,232
	Payroll	244,124	272,336	307,735	313,230	354,084	402,253	312,240	284,759	276,402

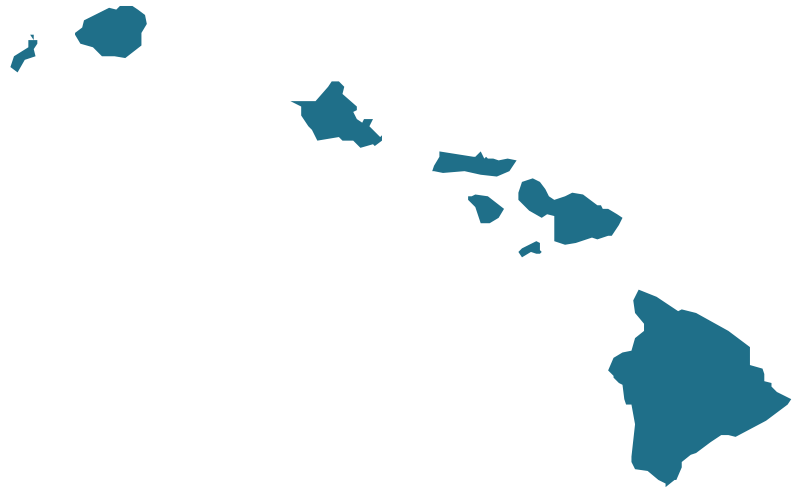
<sup>2</sup>The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which states CFLQs can be compared.

ND- these data are confidential and therefore not available

NA- these data are not available

# Western Pacific

- Hawai'i





### Management Context

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

#### Western Pacific Fishery Ecosystem Plans

1. American Samoa
2. Hawai'i
3. Mariana Archipelago (Guam and the CNMI)
4. Pacific Remote Island Areas
5. Western Pacific Pelagics

Because fishery data are limited in most of these areas, only information for the Hawai'i and Western Pacific Pelagics fisheries is reported here. Currently, there are no catch share programs in place in this Region.

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

**Western Pacific Pelagics:** Pelagic fish are mainly caught by longline and purse seine vessels. Bigeye tuna is currently subject to overfishing and this status is considered to be primarily due to international fishing pressure. Pacific bluefin tuna is also considered subject to overfishing. There are also concerns of the overfishing and overfished status for striped marlin in the Western and Central Pacific Ocean.

In addition to management by the WPFMC and NMFS, pelagic fish such as bigeye and yellowfin tunas are also managed by two regional fishery management organizations (RFMOs). The Western and Central Pacific Fisheries Commission (WCPFC) have management authority to manage pelagic fisheries in the western and central Pacific Ocean, while the Inter-American Tropical Tuna Commission (IATTC) manages pelagic fisheries in the eastern Pacific Ocean. Fish species and fisheries under the purview of both RFMOs migrate across national boundaries and between RFMO areas, requiring coordinated management.

Since 2009, the annual bigeye tuna catch limit has been recommended by WCPFC and implemented by NMFS for the U.S. longline fleet in the western and central Pacific. The IATTC

establishes the harvest limit for bigeye tuna for the U.S. longline vessels longer than 24 meters in the eastern tropical Pacific.

### Commercial Fisheries

Fishermen in Hawai'i earned \$92 million from their commercial harvest in 2012, landing over 29 million pounds of finfish and shellfish. Tunas comprised 73% of this landings revenue (\$67 million) as well as 63% of total landings (19 million pounds). Swordfish (\$6.7 million), mahimahi (\$4.3 million), moonfish (\$2.9 million), and marlin (\$2.4 million) also contributed to landings revenue. Lobsters commanded the highest ex-vessel price in 2012, with an average annual price of \$10.39 per pound.

#### Key Western Pacific Commercial Species

- Lobsters
- Mahimahi
- Marlin
- Moonfish
- Pomfret
- Scad
- Snappers
- Swordfish
- Tunas
- Wahoo

#### *Economic Impacts<sup>3</sup>*

In 2012, the Western Pacific's seafood industry generated \$855 million in sales impacts, \$262 million in income impacts, and approximately 11,000 full- and part-time jobs. Importers contributed the most to sales (38% of the total), while the retail sector contributed the most to employment impacts (41%), income impacts (37%), and valued added impacts (33%). In contrast, the retail sector contributed most to income (37%) and employment impacts (41% of total jobs) with \$97 million in income and 4,300 jobs. The commercial harvest sector generated 3,800 jobs, \$196 million in sales, \$71 million in income, and \$102 million in value added impacts.

#### *Landings Revenue*

In 2012, landings revenue for finfish and shellfish totaled over \$92 million, a 75% increase from total revenue generated in 2003. When adjusting for inflation, real landings revenue increased 25%. Landings revenue in 2012 represented a 8.9% increase relative to 2011 (\$84 million). Finfish and other catch accounted for nearly all landings in Hawai'i (\$91 million). This was a 75% increase (26% increase in real terms) from 2003 finfish revenue totals. In contrast, shellfish revenues decreased 48% (63% decrease in real terms) from \$306,000 in 2003 to \$158,000 in 2012. The largest changes in landings revenue between 2003 and 2012 were for swordfish (386% increase), moonfish (134% increase), and pomfret (115% increase).

<sup>3</sup>The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: [www.st.nmfs.noaa.gov/documents/commercial\\_seafood\\_impacts\\_2007-2009.pdf](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf))

*Landings*

In 2012, Hawai'i commercial fishermen landed 29 million pounds of finfish and shellfish, a 22% increase from 2003 landings totals. This was a 4.3% increase compared to landings in 2011 (28 million pounds). Finfish and other catch accounted for nearly 100% of total landings annually. Shellfish landings decreased 34% from 31,000 pounds landed in 2003 to 20,000 pounds in 2012 and also decreased 6.7% from 2011 to 2012.

**Commercial Fisheries Facts**

*Landings revenue*

- On average, the key species or species groups account for 97% of total revenue, (\$88 million) generated in the Western Pacific Region.
- Tunas contributed more than any other species or species group, averaging \$49 million in landings revenue from 2003 to 2012.
- Swordfish had the largest one-year increase in landings revenue over the 10 year time period, increasing 534% from \$1.2 million in 2005 to \$7.8 million in 2006.
- Swordfish had the largest one-year decrease in landings revenue over the 10 year time period, decreasing 50% from \$1.4 million in 2003 to \$691,000 in 2004.

*Landings*

- Key species or species groups contributed an average of 94% annually to total landings between 2003 and 2012.
- Tunas, contributed the most to landings in the region, averaging 16 million pounds from 2003 to 2012.
- Swordfish had the largest one-year increase in landings over the 10 year time period, increasing 561% from 520,000 in 2005 pounds to 3.4 million pounds in 2006.
- Swordfish had the largest one-year decrease in landings over the 10 year time period, decreasing 56% from 703,000 pounds in 2003 to 306,000 pounds in 2004.

*Prices*

- Lobsters had the highest average annual ex-vessel price per pound (\$11.54) over the time period, followed by snappers (\$4.61), and tunas (\$3.01).
- Marlin had the lowest average annual ex-vessel price per pound (\$1.23) over the time period, followed by moonfish (\$1.59), and swordfish (\$2.16).
- Marlin had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 58% from \$0.85 per pound in 2004 to \$1.34 in 2005.
- Marlin had the largest decrease in ex-vessel price over the 10 year time period, decreasing 37% from \$1.34 per pound in 2003 to \$0.85 in 2004.

Tunas contributed more to the Western Pacific's total landings than any other species or group with 18.5 million pounds landed in 2012. This was a 17% increase from 2003 total landings of tunas (15.9 million pounds). Swordfish followed with 2.6 million pounds landed in 2012. Swordfish landings experienced dramatic changes from 2003 to 2012. From 2000 to 2001, landings

decreased 91% from 6.4 million pounds to 559,000 pounds when the Hawai'i longline fishery was largely closed to protect sea turtles. A few years later (2004-2005), landings increased 561% from 520,000 pounds to 3.4 million pounds. Swordfish landings between 2001 and 2004 averaged approximately a half million pounds, while in between 2005 and 2012 the average was 2.9 million pounds.

*Prices*

Overall, the 2012 ex-vessel price for nine of the key species or species groups were above their ten year average annual price. Lobsters had a lower price per pound (\$10.39) in 2012 relative to its annual average over the 10-year period (\$11.54). The ex-vessel price for swordfish in 2012 was \$0.41 more than the ten year average. Relative to ex-vessel prices in 2011, mahimahi (40%) experienced a double digit increase in 2012. A double digit nominal price decrease between 2011 and 2012 occurred in lobsters declining 16%. In real terms, two species (lobsters, marlin) experienced declines in ex-vessel prices between 2011 and 2012.

**Recreational Fisheries**

Recreational anglers who fished in the state of Hawai'i took 1.5 million fishing trips in, 2012. Of these trips, 79% were shore-based trips. Scads (bigeye and mackerel) was the most caught species group with 608,000 fish caught in 2012. Almost all of these fish were harvested by anglers rather than released. The most released species or species group was trevallies and other jacks (54%). All others were harvested at least 77% of the time in 2012. Note that data on angler participation in Hawai'i is unavailable from 2007-2012.

**Key Western Pacific Recreational Species**

- Blue marlin
- Dolphinfish
- Goatfishes
- Trevallies and other jacks
- Bigeye and mackerel scad
- Skipjack tuna
- Smallmouth bonefish
- Snappers
- Wahoo
- Yellowfin tuna

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

In 2012, approximately 1,200 jobs in the Western Pacific were generated by recreational fishing activities and over \$108 million was spent by anglers who fished in the region. Most of these employment impacts were generated by industries that provided services to anglers who fished from shore (495) or a private boat (245). These fishing trip modes also generated the most in trip-related expenditures: \$47 million for shore-based fishing trips (44% of total trip expenditures) and \$31 million for private boat trips (29% of total trip expenditures). Only 25% of total trip-related expenditures in the Western Pacific came from non-resident anglers.

<sup>1</sup>Expenditure estimates were generated from the 2011 National Marine Recreational Fishing Expenditure Survey. Economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see The Economic Contribution of Marine Angler Expenditures in the United States, 2006, available at: <http://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2006>)

In addition to employment impacts generated by recreational fishing activities, other economic impacts include sales impacts and the contribution of recreational fishing activities to gross domestic product (value added impacts). For-hire fishing trips generated \$47 million in sales impacts (34% of total trip-related sales) and \$30 million in value added impacts (40% of total trip-related value added impacts) in 2012. Private boat trips contributed \$34 million in sales (25%) and \$17 million (23%) in value added impacts. Shore-based fishing trips contributed \$57 million in trip-related sales (41%) and \$28 million in trip-related value added impacts (37%). Durable equipment expenditures by recreational anglers were not available for Hawai'i for 2012.

### Recreational Fishing Facts

#### *Fishing trips*

- In the Western Pacific, an average of 2.3 million fishing trips were taken annually from 2003 to 2012.
- Private or rental boat and shore-based fishing trips accounted for 325,000 and 1.2 million fishing trips, respectively in 2012.

#### *Harvest and release*

- The bigeye and mackerel scad species group was the most commonly caught key species or species group, averaging 715,000 fish caught over the 10 year time period. Of these, 0.22% were released rather than harvested.
- Of the ten commonly caught key species or species groups none were released more often than harvested over this time period. The species or species group that was most commonly released was trevallys and other jacks (38% released).
- Species or species groups that were harvested 100% of the time included blue marlin, dolphinfish, and bigeye and mackerel scad
- Between 2011 and 2012, dolphinfish experienced the largest annual increase in catch (159%), and bigeye and mackerel scad had the largest decrease (8.2%).

#### *Fishing Trips*

Anglers who fished in Hawai'i took approximately 1.52 million fishing trips in 2012. This was a 37% decrease from the 2.4 million fishing trips taken in 2003. From 2011 to 2012, there was a 10% increase in the number of trips taken (1.4 million trips).

#### *Harvest and Release*

Of Hawai'i's key species and species groups, bigeye and mackerel scad, trevallys and other jacks, and snappers were most frequently caught by recreational fishermen. In 2012, 608,000 bigeye and mackerel scad, 239,000 trevallys and other jacks, and 212,000 snappers were caught by anglers in Hawai'i. Blue marlin (100% harvested), dolphinfish (100%), and snappers (100%) were more often harvested than released, while trevallys and other jacks were released more often (54%) than any of the other key species or species groups.

Between 2004 (the first year for which recreational catch data for Hawai'i are available) and 2012 one of Hawai'i's key species or groups experienced increases in catch totals: bigeye and mackerel scad (270%). Over the same time period, the largest decreases were experienced by: wahoo (84%), smallmouth bonefish (79%), and goatfishes (74%).

Between 2011 and 2012 the largest (and only) increase in catch occurred in the blue marlin (100%) fishery. Decreases over the same time period occurred in nine of the species or species groups, the largest of which were experienced by smallmouth bonefish (78%) and snappers (65%).

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

Across the entire economy in Hawai'i, more than 486,000 full- and part-time employees were employed by about 31,000 establishments in 2011. Annual payroll totaled \$18 billion, employee compensation totaled \$39 billion and gross state product totaled about \$70 billion. The commercial fishing location quotient (CFLQ) for Hawai'i was 4.26 in 2012. Hawai'i's level of commercial fishing-related employment continues to be well above the national baseline.<sup>2</sup>

#### *Seafood Sales and Processing*

The number of nonemployer firms (businesses that have no paid employees and are subject to federal income tax) engaged in seafood product preparation and packaging in Hawai'i increased 56% from 9 firms in 2003 to 14 firms in 2011. However, annual receipts decreased 16% to \$866,000 in 2011 (a 30% decrease in real terms).

Employer establishments engaged in seafood product preparation and packaging decreased 75% from 4 firms in 2003 to 1 firm in 2011. The rest of the data on employer establishments in the seafood product preparation and packaging sector in Hawai'i was suppressed for confidentiality purposes. Employer establishments in the wholesale seafood sales sector increased 21% from 33 firms in 2003 to 40 firms in 2011. The number of employees decreased 18% to 538 in 2011. Annual payroll, however, increased 53% to \$19 million in 2011 (a 29% increase in real terms).

The number of nonemployer firms in the seafood retail sales sector increased 8.3% from 36 firms in 2003 to 39 firms in 2011. However, annual receipts decreased 25% to \$3.6 million in 2011 (a 37% decrease in real terms).

Employer establishments in the seafood retail sales sector in Hawai'i decreased 19% from 31 firms in 2003 to 25 firms in 2011. The number of employees decreased 41% to 187 in 2011. Annual payroll decreased 32% to \$3.5 million in 2011 (a 43% decrease in real terms).

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

Data were largely suppressed for confidentiality purposes for the transport, support, and marine operations sector.

<sup>1</sup>Information for 2011 is reported in this section; 2012 data were not available for this report.

<sup>2</sup>The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

**2012 Economic Impacts of the Hawaii Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	10,544	855,139	262,059	382,849
Commercial Harvesters	3,844	195,552	71,234	102,454
Seafood Processors & Dealers	623	55,068	21,799	28,114
Importers	1,194	328,359	52,626	100,098
Seafood Wholesalers & Distributors	583	56,077	19,668	26,164
Retail	4,301	220,082	96,733	126,019

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	52,384	52,755	57,679	71,040	66,120	75,705	85,120	71,168	84,023	91,513
Finfish & other	52,078	52,493	57,274	70,677	66,013	75,531	84,753	70,985	83,851	91,354
Shellfish	306	262	406	364	106	174	367	183	172	158
Lobsters	122	68	91	111	61	93	120	136	116	104
Mahimahi (dolphin)	2,630	2,940	4,909	3,597	3,640	3,482	3,182	2,850	3,300	4,310
Marlin	2,010	1,986	2,472	2,512	2,558	2,028	2,072	2,141	1,756	2,373
Moonfish (opah)	1,219	1,509	1,343	1,897	1,873	2,170	2,197	2,408	2,591	2,852
Pomfret	675	777	1,316	1,440	1,311	1,460	1,665	1,379	1,549	1,449
Scad	1,067	1,105	944	839	1,020	1,099	896	555	1,251	964
Snappers	2,009	2,035	2,201	2,005	1,756	1,680	1,710	1,844	1,637	1,372
Swordfish	1,371	691	1,225	7,768	5,125	7,726	7,176	7,334	7,302	6,669
Tunas	37,598	37,381	38,484	46,071	44,085	51,148	60,874	47,674	59,756	66,580
Wahoo	1,452	1,919	2,201	2,253	2,329	2,087	2,235	1,672	1,745	1,806

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	23,968	23,740	24,456	28,140	25,659	28,938	30,682	26,906	28,069	29,289
Finfish & other	23,937	23,711	24,426	28,113	25,644	28,916	30,653	26,884	28,047	29,269
Shellfish	31	28	31	26	15	22	29	22	22	20
Lobsters	10	6	8	10	6	8	10	11	9	10
Mahimahi (dolphin)	1,376	1,326	2,225	1,440	1,342	1,388	1,252	1,287	1,518	1,423
Marlin	1,497	2,337	1,844	2,190	2,389	1,376	1,951	1,678	1,220	1,826
Moonfish (opah)	912	1,095	786	1,086	1,071	1,226	1,313	1,884	1,824	1,564
Pomfret	490	459	766	646	576	593	672	627	593	427
Scad	571	630	478	398	442	463	320	205	460	323
Snappers	499	501	508	436	377	376	376	386	314	249
Swordfish	703	306	520	3,439	2,514	3,643	3,835	3,881	3,153	2,592
Tunas	15,871	14,421	14,965	16,118	14,631	17,589	18,303	14,589	16,704	18,518
Wahoo	660	990	852	818	891	715	853	605	600	564

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Lobsters	12.66	11.88	11.08	10.99	9.66	11.84	12.14	12.37	12.36	10.39
Mahimahi (dolphin)	1.91	2.22	2.21	2.50	2.71	2.51	2.54	2.21	2.17	3.03
Marlin	1.34	0.85	1.34	1.15	1.07	1.47	1.06	1.28	1.44	1.30
Moonfish (opah)	1.34	1.38	1.71	1.75	1.75	1.77	1.67	1.28	1.42	1.82
Pomfret	1.38	1.69	1.72	2.23	2.28	2.46	2.48	2.20	2.61	3.39
Scad	1.87	1.75	1.97	2.11	2.30	2.37	2.80	2.71	2.72	2.98
Snappers	4.02	4.06	4.33	4.59	4.64	4.44	4.54	4.78	5.20	5.53
Swordfish	1.95	2.26	2.36	2.26	2.04	2.12	1.87	1.89	2.32	2.57
Tunas	2.37	2.59	2.57	2.86	3.01	2.91	3.33	3.27	3.58	3.60
Wahoo	2.20	1.94	2.58	2.75	2.61	2.92	2.62	2.76	2.91	3.20

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	431	47,430	19,882	30,493
Private Boat	245	34,228	10,152	17,381
Shore	495	57,484	16,971	28,175
Total Durable Equipment Impacts	NA	NA	NA	NA
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>1,171</b>	<b>139,142</b>	<b>47,005</b>	<b>76,049</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
For-Hire	26,977	2,175	Fishing Tackle	NA
Private Boat	43	31,426	Other Equipment	NA
Shore	101	47,076	Boat Expenses	NA
<i>Total Trip Expenditures</i>	<i>27,120</i>	<i>80,677</i>	Vehicle Expenses	NA
			Second Home Expenses	NA
			<i>Total Durable Equipment Expenditures</i>	<i>NA</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>107,797</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	261	223	204	173	NA	NA	NA	NA	NA	NA
Non-Coastal <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Out of State	180	183	166	224	NA	NA	NA	NA	NA	NA
<b>Total Anglers</b>	<b>440</b>	<b>407</b>	<b>370</b>	<b>396</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Private	509	709	578	570	475	564	441	484	224	325
Shore	1,893	2,162	1,892	2,074	2,102	1,966	1,722	1,907	1,158	1,195
<b>Total Trips</b>	<b>2,402</b>	<b>2,871</b>	<b>2,470</b>	<b>2,644</b>	<b>2,577</b>	<b>2,530</b>	<b>2,163</b>	<b>2,391</b>	<b>1,382</b>	<b>1,520</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)<sup>1</sup>**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue marlin	H	4	5	19	3	2	11	3	1	2	3
	R	(1)	(1)	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)
Dolphinfish (mahimahi)	H	109	225	178	220	137	184	103	164	63	163
	R	1	(1)	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Goatfishes <sup>2</sup>	H	793	712	446	813	299	469	713	269	173	159
	R	10	17	8	16	9	7	6	17	13	13
Jacks (trevallys and other jacks) <sup>1</sup>	H	125	329	253	210	169	275	122	141	99	111
	R	172	145	180	211	131	120	84	126	60	128
Scads (bigeye and mackerel)	H	1,951	179	726	811	1,089	402	1,102	841	662	608
	R	2	(1)	14	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Skipjack tuna	H	440	419	302	201	228	568	230	288	125	197
	R	1	6	1	1	5	2	(1)	(1)	(1)	(1)
Smallmouth bonefish	H	25	61	25	64	19	50	36	55	13	27
	R	4	9	11	2	13	4	2	13	2	8
Snappers <sup>1</sup>	H	232	235	221	176	105	140	145	339	114	197
	R	16	18	57	35	40	7	24	25	14	15
Wahoo	H	105	97	54	62	57	78	61	40	16	31
	R	(1)	(1)	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)
Yellowfin tuna	H	183	267	231	123	273	461	198	302	141	182
	R	5	(1)	10	1	2	(1)	1	1	(1)	(1)

<sup>1</sup>Participation (number of anglers) data are not available for 2007-2012.<sup>1</sup>Data is not available because all Hawaii residents are considered coastal county residents.<sup>2</sup>Effort data (number of trips) for for-hire boat trips were not available.<sup>1</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>2</sup>Goatfishes include yellowstripe, yellowfin, pfulgers, bandtail, doublebar, diespot, whitesaddle, manybar, blue, and 'Goatfish famil/genus'<sup>1</sup>Trevallys & other jacks includes bluefin trevally, giant trevally, bigeye trevally, black trevally, African pompano, greater amberjack, island jack, and other species in the jack family.<sup>1</sup>Snappers include bluestip, blacktail, ruby, longtailed, pink, VonSiebolds, Bingham, green jobfish, ironjaw, and smalltooth jobfish.

## Hawaii's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>2</sup>
2003	31,061 (0.4%)	459,010 (0.4%)	14,139 (0.3%)	28,227 (0.4%)	48,095 (0.4%)	ND
2011	31,472 (0.4%)	485,548 (0.4%)	18,362 (0.4%)	39,476 (0.5%)	70,006 (0.5%)	4.26
%change	1.32%	5.78%	29.87%	39.85%	45.56%	NA

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	9	11	5	11	10	9	7	11	14
	Receipts	1,034	1,309	409	1,011	1,023	1,020	713	741	866
Seafood sales, retail	Firms	36	33	29	31	41	37	34	37	39
	Receipts	4,753	2,875	3,487	3,627	4,353	4,394	3,559	4,124	3,558

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	4	4	3	3	1	1	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Seafood Sales, wholesale	Establishments	33	36	32	33	36	37	38	37	40
	Employees	654	404	485	462	550	695	538	531	538
	Payroll	12,653	13,949	15,163	16,786	18,932	20,665	19,347	19,290	19,416
Seafood sales, retail	Establishments	31	31	29	27	25	25	25	24	25
	Employees	317	321	326	315	393	173	158	177	187
	Payroll	5,187	5,038	5,007	5,564	7,209	3,674	3,559	3,533	3,521

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	10	11	13	13	11	5	5	2	2
	Employees	ND	ND	ND	543	557	478	475	ND	ND
	Payroll	ND	ND	ND	36,941	36,635	34,544	34,367	ND	ND
Deep sea freight transportation	Establishments	1	NA	NA	NA	NA	1	NA	1	1
	Employees	ND	NA	NA	NA	NA	ND	NA	ND	ND
	Payroll	ND	NA	NA	NA	NA	ND	NA	ND	ND
Deep sea passenger transportation	Establishments	1	1	2	2	1	1	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	11	11	10	9	11	9	10	13	13
	Employees	177	178	181	152	167	156	164	189	208
	Payroll	3,285	3,439	3,354	3,719	4,151	4,317	4,368	5,362	5,237
Marine cargo handling	Establishments	8	8	8	7	8	11	11	14	14
	Employees	ND	ND	694	ND	1,048	1,098	1,075	1,236	1,278
	Payroll	ND	ND	53,061	ND	87,770	89,104	87,833	109,059	109,134
Navigational services to shipping	Establishments	7	6	6	6	8	11	11	11	8
	Employees	ND	ND	ND	ND	ND	105	120	90	105
	Payroll	ND	ND	ND	ND	3,340	5,846	5,258	5,113	5,310
Port & harbor operations	Establishments	2	2	2	2	2	4	3	2	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	3,218	2,031	ND	ND
Ship & boat building	Establishments	14	17	16	14	13	14	13	15	15
	Employees	480	589	ND	545	ND	ND	ND	ND	ND
	Payroll	22,053	20,908	ND	23,134	ND	ND	ND	ND	ND

<sup>2</sup>The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which states CFLQs can be compared.

ND- these data are confidential and therefore not available

NA- these data are not available





# New England

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



### Management Context

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

#### New England Region FMPs

1. Northeast multispecies
2. Sea scallops
3. Monkfish (with the MAFMC)
4. Atlantic herring
5. Small mesh multispecies
6. Spiny dogfish (with the MAFMC)
7. Red crab
8. Northeast skate complex
9. Atlantic salmon

Of the stocks or stock complexes covered in these fishery management plans, thirteen are currently listed as overfished: Atlantic cod (two stocks), Atlantic halibut, Atlantic salmon, Atlantic wolffish, ocean pout, thorny skate, white hake, windowpane, winter flounder, witch flounder, and yellowtail flounder (two stocks). Eight stocks or stock complexes are currently subject to overfishing: Atlantic cod (two stocks), haddock, white hake, windowpane, witch flounder, and yellowtail flounder (two stocks).

In July 2013 the South Atlantic, Mid-Atlantic, and New England Fishery Management Councils signed a Memorandum of Understanding (MOU) to help coordinate the protection of deep sea corals off the east coast of the United States from Maine to eastern Florida. The MOU will serve as a framework for cooperation during the development and implementation of management measures to protect deep sea corals. Rather than establish specific requirements for each council, the MOU identifies areas of consensus and strategies to promote more effective coordination of deep sea coral conservation efforts among the councils. In the New England Region, the NEFMC is considering the designation of “deep sea coral zones” where management measures would be applied to areas in the Gulf of Maine, canyon areas off Georges Bank and southern New England, and for the four New England seamounts in the U.S. Exclusive Economic Zone.

There are two catch share programs in the New England Region. These are the: 1) Northeast Multispecies Sectors, and 2) Northeast General Category Atlantic Sea Scallop Individual Fishing Quota (IFQ) program. Below is a description of these catch share programs and their performance.

**Northeast Multispecies Sectors** This program was first developed between 2004-2006 and included two pilot sectors that operated with an allocation of Georges Bank cod. The program was expanded in 2010 to 17 sectors and approximately 55% of vessels with limited access permit joined a sector. At the same time, annual catch limits were implemented for the first time and sharply reduced the available quota for fishermen. The key performance indicators of this program show that since implementation from 2010 through 2011, total revenue, quota and landings of groundfish decreased while total revenue per active vessel and total revenue per trip increased.

**Northeast General Category Atlantic Sea Scallop IFQ** This program began implementation in 2010 with the primary objectives to 1) control capacity and mortality in the general category scallop fishery; and 2) allow for better and more timely integration of sea scallop assessment results in management. The key performance indicators of this program show that since implementation from 2010 through 2011, total revenue and average price per pound increased while landings decreased.

## Commercial Fisheries

In 2012, commercial fishermen in New England landed 664 million pounds of finfish and shellfish, earning \$1.2 billion in landings revenue. Landings revenue was dominated by American lobster (\$424 million) and sea scallop (\$389 million). These species groups commanded ex-vessel prices of \$2.86 and \$9.93 per pound, respectively, and comprised 68% of total landings revenue, but only 28% of total landings in New England.

### Economic Impacts<sup>1</sup>

In 2012, the New England Region's seafood industry generated \$603 million in sales impacts in Connecticut, \$1.9 billion in sales impacts in Maine, \$8.5 billion in sales impacts in Massachusetts, \$609 million in sales impacts in New Hampshire, and \$1.2 billion in sales impacts in Rhode Island. Massachusetts generated the largest impacts across the three other impact categories, generating 107,000 job, \$2.2 billion in income, and \$3.4 billion in value added impacts. The smallest income impacts were generated in Connecticut (\$128 million) and the smallest employment impacts were also generated in Connecticut (3,900 jobs).

### Key New England Region Commercial Species

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

The sector that generated the greatest employment impacts by state was the retail sector with 65,000 employment impacts in Massachusetts and 14,000 employment impacts in Maine. The harvest sector in Maine generated 15,000 employment impacts. More sales impacts were generated by importers in Massachusetts than any other sector in any another state in the region at \$4.4 billion and the greatest value added impacts were also generated by importers in Massachusetts (\$1.3 billion).

### Landings Revenue

Landings revenue in the New England Region totaled \$1.2 billion in 2012. This was a 72% increase (a 24% increase in real terms) from 2003 levels (\$691 million) and a 8.1% increase (a 8.5% increase in real terms) relative to 2011 (\$1.1 billion). Totalling \$947 million in 2012, shellfish revenue experienced a 93% increase (a 38% increase in real terms) from 2003 to 2012 and experienced a 6.4% increase (6.8% increase in real terms) from 2011 to 2012.

Massachusetts had the highest landings revenue in the region with \$618 million in 2012, followed by Maine (\$449 million) and Rhode Island (\$81 million). Massachusetts also had the highest landings total (298 million pounds), followed by Maine (263 million pounds) and Rhode Island (83 million pounds).

Massachusetts had the highest finfish landings revenue (\$128 million), in New England followed by Maine (\$77 million), and Rhode Island (\$28 million). Shellfish landings revenue was also dominated by Massachusetts (\$490 million) followed by Maine (\$372 million), and Rhode Island (\$52.4 million).

### Commercial Fisheries Facts

#### Landings revenue

- On average, between 2003 and 2012, the key species or species groups accounted for 85% of total revenue, generating \$793 million in the New England Region.
- American lobster had higher landings revenues than any other species or species group, averaging \$367 million in landings revenue from 2003 to 2012.
- Atlantic mackerel had the largest one-year increase in landings revenue over the 10 year time period, increasing 1196% from \$268,000 in 2011 to \$3.5 million in 2012.
- Atlantic mackerel had the largest one-year decrease in landings revenue over the 10 year time period, decreasing 92% from \$3.5 million in 2010 to \$268,000 in 2011.

#### Landings

- Key species or species groups contributed an average of 73% annually to total landings between 2003 and 2012.
- Atlantic herring contributed the most to landings in the region, averaging 189 million pounds from 2003 to 2012.
- Atlantic mackerel had the largest one-year increase in landings over the 10 year time period, increasing 1113% from 8.2 million in 2005 pounds to 100 million pounds in 2006.
- Atlantic mackerel had the largest one-year decrease in landings over the 10 year time period, decreasing 95% from 17 million pounds in 2010 to 883,000 pounds in 2011.

#### Prices

- Sea scallop had the highest average annual ex-vessel price per pound (\$7.20) over the time period, followed by bluefin tuna (\$6.58), and quahog clam (\$5.16).
- Atlantic herring had the lowest average annual ex-vessel price per pound (\$0.17) over the time period, followed by Atlantic mackerel (\$0.21), and squid (\$0.68).
- Atlantic herring had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 656% from \$0.09 per pound in 2005 to \$0.68 in 2006.
- Atlantic herring had the largest decrease in ex-vessel price over the 10 year time period, decreasing 82% from \$0.68 per pound in 2006 to \$0.12 in 2007.

American lobster and sea scallop had the highest landings revenue in the New England Region in 2012, with \$424 million and \$389 million, respectively. Together they accounted for 68% of total landings revenue in 2012. Between 2003 and 2012, the landings revenue from these species experienced a 53% increase for American lobster and 234% increase for sea scallop.

<sup>1</sup>The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: [www.st.nmfs.noaa.gov/documents/commercial\\_seafood\\_impacts\\_2007-2009.pdf](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf))

From 2003 to 2012, species or species groups with large changes in landings revenue include Atlantic herring (increased 87%), American lobster (increased 53%), and quahog clam (decreased 45%). Species or species groups with large changes in landings revenue between 2011 and 2012 include Atlantic mackerel (1196% increase), cod and haddock (39% decrease), and Atlantic herring (18% increase).

### Landings

Fishermen in the New England Region landed 664 million pounds of finfish and shellfish in 2012. This was a 0.6% increase from the 660 million pounds landed in 2003 and a 8.9% increase from the 610 million pounds landed in 2011. Finfish landings contributed 57% of total landings in the New England Region (381 million pounds) in 2012. From 2011 to 2012, finfish landings experienced a 7.3% increase. Shellfish landings experienced a 11% increase from 255 million pounds in 2011 to 283 million in 2012 and a 48% increase from 192 million pounds in 2003. Atlantic herring and American lobster had the highest annual landings in the New England Region in 2012, with 189 million pounds and 148 million pounds, respectively. Together they accounted for 51% of the total landings in 2012. Atlantic herring landings decreased 10% and American lobster landings increased 110% during this period.

From 2003 to 2012, species or species groups with large changes in landings include American lobster (increasing 110%), Atlantic mackerel (decreasing 72%), and quahog clam (decreasing 70%). Species or species groups with large changes in landings between 2011 and 2012 include Atlantic mackerel (increasing 993%), cod and haddock (decreasing 51%), and American lobster (increasing 18%).

### Prices

The ex-vessel prices for the New England Region's key species and species groups in 2012 were higher than their 10 year average for eight of the key species (six of the species in real terms). Ex-vessel prices for Atlantic mackerel and sea scallop experienced the biggest increases between 2003 and 2012, increasing 180% (98% in real terms) and 140% (69% in real terms), respectively. Relative to 2011 ex-vessel prices, New England's cod and haddock experienced the greatest increase (24.7%, 25.2% in real terms) from \$1.62 in 2011 to \$2.02 in 2012. American lobster experienced the greatest price decrease between 2011 and 2012 declining from \$3.34 to \$2.86 (14.4%, 14% in real terms). Relative to ex-vessel prices in 2011, seven species or species groups experienced increases, including cod and haddock (25%), and Atlantic mackerel (20%).

In Connecticut, the species or species group with the largest change in ex-vessel price from 2003 to 2012 was sea scallop (129% increase, 64% increase in real terms) from \$4.26 to \$9.75. The largest change in ex-vessel price experienced in Maine was for cod and haddock (105% increase, 47% increase in real terms

from \$1.21 to \$2.48 and in Massachusetts the largest change in ex-vessel price was experienced by sea scallop (136% increase, 69% increase in real terms) from \$4.21 to \$9.94.

### Recreational Fishing

In 2012, almost 1.3 million recreational anglers took 6.2 million fishing trips in the New England Region. Over 89% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 51% were taken from a private or rental boat and another 44% were shore-based. Porgies (scup) was the most frequently caught species or species group with 6.5 million fish caught in 2012 and represented 33% of total fish caught in the region. Of the Porgies (scup) caught, 54% of them were released rather than harvested.

### Economic Impacts and Expenditures<sup>1</sup>

The contribution of recreational fishing activities in the New England Region are reported in terms of economic impacts at the state level (employment, sales, income, and value added impacts) and expenditures on fishing trips and durable equipment at the regional level. Employment impacts in Massachusetts were the highest in the region with over 6,940 full- and part-time jobs generated by recreational fishing activities in the state. Rhode Island (1,800 jobs), and Maine (1,700 jobs), followed in terms of employment impacts.

#### Key New England Region Recreational Species

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

Overall, these employment impacts were generated by expenditures on recreational fishing trips taken by anglers (private or rental boat, for-hire boat, or shore-based trips) or expenditures on durable equipment. Throughout the New England Region, expenditures on durable equipment in 2012 generated more employment impacts than any other expenditure: 80% in Rhode Island, 76% in Maine, and 75% in Connecticut.

In addition to jobs, the contribution of recreational fishing activities to the New England Region's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value added impacts). In 2012, sales impacts were the highest in Massachusetts (\$848 million in sales impacts), followed by Rhode Island (\$192 million), Maine (\$164 million), Connecticut (\$148 million), and New Hampshire (\$48 million). In the same year, value added impacts were the highest in Massachusetts (\$574 million in value added impacts), followed by Rhode Island (\$121 million), Connecticut (\$108 million), Maine (\$99 million), and New Hampshire (\$32 million).

Overall, there were \$1.2 billion in expenditures on fishing trip

<sup>1</sup>Expenditure estimates were generated from the 2011 National Marine Recreational Fishing Expenditure Survey. Economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see The Economic Contribution of Marine Angler Expenditures in the United States, 2006, available at: <http://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2006>)

and durable equipment expenditures across the New England Region in 2012. Approximately 74% of these expenditures were durable equipment purchases. The greatest expenditures were for boat expenses (\$488 million), followed by fishing tackle (\$247 million), vehicle expenses (\$118 million), other equipment (\$54 million), and second home expenses (\$2.1 million). Fishing trip expenditures by New England's non-residents totaled over \$139 million, of which the greatest portion can be attributed to shore-based fishing trips (\$57 million). Residents of the New England Region spent \$180 million on saltwater fishing trips, with the most of these expenses related to private boat trips (\$112 million).

#### *Participation*

There were 1.3 million recreational anglers who fished in the New England Region in 2012. This was a 2.5% decrease from 2003 (1.3 million anglers). These anglers were New England Region residents from either a coastal (1.2 million anglers) or non-coastal county (144,000 anglers). Over 89% of total anglers in 2012 were residents of a coastal county. Coastal county angler participation in 2012 decreased 2.2% relative to 2003 (1.2 million anglers) and increased 1.3% between 2011 and 2012. Non-coastal county angler participation decreased 4.7% relative to 2003 (152,000 anglers) and increased 10% relative to 2011 (131,000 anglers).

#### *Fishing Trips*

Recreational fishermen took 6.2 million fishing trips in New England Region in 2012. This was a 28% decrease from the 2003 (8.6 million trips) and was 105,000 more trips than those taken in 2011. Approximately 51% of the saltwater trips were private or rental boat based (3.1 million trips). The other most popular mode of fishing was shore-based with 2.7 million trips in 2012.

#### *Harvest and Release*

The New England Region's species and species groups caught most frequently in 2012 were scup (6.5 million fish), Atlantic mackerel (3.8 million fish), bluefish (3.5 million fish), and striped bass (2.3 million fish) in 2012. Little tunny (91% released), summer flounder (79% released), striped bass (77% released), tautog (74% released), Atlantic cod (58% released), bluefish (56% released), and scup (54% released) were more often released rather than harvested.

Anglers harvested more often than released Atlantic mackerel (87% harvested) and bluefin tuna (71% harvested). In 2012, most of the striped bass were caught in Massachusetts (1.4 million fish) and Connecticut (330,000), making up 74% of the total catch. Atlantic mackerel were caught in large numbers in Maine and New Hampshire which represented 66% of the total catch of Atlantic mackerel in the New England Region. Between 2003 and 2012, six of the New England Region's key species or species groups showed decreases in catch totals. Key species or groups with the largest decreases were striped bass (69%), Atlantic cod (57%), and winter flounder (33%).

### **Recreational Fishing Facts**

#### *Participation*

- An average of 1.4 million anglers fished in the New England Region annually from 2003 to 2012.
- In 2012, coastal county residents made up 89% of total anglers in this region. These anglers averaged 88% 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 occurred between 2004 and 2005, increasing 17%, from 1.2 million anglers to 1.3 million anglers.
- The largest annual decrease during the same period for coastal anglers occurred between 2010 and 2011, decreasing 12%, from 1.3 million anglers to 1.2 million anglers.

#### *Fishing trips*

- In the New England Region, an average of 8.1 million fishing trips were taken annually from 2003 to 2012.
- Private or rental boat and shore-based fishing trips accounted for 3.1 million and 2.7 million fishing trips, respectively, in 2012. Together these made up 94% of the fishing trips taken in that year.
- The largest annual increase in the number of total trips taken annually over the 10 year time period occurred between 2004 and 2005, increasing 6.5%, from 8.6 million trips to 9.2 million trips.
- The largest annual decrease during the same period in total trips taken occurred between 2008 and 2009, decreasing 22%, from 9.1 million trips to 7.2 million trips.

#### *Harvest and release*

- Striped bass was the most commonly caught key species or species group, averaging 7.1 million fish over the 10 year time period. Of these, 92% were released rather than harvested.
- Of the ten commonly caught key species or species groups, seven were released more often than harvested over this time period.
- The species or species group that was most commonly released was little tunny (94% released).
- Atlantic mackerel (90% harvested), followed by winter flounder (60% harvested), and bluefin tuna (56% harvested) were key species or groups that experienced the greatest proportion of harvests rather than releases.

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

Across all sectors of the economy in Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island nearly 5.8 million full- and part-time employees were employed by about 363,000 establishments in 2011. Annual payroll totaled \$307 billion. Total employee compensation in the New England region totaled \$460 billion and the combined gross state product of all states totaled about \$779 billion. Commercial fishing location quotient (CFLQ) values were available for only two of the five states in the New England region: Maine and Connecticut. Both states show a higher concentration of fishing-related industries than the national economy as a whole. Maine had a CFLQ of

<sup>2</sup>Information for 2011 is reported in this section; 2012 data were not available for this report.



14.47 and Connecticut had a CFLQ of 2.33 in 2011

### *Seafood Sales and Processing*

In 2011, there were 117 nonemployer firms engaged in seafood product preparation and packaging across New England. Maine (51) and Massachusetts (36) had the most establishments in the sector. Nonemployer firms in the seafood product preparation and packaging sector in had receipts totaling \$8.6 million in 2011. The number of employer establishments in this sector decreased 22% from 110 in 2003 to 86 in 2011. The largest number of employer establishments (44) engaged in seafood product preparation and packaging was located in Massachusetts. The number of employees in the seafood product preparation and packaging sector decreased 23% from 4,050 employees in 2003 to 3,123 in 2011. Payroll in this sector was \$140 million in 2011, a small (5.8%) decline from 2003.

There were 358 seafood wholesale establishments in the New England region in 2011, a decrease of 13% from 2003. The great majority of these firms were located in Maine (152) or Massachusetts (141). The number of employees in the seafood wholesale sector increased 6.4% from 3,428 employees in 2003 to 3,648 in 2011. Payroll in this sector was \$156 million in 2011.

Nonemployer firms engaged in seafood retail sales in the New England region totaled 171 in 2011, a 2.3% decrease from 2003 levels. Massachusetts (66) and Maine (48) had the largest number of firms in this sector. Region-wide, there were 233 employer establishments in the seafood retail sales sector in 2011, a decrease of 6.8% from 2003. Most of these firms were in the located in Massachusetts (106) and Maine (51). The number of employees in the seafood wholesale sector decreased 12% from 1,269 employees in 2003 to 1,121 in 2011. Payroll in this sector was \$30 million in 2011.

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

The size of the Transport, Support, and Marine Operations sectors in the New England region is difficult to assess because much of the state-level data is suppressed for confidentiality purposes. It is clear, however, that these sectors play an important role in the regional economy. For example, 493 establishments were classified as marinas over all five states, employing 3,356 workers and spending \$163 million on payroll in 2011.

**2012 Economic Impacts of the New England Region Seafood Industry (thousands of dollars)**

	Landings Revenue	Jobs	Sales	Income	Valued Added
Connecticut	20,608	3,857	603,308	128,092	212,505
Massachusetts	618,247	107,064	8,483,740	2,223,411	3,381,475
Maine	448,544	32,971	1,875,020	615,930	892,006
New Hampshire	23,176	4,971	609,187	147,640	232,000
Rhode Island	80,787	10,509	1,224,565	295,885	468,920

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total revenue	690,692	821,573	970,516	1,132,841	895,381	808,816	787,206	960,142	1,102,427	1,191,363
Finfish & other	200,351	194,911	200,751	329,541	178,614	190,211	176,889	190,179	211,846	244,156
Shellfish	490,341	626,662	769,765	803,300	716,768	618,605	610,317	769,963	890,581	947,206
American lobster	277,946	368,649	408,719	395,289	359,783	317,909	305,195	397,826	418,107	424,001
Atlantic herring	15,274	14,931	20,085	163,420	18,770	20,507	24,459	20,654	24,312	28,614
Atlantic mackerel	4,404	10,416	2,923	14,491	6,000	5,265	7,892	3,459	268	3,474
Bluefin tuna	8,267	4,297	3,864	1,715	2,077	2,993	4,448	8,470	9,258	8,394
Cod & haddock	44,386	40,089	39,824	31,856	39,326	47,166	38,745	49,710	48,777	29,968
Flounders	47,221	43,737	42,339	37,757	33,650	30,501	27,282	27,683	30,848	36,301
Goosefish	30,031	27,960	34,408	26,603	21,209	19,945	14,321	14,064	19,792	19,652
Quahog clam	16,857	16,721	6,707	28,356	30,026	8,901	9,002	9,713	8,316	9,276
Sea scallop	116,454	158,014	250,762	264,226	237,299	203,124	209,168	265,531	352,647	389,321
Squid	17,283	28,133	20,206	25,850	17,711	19,848	16,696	14,788	22,887	23,978

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total landings	660,283	723,130	684,292	748,637	584,849	602,950	648,988	579,965	610,128	664,243
Finfish & other	468,511	487,785	461,038	496,743	371,353	396,942	422,726	334,444	354,967	380,746
Shellfish	191,772	235,345	223,254	251,894	213,496	206,009	226,263	245,521	255,162	283,497
American lobster	70,502	88,679	86,224	94,347	79,435	86,229	99,199	116,037	125,140	148,270
Atlantic herring	209,933	188,201	212,389	240,626	158,077	167,709	210,786	140,589	171,855	189,299
Atlantic mackerel	34,839	88,124	8,223	99,752	50,760	38,359	39,398	16,904	883	9,650
Bluefin tuna	1,787	704	837	274	300	447	772	1,201	1,085	915
Cod & haddock	38,482	34,158	30,500	19,785	24,856	33,122	32,470	39,261	30,109	14,822
Flounders	39,782	40,966	30,290	19,530	16,089	15,411	16,229	14,528	17,910	19,502
Goosefish	46,751	39,735	34,873	26,146	19,968	17,757	14,256	12,378	14,700	16,372
Quahog clam	5,173	6,231	1,088	6,195	4,630	1,468	1,628	1,790	1,513	1,570
Sea scallop	27,587	30,462	32,038	41,229	35,390	28,867	31,604	32,888	35,287	39,189
Squid	29,405	47,901	26,748	43,652	26,421	28,615	28,014	21,722	27,908	27,841

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	3.94	4.16	4.74	4.19	4.53	3.69	3.08	3.43	3.34	2.86
Atlantic herring	0.07	0.08	0.09	0.68	0.12	0.12	0.12	0.15	0.14	0.15
Atlantic mackerel	0.13	0.12	0.36	0.15	0.12	0.14	0.20	0.20	0.30	0.36
Bluefin tuna	4.63	6.10	4.62	6.26	6.93	6.69	5.76	7.05	8.54	9.18
Cod & haddock	1.15	1.17	1.31	1.61	1.58	1.42	1.19	1.27	1.62	2.02
Flounders	1.19	1.07	1.40	1.93	2.09	1.98	1.68	1.91	1.72	1.86
Goosefish	0.64	0.70	0.99	1.02	1.06	1.12	1.00	1.14	1.35	1.20
Quahog clam	3.26	2.68	6.16	4.58	6.49	6.06	5.53	5.43	5.50	5.91
Sea scallop	4.22	5.19	7.83	6.41	6.71	7.04	6.62	8.07	9.99	9.93
Squid	0.59	0.59	0.76	0.59	0.67	0.69	0.60	0.68	0.82	0.86

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Trips	Jobs	Sales	Income	Value Added
Connecticut	1,326,000	1,137	148,140	71,063	108,298
Massachusetts	2,826,000	6,942	848,039	369,995	573,813
Maine	637,000	1,664	163,679	64,338	98,718
New Hampshire	299,000	442	47,926	20,320	31,904
Rhode Island	1,076,000	1,794	192,367	75,373	121,230

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	247,169
For-Hire	54,616	22,944	Other Equipment	54,058
Private Boat	27,991	112,417	Boat Expenses	487,975
Shore	56,568	44,264	Vehicle Expenses	117,613
<i>Total Trip Expenditures</i>	139,177	179,625	Second Home Expenses	2,093
			<i>Total Durable Equipment Expenditures</i>	908,907
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>1,227,709</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	1,198	1,155	1,349	1,408	1,408	1,389	1,222	1,317	1,156	1,171
Non-Coastal	152	165	169	188	205	187	165	169	131	144
Out-of-State <sup>3</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total Anglers</b>	<b>1,349</b>	<b>1,319</b>	<b>1,518</b>	<b>1,596</b>	<b>1,614</b>	<b>1,576</b>	<b>1,387</b>	<b>1,486</b>	<b>1,288</b>	<b>1,316</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	318	332	418	457	518	511	463	321	367	345
Private Boat	4,426	4,370	5,060	4,651	4,820	4,893	3,375	3,967	3,161	3,132
Shore	3,833	3,935	3,719	4,107	3,951	3,735	3,322	2,925	2,531	2,687
<b>Total Trips</b>	<b>8,577</b>	<b>8,637</b>	<b>9,197</b>	<b>9,215</b>	<b>9,289</b>	<b>9,139</b>	<b>7,160</b>	<b>7,213</b>	<b>6,059</b>	<b>6,164</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic cod	H	704	421	485	203	305	384	390	509	532	336
	R	1,176	775	1,108	722	964	954	833	1,071	915	471
Atlantic mackerel	H	2,398	1,576	2,940	4,180	1,885	3,357	2,463	3,472	5,336	3,277
	R	213	174	62	559	116	453	344	381	536	484
Bluefin tuna	H	5	1	12	3	11	9	8	1	2	10
	R	5	4	8	7	10	1	5	(1)	5	4
Bluefish	H	1,188	1,232	1,200	1,647	1,513	1,460	673	1,184	658	1,502
	R	2,533	3,125	3,013	3,639	2,906	2,995	1,436	1,846	1,931	1,950
Little tunny <sup>1</sup>	H	4	9	(1)	1	5	(1)	1	2	(1)	10
	R	33	85	55	26	65	16	17	20	44	103
Porgies (scup)	H	4,181	5,202	1,595	1,426	3,048	1,944	1,498	2,411	2,287	2,952
	R	2,830	2,542	2,194	2,638	2,802	4,048	3,277	3,586	2,376	3,530
Striped bass	H	701	689	700	593	597	602	548	527	458	531
	R	6,761	7,253	9,943	14,094	8,367	7,714	4,164	2,769	2,040	1,780
Summer flounder	H	548	690	589	642	426	584	167	198	267	242
	R	1,071	896	1,419	2,850	1,044	2,112	908	818	1,252	937
Winter flounder	H	82	57	43	50	52	180	113	104	100	55
	R	41	36	42	46	44	70	102	86	60	28
Wrasses (tautog)	H	335	163	269	362	569	304	197	358	79	323
	R	669	366	594	638	1,426	515	396	562	384	909

<sup>3</sup>NA = data are not available because out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified

<sup>1</sup>This species may not be equivalent to species with similar names listed in the commercial tables.

**2012 Economic Impacts of the Connecticut Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	3,857	603,308	128,092	212,505
Commercial Harvesters	605	36,545	10,024	15,444
Seafood Processors & Dealers	164	17,087	6,525	8,435
Importers	1,638	450,451	72,193	137,317
Seafood Wholesalers & Distributors	239	38,724	12,675	17,030
Retail	1,211	60,501	26,674	34,278

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	29,825	33,399	37,570	36,892	42,053	17,206	15,007	17,626	19,662	20,608
Finfish & other	4,136	4,575	5,097	3,732	3,421	3,987	3,172	5,284	4,654	5,194
Shellfish	25,690	28,825	32,474	33,161	38,632	13,219	11,835	12,342	15,008	15,414
American lobster	3,170	3,166	3,821	4,031	3,222	2,102	1,763	1,894	782	1,026
Eastern oyster	2,274	1,356	ND <sup>2</sup>	2,206	5,142	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Flounders	896	1,075	1,170	1,027	881	802	736	892	1,038	1,003
Goosefish	683	580	658	346	512	551	591	564	976	1,000
Hake	1,602	2,028	2,432	1,628	1,232	1,619	1,149	1,417	1,705	1,460
Quahog clam	10,470	10,690	ND <sup>1</sup>	18,135	20,531	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Scups or Porgies	167	191	263	302	311	383	196	272	407	833
Sea scallop	8,125	11,203	9,761	7,229	8,605	10,032	8,952	9,458	13,007	11,996
Snails (conchs)	119	209	233	533	312	35	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Squid, loligo	1,400	1,298	1,224	954	744	546	260	473	694	1,713

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	16,420	18,192	13,628	11,750	10,050	7,131	6,568	6,698	7,090	8,673
Finfish & other	7,825	6,832	6,548	5,807	3,931	4,552	4,248	4,485	5,010	5,705
Shellfish	8,595	11,359	7,080	5,943	6,119	2,578	2,320	2,213	2,081	2,968
American lobster	671	647	714	793	569	426	412	442	159	241
Eastern oyster	279	186	ND <sup>1</sup>	77	193	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Flounders	565	637	582	458	345	283	308	334	429	356
Goosefish	1,023	897	524	496	460	424	546	358	630	716
Hake	2,875	2,936	3,735	2,632	1,839	2,465	2,194	2,151	2,199	2,011
Quahog clam	4,038	5,137	ND <sup>1</sup>	2,665	3,067	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Scups or Porgies	292	256	328	298	256	282	204	324	644	905
Sea scallop	1,908	2,172	1,272	1,104	1,313	1,407	1,386	1,260	1,318	1,230
Snails (conchs)	70	31	50	101	117	47	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Squid, loligo	1,572	1,699	1,537	1,157	811	523	256	366	498	1,376

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	4.72	4.89	5.35	5.08	5.67	4.93	4.27	4.29	4.91	4.25
Eastern oyster	8.14	7.30	ND <sup>1</sup>	28.61	26.64	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Flounders	1.59	1.69	2.01	2.25	2.55	2.84	2.39	2.67	2.42	2.82
Goosefish	0.67	0.65	1.26	0.70	1.11	1.30	1.08	1.58	1.55	1.40
Hake	0.56	0.69	0.65	0.62	0.67	0.66	0.52	0.66	0.78	0.73
Quahog clam	2.59	2.08	ND <sup>1</sup>	6.80	6.69	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Scups or Porgies	0.57	0.75	0.80	1.01	1.22	1.36	0.96	0.84	0.63	0.92
Sea scallop	4.26	5.16	7.67	6.55	6.55	7.13	6.46	7.51	9.87	9.75
Snails (conchs)	1.69	6.69	4.66	5.28	2.66	0.75	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Squid, loligo	0.89	0.76	0.80	0.82	0.92	1.04	1.01	1.29	1.39	1.25

<sup>2</sup>ND = these data are confidential thus not disclosable

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	37	6,331	3,368	4,807
Private Boat	176	24,994	8,956	15,344
Shore	70	7,368	2,621	4,232
Total Durable Equipment Impacts	854	109,447	56,118	83,915
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>1,137</b>	<b>148,140</b>	<b>71,063</b>	<b>108,298</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	15,395
For-Hire	1,383	2,660	Other Equipment	2,985
Private Boat	2,434	20,709	Boat Expenses	68,759
Shore	438	5,616	Vehicle Expenses	0
<i>Total Trip Expenditures</i>	<i>4,255</i>	<i>28,985</i>	Second Home Expenses	0
			<i>Total Durable Equipment Expenditures</i>	<i>87,139</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>120,379</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	361	297	323	336	302	381	438	402	420	397
Non-Coastal <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Out of State	112	63	77	44	61	123	93	112	98	67
<b>Total Anglers</b>	<b>473</b>	<b>359</b>	<b>400</b>	<b>380</b>	<b>363</b>	<b>504</b>	<b>531</b>	<b>514</b>	<b>518</b>	<b>464</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	64	30	35	50	64	74	43	41	46	26
Private	875	956	1,174	868	1,097	1,292	711	871	863	825
Shore	625	573	485	571	559	609	665	614	399	475
<b>Total Trips</b>	<b>1,564</b>	<b>1,559</b>	<b>1,694</b>	<b>1,489</b>	<b>1,720</b>	<b>1,975</b>	<b>1,419</b>	<b>1,526</b>	<b>1,308</b>	<b>1,326</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic cod	H	2	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	1
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Bluefish	H	458	589	247	507	451	623	262	591	307	480
	R	542	979	576	1,167	888	1,144	295	715	997	679
Hickory shad	H	71	12	54	63	35	(1)	(1)	1	16	39
	R	79	21	32	144	4	5	(1)	(1)	(1)	(1)
Little tunny <sup>3</sup>	H	1	(1)	(1)	(1)	(1)	(1)	(1)	1	(1)	(1)
	R	8	3	(1)	(1)	1	(1)	9	8	14	57
Porgies (scup)	H	1,529	1,072	508	532	925	549	289	1,088	933	868
	R	804	538	753	740	1,006	974	1,204	1,192	539	1,049
Striped bass	H	96	103	141	115	119	108	61	93	63	65
	R	843	827	1,762	987	985	3,105	1,161	671	612	265
Summer flounder	H	166	216	157	138	112	146	45	35	47	63
	R	475	270	779	1,111	297	991	428	373	345	306
White perch	H	11	(1)	(1)	(1)	(1)	7	60	(1)	(1)	10
	R	28	10	(1)	15	18	52	72	(1)	(1)	48
Winter flounder	H	24	3	4	(1)	(1)	(1)	12	14	19	9
	R	6	14	(1)	21	15	(1)	7	12	(1)	7
Wrasses (tautog)	H	168	16	36	201	353	167	86	116	26	194
	R	283	77	149	108	745	250	112	257	36	599

<sup>1</sup>Data is not available because all Connecticut residents are considered coastal county residents.<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>3</sup>This species may not be equivalent to species with similar names listed in the commercial tables.

## Connecticut's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	91,611 (1.3%)	1,550,867 (1.4%)	69,742 (1.7%)	100,146 (1.6%)	173,915 (1.6%)	ND
2011	88,040 (1.2%)	1,442,620 (1.3%)	82,131 (1.6%)	125,859 (1.5%)	225,409 (1.5%)	ND
%change	-3.90%	-6.98%	17.76%	25.68%	29.61%	NA

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	7	7	7	11	ND	18	16	17	14
	Receipts	1,022	1,404	551	3,206	ND	2,375	2,331	1,518	1,066
Seafood sales, retail	Firms	26	25	24	15	26	25	23	25	21
	Receipts	2,966	3,115	3,313	2,915	4,436	3,247	2,139	2,473	2,165

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	2	3	3	4	3	3	2	2	2
	Employees	ND	ND	113	119	ND	59	ND	ND	ND
	Payroll	ND	ND	3,656	4,242	ND	1,040	ND	ND	ND
Seafood Sales, wholesale	Establishments	19	19	17	19	20	24	25	23	24
	Employees	169	181	ND	ND	183	185	212	216	212
	Payroll	7,738	7,688	ND	ND	8,347	8,551	8,842	9,219	9,224
Seafood sales, retail	Establishments	34	38	39	35	36	35	36	39	37
	Employees	206	202	187	196	177	203	205	204	171
	Payroll	5,110	5,060	5,028	4,937	5,252	5,248	5,551	5,563	4,824

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	6	5	5	4	4	5	5	6	5
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	95
	Payroll	ND	ND	ND	ND	ND	ND	ND	8,148	7,856
Deep sea freight transportation	Establishments	12	13	11	14	14	12	12	10	11
	Employees	270	260	310	235	228	243	222	225	225
	Payroll	29,086	37,013	36,766	47,845	48,110	46,595	45,045	29,407	41,302
Deep sea passenger transportation	Establishments	2	2	2	1	2	1	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	116	117	117	119	124	125	126	129	128
	Employees	1,006	1,016	994	1,024	1,224	1,352	1,261	1,284	1,283
	Payroll	39,691	41,952	42,754	44,829	50,809	60,016	58,065	58,877	59,851
Marine cargo handling	Establishments	NA	1	3	3	5	4	3	3	3
	Employees	NA	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	NA	ND	ND	ND	5,925	ND	ND	ND	ND
Navigational services to shipping	Establishments	6	6	8	9	6	6	6	6	5
	Employees	ND	ND	45	69	ND	ND	5	ND	5
	Payroll	ND	ND	1,768	2,423	432	338	696	242	898
Port & harbor operations	Establishments	4	4	4	4	4	8	8	6	5
	Employees	ND	ND	ND	ND	ND	179	166	122	34
	Payroll	ND	ND	ND	ND	ND	6,136	5,787	2,162	848
Ship & boat building	Establishments	14	17	17	17	22	15	13	12	11
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Maine Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	32,971	1,875,020	615,930	892,006
Commercial Harvesters	14,718	860,955	235,563	385,184
Seafood Processors & Dealers	2,507	177,717	71,351	91,171
Importers	694	190,881	30,592	58,189
Seafood Wholesalers & Distributors	1,029	99,896	35,834	46,629
Retail	14,023	545,571	242,590	310,833

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	287,049	367,459	392,122	391,293	344,022	308,233	292,315	380,416	412,143	448,544
Finfish & other	49,292	48,904	47,141	38,552	36,833	36,695	30,367	30,177	43,816	76,765
Shellfish	237,757	318,555	344,982	352,742	307,189	271,538	261,948	350,239	368,327	371,780
American lobster	205,715	289,079	317,948	305,443	280,634	245,146	237,519	318,303	334,850	340,467
Atlantic herring	7,296	76	56	10,729	9,173	8,396	7,867	8,643	14,404	14,575
Bloodworms	5,292	7,524	6,039	5,177	6,051	5,913	6,196	5,874	5,847	4,902
Blue mussel	4,487	3,319	2,625	2,716	1,934	1,627	2,203	2,071	1,969	1,922
Cod & haddock	4,673	5,392	5,177	3,982	3,728	5,257	1,752	1,528	1,666	1,360
Goosefish	7,852	6,828	6,232	3,238	2,402	1,478	526	393	578	1,059
Ocean quahog clam	4,480	3,842	3,607	3,919	3,194	2,195	1,821	1,721	2,117	1,737
Pollock	2,206	2,346	3,106	2,309	2,160	2,321	2,047	1,503	1,929	2,521
Sea Urchins	8,569	7,866	5,142	4,741	4,367	5,410	5,866	5,490	5,113	5,024
Softshell clam	15,859	16,628	14,081	26,940	12,574	12,826	11,686	12,960	15,749	15,644

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	223,533	228,502	214,514	216,657	186,324	186,696	188,388	200,874	249,484	262,581
Finfish & other	141,621	130,368	121,278	117,637	93,742	94,641	82,505	79,373	122,944	121,104
Shellfish	81,912	98,134	93,236	99,020	92,582	92,056	105,883	121,500	126,540	141,478
American lobster	54,971	71,574	68,730	75,346	63,959	69,863	81,179	96,246	104,921	126,641
Atlantic herring	96,681	911	558	97,843	74,817	67,731	64,606	57,557	97,116	93,139
Bloodworms	594	615	456	462	549	537	574	533	526	432
Blue mussel	4,287	4,102	3,357	3,435	2,643	2,289	2,760	2,582	2,810	2,399
Cod & haddock	3,860	4,588	4,045	2,448	2,345	2,455	1,401	876	842	549
Goosefish	13,291	10,552	7,130	3,669	2,376	1,178	603	404	533	1,075
Ocean quahog clam	1,194	1,013	1,001	1,214	1,011	669	556	549	645	698
Pollock	4,085	4,189	5,260	3,678	4,245	4,064	3,040	1,640	2,325	2,659
Sea Urchins	5,963	5,742	3,517	3,372	2,761	2,900	3,487	2,592	2,407	1,904
Softshell clam	2,364	2,380	1,857	3,918	1,948	1,998	1,902	2,077	2,355	2,257

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	3.74	4.04	4.63	4.05	4.39	3.51	2.93	3.31	3.19	2.69
Atlantic herring	0.08	0.08	0.10	0.11	0.12	0.12	0.12	0.15	0.15	0.16
Bloodworms	8.91	12.24	13.24	11.20	11.02	11.01	10.79	11.03	11.12	11.35
Blue mussel	1.05	0.81	0.78	0.79	0.73	0.71	0.80	0.80	0.70	0.80
Cod & haddock	1.21	1.18	1.28	1.63	1.59	2.14	1.25	1.74	1.98	2.48
Goosefish	0.59	0.65	0.87	0.88	1.01	1.25	0.87	0.97	1.09	0.99
Ocean quahog clam	3.75	3.79	3.60	3.23	3.16	3.28	3.27	3.13	3.28	2.49
Pollock	0.54	0.56	0.59	0.63	0.51	0.57	0.67	0.92	0.83	0.95
Sea Urchins	1.44	1.37	1.46	1.41	1.58	1.87	1.68	2.12	2.12	2.64
Softshell clam	6.71	6.99	7.58	6.88	6.46	6.42	6.14	6.24	6.69	6.93



**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	88	7,802	3,484	5,259
Private Boat	51	5,739	1,746	3,051
Shore	263	24,278	7,824	13,482
Total Durable Equipment Impacts	1,262	125,860	51,284	76,926
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>1,664</b>	<b>163,679</b>	<b>64,338</b>	<b>98,718</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	24,467
For-Hire	4,196	890	Other Equipment	5,859
Private Boat	955	4,225	Boat Expenses	71,785
Shore	15,851	2,053	Vehicle Expenses	0
<i>Total Trip Expenditures</i>	<i>21,003</i>	<i>7,168</i>	Second Home Expenses	48
			<i>Total Durable Equipment Expenditures</i>	<i>102,159</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>130,330</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	165	113	190	182	174	121	117	122	85	116
Non-Coastal	23	21	20	22	13	9	12	9	7	6
Out of State	170	148	173	285	260	180	324	159	107	126
<b>Total Anglers</b>	<b>358</b>	<b>282</b>	<b>383</b>	<b>489</b>	<b>447</b>	<b>310</b>	<b>453</b>	<b>290</b>	<b>198</b>	<b>248</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	14	20	40	31	33	25	26	23	22	20
Private	410	337	519	548	460	408	334	327	265	212
Shore	495	421	524	497	531	421	544	366	240	405
<b>Total Trips</b>	<b>919</b>	<b>778</b>	<b>1,083</b>	<b>1,076</b>	<b>1,024</b>	<b>854</b>	<b>904</b>	<b>716</b>	<b>527</b>	<b>637</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)<sup>1</sup>**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American Shad	H	(1)	(1)	(1)	1	(1)	(1)	1	(1)	(1)	(1)
	R	1	2	(1)	7	4	5	18	9	5	18
Atlantic cod	H	11	5	29	14	19	41	45	15	40	26
	R	26	19	35	49	72	50	36	45	100	80
Atlantic mackerel	H	616	1,023	607	450	806	837	1,110	1,093	1,544	1,028
	R	106	87	29	104	80	265	194	178	304	163
Blue shark	H	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	1	(1)	9	2
Bluefin tuna	H	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Bluefish	H	14	16	38	8	50	30	3	14	(1)	4
	R	23	42	49	50	74	55	26	9	8	126
Haddock	H	1	4	6	9	12	20	10	4	12	4
	R	4	2	2	4	11	2	1	4	4	8
Pollock	H	10	59	28	67	51	67	62	58	57	50
	R	18	56	32	23	24	135	34	105	135	89
Striped bass	H	57	48	83	75	53	59	62	18	18	11
	R	847	694	2,985	4,001	1,116	465	264	193	143	214
Winter flounder	H	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	1	(1)	(1)	1	(1)	1	5	(1)	(1)	(1)

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

## Maine's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	40,701 (0.6%)	488,973 (0.4%)	14,791 (0.4%)	24,648 (0.4%)	41,510 (0.4%)	9.87
2011	40,112 (0.5%)	479,728 (0.4%)	17,764 (0.3%)	30,161 (0.4%)	52,489 (0.4%)	14.5
%change	-1.45%	-1.89%	20.10%	22.37%	26.45%	46.6 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	62	57	52	54	65	64	63	59	51
	Receipts	4,699	5,642	5,082	6,463	7,177	4,261	6,642	4,480	3,077
Seafood sales, retail	Firms	60	55	51	45	55	46	46	47	48
	Receipts	8,365	8,621	7,331	7,115	5,905	4,035	3,212	5,835	4,608

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	35	28	27	27	27	29	25	27	28
	Employees	656	576	614	616	536	490	545	594	500
	Payroll	13,999	19,767	12,349	12,304	9,351	9,288	10,427	12,851	10,353
Seafood Sales, wholesale	Establishments	181	177	177	167	170	168	164	164	152
	Employees	985	1,048	1,152	996	1,015	1,210	1,126	1,153	1,109
	Payroll	29,643	30,108	30,513	32,192	32,005	36,185	37,687	39,915	38,412
Seafood sales, retail	Establishments	51	50	49	55	50	45	49	51	51
	Employees	181	189	184	179	181	148	152	176	177
	Payroll	4,663	5,112	4,678	4,753	4,635	4,148	4,481	5,126	5,108

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	5	4	3	3	3	5	4	4	4
	Employees	ND	ND	ND	ND	ND	ND	22	28	ND
	Payroll	ND	ND	ND	ND	ND	1,058	1,037	1,067	1,105
Deep sea freight transportation	Establishments	2	2	1	1	NA	1	1	1	NA
	Employees	ND	ND	ND	ND	NA	ND	ND	ND	NA
	Payroll	ND	ND	ND	ND	NA	ND	ND	ND	NA
Deep sea passenger transportation	Establishments	1	1	1	1	2	1	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	79	84	84	84	86	87	89	86	84
	Employees	416	406	411	417	464	411	376	395	349
	Payroll	12,853	13,369	14,215	15,353	18,600	15,206	14,654	14,699	15,426
Marine cargo handling	Establishments	4	4	3	3	3	3	3	2	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Navigational services to shipping	Establishments	17	16	16	12	15	15	14	13	13
	Employees	106	91	88	93	105	138	93	68	63
	Payroll	5,521	4,927	5,890	6,260	6,737	6,148	5,369	4,928	4,776
Port & harbor operations	Establishments	1	1	1	1	2	2	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ship & boat building	Establishments	91	86	92	89	94	90	82	75	76
	Employees	7,630	7,753	ND	6,808	6,751	6,930	ND	ND	ND
	Payroll	332,332	328,179	ND	320,288	345,036	354,899	ND	ND	ND

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Massachusetts Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	107,064	8,483,740	2,223,411	3,381,475
Commercial Harvesters	14,433	1,129,399	363,207	530,658
Seafood Processors & Dealers	8,288	1,069,872	407,899	530,340
Importers	16,095	4,427,288	709,557	1,349,631
Seafood Wholesalers & Distributors	3,367	541,742	177,032	240,206
Retail	64,882	1,315,439	565,716	730,640

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	292,602	325,937	427,332	586,320	420,004	399,822	400,473	478,801	571,599	618,247
Finfish & other	116,767	109,163	117,003	252,456	109,370	121,913	114,361	126,594	132,685	128,232
Shellfish	175,835	216,774	310,330	333,863	310,634	277,909	286,112	352,206	438,915	490,016
American lobster	52,329	51,581	49,563	55,901	51,258	45,418	42,731	50,389	53,367	53,346
Atlantic herring	5,461	4	69	149,733	8,265	11,342	15,062	10,251	8,717	11,697
Atlantic mackerel	1,888	6,542	ND <sup>1</sup>	10,320	4,736	4,265	4,528	1,487	137	654
Clams, all other	823	4,721	19,010	14,045	15,680	15,255	16,745	17,966	19,157	37,296
Cod & haddock	36,668	31,452	31,954	25,397	32,043	38,696	33,684	45,210	43,397	26,101
Eastern oyster	ND <sup>1</sup>	24	2,738	4,864	4,559	5,496	6,432	8,225	9,079	12,069
Flounders	32,995	29,897	28,815	24,569	22,095	20,924	19,645	19,975	22,025	26,211
Goosefish	15,585	15,675	21,485	17,712	14,380	14,035	9,902	9,922	13,431	13,596
Ocean quahog clam	7,325	6,919	ND <sup>1</sup>	8,297	10,100	9,575	10,710	8,981	7,995	ND <sup>1</sup>
Sea scallop	106,938	144,748	226,949	234,796	218,292	189,891	197,280	252,292	330,959	364,896

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	295,439	337,603	337,304	396,910	304,774	326,632	356,105	283,046	264,533	297,561
Finfish & other	231,978	267,342	267,311	304,970	227,566	256,000	279,330	201,165	179,661	195,472
Shellfish	63,461	70,261	69,993	91,940	77,208	70,633	76,775	81,881	84,872	102,089
American lobster	11,385	11,295	9,880	12,100	10,145	10,600	11,782	12,773	13,386	14,483
Atlantic herring	79,873	40	700	119,547	73,268	94,266	133,531	71,922	66,495	81,781
Atlantic mackerel	23,451	72,687	ND <sup>1</sup>	89,535	46,240	35,406	30,199	12,156	515	4,131
Clams, all other	1,045	6,315	19,881	7,071	4,135	4,376	6,552	10,242	13,352	35,054
Cod & haddock	32,013	26,926	24,539	15,833	20,298	28,537	28,515	36,461	27,164	13,164
Eastern oyster	ND <sup>1</sup>	9	105	87	123	138	159	215	231	310
Flounders	29,418	30,704	22,115	13,170	10,977	11,609	12,405	11,158	13,692	15,404
Goosefish	23,979	22,357	21,849	17,495	13,597	12,680	10,015	8,887	10,143	11,583
Ocean quahog clam	14,226	14,085	ND <sup>1</sup>	16,830	20,158	18,126	18,691	15,646	12,479	ND <sup>1</sup>
Sea scallop	25,371	27,944	29,045	36,666	32,540	27,011	29,782	31,160	33,093	36,728

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	4.60	4.57	5.02	4.62	5.05	4.28	3.63	3.94	3.99	3.68
Atlantic herring	0.07	0.09	0.10	1.25	0.11	0.12	0.11	0.14	0.13	0.14
Atlantic mackerel	0.08	0.09	ND <sup>1</sup>	0.12	0.10	0.12	0.15	0.12	0.27	0.16
Clams, all other	0.79	0.75	0.96	1.99	3.79	3.49	2.56	1.75	1.43	1.06
Cod & haddock	1.15	1.17	1.30	1.60	1.58	1.36	1.18	1.24	1.60	1.98
Eastern oyster	ND <sup>1</sup>	2.74	26.09	56.10	37.00	39.77	40.36	38.30	39.25	38.96
Flounders	1.12	0.97	1.30	1.87	2.01	1.80	1.58	1.79	1.61	1.70
Goosefish	0.65	0.70	0.98	1.01	1.06	1.11	0.99	1.12	1.32	1.17
Ocean quahog clam	0.51	0.49	ND <sup>1</sup>	0.49	0.50	0.53	0.57	0.57	0.64	ND <sup>1</sup>
Sea scallop	4.21	5.18	7.81	6.40	6.71	7.03	6.62	8.10	10.00	9.94

<sup>1</sup>ND = these data are confidential thus not disclosable

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	764	89,148	42,839	62,902
Private Boat	695	100,605	37,140	61,604
Shore	767	96,697	35,205	57,033
Total Durable Equipment Impacts	4,716	561,589	254,811	392,274
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>6,942</b>	<b>848,039</b>	<b>369,995</b>	<b>573,813</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	142,300
For-Hire	37,997	16,229	Other Equipment	38,647
Private Boat	18,408	70,231	Boat Expenses	268,579
Shore	34,964	31,586	Vehicle Expenses	107,225
<i>Total Trip Expenditures</i>	<i>91,369</i>	<i>118,047</i>	Second Home Expenses	2,045
			<i>Total Durable Equipment Expenditures</i>	<i>558,795</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>768,211</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	434	535	585	623	664	655	489	586	490	502
Non-Coastal	112	131	135	151	179	170	144	152	115	130
Out of State	306	335	391	484	465	469	421	433	293	309
<b>Total Anglers</b>	<b>852</b>	<b>1,000</b>	<b>1,112</b>	<b>1,258</b>	<b>1,309</b>	<b>1,293</b>	<b>1,054</b>	<b>1,171</b>	<b>897</b>	<b>941</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	145	210	236	231	233	255	240	154	189	204
Private	2,329	2,273	2,336	2,411	2,440	2,338	1,760	2,148	1,319	1,471
Shore	1,611	1,968	1,739	1,938	1,947	1,929	1,451	1,186	1,305	1,151
<b>Total Trips</b>	<b>4,085</b>	<b>4,451</b>	<b>4,311</b>	<b>4,580</b>	<b>4,620</b>	<b>4,522</b>	<b>3,451</b>	<b>3,488</b>	<b>2,813</b>	<b>2,826</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic bonito	H	11	5	30	13	4	7	4	1	5	5
	R	(1)	2	9	38	12	9	1	3	(1)	(1)
Atlantic cod	H	582	349	387	119	232	260	213	412	360	229
	R	938	658	932	423	658	671	581	884	542	240
Atlantic mackerel	H	1,313	479	1,926	3,603	951	2,024	471	2,083	1,649	1,133
	R	45	77	17	423	27	152	68	185	43	160
Bluefish	H	374	355	549	652	683	519	344	474	225	336
	R	1,019	1,294	1,813	1,843	1,240	1,302	953	1,029	598	714
Haddock	H	76	127	247	121	293	233	155	144	52	90
	R	130	56	62	63	56	158	36	33	12	68
Porgies (scup)	H	1,625	3,313	657	424	1,770	762	1,069	925	786	1,587
	R	1,221	1,486	751	1,096	1,183	1,688	1,741	1,858	1,174	1,805
Striped bass	H	407	446	341	314	316	378	345	340	256	379
	R	4,362	4,980	3,989	7,810	5,331	3,649	2,282	1,671	972	990
Summer flounder	H	177	225	267	239	138	233	50	45	58	76
	R	245	348	358	610	135	273	96	215	183	250
Winter flounder	H	44	45	38	43	41	169	87	86	69	46
	R	31	15	41	21	19	62	84	68	58	18
Wrasses (tautog)	H	47	22	72	80	91	34	25	45	33	25
	R	189	67	126	332	414	78	96	118	210	96

<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.

## Massachusetts's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	178,675 (2.5%)	2,974,779 (2.6%)	127,100 (3.1%)	182,985 (2.9%)	297,692 (2.7%)	8.98
2011	169,146 (2.3%)	2,960,712 (2.6%)	165,193 (3.2%)	239,177 (2.9%)	388,575 (2.6%)	ND
%change	-5.33%	-0.47%	29.97%	30.71%	30.53%	NA

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	23	25	28	36	24	26	22	27	36
	Receipts	676	2,284	2,266	2,525	908	1,250	1,944	2,082	2,433
Seafood sales, retail	Firms	59	64	59	62	57	64	62	61	66
	Receipts	5,409	5,933	5,528	4,905	4,421	7,982	6,889	6,287	7,640

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	55	53	50	47	52	44	44	44	44
	Employees	2,717	2,743	2,671	2,607	2,684	2,355	2,396	2,159	2,214
	Payroll	110,917	112,642	115,704	120,912	113,580	109,747	119,282	107,635	112,399
Seafood Sales, wholesale	Establishments	163	148	151	139	160	141	144	149	141
	Employees	1,880	1,890	1,836	1,706	1,803	1,442	1,542	1,591	2,013
	Payroll	74,431	75,689	76,070	77,106	81,863	68,898	70,864	83,467	94,105
Seafood sales, retail	Establishments	124	128	116	115	126	118	115	112	106
	Employees	720	686	677	692	737	549	542	584	576
	Payroll	17,760	17,454	17,725	18,165	19,267	15,017	15,261	16,495	16,037

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	13	13	10	12	14	14	12	12	10
	Employees	ND	688	ND	623	283	169	166	ND	ND
	Payroll	ND	36,533	ND	38,421	18,620	11,701	10,011	ND	ND
Deep sea freight transportation	Establishments	10	10	10	11	12	8	10	8	7
	Employees	ND	ND	ND	509	ND	361	ND	313	381
	Payroll	ND	ND	ND	38,982	ND	38,908	35,473	36,069	38,797
Deep sea passenger transportation	Establishments	1	1	4	4	1	NA	1	NA	NA
	Employees	ND	ND	ND	ND	ND	NA	ND	NA	NA
	Payroll	ND	ND	ND	ND	ND	NA	ND	NA	NA
Marinas	Establishments	145	135	139	141	173	175	177	175	176
	Employees	969	989	973	1,064	1,154	1,138	1,188	1,150	1,125
	Payroll	40,700	41,474	43,103	45,894	51,705	53,694	56,663	57,002	58,251
Marine cargo handling	Establishments	6	6	5	4	5	3	2	2	2
	Employees	ND	ND	ND	ND	69	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	2,867	2,271	ND	ND	ND
Navigational services to shipping	Establishments	5	7	6	11	9	8	11	9	9
	Employees	ND	ND	ND	ND	65	75	71	150	139
	Payroll	ND	ND	ND	ND	4,540	4,355	4,342	9,413	6,980
Port & harbor operations	Establishments	3	3	3	4	3	4	4	8	6
	Employees	ND	ND	ND	ND	69	63	66	86	95
	Payroll	ND	ND	ND	ND	647	1,289	1,323	2,662	3,035
Ship & boat building	Establishments	53	55	50	47	49	43	38	37	37
	Employees	ND	ND	588	ND	588	603	579	535	445
	Payroll	ND	ND	20,050	ND	26,445	28,402	20,685	20,196	22,066

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the New Hampshire Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	4,971	609,187	147,640	232,000
Commercial Harvesters	682	40,648	11,488	17,841
Seafood Processors & Dealers	512	55,586	21,842	28,164
Importers	1,407	387,099	62,040	118,005
Seafood Wholesalers & Distributors	287	37,173	13,104	17,244
Retail	2,082	88,681	39,166	50,746

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	15,127	17,214	22,084	18,970	17,021	17,471	17,754	20,599	23,483	23,176
Finfish & other	5,748	6,449	6,840	5,122	4,151	4,824	5,569	5,122	6,147	5,553
Shellfish	9,380	10,765	15,244	13,848	12,870	12,647	12,186	15,477	17,336	17,622
American lobster	ND <sup>1</sup>	10,199	14,377	12,582	12,517	12,267	11,919	14,836	16,343	17,130
Atlantic cod	1,853	2,244	1,913	1,732	1,972	2,311	2,587	2,187	2,500	1,741
Atlantic herring	1,170	3	ND <sup>1</sup>	3	147	134	271	375	208	353
Goosefish	1,097	1,456	1,484	783	375	290	280	212	207	153
Haddock	144	157	136	128	123	89	68	29	35	95
Hake	303	200	279	165	244	167	215	237	445	474
Pollock	589	569	1,138	1,502	902	1,093	1,283	839	1,355	1,199
Sea scallop	375	276	527	126	30	16	4	3	26	143
Shrimp	212	222	340	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Spiny dogfish	27	0	ND <sup>1</sup>	76	ND <sup>1</sup>	419	557	293	451	427

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	27,435	23,796	21,281	10,295	8,430	10,464	13,886	11,809	12,315	12,138
Finfish & other	24,747	21,074	18,081	7,463	5,174	7,180	10,093	7,026	7,144	7,549
Shellfish	2,688	2,722	3,200	2,832	3,256	3,284	3,793	4,783	5,171	4,590
American lobster	ND <sup>1</sup>	2,097	2,556	2,357	2,469	2,567	2,985	3,648	3,919	4,216
Atlantic cod	1,458	1,633	1,293	1,024	1,168	1,479	1,984	1,227	1,286	725
Atlantic herring	18,933	32	ND <sup>1</sup>	22	936	1,198	3,120	2,830	1,514	2,391
Goosefish	1,629	1,640	1,226	621	325	250	250	172	153	126
Haddock	108	123	99	73	61	53	45	18	19	45
Hake	729	405	372	157	313	222	423	322	587	1,135
Pollock	1,109	1,202	1,997	2,566	2,025	2,456	2,017	1,042	1,732	1,037
Sea scallop	100	44	76	21	4	2	1	0	3	12
Shrimp	223	432	567	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Spiny dogfish	175	0	ND <sup>1</sup>	242	ND <sup>1</sup>	1,370	2,073	1,214	1,646	1,805

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	ND <sup>1</sup>	4.86	5.62	5.34	5.07	4.78	3.99	4.07	4.17	4.06
Atlantic cod	1.27	1.37	1.48	1.69	1.69	1.56	1.30	1.78	1.94	2.40
Atlantic herring	0.06	0.10	ND <sup>1</sup>	0.12	0.16	0.11	0.09	0.13	0.14	0.15
Goosefish	0.67	0.89	1.21	1.26	1.15	1.16	1.12	1.23	1.36	1.21
Haddock	1.33	1.27	1.38	1.76	2.01	1.70	1.52	1.57	1.91	2.12
Hake	0.41	0.49	0.75	1.05	0.78	0.75	0.51	0.74	0.76	0.42
Pollock	0.53	0.47	0.57	0.59	0.45	0.45	0.64	0.81	0.78	1.16
Sea scallop	3.76	6.22	6.89	5.92	8.26	7.68	7.22	8.84	10.35	11.68
Shrimp	0.95	0.51	0.60	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Spiny dogfish	0.16	0.18	ND <sup>1</sup>	0.32	ND <sup>1</sup>	0.31	0.27	0.24	0.27	0.24

<sup>1</sup>ND = these data are confidential thus not disclosable

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	98	10,631	5,129	7,582
Private Boat	54	7,071	2,565	4,393
Shore	24	2,378	809	1,356
Total Durable Equipment Impacts	266	27,846	11,817	18,573
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>442</b>	<b>47,926</b>	<b>20,320</b>	<b>31,904</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	9,844
For-Hire	4,439	2,473	Other Equipment	2,601
Private Boat	742	5,904	Boat Expenses	9,420
Shore	1,245	597	Vehicle Expenses	6,405
<i>Total Trip Expenditures</i>	<i>6,427</i>	<i>8,974</i>	Second Home Expenses	0
			<i>Total Durable Equipment Expenditures</i>	<i>28,270</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>43,671</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	91	81	105	90	97	63	67	46	56	58
Non-Coastal	16	13	14	15	13	8	9	7	10	9
Out of State	75	69	84	82	63	46	58	33	30	54
<b>Total Anglers</b>	<b>182</b>	<b>163</b>	<b>203</b>	<b>187</b>	<b>172</b>	<b>118</b>	<b>134</b>	<b>86</b>	<b>96</b>	<b>121</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	35	28	53	92	114	90	98	62	71	55
Private	230	154	238	182	233	139	147	90	178	163
Shore	150	161	214	227	155	103	155	92	48	81
<b>Total Trips</b>	<b>415</b>	<b>343</b>	<b>505</b>	<b>501</b>	<b>502</b>	<b>332</b>	<b>400</b>	<b>244</b>	<b>297</b>	<b>299</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	H	(1)	1	(1)	(1)	3	(1)	(1)	(1)	(1)	(1)
	R	1	2	2	9	1	2	(1)	1	(1)	1
Atlantic cod	H	108	66	68	66	53	81	128	80	128	64
	R	207	96	138	248	234	232	209	130	259	150
Atlantic mackerel	H	409	71	407	115	128	496	882	295	2,143	1,116
	R	61	10	16	32	9	36	82	18	189	160
Bluefin tuna	H	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	2	(1)
Bluefish	H	8	15	21	9	34	6	(1)	2	2	9
	R	17	9	49	24	18	3	2	(1)	1	4
Bottomfish, unidentified	H	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Haddock	H	44	68	102	167	97	90	100	48	76	74
	R	128	22	38	109	43	18	28	11	20	114
Pollock	H	62	57	60	77	70	52	39	52	100	65
	R	42	35	35	46	17	20	49	75	105	147
Striped bass	H	25	8	25	13	7	6	9	6	32	14
	R	260	226	573	461	257	78	58	51	98	64
Winter flounder	H	6	2	1	7	10	10	10	2	12	(1)
	R	2	2	1	3	7	6	5	5	2	1

<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.



## New Hampshire's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	38,294 (0.5%)	540,306 (0.5%)	18,846 (0.5%)	28,546 (0.4%)	48,768 (0.4%)	ND
2011	37,031 (0.5%)	554,001 (0.5%)	24,370 (0.5%)	36,561 (0.4%)	63,333 (0.4%)	ND
%change	-3.30%	2.53%	29.31%	28.08%	29.87%	NA

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	7	4	4	4	5	ND	ND	3	7
	Receipts	1,205	1,147	842	1,087	927	ND	ND	687	856
Seafood sales, retail	Firms	14	15	11	10	11	17	14	11	11
	Receipts	960	1,438	1,330	1,496	1,540	1,894	1,858	1,502	2,152

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	11	10	10	10	7	7	8	8	8
	Employees	322	448	418	ND	ND	ND	115	292	231
	Payroll	13,676	18,886	16,275	ND	ND	ND	3,234	10,971	12,010
Seafood Sales, wholesale	Establishments	11	12	10	9	8	8	8	8	7
	Employees	ND	82	ND	ND	92	101	88	80	84
	Payroll	ND	2,511	ND	ND	3,360	4,142	4,268	4,171	4,123
Seafood sales, retail	Establishments	12	12	12	15	15	14	14	12	16
	Employees	ND	ND	79	78	93	83	95	102	88
	Payroll	ND	ND	2,053	2,201	2,077	2,011	2,299	2,296	1,934

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	NA	NA	1	1	1	NA	NA	NA	NA
	Employees	NA	NA	ND	ND	ND	NA	NA	NA	NA
	Payroll	NA	NA	ND	ND	ND	NA	NA	NA	NA
Deep sea freight transportation	Establishments	1	1	2	2	1	1	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Deep sea passenger transportation	Establishments	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Employees	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Payroll	NA	NA	NA	NA	NA	NA	NA	NA	NA
Marinas	Establishments	40	40	38	35	35	37	37	35	34
	Employees	196	226	194	ND	171	173	146	135	139
	Payroll	9,043	9,315	8,871	ND	7,774	8,114	7,022	6,920	7,090
Marine cargo handling	Establishments	NA	NA	NA	NA	1	NA	NA	NA	NA
	Employees	NA	NA	NA	NA	ND	NA	NA	NA	NA
	Payroll	NA	NA	NA	NA	ND	NA	NA	NA	NA
Navigational services to shipping	Establishments	3	3	4	4	2	2	2	2	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Port & harbor operations	Establishments	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Employees	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Payroll	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ship & boat building	Establishments	10	8	6	6	8	9	8	7	7
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Rhode Island Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	10,509	1,224,565	295,885	468,920
Commercial Harvesters	2,197	139,410	42,190	65,722
Seafood Processors & Dealers	520	54,866	21,261	27,628
Importers	2,793	768,281	123,132	234,206
Seafood Wholesalers & Distributors	575	70,189	24,870	32,724
Retail	4,423	191,819	84,433	108,640

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	66,088	77,565	91,408	99,365	72,282	66,085	61,657	62,701	75,540	80,787
Finfish & other	24,408	25,821	24,672	29,680	24,839	22,792	23,421	23,002	24,544	28,413
Shellfish	41,679	51,744	66,736	69,685	47,443	43,293	38,236	39,698	50,995	52,374
All other flounders	2,728	2,136	1,734	3,503	3,585	2,171	1,455	593	806	1,024
American lobster	16,731	14,624	23,009	17,333	12,151	12,976	11,264	12,404	12,765	12,033
Atlantic herring	1,195	1,187	1,075	2,947	982	631	1,260	1,385	981	1,987
Atlantic mackerel	2,385	3,815	2,888	4,138	1,182	882	3,301	1,886	73	2,798
Goosefish	4,813	3,421	4,549	4,525	3,540	3,590	3,022	2,973	4,600	3,844
Quahog clam	6,370	5,868	3,438	3,529	4,010	3,273	2,849	3,293	3,920	5,169
Scups or porgies	2,098	1,990	2,319	2,927	2,767	2,324	2,640	2,833	3,312	3,904
Sea scallop	279	1,512	13,268	20,822	8,963	2,170	2,342	2,156	6,834	9,191
Squid	14,319	25,133	16,973	22,601	15,339	17,687	15,249	12,590	20,380	18,682
Summer flounder	4,060	5,309	5,866	5,093	4,346	4,485	4,502	5,534	6,408	6,937

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	97,456	115,037	97,565	113,025	75,271	72,027	84,041	77,538	76,706	83,290
Finfish & other	62,340	62,169	47,820	60,867	40,940	34,570	46,549	42,395	40,208	50,917
Shellfish	35,116	52,868	49,745	52,158	34,331	37,458	37,492	35,143	36,498	32,373
All other flounders	2,428	2,360	1,315	1,850	1,871	1,144	1,027	358	615	663
American lobster	3,475	3,064	4,344	3,752	2,293	2,772	2,840	2,929	2,754	2,689
Atlantic herring	13,440	13,491	11,605	23,150	7,537	4,504	9,528	8,279	6,717	11,968
Atlantic mackerel	10,768	15,269	8,075	10,143	4,242	2,385	9,057	4,356	132	5,467
Goosefish	6,830	4,288	4,143	3,864	3,209	3,225	2,841	2,556	3,242	2,873
Quahog clam	1,131	1,080	642	385	610	556	511	599	666	903
Scups or porgies	3,814	3,425	3,424	3,643	3,932	2,151	3,619	4,299	6,335	6,309
Sea scallop	76	249	1,612	3,283	1,357	310	356	267	690	944
Squid	25,862	43,697	22,135	39,617	23,718	26,417	26,452	19,799	25,996	23,518
Summer flounder	2,178	3,085	2,925	2,123	1,516	1,473	1,794	2,289	2,824	2,409

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
All other flounders	1.12	0.90	1.32	1.89	1.92	1.90	1.42	1.66	1.31	1.54
American lobster	4.82	4.77	5.30	4.62	5.30	4.68	3.97	4.24	4.64	4.48
Atlantic herring	0.09	0.09	0.09	0.13	0.13	0.14	0.13	0.17	0.15	0.17
Atlantic mackerel	0.22	0.25	0.36	0.41	0.28	0.37	0.36	0.43	0.55	0.51
Goosefish	0.70	0.80	1.10	1.17	1.10	1.11	1.06	1.16	1.42	1.34
Quahog clam	5.63	5.43	5.35	9.16	6.57	5.88	5.58	5.50	5.89	5.72
Scups or porgies	0.55	0.58	0.68	0.80	0.70	1.08	0.73	0.66	0.52	0.62
Sea scallop	3.67	6.07	8.23	6.34	6.61	7.00	6.58	8.07	9.90	9.73
Squid	0.55	0.58	0.77	0.57	0.65	0.67	0.58	0.64	0.78	0.79
Summer flounder	1.86	1.72	2.01	2.40	2.87	3.04	2.51	2.42	2.27	2.88

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	118	11,640	5,616	8,205
Private Boat	158	18,144	6,384	10,702
Shore	79	8,965	3,198	5,301
Total Durable Equipment Impacts	1,439	153,618	60,175	97,022
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>1,794</b>	<b>192,367</b>	<b>75,373</b>	<b>121,230</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	55,163
For-Hire	6,601	692	Other Equipment	3,966
Private Boat	5,452	11,348	Boat Expenses	69,432
Shore	4,070	4,412	Vehicle Expenses	3,983
<i>Total Trip Expenditures</i>	16,123	16,451	Second Home Expenses	0
			<i>Total Durable Equipment Expenditures</i>	132,544
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>165,118</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	147	129	145	177	171	169	111	161	105	99
Non-Coastal <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Out of State	253	237	241	291	229	297	209	225	190	169
<b>Total Anglers</b>	<b>400</b>	<b>366</b>	<b>386</b>	<b>468</b>	<b>401</b>	<b>465</b>	<b>320</b>	<b>387</b>	<b>296</b>	<b>268</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	60	44	54	53	74	67	56	41	39	40
Private	582	650	793	642	590	716	423	531	536	461
Shore	952	812	757	874	759	673	507	667	539	575
<b>Total Trips</b>	<b>1,594</b>	<b>1,506</b>	<b>1,604</b>	<b>1,569</b>	<b>1,423</b>	<b>1,456</b>	<b>986</b>	<b>1,239</b>	<b>1,114</b>	<b>1,076</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic bonito	H	2	3	1	(1)	5	(1)	(1)	(1)	(1)	(1)
	R	4	8	(1)	(1)	4	1	(1)	(1)	(1)	(1)
Atlantic cod	H	1	1	1	4	1	2	4	2	4	16
	R	5	2	3	2	(1)	1	7	12	14	1
Black seabass	H	70	27	86	41	44	52	36	161	50	102
	R	204	23	64	161	117	128	133	212	221	767
Bluefish	H	334	257	345	471	295	282	64	103	124	673
	R	932	801	526	555	686	491	160	93	327	427
Porgies (scup)	H	1,027	817	430	470	353	633	140	398	568	497
	R	805	518	690	802	613	1,386	332	536	663	675
Striped bass	H	116	84	110	76	102	51	71	70	89	62
	R	449	526	634	835	678	417	399	183	215	247
Summer flounder	H	205	249	165	264	176	204	72	118	162	103
	R	351	278	280	1,129	612	848	383	230	724	381
Winter flounder	H	8	7	(1)	(1)	1	1	4	2	(1)	(1)
	R	1	5	(1)	(1)	3	1	1	1	(1)	2
Wrasses (tautog)	H	120	125	161	81	125	103	86	197	20	104
	R	197	222	319	198	267	187	188	187	138	214
Yellowfin tuna	H	2	(1)	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	11	(1)	2	(1)	(1)	(1)	(1)	(1)	(1)	(1)

<sup>1</sup>Data is not available because all Rhode Island residents are considered coastal county residents.<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.

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

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	29,333 (0.4%)	427,455 (0.4%)	14,538 (0.4%)	23,046 (0.4%)	40,664 (0.4%)	3.19
2011	28,181 (0.4%)	406,222 (0.4%)	17,275 (0.3%)	27,850 (0.3%)	49,423 (0.3%)	2.33
%change	-3.93%	-4.97%	18.83%	20.85%	21.54%	-27 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	ND	ND	6	8	8	7	9	6	9
	Receipts	ND	ND	2,024	1,662	2,291	1,376	1,045	907	1,168
Seafood sales, retail	Firms	16	14	16	24	23	19	16	17	25
	Receipts	2,227	2,186	2,215	3,266	3,536	2,748	2,821	2,769	3,033

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	7	7	7	7	6	8	7	5	4
	Employees	355	355	270	231	196	270	275	193	178
	Payroll	10,381	10,867	5,549	6,137	6,876	6,354	5,821	6,096	5,544
Seafood Sales, wholesale	Establishments	38	35	32	36	35	29	34	32	34
	Employees	394	259	206	188	224	226	202	204	230
	Payroll	15,724	12,269	9,851	10,209	11,447	10,505	9,534	9,815	10,264
Seafood sales, retail	Establishments	29	34	31	28	27	23	24	26	23
	Employees	162	163	140	ND	109	94	127	113	109
	Payroll	2,870	2,707	2,447	ND	2,207	2,027	2,398	2,309	2,232

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	1	1	1	1	1	2	1	1	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Deep sea freight transportation	Establishments	1	2	2	2	2	2	2	2	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Deep sea passenger transportation	Establishments	3	NA	NA	NA	1	1	1	1	1
	Employees	ND	NA	NA	NA	ND	ND	ND	ND	ND
	Payroll	ND	NA	NA	NA	ND	ND	ND	ND	ND
Marinas	Establishments	61	60	66	63	68	73	70	72	71
	Employees	405	475	408	457	463	476	459	428	460
	Payroll	14,456	15,111	15,843	18,748	22,029	23,204	21,372	22,227	22,618
Marine cargo handling	Establishments	1	1	1	2	2	5	5	5	5
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Navigational services to shipping	Establishments	8	8	8	7	7	8	8	8	8
	Employees	46	ND	ND	ND	ND	ND	ND	ND	107
	Payroll	2,585	ND	ND	ND	ND	5,904	3,728	3,955	4,002
Port & harbor operations	Establishments	2	2	2	2	2	2	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ship & boat building	Establishments	37	38	36	38	37	39	33	29	30
	Employees	ND	ND	ND	1,325	1,374	1,342	1,085	954	916
	Payroll	ND	ND	ND	52,682	55,788	54,225	41,246	40,004	33,316

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

ND- these data are confidential and therefore not available

NA- these data are not available



# Mid-Atlantic

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



### Management Context

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

#### Mid-Atlantic Region FMPs

1. Atlantic mackerel squids and butterfish
2. Atlantic Bluefish
3. Spiny dogfish (with the NEFMC)
4. Summer flounder scup and black sea bass
5. Surfclam and ocean quahog
6. Golden tilefish
7. Monkfish (with the NEFMC)

None of the stocks or stock complexes in this region are currently overfished or subject to overfishing. Currently, the MAFMC is working on amendments to the Atlantic mackerel, squid and butterfish FMP to protect deepsea corals from the impacts of bottom-tending fishing gear in the Mid-Atlantic; and an omnibus amendment to consider alternative accountability measures for the recreational Atlantic mackerel, bluefish, summer flounder, scup, and black sea bass fisheries. There are two catch share programs in the Mid-Atlantic. These are the: 1) Atlantic Surfclam and Ocean Quahog Individual Transferable Quota (ITQ) program and 2) Golden Tilefish Individual Fishing Quota (IFQ) program. Below is a description of these catch share programs and their performance. Since the surfclam and ocean quahog fisheries are prosecuted as independent fisheries despite being in the same ITQ program, they are discussed separately below.

**Atlantic Surfclam ITQ Program** This program was implemented in 1990 to conserve the surfclam resource and stabilize harvest rates; simplify regulatory requirements to minimize public and private management costs; promote economic efficiency by bringing harvest capacity in line with processing and biological capacity; and create a management approach that is flexible and adaptive to short-term events or circumstances. The key performance indicators of this program show that since implementation from 1990 through 2011, quota of surfclam increased while landings, total revenue, and price of surfclams per bushel decreased.

**Atlantic Ocean Quahog ITQ Program** This program was implemented in 1990 to conserve the quahog resource and stabilize harvest rates; simplify regulatory requirements to minimize public and private management costs; promote economic efficiency by bringing harvest capacity in line with processing and biological capacity; and create a management approach that is flexible and adaptive to short-term events or circumstances. The

key performance indicators of this program show that since implementation from 1990 through 2011, quahog price per bushel increased while quota, landings, and total revenue decreased.

**Golden Tilefish IFQ Program** This program was implemented in 2009 to reduce overcapacity and eliminate problems associated with the race to fish golden tilefish. The golden tilefish IFQ program is unique because many key events occurred outside the traditional management process. Prior to the implementation of the IFQ program, fishermen crafted internal agreements that aided cooperation. Their cooperative operations helped fishing businesses stay viable under new regulations, which laid the foundation for implementing the IFQ program. The key performance indicators of this program show that since implementation from 2009 through 2011, the average price per pound of golden tilefish increased while quota, landings, and total revenue decreased.



## Commercial Fisheries

In 2012, commercial fishermen in the Mid-Atlantic Region landed 751 million pounds of finfish and shellfish, earning \$488 million in landings revenue. Landings revenue was dominated by sea scallop (\$169 million) and blue crab (\$100 million). These species commanded ex-vessel prices of \$9.58 and \$1.16 per pound, respectively, and comprised 55% of total landings revenue, but only 14% of total landings in the Mid-Atlantic Region.

### Key Mid-Atlantic Region Commercial Species

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

New Jersey and Virginia had the highest landings revenue in the region in 2012, \$188 million and \$176 million, respectively. These two states were followed by Maryland (\$78 million). In terms of pounds landed, Virginia had the highest landings (462 million pounds), followed by New Jersey (181 million pounds) and Maryland (73 million pounds).

### Economic Impacts<sup>1</sup>

In 2012, the Mid-Atlantic region's seafood industry generated 137,477 jobs, \$18 billion in sales, \$4 billion in income, and \$6.5 billion in value added impacts across all five states. The smallest economic impacts were generated in Delaware (367 jobs, \$47 million in sales, \$9.6 million in income, and \$16 million in value added) while the largest impacts were generated in New Jersey (50,754 jobs, \$7.9 billion in sales, \$1.8 billion in income, and \$2.9 billion in value added).

The sector that generated the greatest employment impacts by state was the retail sector with 26,000 jobs in New York. More sales impacts were generated by importers in New Jersey than any other sector in any another state in the region at \$5.5 billion and the greatest value added impacts were also generated by importers in New Jersey (\$1.7 billion).

<sup>1</sup>The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: [www.st.nmfs.noaa.gov/documents/commercial\\_seafood\\_impacts\\_2007-2009.pdf](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf))

## Commercial Fisheries Facts

### Landings revenue

- On average, between 2003 and 2012, the key species or species groups accounted for 84% of total revenue, generating \$375 million in the Mid-Atlantic Region.
- Sea scallop had higher landings revenues than any other species or species group, averaging \$163 million in landings revenue from 2003 to 2012.
- Squid had the largest one-year increase in landings revenue over the 10 year time period, increasing 120% from \$6.5 million in 2003 to \$14 million in 2004.
- Eastern oyster had the largest one-year decrease in landings revenue over the 10 year time period, decreasing 45% from \$12 million in 2010 to \$6.6 million in 2011.

### Landings

- Key species or species groups contributed an average of 85% annually to total landings between 2003 and 2012.
- Menhaden, contributed the most to landings in the region, averaging 439 million pounds from 2003 to 2012.
- Squid had the largest one-year increase in landings over the 10 year time period, increasing 297% from 10 million in 2003 pounds to 42 million pounds in 2004.
- Squid had the largest one-year decrease in landings over the 10 year time period, decreasing 71% from 42 million pounds in 2004 to 12 million pounds in 2005.

### Prices

- Sea scallop had the highest average annual ex-vessel price per pound (\$6.92) over the time period, followed by quahog clam (\$6.58), and Eastern oyster (\$5.72).
- Menhaden had the lowest average annual ex-vessel price per pound (\$0.07) over the time period, followed by Atlantic surf clam (\$0.59), and squid (\$0.69).
- Squid had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 121% from \$0.34 per pound in 2004 to \$0.75 in 2005.
- Squid had the largest decrease in ex-vessel price over the 10 year time period, decreasing 48% from \$0.86 per pound in 2009 to \$0.45 in 2010.

### Landings Revenue

Landings revenue in the Mid-Atlantic Region totaled \$488 million in 2012. This was a 37% increase (a 2% decrease in real terms) from 2003 levels (\$357 million) and a 8.6% decrease (a 8.2% decrease in real terms) relative to 2011 (\$534 million). Totaling \$358 million in 2012, shellfish revenue experienced a 33% increase (a 4.9% decrease in real terms) from 2003 to 2012 and experienced a 13% decrease (13% decrease in real terms) from 2011 to 2012.

Virginia earned the most from finfish landings (\$62 million), followed by New Jersey (\$29 million), and New York (\$24 million). Shellfish landings revenue was dominated by New Jersey (\$159 million), followed by Virginia (\$114 million), and Maryland (\$63 million).

Sea scallop and blue crab had the highest landings revenue in the Mid-Atlantic Region in 2012. Between 2003 and 2012, the landings revenue from sea scallop increased 51% (a 8.1% increase in real terms) and the landings revenue for blue crab 65% increase (a 18% increase in real terms).

From 2003 to 2012, species or species groups with large changes in landings revenue include squid (increased 174%), blue crab (increased 65%), and menhaden (increased 64%). Species or species groups with large changes in landings revenue between 2011 and 2012 include eastern oyster (increasing 28%), quahog clam (increasing 27%), and Atlantic surf clam (decreasing 27%).

#### *Landings*

Fishermen in the Mid-Atlantic Region landed 751 million pounds of finfish and shellfish in 2012. This was a 5.7% increase from the 711 million pounds landed in 2003 but a 5.1% decrease from the 791 million pounds landed in 2011. Finfish landings contributed 76% of total landings in the Mid-Atlantic Region (568 million pounds) in 2012. From 2011 to 2012, finfish landings experienced a 1.7% decrease. Over the same time period, shellfish landings experienced a 14% decrease from 213 million pounds in 2011 to 183 million pounds in 2012 and a 6.6% decrease from 196 million pounds in 2003. Menhaden and blue crab had the highest annual landings in the Mid-Atlantic Region in 2012, with 492 million pounds and 86 million pounds, respectively. Together they accounted for 77% of the total landings in 2012. Menhaden landings increased 23% and blue crab landings increased 54% from 2003 to 2012.

From 2003 to 2012, species or species groups with large changes in landings include squid (increasing 149%), Atlantic surf clam (decreasing 65%), and blue crab (increasing 54%). Species or species groups with large changes in landings between 2011 and 2012 include quahog clam (increasing 57%), eastern oyster (increasing 29%), and Atlantic surf clam (decreasing 26%).

#### *Prices*

The ex-vessel prices for the Mid-Atlantic Region's key species and species groups in 2012 were higher than their 10 year average for seven of the key species (two of the species in real terms). Ex-vessel prices for sea scallop and summer flounder experienced the biggest increases between 2003 and 2012, increasing 141% (72.9% in real terms) and 51% (8.5% in real terms), respectively. Relative to the ex-vessel prices in 2011, the Mid-Atlantic Region's summer flounder experienced the greatest increase (22.8%, 23.3% in real terms) from \$1.80 in 2011 to \$2.21 in 2012. Of the changes in ex-vessel price experienced by species or species groups between 2011 and 2012, quahog clam experienced the greatest decrease (19.5%, 19.1% in real terms) from \$8.53 to \$6.87. Relative to ex-vessel prices in 2011, four species or species groups experienced increases, including summer flounder (23%), and blue crab (18%).

In Delaware, the species or species group with the largest change in ex-vessel price from 2003 to 2012 was weakfish (105%

increase, 47% increase in real terms) from \$0.91 to \$1.87. The largest change in ex-vessel price experienced in Maryland was for White perch (89% increase, 36% increase in real terms from \$0.38 to \$0.72 and in New Jersey the largest change in ex-vessel price was experienced by atlantic mackerel (222% increase, 131% increase in real terms from \$0.09 to \$0.29).

#### **Recreational Fishing**

In 2012, over 2.3 million recreational anglers took 14 million fishing trips in the Mid-Atlantic Region. Over 92% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 53% of them were taken from a private or rental boat and another 40% were shore-based. Summer flounder were the most frequently caught species or species group with 15 million fish caught in 2012, and represented 26% of total fish caught in the region. Of the summer flounder caught, 87% of them were released rather than harvested.

#### *Economic Impacts and Expenditures<sup>1</sup>*

The contribution of recreational fishing activities in the Mid-Atlantic Region are reported in terms of economic impacts at the state level (employment, sales, income, and value added impacts) and expenditures on fishing trips and durable equipment at the regional level. Employment impacts in New Jersey were the highest in the region with over 13,000 full- and part-time jobs generated by recreational fishing activities in the state. Virginia (8,100 jobs), and Maryland (5,700 jobs), followed in terms of employment impacts.

Overall, these employment impacts were generated by expenditures on recreational fishing trips taken by anglers (private or rental boat, for-hire boat, or shore-based trips) and expenditures on durable equipment. Throughout the Mid-Atlantic Region, most of the employment impacts in 2012 were generated by expenditures on durable equipment: 83% in Virginia, 80% in New Jersey, and 78% in Maryland.

In addition to employment impacts, the contribution of recreational fishing activities to Mid-Atlantic Region's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value added impacts). In 2012, sales impacts were the highest in New Jersey (\$1.9 billion in sales impacts), followed by Virginia (\$834 million), Maryland (\$637 million), New York (\$381 million), and Delaware (\$118 million). In the same year, value added impacts were the highest in New Jersey (\$1.1 billion in value added impacts), followed by Virginia (\$540 million), Maryland (\$426 million), New York (\$242 million), and Delaware (\$83 million).

Overall, total fishing trip and durable equipment expenditures across the Mid-Atlantic Region in 2012 were \$3.5 billion. Approximately 79% of these expenditures were generated by durable equipment purchases. The greatest expenditures were for boat expenses (\$1.3 billion), followed by fishing tackle (\$693 million), vehicle expenses (\$407 million), other equipment (\$178 million), and second home expenses (\$165 million). Fishing trip-related expenditures by the Mid-Atlantic Region's

<sup>1</sup>Expenditure estimates were generated from the 2011 National Marine Recreational Fishing Expenditure Survey. Economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see The Economic Contribution of Marine Angler Expenditures in the United States, 2006, available at: <http://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2006>)

non-residents totaled over \$211 million of which the greatest portion can be attributed to private boat-based fishing trips (\$94 million). Residents of the Mid-Atlantic Region spent \$521 million on saltwater fishing trips, with the most of these expenses generated by private boat trips (\$316 million).

#### Key Mid-Atlantic Region Recreational Species

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

#### Participation

There were 2.3 million recreational anglers who fished in the Mid-Atlantic Region in 2012. This was a 4.4% decrease from 2003 (2.4 million anglers). These anglers were Mid-Atlantic Region residents from either a coastal county (2.1 million anglers) or non-coastal county (175,000 anglers). About 92% of total anglers in 2012 were residents of a coastal county. Coastal county angler participation in 2012 decreased 6.1% relative to 2003 (2.2 million anglers) and decreased 7% between 2011 and 2012. Non-coastal county angler participation increased 22% relative to 2003 (144,000 anglers) and increased 20% relative to 2011 (145,000 anglers).

#### Fishing Trips

Recreational fishermen took 14 million fishing trips in the Mid-Atlantic Region in 2012. This was a 27% decrease from 2003 (20 million trips) and was 1.5 million fewer trips than taken in 2011. Of the total trips taken in the Mid-Atlantic Region in 2012, approximately 53% of the trips were private or rental boat-based (7.7 million trips). The other most popular mode of fishing was shore based with 5.8 million trips in 2012.

#### Harvest and Release

Of the Mid-Atlantic Region's key species and species groups, summer flounder (15 million fish), Atlantic croaker (13 million fish), black seabass (8.8 million fish) and bluefish (6.9 million fish) were the most often caught by anglers in 2012. Summer flounder (87% released), black seabass (87% released), tautog (87% released), weakfish drum (86% released), striped bass (78% released), scup (70% released), Atlantic croaker (64% released), and bluefish (62% released) were more often released rather than harvested. Anglers harvested more often than released winter flounder (55% harvested) and drum (spot) (52% harvested) .

#### Recreational Fishing Facts

##### Participation

- An average of 2.8 million anglers fished in the Mid-Atlantic Region annually from 2003 to 2012.
- In 2012, coastal county residents made up 92% of total anglers in this region. These anglers averaged 93% 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 occurred between 2004 and 2005, increasing 27%, from 2.4 million anglers to 3 million anglers.
- The largest annual decrease during the same period for coastal anglers occurred between 2008 and 2009, decreasing 14%, from 2.8 million anglers to 2.4 million anglers.

##### Fishing trips

- In the Mid-Atlantic Region, an average of 19 million fishing trips were taken annually from 2003 to 2012.
- Private or rental boat and shore-based fishing trips accounted for 7.7 million and 5.8 million fishing trips, respectively, in 2012. Together these made up 93% of the fishing trips taken in that year.
- The largest annual increase in the number of total trips taken annually over the 10 year time period occurred between 2004 and 2005, increasing 12%, from 19 million trips to 21 million trips.
- The largest annual decrease during the same period in total trips taken occurred between 2008 and 2009, decreasing 18%, from 21 million trips to 17 million trips.

##### Harvest and release

- Summer flounder was the most commonly caught key species or species group, averaging 20 million fish over the 10 year time period. Of these, 88% were released rather than harvested.
- Of the ten commonly caught key species or species groups, eight were released more often than harvested over this time period.
- The species or species group that was most commonly released was summer flounder (88% released).
- Spot (64% harvested), followed by winter flounder (60% harvested), and Atlantic croaker (47% harvested) were key species or groups that experienced the greatest proportion of harvests rather than releases.

At the state level, summer flounder was the most often caught key species or species group in the Mid-Atlantic Region with 15 million fish caught, region-wide. Most of these fish were caught in New Jersey, New York, and Delaware with 8.1 million, 5.5 million, and 298,000 fish, respectively. The most frequently caught fish in Maryland was white perch with 5.7 million fish and Atlantic croaker was the most commonly caught fish in Virginia (8.6 million) in 2012.

Between 2003 and 2012, ten of the Mid-Atlantic Region's key species or species groups showed decreases in catch totals. Key species or groups with the largest decreases were winter flounder (89%), scup (69%), and striped bass (54%).

<sup>1</sup>Information for 2011 is reported in this section; 2012 data were not available for this report.

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

Across all sectors of the economy in Delaware, Maryland, New Jersey, New York, and Virginia nearly 16 million full- and part-time employees were employed by about 1.1 million establishments in 2011. Annual payroll totaled \$883 billion. Total employee compensation in the Mid-Atlantic region totaled \$1.4 trillion and the combined gross state product of all states totaled about \$2.5 trillion. In 2011, the commercial fishing location quotient (CFLQ) for New Jersey was the highest in the region at 1.07. New Jersey's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately 1.07 times higher than the level of employment in these industries nationwide. CFLQ figures for 2011 were available for four out of the five states in the Mid-Atlantic region. Other than New Jersey, CFLQ's are much less than 1.

#### *Seafood Sales and Processing*

In 2011, there were more than 299 nonemployer firms engaged in seafood product preparation and packaging across the Mid-Atlantic region (data was not available for Delaware). This was a 62% increase from 2003 levels. New York (142) and Virginia (73) accounted for a large majority of nonemployer firms. Nonemployer firms in the seafood product preparation and packaging sector (excluding Delaware) had receipts totaling \$17 million in 2011. The number of employer establishments in this sector decreased 31% from 96 in 2003 to 66 in 2011. The largest number of employer establishments (18) engaged in seafood product preparation and packaging was located in New York and Virginia. The number of employees in the seafood product preparation and packaging sector decreased 37% from 3,135 employees in 2003 to 1,980 in 2011 (this excludes Delaware firms). Payroll in this sector (excluding Delaware) was \$85 million in 2011, a small (9.4%) decline from 2003.

There were 508 seafood wholesale establishments in the Mid-Atlantic region in 2011, a decrease of 3.6% from 2003. Most of these firms were located in New York. The number of employees in the seafood wholesale sector decreased 11% from 4,531 employees in 2003 to 4,055 in 2011. Payroll in this sector was \$172 million in 2011.

Nonemployer firms engaged in seafood retail sales in the Mid-Atlantic region totaled 424 in 2011, a 22% decrease from 2003 levels. New York, with 183, and Maryland, with 86 firms, had the largest number of firms in this sector. Nonemployer firms engaged in retail sales of seafood had receipts totaling \$41 million in 2011. Region-wide, there were 664 employer establishments in the seafood retail sales sector in 2011, a decrease of 3.1% from 2003. Most of these firms were located in New York (391) and New Jersey (109). The number of employees in the seafood wholesale sector increased 11% from 2,596 employees in 2003 to 2,880 in 2011. Payroll in this sector was \$65 million in 2011.

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

The size of the Transport, Support, and Marine Operations sectors in the Mid-Atlantic region is difficult to assess because much of the state-level data is suppressed for confidentiality purposes. It is clear, however, that these sectors play an important role in the regional economy. For example, more than 936 establishments were classified as marinas over all five states, employing 4,900 workers and spending \$201 million on payroll in 2011 (employee totals exclude Delaware). Marine cargo handling also accounted for 65 establishments employing more than 7,198 workers and contributing \$487 million in payroll across all of the states in the region. Coastal and deep sea freight transportation also played a large role in New York's economy.

**2012 Economic Impacts of the Mid-Atlantic Region Seafood Industry (thousands of dollars)**

	Landings Revenue	Jobs	Sales	Income	Valued Added
Delaware	7,897	367	46,713	9,607	15,690
Maryland	77,859	15,622	1,800,489	440,159	686,761
New Jersey	187,732	50,754	7,921,903	1,766,641	2,871,912
New York	39,136	51,681	6,366,436	1,352,047	2,243,446
Virginia	175,640	19,052	1,538,449	461,762	673,068

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total revenue	357,210	407,276	440,084	374,266	423,359	452,776	435,984	524,239	534,200	488,316
Finfish & other	87,702	87,648	101,538	106,473	104,001	91,595	102,038	113,919	122,523	130,581
Shellfish	269,508	319,628	338,547	267,793	319,358	361,181	333,946	410,321	411,678	357,735
American lobster	5,569	5,656	6,696	9,105	8,744	7,213	5,989	6,265	4,687	5,248
Atlantic surf clam	35,366	26,760	27,084	27,241	32,479	30,019	26,426	19,940	18,737	13,718
Blue crab	60,799	69,364	71,073	55,628	69,498	80,912	80,019	128,490	99,340	100,410
Eastern oyster	8,903	5,663	6,703	6,343	9,039	11,205	9,356	12,014	6,601	8,428
Menhaden	24,352	25,570	28,188	25,104	29,918	24,457	28,581	40,341	39,676	40,023
Quahog clam	20,160	19,918	20,773	20,230	23,601	35,853	23,022	28,880	19,994	25,351
Sea scallop	111,969	160,665	181,327	121,121	147,053	165,916	161,814	184,288	227,443	168,921
Squid	6,497	14,278	9,163	7,937	7,443	7,724	7,158	12,031	20,646	17,819
Striped Bass	9,751	7,633	11,335	9,958	10,993	10,671	11,459	11,419	12,653	14,608
Summer flounder	10,678	13,244	13,615	13,432	10,855	9,693	9,980	12,854	15,578	17,161

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total landings	710,738	757,107	708,741	690,920	750,026	687,838	695,009	814,205	791,154	751,144
Finfish & other	514,804	529,453	517,898	511,013	556,767	482,200	490,284	579,688	577,875	568,082
Shellfish	195,934	227,654	190,843	179,906	193,259	205,638	204,725	234,517	213,278	183,063
American lobster	1,181	1,394	1,585	1,772	1,604	1,520	1,576	1,549	1,085	1,266
Atlantic surf clam	64,601	50,984	50,921	46,631	53,952	48,099	41,692	30,945	30,272	22,418
Blue crab	56,047	68,979	70,983	61,862	65,070	67,975	76,097	119,684	101,485	86,424
Eastern oyster	1,493	859	1,202	962	2,388	1,778	1,438	1,768	1,451	1,865
Menhaden	398,744	421,309	412,672	400,662	472,086	397,537	395,469	499,867	496,847	492,402
Quahog clam	3,311	3,537	3,735	3,568	4,115	5,246	3,255	3,686	2,345	3,689
Sea scallop	28,213	33,381	24,526	18,747	22,793	24,355	25,646	23,998	23,385	17,627
Squid	10,462	41,586	12,260	10,520	8,607	8,241	8,310	26,822	33,333	26,069
Striped Bass	5,273	3,927	5,706	4,741	5,477	5,693	5,852	5,621	5,461	5,571
Summer flounder	7,315	8,400	8,360	6,608	4,725	4,260	5,137	6,386	8,659	7,777

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	4.71	4.06	4.22	5.14	5.45	4.75	3.80	4.04	4.32	4.15
Atlantic surf clam	0.55	0.52	0.53	0.58	0.60	0.62	0.63	0.64	0.62	0.61
Blue crab	1.08	1.01	1.00	0.90	1.07	1.19	1.05	1.07	0.98	1.16
Eastern oyster	5.96	6.59	5.58	6.60	3.79	6.30	6.51	6.79	4.55	4.52
Menhaden	0.06	0.06	0.07	0.06	0.06	0.06	0.07	0.08	0.08	0.08
Quahog clam	6.09	5.63	5.56	5.67	5.74	6.83	7.07	7.84	8.53	6.87
Sea scallop	3.97	4.81	7.39	6.46	6.45	6.81	6.31	7.68	9.73	9.58
Squid	0.62	0.34	0.75	0.75	0.86	0.94	0.86	0.45	0.62	0.68
Striped Bass	1.85	1.94	1.99	2.10	2.01	1.87	1.96	2.03	2.32	2.62
Summer flounder	1.46	1.58	1.63	2.03	2.30	2.28	1.94	2.01	1.80	2.21

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	<b>Trips</b>	<b>Jobs</b>	<b>Sales</b>	<b>Income</b>	<b>Value Added</b>
Delaware	876,000	1,242	117,752	53,406	82,821
Maryland	2,249,000	5,683	637,237	278,036	426,149
New Jersey	5,021,000	13,131	1,888,249	710,667	1,114,003
New York	3,766,000	2,959	381,299	151,104	241,947
Virginia	2,522,000	8,143	834,499	333,092	539,985

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

<b>Fishing Mode</b>	<b>Trip Expenditures</b>		<b>Equipment</b>	<b>Durable Expenditures</b>
	<b>Non-Residents</b>	<b>Residents</b>		
			Fishing Tackle	692,616
For-Hire	48,424	86,960	Other Equipment	177,611
Private Boat	93,530	315,650	Boat Expenses	1,297,310
Shore	68,958	118,729	Vehicle Expenses	407,263
<i>Total Trip Expenditures</i>	210,913	521,339	Second Home Expenses	164,876
			<i>Total Durable Equipment Expenditures</i>	2,739,674
<b>Total State Trip and Durable Equipment Expenditures</b>				3,471,926

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

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Coastal	2,229	2,363	3,002	2,876	3,234	2,823	2,437	2,598	2,244	2,093
Non-Coastal	144	157	252	224	212	197	187	178	145	175
Out-of-State <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total Anglers</b>	2,372	2,520	3,254	3,100	3,446	3,020	2,623	2,776	2,389	2,268

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

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
For-Hire	1,183	1,098	1,270	1,338	1,690	1,145	1,110	874	1,050	952
Private Boat	11,285	11,245	11,900	11,862	12,371	11,566	9,709	9,367	8,512	7,676
Shore	7,383	6,243	7,667	7,370	8,125	8,004	6,196	6,346	6,412	5,806
<b>Total Trips</b>	19,851	18,586	20,837	20,570	22,186	20,715	17,015	16,587	15,974	14,434

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)**

		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Black seabass	H	3,033	1,318	996	1,118	1,302	927	1,334	1,317	533	1,134
	R	8,382	5,530	5,412	5,737	6,404	8,475	6,273	6,459	3,204	7,666
Bluefish	H	3,191	4,140	4,671	3,902	4,946	3,517	2,934	2,558	2,467	2,640
	R	4,197	6,304	6,641	5,697	8,013	7,212	4,457	3,937	4,243	4,269
Drum (Atlantic croaker)	H	9,350	10,401	10,494	9,252	8,582	9,980	7,308	6,020	3,992	4,789
	R	9,424	8,965	12,242	7,419	11,026	12,910	9,404	6,232	5,389	8,429
Drum (spot)	H	4,771	2,604	4,769	6,659	11,997	6,557	4,347	3,699	4,032	2,850
	R	1,656	1,304	4,755	2,885	3,940	4,491	2,238	2,573	2,609	2,642
Porgies (scup)	H	5,270	1,949	993	2,005	1,698	1,544	1,637	2,736	770	713
	R	2,378	3,729	2,254	3,543	2,501	3,172	2,292	2,413	1,041	1,628
Striped bass	H	1,662	1,475	1,602	2,027	1,776	1,682	1,388	1,406	1,655	949
	R	7,802	9,578	8,032	9,227	7,729	4,789	3,802	3,468	3,781	3,411
Summer flounder	H	3,923	3,468	3,337	3,197	2,544	1,723	1,563	1,227	1,511	1,967
	R	14,901	15,125	20,358	14,547	16,577	18,432	21,371	21,400	18,467	13,317
Weakfish drum	H	308	418	1,103	555	333	372	38	14	7	158
	R	1,361	1,421	1,969	2,051	1,037	1,987	178	458	467	957
Winter flounder	H	541	268	133	325	107	44	76	55	93	44
	R	183	66	221	189	41	32	136	103	126	36
Wrasses (tautog)	H	383	600	279	678	727	669	693	762	351	166
	R	1,011	1,373	859	2,006	2,201	1,978	1,912	2,317	1,529	1,109

<sup>1</sup>NA = data are not available because out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified

**2012 Economic Impacts of the Delaware Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	367	46,713	9,607	15,690
Commercial Harvesters	164	14,469	3,443	4,662
Seafood Processors & Dealers	32	5,731	1,008	1,938
Importers	25	6,828	1,094	2,081
Seafood Wholesalers & Distributors	25	3,377	1,284	1,531
Retail	123	16,309	2,778	5,478

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	5,204	5,419	6,113	5,692	7,931	6,900	7,543	7,845	7,091	7,897
Finfish & other	1,465	1,258	1,273	1,330	1,300	1,100	1,068	1,074	1,328	1,241
Shellfish	3,739	4,161	4,840	4,361	6,631	5,801	6,475	6,772	5,763	6,657
American eel	230	169	100	275	292	190	134	206	274	159
Black sea bass	181	181	157	190	198	156	25	8	2	0
Blue crab	1,899	2,839	3,429	2,961	5,329	4,605	5,435	5,957	4,819	6,120
Eastern oyster	305	361	485	459	490	410	334	404	347	304
Quahog clam	435	175	220	ND <sup>2</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Sea scallop	ND <sup>1</sup>	12	102	99	ND <sup>1</sup>	256	173	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Spot	46	38	98	7	57	40	49	50	67	12
Striped bass	479	497	494	380	300	403	327	400	410	470
Weakfish	83	61	82	32	31	18	5	4	2	50
Whelks	1,079	690	562	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	5,018	4,288	4,851	4,380	5,346	4,706	5,011	5,214	4,921	5,239
Finfish & other	2,264	1,349	1,470	1,156	1,102	817	1,154	851	1,157	913
Shellfish	2,754	2,938	3,381	3,224	4,244	3,890	3,857	4,363	3,764	4,327
American eel	156	142	110	120	131	80	60	69	91	54
Black sea bass	98	84	73	87	73	61	6	3	4	0
Blue crab	1,792	2,276	2,924	2,856	3,799	3,508	3,414	4,110	3,502	4,201
Eastern oyster	76	79	84	75	80	67	67	71	62	52
Quahog clam	141	54	69	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Sea scallop	ND <sup>1</sup>	2	13	16	ND <sup>1</sup>	38	25	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Spot	77	59	155	8	62	32	61	60	82	17
Striped bass	191	176	174	137	143	189	184	185	185	190
Weakfish	91	51	71	18	25	11	3	2	1	27
Whelks	729	491	276	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American eel	1.48	1.19	0.91	2.28	2.22	2.38	2.24	3.00	3.03	2.93
Black sea bass	1.86	2.17	2.15	2.18	2.73	2.57	4.31	2.62	0.50	0.85
Blue crab	1.06	1.25	1.17	1.04	1.40	1.31	1.59	1.45	1.38	1.46
Eastern oyster	4.00	4.57	5.76	6.10	6.14	6.09	4.97	5.67	5.56	5.90
Quahog clam	3.09	3.26	3.18	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Sea scallop	ND <sup>1</sup>	5.18	8.08	6.27	ND <sup>1</sup>	6.81	6.80	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Spot	0.60	0.65	0.63	0.97	0.92	1.24	0.81	0.84	0.82	0.75
Striped bass	2.50	2.82	2.84	2.78	2.09	2.13	1.77	2.16	2.21	2.47
Weakfish	0.91	1.18	1.16	1.76	1.27	1.75	1.93	1.56	2.01	1.87
Whelks	1.48	1.41	2.04	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>

<sup>2</sup>ND = these data are confidential thus not disclosable



**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	35	3,911	1,785	2,648
Private Boat	170	20,126	5,809	9,946
Shore	178	17,956	5,560	9,276
Total Durable Equipment Impacts	859	75,759	40,252	60,951
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>1,242</b>	<b>117,752</b>	<b>53,406</b>	<b>82,821</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	25,234
For-Hire	2,028	660	Other Equipment	9,759
Private Boat	7,189	10,797	Boat Expenses	23,109
Shore	7,216	7,300	Vehicle Expenses	19,241
<i>Total Trip Expenditures</i>	<i>16,433</i>	<i>18,757</i>	Second Home Expenses	4,470
			<i>Total Durable Equipment Expenditures</i>	<i>81,813</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>117,003</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	127	116	120	137	150	134	114	128	129	111
Non-Coastal <sup>3</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Out of State	199	243	191	205	224	182	173	165	190	151
<b>Total Anglers</b>	<b>326</b>	<b>359</b>	<b>311</b>	<b>342</b>	<b>374</b>	<b>315</b>	<b>287</b>	<b>293</b>	<b>318</b>	<b>262</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	38	32	42	62	71	56	44	21	18	21
Private	552	654	553	595	721	528	487	408	511	481
Shore	514	389	431	427	459	444	379	391	397	374
<b>Total Trips</b>	<b>1,104</b>	<b>1,075</b>	<b>1,026</b>	<b>1,084</b>	<b>1,251</b>	<b>1,028</b>	<b>910</b>	<b>820</b>	<b>926</b>	<b>876</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic mackerel	H	(1)	13	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	2	(1)	(1)	(1)
Black seabass	H	306	44	68	114	93	22	37	22	43	40
	R	833	277	276	328	584	464	293	232	211	205
Bluefish	H	90	126	128	97	154	69	98	32	46	35
	R	120	408	190	289	539	167	167	58	128	118
Drum (Atlantic croaker)	H	341	389	825	764	359	370	452	76	92	88
	R	654	598	675	937	672	602	537	229	88	447
Drum (weakfish) <sup>5</sup>	H	20	5	19	11	4	4	6	(1)	(1)	5
	R	39	72	105	95	23	61	4	12	6	85
Striped bass	H	30	26	20	20	8	27	20	16	18	25
	R	169	156	251	248	248	261	145	65	110	110
Summer flounder	H	106	111	73	88	108	35	87	53	66	45
	R	415	737	795	445	1,072	604	964	618	616	253
White perch	H	30	63	36	69	34	40	64	187	112	70
	R	134	303	105	194	190	243	121	397	272	187
Wrasses (tautog)	H	63	71	61	111	100	102	120	57	45	47
	R	168	199	233	193	267	164	224	196	88	107
Yellowfin tuna	H	2	1	4	6	(1)	1	(1)	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)

<sup>3</sup>Data is not available because all Delaware residents are considered coastal county residents.<sup>4</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>5</sup>This species may not be equivalent to species with similar names listed in the commercial tables.

## Delaware's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	24,803 (0.3%)	385,129 (0.3%)	15,080 (0.4%)	21,381 (0.3%)	47,346 (0.4%)	0.12
2011	24,132 (0.3%)	359,602 (0.3%)	17,553 (0.3%)	26,445 (0.3%)	64,377 (0.4%)	ND
%change	-2.71%	-6.63%	16.40%	23.68%	35.97%	NA

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	ND	ND	3	3	ND	3	NA	ND	ND
	Receipts	ND	ND	64	214	ND	27	NA	ND	ND
Seafood sales, retail	Firms	7	9	12	9	12	9	9	9	9
	Receipts	959	803	1,523	835	1,025	418	664	1,107	1,226

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	1	1	1	1	1	1	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Seafood Sales, wholesale	Establishments	5	2	3	3	3	6	7	7	7
	Employees	ND	ND	ND	9	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	337	ND	ND	ND	ND	ND
Seafood sales, retail	Establishments	18	16	14	17	19	18	16	15	18
	Employees	ND	144	138	135	105	ND	50	47	49
	Payroll	ND	3,363	3,264	3,133	2,997	1,498	1,348	1,414	1,493

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	5	3	3	3	3	2	2	1	NA
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	NA
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	NA
Deep sea freight transportation	Establishments	2	1	1	NA	NA	4	4	5	2
	Employees	ND	ND	ND	NA	NA	ND	ND	120	ND
	Payroll	ND	ND	ND	NA	NA	ND	ND	10,768	ND
Deep sea passenger transportation	Establishments	NA	NA	1	NA	NA	NA	NA	1	NA
	Employees	NA	NA	ND	NA	NA	NA	NA	ND	NA
	Payroll	NA	NA	ND	NA	NA	NA	NA	ND	NA
Marinas	Establishments	17	17	16	18	17	19	16	19	17
	Employees	ND	ND	ND	ND	88	65	ND	65	ND
	Payroll	ND	ND	ND	ND	2,540	1,738	1,877	2,342	3,106
Marine cargo handling	Establishments	5	5	4	4	3	3	3	3	3
	Employees	513	ND	ND	597	527	629	ND	434	511
	Payroll	14,879	ND	ND	18,812	19,027	19,204	16,952	16,835	19,203
Navigational services to shipping	Establishments	10	9	9	8	8	9	8	8	8
	Employees	ND	ND	ND	75	76	79	85	76	78
	Payroll	ND	ND	ND	4,783	4,961	5,360	5,672	5,176	5,096
Port & harbor operations	Establishments	1	2	2	3	2	2	2	3	3
	Employees	ND	ND	ND	ND	ND	ND	ND	29	44
	Payroll	ND	ND	ND	ND	ND	ND	ND	1,182	1,512
Ship & boat building	Establishments	1	1	1	1	1	2	2	2	3
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Maryland Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	15,622	1,800,489	440,159	686,761
Commercial Harvesters	2,799	137,411	39,026	61,014
Seafood Processors & Dealers	1,872	166,315	64,812	82,761
Importers	4,041	1,111,728	178,176	338,903
Seafood Wholesalers & Distributors	843	113,163	38,467	51,077
Retail	6,066	271,872	119,678	153,006

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	49,038	49,200	63,754	53,597	65,329	73,196	75,893	104,882	77,987	77,859
Finfish & other	8,095	4,670	10,766	9,844	12,170	11,090	11,615	13,161	13,607	15,271
Shellfish	40,943	44,530	52,988	43,753	53,158	62,106	64,278	91,721	64,381	62,587
Atlantic croaker	576	751	543	359	335	442	415	509	469	655
Black sea bass	555	573	724	118	454	445	451	590	508	421
Blue crab	34,532	39,104	39,962	31,141	41,690	50,115	52,049	79,805	59,193	59,369
Clams or bivalves	5,170	4,654	4,784	4,889	5,074	5,436	4,403	5,400	3,921	2,254
Eastern oyster	706	181	3,435	1,238	3,146	2,277	3,849	4,361	ND <sup>1</sup>	ND <sup>1</sup>
Menhaden	337	232	1,514	650	1,379	915	884	755	714	1,654
Sea scallop	ND <sup>1</sup>	417	4,549	6,201	2,809	3,758	3,160	1,188	551	202
Striped bass	3,916	1,549	4,259	4,591	5,333	5,232	5,180	5,531	5,610	6,898
Summer flounder	527	444	677	550	546	578	551	546	463	350
White perch	556	347	848	569	619	776	942	1,158	1,482	1,319

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	49,350	49,509	67,489	51,212	61,585	63,534	66,819	102,916	77,555	73,415
Finfish & other	13,468	8,055	25,000	12,564	21,618	18,626	19,968	27,885	21,292	26,875
Shellfish	35,882	41,454	42,489	38,648	39,967	44,908	46,850	75,031	56,263	46,540
Atlantic croaker	1,532	1,801	1,389	738	576	778	550	622	784	1,026
Black sea bass	313	284	337	43	171	159	126	203	183	141
Blue crab	27,816	33,826	34,914	29,446	30,778	34,872	38,801	66,661	50,027	42,690
Clams or bivalves	7,527	7,270	6,112	7,756	7,947	8,600	6,292	6,971	5,374	2,961
Eastern oyster	159	43	738	274	317	249	498	430	ND <sup>1</sup>	ND <sup>1</sup>
Menhaden	4,232	3,336	15,806	5,192	13,751	9,615	9,419	15,756	8,366	16,326
Sea scallop	ND <sup>1</sup>	94	591	931	450	569	521	153	58	20
Striped bass	2,193	885	2,349	2,485	2,640	2,655	2,812	2,549	2,344	2,524
Summer flounder	329	262	338	248	229	208	214	263	259	148
White perch	1,477	453	1,524	688	973	858	1,301	1,704	2,041	1,833

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic croaker	0.38	0.42	0.39	0.49	0.58	0.57	0.75	0.82	0.60	0.64
Black sea bass	1.77	2.02	2.15	2.73	2.66	2.79	3.59	2.90	2.78	2.99
Blue crab	1.24	1.16	1.14	1.06	1.35	1.44	1.34	1.20	1.18	1.39
Clams or bivalves	0.69	0.64	0.78	0.63	0.64	0.63	0.70	0.77	0.73	0.76
Eastern oyster	4.45	4.23	4.66	4.52	9.92	9.13	7.73	10.14	ND <sup>1</sup>	ND <sup>1</sup>
Menhaden	0.08	0.07	0.10	0.13	0.10	0.10	0.09	0.05	0.09	0.10
Sea scallop	ND <sup>1</sup>	4.44	7.70	6.66	6.25	6.60	6.06	7.77	9.53	10.23
Striped bass	1.79	1.75	1.81	1.85	2.02	1.97	1.84	2.17	2.39	2.73
Summer flounder	1.60	1.69	2.01	2.22	2.39	2.78	2.58	2.07	1.79	2.36
White perch	0.38	0.77	0.56	0.83	0.64	0.90	0.72	0.68	0.73	0.72

<sup>1</sup>ND = these data are confidential thus not disclosable

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	413	49,095	20,026	30,877
Private Boat	432	51,980	17,618	29,483
Shore	418	45,454	15,237	25,383
Total Durable Equipment Impacts	4,420	490,708	225,155	340,406
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>5,683</b>	<b>637,237</b>	<b>278,036</b>	<b>426,149</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	90,686
For-Hire	21,997	11,492	Other Equipment	22,442
Private Boat	12,431	38,933	Boat Expenses	382,876
Shore	10,752	25,875	Vehicle Expenses	97,243
<i>Total Trip Expenditures</i>	<i>45,180</i>	<i>76,300</i>	Second Home Expenses	830
			<i>Total Durable Equipment Expenditures</i>	<i>594,077</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>715,557</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	526	442	620	733	850	643	514	552	415	374
Non-Coastal	53	39	49	84	78	50	43	54	49	40
Out of State	418	333	425	447	528	507	327	462	372	258
<b>Total Anglers</b>	<b>997</b>	<b>815</b>	<b>1,095</b>	<b>1,264</b>	<b>1,456</b>	<b>1,200</b>	<b>884</b>	<b>1,068</b>	<b>836</b>	<b>672</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	187	175	212	239	270	195	203	140	161	151
Private	2,033	1,535	1,924	1,836	2,352	1,891	1,608	1,643	1,453	1,281
Shore	1,110	875	1,019	1,145	1,082	1,273	1,082	1,150	1,206	817
<b>Total Trips</b>	<b>3,330</b>	<b>2,585</b>	<b>3,155</b>	<b>3,220</b>	<b>3,704</b>	<b>3,359</b>	<b>2,893</b>	<b>2,933</b>	<b>2,820</b>	<b>2,249</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black seabass	H	241	16	91	121	39	27	33	36	47	33
	R	774	259	562	645	577	674	454	670	353	289
Bluefish	H	214	367	167	421	675	551	591	273	259	114
	R	519	593	236	778	1,172	1,631	671	162	409	139
Drum (Atlantic croaker)	H	1,620	896	784	755	873	620	1,335	1,137	554	979
	R	1,393	854	1,137	1,784	1,258	2,127	1,138	1,011	366	1,731
Drum (spot)	H	3,300	868	1,789	2,896	3,615	1,892	2,064	1,164	913	766
	R	670	383	2,136	1,355	1,619	1,738	632	1,155	296	920
Drum (weakfish) <sup>3</sup>	H	41	15	32	1	7	2	4	5	(1)	11
	R	180	231	61	47	63	38	8	163	18	25
Striped bass	H	525	369	534	669	765	415	502	457	445	262
	R	4,653	3,479	3,855	3,711	3,065	1,339	1,424	1,509	1,127	2,207
Summer flounder	H	41	42	117	37	103	58	65	26	15	22
	R	373	806	362	252	1,018	923	816	1,226	472	214
White perch	H	2,020	1,623	2,410	2,561	2,890	1,511	551	2,613	1,572	1,534
	R	3,698	3,459	5,837	3,953	5,424	3,853	1,137	2,891	2,348	4,143
Wrasses (tautog)	H	13	8	29	15	43	19	39	57	12	6
	R	97	24	148	186	178	151	133	361	75	110
Yellowfin tuna	H	26	2	6	8	4	(1)	5	1	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	2	(1)	(1)	(1)

<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>3</sup>This species may not be equivalent to species with similar names listed in the commercial tables.

## Maryland's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	133,304 (1.8%)	2,088,841 (1.8%)	78,882 (2.0%)	133,663 (2.1%)	216,607 (2.0%)	0.77
2011	133,248 (1.8%)	2,104,022 (1.9%)	101,301 (2.0%)	182,429 (2.2%)	305,175 (2.0%)	0.47
%change	-0.04%	0.73%	28.42%	36.48%	40.89%	-39 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	47	51	57	55	56	56	41	43	55
	Receipts	2,487	2,301	2,727	2,751	3,940	3,310	2,106	2,138	2,374
Seafood sales, retail	Firms	78	70	78	73	99	84	91	85	86
	Receipts	6,771	10,100	6,976	7,755	10,493	9,010	8,593	6,177	7,396

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	23	23	23	19	22	22	19	18	17
	Employees	762	895	1,141	1,053	1,296	1,003	245	273	264
	Payroll	20,399	23,039	24,986	28,852	32,386	39,328	13,049	12,652	12,773
Seafood Sales, wholesale	Establishments	63	58	59	59	62	60	61	63	57
	Employees	686	733	709	694	978	851	777	795	775
	Payroll	27,934	29,813	30,148	32,943	50,353	42,296	39,055	39,067	38,971
Seafood sales, retail	Establishments	97	96	95	97	102	94	87	87	88
	Employees	459	579	576	617	613	590	485	526	562
	Payroll	10,634	12,328	13,019	14,190	14,777	11,510	11,499	11,810	12,883

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	9	11	10	10	8	6	7	8	6
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Deep sea freight transportation	Establishments	16	15	16	14	14	13	15	15	16
	Employees	ND	281	316	ND	244	250	255	390	329
	Payroll	ND	18,983	14,131	ND	14,905	19,765	20,722	24,185	25,071
Deep sea passenger transportation	Establishments	3	2	1	1	1	3	2	1	NA
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	NA
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	NA
Marinas	Establishments	180	183	185	179	183	179	176	175	172
	Employees	1,296	1,321	1,228	1,260	1,326	1,383	1,289	1,275	1,294
	Payroll	34,024	36,598	36,590	40,866	48,752	45,965	45,483	43,508	43,330
Marine cargo handling	Establishments	14	11	12	13	15	15	16	17	17
	Employees	1,862	1,725	1,639	1,659	1,791	1,572	1,599	2,742	1,924
	Payroll	69,084	75,911	81,219	73,367	85,328	48,382	46,727	95,182	86,680
Navigational services to shipping	Establishments	11	8	9	9	8	9	11	10	11
	Employees	195	ND	ND	ND	157	92	77	84	84
	Payroll	38,619	ND	ND	ND	4,882	3,968	3,807	4,015	4,259
Port & harbor operations	Establishments	8	10	11	11	8	3	4	5	5
	Employees	376	479	ND	ND	323	ND	ND	ND	ND
	Payroll	16,099	19,218	ND	ND	13,427	ND	ND	ND	ND
Ship & boat building	Establishments	55	58	57	55	48	46	38	35	35
	Employees	1,426	1,022	ND	1,119	874	677	416	ND	633
	Payroll	36,444	35,364	ND	33,463	29,500	22,363	16,238	ND	36,675

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the New Jersey Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	50,754	7,921,903	1,766,641	2,871,912
Commercial Harvesters	3,136	374,135	98,292	159,425
Seafood Processors & Dealers	7,231	670,477	253,923	331,421
Importers	20,091	5,526,524	885,731	1,684,726
Seafood Wholesalers & Distributors	3,058	497,481	159,890	217,419
Retail	17,238	853,286	368,805	478,920

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	120,670	145,217	158,746	146,346	151,509	168,508	151,539	178,575	220,365	187,732
Finfish & other	22,017	21,369	22,585	33,683	24,234	19,936	24,074	23,031	26,796	28,638
Shellfish	98,653	123,847	136,161	112,663	127,275	148,572	127,465	155,544	193,570	159,094
American lobster	1,028	1,800	2,001	2,522	4,056	3,215	2,278	2,895	3,039	3,937
Atlantic herring	145	1	1	3,297	562	548	1,507	422	415	150
Atlantic mackerel	2,855	3,398	3,957	9,324	668	1,568	1,539	848	53	589
Blue crab	4,736	5,330	6,773	6,359	5,471	7,284	184	12,034	9,423	10,036
Eastern oyster	3,366	1,558	823	2,255	ND <sup>1</sup>	2,547	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Goosefish	6,200	3,446	4,451	4,501	4,486	4,005	3,018	2,752	3,654	3,302
Ocean quahog & surf clams	38,054	31,379	25,567	25,107	26,547	30,838	27,496	23,889	25,301	25,453
Quahog clam	5,228	7,409	7,556	7,615	968	6,254	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Sea scallop	43,507	67,309	88,486	58,538	77,359	91,317	90,150	109,118	142,505	110,560
Summer flounder	3,683	4,134	4,478	5,091	3,988	3,461	3,376	4,552	5,461	5,434

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	170,133	187,377	156,695	175,777	153,848	162,308	162,029	162,162	187,535	180,502
Finfish & other	75,471	71,450	74,193	89,298	65,166	62,821	73,623	74,882	94,674	104,172
Shellfish	94,662	115,926	82,502	86,478	88,683	99,487	88,406	87,281	92,861	76,330
American lobster	210	370	369	471	680	633	585	689	687	919
Atlantic herring	1,805	5	1	25,486	6,038	6,539	13,692	4,140	2,385	1,114
Atlantic mackerel	33,056	36,091	32,414	24,977	5,384	9,426	10,255	4,692	107	2,017
Blue crab	4,012	4,350	6,333	5,981	4,636	5,816	257	9,459	9,600	7,393
Eastern oyster	714	323	162	343	ND <sup>1</sup>	550	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Goosefish	7,185	4,177	3,881	3,842	4,231	3,698	2,692	2,024	2,274	2,212
Ocean quahog & surf clams	71,683	61,155	49,849	43,644	44,791	51,597	45,306	38,538	41,281	38,921
Quahog clam	1,260	1,796	1,852	1,844	240	1,516	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Sea scallop	10,638	13,705	11,831	8,457	11,808	13,282	14,045	14,171	14,545	11,379
Summer flounder	2,385	2,630	2,349	2,380	1,697	1,541	1,799	2,165	2,831	2,269

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	4.90	4.86	5.42	5.36	5.96	5.08	3.89	4.20	4.42	4.28
Atlantic herring	0.08	0.23	0.78	0.13	0.09	0.08	0.11	0.10	0.17	0.13
Atlantic mackerel	0.09	0.09	0.12	0.37	0.12	0.17	0.15	0.18	0.50	0.29
Blue crab	1.18	1.23	1.07	1.06	1.18	1.25	0.72	1.27	0.98	1.36
Eastern oyster	4.72	4.82	5.09	6.57	ND <sup>1</sup>	4.63	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Goosefish	0.86	0.83	1.15	1.17	1.06	1.08	1.12	1.36	1.61	1.49
Ocean quahog & surf clams	0.53	0.51	0.51	0.58	0.59	0.60	0.61	0.62	0.61	0.65
Quahog clam	4.15	4.13	4.08	4.13	4.04	4.12	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Sea scallop	4.09	4.91	7.48	6.92	6.55	6.88	6.42	7.70	9.80	9.72
Summer flounder	1.54	1.57	1.91	2.14	2.35	2.25	1.88	2.10	1.93	2.39

<sup>1</sup>ND = these data are confidential thus not disclosable

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	408	61,825	29,775	43,226
Private Boat	1,494	207,775	67,245	109,531
Shore	778	97,072	32,498	52,334
Total Durable Equipment Impacts	10,451	1,521,577	581,149	908,912
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>13,131</b>	<b>1,888,249</b>	<b>710,667</b>	<b>1,114,003</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	315,027
For-Hire	17,337	22,576	Other Equipment	59,748
Private Boat	55,345	103,626	Boat Expenses	496,912
Shore	28,706	41,636	Vehicle Expenses	229,824
<i>Total Trip Expenditures</i>	<i>101,388</i>	<i>167,838</i>	Second Home Expenses	159,117
			<i>Total Durable Equipment Expenditures</i>	<i>1,260,627</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>1,529,853</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	592	708	818	693	890	765	656	776	687	662
Non-Coastal	20	31	39	25	19	26	35	36	23	27
Out of State	462	379	471	481	518	456	454	449	357	431
<b>Total Anglers</b>	<b>1,074</b>	<b>1,117</b>	<b>1,328</b>	<b>1,199</b>	<b>1,427</b>	<b>1,246</b>	<b>1,145</b>	<b>1,261</b>	<b>1,067</b>	<b>1,121</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	466	433	452	633	605	449	434	320	383	369
Private	3,602	3,895	3,753	3,721	3,614	3,595	2,671	3,265	2,446	2,580
Shore	2,711	2,121	2,357	2,682	2,979	2,857	2,234	2,278	2,334	2,072
<b>Total Trips</b>	<b>6,779</b>	<b>6,449</b>	<b>6,562</b>	<b>7,036</b>	<b>7,198</b>	<b>6,901</b>	<b>5,339</b>	<b>5,863</b>	<b>5,163</b>	<b>5,021</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black seabass	H	1,903	1,078	660	531	724	580	583	687	149	735
	R	4,295	3,121	2,387	2,082	2,422	4,432	3,138	3,869	1,303	3,817
Bluefin tuna	H	9	8	9	4	7	3	14	6	2	1
	R	(1)	61	24	98	1	1	2	7	6	(1)
Bluefish	H	1,570	1,531	2,368	1,183	1,654	1,028	814	909	1,149	1,190
	R	1,913	2,226	2,293	1,803	2,736	1,477	1,476	1,886	1,910	1,996
Drum (weakfish) <sup>3</sup>	H	152	229	1,008	490	230	298	12	2	3	115
	R	631	535	1,372	1,336	612	1,436	79	102	99	732
Red hake	H	16	4	6	141	1	152	240	125	206	57
	R	14	4	2	12	(1)	20	23	24	13	16
Striped bass	H	392	424	412	509	290	310	283	320	393	168
	R	926	1,502	1,219	1,890	1,789	1,310	800	690	884	406
Summer flounder	H	1,785	1,617	1,300	1,556	1,068	762	825	552	737	1,131
	R	5,806	6,702	8,939	6,740	6,192	8,959	10,414	10,565	8,096	6,981
Winter flounder	H	307	40	33	64	96	3	7	24	28	(1)
	R	110	32	21	113	27	15	26	39	25	2
Wrasses (tautog)	H	102	91	43	201	300	172	127	375	137	38
	R	394	387	224	604	1,290	901	856	1,063	843	510
Yellowfin tuna	H	22	9	22	35	58	7	7	25	17	69
	R	(1)	8	1	(1)	(1)	1	16	(1)	(1)	9

<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>3</sup>This species may not be equivalent to species with similar names listed in the commercial tables.



## New Jersey's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	237,842 (3.3%)	3,579,076 (3.2%)	154,521 (3.8%)	224,215 (3.5%)	392,509 (3.5%)	1.01
2011	226,878 (3.1%)	3,377,848 (3.0%)	183,507 (3.6%)	273,326 (3.3%)	493,175 (3.3%)	1.07
%change	-4.61%	-5.62%	18.76%	21.90%	25.65%	5.94 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	23	23	26	27	25	22	33	47	29
	Receipts	2,279	2,694	3,086	3,027	2,399	1,851	3,667	3,613	3,447
Seafood sales, retail	Firms	100	89	93	72	90	92	81	66	68
	Receipts	8,822	9,219	9,194	8,916	11,320	11,196	9,901	8,265	8,049

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	16	15	17	16	16	14	13	11	12
	Employees	846	749	969	667	628	566	661	482	518
	Payroll	20,794	21,029	28,235	22,097	18,403	18,703	22,025	17,427	17,940
Seafood Sales, wholesale	Establishments	84	85	85	89	101	81	83	90	91
	Employees	920	948	914	941	978	856	858	848	935
	Payroll	35,991	38,066	37,828	41,506	41,994	37,462	37,348	38,065	40,103
Seafood sales, retail	Establishments	133	134	128	127	124	118	106	108	109
	Employees	454	547	524	493	472	368	332	332	332
	Payroll	10,513	11,952	11,787	11,373	10,352	9,372	9,126	9,094	9,264

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	15	17	18	18	23	18	19	18	20
	Employees	768	ND	914	1,040	778	645	594	600	508
	Payroll	45,024	ND	54,097	68,096	56,017	48,911	41,925	44,246	40,587
Deep sea freight transportation	Establishments	37	33	38	39	31	27	26	26	26
	Employees	1,287	1,028	948	648	566	1,115	1,045	ND	ND
	Payroll	70,996	65,691	68,633	45,940	44,133	75,848	66,547	78,898	81,936
Deep sea passenger transportation	Establishments	5	4	5	4	2	2	3	2	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	203	201	206	204	216	211	214	212	206
	Employees	951	945	978	940	1,045	916	784	781	773
	Payroll	34,777	36,862	38,323	39,154	41,624	39,596	35,811	35,475	34,675
Marine cargo handling	Establishments	27	26	26	25	23	21	22	21	22
	Employees	4,108	4,685	4,972	4,599	4,781	4,244	3,479	3,292	3,744
	Payroll	318,325	340,085	363,714	345,784	350,690	278,189	230,886	260,894	273,636
Navigational services to shipping	Establishments	16	17	16	19	26	20	19	16	17
	Employees	210	ND	169	ND	227	191	133	75	110
	Payroll	8,028	ND	9,673	ND	11,403	7,776	6,638	6,125	5,619
Port & harbor operations	Establishments	5	6	7	6	8	6	6	11	7
	Employees	240	ND	194	ND	271	143	54	124	163
	Payroll	10,644	ND	11,599	ND	12,197	12,446	5,548	10,463	16,933
Ship & boat building	Establishments	37	35	37	34	31	30	25	24	23
	Employees	2,005	2,040	2,320	2,307	2,305	2,019	1,188	1,056	864
	Payroll	75,149	80,301	89,421	88,367	91,460	79,309	42,909	37,920	39,810

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the New York Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	51,681	6,366,436	1,352,047	2,243,446
Commercial Harvesters	1,435	70,322	20,215	31,089
Seafood Processors & Dealers	1,084	155,804	59,239	77,053
Importers	17,902	4,924,451	789,237	1,501,188
Seafood Wholesalers & Distributors	5,152	379,377	128,253	172,928
Retail	26,108	836,483	355,102	461,187

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	51,601	46,878	56,367	58,479	60,314	57,429	48,856	49,563	37,531	39,136
Finfish & other	16,426	16,765	18,317	19,894	20,434	18,824	17,571	20,546	22,402	23,824
Shellfish	35,175	30,113	38,051	38,585	39,880	38,606	31,285	29,017	15,129	15,312
American lobster	4,426	3,722	4,396	6,288	4,623	3,821	3,468	3,165	1,398	976
Atlantic surf clam	7,934	4,475	7,055	2,135	5,932	5,670	5,858	3,929	545	ND <sup>1</sup>
Eastern oyster	4,263	3,367	1,961	2,390	2,627	2,870	1,428	2,046	ND <sup>1</sup>	2
Flounder, Summer	2,240	3,275	3,797	3,409	3,131	2,933	3,087	3,550	3,732	3,652
Loligo squid	4,353	5,426	6,054	5,844	5,157	5,290	4,167	4,516	7,250	8,648
Quahog clam	12,399	10,673	12,696	12,237	14,224	13,185	8,397	7,774	ND <sup>1</sup>	0
Scups or porgies	1,330	1,637	2,027	2,450	2,348	1,710	1,887	2,112	2,551	3,536
Sea scallop	164	720	3,617	3,519	3,872	5,050	5,018	3,778	4,960	4,083
Softshell clam	888	1,227	1,468	2,055	1,628	1,076	700	709	ND <sup>1</sup>	1
Tilefishes	2,736	2,082	2,765	3,325	3,843	3,343	3,262	4,077	4,525	4,257

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	39,388	34,514	38,150	33,287	35,785	34,175	34,304	33,371	27,030	30,029
Finfish & other	17,223	16,531	14,631	14,225	16,492	15,084	16,194	18,595	18,805	19,296
Shellfish	22,165	17,983	23,519	19,062	19,293	19,092	18,110	14,777	8,225	10,733
American lobster	946	996	1,154	1,243	912	850	932	814	344	270
Atlantic surf clam	13,264	7,462	11,953	2,987	9,161	8,753	8,799	5,856	809	ND <sup>1</sup>
Eastern oyster	466	370	219	269	124	135	64	81	ND <sup>1</sup>	0
Flounder, Summer	1,073	1,594	1,799	1,220	942	856	1,142	1,364	1,517	1,237
Loligo squid	4,603	6,363	6,693	6,460	5,437	5,469	4,098	3,900	5,630	7,838
Quahog clam	1,553	1,346	1,617	1,650	1,592	1,476	1,410	1,216	ND <sup>1</sup>	0
Scups or porgies	1,850	1,907	2,186	2,416	2,325	1,214	1,850	2,690	3,729	4,307
Sea scallop	39	170	647	1,040	619	782	918	508	522	430
Softshell clam	163	234	270	393	198	131	114	116	ND <sup>1</sup>	0
Tilefishes	1,755	1,335	1,142	1,298	1,393	1,199	1,435	1,586	1,521	1,412

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American lobster	4.68	3.74	3.81	5.06	5.07	4.49	3.72	3.89	4.06	3.62
Atlantic surf clam	0.60	0.60	0.59	0.71	0.65	0.65	0.67	0.67	0.67	ND <sup>1</sup>
Eastern oyster	9.15	9.10	8.97	8.87	21.21	21.21	22.23	25.41	ND <sup>1</sup>	252.43
Flounder, Summer	2.09	2.05	2.11	2.80	3.33	3.43	2.70	2.60	2.46	2.95
Loligo squid	0.95	0.85	0.90	0.90	0.95	0.97	1.02	1.16	1.29	1.10
Quahog clam	7.98	7.93	7.85	7.42	8.94	8.93	5.96	6.39	ND <sup>1</sup>	0.00
Scups or porgies	0.72	0.86	0.93	1.01	1.01	1.41	1.02	0.79	0.68	0.82
Sea scallop	4.19	4.24	5.59	3.38	6.25	6.46	5.47	7.44	9.50	9.50
Softshell clam	5.45	5.24	5.43	5.23	8.23	8.24	6.13	6.13	ND <sup>1</sup>	6.69
Tilefishes	1.56	1.56	2.42	2.56	2.76	2.79	2.27	2.57	2.97	3.02

<sup>1</sup>ND = these data are confidential thus not disclosable

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	635	85,009	43,093	62,525
Private Boat	768	95,083	33,051	55,829
Shore	305	30,710	10,418	16,946
Total Durable Equipment Impacts	1,251	170,497	64,542	106,647
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>2,959</b>	<b>381,299</b>	<b>151,104</b>	<b>241,947</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	50,914
For-Hire	4,080	49,452	Other Equipment	22,931
Private Boat	2,210	94,715	Boat Expenses	53,219
Shore	2,652	24,549	Vehicle Expenses	11,440
<i>Total Trip Expenditures</i>	<i>8,943</i>	<i>168,716</i>	Second Home Expenses	0
			<i>Total Durable Equipment Expenditures</i>	<i>138,503</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>316,162</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	599	587	885	735	881	817	638	646	497	533
Non-Coastal	19	18	27	25	39	32	21	24	18	30
Out of State	82	76	110	114	147	118	58	69	46	53
<b>Total Anglers</b>	<b>700</b>	<b>681</b>	<b>1,022</b>	<b>874</b>	<b>1,067</b>	<b>967</b>	<b>717</b>	<b>740</b>	<b>561</b>	<b>616</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	406	389	527	361	684	388	381	348	458	366
Private	3,030	2,670	3,107	3,120	3,315	3,199	2,819	2,351	2,320	1,908
Shore	2,090	1,754	2,495	1,961	2,522	2,341	1,625	1,675	1,389	1,492
<b>Total Trips</b>	<b>5,526</b>	<b>4,813</b>	<b>6,129</b>	<b>5,442</b>	<b>6,521</b>	<b>5,928</b>	<b>4,825</b>	<b>4,374</b>	<b>4,167</b>	<b>3,766</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic herring <sup>3</sup>	H	30	123	60	23	214	70	3	79	75	174
	R	(1)	2	2	2	230	50	(1)	17	(1)	(1)
Black seabass	H	318	134	143	269	410	259	566	543	275	322
	R	739	626	1,071	1,326	1,550	1,654	1,236	1,163	893	2,471
Bluefish	H	1,146	1,895	1,684	1,832	2,150	1,484	1,294	1,026	928	1,150
	R	1,305	2,529	3,380	2,379	2,650	3,225	1,793	1,472	1,599	1,809
Drum (weakfish) <sup>4</sup>	H	9	11	(1)	10	4	40	(1)	3	(1)	5
	R	7	38	76	17	109	25	3	3	55	12
Porgies (scup)	H	5,111	1,877	859	1,678	1,596	1,451	1,460	1,991	715	592
	R	1,806	3,514	1,737	2,622	1,964	2,838	2,124	1,864	998	1,235
Shortfin mako shark	H	3	(1)	(1)	(1)	(1)	(1)	(1)	1	(1)	1
	R	3	2	5	(1)	(1)	(1)	(1)	(1)	3	3
Striped bass	H	313	263	378	368	475	685	357	539	676	424
	R	1,084	2,708	1,412	1,723	1,678	1,347	1,074	1,069	1,506	586
Summer flounder	H	1,540	1,024	1,163	753	867	608	298	335	376	509
	R	5,722	3,183	7,753	4,946	5,272	5,521	5,564	6,571	7,296	5,013
Winter flounder	H	234	228	100	261	11	41	69	31	65	44
	R	73	34	200	76	14	17	110	63	101	33
Wrasses (tautog)	H	129	279	85	246	223	320	346	146	111	61
	R	297	640	177	823	386	728	665	567	487	365

<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>3</sup>This species may not be equivalent to species with similar names listed in the commercial tables.<sup>4</sup>This species may not be equivalent to species with similar names listed in the commercial tables.

## New York's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	502,948 (6.9%)	7,416,680 (6.5%)	332,635 (8.2%)	490,873 (7.7%)	842,678 (7.6%)	0.18
2011	521,537 (7.1%)	7,369,731 (6.5%)	435,009 (8.4%)	662,388 (8.0%)	1,169,436 (7.8%)	0.11
%change	3.70%	-0.63%	30.78%	34.94%	38.78%	-38.9 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	62	49	57	61	68	73	101	115	142
	Receipts	2,580	3,517	2,652	3,044	3,516	3,383	4,883	6,784	7,380
Seafood sales, retail	Firms	272	241	219	206	266	247	192	214	183
	Receipts	29,321	28,640	24,987	24,790	23,157	23,983	19,278	18,999	16,286

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	18	17	18	15	15	17	15	15	18
	Employees	271	323	324	298	294	379	ND	272	299
	Payroll	15,676	14,782	14,810	16,491	18,723	18,570	15,227	16,976	21,372
Seafood Sales, wholesale	Establishments	291	274	269	254	291	231	246	263	291
	Employees	2,183	2,091	2,003	2,066	2,058	1,627	1,741	1,798	1,876
	Payroll	75,063	75,411	76,177	78,198	84,361	72,233	68,345	72,442	76,970
Seafood sales, retail	Establishments	376	386	392	388	372	368	386	394	391
	Employees	1,518	1,602	1,513	1,495	1,575	1,470	1,509	1,586	1,660
	Payroll	25,422	26,489	25,665	26,701	28,497	30,741	31,640	32,001	35,664

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	60	60	57	55	50	50	48	65	62
	Employees	1,751	1,452	1,448	1,464	1,746	1,759	2,299	1,654	1,708
	Payroll	115,452	94,074	91,347	109,315	125,570	160,735	198,352	136,577	154,087
Deep sea freight transportation	Establishments	35	36	39	38	34	29	32	30	31
	Employees	927	600	602	ND	ND	732	782	704	752
	Payroll	58,350	38,246	39,309	ND	65,632	108,744	89,313	98,499	88,354
Deep sea passenger transportation	Establishments	8	7	6	4	4	3	4	2	1
	Employees	212	ND	ND	ND	7	ND	8	ND	ND
	Payroll	6,673	ND	ND	ND	240	316	126	ND	ND
Marinas	Establishments	417	413	416	404	411	419	418	429	431
	Employees	2,167	2,185	2,093	2,112	2,070	2,263	2,099	2,052	2,033
	Payroll	77,398	81,737	84,832	83,807	88,862	100,910	96,640	94,654	96,408
Marine cargo handling	Establishments	14	14	12	12	12	10	9	13	12
	Employees	951	1,099	ND	ND	ND	ND	ND	1,086	1,019
	Payroll	50,015	48,529	ND	ND	ND	ND	ND	68,555	66,439
Navigational services to shipping	Establishments	34	34	35	36	36	32	37	37	35
	Employees	ND	ND	ND	ND	578	386	312	598	596
	Payroll	ND	ND	ND	ND	40,976	23,294	19,126	50,119	54,406
Port & harbor operations	Establishments	3	3	3	3	5	3	4	8	9
	Employees	ND	ND	ND	6	ND	ND	ND	ND	33
	Payroll	ND	ND	ND	119	ND	ND	ND	568	1,493
Ship & boat building	Establishments	44	45	47	48	53	49	47	41	43
	Employees	ND	ND	590	ND	643	688	585	575	552
	Payroll	ND	ND	21,514	ND	26,653	30,462	28,880	26,771	25,998

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Virginia Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	19,052	1,538,449	461,762	673,068
Commercial Harvesters	4,708	299,050	98,815	144,884
Seafood Processors & Dealers	1,539	137,631	53,549	69,110
Importers	2,149	591,278	94,764	180,247
Seafood Wholesalers & Distributors	898	111,164	38,429	51,217
Retail	9,758	399,326	176,206	227,611

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	130,657	160,496	155,066	110,066	138,149	146,602	152,017	183,181	191,025	175,640
Finfish & other	39,661	43,522	48,559	41,637	45,735	40,506	47,575	55,915	58,190	61,556
Shellfish	90,996	116,973	106,507	68,430	92,414	106,096	104,442	127,267	132,835	114,084
Atlantic croaker	2,822	3,013	3,691	4,326	4,445	5,269	6,940	6,025	4,527	7,518
Black sea bass	1,306	1,167	1,242	1,048	663	759	569	928	1,003	1,401
Blue crab	19,130	21,822	20,578	14,057	15,793	18,013	21,169	29,133	25,116	24,644
Catfishes & bullhea	372	649	900	1,570	978	1,191	1,567	670	904	490
Goosefish	879	599	1,142	685	781	951	631	594	752	1,218
Menhaden	22,511	24,144	25,259	22,306	25,317	21,271	23,578	34,476	32,977	31,104
Sea Scallop	68,298	92,207	84,574	52,764	63,013	65,534	63,312	70,204	79,427	54,076
Spot	1,688	2,236	2,227	1,793	3,232	1,171	3,411	975	3,214	749
Striped bass	3,389	3,648	4,457	2,946	3,831	3,378	4,219	3,635	4,496	5,551
Summer flounder	4,220	5,376	4,652	4,373	3,184	2,719	2,959	4,202	5,920	7,723

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	446,828	481,374	441,538	426,229	493,415	423,066	426,798	510,474	494,050	461,944
Finfish & other	406,359	432,023	402,586	393,735	452,342	384,804	379,296	457,408	441,884	416,811
Shellfish	40,469	49,351	38,952	32,494	41,073	38,262	47,502	53,066	52,166	45,132
Atlantic croaker	10,936	9,488	9,272	7,829	10,588	11,214	8,576	7,873	5,535	6,887
Black sea bass	507	498	475	328	189	215	164	264	275	392
Blue crab	21,464	27,642	26,064	22,708	25,141	23,243	32,756	38,490	37,862	32,020
Catfishes & bullhea	1,799	1,922	1,622	1,360	1,598	1,770	1,877	871	905	766
Goosefish	1,270	1,002	1,157	677	847	972	743	596	604	907
Menhaden	373,868	399,798	372,578	370,946	420,481	353,895	351,392	433,241	413,835	390,284
Sea Scallop	17,536	19,410	11,444	8,302	9,916	9,685	10,137	9,167	8,260	5,798
Spot	3,471	4,338	3,103	1,696	4,328	1,977	3,910	1,024	3,540	596
Striped bass	2,104	2,120	2,472	1,431	1,962	2,196	2,109	2,139	2,077	2,173
Summer flounder	3,522	3,906	3,869	2,757	1,856	1,654	1,980	2,592	4,051	4,121

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic croaker	0.26	0.32	0.40	0.55	0.42	0.47	0.81	0.77	0.82	1.09
Black sea bass	2.58	2.34	2.61	3.19	3.50	3.52	3.46	3.52	3.65	3.57
Blue crab	0.89	0.79	0.79	0.62	0.63	0.77	0.65	0.76	0.66	0.77
Catfishes & bullhea	0.21	0.34	0.55	1.15	0.61	0.67	0.83	0.77	1.00	0.64
Goosefish	0.69	0.60	0.99	1.01	0.92	0.98	0.85	1.00	1.25	1.34
Menhaden	0.06	0.06	0.07	0.06	0.06	0.06	0.07	0.08	0.08	0.08
Sea Scallop	3.89	4.75	7.39	6.36	6.35	6.77	6.25	7.66	9.62	9.33
Spot	0.49	0.52	0.72	1.06	0.75	0.59	0.87	0.95	0.91	1.26
Striped bass	1.61	1.72	1.80	2.06	1.95	1.54	2.00	1.70	2.16	2.56
Summer flounder	1.20	1.38	1.20	1.59	1.72	1.64	1.49	1.62	1.46	1.87

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	78	8,211	3,630	5,566
Private Boat	802	90,481	29,041	51,284
Shore	530	49,219	16,614	27,847
Total Durable Equipment Impacts	6,733	686,588	283,807	455,288
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>8,143</b>	<b>834,499</b>	<b>333,092</b>	<b>539,985</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	210,755
For-Hire	2,982	2,780	Other Equipment	62,731
Private Boat	16,355	67,579	Boat Expenses	341,194
Shore	19,632	19,369	Vehicle Expenses	49,515
<i>Total Trip Expenditures</i>	<i>38,969</i>	<i>89,728</i>	Second Home Expenses	459
			<i>Total Durable Equipment Expenditures</i>	<i>664,654</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>793,351</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	384	510	559	578	463	464	515	496	516	412
Non-Coastal	52	69	137	90	76	89	87	63	56	78
Out of State	288	428	511	364	297	338	305	279	320	193
<b>Total Anglers</b>	<b>724</b>	<b>1,007</b>	<b>1,206</b>	<b>1,033</b>	<b>836</b>	<b>891</b>	<b>907</b>	<b>838</b>	<b>892</b>	<b>684</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	86	69	37	43	60	57	48	45	30	45
Private	2,068	2,491	2,563	2,590	2,369	2,353	2,124	1,700	1,782	1,426
Shore	958	1,104	1,365	1,155	1,083	1,089	876	852	1,086	1,051
<b>Total Trips</b>	<b>3,112</b>	<b>3,664</b>	<b>3,965</b>	<b>3,788</b>	<b>3,512</b>	<b>3,499</b>	<b>3,048</b>	<b>2,597</b>	<b>2,898</b>	<b>2,522</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black seabass	H	265	46	34	83	36	39	115	29	19	4
	R	1,741	1,247	1,116	1,356	1,271	1,251	1,152	525	444	884
Cobia	H	2	1	18	22	10	5	17	7	4	1
	R	15	6	16	23	3	3	13	9	9	9
Drum (Atlantic croaker)	H	6,696	8,260	7,657	7,222	6,944	8,389	5,328	4,744	3,305	3,455
	R	6,544	6,276	8,738	4,194	8,505	7,807	7,621	4,824	4,873	5,100
Drum (spot)	H	1,441	1,718	2,782	3,585	8,203	4,398	2,147	1,670	2,967	1,350
	R	934	881	2,457	1,372	2,156	1,487	1,458	1,155	2,245	1,146
Drum (spotted seatrout)	H	102	69	22	43	159	104	22	17	248	126
	R	207	258	192	83	363	367	171	550	1,215	429
Drum (weakfish) <sup>1</sup>	H	86	158	44	43	88	28	16	4	4	22
	R	504	545	355	556	230	427	84	178	289	103
Red drum	H	14	5	3	13	46	21	38	11	(1)	29
	R	43	33	28	186	110	237	178	29	61	2,503
Striped bass	H	402	393	258	461	238	245	226	74	123	70
	R	970	1,733	1,295	1,655	949	532	359	135	154	102
Summer flounder	H	451	674	684	763	398	260	288	261	317	260
	R	2,585	3,697	2,509	2,164	3,023	2,425	3,613	2,420	1,987	856
Wrasses (tautog)	H	76	151	61	105	61	56	61	127	46	14
	R	55	123	77	200	80	34	34	130	36	17

<sup>1</sup>This species may not be equivalent to species with similar names listed in the commercial tables.



## Virginia's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	183,468 (2.5%)	2,932,822 (2.6%)	106,078 (2.6%)	184,132 (2.9%)	307,377 (2.8%)	0.5
2011	191,063 (2.6%)	3,029,030 (2.7%)	145,346 (2.8%)	257,083 (3.1%)	433,611 (2.9%)	0.61
%change	4.14%	3.28%	37.02%	39.62%	41.07%	22 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	53	68	65	74	62	74	69	56	73
	Receipts	2,370	3,456	3,665	4,916	4,845	5,020	4,039	3,698	3,792
Seafood sales, retail	Firms	88	89	80	86	84	80	80	82	78
	Receipts	7,193	8,346	8,762	8,027	7,265	8,273	6,603	6,951	7,819

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	38	42	39	33	30	26	25	23	18
	Employees	1,256	1,231	1,336	871	955	490	941	961	899
	Payroll	37,386	38,731	39,980	28,530	34,520	11,366	30,600	30,460	33,285
Seafood Sales, wholesale	Establishments	84	86	86	80	83	69	72	76	62
	Employees	742	756	675	605	734	621	519	518	469
	Payroll	20,133	22,235	21,864	21,388	25,365	17,667	15,620	17,901	15,733
Seafood sales, retail	Establishments	61	68	69	75	73	68	62	59	58
	Employees	165	297	286	334	282	251	271	265	277
	Payroll	3,146	4,479	4,865	5,348	5,227	5,170	5,401	5,480	5,453

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	16	13	15	13	15	10	9	7	7
	Employees	591	ND	ND	ND	565	ND	ND	ND	ND
	Payroll	26,881	ND	ND	ND	30,704	ND	ND	ND	ND
Deep sea freight transportation	Establishments	22	21	24	22	20	18	16	17	21
	Employees	1,087	1,124	1,090	1,564	1,611	409	ND	421	492
	Payroll	87,099	91,978	95,871	141,085	148,502	32,473	19,241	35,917	42,018
Deep sea passenger transportation	Establishments	2	2	1	1	1	2	2	1	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	136	137	141	131	126	119	118	115	110
	Employees	ND	ND	ND	ND	992	964	829	868	818
	Payroll	ND	ND	ND	ND	26,186	24,326	24,631	24,182	23,379
Marine cargo handling	Establishments	19	19	18	17	15	12	12	7	11
	Employees	ND	ND	1,516	1,110	1,085	ND	ND	ND	ND
	Payroll	ND	ND	52,254	51,654	56,696	ND	ND	41,280	41,262
Navigational services to shipping	Establishments	15	20	21	17	18	23	25	26	21
	Employees	ND	ND	ND	ND	216	375	384	411	419
	Payroll	ND	ND	ND	ND	11,700	21,014	22,177	22,910	22,132
Port & harbor operations	Establishments	8	9	9	10	10	8	6	7	6
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ship & boat building	Establishments	50	52	50	51	52	59	53	56	51
	Employees	20,720	21,022	21,230	21,741	ND	ND	ND	ND	ND
	Payroll	901,156	920,372	938,375	993,066	ND	ND	ND	ND	ND

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

ND- these data are confidential and therefore not available

NA- these data are not available





# South Atlantic

- East Florida
- Georgia
- North Carolina
- South Carolina



**Management Context**

The South Atlantic Region includes East Florida, Georgia, North Carolina, and South Carolina. Federal fisheries in this region are managed by the South Atlantic Fishery Management Council (SAFMC) and NOAA Fisheries (NMFS) under five fishery management plans (FMPs). The coastal migratory pelagic resources and spiny lobster fisheries are managed with the Gulf of Mexico Fishery Management Council (GMFMC). The Dolphin/wahoo FMP is managed with the Mid-Atlantic Fishery Management Council (MAFMC) and the New England Fishery Management Council (NEFMC).

**South Atlantic Region FMPs**

1. Coastal migratory pelagic resources (with GMFMC)
2. Coral, coral reef and live/hardbottom habitat
3. Dolphin/wahoo (with MAFMC and NEFMC)
4. Golden crab
5. Pelagic Sargassum habitat
6. Shrimp
7. Snapper grouper
8. Spiny lobster (with GMFMC)

Of the stocks or stock complexes covered in these fishery management plans, four are currently listed as overfished: red grouper, red porgy, red snapper, and snowy grouper. Seven stocks or stock complexes are currently subject to overfishing: black sea bass, gag, red grouper, red snapper, snowy grouper, speckled hind, and warsaw grouper.

Many fisheries in the South Atlantic Region have undergone management changes in recent years, most prominently red snapper. Assessments conducted in 2008 and 2010 found the stock to be overfished and undergoing overfishing. The SAFMC implemented a rebuilding schedule and strategy that began at the end of 2010 with a total prohibition on harvest and possession of red snapper in the federal waters of the South Atlantic Region. Commercial fishing vessels with a federal snapper-grouper permit were also prohibited from harvesting red snapper in state waters. In 2012, the commercial red snapper fishing season was re-opened for seven days and the recreational red snapper fishing season was re-opened for two consecutive weekends. The SAFMC is considering longer seasons for both sectors as the stock rebuilds.

The South Atlantic Wreckfish Individual Transferable Quota program is the only catch share program in the South Atlantic Region, and it was implemented in 1992. This program was developed to create incentives for the conservation of wreckfish; provide a management regime which promotes stability and facilitates long-range planning and investment by harvesters and dealers; promote management regimes that minimize gear and area conflicts among fishermen; minimize the tendency for overcapitalization in the harvesting and processing/distribution sectors; and provide a reasonable opportunity for fishermen to make adequate returns from commercial fishing by limiting

entry into the program. NMFS continues to collect data on this program to develop standard performance indicators that measure its basic economic performance.

**Commercial Fisheries**

In 2012, commercial fishermen in the South Atlantic Region landed 108 million pounds of finfish and shellfish, earning \$171 million in landings revenue. Landings revenue was dominated by shrimp (\$55 million) and blue crab (\$37 million). These species groups commanded ex-vessel prices of \$2.46 and \$0.93 per pound, respectively, and together comprised 54% of total landings revenue, and 58% of total landings in the South Atlantic Region.

**Key South Atlantic Region Commercial Species**

- Blue crab
- Clams
- Flounders
- Groupers
- King mackerels
- Oysters
- Shrimp
- Snappers
- Swordfish
- Tunas

North Carolina and East Florida had the highest landings revenue in the region in 2012 with \$72.9 million and \$57.7 million, respectively. The next greatest landings revenue came from South Carolina with \$24 million in landings revenue. North Carolina also had the highest landings (57 million pounds), followed by East Florida (29 million pounds) and South Carolina (12 million pounds).

Shrimp experienced a 41% increase in ex-vessel price (a 0.7% increase in real terms) from \$1.75 per pound in 2003 to \$2.46 per pound in 2012. Over the same time period, the ex-vessel price per pound for blue crab increased 1.1% (a 28% decrease in real terms), from \$0.92 to \$0.93 per pound.

*Economic Impacts<sup>1,2</sup>*

In 2012, the South Atlantic Region's seafood industry generated \$17 billion in sales impacts in Florida, \$2 billion in sales impacts in Georgia, \$783 million in sales impacts in North Carolina, and \$120 million in sales impacts in South Carolina. Florida generated the largest employment, income, and value added impacts, generating 82,000 jobs, \$3.1 billion, and \$5.5 billion, respectively. The smallest income impacts were generated in South Carolina (\$41 million) and the smallest employment impacts were also generated in South Carolina (1,800 jobs).

The sector that generated the greatest employment impacts by state was the importers sector with 44,000 jobs in Florida and 5,300 jobs in Georgia. The harvest sector in North Carolina generated 2,200 jobs. More sales impacts were generated by importers in Florida than any other sector in any another state in the region at \$12 billion and the greatest value added impacts were also generated by importers in Florida (\$3.7 billion).

<sup>1</sup>The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: [www.st.nmfs.noaa.gov/documents/commercial\\_seafood\\_impacts\\_2007-2009.pdf](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf))

<sup>2</sup>Commercial economic impacts data were not available for East Florida, data for Florida are reported here.

### Commercial Fisheries Facts

#### *Landings revenue*

- On average, between 2003 and 2012, the key species or species groups accounted for 78% of total revenue, generating \$122 million in the South Atlantic Region.
- Shrimp had higher landings revenues than any other species or species group, averaging \$44 million in landings revenue from 2003 to 2012.
- Swordfish had the largest one-year increase in landings revenue over the 10 year time period, increasing 56% from \$2.8 million in 2006 to \$4.3 million in 2007.
- Shrimp had the largest one-year decrease in landings revenue over the 10 year time period, decreasing 35% from \$51 million in 2008 to \$33 million in 2009.

#### *Landings*

- Key species or species groups contributed an average of 60% annually to total landings between 2003 and 2012.
- Blue crab contributed the most to landings in the region, averaging 41 million pounds from 2003 to 2012.
- Oysters had the largest one-year increase in landings over the 10 year time period, increasing 53% from 938,000 in 2009 pounds to 1.4 million pounds in 2010.
- Shrimp had the largest one-year decrease in landings over the 10 year time period, decreasing 39% from 26 million pounds in 2004 to 16 million pounds in 2005.

#### *Prices*

- Clams had the highest average annual ex-vessel price per pound (\$6.13) over the time period, followed by oysters (\$4.86), and groupers (\$3.18).
- Blue crab had the lowest average annual ex-vessel price per pound (\$0.88) over the time period, followed by king mackerels (\$1.80), and shrimp (\$1.98).
- Blue crab had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 34% from \$0.74 per pound in 2006 to \$0.99 in 2007.
- Shrimp had the largest decrease in ex-vessel price over the 10 year time period, decreasing 25% from \$2.19 per pound in 2008 to \$1.64 in 2009.

#### *Landings Revenue*

Landings revenue in the South Atlantic Region totaled \$171 million in 2012. This was a 9.1% increase (a 22% decrease in real terms) from 2003 levels (\$157 million) and a 0.7% increase (a 1.1% increase in real terms) relative to 2011 (\$170 million).

Totaling \$107 million in 2012, shellfish revenue experienced a 5.3% increase (a 25% decrease in real terms) from 2003 to 2012 and experienced a 3% increase (3.4% increase in real terms) from 2011 to 2012.

Shrimp and blue crab had the highest landings revenue in the South Atlantic Region in 2012, with \$55 million and \$37 million, respectively. Together they accounted for 54% of the total landings revenue earned in 2012. Between 2003 and 2012, the landings revenue from shrimp increased 29% (a 7.7% decrease in real terms) and the landings revenue for blue crab decreased 20% (a 43% decrease in real terms).

In terms of finfish, North Carolina earned the most ex-vessel revenue (\$31 million) followed by East Florida (\$26 million), and South Carolina (\$6.5 million). Shellfish landings revenue was dominated by North Carolina, which also earned the most shellfish ex-vessel revenue (\$42 million) followed by East Florida (\$32 million), and South Carolina (\$18 million). From 2003 to 2012, species or species groups with large changes in landings revenue include tunas (increased 189%), oysters (increased 132%), and swordfish (increased 128%). Species or species groups with large changes in landings revenue between 2011 and 2012 include tunas (increasing 39%), oysters (decreasing 20%), and flounders (decreasing 17%).

#### *Landings*

Fishermen in the South Atlantic Region landed 108 million pounds of finfish and shellfish in 2012. This was a 45% decrease from the 197 million pounds landed in 2003 and a 12% decrease from the 123 million landed in 2011. Finfish landings contributed 37% of total landings in the South Atlantic Region (39 million pounds) in 2012. From 2011 to 2012, finfish landings experienced a 19% decrease.

Over the same time period, shellfish landings experienced a 7.6% decrease from 74 million pounds in 2011 to 68 million in 2012 and a 16% decrease from 81 million pounds in 2003. Blue crab and shrimp had the highest annual landings in the South Atlantic Region in 2012, with 40 million pounds and 22 million pounds, respectively. Together they accounted for 58% of the total landings in 2012. Blue crab landings decreased 21% and shrimp landings decreased 8.3% during this period.

From 2003 to 2012, species or species groups with large changes in landings include tunas (increasing 102%), swordfish (increasing 73%), and flounders (decreasing 53%). Species or species groups with large changes in landings between 2011 and 2012 include flounders (decreasing 34%), oysters (decreasing 27%), and king mackerels (decreasing 19%).

#### *Prices*

The ex-vessel prices for the South Atlantic Region's key species and species groups in 2012 were higher than their 10 year average for nine of the key species (six of the species in real terms). Ex-vessel prices for flounders and king mackerels experienced the biggest increases between 2003 and 2012, increasing 61% (16% in real terms) and 57% (12% in real terms), respectively. Relative to the ex-vessel prices in 2011, the South Atlantic Region's flounders experienced the greatest increase (24.9%, 25.4% in real terms) from \$2.17 in 2011 to \$2.71 in 2012. Swordfish experienced the greatest decrease in ex-vessel price during this period (4.43%, 4.02% in real terms) from \$3.61 to \$3.45. Relative to ex-vessel prices in 2011, eight species or species groups experienced increases, including tunas (22%), and blue crab (16%).

In East Florida, the species or species group with the largest change in ex-vessel price from 2003 to 2012 was Spanish mackerel (83% increase, 31% increase in real terms) from \$0.52 to \$0.95. The largest change in ex-vessel price experienced in Georgia was for snails (conchs) (95% increase, 40% increase in real terms).

from \$0.77 to \$1.50 and in North Carolina the largest change in ex-vessel price was experienced by Atlantic croaker (245% increase, 147% increase in real terms from \$0.20 to \$0.69).

### Recreational Fishing

In 2012, over 2.6 million recreational anglers took 18 million fishing trips in the South Atlantic Region. Over 81% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 49% of them were taken from a private or rental boat and another 49% were shore-based. Spotted seatrout were the most frequently caught species or species group with 8.2 million fish caught in 2012, and represented 26% of total fish caught in the region. Of the spotted seatrout caught, 79% of them were released rather than harvested.

#### *Economic Impacts and Expenditures<sup>1</sup>*

The contribution of recreational fishing activities in the South Atlantic Region are reported in terms of economic impacts at the state level (employment, sales, income, and value added impacts) and expenditures on fishing trips and durable equipment at the regional level. Employment impacts in East Florida were the highest in the region with over 34,000 full- and part-time jobs generated by recreational fishing activities in the state. North Carolina (18,000 jobs), and South Carolina (4,100 jobs), followed in terms of employment impacts.

Overall, these employment impacts were generated by expenditures on recreational fishing trips taken by anglers (private or rental boat, for-hire boat, or shore-based trips) and expenditures on durable equipment. Throughout the South Atlantic Region, most of the employment impacts in 2012 were generated by expenditures on durable equipment: 87% in East Florida, 83% in Georgia, and 68% in North Carolina.

#### **Key South Atlantic Region Recreational Species**

- Black sea bass
- Bluefish
- Dolphinfish
- Atlantic croaker and spot
- Spotted seatrout
- King mackerel
- Sheepshead porgy
- Red drum
- Sharks
- Spanish mackerel

In addition to jobs, the contribution of recreational fishing activities to South Atlantic Region's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value added impacts).

In 2012, sales impacts were the highest in East Florida (\$4 billion in sales impacts), followed by North Carolina (\$1.9 billion), South Carolina (\$384 million), and Georgia (\$299 million). In the same year, value added impacts were the highest in East Florida (\$2.4 billion in value added impacts), followed by North Carolina

(\$1.1 billion), South Carolina (\$229 million), and Georgia (\$188 million).

Overall, total fishing trip and durable equipment expenditures across the South Atlantic Region in 2012 were \$6.6 billion. Approximately 86% of these expenditures were related to durable equipment purchases. The greatest expenditures were for vehicle expenses (\$2.6 billion), followed by boat expenses (\$1.6 billion), fishing tackle (\$1.2 billion), and other equipment (\$307 million). Fishing trip-related expenditures by the South Atlantic Region's non-residents totaled over \$359 million of which the greatest portion can be attributed to shore-based fishing trips (\$223 million). Residents of the South Atlantic Region spent \$597 million on saltwater fishing trips, with the largest part of these expenses related to private boat trips (\$344 million).

#### *Participation*

There were 2.6 million recreational anglers who fished in the South Atlantic Region in 2012. This was a 3.9% decrease from 2003 (2.7 million anglers). These anglers were South Atlantic Region residents from either a coastal county (2.1 million anglers) or non-coastal county (502,000 anglers). Almost 81% of total anglers in 2012 were residents of a coastal county. Coastal county angler participation in 2012 decreased 6% relative to 2003 (2.3 million anglers) and increased 13% between 2011 and 2012. Non-coastal county angler participation increased 6.1% relative to 2003 (473,000 anglers) and increased 11% relative to 2011 (450,000 anglers).

#### *Fishing Trips*

Recreational fishermen took 18 million fishing trips in the South Atlantic Region in 2012. This was a 16% decrease from 2003 (21 million trips) and was 117,000 more trips than taken in 2011. Of the total trips taken in the South Atlantic Region in 2012, approximately 49% of the trips were private or rental boat based (8.8 million trips). The other most popular mode of fishing was shore-based with 8.7 million trips in 2012.

#### *Harvest and Release*

Of the South Atlantic Region's key species and species groups, spotted seatrout (8.2 million fish), Atlantic croaker and spot (6.4 million fish), black sea bass (4.7 million fish) and bluefish (3.7 million fish) were the most often caught by anglers in 2012. Sharks (100% released), black sea bass (94% released), red drum (87% released), spotted seatrout (79% released), bluefish (63% released), Atlantic croaker and spot (56% released), and porgies (sheepshead) (55% released) were most often released rather than harvested. Anglers harvested more often than released dolphinfish (86% harvested) and king mackerel (85% harvested).

Between 2003 and 2012, six of the South Atlantic Region's key species or species groups showed decreases in catch totals. Key species or groups with the largest decreases were king mackerel (79%), Atlantic croaker and spot (38%), and Spanish mackerel (38%).

<sup>1</sup>Expenditure estimates were generated from the 2011 National Marine Recreational Fishing Expenditure Survey. Economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see The Economic Contribution of Marine Angler Expenditures in the United States, 2006, available at: <http://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2006>)

### Recreational Fishing Facts

#### Participation

- An average of 2.8 million anglers fished in the South Atlantic Region annually from 2003 to 2012.
- In 2012, coastal county residents made up 81% of total anglers in this region. These anglers averaged 82% 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 occurred between 2004 and 2005, increasing 24%, from 2.1 million anglers to 2.6 million anglers.
- The largest annual decrease during the same period for coastal anglers occurred between 2007 and 2008, decreasing 26%, from 3.2 million anglers to 2.3 million anglers.

#### Fishing trips

- In the South Atlantic Region, an average of 20 million fishing trips were taken annually from 2003 to 2012.
- Private or rental boat and shore-based fishing trips accounted for 8.8 million and 8.7 million fishing trips, respectively, in 2012. Together these made up 98% of the fishing trips taken in that year.
- The largest annual increase in the number of total trips taken annually over the 10 year time period occurred between 2005 and 2006, increasing 2.4%, from 21 million trips to 22 million trips.
- The largest annual decrease during the same period in total trips taken occurred between 2008 and 2009, decreasing 14%, from 22 million trips to 19 million trips.

#### Harvest and release

- Atlantic croaker and spot was the most commonly caught key species or species group, averaging 8.4 million fish over the 10 year time period. Of these, 51% were released rather than harvested.
- Of the ten 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 (99% released).
- Dolphinfish (83% harvested), followed by king mackerel (73% harvested), and Spanish mackerel (64% harvested) were key species or groups that experienced the greatest proportion of harvests rather than releases.

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

Across all sectors of the economy in North Carolina, South Carolina, Georgia and Florida<sup>2</sup> nearly 15 million full- and part-time employees were employed by about 1 million establishments in 2011. Annual payroll totaled \$593 billion. Total employee compensation in the South Atlantic region totaled \$972 billion and the combined gross state product of all states totaled about \$1.8 trillion. In 2011, the commercial fishing location quotient (CFLQ) for Florida was the highest in the region at 1.05. Florida's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately 1.05 times higher than the level of employment in these industries nationwide.

The 2011 CFLQ in North Carolina was second highest in the region at 0.15.

#### Seafood Sales and Processing

In 2011, there were 437 nonemployer firms engaged in seafood product preparation and packaging across the South Atlantic region. This was a 100% increase from 2003 levels. Florida (the entire state), with 294 firms, accounted for the vast majority of nonemployer firms. Nonemployer firms in the seafood product preparation and packaging sector in the had receipts totaling \$24 million in 2011. The number of employer establishments in this sector decreased 25% from 59 in 2003 to 44 in 2011. The largest number of employer establishments (14) engaged in seafood product preparation and packaging was located in Florida. The number of employees in the seafood product preparation and packaging sector decreased 31% from 3,078 employees in 2003 to 2,117 in 2011. Payroll in this sector was \$87 million in 2011, a small (3.3%) decline from 2003.

There were 354 seafood wholesale establishments in the South Atlantic region in 2011, a decrease of 16% from 2003. Most of these firms were in the located in Florida (entire state). The number of employees in the seafood wholesale sector increased 4.5% from 3,043 employees in 2003 to 3,179 in 2011. Payroll in this sector was \$121 million in 2011.

Nonemployer firms engaged in seafood retail sales in the South Atlantic region totaled 682 in 2011, a 31% increase from 2003 levels. Florida (the entire state), with 362, and North Carolina, with 144 firms, had the largest number of firms in this sector. Nonemployer firms in the seafood product preparation and packaging sector in the had receipts totaling \$54 million in 2011. Region-wide, there were 341 employer establishments in the seafood retail sales sector in 2011, a decrease of 5.8% from 2003. Most of these firms were in the located in Florida (145 in the entire state) and North Carolina (84). The number of employees in the seafood wholesale sector decreased 8.4% from 1,652 employees in 2003 to 1,514 in 2011. Payroll in this sector was \$32 million in 2011.

#### Transport, Support, and Marine Operations

The size of the Transport, Support, and Marine Operations sectors in the South Atlantic region is difficult to assess because much of the state-level data is suppressed for confidentiality purposes. It is clear, however, that these sectors play an important role in the regional economy. For example, 653 establishments were classified as marinas over all four states, employing 6,304 workers and spending \$192 million on payroll in 2011. The Ship and Boat Building Sector consisted of 359 establishments employing 11,367 workers and contributing \$478 million in payroll across three of the four states in the region. Marine cargo handling also accounted for 112 establishments employing 13,856 workers and contributing \$353 million in payroll across three of the four states in the region.

<sup>1</sup>Information for 2011 is reported in this section; 2012 data were not available for this report.

<sup>2</sup>Marine Economy information was not available for East Florida, information for the entire state of Florida is provided here.

**2012 Economic Impacts of the South Atlantic Region Seafood Industry (thousands of dollars)**

	Landings Revenue	Jobs	Sales	Income	Valued Added
Florida	57,736	82,141	16,553,480	3,092,392	5,532,209
Georgia	16,315	14,124	1,962,985	435,997	717,018
North Carolina	72,912	8,800	782,684	218,377	325,893
South Carolina	23,978	1,766	119,975	41,253	57,683

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total revenue	156,703	159,444	131,410	140,674	152,390	165,627	147,144	165,925	169,772	170,938
Finfish & other	54,820	66,858	56,907	60,707	61,339	60,811	62,937	66,143	65,645	63,682
Shellfish	101,882	92,592	74,507	79,976	91,061	104,817	84,219	99,789	104,134	107,259
Blue crab	46,643	34,249	31,784	27,050	33,634	39,985	37,783	36,199	33,816	37,355
Clams	6,248	5,561	4,779	4,223	4,039	3,861	3,571	4,091	3,393	3,557
Flounders	9,718	11,530	10,974	13,317	11,375	10,928	10,171	10,948	8,940	7,428
Groupers	2,851	2,728	2,814	3,416	4,565	4,084	3,214	3,016	3,012	2,583
King mackerels	4,102	5,260	5,551	6,495	6,872	7,695	8,088	7,571	6,545	5,557
Oysters	2,353	2,912	3,305	3,853	3,806	4,028	4,603	7,175	6,850	5,464
Shrimp	42,707	44,797	31,035	39,653	43,807	51,064	33,076	46,022	52,826	55,009
Snappers	2,331	3,208	3,314	2,748	3,922	4,554	4,024	3,489	3,604	3,840
Swordfish	4,113	3,555	3,134	2,753	4,298	3,661	4,821	7,519	9,306	9,374
Tunas	2,423	3,671	3,904	4,692	4,894	4,672	4,869	3,976	5,031	7,012

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total landings	197,486	199,033	123,421	114,661	105,285	116,554	113,280	119,489	122,807	107,802
Finfish & other	116,081	121,214	64,925	52,056	46,631	44,023	51,012	52,598	48,827	39,432
Shellfish	81,405	77,820	58,497	62,604	58,654	72,531	62,268	66,891	73,981	68,370
Blue crab	50,881	45,001	38,218	36,779	34,045	44,997	39,015	38,840	42,090	40,231
Clams	983	886	747	685	663	628	619	641	568	620
Flounders	5,799	7,325	5,944	6,282	4,778	5,034	5,278	5,020	4,129	2,740
Groupers	1,134	1,057	1,007	1,152	1,416	1,266	992	884	771	658
King mackerels	2,848	3,269	3,106	3,792	3,736	4,352	4,858	4,247	3,034	2,455
Oysters	595	689	730	808	776	857	938	1,439	1,233	902
Shrimp	24,343	26,472	16,048	22,080	21,235	23,341	20,108	23,197	22,494	22,332
Snappers	958	1,285	1,286	967	1,354	1,515	1,373	1,196	1,192	1,229
Swordfish	1,575	1,314	1,152	1,036	1,417	1,307	1,800	2,288	2,580	2,718
Tunas	1,235	1,739	1,569	2,360	2,310	1,658	1,945	1,805	2,189	2,492

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue crab	0.92	0.76	0.83	0.74	0.99	0.89	0.97	0.93	0.80	0.93
Clams	6.35	6.27	6.40	6.16	6.09	6.15	5.77	6.38	5.97	5.73
Flounders	1.68	1.57	1.85	2.12	2.38	2.17	1.93	2.18	2.17	2.71
Groupers	2.51	2.58	2.79	2.97	3.22	3.23	3.24	3.41	3.91	3.92
King mackerels	1.44	1.61	1.79	1.71	1.84	1.77	1.66	1.78	2.16	2.26
Oysters	3.96	4.22	4.53	4.77	4.91	4.70	4.91	4.99	5.55	6.06
Shrimp	1.75	1.69	1.93	1.80	2.06	2.19	1.64	1.98	2.35	2.46
Snappers	2.43	2.50	2.58	2.84	2.90	3.01	2.93	2.92	3.02	3.13
Swordfish	2.61	2.71	2.72	2.66	3.03	2.80	2.68	3.29	3.61	3.45
Tunas	1.96	2.11	2.49	1.99	2.12	2.82	2.50	2.20	2.30	2.81



**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Trips	Jobs	Sales	Income	Value Added
East Florida	9,391,000	34,073	4,007,766	1,490,240	2,366,556
Georgia	892,000	2,787	298,791	117,042	187,681
North Carolina	5,304,000	18,202	1,867,621	691,732	1,113,168
South Carolina	2,206,000	4,095	383,622	141,006	228,682

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	1,165,458
For-Hire	90,444	24,290	Other Equipment	306,787
Private Boat	45,636	343,780	Boat Expenses	1,578,747
Shore	222,523	229,049	Vehicle Expenses	2,556,989
<i>Total Trip Expenditures</i>	358,605	597,118	Second Home Expenses	76,034
			<i>Total Durable Equipment Expenditures</i>	5,684,018
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>6,639,741</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	2,271	2,105	2,615	2,603	3,157	2,330	1,922	1,933	1,893	2,135
Non-Coastal	473	511	472	477	493	560	462	536	450	502
Out-of-State <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total Anglers</b>	<b>2,744</b>	<b>2,616</b>	<b>3,087</b>	<b>3,080</b>	<b>3,650</b>	<b>2,890</b>	<b>2,384</b>	<b>2,470</b>	<b>2,343</b>	<b>2,637</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	412	491	502	455	503	415	391	367	373	349
Private Boat	9,963	9,901	9,897	9,823	11,537	10,910	8,923	9,513	8,664	8,774
Shore	10,872	10,830	10,620	11,250	9,956	10,469	9,371	9,184	8,639	8,670
<b>Total Trips</b>	<b>21,247</b>	<b>21,222</b>	<b>21,019</b>	<b>21,528</b>	<b>21,996</b>	<b>21,794</b>	<b>18,685</b>	<b>19,064</b>	<b>17,676</b>	<b>17,793</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black sea bass	H	423	918	623	579	435	348	270	510	336	291
	R	1,406	2,759	2,388	2,511	2,865	2,567	1,907	2,594	3,032	4,376
Bluefish	H	1,664	1,877	2,077	1,488	1,916	1,691	1,587	2,348	1,936	1,379
	R	2,276	2,663	2,750	3,199	4,089	3,085	2,557	4,267	3,455	2,368
Dolphinfish	H	1,139	840	1,019	1,017	1,078	1,025	727	825	824	801
	R	145	118	202	185	394	188	98	128	354	126
Drum (Atlantic croaker and spot)	H	5,521	5,703	4,210	4,981	4,576	5,516	2,817	1,946	3,075	2,795
	R	4,653	3,876	3,882	6,756	3,774	4,182	4,867	3,335	4,183	3,560
Drum (spotted seatrout)	H	826	1,049	1,479	1,505	1,546	1,633	1,410	932	859	1,691
	R	2,892	3,561	6,409	5,264	5,554	5,166	4,170	5,771	4,889	6,519
King mackerel	H	601	460	392	490	818	483	421	234	154	150
	R	254	227	194	199	300	169	96	77	48	27
Porgies (sheepshead)	H	728	429	539	392	639	694	626	704	662	522
	R	557	315	420	419	547	693	509	496	519	628
Red drum	H	470	414	484	319	413	463	277	607	493	459
	R	1,528	1,768	2,613	2,035	1,838	2,414	1,870	3,321	2,137	2,966
Sharks <sup>3</sup>	H	24	22	75	6	15	16	19	4	11	8
	R	1,367	1,821	2,571	1,855	1,955	2,521	2,060	1,972	1,542	1,787
Spanish mackerel	H	1,169	758	932	654	1,061	1,315	1,126	1,073	869	820
	R	842	446	618	274	607	886	519	604	395	424

<sup>1</sup>NA = data are not available because out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified

<sup>2</sup>Due to changes in data collection methods, California's catch (number of fish harvested or released) estimates for 2003 are not comparable to 2004-2012 estimates.

<sup>3</sup>Sharks include species within the requiem shark family, blacktip sharks, Atlantic sharpnose sharks, and unidentified sharks.

**2012 Economic Impacts of the Florida<sup>4</sup> Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	82,141	16,553,480	3,092,392	5,532,209
Commercial Harvesters	6,028	396,248	124,804	165,872
Seafood Processors & Dealers	4,819	773,871	149,767	294,428
Importers	44,018	12,108,366	1,940,597	3,691,160
Seafood Wholesalers & Distributors	10,403	1,211,904	475,789	591,945
Retail	16,873	2,063,090	401,435	788,804

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	33,111	39,978	35,489	42,002	42,767	47,855	40,992	51,144	59,117	57,736
Finfish & other	14,246	15,324	16,496	17,422	19,768	21,131	23,164	25,749	25,761	26,042
Shellfish	18,865	24,654	18,993	24,580	23,000	26,724	17,828	25,395	33,356	31,694
Blue crab	2,507	3,685	4,648	3,701	4,924	4,333	2,376	3,415	4,109	4,742
Clams	791	506	390	435	391	508	415	331	217	138
Groupers	658	584	587	521	923	724	583	561	541	764
King mackerel	2,853	3,650	3,456	4,318	4,833	6,036	6,563	6,903	5,465	4,682
Lobsters	1,779	2,148	1,624	2,462	2,488	3,312	1,089	2,825	3,181	1,713
Sharks	1,362	1,149	1,201	1,364	726	636	949	757	626	458
Shrimp	12,721	17,360	11,118	16,390	13,821	17,225	12,455	17,071	23,534	21,904
Snappers	919	1,098	1,009	972	1,279	1,905	2,383	1,454	1,520	1,604
Spanish mackerel	1,437	1,827	2,198	2,094	2,332	1,827	2,004	2,414	2,684	2,448
Swordfish	1,698	1,491	1,625	1,219	2,529	2,339	2,385	3,677	3,912	4,830

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	23,432	28,707	22,964	27,021	25,196	26,306	27,501	29,713	30,395	28,565
Finfish & other	12,874	12,497	12,815	13,848	13,893	14,111	16,105	17,137	15,718	14,232
Shellfish	10,558	16,209	10,149	13,173	11,303	12,196	11,396	12,576	14,677	14,333
Blue crab	1,988	3,536	4,045	3,130	4,063	3,342	1,640	2,553	3,189	3,435
Clams	99	54	42	47	41	55	54	42	22	17
Groupers	250	216	207	166	274	204	165	150	136	190
King mackerel	2,061	2,291	1,833	2,572	2,631	3,299	4,064	3,905	2,619	2,142
Lobsters	395	456	313	407	361	506	298	481	510	301
Sharks	1,509	1,273	1,292	1,472	818	776	1,109	781	660	631
Shrimp	6,451	11,728	5,203	8,843	6,174	7,619	8,662	8,743	10,081	8,869
Snappers	398	453	407	355	461	635	805	510	510	523
Spanish mackerel	2,741	3,066	3,134	3,143	3,264	2,263	2,629	3,553	3,432	2,586
Swordfish	725	511	543	407	772	791	838	1,028	1,036	1,341

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue crab	1.26	1.04	1.15	1.18	1.21	1.30	1.45	1.34	1.29	1.38
Clams	8.00	9.30	9.27	9.20	9.52	9.30	7.73	7.90	9.85	8.17
Groupers	2.63	2.70	2.84	3.14	3.37	3.55	3.53	3.73	3.98	4.02
King mackerel	1.38	1.59	1.89	1.68	1.84	1.83	1.61	1.77	2.09	2.19
Lobsters	4.50	4.71	5.18	6.06	6.90	6.55	3.65	5.87	6.23	5.68
Sharks	0.90	0.90	0.93	0.93	0.89	0.82	0.86	0.97	0.95	0.73
Shrimp	1.97	1.48	2.14	1.85	2.24	2.26	1.44	1.95	2.33	2.47
Snappers	2.31	2.42	2.48	2.74	2.78	3.00	2.96	2.85	2.98	3.07
Spanish mackerel	0.52	0.60	0.70	0.67	0.71	0.81	0.76	0.68	0.78	0.95
Swordfish	2.34	2.92	2.99	3.00	3.28	2.96	2.85	3.58	3.78	3.60

<sup>4</sup>Information reported in this table is for the state of Florida, not East Florida

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	830	93,621	39,938	61,605
Private Boat	2,028	226,632	73,651	127,698
Shore	1,403	145,504	47,927	80,655
Total Durable Equipment Impacts	29,812	3,542,009	1,328,724	2,096,598
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>34,073</b>	<b>4,007,766</b>	<b>1,490,240</b>	<b>2,366,556</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	727,609
For-Hire	44,685	9,213	Other Equipment	175,340
Private Boat	17,560	165,651	Boat Expenses	789,785
Shore	40,110	61,216	Vehicle Expenses	2,065,400
<i>Total Trip Expenditures</i>	<i>102,356</i>	<i>236,079</i>	Second Home Expenses	5,956
			<i>Total Durable Equipment Expenditures</i>	<i>3,764,090</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>4,102,525</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	1,413	1,161	1,565	1,660	2,168	1,317	1,099	1,033	1,109	1,181
Non-Coastal <sup>5</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Out of State	793	685	945	935	1,008	703	643	629	553	514
<b>Total Anglers</b>	<b>2,206</b>	<b>1,847</b>	<b>2,510</b>	<b>2,595</b>	<b>3,176</b>	<b>2,021</b>	<b>1,741</b>	<b>1,662</b>	<b>1,662</b>	<b>1,695</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	187	204	193	171	169	137	149	118	124	144
Private	6,212	5,544	6,064	5,913	7,157	6,452	5,394	5,706	5,298	5,028
Shore	5,045	5,145	5,092	5,543	5,277	4,651	4,577	4,393	4,735	4,219
<b>Total Trips</b>	<b>11,444</b>	<b>10,893</b>	<b>11,349</b>	<b>11,627</b>	<b>12,603</b>	<b>11,240</b>	<b>10,120</b>	<b>10,217</b>	<b>10,157</b>	<b>9,391</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bluefish	H	644	514	444	434	471	377	623	787	556	278
	R	622	499	368	718	932	499	680	1,621	912	1,111
Dolphinfish	H	788	545	353	492	513	661	328	248	347	433
	R	129	113	200	161	373	185	77	118	346	106
Drum (kingfish)	H	590	1,094	998	838	854	949	409	720	936	825
	R	368	753	903	706	1,099	552	608	935	807	1,102
Drum (spotted seatrout)	H	170	234	379	331	278	182	172	252	287	427
	R	1,708	2,413	4,246	3,316	3,094	2,830	1,642	2,937	2,141	3,026
Gray snapper	H	446	321	397	445	689	352	225	161	187	210
	R	1,655	1,771	1,047	1,326	2,073	1,551	1,706	497	678	1,549
Jack (Florida pompano)	H	374	447	281	164	126	272	91	263	106	181
	R	306	417	187	129	163	359	80	161	297	278
King mackerel	H	463	287	242	340	515	349	292	183	133	114
	R	232	145	118	158	226	125	52	59	45	21
Porgies (sheepshead)	H	354	202	389	243	255	237	227	352	287	267
	R	351	251	289	313	307	466	354	337	358	475
Red drum	H	159	137	196	146	161	159	80	175	180	239
	R	749	1,006	1,406	848	758	889	521	1,414	1,051	799
Spanish mackerel	H	784	369	513	323	456	503	369	513	406	247
	R	447	208	249	141	197	364	150	282	147	89

<sup>5</sup>Data is not available because all East Florida residents are considered coastal county residents.

## East Florida's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	460,746 (6.4%)	6,549,488 (5.8%)	202,371 (5.0%)	324,518 (5.1%)	574,382 (5.2%)	1.14
2011	490,851 (6.7%)	6,732,639 (5.9%)	265,464 (5.1%)	411,794 (5.0%)	746,439 (5.0%)	1.05
%change	6.53%	2.80%	31.18%	26.89%	29.96%	-7.89 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	142	177	164	174	173	202	216	280	294
	Receipts	8,047	8,652	8,756	10,184	10,497	11,065	12,399	14,635	14,618
Seafood sales, retail	Firms	240	247	247	251	319	331	308	361	362
	Receipts	18,064	18,004	22,787	20,708	27,557	26,087	24,726	27,964	29,037

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	27	24	25	22	20	23	25	27	24
	Employees	2,084	2,193	1,616	1,704	1,748	1,637	1,143	1,269	1,095
	Payroll	61,452	65,881	47,529	62,801	58,233	53,455	46,235	45,772	42,612
Seafood Sales, wholesale	Establishments	293	261	258	259	267	229	215	229	250
	Employees	1,835	1,948	1,883	2,091	2,308	1,913	1,762	1,747	1,913
	Payroll	55,874	63,276	65,339	73,897	85,019	75,203	72,159	70,889	77,115
Seafood sales, retail	Establishments	174	190	176	173	169	168	158	145	145
	Employees	952	977	970	936	989	991	885	865	849
	Payroll	15,673	17,575	19,192	19,513	20,595	21,604	21,182	20,783	20,158

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	66	59	59	54	47	42	42	50	54
	Employees	ND	1,132	1,150	1,217	1,242	1,106	972	709	753
	Payroll	ND	80,422	71,420	91,638	94,429	50,115	37,774	50,217	53,341
Deep sea freight transportation	Establishments	61	63	69	73	69	57	58	61	65
	Employees	2,535	2,567	2,622	3,729	3,190	2,486	2,801	2,279	2,374
	Payroll	131,904	150,701	207,300	226,810	208,144	169,055	180,139	159,025	177,386
Deep sea passenger transportation	Establishments	36	32	31	37	34	31	33	29	29
	Employees	8,879	8,849	8,492	9,077	ND	ND	ND	ND	ND
	Payroll	428,941	536,753	504,625	571,590	ND	ND	ND	ND	ND
Marinas	Establishments	528	532	551	513	493	442	428	430	411
	Employees	5,079	5,067	5,069	5,494	4,935	5,024	4,665	4,439	4,657
	Payroll	111,324	125,763	133,384	146,390	148,592	151,677	132,955	133,017	142,997
Marine cargo handling	Establishments	68	66	63	66	53	56	59	55	64
	Employees	5,651	5,671	6,409	7,266	6,585	8,052	7,288	7,547	7,484
	Payroll	171,481	175,257	177,983	189,020	173,788	192,473	185,309	191,560	195,458
Navigational services to shipping	Establishments	140	149	148	142	145	147	145	145	150
	Employees	817	686	660	781	1,484	894	829	980	1,047
	Payroll	39,524	39,309	42,200	48,370	61,470	56,917	60,641	76,853	75,561
Port & harbor operations	Establishments	26	29	31	27	29	40	32	34	32
	Employees	592	1,045	973	584	459	712	527	470	377
	Payroll	19,071	24,327	22,606	19,417	12,872	24,668	19,006	20,525	16,879
Ship & boat building	Establishments	290	306	312	301	296	297	261	248	246
	Employees	11,830	12,503	12,729	12,385	12,332	12,419	8,221	7,363	7,909
	Payroll	393,985	443,379	454,209	427,888	469,382	442,096	296,537	302,909	325,942

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Georgia Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	14,124	1,962,985	435,997	717,018
Commercial Harvesters	725	28,247	9,563	13,763
Seafood Processors & Dealers	1,231	96,534	37,203	49,108
Importers	5,267	1,448,932	232,219	441,698
Seafood Wholesalers & Distributors	1,096	136,685	47,138	66,244
Retail	5,806	252,587	109,873	146,205

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	13,685	14,374	13,465	11,534	11,331	13,079	11,750	13,719	16,179	16,315
Finfish & other	649	747	729	574	625	622	626	279	146	111
Shellfish	13,036	13,627	12,736	10,960	10,706	12,457	11,124	13,440	16,033	16,204
Blue crab	1,970	2,508	3,096	2,959	3,767	3,910	3,839	2,648	3,341	4,001
Clams	521	426	658	298	290	383	473	430	605	603
Groupers	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	123	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Shrimp	10,320	10,589	8,936	7,640	6,446	7,877	6,602	10,092	11,398	11,078
Snails (conchs)	69	4	3	6	1	6	11	27	39	27
Snappers	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	269	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	9,437	9,659	9,638	8,294	7,908	8,957	7,357	7,215	12,795	10,304
Finfish & other	409	420	401	285	304	267	306	168	83	62
Shellfish	9,028	9,239	9,237	8,009	7,603	8,691	7,051	7,047	12,712	10,242
Blue crab	1,713	2,963	4,302	4,091	4,421	4,255	3,597	2,329	3,427	4,107
Clams	75	70	112	46	49	54	76	81	107	98
Groupers	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	37	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
Shrimp	5,591	5,090	4,531	3,851	2,797	3,132	3,321	4,548	4,355	3,888
Snails (conchs)	90	4	3	5	1	5	11	18	30	18
Snappers	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	93	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue crab	1.15	0.85	0.72	0.72	0.85	0.92	1.07	1.14	0.97	0.97
Clams	6.94	6.10	5.85	6.49	5.89	7.03	6.24	5.30	5.68	6.18
Groupers	ND	ND	ND	ND	3.33	ND	ND	ND	ND	ND
Shrimp	1.85	2.08	1.97	1.98	2.30	2.51	1.99	2.22	2.62	2.85
Snails (conchs)	0.77	1.10	1.03	1.22	1.25	1.31	1.00	1.50	1.30	1.50
Snappers	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	2.89	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>

<sup>1</sup>ND = these data are confidential thus not disclosable

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	73	7,717	3,658	5,420
Private Boat	204	22,478	7,480	13,185
Shore	189	20,190	6,639	11,420
Total Durable Equipment Impacts	2,321	248,406	99,265	157,656
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>2,787</b>	<b>298,791</b>	<b>117,042</b>	<b>187,681</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
For-Hire	2,168	2,337	Fishing Tackle	64,149
Private Boat	776	18,113	Other Equipment	16,575
Shore	4,593	9,808	Boat Expenses	146,202
<i>Total Trip Expenditures</i>	<i>7,537</i>	<i>30,258</i>	Vehicle Expenses	16,370
			Second Home Expenses	0
			<i>Total Durable Equipment Expenditures</i>	<i>243,297</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>281,092</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	112	104	135	121	149	190	146	145	146	134
Non-Coastal	113	120	67	66	115	154	91	136	131	96
Out of State	42	53	43	33	45	98	45	61	78	74
<b>Total Anglers</b>	<b>268</b>	<b>278</b>	<b>245</b>	<b>219</b>	<b>308</b>	<b>441</b>	<b>282</b>	<b>342</b>	<b>355</b>	<b>303</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	12	26	25	29	31	17	16	7	16	20
Private	549	486	538	480	577	731	516	530	620	496
Shore	410	457	370	289	421	456	311	335	335	376
<b>Total Trips</b>	<b>971</b>	<b>969</b>	<b>933</b>	<b>798</b>	<b>1,029</b>	<b>1,204</b>	<b>843</b>	<b>872</b>	<b>971</b>	<b>892</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black drum	H	44	19	20	20	51	92	15	70	11	19
	R	27	42	11	29	35	65	23	40	5	20
Black sea bass	H	104	71	86	67	35	99	18	14	44	15
	R	238	143	218	184	292	581	112	162	226	135
Bluefish	H	1	(1)	4	3	11	8	1	13	3	6
	R	23	16	21	23	103	117	72	107	70	52
Drum (Atlantic croaker)	H	249	39	39	34	45	38	82	35	44	38
	R	965	154	281	284	229	294	435	264	262	168
Drum (southern kingfish)	H	504	661	511	448	575	697	587	585	873	377
	R	847	818	563	668	625	873	559	465	668	605
Drum (spotted seatrout)	H	426	341	242	378	577	642	506	384	290	527
	R	738	610	642	809	1,039	721	915	742	552	1,029
Porgies (sheepshead)	H	128	82	65	36	59	65	52	104	138	59
	R	122	26	57	52	85	98	32	38	45	29
Red drum	H	123	139	105	69	113	133	69	195	107	46
	R	273	142	334	137	226	314	168	483	213	90
Sharks <sup>3</sup>	H	4	1	2	(1)	2	3	1	(1)	3	1
	R	212	293	366	356	581	518	330	267	297	322
Southern flounder	H	84	53	38	23	92	49	34	35	28	18
	R	16	33	8	17	(1)	1	10	3	12	5

<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>3</sup>Sharks include species within the requiem shark family, blacktip sharks, Atlantic sharpnose sharks, and unidentified sharks.

## Georgia's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	209,137 (2.9%)	3,387,337 (3.0%)	116,311 (2.9%)	185,932 (2.9%)	324,847 (2.9%)	0.12
2011	214,635 (2.9%)	3,328,033 (2.9%)	141,481 (2.7%)	235,834 (2.9%)	417,438 (2.8%)	0.06
%change	2.63%	-1.75%	21.64%	26.84%	28.50%	-50 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	24	29	24	21	34	45	50	52	61
	Receipts	2,249	2,030	2,642	1,957	2,187	3,489	3,741	5,458	5,540
Seafood sales, retail	Firms	72	69	64	78	87	101	99	96	89
	Receipts	4,668	4,855	6,625	7,180	8,671	6,922	5,917	6,474	8,646

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	11	11	11	8	6	7	6	6	5
	Employees	994	ND	1,155	1,164	ND	ND	ND	1,056	1,022
	Payroll	28,432	ND	39,839	43,637	ND	ND	ND	37,343	39,433
Seafood Sales, wholesale	Establishments	39	36	29	30	42	30	33	36	28
	Employees	580	619	640	659	688	565	532	514	562
	Payroll	32,047	31,012	32,781	31,654	31,033	20,122	18,628	20,075	20,660
Seafood sales, retail	Establishments	46	50	59	55	44	48	42	48	51
	Employees	152	159	185	184	179	160	162	176	176
	Payroll	2,243	2,437	2,753	2,724	2,633	2,433	2,447	2,502	2,566

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	6	6	7	6	6	6	5	4	4
	Employees	ND	ND	ND	ND	33	28	ND	ND	ND
	Payroll	ND	ND	ND	ND	1,883	2,040	1,700	ND	ND
Deep sea freight transportation	Establishments	23	18	19	15	13	14	13	14	12
	Employees	256	185	193	ND	132	156	29	ND	51
	Payroll	12,201	10,306	10,658	ND	10,090	11,275	2,192	2,465	4,833
Deep sea passenger transportation	Establishments	NA	NA	NA	NA	1	NA	NA	NA	1
	Employees	NA	NA	NA	NA	ND	NA	NA	NA	ND
	Payroll	NA	NA	NA	NA	ND	NA	NA	NA	ND
Marinas	Establishments	69	57	60	66	68	60	58	62	63
	Employees	642	ND	ND	ND	569	527	541	631	580
	Payroll	12,870	ND	ND	ND	12,701	15,571	15,736	17,428	16,986
Marine cargo handling	Establishments	14	18	17	17	17	17	18	17	20
	Employees	ND	2,018	2,350	3,003	2,501	2,660	3,707	2,971	4,655
	Payroll	ND	68,696	80,706	104,596	110,857	97,869	87,410	84,675	108,674
Navigational services to shipping	Establishments	9	8	8	10	11	11	9	8	8
	Employees	ND	ND	136	ND	217	182	ND	ND	ND
	Payroll	ND	ND	7,784	ND	11,141	10,193	12,185	11,237	ND
Port & harbor operations	Establishments	4	7	6	5	4	5	5	4	2
	Employees	ND	ND	ND	196	98	ND	ND	ND	ND
	Payroll	ND	ND	ND	3,303	3,108	ND	ND	ND	ND
Ship & boat building	Establishments	18	20	17	16	21	20	14	12	15
	Employees	1,580	ND	ND	1,967	2,225	2,159	ND	ND	ND
	Payroll	40,768	ND	ND	64,667	68,646	69,096	ND	ND	ND

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

ND- these data are confidential and therefore not available

NA- these data are not available



**2012 Economic Impacts of the North Carolina Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	8,800	782,684	218,377	325,893
Commercial Harvesters	2,186	123,481	50,140	68,161
Seafood Processors & Dealers	1,034	69,389	26,979	34,862
Importers	1,488	409,189	65,580	124,739
Seafood Wholesalers & Distributors	419	46,002	16,133	21,295
Retail	3,673	134,624	59,544	76,837

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	84,926	79,703	64,890	70,121	82,285	86,822	77,248	79,865	71,183	72,912
Finfish & other	31,560	38,910	34,901	37,716	36,203	34,445	34,002	33,376	31,309	31,056
Shellfish	53,366	40,793	29,989	32,405	46,082	52,377	43,246	46,489	39,874	41,855
Atlantic croaker	2,924	3,528	3,409	3,563	2,714	3,142	3,004	3,410	3,164	2,136
Black sea bass	1,417	1,486	1,332	1,715	1,195	1,156	1,401	948	628	688
Blue crab	37,108	24,465	20,274	17,087	21,432	27,555	27,429	26,544	21,282	22,809
Clams	3,399	3,390	2,798	2,656	2,660	2,435	2,141	2,640	1,933	2,130
Flounders	9,671	11,503	10,963	13,301	11,335	10,886	10,124	10,908	8,890	7,420
Groupers	1,200	1,124	1,214	1,559	1,995	1,939	1,609	1,506	1,302	1,206
King mackerel	1,214	1,573	2,054	2,120	1,967	1,632	1,500	644	1,062	831
Shrimp	10,931	9,463	4,409	9,141	17,905	19,251	8,528	10,691	10,886	13,333
Snappers	686	873	1,116	953	1,601	1,784	1,073	955	1,004	900
Tunas	1,989	3,317	3,321	4,060	4,046	3,393	2,922	1,489	2,437	4,398

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	139,401	134,078	79,607	68,744	62,871	71,209	68,962	71,994	67,487	56,673
Finfish & other	88,721	91,383	49,435	35,675	30,440	27,706	32,419	32,519	29,806	22,784
Shellfish	50,681	42,696	30,172	33,069	32,432	43,503	36,543	39,474	37,681	33,889
Atlantic croaker	14,429	11,993	11,903	10,397	7,271	5,792	6,135	7,312	5,054	3,107
Black sea bass	851	881	690	778	473	485	615	401	272	256
Blue crab	42,770	34,129	25,430	25,343	21,425	32,917	29,707	30,683	30,035	26,787
Clams	547	551	418	427	438	400	367	366	302	404
Flounders	5,772	7,302	5,937	6,272	4,754	5,009	5,256	5,001	4,102	2,736
Groupers	518	478	481	587	701	683	553	493	366	327
King mackerel	765	955	1,246	1,186	1,059	1,037	778	329	408	297
Shrimp	6,167	4,881	2,358	5,737	9,537	9,427	5,408	5,955	5,140	6,141
Snappers	269	339	433	345	550	603	374	320	326	279
Tunas	914	1,424	1,271	1,982	1,836	1,041	1,028	703	1,056	1,482

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic croaker	0.20	0.29	0.29	0.34	0.37	0.54	0.49	0.47	0.63	0.69
Black sea bass	1.67	1.69	1.93	2.21	2.53	2.39	2.28	2.36	2.31	2.69
Blue crab	0.87	0.72	0.80	0.67	1.00	0.84	0.92	0.87	0.71	0.85
Clams	6.22	6.15	6.69	6.21	6.08	6.09	5.83	7.21	6.39	5.28
Flounders	1.68	1.58	1.85	2.12	2.38	2.17	1.93	2.18	2.17	2.71
Groupers	2.32	2.35	2.52	2.65	2.84	2.84	2.91	3.06	3.56	3.69
King mackerel	1.59	1.65	1.65	1.79	1.86	1.57	1.93	1.96	2.60	2.79
Shrimp	1.77	1.94	1.87	1.59	1.88	2.04	1.58	1.80	2.12	2.17
Snappers	2.55	2.57	2.58	2.76	2.91	2.96	2.87	2.98	3.08	3.22
Tunas	2.18	2.33	2.61	2.05	2.20	3.26	2.84	2.12	2.31	2.97

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	735	72,546	33,215	49,682
Private Boat	1,447	156,774	50,867	88,816
Shore	3,672	353,081	116,327	198,063
Total Durable Equipment Impacts	12,348	1,285,220	491,323	776,607
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>18,202</b>	<b>1,867,621</b>	<b>691,732</b>	<b>1,113,168</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	290,392
For-Hire	35,536	11,511	Other Equipment	97,065
Private Boat	17,398	117,172	Boat Expenses	515,038
Shore	120,340	135,887	Vehicle Expenses	468,255
<i>Total Trip Expenditures</i>	<i>173,275</i>	<i>264,570</i>	Second Home Expenses	70,078
			<i>Total Durable Equipment Expenditures</i>	<i>1,440,830</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>1,878,675</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	524	613	685	588	564	587	446	544	490	614
Non-Coastal	281	290	285	265	265	303	259	296	254	283
Out of State	1,298	1,156	1,280	1,374	1,079	1,079	976	1,073	755	764
<b>Total Anglers</b>	<b>2,103</b>	<b>2,058</b>	<b>2,250</b>	<b>2,227</b>	<b>1,908</b>	<b>1,970</b>	<b>1,681</b>	<b>1,914</b>	<b>1,499</b>	<b>1,661</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	174	183	259	234	218	192	146	165	152	160
Private	2,181	2,640	2,346	2,452	2,671	2,461	2,005	2,199	1,899	2,061
Shore	4,379	4,090	3,938	4,178	3,445	4,246	3,158	3,313	2,690	3,083
<b>Total Trips</b>	<b>6,734</b>	<b>6,913</b>	<b>6,543</b>	<b>6,864</b>	<b>6,334</b>	<b>6,899</b>	<b>5,309</b>	<b>5,677</b>	<b>4,741</b>	<b>5,304</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)<sup>1</sup>**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black sea bass	H	166	397	231	125	110	58	107	139	95	76
	R	418	1,300	1,195	1,176	952	560	667	1,104	1,063	2,085
Bluefish	H	953	1,231	1,382	917	1,258	1,178	828	1,104	1,153	889
	R	1,416	1,762	2,044	1,836	2,377	2,136	1,553	2,221	1,923	1,036
Dolphinfish	H	335	268	663	522	533	358	367	499	472	327
	R	14	5	2	24	5	2	3	5	8	2
Drum (Atlantic croaker and spot)	H	4,286	4,337	3,340	3,535	3,539	2,163	1,425	1,313	1,454	1,073
	R	2,685	2,914	2,736	5,167	2,805	2,742	3,134	2,469	2,798	2,014
Drum (spotted seatrout)	H	107	285	586	565	531	655	608	195	216	501
	R	132	261	1,059	595	849	881	1,213	1,685	1,916	1,647
Flounder (lefteye and summer)	H	110	188	156	150	190	71	100	143	92	106
	R	830	1,341	878	925	1,090	1,689	1,213	1,586	990	1,397
King mackerel	H	115	148	139	143	269	105	91	37	15	28
	R	22	79	73	32	44	25	12	7	1	3
Spanish mackerel	H	349	326	336	306	495	744	678	484	368	491
	R	165	150	180	96	259	449	312	294	171	235
Striped bass	H	138	432	137	99	49	36	12	34	106	8
	R	285	585	124	63	82	175	121	108	296	176
Yellowfin tuna	H	328	169	181	166	102	26	29	23	26	57
	R	56	10	8	13	1	(1)	1	1	(1)	4

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

## North Carolina's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	208,387 (2.9%)	3,338,231 (2.9%)	104,552 (2.6%)	169,931 (2.7%)	311,088 (2.8%)	0.25
2011	215,113 (2.9%)	3,284,592 (2.9%)	131,631 (2.5%)	227,638 (2.8%)	436,144 (2.9%)	0.15
%change	3.23%	-1.61%	25.90%	33.96%	40.20%	-40 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	33	27	26	27	30	ND	ND	40	50
	Receipts	1,646	1,515	1,106	1,084	1,813	ND	ND	1,652	2,705
Seafood sales, retail	Firms	133	144	130	115	150	114	139	126	144
	Receipts	11,565	12,294	10,913	11,342	14,999	10,918	12,073	9,057	10,386

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	18	18	17	18	22	18	16	16	14
	Employees	ND	ND	ND	475	ND	232	170	171	ND
	Payroll	ND	ND	ND	11,563	12,659	5,373	4,461	4,749	4,830
Seafood Sales, wholesale	Establishments	68	72	77	70	71	65	66	66	64
	Employees	628	627	703	582	597	559	584	590	603
	Payroll	16,170	17,411	17,577	16,543	15,655	16,843	17,383	18,348	19,344
Seafood sales, retail	Establishments	87	88	90	89	86	90	77	82	84
	Employees	304	340	316	250	241	219	243	247	244
	Payroll	3,982	4,234	4,185	4,129	4,170	4,143	4,494	5,017	5,250

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	5	5	5	4	6	4	6	4	5
	Employees	ND	ND	ND	ND	54	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	2,061	ND	2,366	ND	ND
Deep sea freight transportation	Establishments	7	7	7	8	6	5	6	10	8
	Employees	ND	ND	ND	ND	ND	ND	9	ND	ND
	Payroll	ND	ND	ND	ND	510	533	617	ND	ND
Deep sea passenger transportation	Establishments	3	2	2	1	1	NA	1	NA	1
	Employees	ND	ND	ND	ND	ND	NA	ND	NA	ND
	Payroll	ND	ND	ND	ND	ND	NA	ND	NA	ND
Marinas	Establishments	104	97	103	103	96	107	105	102	104
	Employees	ND	644	654	681	522	656	501	536	524
	Payroll	ND	16,529	16,530	16,616	14,922	17,164	15,858	16,238	16,187
Marine cargo handling	Establishments	7	10	12	9	13	13	12	11	14
	Employees	433	668	641	757	652	760	914	600	ND
	Payroll	16,001	28,676	25,988	19,736	25,164	23,328	20,707	20,755	ND
Navigational services to shipping	Establishments	6	6	8	7	14	10	11	13	11
	Employees	ND	ND	ND	ND	102	87	96	94	86
	Payroll	ND	ND	ND	ND	3,773	3,668	4,313	3,968	4,041
Port & harbor operations	Establishments	6	5	5	5	3	3	2	4	3
	Employees	271	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	12,650	ND	ND	ND	ND	ND	ND	ND	ND
Ship & boat building	Establishments	55	62	65	74	78	77	64	60	57
	Employees	3,290	3,622	3,957	4,232	ND	4,281	1,983	1,501	1,515
	Payroll	106,656	127,472	133,665	153,672	ND	138,243	68,004	64,807	66,929

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the South Carolina Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	1,766	119,975	41,253	57,683
Commercial Harvesters	551	39,579	15,404	21,254
Seafood Processors & Dealers	123	9,514	3,722	4,786
Importers	113	30,989	4,967	9,447
Seafood Wholesalers & Distributors	60	6,205	2,180	2,863
Retail	919	33,688	14,980	19,332

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	21,242	18,542	17,570	17,025	16,017	17,872	17,032	21,205	23,300	23,978
Finfish & other	4,650	5,042	4,781	4,995	4,744	4,614	5,114	6,740	8,429	6,472
Shellfish	16,592	13,499	12,789	12,031	11,274	13,259	11,918	14,465	14,871	17,505
Black sea bass	168	302	191	168	236	257	362	213	182	303
Blue crab	5,057	3,591	3,766	3,304	3,511	4,187	4,059	3,593	5,084	5,803
Clams	1,537	1,238	934	834	697	535	542	688	638	685
Groupers	993	1,020	1,013	1,335	1,524	1,421	1,021	949	1,169	612
Oysters	1,199	1,229	1,471	1,369	1,375	1,739	1,738	1,858	1,975	2,165
Sharks	66	128	136	144	78	78	56	123	166	134
Shrimp	8,736	7,385	6,572	6,481	5,634	6,712	5,487	8,168	7,008	8,694
Snappers	725	1,237	1,190	823	773	864	568	1,079	1,080	1,337
Swordfish	616	555	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	187	1,116	1,944	2,777	1,535
Tilefish	287	221	143	271	5	66	9	25	8	128

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	13,728	12,439	11,212	10,602	9,310	10,081	9,375	10,567	12,131	12,260
Finfish & other	2,598	2,768	2,274	2,249	1,994	1,940	2,161	2,774	3,220	2,354
Shellfish	11,130	9,670	8,938	8,353	7,316	8,141	7,215	7,793	8,911	9,906
Black sea bass	104	212	115	86	114	132	168	98	100	118
Blue crab	4,411	4,374	4,440	4,215	4,137	4,484	4,014	3,275	5,439	5,903
Clams	263	211	175	165	135	119	123	152	137	102
Groupers	366	363	319	399	404	379	274	241	269	141
Oysters	283	275	308	291	285	324	309	332	337	369
Sharks	124	206	174	147	105	110	63	87	108	102
Shrimp	6,133	4,773	3,957	3,650	2,727	3,162	2,716	3,951	2,918	3,434
Snappers	290	492	447	267	250	277	194	365	356	426
Swordfish	219	200	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	71	459	630	741	474
Tilefish	145	124	80	139	4	28	5	15	4	46

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black sea bass	1.61	1.42	1.66	1.97	2.07	1.94	2.15	2.16	1.82	2.58
Blue crab	1.15	0.82	0.85	0.78	0.85	0.93	1.01	1.10	0.93	0.98
Clams	5.85	5.86	5.34	5.06	5.17	4.51	4.42	4.54	4.65	6.70
Groupers	2.71	2.81	3.17	3.35	3.77	3.75	3.73	3.94	4.35	4.33
Oysters	4.24	4.46	4.78	4.71	4.82	5.36	5.63	5.60	5.85	5.86
Sharks	0.53	0.62	0.78	0.98	0.74	0.71	0.89	1.42	1.53	1.32
Shrimp	1.42	1.55	1.66	1.78	2.07	2.12	2.02	2.07	2.40	2.53
Snappers	2.50	2.51	2.66	3.08	3.09	3.12	2.92	2.95	3.03	3.13
Swordfish	2.81	2.78	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	2.64	2.43	3.09	3.75	3.24
Tilefish	1.98	1.78	1.78	1.95	1.36	2.30	2.00	1.71	1.84	2.78

<sup>1</sup>ND = these data are confidential thus not disclosable

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	155	13,601	6,165	9,349
Private Boat	582	54,223	17,248	30,223
Shore	1,045	96,975	31,290	55,175
Total Durable Equipment Impacts	2,313	218,823	86,303	133,935
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>4,095</b>	<b>383,622</b>	<b>141,006</b>	<b>228,682</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	83,308
For-Hire	8,055	1,229	Other Equipment	17,807
Private Boat	9,902	42,844	Boat Expenses	127,722
Shore	57,480	22,138	Vehicle Expenses	6,964
<i>Total Trip Expenditures</i>	<i>75,437</i>	<i>66,211</i>	Second Home Expenses	0
			<i>Total Durable Equipment Expenditures</i>	<i>235,801</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>377,449</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	222	227	230	234	277	236	231	210	148	207
Non-Coastal	79	101	120	146	113	103	112	104	66	123
Out of State	270	334	448	617	551	604	554	494	264	406
<b>Total Anglers</b>	<b>571</b>	<b>662</b>	<b>798</b>	<b>997</b>	<b>941</b>	<b>942</b>	<b>898</b>	<b>809</b>	<b>478</b>	<b>736</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	39	78	25	21	85	69	80	77	81	25
Private	1,021	1,231	949	978	1,132	1,266	1,008	1,078	847	1,189
Shore	1,038	1,138	1,220	1,240	813	1,116	1,325	1,143	879	992
<b>Total Trips</b>	<b>2,098</b>	<b>2,447</b>	<b>2,194</b>	<b>2,239</b>	<b>2,030</b>	<b>2,451</b>	<b>2,413</b>	<b>2,298</b>	<b>1,807</b>	<b>2,206</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black sea bass	H	44	238	74	182	125	90	37	216	56	91
	R	289	770	513	583	921	864	471	640	661	811
Bluefish	H	66	132	247	134	176	128	135	444	224	206
	R	215	386	317	622	677	333	252	318	550	169
Drum (Atlantic croaker and spot)	H	724	902	502	1,229	643	2,799	829	370	947	1,030
	R	672	530	504	1,092	376	394	840	354	464	358
Drum (southern kingfish)	H	983	1,149	998	926	699	823	1,056	389	609	778
	R	1,049	750	391	1,163	540	612	690	(1)	68	146
Drum (spotted seatrout)	H	123	189	272	231	160	154	124	101	66	236
	R	314	277	462	544	572	734	400	407	280	817
Porgies (sheepshead)	H	129	95	45	61	109	217	222	102	171	76
	R	50	22	47	27	21	60	23	58	93	45
Red drum	H	163	108	131	48	72	120	70	173	161	121
	R	430	438	494	540	437	553	751	787	665	543
Sharks <sup>3</sup>	H	(1)	15	38	(1)	3	5	13	(1)	3	3
	R	380	402	604	514	171	259	397	468	347	626
Southern flounder	H	111	216	85	111	77	103	89	109	102	91
	R	52	89	73	200	106	103	74	(1)	17	35
Spanish mackerel	H	25	56	70	23	95	54	74	71	87	80
	R	223	85	185	28	97	68	56	28	67	98

<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>3</sup>Sharks include species within the requiem shark family, blacktip sharks, Atlantic sharpnose sharks, and unidentified sharks.

## South Carolina's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	99,128 (1.4%)	1,550,604 (1.4%)	44,594 (1.1%)	74,731 (1.2%)	130,500 (1.2%)	0.16
2011	100,481 (1.4%)	1,521,123 (1.3%)	54,433 (1.1%)	96,766 (1.2%)	168,716 (1.1%)	ND
%change	1.36%	-1.90%	22.06%	29.49%	29.28%	NA

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	19	22	14	12	12	15	21	23	32
	Receipts	1,115	1,797	2,234	1,303	857	1,155	1,794	1,386	1,326
Seafood sales, retail	Firms	74	74	61	76	75	64	76	78	87
	Receipts	4,599	4,612	3,588	3,427	3,876	4,650	4,534	3,978	5,535

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	3	4	3	3	5	2	2	2	1
	Employees	ND	28	7	ND	ND	ND	ND	ND	ND
	Payroll	ND	805	145	ND	ND	ND	ND	ND	ND
Seafood Sales, wholesale	Establishments	22	18	22	19	26	20	15	16	12
	Employees	ND	ND	211	191	220	108	111	120	101
	Payroll	ND	ND	5,818	5,542	6,186	3,770	3,676	3,868	3,760
Seafood sales, retail	Establishments	55	58	64	62	60	64	57	56	61
	Employees	244	ND	206	190	210	292	261	260	245
	Payroll	2,911	ND	2,773	2,905	3,155	4,871	4,901	4,580	4,231

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	3	4	4	4	5	4	4	4	4
	Employees	ND	ND	45	ND	60	ND	ND	ND	ND
	Payroll	ND	ND	1,882	ND	2,352	ND	ND	ND	ND
Deep sea freight transportation	Establishments	8	7	10	9	6	4	8	7	6
	Employees	ND	ND	113	ND	67	ND	ND	20	ND
	Payroll	ND	ND	4,600	ND	3,419	659	ND	758	722
Deep sea passenger transportation	Establishments	3	1	1	1	1	7	6	2	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	63	69	70	71	72	68	69	73	75
	Employees	365	378	398	452	469	588	533	537	543
	Payroll	6,696	7,645	8,050	10,105	11,498	13,753	12,642	13,786	15,805
Marine cargo handling	Establishments	15	17	18	17	15	17	14	12	14
	Employees	2,415	2,253	1,994	2,707	1,419	1,282	1,953	1,731	1,717
	Payroll	78,941	81,691	66,767	83,142	75,967	56,812	43,170	39,625	49,172
Navigational services to shipping	Establishments	6	5	7	8	6	8	8	7	8
	Employees	144	ND	ND	155	152	227	208	222	217
	Payroll	5,716	ND	ND	7,588	7,369	11,916	12,522	12,591	11,922
Port & harbor operations	Establishments	1	1	1	1	3	3	2	2	5
	Employees	ND	ND	ND	ND	113	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	7,058	ND	ND	ND	ND
Ship & boat building	Establishments	41	46	48	45	41	46	41	39	41
	Employees	2,253	2,380	2,672	2,425	2,962	3,001	1,929	1,922	1,943
	Payroll	78,963	90,974	97,087	92,098	102,531	97,743	73,988	74,945	85,568

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

ND- these data are confidential and therefore not available

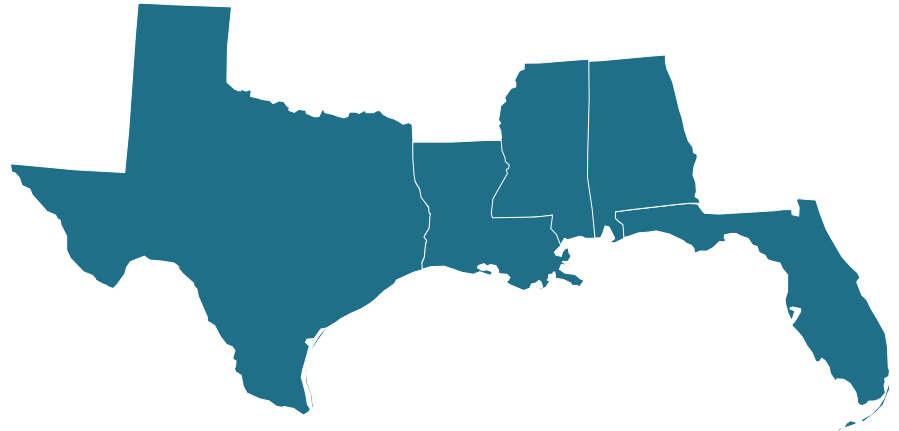
NA- these data are not available





# Gulf of Mexico

- Alabama
- West Florida
- Louisiana
- Mississippi
- Texas



### Management Context

The Gulf of Mexico Region includes Alabama, Louisiana, Mississippi, Texas, and West Florida. Federal fisheries in this region are managed by the Gulf of Mexico Fishery Management Council (GMFMC) and NOAA Fisheries (NMFS) under seven fishery management plans (FMPs). The coastal migratory pelagic resources and spiny lobster fisheries are managed in conjunction with the South Atlantic Fishery Management Council (SAFMC).

#### Gulf of Mexico Region FMPs

1. Red Drum
2. Shrimp
3. Reef Fish
4. Coastal Migratory Pelagic Resources (with SAFMC)
5. Spiny Lobster (with SAFMC)
6. Corals
7. Aquaculture

Of the stocks or stock complexes covered in these fishery management plans, four are currently listed as overfished: gag, gray triggerfish, greater amberjack, and red snapper. Three stocks or stock complexes are currently subject to overfishing: gag, gray triggerfish, and greater amberjack.

There have been two changes to the Gulf of Mexico FMPs over the last several years. The Aquaculture FMP was approved in 2009 but it has not been implemented; and is the only federal FMP to solely address aquaculture. The purpose of the plan maximize the benefits to the Nation by establishing a regional permitting process to manage the development of an environmentally sound and economically sustainable aquaculture industry in federal waters of the Gulf of Mexico. The other recent change to the Gulf of Mexico FMPs, was the repeal of the Stone Crab FMP. Stone crab was historically managed as a federal fishery, however, as of October 2011, the Gulf of Mexico states will now be responsible for management of the stone crab.

In recent years, fishing operations in the Gulf of Mexico have been significantly disrupted by hurricanes, especially with major storms making landfall in Louisiana and Texas in 2005 (Hurricanes Katrina and Rita) and 2008 (Hurricanes Gustav and Ike). Locally, storm surge severely disrupted or destroyed the infrastructure necessary to support fishing, such as vessels, fuel and ice suppliers, and fish houses. For the affected areas and individuals, recovery is a long and slow process, often involving rebuilding homes and settling insurance claims before the repair and restart of fishing operations.

In 2010, the Deepwater Horizon MC252 oil spill severely affected Gulf fisheries. Large parts of the Gulf of Mexico, including state and federal waters, were closed to fishing during May through October, 2010. Both Alabama and Mississippi reported less than half and Louisiana about three quarters of their annual shrimp landings compared to the average of the previous three years. While the Gulf Coast Claims Facility has paid out over \$700

million to the Gulf fishing industry, the long term consequences of the oil spill on the fishing industry have yet to be fully assessed.

There are two catch share programs in the Gulf of Mexico. These are the: 1) Red Snapper Individual Fishing Quota (IFQ) program, and 2) Grouper-Tilefish IFQ program. Below is a description of these catch share programs and their performance.

**Red Snapper IFQ Program** This program was implemented in 2007 to reduce overcapacity and mitigate derby fishing conditions. The key performance indicators of this program show that since implementation from 2007 through 2011, total revenue and average price per pound of red snapper have increased while quota, landings and active vessels decreased. The red snapper commercial quota has not been exceeded since 2007; and in 2010 despite the fishing closures due to the Deepwater Horizon oil spill, the commercial red snapper sector was less affected because fishermen were able to transfer quota allocation to fishermen fishing in other areas of the Gulf of Mexico or used their quota allocation after fishing areas reopened.

**Grouper-Tilefish IFQ Program** This program was implemented in 2010 to reduce overcapacity and mitigate derby fishing conditions in the grouper-tilefish segment of the commercial reef fish fishery. The key performance indicators of this program show that since implementation from 2010 through 2011, total revenue and average price per pound of grouper-tilefish have increased while quota, landings and active vessels decreased. Also, the commercial quota was not exceeded in 2010 or 2011.

## Commercial Fisheries

In 2012, commercial fishermen in the Gulf of Mexico Region landed 1.7 billion pounds of finfish and shellfish, earning \$763 million in landings revenue. Landings revenue was dominated by shrimp (\$392 million) and menhaden (\$87 million). These species commanded ex-vessel prices of \$1.86 and \$0.07 per pound, respectively, and comprised 63% of total landings revenue, and 90% of total landings in the Gulf of Mexico Region.

### Key Gulf of Mexico Region Commercial Species

- Blue crab
- Crawfish
- Groupers
- Menhaden
- Mulletts
- Oysters
- Red snapper
- Shrimp
- Stone crab
- Tunas

Louisiana and Texas had the highest landings revenue in the region in 2012, \$331 million and \$194 million, respectively. The next greatest landings revenue came from West Florida with \$142 million in landings revenue. In terms of pounds landed, Louisiana had the highest landings (1.2 billion pounds), followed by Mississippi (264 million pounds) and Texas (82 million pounds).

### Economic Impacts<sup>1,2</sup>

In 2012, the Gulf of Mexico Region's seafood industry generated \$461 million in sales impacts in Alabama, \$1.9 billion in sales impacts in Louisiana, \$377 million in sales impacts in Mississippi, \$2.5 billion in sales impacts in Texas, and \$17 billion in sales impacts in Florida. Florida generated the largest employment, income, and value added impacts, generating 82,000 jobs, \$3.1 billion, and \$5.5 billion, respectively. The smallest income impacts were generated in Mississippi (\$149 million) and the smallest employment impacts were also generated in Mississippi (8,500 jobs).

The sector that generated the greatest employment impacts by state was the importers sector with 44,000 jobs in Florida and 4,200 jobs in Texas. The harvest sector in Texas generated 4,800 jobs. More sales impacts were generated by importers in Florida than any other sector in any another state in the region at \$12 billion and the greatest value added impacts were also generated by importers in Florida (\$3.7 billion).

<sup>1</sup>The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: [www.st.nmfs.noaa.gov/documents/commercial\\_seafood\\_impacts\\_2007-2009.pdf](http://www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf))

<sup>2</sup>Commercial economic impacts were not available separately for West Florida. Impacts for the entire state of Florida are reported here.

## Commercial Fisheries Facts

### Landings revenue

- On average, between 2003 and 2012, the key species or species groups accounted for 91% of total revenue, generating \$622 million in the Gulf of Mexico Region.
- Shrimp had higher landings revenues than any other species or species group, averaging \$372 million in landings revenue from 2003 to 2012.
- Crawfish had the largest one-year increase in landings revenue over the 10 year time period, increasing 600% from \$1.3 million in 2006 to \$9 million in 2007.
- Crawfish had the largest one-year decrease in landings revenue over the 10 year time period, decreasing 85% from \$8.4 million in 2005 to \$1.3 million in 2006.

### Landings

- Key species or species groups contributed an average of 96% annually to total landings between 2003 and 2012.
- Menhaden contributed the most to landings in the region, averaging 1.1 billion pounds from 2003 to 2012.
- Crawfish had the largest one-year increase in landings over the 10 year time period, increasing 979% from 1.5 million in 2006 pounds to 16 million pounds in 2007.
- Crawfish had the largest one-year decrease in landings over the 10 year time period, decreasing 90% from 15 million pounds in 2005 to 1.5 million pounds in 2006.

### Prices

- Stone crab had the highest average annual ex-vessel price per pound (\$4.30) over the time period, followed by oysters (\$3.05), and tunas (\$3.00).
- Menhaden had the lowest average annual ex-vessel price per pound (\$0.06) over the time period, followed by mulletts (\$0.65), and crawfish (\$0.78).
- Tunas had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 71% from \$2.03 per pound in 2010 to \$3.47 in 2011.
- Crawfish had the largest decrease in ex-vessel price over the 10 year time period, decreasing 35% from \$0.88 per pound in 2006 to \$0.57 in 2007.

### Landings Revenue

Landings revenue in the Gulf of Mexico Region totaled \$763 million in 2012. This was a 15% increase (a 18% decrease in real terms) from 2003 levels (\$663 million) and a 6.8% decrease (a 6.4% decrease in real terms) relative to 2011 (\$819 million). Totalling \$573 million in 2012, shellfish revenue experienced a 9.5% increase (a 22% decrease in real terms) from 2003 to 2012 and experienced a 8.3% decrease (7.9% decrease in real terms) from 2011 to 2012.

Between 2003 and 2012, the landings revenue from shrimp increased 7.3% (a 23% decrease in real terms) and the landings revenue for menhaden increased 91% (a 37% increase in real terms). Although in 2012, menhaden landings (1.3 billion pounds) were six times higher than shrimp landings (211 million), the landings revenue for shrimp (\$392 million) was four times higher than the landings revenue for menhaden (\$87 million). In terms

of finfish, Louisiana contributed the most (\$91 million) followed by West Florida (\$60 million), and Mississippi (\$23 million). Shellfish landings revenue was dominated by Louisiana, which also contributed the most (\$241 million) followed by Texas (\$184 million), and West Florida (\$81 million).

From 2003 to 2012, species or species groups with large changes in landings revenue include menhaden (increased 91%), crawfish (increased 71%), and red snapper (increased 31%). Species or species groups with large changes in landings revenue between 2011 and 2012 include tunas (increasing 101%), mullets (decreasing 27%), and groupers (increasing 23%).

#### Landings

Fishermen in the Gulf of Mexico Region landed 1.7 billion pounds of finfish and shellfish in 2012. This was a 3.5% increase from the 1.6 billion pounds landed in 2003 and a 6.5% decrease from the 1.77 billion pounds landed in 2011. Finfish landings contributed 82% of total landings in the Gulf of Mexico Region (1.3 billion pounds) in 2012. From 2011 to 2012, finfish landings experienced a 6.7% decrease.

Over the same time period, shellfish landings experienced a 5.2% decrease from 319 million pounds in 2011 to 303 million in 2012 and a 18% decrease from 367 million pounds in 2003. Menhaden and shrimp had the highest annual landings in the Gulf of Mexico Region in 2012, with 1.3 billion pounds and 211 million pounds, respectively. Together they accounted for 90% of the total landings in 2012. Menhaden landings increased 12% and shrimp landings decreased 18% during this period.

From 2003 to 2012, species or species groups with large changes in landings include tunas (decreasing 39%), groupers (decreasing 27%), and oysters (decreasing 24%). Species or species groups with large changes in landings between 2011 and 2012 include tunas (increasing 101%), crawfish (decreasing 29%), and mullets (decreasing 24%).

#### Prices

The ex-vessel prices for the Gulf of Mexico Region's key species and species groups in 2012 were higher than their 10 year average for ten of the key species (four of the species in real terms). Ex-vessel prices for crawfish and menhaden increased the most between 2003 and 2012, increasing 110% (51% in real terms) and 75% (25% in real terms), respectively. Relative to ex-vessel prices in 2011, the Gulf of Mexico Region's crawfish experienced the greatest increase (18%, 19% in real terms) from \$1.03 per pound in 2011 to \$1.22 in 2012. There were no decreases in ex-vessel price experienced by any species or groups in Gulf of Mexico Region between 2011 and 2012. Relative to ex-vessel prices in 2011, six species or species groups experienced increases, including blue crab (10%).

In Alabama, the species or species group with the largest change in ex-vessel price from 2003 to 2012 was oysters (137% increase, 70% increase in real terms) from \$1.99 to \$4.72. The

largest change in ex-vessel price experienced in Louisiana was for crawfish (110% increase, 51% increase in real terms) from \$0.58 to \$1.22 and in Mississippi the largest change in ex-vessel price was experienced by oysters (109% increase, 50% increase in real terms) from \$1.79 per pound to \$3.75.

#### Recreational Fishing

In 2012, over 3.1 million recreational anglers took 23 million fishing trips in the Gulf of Mexico Region. Over 91% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 55% were taken from a private or rental boat and another 41% were shore-based. Spotted seatrout were the most frequently caught species or species group with 33 million fish caught in 2012, and represented 49% of total fish caught in the region. Of the spotted seatrout caught, 61% of them were released rather than harvested.

#### Key Gulf of Mexico Region Recreational Species

- Atlantic croaker
- Gulf and southern kingfish
- Sand and silver seatrout
- Spotted seatrout
- Sheepshead porgy
- Red drum
- Red snapper
- Southern flounder
- Spanish mackerel
- Striped mullet

#### Economic Impacts and Expenditures<sup>1</sup>

The contribution of recreational fishing activities in the Gulf of Mexico Region are reported in terms of economic impacts at the state level (employment, sales, income, and value added impacts) and expenditures on fishing trips and durable equipment at the regional level. Employment impacts in West Florida were the highest in the region with over 75,000 full- and part-time jobs generated by recreational fishing activities in the state. Louisiana (17,000 jobs), and Texas (14,000 jobs) followed in terms of employment impacts.

Overall, these employment impacts were generated by expenditures on recreational fishing trips taken by anglers (private or rental boat, for-hire boat, or shore-based trips) and expenditures on durable equipment. Throughout the Gulf of Mexico Region, most of the employment impacts in 2012 were generated by expenditures on durable equipment: 85% in Louisiana, 76% in Alabama, and 69% in Mississippi.

In addition to employment impacts, the contribution of recreational fishing activities to the Gulf of Mexico Region's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value added impacts). In 2012, sales impacts were the highest in West Florida (\$5.3 billion in value added impacts), followed by Louisiana (\$1.1 billion), Texas (\$1 billion), Alabama (\$425 million), and Mississippi (\$85 million). In the same year, value added impacts were the highest in West Florida (\$5.3 billion in

<sup>1</sup>Expenditure estimates were generated from the 2011 National Marine Recreational Fishing Expenditure Survey. Economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see The Economic Contribution of Marine Angler Expenditures in the United States, 2006, available at: <http://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2006>)

value added impacts), followed by Louisiana (\$1.1 billion), Texas (\$1 billion), Alabama (\$425 million), and Mississippi (\$85 million).

Overall, total fishing trip and durable equipment expenditures across the Gulf of Mexico Region in 2012 were \$10 billion. Approximately 85% of these expenditures were related to durable equipment purchases. The greatest expenditures were for boat expenses (\$4.8 billion), followed by fishing tackle (\$1.4 billion), vehicle expenses (\$1.2 billion), second home expenses (\$896 million), and other equipment (\$558 million). Fishing trip-related expenditures by the Gulf of Mexico Region's non-residents totaled over \$567 million of which the greatest portion can be attributed to for-hire-based fishing trips (\$263 million). Residents of the Gulf of Mexico Region spent \$1 billion on saltwater fishing trips, with most of these expenses related to private boat trips (\$583 million).

#### *Participation*

There were 3.1 million recreational anglers who fished in the Gulf of Mexico Region in 2012. This was a 6.8% decrease from 2003 (3.3 million anglers). These anglers were Gulf of Mexico Region residents from either a coastal county (2.8 million anglers) or non-coastal county (268,000 anglers).

Over 91% of total anglers in 2012 were residents of a coastal county. Coastal county angler participation in 2012 decreased 7.8% relative to 2003 (3 million anglers) and increased 2.4% between 2011 and 2012. Non-coastal county angler participation increased 5% relative to 2003 (256,000 anglers) and decreased 14% relative to 2011 (311,000 anglers).

#### *Fishing Trips*

Recreational fishermen took 23 million fishing trips in the Gulf of Mexico Region in 2012. This was a 0.9% increase from the 2003 (23 million trips) and was 596,000 more trips than taken in 2011. Of the total trips taken in Gulf of Mexico Region in 2012, approximately 55% of the trips were private or rental boat based (13 million) trips. The other most popular mode of fishing was shore based with 9.5 million trips in 2012.

#### *Harvest and Release*

Of the Gulf of Mexico Region's key species and species groups, spotted seatrout (33 million fish), red drum (9 million fish), sand and silver seatrout (7.4 million fish) and Atlantic croaker (5.2 million fish) were the most often caught by anglers in 2012.

Drum (Atlantic croaker) (75% released), red snapper (71% released), red drum (70% released), spotted seatrout (61% released), and sheepshead porgy (51% released) were most often released rather than harvested. Species or species groups that were harvested more often than released by anglers include striped mullet (92% harvested) and southern flounder (71% harvested).

### **Recreational Fishing Facts**

#### *Participation*

- An average of 3.2 million anglers fished in the Gulf of Mexico Region annually from 2003 to 2012.
- In 2012, coastal county residents made up 91% of total anglers in this region. These anglers averaged 91% 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 occurred between 2010 and 2011, increasing 10%, from 2.5 million anglers to 2.7 million anglers.
- The largest annual decrease during the same period for coastal anglers occurred between 2008 and 2009, decreasing 13%, from 2.9 million anglers to 2.6 million anglers.

#### *Fishing trips*

- In the Gulf of Mexico Region, an average of 23 million fishing trips were taken annually from 2003 to 2012.
- Private or rental boat and shore-based fishing trips accounted for 13 million and 9.5 million fishing trips, respectively, in 2012. Together these made up 96% of the fishing trips taken in that year.
- The largest annual increase in the number of total trips taken annually over the 10 year time period occurred between 2003 and 2004, increasing 15%, from 23 million trips to 26 million trips.
- The largest annual decrease during the same period in total trips taken occurred between 2004 and 2005, decreasing 12%, from 26 million trips to 23 million trips.

#### *Harvest and release*

- Spotted seatrout was the most commonly caught key species or species group, averaging 31 million fish over the 10 year time period. Of these, 61% were released rather than harvested.
- Of the ten 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 red snapper (72% released).
- Striped mullet (88% harvested), followed by southern flounder (75% harvested), and sand and silver seatrout (67% harvested) were key species or groups that experienced the greatest proportion of harvests rather than releases.

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

Across all sectors of the economy in Alabama, Louisiana, Mississippi, Texas, and Florida<sup>2</sup> nearly 20 million full- and part-time employees were employed by about 1.3 million establishments in 2011. Annual payroll totaled \$834 billion. Total employee compensation in the Gulf of Mexico region totaled \$1.3 trillion and the combined gross state product of all states totaled about \$2.6 trillion. In 2011, the commercial fishing location quotient (CFLQ) for Louisiana was the highest in the region at 1.38. Louisiana's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately

<sup>1</sup>Information for 2011 is reported in this section; 2012 data were not available for this report.

<sup>2</sup>Marine Economy information was not available for West Florida, information for the entire state of Florida is provided here.

1.38 times higher than the level of employment in these industries nationwide. The 2011 CFLQ in Florida was second highest in the region at 1.05.

#### *Seafood Sales and Processing*

In 2011, there were 599 nonemployer firms engaged in seafood product preparation and packaging across the Gulf of Mexico region. This was a 61% increase from 2003 levels. Florida (the entire state), with 294 firms and Texas, with 119 firms, had the largest number of firms. Nonemployer firms in the seafood product preparation and packaging sector in the had receipts totaling \$36 million in 2011. The number of employer establishments in this sector decreased 30% from 165 in 2003 to 115 in 2011. The largest number of employer establishments (54) engaged in seafood product preparation and packaging was located in Louisiana. The number of employees in the seafood product preparation and packaging sector decreased 42% from 11,546 employees in 2003 to 6,720 in 2011. Payroll in this sector was \$190 million in 2011, a substantial (27%) decline from 2003.

There were 469 seafood wholesale establishments in the Gulf of Mexico region in 2011, a decrease of 20% from 2003. Most of these firms were in the located in Florida (entire state). The number of employees in the seafood wholesale sector decreased 19% from 4,680 employees in 2003 to 3,788 in 2011. Payroll in this sector was \$131 million in 2011.

Nonemployer firms engaged in seafood retail sales in the Gulf of Mexico region totaled 834 in 2011, a 15% increase from 2003 levels. Florida (the entire state), with 362, and Louisiana, with 192 firms, had the largest number of firms in this sector. Nonemployer firms in the seafood product preparation and packaging sector in the had receipts totaling \$69 million in 2011. Region-wide, there were 344 employer establishments in the seafood retail sales sector in 2011, a decrease of 15% from 2003. Most of these firms were in the located in Florida (145 in the entire state) and Louisiana (100). The number of employees in the seafood wholesale sector decreased 20% from 2,022 employees in 2003 to 1,617 in 2011. Payroll in this sector was \$38 million in 2011.

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

The size of the Transport, Support, and Marine Operations sectors in the Gulf of Mexico is difficult to assess because much of the state-level data is suppressed for confidentiality purposes. It is clear, however, that these sectors play an important role in the regional economy. For example, the Ship and Boat Building Sector consisted of 501 establishments employing 25,580 workers and contributing \$1.3 billion in payroll across five of the six states in the region.

**2012 Economic Impacts of the Gulf of Mexico Region Seafood Industry (thousands of dollars)**

	Landings Revenue	Jobs	Sales	Income	Valued Added
Alabama	46,340	9,947	460,514	172,314	229,316
Louisiana	331,165	33,391	1,927,986	659,974	920,873
Mississippi	49,295	8,532	377,374	149,147	193,349
Texas	194,044	25,911	2,499,832	677,391	1,036,657
Florida	141,671	82,141	16,553,480	3,092,392	5,532,209

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total revenue	662,902	669,002	625,038	691,220	690,211	662,153	643,880	638,900	818,505	762,514
Finfish & other	139,373	143,479	122,642	135,982	145,584	146,109	150,833	131,633	193,386	189,430
Shellfish	523,530	525,523	502,396	555,238	544,626	516,044	493,047	507,267	625,119	573,085
Blue crab	46,243	42,292	37,961	43,355	46,028	39,814	45,476	41,264	48,605	52,879
Crawfish	4,845	4,810	8,360	1,290	9,034	9,435	15,547	13,971	9,914	8,287
Groupers	24,257	25,807	24,692	22,795	20,242	22,891	17,291	13,580	18,988	23,427
Menhaden	45,863	44,921	32,938	44,946	62,110	64,376	69,456	66,019	103,519	87,376
Mulletts	8,265	8,956	6,593	9,429	5,543	6,085	6,105	5,221	10,305	7,540
Oysters	61,634	60,845	56,510	62,316	69,542	60,272	73,473	55,088	65,098	73,662
Red snapper	10,447	11,676	11,336	13,167	9,570	7,966	7,984	10,202	11,233	13,702
Shrimp	365,434	366,426	360,513	397,706	367,060	366,576	327,263	339,228	441,266	392,239
Stone crab	23,043	26,704	21,223	24,115	26,242	18,898	17,690	23,384	24,518	23,760
Tunas	12,000	12,335	9,431	8,461	10,535	6,168	8,180	2,688	5,298	10,655

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total landings	1,595,895	1,475,139	1,198,203	1,362,326	1,404,307	1,278,274	1,599,505	1,285,657	1,766,688	1,652,446
Finfish & other	1,228,816	1,110,240	887,920	974,969	1,071,322	994,159	1,235,041	1,024,237	1,447,492	1,349,800
Shellfish	367,080	364,899	310,283	387,357	332,985	284,115	364,464	261,420	319,196	302,646
Blue crab	63,961	60,581	50,041	67,481	57,964	49,260	61,272	41,240	55,435	54,504
Crawfish	8,337	8,537	15,177	1,469	15,848	15,612	19,312	14,557	9,599	6,815
Groupers	10,933	11,912	10,776	9,092	7,308	8,547	6,633	4,870	6,748	7,978
Menhaden	1,142,747	1,023,260	815,495	901,398	1,005,325	927,517	1,165,948	967,025	1,374,288	1,275,766
Mulletts	12,957	13,750	9,023	12,727	8,933	10,580	11,303	8,963	14,121	10,760
Oysters	27,033	25,052	20,174	19,674	22,518	20,655	22,833	15,825	18,680	20,479
Red snapper	4,435	4,677	4,109	4,637	2,998	2,368	2,503	3,259	3,508	4,047
Shrimp	256,357	255,782	216,291	288,973	225,163	188,789	251,294	178,902	221,446	210,680
Stone crab	5,292	5,971	4,534	4,806	5,893	6,123	5,335	5,112	5,481	5,153
Tunas	5,063	3,882	3,050	2,851	3,426	1,782	2,836	1,322	1,529	3,067

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue crab	0.72	0.70	0.76	0.64	0.79	0.81	0.74	1.00	0.88	0.97
Crawfish	0.58	0.56	0.55	0.88	0.57	0.60	0.81	0.96	1.03	1.22
Groupers	2.22	2.17	2.29	2.51	2.77	2.68	2.61	2.79	2.81	2.94
Menhaden	0.04	0.04	0.04	0.05	0.06	0.07	0.06	0.07	0.08	0.07
Mulletts	0.64	0.65	0.73	0.74	0.62	0.58	0.54	0.58	0.73	0.70
Oysters	2.28	2.43	2.80	3.17	3.09	2.92	3.22	3.48	3.48	3.60
Red snapper	2.36	2.50	2.76	2.84	3.19	3.36	3.19	3.13	3.20	3.39
Shrimp	1.43	1.43	1.67	1.38	1.63	1.94	1.30	1.90	1.99	1.86
Stone crab	4.35	4.47	4.68	5.02	4.45	3.09	3.32	4.57	4.47	4.61
Tunas	2.37	3.18	3.09	2.97	3.07	3.46	2.88	2.03	3.47	3.47



**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	<b>Trips</b>	<b>Jobs</b>	<b>Sales</b>	<b>Income</b>	<b>Value Added</b>
Alabama	2,305,000	7,501	691,547	267,912	425,328
Louisiana	4,137,000	16,972	1,964,494	723,662	1,099,216
Mississippi	1,950,000	1,649	143,890	54,064	85,497
Texas	NA <sup>1</sup>	13,944	1,719,709	615,713	1,005,040
West Florida	14,780,000	75,268	9,142,920	3,360,190	5,259,726

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

<b>Fishing Mode</b>	<b>Trip Expenditures</b>		<b>Equipment</b>	<b>Durable Expenditures</b>
	<b>Non-Residents</b>	<b>Residents</b>		
			Fishing Tackle	1,366,047
For-Hire	263,006	135,177	Other Equipment	557,948
Private Boat	130,667	583,159	Boat Expenses	4,755,146
Shore	173,184	310,685	Vehicle Expenses	1,200,797
<i>Total Trip Expenditures</i>	566,857	1,029,021	Second Home Expenses	896,349
			<i>Total Durable Equipment Expenditures</i>	8,776,288
<b>Total State Trip and Durable Equipment Expenditures</b>				10,372,166

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

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Coastal	3,039	3,185	3,133	3,328	3,235	2,926	2,550	2,480	2,737	2,803
Non-Coastal	256	318	190	315	326	262	296	235	311	268
Out-of-State <sup>2</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total Anglers</b>	3,294	3,503	3,323	3,643	3,562	3,188	2,846	2,715	3,048	3,071

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

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
For-Hire	691	830	692	837	852	819	823	581	735	884
Private Boat	14,111	15,644	13,586	13,620	14,980	15,195	13,443	12,684	12,911	12,782
Shore	8,156	9,955	9,014	8,837	8,458	8,776	8,333	7,783	8,930	9,506
<b>Total Trips</b>	22,958	26,429	23,292	23,294	24,290	24,790	22,599	21,048	22,576	23,172

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)**

		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Drum (Atlantic croaker)	H	1,057	975	772	1,440	1,313	1,871	1,173	1,510	2,052	1,305
	R	2,432	3,639	2,844	2,314	2,616	3,149	3,858	3,827	5,899	3,922
Drum (Gulf and southern kingfish)	H	1,802	1,681	1,426	1,250	1,137	1,307	1,066	1,420	941	918
	R	538	809	781	926	843	729	576	625	539	535
Drum (sand and silver seatrouts)	H	3,112	2,265	2,034	2,110	3,090	3,404	4,203	4,573	5,735	4,878
	R	1,003	1,000	724	1,538	1,910	1,989	2,444	1,807	2,541	2,474
Drum (spotted seatrout)	H	9,569	11,561	10,027	13,285	11,187	14,125	13,336	10,138	13,582	12,783
	R	19,217	19,764	20,214	20,055	18,849	21,017	17,365	14,564	19,120	20,217
Porgies (sheepshead)	H	1,942	2,497	2,000	1,107	1,199	1,567	1,573	1,146	2,217	1,453
	R	2,005	2,173	2,394	1,507	1,223	1,486	1,338	1,739	1,634	1,516
Red drum	H	2,672	2,940	2,317	2,363	2,847	3,294	2,608	3,252	3,542	2,689
	R	5,915	5,809	6,233	6,392	6,222	7,016	5,525	6,468	6,448	6,330
Red snapper	H	993	1,278	835	966	1,225	679	797	335	521	592
	R	1,942	2,686	2,194	2,831	3,259	2,112	2,145	1,436	1,521	1,424
Southern flounder	H	660	741	542	474	652	474	644	771	765	740
	R	253	271	195	171	239	121	193	220	222	309
Spanish mackerel	H	1,505	2,127	1,192	1,759	1,330	1,895	1,504	1,564	1,534	1,834
	R	2,210	2,317	1,374	2,855	2,104	2,040	1,634	2,477	1,941	1,441
Striped mullet	H	1,587	1,163	1,081	1,103	1,150	1,258	743	1,666	1,900	2,356
	R	281	167	165	141	158	146	226	127	313	204

<sup>1</sup>The Marine Recreational Program (MRIP) does not collect effort data for Texas.<sup>2</sup>NA = data are not available because out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified

**2012 Economic Impacts of the Alabama Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	9,947	460,514	172,314	229,316
Commercial Harvesters	1,562	76,276	22,738	33,761
Seafood Processors & Dealers	1,971	126,128	49,405	62,783
Importers	182	50,186	8,043	15,299
Seafood Wholesalers & Distributors	159	7,640	2,678	3,450
Retail	6,072	200,284	89,450	114,024

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	36,844	37,036	39,726	48,558	48,845	44,356	38,869	26,335	50,910	46,340
Finfish & other	3,185	3,905	3,982	4,572	3,686	4,210	3,662	2,748	4,072	5,180
Shellfish	33,658	33,131	35,744	43,986	45,160	40,145	35,207	23,587	46,838	41,159
Blue crab	1,715	1,774	663	1,319	1,711	1,533	961	732	1,128	1,044
Flounders	210	230	247	223	261	214	197	97	222	185
Menhaden	104	89	63	48	71	59	42	15	58	84
Mulletts	772	1,187	1,117	1,171	984	1,016	765	594	687	1,204
Oysters	1,623	2,120	3,020	3,639	2,698	243	77	390	1,322	1,253
Red snapper	359	382	638	536	213	239	263	329	314	316
Sharks	337	431	478	463	250	359	275	111	381	330
Shrimp	30,284	29,197	32,002	39,022	40,742	38,355	34,140	22,463	44,361	38,856
Spanish mackerel	443	554	401	573	453	616	301	499	582	1,149
Vermillion snapper	83	152	149	318	323	504	841	384	622	393

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	25,535	26,559	23,985	34,033	29,434	24,450	28,825	14,063	26,119	26,347
Finfish & other	5,982	6,248	5,552	6,498	4,857	5,414	4,478	3,441	4,966	6,594
Shellfish	19,553	20,311	18,432	27,535	24,578	19,036	24,347	10,622	21,153	19,753
Blue crab	2,958	3,329	1,024	2,384	2,557	1,799	1,458	927	1,617	1,325
Flounders	118	138	130	118	133	107	97	48	111	83
Menhaden	1,022	828	521	350	470	268	190	81	364	521
Mulletts	1,700	2,133	1,976	1,913	1,798	1,988	1,814	1,202	1,262	1,944
Oysters	816	908	1,041	940	769	73	23	68	296	265
Red snapper	132	138	214	177	59	61	65	83	78	78
Sharks	803	716	800	1,227	315	423	328	140	450	495
Shrimp	15,770	16,064	16,260	24,201	21,247	17,154	22,841	9,625	19,224	18,151
Spanish mackerel	858	914	568	873	580	856	418	733	839	1,376
Vermillion snapper	36	66	66	122	129	197	346	148	224	133

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue crab	0.58	0.53	0.65	0.55	0.67	0.85	0.66	0.79	0.70	0.79
Flounders	1.78	1.67	1.91	1.89	1.97	2.01	2.04	2.05	2.00	2.21
Menhaden	0.10	0.11	0.12	0.14	0.15	0.22	0.22	0.18	0.16	0.16
Mulletts	0.45	0.56	0.57	0.61	0.55	0.51	0.42	0.49	0.54	0.62
Oysters	1.99	2.33	2.90	3.87	3.51	3.34	3.33	5.75	4.47	4.72
Red snapper	2.72	2.78	2.98	3.03	3.62	3.93	4.04	3.97	4.04	4.05
Sharks	0.42	0.60	0.60	0.38	0.79	0.85	0.84	0.79	0.85	0.67
Shrimp	1.92	1.82	1.97	1.61	1.92	2.24	1.49	2.33	2.31	2.14
Spanish mackerel	0.52	0.61	0.71	0.66	0.78	0.72	0.72	0.68	0.69	0.83
Vermillion snapper	2.31	2.32	2.26	2.61	2.50	2.55	2.43	2.59	2.78	2.97

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	315	31,150	14,188	21,326
Private Boat	556	50,025	15,480	27,078
Shore	903	75,124	24,730	41,736
Total Durable Equipment Impacts	5,727	535,248	213,514	335,188
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>7,501</b>	<b>691,547</b>	<b>267,912</b>	<b>425,328</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	200,447
For-Hire	19,017	3,361	Other Equipment	53,472
Private Boat	12,518	37,258	Boat Expenses	146,207
Shore	33,094	29,198	Vehicle Expenses	184,844
<i>Total Trip Expenditures</i>	<i>64,629</i>	<i>69,817</i>	Second Home Expenses	0
			<i>Total Durable Equipment Expenditures</i>	<i>584,970</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>719,416</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	187	223	231	233	253	192	205	195	295	254
Non-Coastal	123	159	93	184	169	116	151	140	177	131
Out of State	214	345	161	320	291	237	209	220	435	339
<b>Total Anglers</b>	<b>524</b>	<b>728</b>	<b>485</b>	<b>736</b>	<b>712</b>	<b>545</b>	<b>566</b>	<b>554</b>	<b>907</b>	<b>723</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	67	76	56	78	75	56	56	34	75	59
Private	846	994	828	811	985	946	885	840	1,206	1,035
Shore	588	1,181	721	1,050	901	702	772	812	1,202	1,211
<b>Total Trips</b>	<b>1,501</b>	<b>2,251</b>	<b>1,605</b>	<b>1,939</b>	<b>1,961</b>	<b>1,704</b>	<b>1,713</b>	<b>1,686</b>	<b>2,483</b>	<b>2,305</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bluefish	H	46	131	15	13	26	16	14	30	74	55
	R	126	216	77	150	175	54	46	80	166	197
Drum (Atlantic croaker)	H	244	178	233	452	463	1,163	250	918	886	345
	R	513	1,070	1,593	824	924	1,370	1,822	1,861	2,593	1,206
Drum (kingfishes) <sup>3</sup>	H	486	620	263	444	477	668	593	633	626	226
	R	185	410	266	460	291	257	284	310	342	97
Drum (sand seatrout)	H	709	503	349	593	704	1,216	1,428	2,069	2,346	1,415
	R	225	266	289	502	481	409	753	835	743	479
Drum (spotted seatrout)	H	345	210	295	327	358	269	318	610	825	773
	R	431	168	323	598	487	844	758	454	1,302	1,126
Porgies (sheepshead)	H	299	462	279	123	321	289	165	218	480	313
	R	88	172	86	80	30	158	48	51	146	48
Red drum	H	114	118	154	100	84	88	62	123	143	124
	R	245	263	184	144	136	227	111	152	150	306
Red snapper	H	380	304	232	181	217	107	138	42	217	152
	R	665	589	494	639	852	340	394	287	488	193
Southern flounder	H	114	137	151	123	96	93	139	243	163	155
	R	68	73	83	65	38	37	22	65	60	53
Spanish mackerel	H	123	468	45	58	91	111	76	254	335	515
	R	99	277	52	49	21	32	59	102	128	148

<sup>3</sup>Kingfishes include southern kingfish and Gulf kingfish

## Alabama's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	99,838 (1.4%)	1,597,529 (1.4%)	47,070 (1.2%)	77,812 (1.2%)	130,862 (1.2%)	0.23
2011	97,743 (1.3%)	1,573,138 (1.4%)	59,241 (1.1%)	100,735 (1.2%)	178,533 (1.2%)	0.68
%change	-2.10%	-1.53%	25.86%	29.46%	36.43%	196 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	36	43	40	34	47	33	41	68	67
	Receipts	1,168	3,413	3,414	1,558	1,547	1,894	1,805	3,314	4,354
Seafood sales, retail	Firms	55	61	44	57	61	57	63	71	58
	Receipts	3,812	3,645	3,855	4,802	4,279	5,632	4,844	5,197	4,759

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	24	23	26	24	23	23	22	21	16
	Employees	2,057	2,037	1,925	1,629	1,510	1,450	1,086	1,128	882
	Payroll	36,766	36,130	38,229	34,703	32,774	29,277	24,900	22,824	21,922
Seafood Sales, wholesale	Establishments	33	31	26	26	31	29	28	23	25
	Employees	611	588	607	395	395	494	339	332	321
	Payroll	6,148	6,752	6,345	6,195	6,202	8,751	5,893	5,119	6,547
Seafood sales, retail	Establishments	37	35	34	28	33	33	31	34	32
	Employees	ND	96	95	ND	ND	ND	130	132	120
	Payroll	ND	1,401	1,399	ND	1,809	1,710	2,044	2,016	1,888

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	13	10	10	6	8	4	4	5	5
	Employees	ND	ND	ND	15	48	ND	ND	ND	215
	Payroll	ND	ND	ND	754	3,266	ND	ND	ND	13,117
Deep sea freight transportation	Establishments	5	3	3	3	5	7	7	5	6
	Employees	53	ND	ND	ND	46	ND	ND	ND	ND
	Payroll	3,661	ND	ND	ND	3,553	ND	ND	ND	ND
Deep sea passenger transportation	Establishments	1	1	1	1	1	2	3	2	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	53	52	58	52	52	56	55	54	53
	Employees	287	341	347	312	364	316	278	609	ND
	Payroll	6,218	7,631	8,047	8,388	9,382	9,170	8,418	12,149	12,196
Marine cargo handling	Establishments	17	18	17	14	19	20	19	19	19
	Employees	445	577	672	ND	491	756	658	548	536
	Payroll	19,642	26,201	28,458	ND	21,076	33,244	27,272	32,143	34,998
Navigational services to shipping	Establishments	12	16	17	18	16	17	16	16	16
	Employees	410	ND	ND	ND	338	287	294	276	283
	Payroll	19,602	ND	ND	ND	17,554	16,712	15,383	14,737	14,981
Port & harbor operations	Establishments	3	1	3	3	2	4	5	5	3
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ship & boat building	Establishments	41	42	45	47	42	42	40	32	35
	Employees	2,781	2,195	2,591	3,027	3,570	4,435	3,913	2,598	3,176
	Payroll	81,092	83,756	86,453	121,185	172,380	188,543	159,065	151,813	166,116

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Florida<sup>1</sup> Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	82,141	16,553,480	3,092,392	5,532,209
Commercial Harvesters	6,028	396,248	124,804	165,872
Seafood Processors & Dealers	4,819	773,871	149,767	294,428
Importers	44,018	12,108,366	1,940,597	3,691,160
Seafood Wholesalers & Distributors	10,403	1,211,904	475,789	591,945
Retail	16,873	2,063,090	401,435	788,804

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	141,185	148,058	137,912	145,494	132,162	122,764	115,127	139,045	161,949	141,671
Finfish & other	51,451	52,331	50,600	50,358	45,890	50,842	49,537	40,865	57,594	60,317
Shellfish	89,734	95,727	87,312	95,136	86,272	71,922	65,589	98,180	104,355	81,355
Blue crab	7,061	7,316	7,035	7,043	5,769	3,290	4,183	6,706	7,530	5,139
Gag	6,855	7,615	7,084	4,151	4,348	4,898	2,759	2,079	1,375	2,437
Lobsters	17,138	20,724	15,077	24,885	24,546	19,175	12,179	32,752	33,872	21,132
Mulletts	4,755	4,891	4,355	6,021	3,663	4,172	5,069	4,188	8,567	5,032
Oyster	2,932	2,884	2,854	5,415	6,631	5,473	6,968	6,298	8,408	7,919
Quahog clam	3,870	2,074	1,736	807	914	1,009	915	1,001	912	339
Red grouper	11,695	13,281	13,376	14,384	11,024	13,569	10,488	8,992	14,531	16,737
Red snapper	2,284	2,168	1,671	1,991	3,066	2,945	2,980	4,552	5,237	6,141
Shrimp	34,893	34,737	38,625	32,225	20,976	23,265	23,314	27,554	28,339	22,430
Stone crab	22,913	26,507	21,074	24,029	26,213	18,877	17,586	23,335	24,427	23,750

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	79,163	83,894	73,038	70,766	59,784	60,127	65,351	63,683	76,952	63,032
Finfish & other	41,697	41,134	36,543	35,887	30,645	35,250	38,754	32,027	41,338	37,943
Shellfish	37,466	42,760	36,496	34,879	29,139	24,877	26,596	31,656	35,615	25,090
Blue crab	7,225	8,083	7,370	8,610	6,110	2,663	3,364	5,759	6,662	4,155
Gag	2,691	3,054	2,688	1,436	1,339	1,474	825	572	353	612
Lobsters	3,886	4,565	3,059	4,372	3,405	2,981	3,951	5,287	5,021	3,635
Mulletts	6,577	6,660	5,635	7,308	5,619	6,979	9,167	7,262	11,297	7,231
Oyster	1,753	1,644	1,417	2,394	2,959	2,501	2,877	2,165	3,037	2,719
Quahog clam	558	266	212	96	116	146	150	156	135	52
Red grouper	5,841	6,789	6,386	6,062	4,352	5,619	4,387	3,488	5,433	6,141
Red snapper	928	811	584	649	919	848	863	1,317	1,479	1,698
Shrimp	18,131	18,258	19,297	14,176	8,628	9,942	10,673	12,892	11,951	8,126
Stone crab	5,253	5,933	4,502	4,784	5,884	6,117	5,310	5,100	5,459	5,151

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue crab	0.98	0.91	0.95	0.82	0.94	1.24	1.24	1.16	1.13	1.24
Gag	2.55	2.49	2.64	2.89	3.25	3.32	3.34	3.63	3.89	3.98
Lobsters	4.41	4.54	4.93	5.69	7.21	6.43	3.08	6.19	6.75	5.81
Mulletts	0.72	0.73	0.77	0.82	0.65	0.60	0.55	0.58	0.76	0.70
Oyster	1.67	1.75	2.02	2.26	2.24	2.19	2.42	2.91	2.77	2.91
Quahog clam	6.93	7.79	8.17	8.44	7.90	6.90	6.12	6.43	6.73	6.53
Red grouper	2.00	1.96	2.09	2.37	2.53	2.41	2.39	2.58	2.67	2.73
Red snapper	2.46	2.67	2.86	3.07	3.34	3.47	3.45	3.46	3.54	3.62
Shrimp	1.92	1.90	2.00	2.27	2.43	2.34	2.18	2.14	2.37	2.76
Stone crab	4.36	4.47	4.68	5.02	4.45	3.09	3.31	4.58	4.47	4.61

<sup>1</sup>Information reported in this table is for the state of Florida, not West Florida

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	3,987	436,676	191,077	291,868
Private Boat	3,503	391,190	128,538	221,458
Shore	2,420	251,075	83,233	139,983
Total Durable Equipment Impacts	65,358	8,063,979	2,957,342	4,606,417
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>75,268</b>	<b>9,142,920</b>	<b>3,360,190</b>	<b>5,259,726</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	745,152
For-Hire	212,740	37,361	Other Equipment	326,499
Private Boat	92,642	217,089	Boat Expenses	3,206,773
Shore	113,543	58,426	Vehicle Expenses	495,305
<i>Total Trip Expenditures</i>	<i>418,925</i>	<i>312,876</i>	Second Home Expenses	723,189
			<i>Total Durable Equipment Expenditures</i>	<i>5,496,918</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>6,228,719</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	1,965	2,023	2,088	2,084	1,934	1,820	1,551	1,538	1,592	1,718
Non-Coastal <sup>2</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Out of State	2,318	2,141	2,008	1,988	2,151	2,029	1,671	1,470	1,624	2,141
<b>Total Anglers</b>	<b>4,283</b>	<b>4,165</b>	<b>4,096</b>	<b>4,072</b>	<b>4,085</b>	<b>3,849</b>	<b>3,222</b>	<b>3,008</b>	<b>3,216</b>	<b>3,859</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	496	599	505	565	612	571	573	461	536	699
Private	9,222	10,172	9,491	9,382	10,005	10,145	8,623	8,160	7,520	7,865
Shore	6,291	7,025	6,699	6,721	6,319	6,782	6,482	5,645	5,845	6,216
<b>Total Trips</b>	<b>16,009</b>	<b>17,796</b>	<b>16,695</b>	<b>16,668</b>	<b>16,936</b>	<b>17,498</b>	<b>15,678</b>	<b>14,266</b>	<b>13,901</b>	<b>14,780</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Common snook	H	45	70	62	25	35	25	14	(1)	1	(1)
	R	1,360	2,197	2,281	1,391	1,591	1,596	1,925	600	747	1,040
Drum (sand and silver seatrouts)	H	751	434	487	434	1,119	746	892	409	865	1,415
	R	146	193	64	409	599	583	459	211	295	742
Drum (spotted seatrout)	H	1,630	2,066	1,980	1,616	1,514	1,543	1,370	1,115	1,475	1,626
	R	10,470	9,894	11,749	9,456	10,059	9,584	7,672	8,470	11,382	10,921
Gag	H	470	690	491	356	286	434	203	232	98	132
	R	3,358	3,865	2,314	1,875	2,676	4,076	2,724	2,017	1,158	980
Gray snapper	H	981	1,145	932	663	1,046	1,394	1,176	560	419	949
	R	4,808	3,637	4,700	2,848	4,289	5,690	3,014	1,858	2,239	3,125
King mackerel	H	195	197	178	343	271	184	453	172	128	180
	R	96	107	133	392	84	155	138	81	46	62
Mullet <sup>3</sup>	H	840	1,078	988	1,297	613	1,237	656	967	855	1,550
	R	187	282	208	100	183	143	191	73	106	88
Porgies (sheepshead)	H	761	708	1,050	623	591	556	682	455	608	628
	R	1,371	1,400	1,856	942	894	855	808	1,245	1,276	1,177
Red drum	H	365	321	501	377	412	457	225	240	286	414
	R	1,938	2,101	3,254	2,828	2,558	2,562	1,440	1,992	2,894	2,300
Spanish mackerel	H	1,317	1,628	1,100	1,672	1,205	1,753	1,392	1,284	1,154	1,215
	R	2,084	2,012	1,279	2,767	2,064	1,988	1,545	2,360	1,780	1,219

<sup>2</sup>Data is not available because all West Florida residents are considered coastal county residents.<sup>3</sup>Mulletts include species within the mullet genus including striped mullets.



## West Florida's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	460,746 (6.4%)	6,549,488 (5.8%)	202,371 (5.0%)	324,518 (5.1%)	574,382 (5.2%)	1.14
2011	490,851 (6.7%)	6,732,639 (5.9%)	265,464 (5.1%)	411,794 (5.0%)	746,439 (5.0%)	1.05
%change	6.53%	2.80%	31.18%	26.89%	29.96%	-7.89 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	142	177	164	174	173	202	216	280	294
	Receipts	8,047	8,652	8,756	10,184	10,497	11,065	12,399	14,635	14,618
Seafood sales, retail	Firms	240	247	247	251	319	331	308	361	362
	Receipts	18,064	18,004	22,787	20,708	27,557	26,087	24,726	27,964	29,037

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	27	24	25	22	20	23	25	27	24
	Employees	2,084	2,193	1,616	1,704	1,748	1,637	1,143	1,269	1,095
	Payroll	61,452	65,881	47,529	62,801	58,233	53,455	46,235	45,772	42,612
Seafood Sales, wholesale	Establishments	293	261	258	259	267	229	215	229	250
	Employees	1,835	1,948	1,883	2,091	2,308	1,913	1,762	1,747	1,913
	Payroll	55,874	63,276	65,339	73,897	85,019	75,203	72,159	70,889	77,115
Seafood sales, retail	Establishments	174	190	176	173	169	168	158	145	145
	Employees	952	977	970	936	989	991	885	865	849
	Payroll	15,673	17,575	19,192	19,513	20,595	21,604	21,182	20,783	20,158

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	66	59	59	54	47	42	42	50	54
	Employees	ND	1,132	1,150	1,217	1,242	1,106	972	709	753
	Payroll	ND	80,422	71,420	91,638	94,429	50,115	37,774	50,217	53,341
Deep sea freight transportation	Establishments	61	63	69	73	69	57	58	61	65
	Employees	2,535	2,567	2,622	3,729	3,190	2,486	2,801	2,279	2,374
	Payroll	131,904	150,701	207,300	226,810	208,144	169,055	180,139	159,025	177,386
Deep sea passenger transportation	Establishments	36	32	31	37	34	31	33	29	29
	Employees	8,879	8,849	8,492	9,077	ND	ND	ND	ND	ND
	Payroll	428,941	536,753	504,625	571,590	ND	ND	ND	ND	ND
Marinas	Establishments	528	532	551	513	493	442	428	430	411
	Employees	5,079	5,067	5,069	5,494	4,935	5,024	4,665	4,439	4,657
	Payroll	111,324	125,763	133,384	146,390	148,592	151,677	132,955	133,017	142,997
Marine cargo handling	Establishments	68	66	63	66	53	56	59	55	64
	Employees	5,651	5,671	6,409	7,266	6,585	8,052	7,288	7,547	7,484
	Payroll	171,481	175,257	177,983	189,020	173,788	192,473	185,309	191,560	195,458
Navigational services to shipping	Establishments	140	149	148	142	145	147	145	145	150
	Employees	817	686	660	781	1,484	894	829	980	1,047
	Payroll	39,524	39,309	42,200	48,370	61,470	56,917	60,641	76,853	75,561
Port & harbor operations	Establishments	26	29	31	27	29	40	32	34	32
	Employees	592	1,045	973	584	459	712	527	470	377
	Payroll	19,071	24,327	22,606	19,417	12,872	24,668	19,006	20,525	16,879
Ship & boat building	Establishments	290	306	312	301	296	297	261	248	246
	Employees	11,830	12,503	12,729	12,385	12,332	12,419	8,221	7,363	7,909
	Payroll	393,985	443,379	454,209	427,888	469,382	442,096	296,537	302,909	325,942

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

ND- these data are confidential and therefore not available

NA- these data are not available



**2012 Economic Impacts of the Louisiana Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	33,391	1,927,986	659,974	920,873
Commercial Harvesters	12,100	623,989	205,057	304,508
Seafood Processors & Dealers	2,066	176,878	68,607	87,512
Importers	1,326	364,882	58,479	111,232
Seafood Wholesalers & Distributors	1,060	117,559	40,049	51,841
Retail	16,839	644,677	287,782	365,780

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	270,408	274,082	251,678	278,292	289,288	275,239	296,778	247,831	334,789	331,165
Finfish & other	63,299	66,074	49,443	60,735	65,198	64,116	71,479	71,170	112,748	90,540
Shellfish	207,109	208,008	202,235	217,557	224,090	211,124	225,300	176,661	222,040	240,625
Blue crab	33,623	29,881	27,419	32,605	35,044	32,202	37,306	30,325	36,784	43,097
Crawfish	4,845	4,810	8,360	1,290	9,034	9,435	15,547	13,971	9,914	8,287
King mackerel	990	1,198	1,273	1,112	1,298	1,307	1,184	1,149	1,594	1,475
Menhaden	34,464	35,249	25,776	36,441	41,368	45,768	51,405	57,600	93,547	64,861
Mullets	2,592	2,681	946	2,061	690	749	73	185	775	979
Oysters	33,358	34,814	33,305	35,999	40,148	38,852	50,959	24,989	41,652	41,592
Red snapper	3,960	3,861	3,568	4,472	2,529	2,038	2,185	2,311	2,261	2,571
Shrimp	135,153	138,466	133,143	147,652	139,842	130,623	121,477	107,362	133,670	147,616
Tunas	9,471	10,739	7,687	7,040	8,334	4,409	6,338	1,649	3,369	7,890
Vermillion snapper	1,896	1,663	1,137	762	991	819	806	399	517	672

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	1,181,607	1,095,571	849,280	918,675	999,343	918,827	1,172,327	1,006,961	1,286,684	1,217,453
Finfish & other	985,164	895,336	681,322	714,545	814,645	759,438	970,214	879,248	1,129,556	1,051,669
Shellfish	196,443	200,235	167,959	204,130	184,698	159,389	202,114	127,713	157,128	165,785
Blue crab	48,089	44,397	38,100	53,394	45,107	41,713	53,060	30,752	43,893	45,392
Crawfish	8,337	8,537	15,177	1,469	15,848	15,612	19,312	14,557	9,599	6,815
King mackerel	911	984	867	971	879	789	927	691	1,002	969
Menhaden	953,714	862,947	657,702	689,853	789,621	738,092	948,944	862,144	1,106,931	1,026,240
Mullets	4,524	4,754	1,238	3,361	1,375	1,503	189	362	1,385	1,394
Oysters	13,609	13,902	12,099	11,417	12,858	12,791	15,010	6,875	11,156	11,252
Red snapper	1,725	1,560	1,316	1,653	807	589	667	828	918	1,033
Shrimp	125,730	133,370	102,576	137,839	110,860	89,268	114,727	75,515	92,469	102,295
Tunas	3,184	3,230	2,296	2,143	2,476	1,248	2,009	490	932	2,149
Vermillion snapper	1,053	921	588	365	517	409	412	186	234	292

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue crab	0.70	0.67	0.72	0.61	0.78	0.77	0.70	0.99	0.84	0.95
Crawfish	0.58	0.56	0.55	0.88	0.57	0.60	0.81	0.96	1.03	1.22
King mackerel	1.09	1.22	1.47	1.15	1.48	1.66	1.28	1.66	1.59	1.52
Menhaden	0.04	0.04	0.04	0.05	0.05	0.06	0.05	0.07	0.08	0.06
Mullets	0.57	0.56	0.76	0.61	0.50	0.50	0.39	0.51	0.56	0.70
Oysters	2.45	2.50	2.75	3.15	3.12	3.04	3.39	3.63	3.73	3.70
Red snapper	2.30	2.47	2.71	2.71	3.13	3.46	3.28	2.79	2.46	2.49
Shrimp	1.07	1.04	1.30	1.07	1.26	1.46	1.06	1.42	1.45	1.44
Tunas	2.97	3.33	3.35	3.29	3.37	3.53	3.16	3.37	3.62	3.67
Vermillion snapper	1.80	1.81	1.93	2.09	1.92	2.00	1.95	2.15	2.21	2.30

**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	435	54,117	25,646	37,230
Private Boat	1,620	203,975	56,864	97,914
Shore	501	60,628	16,253	28,270
Total Durable Equipment Impacts	14,416	1,645,774	624,899	935,802
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>16,972</b>	<b>1,964,494</b>	<b>723,662</b>	<b>1,099,216</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	234,632
For-Hire	23,751	11,141	Other Equipment	82,010
Private Boat	14,624	145,106	Boat Expenses	931,575
Shore	8,338	40,913	Vehicle Expenses	211,247
<i>Total Trip Expenditures</i>	<i>46,713</i>	<i>197,160</i>	Second Home Expenses	87,316
			<i>Total Durable Equipment Expenditures</i>	<i>1,546,780</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>1,790,653</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	727	747	706	868	853	795	669	609	690	651
Non-Coastal	79	133	68	108	124	120	108	67	86	77
Out of State	204	179	138	198	157	170	139	120	183	165
<b>Total Anglers</b>	<b>1,011</b>	<b>1,059</b>	<b>911</b>	<b>1,174</b>	<b>1,134</b>	<b>1,084</b>	<b>916</b>	<b>796</b>	<b>959</b>	<b>893</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	104	143	123	187	144	179	183	79	113	115
Private	3,295	3,821	2,784	2,801	3,156	3,508	3,176	3,055	3,342	2,891
Shore	872	1,239	1,159	775	889	933	769	729	1,122	1,131
<b>Total Trips</b>	<b>4,271</b>	<b>5,203</b>	<b>4,066</b>	<b>3,763</b>	<b>4,189</b>	<b>4,620</b>	<b>4,128</b>	<b>3,863</b>	<b>4,577</b>	<b>4,137</b>

**Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)<sup>1</sup>**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black drum	H	485	504	309	369	386	543	519	399	468	424
	R	834	1,026	651	717	729	1,116	974	1,033	1,085	882
Drum (Atlantic croaker)	H	380	476	443	805	684	357	470	229	606	520
	R	1,011	1,995	963	1,143	1,006	1,187	1,100	1,268	2,319	1,676
Drum (sand seatrout)	H	984	905	974	775	889	1,085	879	1,065	1,188	895
	R	302	453	254	453	540	824	854	514	1,032	679
Drum (spotted seatrout)	H	7,319	8,524	7,435	10,872	8,930	11,705	10,558	7,857	10,441	9,608
	R	7,484	8,657	7,304	9,026	7,394	9,580	7,975	5,054	5,802	6,776
Drum(southern kingfish)	H	159	200	240	89	67	74	103	41	17	110
	R	63	85	187	151	28	119	59	47	25	40
Porgies (sheepshead)	H	805	1,289	644	325	270	705	704	430	869	397
	R	519	567	429	463	288	448	473	440	188	237
Red drum	H	2,143	2,418	1,626	1,828	2,308	2,673	2,237	2,812	3,023	2,010
	R	3,545	3,293	2,652	3,321	3,455	4,074	3,734	4,111	3,195	2,871
Red snapper	H	71	88	111	172	160	85	98	7	31	102
	R	166	274	339	429	285	261	195	7	109	131
Southern flounder	H	407	471	280	290	349	235	286	327	399	331
	R	116	129	76	54	67	37	50	72	61	97
Yellowfin tuna	H	14	8	10	14	8	17	3	1	13	25
	R	(1)	(1)	1	1	1	7	(1)	(1)	4	3

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

## Louisiana's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	102,245 (1.4%)	1,603,922 (1.4%)	47,137 (1.2%)	78,382 (1.2%)	155,999 (1.4%)	1.91
2011	103,216 (1.4%)	1,617,229 (1.4%)	65,772 (1.3%)	108,483 (1.3%)	237,389 (1.6%)	1.38
%change	0.95%	0.83%	39.53%	38.40%	52.17%	-27.7 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	73	75	76	99	85	77	68	120	94
	Receipts	4,678	10,097	8,513	8,179	6,523	7,365	5,306	10,358	9,308
Seafood sales, retail	Firms	208	204	156	181	196	182	169	197	192
	Receipts	22,637	18,148	14,585	20,046	20,932	25,900	17,177	16,001	18,758

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	54	54	50	40	41	36	38	34	33
	Employees	1,693	1,519	1,556	1,506	1,253	991	1,301	1,209	1,006
	Payroll	56,562	47,016	43,801	45,439	41,391	32,382	37,657	35,770	46,440
Seafood Sales, wholesale	Establishments	134	133	128	112	119	98	98	97	94
	Employees	1,001	975	1,037	807	954	739	702	683	767
	Payroll	19,539	19,639	17,649	21,243	21,604	15,858	17,261	15,554	18,427
Seafood sales, retail	Establishments	109	111	106	101	101	107	106	101	100
	Employees	796	745	723	759	781	681	703	527	590
	Payroll	9,406	9,567	8,277	10,560	11,827	11,141	11,564	11,214	11,090

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	160	148	136	137	138	123	117	125	125
	Employees	6,779	6,656	5,771	6,397	7,680	6,506	6,077	5,610	5,834
	Payroll	287,415	300,547	294,941	386,136	527,290	549,388	391,914	405,796	417,362
Deep sea freight transportation	Establishments	25	22	25	24	22	18	21	16	17
	Employees	831	705	ND	595	685	1,095	1,192	93	93
	Payroll	43,634	38,949	ND	35,269	39,843	87,479	91,760	6,147	5,608
Deep sea passenger transportation	Establishments	4	3	3	2	3	2	2	1	3
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	53	52	53	41	50	43	43	43	45
	Employees	409	ND	352	ND	378	274	244	314	329
	Payroll	11,019	ND	10,213	ND	17,794	9,581	8,989	14,716	10,771
Marine cargo handling	Establishments	47	47	46	51	49	39	44	41	42
	Employees	3,784	3,278	3,263	3,100	2,978	2,010	2,193	2,511	2,526
	Payroll	131,274	127,896	110,129	118,748	128,207	85,484	92,883	105,063	108,491
Navigational services to shipping	Establishments	118	127	120	129	128	145	137	138	138
	Employees	2,738	2,472	2,136	2,204	2,508	2,884	2,893	3,176	3,396
	Payroll	112,412	109,008	96,202	115,222	141,757	183,381	175,271	224,533	208,306
Port & harbor operations	Establishments	13	18	18	18	14	22	17	21	20
	Employees	363	ND	418	436	467	517	440	431	461
	Payroll	18,331	ND	19,510	29,676	31,734	37,181	33,907	38,776	38,745
Ship & boat building	Establishments	113	113	111	108	112	117	109	109	109
	Employees	12,910	13,206	11,016	11,521	12,808	12,815	12,521	11,737	11,722
	Payroll	452,315	460,606	376,407	437,028	503,199	619,606	613,188	600,259	639,047

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Mississippi Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	8,532	377,374	149,147	193,349
Commercial Harvesters	1,576	79,631	24,254	35,422
Seafood Processors & Dealers	1,333	101,628	40,206	50,380
Importers	35	9,561	1,532	2,915
Seafood Wholesalers & Distributors	123	11,554	4,077	5,136
Retail	5,466	175,001	79,077	99,497

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	46,149	43,618	23,386	21,586	39,340	43,696	38,033	21,895	30,291	49,295
Finfish & other	12,396	10,485	7,804	8,959	21,359	19,233	18,667	8,963	10,527	23,172
Shellfish	33,753	33,133	15,582	12,628	17,981	24,464	19,366	12,932	19,764	26,123
Blue crab	687	658	433	928	741	447	573	366	318	724
Flounders	49	32	20	36	58	40	58	64	118	101
Menhaden	11,277	9,564	7,074	8,447	20,658	18,534	17,987	8,378	9,871	22,394
Mulletts	34	54	38	23	35	32	30	31	56	63
Oysters	7,228	6,073	1,447	ND <sup>1</sup>	819	6,869	6,094	4,268	928	1,596
Red snapper	88	71	115	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	158	ND <sup>1</sup>	168	226
Shrimp	25,619	26,353	13,698	11,699	16,418	17,146	12,689	8,293	18,514	23,803

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	213,469	183,558	167,610	221,720	227,834	201,822	230,307	111,229	278,075	263,622
Finfish & other	190,733	161,669	158,721	212,213	216,375	190,191	217,461	105,274	267,407	249,382
Shellfish	22,736	21,889	8,889	9,507	11,459	11,631	12,846	5,955	10,668	14,240
Blue crab	877	811	429	1,127	737	450	545	366	370	782
Flounders	31	18	10	16	25	17	25	28	55	43
Menhaden	187,956	159,392	157,194	211,163	215,182	189,118	216,709	104,729	266,774	248,824
Mulletts	94	128	99	66	70	57	62	59	93	99
Oysters	4,042	3,029	610	ND <sup>1</sup>	299	2,610	2,189	1,453	247	425
Red snapper	43	35	54	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	57	ND <sup>1</sup>	86	115
Shrimp	17,560	17,992	7,848	8,380	10,421	8,570	10,107	4,135	10,048	13,033

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Blue crab	0.78	0.81	1.01	0.82	1.01	0.99	1.05	1.00	0.86	0.93
Flounders	1.57	1.73	1.88	2.22	2.38	2.36	2.34	2.33	2.14	2.33
Menhaden	0.06	0.06	0.05	0.04	0.10	0.10	0.08	0.08	0.04	0.09
Mulletts	0.36	0.42	0.38	0.35	0.50	0.57	0.48	0.52	0.61	0.64
Oysters	1.79	2.00	2.37	ND <sup>1</sup>	2.74	2.63	2.78	2.94	3.75	3.75
Red snapper	2.06	2.05	2.13	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	2.75	ND <sup>1</sup>	1.96	1.97
Shrimp	1.46	1.46	1.75	1.40	1.58	2.00	1.26	2.01	1.84	1.83

<sup>1</sup>ND = these data are confidential thus not disclosable

## 2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	47	4,510	2,182	3,178
Private Boat	311	30,780	8,878	15,649
Shore	150	13,012	3,756	6,405
Total Durable Equipment Impacts	1,141	95,588	39,248	60,265
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>1,649</b>	<b>143,890</b>	<b>54,064</b>	<b>85,497</b>

## 2012 Angler Trip &amp; Durable Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	33,572
For-Hire	1,188	1,903	Other Equipment	11,907
Private Boat	2,464	32,081	Boat Expenses	47,997
Shore	2,364	11,148	Vehicle Expenses	33,113
<i>Total Trip Expenditures</i>	<i>6,016</i>	<i>45,132</i>	Second Home Expenses	17
			<i>Total Durable Equipment Expenditures</i>	<i>126,607</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>177,755</b>

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal	159	191	108	143	196	119	125	137	160	179
Non-Coastal	53	26	29	23	34	26	36	29	48	60
Out of State	48	46	39	27	55	48	50	50	60	91
<b>Total Anglers</b>	<b>261</b>	<b>262</b>	<b>176</b>	<b>193</b>	<b>284</b>	<b>194</b>	<b>212</b>	<b>216</b>	<b>268</b>	<b>331</b>

## Recreational Fishing Effort by Mode (thousands of angler-trips)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
For-Hire	24	12	8	7	21	13	11	7	11	11
Private	748	657	483	626	834	596	759	629	843	991
Shore	405	510	435	291	349	359	310	597	761	948
<b>Total Trips</b>	<b>1,177</b>	<b>1,179</b>	<b>926</b>	<b>924</b>	<b>1,204</b>	<b>968</b>	<b>1,080</b>	<b>1,233</b>	<b>1,615</b>	<b>1,950</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Drum (Atlantic croaker)	H	197	134	41	59	72	182	340	209	453	317
	R	701	370	208	190	264	388	716	422	606	695
Drum (kingfishes) <sup>3</sup>	H	327	354	225	163	161	181	126	173	177	234
	R	61	111	62	30	48	58	61	47	36	157
Drum (sand and silver seatrouts)	H	666	423	222	305	296	351	1,004	986	1,336	1,151
	R	330	88	117	173	230	166	378	246	471	574
Drum (spotted seatrout)	H	275	761	317	470	385	608	1,090	556	841	776
	R	832	1,045	838	975	909	1,009	960	586	634	1,394
Porgies (sheepshead)	H	77	38	27	36	17	17	22	43	260	115
	R	27	34	23	22	11	25	9	3	24	54
Red drum	H	50	83	36	58	43	76	84	77	90	141
	R	187	152	143	99	73	153	240	213	209	853
Red snapper	H	39	13	1	7	2	9	15	1	7	27
	R	90	61	51	52	9	104	55	25	(1)	2
Sharks <sup>4</sup>	H	8	8	9	4	4	3	21	71	35	15
	R	60	39	36	38	41	11	36	87	37	103
Southern flounder	H	120	103	72	47	121	110	209	196	182	227
	R	67	55	30	35	31	45	120	79	99	153
Striped mullet	H	550	192	34	2	66	79	119	188	491	396
	R	65	2	(1)	3	14	4	4	13	83	108

<sup>2</sup>In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.<sup>3</sup>Kingfishes include southern kingfish and Gulf kingfish<sup>4</sup>Sharks include species within the requiem shark family, blacktip sharks, Atlantic sharpnose sharks, and unidentified sharks.

## Mississippi's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	59,827 (0.8%)	912,157 (0.8%)	23,647 (0.6%)	42,298 (0.7%)	73,842 (0.7%)	1.72
2011	58,592 (0.8%)	887,772 (0.8%)	29,585 (0.6%)	54,171 (0.7%)	97,533 (0.7%)	ND
%change	-2.06%	-2.67%	25.11%	28.07%	32.08%	NA

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	23	18	12	22	ND	17	16	30	25
	Receipts	1,561	1,056	1,045	1,537	ND	1,055	756	1,937	2,108
Seafood sales, retail	Firms	51	47	41	53	57	48	55	69	51
	Receipts	2,984	3,595	2,934	4,021	4,126	3,437	4,042	3,421	3,505

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	37	33	28	24	22	20	20	20	18
	Employees	4,438	3,728	3,637	3,353	3,022	3,062	2,796	2,849	2,464
	Payroll	80,229	66,047	63,957	60,510	60,633	61,723	61,926	61,731	52,502
Seafood Sales, wholesale	Establishments	26	29	30	23	25	18	16	18	18
	Employees	176	166	145	58	106	61	113	ND	64
	Payroll	3,067	3,631	1,822	2,063	3,285	3,088	2,836	2,542	2,532
Seafood sales, retail	Establishments	19	17	21	12	15	18	14	15	17
	Employees	47	55	57	41	ND	50	46	50	58
	Payroll	468	532	521	395	ND	699	841	810	838

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	5	6	5	5	4	5	5	4	4
	Employees	ND	ND	ND	ND	ND	119	114	ND	127
	Payroll	ND	ND	ND	ND	7,585	8,351	7,730	8,058	7,233
Deep sea freight transportation	Establishments	2	2	3	3	1	NA	1	1	1
	Employees	ND	ND	ND	ND	ND	NA	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	NA	ND	ND	ND
Deep sea passenger transportation	Establishments	1	1	1	1	1	NA	NA	NA	NA
	Employees	ND	ND	ND	ND	ND	NA	NA	NA	NA
	Payroll	ND	ND	ND	ND	ND	NA	NA	NA	NA
Marinas	Establishments	22	22	25	16	19	17	13	18	19
	Employees	141	220	158	ND	ND	111	172	183	189
	Payroll	2,532	2,603	2,358	ND	2,145	2,794	3,479	4,163	5,137
Marine cargo handling	Establishments	4	5	6	5	5	7	8	7	7
	Employees	ND	ND	ND	238	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	8,621	ND	ND	ND	ND	ND
Navigational services to shipping	Establishments	10	9	8	8	9	8	7	8	6
	Employees	ND	ND	ND	ND	ND	ND	ND	141	ND
	Payroll	ND	ND	ND	ND	1,754	ND	ND	6,982	ND
Port & harbor operations	Establishments	1	2	2	1	1	1	1	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ship & boat building	Establishments	21	19	17	20	23	24	20	20	20
	Employees	ND	ND	11,845	11,909	14,578	ND	ND	ND	ND
	Payroll	ND	ND	471,243	498,660	615,837	ND	ND	ND	ND

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

ND- these data are confidential and therefore not available

NA- these data are not available

**2012 Economic Impacts of the Texas Seafood Industry (thousands of dollars)**

	Jobs	Sales	Income	Value Added
<b>Total Impacts</b>	25,911	2,499,832	677,391	1,036,657
Commercial Harvesters	4,792	409,046	119,979	191,147
Seafood Processors & Dealers	1,678	140,070	52,693	69,399
Importers	4,244	1,167,510	187,116	355,908
Seafood Wholesalers & Distributors	1,379	186,323	62,169	86,092
Retail	13,818	596,883	255,435	334,112

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total revenue</b>	168,317	166,208	172,337	197,291	180,575	176,098	155,074	203,795	240,566	194,044
Finfish & other	9,041	10,684	10,813	11,359	9,452	7,709	7,488	7,888	8,445	10,221
Shellfish	159,276	155,524	161,523	185,932	171,123	168,389	147,586	195,907	232,121	183,823
Atlantic croaker	489	382	415	500	450	446	484	531	622	740
Black drum	1,365	1,444	1,917	2,013	1,660	1,363	1,377	1,573	1,448	1,486
Blue crab	3,157	2,663	2,410	1,459	2,763	2,342	2,454	3,134	2,845	2,876
Flounders	336	325	276	164	62	144	91	62	205	175
Groupers	1,028	785	795	628	417	553	641	356	549	723
Oysters	16,493	14,954	15,883	17,263	19,246	8,835	9,376	19,144	12,789	21,302
Red snapper	3,757	5,193	5,345	6,168	3,762	2,744	2,398	3,009	3,254	4,448
Shrimp	139,485	137,674	143,045	167,108	149,084	157,187	135,643	173,556	216,382	159,534
Tunas	720	0	340	0	ND <sup>1</sup>	94	139	4	2	5
Vermilion snapper	349	611	571	642	1,554	1,430	1,233	1,337	1,274	1,434

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total landings</b>	96,122	85,557	84,289	117,131	87,912	73,048	102,695	89,721	98,857	81,991
Finfish & other	5,240	5,852	5,782	5,825	4,800	3,866	4,134	4,247	4,224	4,213
Shellfish	90,883	79,705	78,507	111,306	83,111	69,182	98,561	85,475	94,633	77,778
Atlantic croaker	75	60	58	67	62	59	63	67	79	89
Black drum	1,677	1,717	2,077	2,212	1,687	1,468	1,610	1,729	1,795	1,612
Blue crab	4,811	3,961	3,119	1,966	3,454	2,635	2,844	3,436	2,893	2,850
Flounders	159	151	144	68	24	58	32	26	75	60
Groupers	416	329	303	220	141	170	208	144	190	211
Oysters	6,813	5,569	5,007	4,923	5,633	2,679	2,733	5,265	3,943	5,817
Red snapper	1,607	2,133	1,940	2,158	1,213	870	851	1,031	948	1,123
Shrimp	79,166	70,098	70,310	104,378	74,007	63,855	92,946	76,734	87,753	69,076
Tunas	275	0	112	0	ND <sup>1</sup>	22	45	1	1	3
Vermilion snapper	192	322	279	273	672	592	561	539	465	511

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

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic croaker	6.49	6.35	7.14	7.43	7.29	7.58	7.64	7.98	7.84	8.32
Black drum	0.81	0.84	0.92	0.91	0.98	0.93	0.86	0.91	0.81	0.92
Blue crab	0.66	0.67	0.77	0.74	0.80	0.89	0.86	0.91	0.98	1.01
Flounders	2.12	2.15	1.92	2.42	2.55	2.48	2.84	2.37	2.75	2.94
Groupers	2.47	2.39	2.62	2.85	2.96	3.25	3.07	2.47	2.88	3.43
Oysters	2.42	2.69	3.17	3.51	3.42	3.30	3.43	3.64	3.24	3.66
Red snapper	2.34	2.43	2.76	2.86	3.10	3.15	2.82	2.92	3.43	3.96
Shrimp	1.76	1.96	2.03	1.60	2.01	2.46	1.46	2.26	2.47	2.31
Tunas	2.62	0.80	3.04	0.69	ND <sup>1</sup>	4.26	3.08	3.19	1.82	1.83
Vermilion snapper	1.82	1.90	2.05	2.35	2.31	2.42	2.20	2.48	2.74	2.81

<sup>1</sup>ND = these data are confidential thus not disclosable



**2012 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)**

	Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode:				
For-Hire	1,199	148,950	62,896	97,195
Private Boat	1,996	253,670	76,341	134,277
Shore	2,550	299,139	91,554	159,939
Total Durable Equipment Impacts	8,199	1,017,950	384,922	613,629
<b>Total State Trip and Durable Equipment Economic Impacts</b>	<b>13,944</b>	<b>1,719,709</b>	<b>615,713</b>	<b>1,005,040</b>

**2012 Angler Trip & Durable Expenditures (thousands of dollars)<sup>2</sup>**

Fishing Mode	Trip Expenditures		Equipment	Durable Expenditures
	Non-Residents	Residents		
			Fishing Tackle	152,244
For-Hire	6,310	81,411	Other Equipment	84,060
Private Boat	8,419	151,625	Boat Expenses	422,594
Shore	15,845	171,000	Vehicle Expenses	276,288
<i>Total Trip Expenditures</i>	<i>30,574</i>	<i>404,036</i>	Second Home Expenses	85,827
			<i>Total Durable Equipment Expenditures</i>	<i>1,021,013</i>
<b>Total State Trip and Durable Equipment Expenditures</b>				<b>1,455,623</b>

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Atlantic croaker	H	96	109	95	101	95	64	117	125	157	111
Black drum	H	85	68	53	73	66	82	98	165	129	72
King mackerel	H	19	15	14	29	11	8	16	6	9	16
Red drum	H	270	273	231	318	289	266	285	264	347	233
Red snapper	H	40	40	49	69	45	41	31	33	36	53
Sand seatrout	H	119	176	125	129	95	152	111	127	227	173
Sheepshead	H	76	67	81	78	46	46	34	49	57	84
Southern flounder	H	111	100	81	64	49	64	47	30	92	91
Spotted seatrout	H	939	934	855	987	916	917	810	732	1,137	965

<sup>2</sup>The Marine Recreational Information Program (MRIP) does not collect participation (number of anglers) or effort (number of trips) data for Texas. To calculate trip expenditure estimates, effort by fishing mode was estimated based on 2012 data provided by the Texas Parks and Wildlife Department (TPWD). These effort estimates were reviewed by the TPWD. To calculate angler expenditure estimates (durable equipment expenditures), participation estimates were based on the sum of saltwater licenses sold in Texas plus a proportion of combination licenses sold in Texas. A change in the method of reporting landings occurred in 2007 so data from 2007 is not comparable to earlier years.

<sup>3</sup>Data collected by the TPWG is reported in this table. The data collected by the TPWD differs from the data collected and reported in the MRIP. Please see the TPWD for more information: [www.tpwd.state.tx.us/fishboat/](http://www.tpwd.state.tx.us/fishboat/).

## Texas's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (million \$)	Employee Compensation (million \$)	Gross State Product (million \$)	Commercial Location Quotient <sup>1</sup>
2003	483,945 (6.7%)	8,051,148 (7.1%)	281,636 (7.0%)	440,655 (6.9%)	824,489 (7.4%)	0.42
2011	525,420 (7.1%)	8,987,663 (7.9%)	414,113 (8.0%)	659,374 (8.0%)	1,321,005 (8.8%)	0.2
%change	8.57%	11.63%	47.04%	49.63%	60.22%	-52.4 %

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Firms	99	100	108	109	94	85	82	99	119
	Receipts	5,234	1,989	2,228	2,974	5,386	3,466	3,896	3,224	5,734
Seafood sales, retail	Firms	170	159	159	141	182	188	195	184	171
	Receipts	16,636	19,131	19,534	18,355	17,442	18,204	12,947	12,124	13,433

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Seafood product prep. & packaging	Establishments	23	24	23	21	26	27	24	22	24
	Employees	1,274	1,177	1,288	1,155	1,207	1,169	1,026	1,184	1,273
	Payroll	25,426	24,394	23,842	24,302	27,813	27,045	29,006	24,961	26,425
Seafood Sales, wholesale	Establishments	99	103	97	92	104	69	75	77	82
	Employees	1,057	1,009	1,001	897	970	734	683	715	723
	Payroll	27,016	27,730	26,408	28,586	51,597	24,498	23,650	23,879	26,356
Seafood sales, retail	Establishments	67	60	59	58	62	60	51	52	50
	Employees	227	219	176	207	189	206	189	199	ND
	Payroll	2,985	2,993	3,162	3,229	3,703	3,403	3,393	3,742	4,090

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

		2003	2004	2005	2006	2007	2008	2009	2010	2011
Coastal & Great Lakes freight transportation	Establishments	43	43	61	45	43	42	43	48	48
	Employees	2,705	2,565	ND	2,270	2,513	2,815	2,729	1,909	1,764
	Payroll	88,033	91,995	ND	107,328	131,946	251,997	200,219	161,080	177,549
Deep sea freight transportation	Establishments	48	41	43	40	41	35	36	30	39
	Employees	ND	891	ND	751	920	514	802	764	860
	Payroll	ND	38,553	ND	41,969	49,761	40,764	61,309	63,408	71,515
Deep sea passenger transportation	Establishments	5	3	4	3	4	3	2	1	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	170	165	166	150	141	143	131	148	144
	Employees	1,410	ND	ND	ND	1,200	1,486	1,423	1,198	1,233
	Payroll	31,197	ND	ND	ND	28,359	34,039	33,803	33,968	34,928
Marine cargo handling	Establishments	59	60	60	64	62	55	57	54	55
	Employees	5,091	4,539	5,200	5,349	6,237	6,313	6,276	5,262	5,259
	Payroll	108,142	138,630	151,522	161,386	186,416	196,006	167,562	166,877	153,360
Navigational services to shipping	Establishments	92	92	87	84	90	99	95	87	91
	Employees	1,099	1,213	1,064	1,373	1,709	1,884	1,849	1,606	1,448
	Payroll	60,714	68,741	75,914	98,244	125,061	137,962	137,289	132,283	113,444
Port & harbor operations	Establishments	16	15	15	16	15	24	30	29	26
	Employees	ND	215	ND	112	98	ND	421	ND	439
	Payroll	ND	7,128	ND	4,992	5,163	10,538	13,778	18,627	18,842
Ship & boat building	Establishments	107	103	99	90	96	102	99	97	91
	Employees	4,062	4,204	3,564	3,515	4,810	5,368	3,891	3,386	2,773
	Payroll	156,565	163,800	156,259	170,308	210,275	235,190	158,261	147,492	153,077

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

ND- these data are confidential and therefore not available

NA- these data are not available





# Data Sources

Moss Landing, California  
(photo credit: Rosemary Kosaka)

### Management Context

Excess Harvesting Capacity in U.S. Fisheries, A Report to Congress. April 28, 2008. National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [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)

"Status of U.S. Fisheries." Office of Sustainable Fisheries, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). <http://www.nmfs.noaa.gov/sfa/statusoffisheries/S0Smain.htm>

"Endangered Species Act (ESA)." Office of Protected Resources, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [www.nmfs.noaa.gov/pr/laws/esa/](http://www.nmfs.noaa.gov/pr/laws/esa/)

"Certified Fisheries." Marine Stewardship Council. [www.msc.org/](http://www.msc.org/)

"Catch Shares" Office of Sustainable Fisheries, National Marine Fisheries Service, National Oceanic Atmospheric Administration (NOAA Fisheries). [http://www.nmfs.noaa.gov/sfa/domes\\_fish/catchshare/index.htm](http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm)

### Fishery Management Councils & Fishery Management Plans:

Caribbean Fishery Management Council. [www.caribbeanfmc.com](http://www.caribbeanfmc.com)

Gulf of Mexico Fishery Management Council. [www.gulfcouncil.org](http://www.gulfcouncil.org)

Mid-Atlantic Fishery Management Council. [www.mafmc.org/mid-atlantic/mafmc.htm](http://www.mafmc.org/mid-atlantic/mafmc.htm)

New England Fishery Management Council. [www.nefmc.org/](http://www.nefmc.org/)

North Pacific Fishery Management Council. [www.fakr.noaa.gov/npfmc](http://www.fakr.noaa.gov/npfmc)

Pacific Fishery Management Council. [www.pcouncil.org](http://www.pcouncil.org)

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### Commercial Fisheries

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Commercial Landings Database. Obtained October 15, 2011. Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [www.st.nmfs.noaa.gov/st1/commercial/index.html](http://www.st.nmfs.noaa.gov/st1/commercial/index.html)

#### Data for Western Pacific region:

Western Pacific Fisheries Information Network (WPacFIN). Obtained October 15, 2013. [www.nmfs.hawaii.edu/wpacfin/hi/dar/Pages/hi\\_data\\_menu.php](http://www.nmfs.hawaii.edu/wpacfin/hi/dar/Pages/hi_data_menu.php)

#### Pacific cod, flatfish, Atka mackerel, walleye pollock, rockfish, and sablefish data, North Pacific region:

Alaska Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). Obtained September 12, 2013. [www.afsc.noaa.gov](http://www.afsc.noaa.gov)

### Economic Impacts of the U.S. Commercial Seafood Industry:

A Users Guide to the National and Coastal State I/O Model. <https://www.st.nmfs.noaa.gov/documents/CommercialFishingIOModel.pdf>

#### Additional information:

"Data Caveats." Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [www.st.nmfs.noaa.gov/st1/commercial/landings/caveat.html](http://www.st.nmfs.noaa.gov/st1/commercial/landings/caveat.html)

"NOAA Fisheries Economics & Social Sciences Program." Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [www.st.nmfs.noaa.gov/st5/index.html](http://www.st.nmfs.noaa.gov/st5/index.html)

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"Recreational Fishery Statistics Queries." Obtained October 1, 2013. Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). <http://www.st.nmfs.noaa.gov/st1/recreational/queries/index.html>

**Data for Pacific region:**

Southwest Fisheries Science Center (Santa Cruz, CA), National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). Obtained November 15, 2013 [swfsc.noaa.gov/default1.aspx?Division=FED&id=554](http://swfsc.noaa.gov/default1.aspx?Division=FED&id=554)

**Data for North Pacific region:**

Alaska Department of Fish & Game. Obtained October 1, 2013. <http://www.adfg.state.ak.us>

**Data for Texas (Gulf of Mexico region):**

Texas Parks & Wildlife Department. Obtained October 1, 2013 [www.tpwd.state.tx.us](http://www.tpwd.state.tx.us)

**Recreational Fishing Expenditures and Impacts:**

The Economic Contribution of Marine Angler Expenditures in the United States, 2006. [www.st.nmfs.noaa.gov/st5/publication/AnglerExpenditureReport/AnglerExpendituresReport\\_ALL.pdf](http://www.st.nmfs.noaa.gov/st5/publication/AnglerExpenditureReport/AnglerExpendituresReport_ALL.pdf)

**The Marine Economy**

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"Location Quotient Calculator." Obtained October 31, 2013. Bureau of Labor Statistics. [data.bls.gov/LOCATION\\_QUOTIENT/servlet/lqc.ControllerServlet](http://data.bls.gov/LOCATION_QUOTIENT/servlet/lqc.ControllerServlet)

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# Publications



Anglers with a king mackerel off the Florida coast  
(photo credit: Robert Crimson)



## Publications

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Selected publications by NOAA Fisheries Economics and Social Sciences Program staff are grouped by geographic region of focus and then organized under the following categories:

Climate Change Research	Recreational Fisheries Economics Research
Coastal & Marine Recreation Research	Habitat Economics Research
Commercial Fisheries Economics Research	Seafood Marketing & Trade Research
Spatial Analysis & Marine Protected Areas Research	Sociocultural Research
Ocean Policy & Management Research	U.S. Territories & International Fisheries Research
Other Marine Environmental Research	Protected Resources Economics Research

### United States

#### *Climate Change Research*

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*US Territories & International Fisheries Research*

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# Resources



Aboard a trawler in the Bering Sea  
(photo credit: US Seafoods)



### U.S.

#### *Federal Agencies*

Economics & Social Analysis Division Office of Science & Technology, NOAA Fisheries  
[www.st.nmfs.gov/st5/index.html](http://www.st.nmfs.gov/st5/index.html)  
Office of Science & Technology, NOAA Fisheries [www.st.nmfs.gov/index.html](http://www.st.nmfs.gov/index.html)  
Marine Recreational Information Program [www.st.nmfs.noaa.gov/mrip/index.html](http://www.st.nmfs.noaa.gov/mrip/index.html)  
Office of International Affairs, NOAA Fisheries [www.nmfs.noaa.gov/ia/index.htm](http://www.nmfs.noaa.gov/ia/index.htm)  
Office of Marine Conservation U.S. Department of State [www.state.gov/g/oes/ocns/](http://www.state.gov/g/oes/ocns/)

### North Pacific

*Federal Agencies* Economic & Social Sciences Research Alaska Fisheries Science Center, NOAA Fisheries [www.afsc.noaa.gov/REFM/Socioeconomics/Default.php](http://www.afsc.noaa.gov/REFM/Socioeconomics/Default.php)

Alaska Fisheries Science Center, NOAA Fisheries [www.afsc.noaa.gov](http://www.afsc.noaa.gov)

Alaska Regional Office, NOAA Fisheries [www.fakr.noaa.gov](http://www.fakr.noaa.gov)

Alaska Region, U.S. Fish & Wildlife Service [alaska.fws.gov](http://alaska.fws.gov)

District 17, U.S. Coast Guard [www.uscg.mil/D17](http://www.uscg.mil/D17)

#### *State Agencies*

Alaska Department of Fish & Game [www.adfg.state.ak.us](http://www.adfg.state.ak.us)

#### *Councils & Commissions*

North Pacific Fishery Management Council [www.fakr.noaa.gov/npfmc](http://www.fakr.noaa.gov/npfmc)

Pacific States Marine Fisheries Commission [www.psmfc.org/index.php](http://www.psmfc.org/index.php)

Fisheries Economics Data Program Pacific States Marine Fisheries Commission [www.psmfc.org/efin](http://www.psmfc.org/efin)

International Pacific Halibut Commission [www.iphc.washington.edu/halcom/default.htm](http://www.iphc.washington.edu/halcom/default.htm)

### Pacific

#### *Federal Agencies*

Human Dimensions Program Northwest Fisheries Science Center, NOAA Fisheries [www.nwfsc.noaa.gov/research/divisions/cbd/humandim.cfm](http://www.nwfsc.noaa.gov/research/divisions/cbd/humandim.cfm)

Economics, Groundfish Analysis Program Northwest Fisheries Science Center, NOAA Fisheries [www.nwfsc.noaa.gov/research/divisions/fram/economics.cfm](http://www.nwfsc.noaa.gov/research/divisions/fram/economics.cfm)

Northwest Fisheries Science Center, NOAA Fisheries [www.nwfsc.noaa.gov](http://www.nwfsc.noaa.gov)

Northwest Regional Office, NOAA Fisheries [www.nwr.noaa.gov](http://www.nwr.noaa.gov)

Socioeconomics Research Southwest Fisheries Science Center, NOAA Fisheries [swfsc.noaa.gov](http://swfsc.noaa.gov)

Southwest Fisheries Science Center [swfsc.noaa.gov](http://swfsc.noaa.gov)

Southwest Regional Office [swr.nmfs.noaa.gov](http://swr.nmfs.noaa.gov)

Pacific Region, U.S. Fish & Wildlife Service [www.fws.gov/pacific](http://www.fws.gov/pacific)

California & Nevada, U.S. Fish & Wildlife Service [www.fws.gov/cno](http://www.fws.gov/cno)

District 13, U.S. Coast Guard <http://www.uscg.mil/D13/>

#### *State Agencies*

California Department of Fish & Game [www.dfg.ca.gov](http://www.dfg.ca.gov)

Oregon Department of Fish & Wildlife [www.dfw.state.or.us](http://www.dfw.state.or.us)

Washington Department of Fish & Wildlife [wdfw.wa.gov](http://wdfw.wa.gov)

#### *Councils & Commissions*

Pacific Fishery Management Council [www.pcouncil.org](http://www.pcouncil.org)

Pacific States Marine Fisheries Commission [www.psmfc.org/index.php](http://www.psmfc.org/index.php)

Fisheries Economics Data Program - Pacific States Marine Fisheries Commission [www.psmfc.org/efin](http://www.psmfc.org/efin)

International Pacific Halibut Commission [www.iphc.washington.edu/halcom/default.htm](http://www.iphc.washington.edu/halcom/default.htm)

### Western Pacific

#### *Federal Agencies*

Fisheries Monitoring & Socioeconomics Division Pacific Islands Fisheries Science Center, NOAA Fisheries [www.pifsc.noaa.gov/fmsd](http://www.pifsc.noaa.gov/fmsd)

Pacific Islands Fisheries Science Center, NOAA Fisheries [www.pifsc.noaa.gov/index.php](http://www.pifsc.noaa.gov/index.php)

Pacific Islands Regional Office, NOAA Fisheries [www.fpir.noaa.gov](http://www.fpir.noaa.gov)

Pacific Region, U.S. Fish & Wildlife Service [www.fws.gov/pacific](http://www.fws.gov/pacific)  
 District 14, U.S. Coast Guard [www.uscg.mil/d14](http://www.uscg.mil/d14)  
*State Agencies* Hawaii Department of Land & Natural Resources [www.hawaii.gov/dlnr](http://www.hawaii.gov/dlnr)  
 Guam Office of the Governor [www.guamgovernor.net](http://www.guamgovernor.net)  
 Department of Marine & Wildlife Resources, American Samoa Office of the Governor [americansamoa.gov/departments/depts/mwr.htm](http://americansamoa.gov/departments/depts/mwr.htm)  
 Division of Fish & Wildlife Commonwealth of the Northern Mariana Islands [www.dfw.gov.mp](http://www.dfw.gov.mp)  
*Councils & Commissions*  
 Western Pacific Fishery Management Council [www.wpcouncil.org](http://www.wpcouncil.org)

## New England

### *Federal Agencies*

Social Sciences Branch, Northeast Fisheries Science Center, NOAA Fisheries [www.nefsc.noaa.gov/read/socialsci](http://www.nefsc.noaa.gov/read/socialsci)  
 Northeast Fisheries Science Center, NOAA Fisheries [www.nefsc.noaa.gov](http://www.nefsc.noaa.gov)  
 Northeast Regional Office, NOAA Fisheries [www.nero.noaa.gov/nero](http://www.nero.noaa.gov/nero)  
 Northeast Region, U.S. Fish & Wildlife Service [www.fws.gov/northeast](http://www.fws.gov/northeast)  
 District 1, U.S. Coast Guard [www.uscg.mil/D1](http://www.uscg.mil/D1)

### *State Agencies*

Maine Department of Marine Resources [www.maine.gov/dmr/index.htm](http://www.maine.gov/dmr/index.htm)  
 Rhode Island Department of Environmental Management [www.dem.ri.gov](http://www.dem.ri.gov)  
 Massachusetts Division of Marine Fisheries [www.mass.gov/dfwele/dmf](http://www.mass.gov/dfwele/dmf)  
 Connecticut Department of Environmental Protection [www.ct.gov/dep/site/default.asp](http://www.ct.gov/dep/site/default.asp)  
 New Hampshire Fish & Game Department [www.wildlife.state.nh.us](http://www.wildlife.state.nh.us)

### *Councils & Commissions*

New England Fishery Management Council [www.nefmc.org](http://www.nefmc.org)  
 Atlantic States Marine Fisheries Commission [www.asafc.org](http://www.asafc.org)

## Mid-Atlantic

### *Federal Agencies*

Social Sciences Branch Northeast Fisheries Science Center, NOAA Fisheries [www.nefsc.noaa.gov/read/socialsci](http://www.nefsc.noaa.gov/read/socialsci)  
 Northeast Fisheries Science Center, NOAA Fisheries [www.nefsc.noaa.gov](http://www.nefsc.noaa.gov)  
 Northeast Regional Office, NOAA Fisheries [www.nero.noaa.gov/nero](http://www.nero.noaa.gov/nero)  
 Northeast Region, U.S. Fish & Wildlife Service [www.fws.gov/northeast](http://www.fws.gov/northeast)  
 District 5, U.S. Coast Guard [www.uscg.mil/D5](http://www.uscg.mil/D5)

### *State Agencies*

Bureau of Marine Resources, New York Department of Environmental Conservation [www.dec.ny.gov/about/796.html](http://www.dec.ny.gov/about/796.html)  
 New Jersey Division of Fish & Wildlife [www.state.nj.us/dep/fgw](http://www.state.nj.us/dep/fgw)  
 Pennsylvania Fish & Boat Commission [fishandboat.com/mpag1.htm](http://fishandboat.com/mpag1.htm)  
 Delaware Division of Fish & Wildlife [www.fw.delaware.gov](http://www.fw.delaware.gov)  
 Fisheries Service, Maryland Department of Natural Resources [www.dnr.state.md.us/fisheries](http://www.dnr.state.md.us/fisheries)  
 Virginia Marine Resources Commission [www.mrc.state.va.us](http://www.mrc.state.va.us)  
 Division of Marine Fisheries, North Carolina Department of Environment & Natural Resources [www.ncfisheries.net](http://www.ncfisheries.net)

### *Councils & Commissions*

Mid-Atlantic Fishery Management Council [www.mafmc.org](http://www.mafmc.org)  
 Atlantic States Marine Fisheries Commission [www.asafc.org](http://www.asafc.org)

## South Atlantic

### *Federal Agencies*

Social Science Research Group, Southeast Fisheries Science Center, NOAA Fisheries [www.sefsc.noaa.gov/socialscience.jsp](http://www.sefsc.noaa.gov/socialscience.jsp)  
 Southeast Fisheries Science Center, NOAA Fisheries [www.sefsc.noaa.gov](http://www.sefsc.noaa.gov)  
 Southeast Regional Office, NOAA Fisheries [sero.nmfs.noaa.gov](http://sero.nmfs.noaa.gov)  
 Southeast Region, U.S. Fish & Wildlife Service [www.fws.gov/southeast](http://www.fws.gov/southeast)  
 Southwest Region, U.S. Fish & Wildlife Service [www.fws.gov/southwest](http://www.fws.gov/southwest)  
 District 7, U.S. Coast Guard [www.uscg.mil/D7](http://www.uscg.mil/D7)

### *State Agencies*

North Carolina Division of Marine Fisheries [www.ncfisheries.net](http://www.ncfisheries.net)

## Resources

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Marine Resources Division, South Carolina Department of Natural Resources [www.dnr.sc.gov](http://www.dnr.sc.gov)

Coastal Resources Division Georgia Department of Natural Resources [crd.dnr.state.ga.us](http://crd.dnr.state.ga.us)

Florida Fish & Wildlife Conservation Commission [myfwc.com](http://myfwc.com)

### *Councils & Commissions*

South Atlantic Fishery Management Council [www.safmc.net](http://www.safmc.net)

Atlantic States Marine Fisheries Commission [www.asafc.org](http://www.asafc.org)

## Gulf of Mexico

### *Federal Agencies*

Social Science Research Group, Southeast Fisheries Science Center, NOAA Fisheries <http://www.sefsc.noaa.gov/socialscience.jsp>

Southeast Fisheries Science Center, NOAA Fisheries [www.sefsc.noaa.gov](http://www.sefsc.noaa.gov)

Southeast Regional Office, NOAA Fisheries [sero.nmfs.noaa.gov](http://sero.nmfs.noaa.gov)

Southeast Region, U.S. Fish & Wildlife Service [www.fws.gov/southeast](http://www.fws.gov/southeast)

Southwest Region, U.S. Fish & Wildlife Service [www.fws.gov/southwest](http://www.fws.gov/southwest)

District 8, U.S. Coast Guard [www.uscg.mil/D8](http://www.uscg.mil/D8)

### *State Agencies*

Division of Marine Fisheries, Florida Fish & Wildlife Conservation Commission [myfwc.com/RECREATION/Saltwater/\\_index.htm](http://myfwc.com/RECREATION/Saltwater/_index.htm)

Marine Resources Division, Alabama Department of Conservation & Natural Resources [www.outdooralabama.com](http://www.outdooralabama.com)

Mississippi Department of Marine Resources [www.dmr.state.ms.us](http://www.dmr.state.ms.us)

Louisiana Department of Wildlife & Fisheries [www.wlf.state.la.us](http://www.wlf.state.la.us)

Texas Parks & Wildlife Department [www.tpwd.state.tx.us](http://www.tpwd.state.tx.us)

### *Councils & Commissions*

Gulf of Mexico Fishery Management Council [www.gulfcouncil.org](http://www.gulfcouncil.org)

Gulf States Marine Fisheries Commission [www.gsmfc.org](http://www.gsmfc.org)

## International Organizations

Pacific Salmon Commission [www.psc.org](http://www.psc.org)

North Atlantic Salmon Conservation Organization [www.nasco.int](http://www.nasco.int)

International Pacific Halibut Commission [www.iphc.washington.edu/halcom/default.htm](http://www.iphc.washington.edu/halcom/default.htm)

InterAmerican Tropical Tuna Commission [www.iattc.org/HomeENG.htm](http://www.iattc.org/HomeENG.htm)

Western & Central Pacific Fisheries Commission [www.wcpfc.int](http://www.wcpfc.int)

International Commission for the Conservation of Atlantic Tunas [www.iccat.int/en](http://www.iccat.int/en)

Commission for the Conservation of Antarctic Marine Living Resources [www.ccamlr.org](http://www.ccamlr.org)

International Maritime Organization [www.imo.org](http://www.imo.org)

Red List of Threatened Species [www.iucnredlist.org](http://www.iucnredlist.org)

## Professional Organizations

North American Association of Fisheries Economists [oregonstate.edu/Dept/IIFET/NAAFE/Home.html](http://oregonstate.edu/Dept/IIFET/NAAFE/Home.html)

International Institute of Fisheries Economics & Trade [oregonstate.edu/dept/iifet](http://oregonstate.edu/dept/iifet)

## Other Organizations & Information

The Center for Independent Experts [www.ciereviews.org](http://www.ciereviews.org)

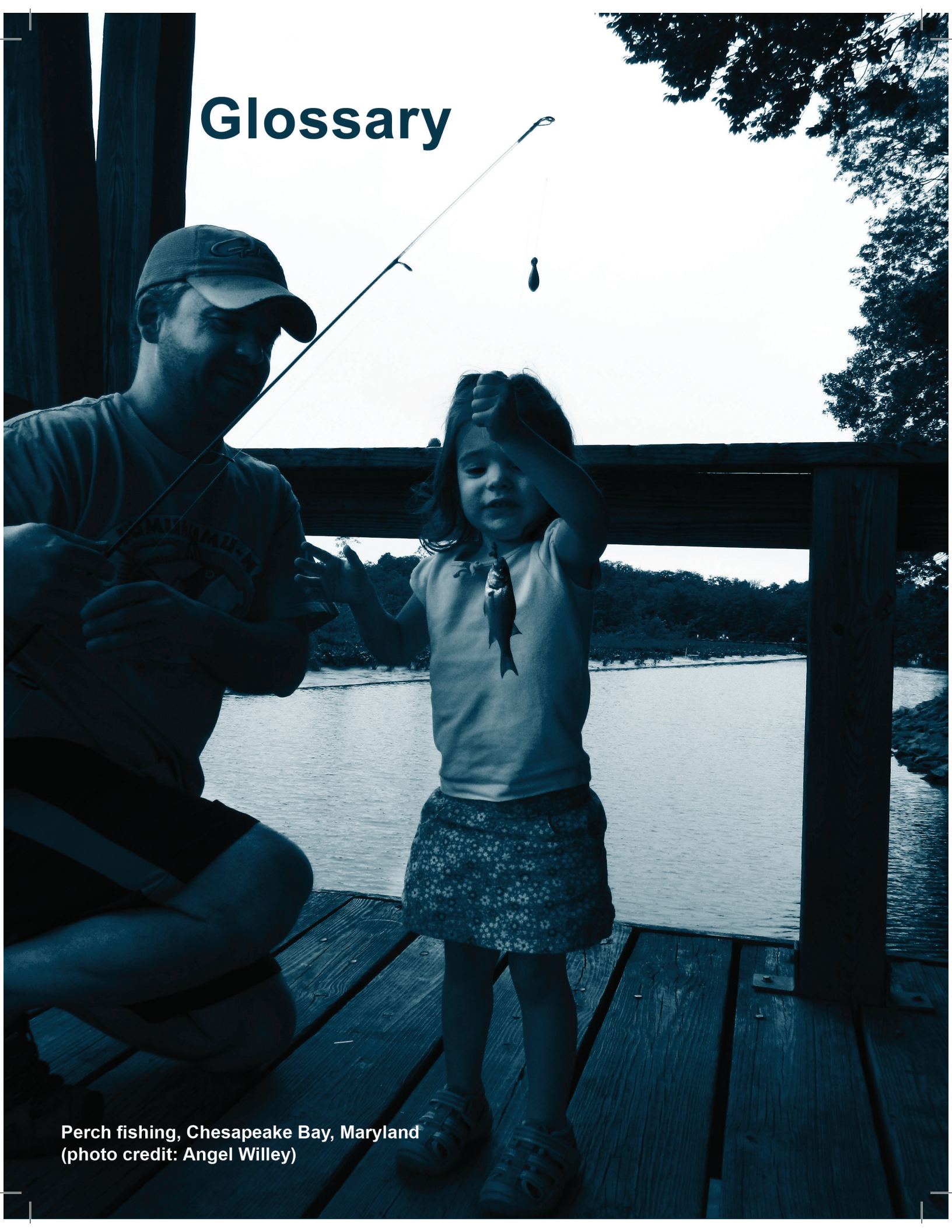
Organisation for Economic Co-operation & Development [www.oecd.org/home](http://www.oecd.org/home)

FishWatch - U.S. Seafood Facts [www.nmfs.noaa.gov/fishwatch](http://www.nmfs.noaa.gov/fishwatch)

Marine Stewardship Council [www.msc.org](http://www.msc.org)



# Glossary



Perch fishing, Chesapeake Bay, Maryland  
(photo credit: Angel Willey)

### **Angler<sup>1</sup>**

A person catching fish or shellfish with no intent to sell, including people releasing the catch. Also known as a recreational fisherman.

### **Annual Payroll<sup>2</sup>**

Total payroll includes all forms of compensation such as salaries, wages, reported tips, commissions, bonuses, vacation allowances, sick-leave pay, employee contributions to qualified pension plans, and the value of taxable fringe benefits. For corporations, it includes amounts paid to officers and executives; for unincorporated businesses, it does not include profit or other compensation of proprietors or partners. Payroll is reported before deductions for Social Security, income tax, insurance, union dues, etc.

### **Annual Receipts<sup>3</sup>**

Includes gross receipts, sales, commissions, and income from trades and businesses, as reported on annual business income tax returns. Business income consists of all payments received for services rendered by nonemployer businesses such as payments received as independent agents and contractors. The composition of nonemployer receipts may differ from receipts data published for employer establishments. For example, for wholesale agents and brokers without payroll (nonemployers), the receipts item contains commissions received or earnings. In contrast, for wholesale agents and brokers with payroll (employers), the sales and receipts item published in the Economic Census represents the value of the goods involved in the transactions.

### **Buyback Program<sup>4</sup>**

A management tool available to fishery managers intended to ease fishing-related pressure on marine resources. Fishing vessels are purchased by the government or by the fishing industry itself then removed from a specific fishery where fish stocks or stock complexes are considered overfished or subject to overfishing.

### **Bycatch<sup>1</sup>**

Species other than the primary target species that are caught incidental to the harvest of the primary species. Bycatch may be retained or discarded; discards may occur for regulatory or economic reasons.

### **Catch<sup>1</sup>**

1. To undertake any activity that results in taking fish out of its environment dead or alive, or to bring fish on board a vessel dead or alive; 2. The total number (or weight) of fish caught by fishing operations. Catch should include all fish killed by the act of fishing, not just those landed; 3. The component of fish encountering fishing gear, which is retained by the gear.

Catch is usually expressed in terms of wet weight. It refers sometimes to the total amount caught and sometimes only to the amount landed. The fish which are not landed, but returned to the sea, are called discards or bycatch.

For recreational fishing activities, catch refers to the total number of individual fish released (thrown back into the sea) and harvested (not thrown back into the sea) by recreational fishermen (angler).

### **Catch Share Program<sup>5</sup>**

This is a generic term used to describe a fishery management program that allocates a specific portion of the total fishery catch to individuals, cooperatives, communities, or other entities including sectors. The term encompasses more specific programs defined in legislation such as Limited Access Privilege Programs and Individual Fishing Quotas. Note that a catch share allocated to a sector is different than a general sectoral allocation or distribution to an entire segment of a fishery (such as a recreational sector allocation or a longline gear sector allocation) because the recipient of the catch share is responsible for terminating fishing activity when their specific share is reached.

### **Coastal County<sup>6</sup>**

A coastal county meets one of the following criteria: 1) at least 15 percent of a county's total land area is located within the Nation's coastal watershed; or 2) a portion of or an entire county accounts for at least 15 percent of a coastal cataloging unit. Any U.S. county that meets these criteria is classified as coastal.

### **Coastal County Angler**

For this report, a coastal county angler refers to a recreational fishermen who lives within a given state and within a coastal county of that state.

### **Commercial Fishing Location Quotient (CFLQ)**

For this report, the CFLQ is calculated as the ratio of a state's distribution of employment in commercial fishing industries compared to the distribution of commercial fishing industries in the U.S. The CFLQ is calculated using the "Location Quotient Calculator" provided by the Bureau of Labor Statistics, U.S. Department of Labor.



**Community Development Quota Program (CDQ)<sup>1</sup>**

A program in western Alaska under which a percentage of the total allowable catch (TAC) of Bering Sea commercial fisheries is allocated to specific communities. Communities eligible for this program must be located within 50 miles of the Bering Sea coast, or on an island within the Bering Sea; meet criteria established by the State of Alaska; be a village certified by the Secretary of the Interior pursuant to the Alaska Native Claims Settlement Act; and consist of residents who conduct more than half of their current commercial or subsistence fishing in the Bering Sea or waters surrounding the Aleutian Islands. Currently 7.5% of the TAC in the pollock, halibut, sablefish, crab, and groundfish fisheries is allocated to the CDQ program.

**Dedicated Access Privileges (DAPs)<sup>7</sup>**

As defined by the U.S. Commission on Ocean Policy, a DAP program assigns an individual or other entity access to a pre-determined portion of the annual catch in a particular fishery. In some cases, the privilege is transferable and may be bought and sold, creating a market. The term encompasses a range of tools, including access privileges assigned to individuals (that is, individual transferable quotas), and to groups or communities (for example, community development quotas, cooperatives, and area-based quotas).

DAP programs are sometimes known as rights-based management, and are often synonymous with Limited Access Privilege Programs (see "Limited Access Privilege Program"). However, "rights-based management" implies granting an individual the "right" to fish. With the exception of certain tribes, U.S. fishermen do not have inalienable rights to fish because the fishery resources of the U.S. belong to all people of the U.S. Under current law, fishermen are granted a "privilege" to fish, subject to certain conditions.

**Discards<sup>1</sup>**

To release or return a fish or other species to the sea, dead or alive, whether or not such fish or other species are brought fully on board a fishing vessel.

Estimates of discards can be made in a variety of ways, including samples from observers and logbook records. Fish (or parts of fish) can be discarded for a variety of reasons such as having physical damage, being a non-target species for the trip, and compliance with management regulations like minimum size limits or quotas.

**Durable Equipment Expenditures or Durable Goods Expenditures<sup>8</sup>**

For this report, this term refers to expenses related to equipment used for recreational fishing activities. These expenses include the purchase of: semi-durable goods (tackle, rods, reels, line, etc.), durable goods (motor boats and accessories, non-motorized boats, boating electronics, mooring, boat storage, boat insurance, and vehicles or homes), and angling accessories and multi-purpose items (magazines, club dues, saltwater angling specific clothing and camping gear).

**Ecolabel or Ecolabelling Scheme<sup>9</sup>**

In fisheries, ecolabelling schemes entitle a fishery product to bear a distinctive logo or statement which certifies that the fish has been harvested in compliance with specified conservation and sustainability standards. The logo or statement is intended to make provision for informed decisions by purchasers whose choice may promote and stimulate the sustainable use of fishery resources.

**Economic Impact Model<sup>10 11</sup>**

Economic impact models capture how sales in a sector generate economic impacts directly in the sector in which the sale was made and then ripple throughout the state and national economy as each dollar spent generates additional sales by other firms and consumers. The NMFS Commercial Fishing & Seafood Industry Input / Output Model uses an IMPLAN platform to estimate the economic impacts associated with the harvesting of fish by U.S. commercial fishermen and the other major components of the U.S. seafood industry. As used here, the term fish refers to the entire range of finfish, shellfish, and other life (that is, sea urchins, seaweed, kelp, and worms) from marine and freshwaters that are included in the landings data maintained by the National Marine Fisheries Service.

The NMFS Recreational Economic Impact Model, which also uses an IMPLAN platform, estimates the economic impacts generated by expenditures made by saltwater anglers.

**Economic Impacts**

For this report, the economic impacts of the commercial fishing sector and seafood industry refer to the employment (full-time and part-time jobs), personal income, and output (sales by U.S. businesses) generated by the commercial harvest sector and other major components of the U.S. seafood industry including: processors and dealers; wholesalers and distributors; grocers; and restaurants.

Economic impacts of recreational fishing activities refer to the amount of sales generated the number of jobs supported, and the contribution to gross domestic product by state (also known as value-added impacts) from expenditures related to recreational fishing.

### **Effort**

For this report, effort refers to the number of fishing trips taken by recreational fishermen (anglers). The term can also refer to the amount of time and fishing power used to harvest fish in commercial fisheries, including gear size, boat size, and horsepower.

### **Employee Compensation<sup>12</sup>**

This is related to Gross Domestic Product (GDP) by State and is an estimate of the sum of employee wages and salaries and supplements to wages and salaries. Wages and salaries are measured on an accrual, or "when earned" basis, which may be different from the measure of wages and salaries measured on a disbursement, or "when paid" basis. Wages and salaries and supplements of Federal military and civilian government employees stationed abroad are excluded from the measure of GDP by state.

### **Employer Establishments**

An establishment is a single physical location at which business is conducted or services or industrial operations are performed. It is not necessarily identical with a company or enterprise, which may consist of one or more establishments. When two or more activities are carried on at a single location under a single ownership, all activities generally are grouped together as a single establishment. The entire establishment is classified on the basis of its major activity and all data are included in that classification.

### **Endangered Species<sup>13,1</sup>**

As defined by the Endangered Species Act, an endangered species is any species which is in danger of extinction throughout all or a significant portion of its range. A species classified as threatened is likely to become an endangered species. See also "Threatened Species."

### **Endangered Species Act (ESA)<sup>1,13</sup>**

The ESA is a statute which was enacted in 1973 to conserve species and ecosystems. Under its auspices, species facing possible extinction are listed as threatened or endangered, or as candidate species for such listings. When such a listing is made, recovery and conservation plans are drawn up to ensure the protection of the species and its habitat.

### **Expenditures**

For this report, expenditures are related to recreational fishing activities and described as being one of two types: 1) expenditures related to a specific fishing trip; or 2) durable equipment expenditures.

### **Ex-vessel<sup>1</sup>**

Refers to activities that occur when a commercial fishing boat lands or unloads a catch. For example, the price received by a captain (at the point of landing) for the catch is an ex-vessel price.

### **Exclusive Economic Zone (EEZ)<sup>1</sup>**

The EEZ is the area that extends from the seaward boundaries of the coastal states to 200 nautical miles. The seaward boundary for most states is 3 nautical miles with the exceptions of Texas, Puerto Rico, and the Gulf Coast of Florida which is 9 nautical miles. The U.S. claims and exercises sovereign rights and exclusive fishery management authority over all fish and continental shelf resources through this 200 nautical mile boundary.

### **Fish Stock<sup>1</sup>**

A fish stock refers to the living resources in the community or population from which catches are taken in a fishery. Use of the term fish stock usually implies that the particular population is more or less isolated from other stocks of the same species and hence self-sustaining. In a particular fishery, the fish stock may be one or several species of fish but here it is also intended to include commercial invertebrates and plants.

### **Fish Stock Complex<sup>14</sup>**

A group of fish stocks or species with similar geographic distribution, co-occurrence in fisheries, and life history.

### **Fishery Management Council (FMC) or Regional Fishery Management Council<sup>4,1</sup>**

A regional fisheries management body established by the Magnuson-Stevens Act to manage fishery resources in eight designated regions of the United States.

### **Fishery Management Plan (FMP)<sup>1,4</sup>**

1. A document prepared under supervision of the appropriate fishery management council (FMC) for management of stocks of fish judged to be in need of management. The plan must generally be formally approved. An FMP includes data, analyses, and management measures; 2. A plan containing conservation and management measures for fishery resources, and other provisions required by the Magnuson-Stevens Act, developed by fishery management councils or the Secretary of Commerce.



**Fishing Cooperatives<sup>4</sup>**

A market-based fisheries management tool where access to fisheries resources is limited to a specific group of fishermen. See also "Catch Share Program."

**Fishing Day**

For this report, a fishing day refers to a partial or full day spent recreational fishing and can be different than a fishing trip. For example, one fishing trip can consist of more than one fishing day. This term is used in the Alaska recreational fishing tables.

**Fishing Effort<sup>9</sup>**

The amount of fishing gear of a specific type used on the fishing grounds over a given unit of time. For example, hours trawled per day, number of hooks set per day, or number of hauls of a beach seine per day. When two or more kinds of gear are used, the respective efforts must be adjusted to some standard type before being added.

For recreational fishing activities, fishing effort refers to the number of participants (that is, recreational fishermen or anglers), who engage in recreational fishing activities.

**Fishing Mode**

For this report, fishing mode refers to the type of recreational fishing a recreational fisherman (angler) engaged in such as fishing from shore, a private or rental boat, or a for-hire boat.

**Fishing Trip**

For this report, a fishing trip refers to a recreational fishing excursion and can be different than a fishing day. For example, one fishing trip can consist of more than one fishing day. Fishing trips are classified as occurring in one of three fishing modes: 1) a shore-based fishing trip; 2) by a private or rental boat; or 3) on a for-hire fishing boat.

**For-hire Mode**

For this report, this fishing mode refers to trips taken by a recreational fishermen (angler) on a party (also referred to as a headboat) or charter boat.

**Gross Domestic Product (GDP) by State or Gross State Product (GSP)<sup>12</sup>**

Previously known as the Gross State Product, the GDP by state is the value added in production by the labor and capital located in a state. GDP for a state is derived as the sum of the GDP originating in all industries in the state.

**Harvest<sup>1</sup>**

The total number of weight or fish caught and kept from an area over a period of time. Note that landings, catch, and harvest are different.

For recreational fishing activities, harvest refers to the number of individual fish not thrown back into the sea by a recreational fishermen (angler), but includes fish thrown back dead in Hawaii and the Atlantic and Gulf states. See also "Catch" and "Release."

**Individual Fishing Quota (IFQ)<sup>1</sup>**

A type of limited entry, an allocation to an individual (a person or a legal entity, for example, a vessel owner or company) of a right [privilege] to harvest a certain amount of fish in a certain period of time. It is also often expressed as an individual share of an aggregate quota, or total allowable catch (TAC). See also "Individual Transferable Quota" and "Catch Share Program."

**Individual Transferable Quota (ITQ)<sup>1</sup>**

A type of individual fishing quota (IFQ) allocated to individual fishermen or vessel owners that can be transferred (sold or leased) to others. See also "Individual Transferable Quota."

**Industry Sector**

For this report, fishing- and marine-related industries were combined into industry sectors. Two industry sectors were included in this report: 1) seafood sales & processing, and 2) transport, support, & marine operations. Fishing- and marine-related industries were chosen from the County Business Patterns Data Series based on data availability and perceived relevance to fishing or marine activities. These industries were then combined into one of these two industry sectors.

**Key Species or Species Groups**

For this report, up to ten species or species groups were chosen as "key" species or species groups due to their regional importance to commercial and recreational fisheries. The regional importance of these key species or species groups was chosen based on their economic and/or historical significance to a state or region.

### Landings<sup>1</sup>

1. The number or poundage of fish unloaded by commercial fishermen or brought to shore by recreational fishermen for personal use. Landings are reported at the locations at which fish are brought to shore; 2. The part of the catch that is selected and kept during the sorting procedures on board vessels and successively discharged at dockside.

### Limited Access Privilege Program (LAPP) or Limited Access Privilege System<sup>4</sup>

As defined in the Magnuson-Stevens Act, Limited Access Privilege Programs limit participation in a fishery to those satisfying certain eligibility criteria or requirements contained in a fishery management plan or associated regulation. A limited access privilege is a Federal permit, issued as part of a limited access system, to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person. It includes an individual fishing quota (IFQ) or an individual tradable quota (ITQ) but does not include community development quotas (CDQs).

LAPPs are sometimes known as Dedicated Access Privileges or DAPs. However, unlike LAPPs, DAPs generally encompass community development quotas as well as individual fishing quotas (see "Dedicated Access Privileges"). LAPPs are a type of catch share program. See also "Catch Share Program."

### License Limitation Program or Limited Entry Program<sup>1</sup>

A management tool available to fishery managers where the number of commercial fishermen or vessels licensed to participate in a fishery is legally restricted. A management agency often uses this management tool as a means of limiting entry into a fishery.

### Limited Entry Program

Also known as a license limitation program; see "License Limitation Program."

### Location Quotient<sup>15</sup>

Location Quotients (LQs) are ratios that allow an area's distribution of employment by industry to be compared to a reference or base area's distribution. The reference area is usually the U.S., but it can also be a state or a metropolitan area. The reference or base industry is usually the all industry total. The discussion below assumes the defaults are used. LQs also allow areas to be easily compared to each other. If an LQ is equal to 1, then the industry has the same share of its area employment as it does in the reference area. An LQ greater than 1 indicates an industry with a greater share of the local area employment than is the case in the reference area.

For example (assuming the U.S. as the reference area), Las Vegas will have an LQ greater than 1 in the Leisure and Hospitality industry because this industry makes up a larger share of the Las Vegas employment total than it does for the country as a whole. LQs are calculated by first dividing local industry employment by the all industry total of local employment. Second, reference area industry employment is divided by the all industry total for the reference area. Finally, the local ratio is divided by the reference area ratio.

### Magnuson-Stevens Fishery Conservation and Management Act or Magnuson-Stevens Act (MSA)<sup>1</sup>

Federal legislation responsible for establishing the Regional Fishery Management Councils (FMCs) and the mandatory and discretionary guidelines for federal fishery management plans (FMPs). This legislation was originally enacted in 1976 as the Fishery Management and Conservation Act; its name was changed to the Magnuson Fishery Conservation and Management Act in 1980, and in 1996 it was renamed the Magnuson-Stevens Fishery Conservation and Management Act.

### Market-based Management<sup>16,4</sup>

Market-based management is an umbrella term that encompasses approaches that provide economic incentives to protect fisheries from overharvest. These approaches are in contrast to conventional fisheries management approaches such as buyback programs and license limitation programs (see "Buyback Program" and "License Limitation Program"). One example of a market-based management approach for fisheries is a limited access privilege program (see "Limited Access Privilege Program") that includes an individual fishing quota. A limited access privilege program provides individual fishermen an exclusive, market-based share of a harvest quota or total allowable catch of a fishery.

### Marine Coastal County

For this report, a marine coastal county is a coastal county that is adjacent to an ocean coastline. See also "Coastal County."

### Marine Economy

For this report, the marine economy refers to the economic activity generated by fishing- and marine-related industries located in a coastal state. Fishing- and marine-related industries were chosen from industries characterized in the County Business Patterns Data Series provided by the U.S. Census Bureau. Industries listed in this report were chosen based on that industry's direct contribution to fishing and marine activities and whether data was available for that industry. Information

such as the number of establishments and employees, and annual payroll for these fishing- and marine-related industries was used to characterize their relative levels of economic activity in a state. These industries were categorized into one of two industry sectors: 1) seafood sales & processing, and 2) transport, support, & marine operations. See also "Industry Sector."

### **Non-coastal County Angler**

For this report, a non-coastal county angler refers to a recreational fisherman who lives within a given state but not in a coastal county of that state.

### **Nonemployer Firms**

A nonemployer business is one that has no paid employees, has annual business receipts of \$1,000 or more (\$1 or more in the construction industries), and is subject to federal income taxes. Most nonemployers are self-employed individuals operating very small unincorporated businesses which may or may not be the owner's principal source of income.

### **Non-resident**

For this report, a non-resident in the U.S. table refers to a recreational fisherman (angler) who resides outside of the U.S.; a non-resident in the regional and state tables refers to an angler who did not reside in the state where they fished.

### **Out-of-state Angler**

For this report, an out-of-state angler is a recreational fisherman (angler) who does not reside within a given coastal state.

### **Overcapacity**

Overcapacity refers to a situation where the harvesting capability within a given fishery exceeds the level of harvest allowed for that fishery.

### **Overcapitalization<sup>9</sup>**

When the amount of harvesting capacity in a fishery exceeds the amount needed to harvest the desired amount of fish at least cost.

### **Overfished<sup>1</sup>**

1. An overfished stock or stock complex "whose size is sufficiently small that a change in management practices is required to achieve an appropriate level and rate of rebuilding." A stock or stock complex is considered overfished when its population size falls below the minimum stock size threshold (MSST). A rebuilding plan is required for stocks that are deemed overfished; 2. A stock is considered "overfished" when exploited beyond an explicit limit beyond which its abundance is considered 'too low' to ensure safe reproduction. In many fisheries the term is used when biomass has been estimated to be below a limit biological reference point that is used as the signpost defining an "overfished condition."

### **Overfishing<sup>1</sup>**

1. According to the National Standard Guidelines, "overfishing occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that jeopardizes the capacity of a stock or stock complex to produce maximum sustainable yield (MSY) on a continuing basis." Overfishing is occurring if the maximum fishing mortality threshold (MFMT) is exceeded for 1 year or more; 2. In general, the action of exerting fishing pressure (fishing intensity) beyond the agreed optimum level. A reduction of fishing pressure would, in the medium term, lead to an increase in the total catch.

### **Protected Species<sup>1</sup>**

Refers to any species which is protected by either the Endangered Species Act (ESA) or the Marine Mammal Protection Act (MMPA), and which is under the jurisdiction of NOAA Fisheries (NMFS). This includes all threatened, endangered, and candidate species, as well as all cetaceans and pinnipeds, excluding walrus.

### **Regional Fishery Management Council or Fishery Management Council (FMC)<sup>4</sup>**

The Magnuson-Stevens Act established eight Regional Fishery Management Councils around the United States. Each Council consists of voting and non-voting members who represent various federal, state, and tribal government, fishing industry groups (commercial and/or recreational), and non-fishing groups (such as environmental organizations and academic institutions). Each Council is tasked with creating fishery management plans for important fisheries within their regions.

### **Release**

For this report, release refers to the number of individual fish caught by a recreational fisherman (angler) that are then returned to the sea (dead or alive). In Hawaii and the Atlantic and Gulf states, release does not include fish returned to the sea that are dead. See also "Catch" and "Harvest".

**Resident**

For this report, a resident in the U.S. table refers to a recreational fisherman (angler) who resides inside of the U.S; a resident in the regional and state tables refers to an angler who resides in the state where they fished.

**Sector Allocation Program<sup>17</sup>**

A fisheries management tool where a group of fishermen are allocated a quota or share of a total allowable catch, in accordance with an approved plan. It is considered a type of catch share program. See also "Catch Share Program."

**Species<sup>1</sup>**

A group of animals or plants having common characteristics that are able to breed together to produce fertile (capable of reproducing) offspring and maintain their "separateness" from other groups.

**Species Group<sup>1</sup>**

Group of species considered together often because they are difficult to differentiate without detailed examination (very similar species) or because data for the separate species are not available (for example, in fishery statistics or commercial categories).

**Threatened Species<sup>13</sup>**

As defined by the Endangered Species Act, a threatened species is any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. See also "Endangered Species."

**Trip Expenditures**

For this report, trip expenditures refer to expenses incurred by recreational fishermen (anglers) on a fishing trip. Trip expenditures are described for residents (individuals who reside in a coastal or non-coastal county within a given state; a U.S. resident) and non-residents (individuals who do not reside within the U.S.).

**Value-added<sup>1</sup>**

A firm's sales minus the cost of the goods and services it purchases from other industries to produce its outputs.

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**Notes**

<sup>1</sup>NOAA Fisheries Glossary. October 2005. K. Blackhart, D.G. Stanton, and A.M. Shimada, eds. Revised edition, June 2006. National Marine Fisheries Service (NOAA Fisheries), National Oceanic & Atmospheric Administration, U.S. Department of Commerce. NOAA Technical Memorandum NMFS-F/SPO-69. Available at: [http://www.st.nmfs.gov/st4/documents/F\\_Glossary.pdf](http://www.st.nmfs.gov/st4/documents/F_Glossary.pdf)[accessed 14 July 2009].

<sup>2</sup>CBP Definitions." County Business Patterns, U.S. Census Bureau, U.S. Department of Commerce. Available at: <http://www.census.gov/epcd/cbp/view/genexpl.html>[accessed 14 July 2009/]

<sup>3</sup>Nonemployer Definitions." Nonemployer Statistics, U.S. Census Bureau, U.S. Department of Commerce. Available at: <http://www.census.gov/epcd/nonemployer/view/define.html>[accessed 14 July 2009].

<sup>4</sup>Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007. (P.L. 94-265, as amended through P.L. 109-479). Available at: [http://www.nmfs.noaa.gov/msa2007/docs/act\\_draft.pdf](http://www.nmfs.noaa.gov/msa2007/docs/act_draft.pdf)[accessed 14 July 2009].

<sup>5</sup>What is a Catch Share? Office of Sustainable Fisheries, National Marine Fisheries Service (NOAA Fisheries), National Oceanic & Atmospheric Administration, U.S. Department of Commerce. Available at: [http://www.nmfs.noaa.gov/sfa/domes\\_fish/catchshare/index.htm](http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm)[accessed 14 July 2009].

<sup>6</sup>"Coastal Counties." U.S. Census Bureau, U.S. Department of Commerce. Available at: [http://www.census.gov/geo/landview/lv6help/coastal\\_cty.html](http://www.census.gov/geo/landview/lv6help/coastal_cty.html) [accessed 14 July 2009].

<sup>7</sup>Pages 288-289 in: An Ocean Blueprint for the 21st Century, Final Report. 2004. U.S. Commission on Ocean Policy. Washington, D.C. Available at: <http://www.oceancommission.gov>[accessed 14 July 2009].

<sup>8</sup>Page 4 in: The Economic Contribution of Marine Angler Expenditures in the United States, 2006. 2008. B. Gentner and S. Steinback. National Marine Fisheries Service (NOAA Fisheries), National Oceanic & Atmospheric Administration, U.S. Department of Commerce. NOAA Tech. Memo. NMFS-F/SPO-94. Available at: [http://www.st.nmfs.noaa.gov/st5/publication/marine\\_angler.html](http://www.st.nmfs.noaa.gov/st5/publication/marine_angler.html)[accessed 14 July 2009].

<sup>9</sup>"Fisheries Glossary." FAO Fisheries Department, United Nations Food & Agriculture Organization. Available at: <http://www.fao.org/fi/glossary/default.asp>[accessed 14 July 2009].

<sup>10</sup>The NMFS Commercial Fishing and Seafood Industry Input/Output Model (CFSI I/O Model). August 2009. J. Kirkley. Virginia Institute of Marine Science. Available at: [http://www.st.nmfs.noaa.gov/st5/publication/marine\\_angler.html](http://www.st.nmfs.noaa.gov/st5/publication/marine_angler.html) [accessed 14 July 2009].

<sup>11</sup>Pages 11-12 in: The Economic Contribution of Marine Angler Expenditures in the United States, 2006. November 2008. B. Gentner and S. Steinback. National Marine Fisheries Service (NOAA Fisheries), National Oceanic & Atmospheric Administration, U.S. Dept. of Commerce. NOAA Technical Memorandum NMFS-F/SPO-94, 301p. Available at: <https://www.st.nmfs.noaa.gov/documents/Commercial%20Fishing%20IO%20Model.pdf>[accessed 15 September 2010].

<sup>12</sup>"Regional Definitions." Regional Economic Accounts, Bureau of Economic Analysis, U.S. Department of Commerce. Available at: <http://www.bea.gov/regional/definitions>[accessed 14 July 2009].

<sup>13</sup>Endangered Species Act of 1973 (P.L. 93-205, as amended through P.L. 100-707). Available at: <http://www.nmfs.noaa.gov/pr/laws/esa/>[accessed 14 July 2009].

<sup>14</sup>"Status of U.S. Fisheries." Office of Sustainable Fisheries, National Marine Fisheries Service (NOAA Fisheries), National Oceanic & Atmospheric Administration, U.S. Department of Commerce. Available at: <http://www.nmfs.noaa.gov/sfa/statusoffisheries/S0Smain.htm>[accessed 16 March 2009].

<sup>15</sup>Location Quotient Calculator. Bureau of Labor Statistics, U.S. Department of Labor. Available at: [http://data.bls.gov/help/def/lq.htm\#location\\_quotient\\_application](http://data.bls.gov/help/def/lq.htm\#location_quotient_application)[accessed 14 July 2009].

<sup>16</sup>Market-based Management. In Fisheries Management: Building a Sustainable Future for America's Fisheries. National Oceanic & Atmospheric Administration, U.S. Department of Commerce. Available at: <http://celebrating200years.noaa.gov/visions/fisheries/welcome.html\#impl>[accessed 14 July 2009].

<sup>17</sup>Sector Allocation as a Management Tool. Northeast Sea Grant. Available at: [http://seagrant.gso.uri.edu/fisheries/sector\\_allocation/index.html](http://seagrant.gso.uri.edu/fisheries/sector_allocation/index.html)[accessed 14 July 2009].