

Fisheries Economics of the United States 2008

Economics and Sociocultural
Status and Trends Series

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
NOAA Technical Memorandum NMFS-F/SPO-109
April 2010





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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., 2008

Fisheries Economics of the U.S., 2008 is the third volume in this new series which is intended to provide the public with easily accessible economic information about the Nation's commercial and recreational fishing activities, and fishing-related industries. The 1999-2008 time period is covered in this report and descriptive statistics are provided for the following categories: economic impacts of the commercial seafood industry, commercial fisheries landings, revenue, and price trends; 2008 angler expenditures and economic impacts of recreational fishing, recreational fishing catch, effort, and participation rates; and employer and non-employer establishment, payroll, 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.

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National Overview



Management Context

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

Nationwide, there are 44 fishery management plans¹ that provide a framework for managing the harvest of 230 major fish stocks or stock complexes that comprise 90% of the commercial harvest. These fishery management plans (FMPs) are developed by Regional Fishery Management Councils (FMCs) in each of eight regions nationwide: the North Pacific, Western Pacific, Pacific, New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, and Caribbean Regions. Once a 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

1. North Pacific Fishery Management Council
2. Western Pacific Fishery Management Council
3. Pacific Fishery Management Council
4. New England Fishery Management Council
5. Mid-Atlantic Fishery Management Council
6. South Atlantic Fishery Management Council
7. Gulf of Mexico Fishery Management Council
8. Caribbean Fishery Management Council

Of the 230 major fish stocks and stock complexes currently managed under a FMP, the overfished status of 176 stocks or stock complexes and the overfishing status of 190 stocks or stock complexes is known. Currently, 43 stocks or stock complexes are categorized as overfished and 37 are categorized as subject to overfishing.

Less is known about the 292 minor stocks or stock complexes. The overfished status of 27 of these stocks or stock complexes is known and three of these are currently considered overfished. The overfishing status of 60 of the 292 minor stocks or stock complexes is known and one of these (parrotfishes) is currently considered to be subject to overfishing.

¹Fishery 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).

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 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 opens will create both transboundary areas and international waters in the Arctic.

Regional Fisheries Management Organizations

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

Regional Fishery Management Organizations (RFMOs) are multinational organizations with interests in transboundary and international fish stocks and associated fishing activities. NOAA Fisheries is party to 8 RFMOs globally.² 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 non-target fish species. The commitment to conserving and protecting all species associated with, or affected by, fishing activities is outlined in the Food and Agricultural Organization's (FAO's) Code of Conduct for Responsible Fisheries established in 1995.

Another issue of particular concern for NOAA Fisheries is the problem of illegal, unreported, and unregulated (IUU) fishing activities in international waters. The RFMOs report estimates that in 2008, there were 42 vessels flying the national flags of 14 nations participating in IUU fishing activities.³ 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.⁴

²For more detailed information about international agreements in relation to NOAA Fisheries, please go to: http://www.nmfs.noaa.gov/ia/docs/2009_International_agreement_s.pdf

³An additional 51 vessels with unknown country affiliation also participate in IUU fishing activities.

⁴For more information about NOAA Fisheries' response to IUU fishing activities, please see *Implementation of Title IV of the*

Threatened and Endangered Species

NOAA Fisheries is also the lead agency for the conservation and protection of over 68 fish and non-fish species which fall within the purview of the Endangered Species Act (ESA). Status determinations related to the viability and health of these populations have been made. The status of these populations have been determined as “threatened” or “endangered,” and in one case, “recovered.”

Currently, there are 34 marine and anadromous fish species and subspecies⁵ that are protected under the ESA. These species include: Atlantic salmon, coho salmon, green sturgeon, shortnose sturgeon, smalltooth sawfish, steelhead trout, and totoaba. Many of these species are further delineated into “distinct population segments” or “evolutionarily significant units” that are based on genetic similarities within geographically- or reproductively-isolated populations.

In addition to threatened and endangered fish species, the National Marine Fisheries Service is also involved in the conservation and protection of ESA-listed non-fish species. Marine mammals such as whales, dolphins, and seals, as well as species of sea turtles, marine invertebrates, and a marine plant are listed. There are currently 12 “candidate species” for listing and 2 species proposed for listing.

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

Endangered and Threatened Species under NMFS’ Jurisdiction

Species Group	Number of Species
Marine and Anadromous Fish	34
Marine Mammals: Whales	12
Marine Mammals: Dolphins	2
Marine Mammals: Porpoise	1
Marine Mammals: Seals	4
Marine Mammals: Sea Lions	2
Sea Turtles	8
Marine Invertebrates	4
Marine Plants	1
Total	68

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

Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 available at: http://www.nmfs.noaa.gov/msa2007/docs/msra_biennial_report_011309.pdf

⁵Subspecies includes “distinct population segments” and “evolutionarily significant units,” terms defined under the ESA.

NOAA Fisheries is responsible for preventing the harrassment, capture, or killing of whales, dolphins, porpoises, seals, and sea lions.⁶ However, exceptions are made for scientific research, unintended interactions with commercial fisheries, subsistence and traditional uses by Alaska natives, and public display at some aquaria.

Essential Fish Habitats

Sustainable commercial and recreational fisheries depend on healthy habitats. These habitats include rivers, estuaries, and the open ocean where marine and anadromous species feed, grow, and reproduce. Consideration of these habitat areas are part of an ecosystem-based management approach for managing fisheries in a more sustainable and holistic manner. Since 1996, federal fishery management plans are required to identify and describe essential fish habitat (EFH) for all federally-managed species.⁷ Habitat areas that are necessary for a fish species’ growth, reproduction, and development is considered EFH. To the extent practicable, NOAA Fisheries and the Councils must minimize adverse effects to EFH caused by fishing activities.

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

A recent effort undertaken by the NOAA Fisheries Office of Science and Technology is to create a Habitat Assessment Improvement Plan⁸ to advance NOAA Fisheries’ ability to identify EFH and HAPCs and to provide information needed to assess impacts to EFH.

Catch Share Programs

A variety of market-based tools are available to fishery managers. NOAA Fisheries is currently implementing several different types of catch share programs such as limited access privilege programs (LAPPs) which include individual fishing quota programs (IFQs), regional fishery associations, and fishing community quotas;⁹ community development quota programs (CDQs); fishing cooperatives; and 4) sector allocation programs.¹⁰ In 2009, NOAA formed a catch shares task force and released a draft catch shares policy to encourage the development of well-designed catch share programs to help rebuild fisheries and sustain fishermen, communities and vibrant working waterfronts.

⁶The U.S. Fish and Wildlife Service provides protection for walrus, manatees, otters, and polar bears.

⁷The 1996 reauthorization of the Magnuson-Stevens Fishery-Conservation and Management Act included this requirement.

⁸The Habitat Assessment Improvement Plan will be available: <http://www.st.nmfs.noaa.gov/>

⁹See Section 303(A) of the Magnuson-Stevens Act for more information.

¹⁰For more information about LAPPs and other catch share programs, please see *Excess Harvesting Capacity in U.S. Fisheries: A Report to Congress* available at: www.nmfs.noaa.gov/msa2007/docs/042808_312_b_6_report.pdf and *National Assessment of Excess Harvesting Capacity in Federally Managed Commercial Fisheries* available at: <http://spo.nmfs.noaa.gov/tm/spo93.pdf>.

With many catch share programs, the assigned harvest privileges can be used or transferred (sold or leased) to those who can use them more beneficially. In contrast, the two sector allocation programs currently in place for the Northeast multispecies fishery do not assign harvest privileges that can be sold or leased by individual fishermen. Instead, a group of vessel permit holders voluntarily agree to adhere to fishing restrictions in exchange for the opportunity to catch a portion of the total catch allocated to the fishing industry. A sector could, however, assign shares of its allocation to individual fishermen and allow transfers among its members or potentially to another sector. Some of the sector allocation programs that are being developed for this fishery are expected to include some of these features.¹¹

Existing LAPPs and other Catch Share Programs (2007)

Region	Program	First Year	Ex-vessel Value (\$ millions)
Mid-Atlantic	Surfclam and ocean quahog IFQ	1990	49.0
South Atlantic	Wreckfish IFQ	1992	0.3
North Pacific	Western Alaska CDQ	1992	68.0
North Pacific	Pacific halibut and sablefish IFQ	1995	237.0
Pacific	Pacific whiting catcher/processor cooperative	1997	21.8
North Pacific	Bering Sea (BS) pollock cooperative	1999	266.0
Pacific	Sablefish permit stacking program	2001	6.4
North Pacific	AK weathervane scallop cooperative	2001	1.0
New England	Georges Bank hook gear sector	2004	0.6
North Pacific	Bering Sea king and Tanner crab; IFQ and cooperative	2005	65.0
New England	Georges Bank cod fixed gear sector	2007	0.9
Gulf of Mexico	Gulf of Mexico red snapper IFQ	2007	9.0
North Pacific	Central Gulf of Alaska rockfish pilot sector program	2007	8.5
North Pacific	BS groundfish (non-pollock) trawl catcher/processor cooperative	2008	120.6
Mid-Atlantic	Golden Tilefish	2009	
Gulf of Mexico	Grouper and tilefish	2010	

Nationwide, there are 16 catch share programs currently in operation in six different regions.¹² The total ex-vessel value of these fisheries was greater than \$854 million in 2007, 21% of the total ex-vessel value for all U.S. commercial fisheries.

¹¹Proposed changes to the existing sector-based management program for the Northeast multispecies fishery would expand the number of sectors from 2 to 19.

¹²Currently, only the Western Pacific and Caribbean regions do not have a LAPP or another catch share program in place.

In addition to these existing programs, there are other catch share programs or groups of programs in development: the Atlantic sea scallops general category vessel program (New England); 17 Northeast multispecies sector allocation programs (New England); and West Coast trawl groundfish (Pacific).

U.S. Fisheries with MSC Certification

Region	Fishery	Certified
North Pacific	Alaskan salmon	Sept 2000; Nov 2007
North Pacific	Bering Sea/Aleutian Islands (BSAI) pollock	Feb 2005
North Pacific	Gulf of Alaska (GOA) pollock	April 2005; Jan 2009
North Pacific	BSAI Pacific cod	Feb 2006
North Pacific	Pacific halibut	April 2006
North Pacific	Sablefish	May 2006
Pacific	Pacific albacore tuna - north (American Albacore Fishing Association (AAFA))	Aug 2007
Pacific	Pacific albacore tuna - south (AAFA)	Aug 2007
Pacific	Oregon pink shrimp	Dec 2007
Mid-Atlantic	Atlantic deep sea red crab	Sep 2009
Pacific	Pacific hake mid water trawl	Oct 2009
North Pacific	GOA Alaska Pacific cod	Jan 2010

Ecolabels are another market-based tool available to improve fisheries management. An ecolabeling program entitles a fishery product to bear a distinctive logo or statement which certifies that 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 consumer to potentially influence the sustainable harvest of fishery resources through the purchase of such ecolabeled seafood products.

The Marine Stewardship Council (MSC) has one of the most recognizable ecolabeling programs in the world. There are currently 63 fisheries worldwide that meet MSC sustainability standards,¹³ fourteen of which are U.S. fisheries.

Other Market-based Management Tools

Vessel or permit buyback programs are another market-based tool used by fishery managers. Often, the intent of a buyback program is to ease fishing-related pressure on marine resources by limiting fishing effort. Under these programs, fishing vessels or permits are purchased by the government to permanently decrease the number of participants in the fishery. Although NOAA Fisheries does not view buybacks as an effective stand-alone management tool, they may play a helpful role in reducing overcapacity in a fishery. To date, there have been ten buyback

¹³More information about the Marine Stewardship Council and its certification process is available at: <http://www.msc.org/track-a-fishery/certified>.

programs instituted nationwide. The cost of seven¹⁴ 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.

Buyback Programs in the U.S. (1995-2008)

Program	Year	Buyback amount (\$ millions)	Govt funding (\$ millions)
Northwest Pacific salmon disaster	1994	NA	NA
	1995		
	1998		
Northeast multispecies	1995	1.9	1.9
	1996	22.5	22.5
	2002	10.0	10.0
Bering Sea/ Aleutian Islands (BSAI) pollock	1998	90.0	15.0
Pacific Coast groundfish	2003	45.7	10.0
BSAI crab	2004	97.4	NA
BSAI groundfish freezer longliners	2007	35.0	NA

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, rather than simply open to whoever might be interested in fishing. 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.

Commercial Fisheries

Commercial fishermen in the U.S. harvested 8.3 billion pounds of finfish and shellfish in 2008, earning over \$4.4 billion for their catch. Shrimp (\$450 million), Pacific salmon (\$390 million), sea scallop (\$370 million), walleye pollock (\$320 million), and American lobster (\$320 million) contributed most to total revenue in the U.S. In terms of pounds landed, walleye pollock (2.3 billion pounds) and menhaden (1.3 billion pounds) comprised the majority of total pounds landed in 2008.

Key U.S. Commercial Species

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

Alaska fishermen had the highest total revenue and total pounds landed in the U.S. in 2008, generating \$1.7 billion in revenue and landing 4.5 billion pounds. Alaska also contributed most to total revenue and landings of sablefish (\$84 million, 30 million pounds) and walleye pollock (\$384 million, 2.3 billion pounds) in 2008.

¹⁴This total excludes three buyback programs associated with Northwest Pacific salmon disasters in 1994, 1995, and 1998; data was not available.

When looking at other key species or species groups, commercial fishermen in Alaska caught the most salmon (370 million pounds) and earned \$640 million for their catch in 2008. Tuna was caught in large numbers in Hawai'i (18 million pounds) and generated \$61 million in ex-vessel revenue.

On the East Coast of the U.S., Maine fishermen contributed most to total landings of American lobster (67 million pounds) and earned \$235 million for their catch in 2008. In Massachusetts, sea scallop was a major contributor to total revenue, generating \$190 million for 27 million pounds landed. The majority of blue crab was caught in Maryland (37 million pounds) earning fishermen in this state over \$52 million in revenue.

Virginia landed most of the menhaden in 2008, with fishermen landing 350 million pounds and generating \$21 million in total revenue.

In the Gulf of Mexico, shrimp was a highly valued species. Fishermen in Texas earned \$157 million for their catch (64 million pounds). However, more shrimp was landed in Louisiana (89 million pounds) with a total landings revenue of \$130 million in total revenue). The exvessel price in Texas (\$2.46) was greater than that in Louisiana (\$1.46).

The highest ex-vessel price per pound in 2008 was for Eastern oyster, which received \$36.64 per pound in Massachusetts, \$21.21 per pound in New York, and \$9.13 per pound in Maryland. Other key species or groups with ex-vessel prices over \$10 per pound in 2008 included: clams (\$13.63 per pound in Washington), lobsters (\$12.14 per pound in Hawai'i), spiny lobsters (\$10.80 per pound in California), and bloodworms (\$11.00 per pound in Maine).

Economic Impacts

In this report, the U.S. commercial seafood industry includes the commercial harvest sector, seafood processors and dealers, seafood wholesalers and distributors, and seafood retailers. In 2008, this industry supported approximately 1.5 million full- and part-time jobs and generated \$104 billion in sales impacts and \$45 billion in income impacts.

Jobs supported by the U.S. Commercial Seafood Industry (2008)

State	Jobs	State	Jobs
California	162,609	North Carolina	15,083
Florida	108,695	Hawai'i	12,258
Massachusetts	73,029	Georgia	11,621
Washington	71,775	Maryland	10,946
Alaska	47,725	Rhode Island	10,626
Louisiana	43,711	Alabama	9,750
Texas	42,541	Mississippi	8,575
New York	41,517	New Hampshire	7,492
New Jersey	40,061	Connecticut	4,416
Virginia	30,734	South Carolina	1,939
Maine	19,806	Delaware	1,134
Oregon	18,693		

Seafood retailers contributed most to these totals relative to the other commercial seafood sectors. This sector employed approximately 1.1 million workers (75% of total

employees) in 2008 and generated \$60 billion in sales (58% of total sales impacts) and \$28 billion in income (62% of total income impacts). Seafood wholesalers and distributors (155,000 employees), commercial harvesters (115,000 employees), and seafood processors and dealers (105,000 employees) followed in terms of jobs supported across the U.S.

Relative to 2007, sales and income impacts from the commercial seafood industry increased in 2008: 5.4%, 5.5%, respectively.¹⁵ Increases in sales and income impacts were experienced across all of the sectors. The commercial harvester sector experienced the smallest increase, with a 3.8% sales impacts and a 4.3% increase in income. The largest increase was seen in the seafood wholesalers and distributors which experienced a 6.6% increase in sales and income impacts. Total employment impacts increased 2.4%, and increases in employment were seen across all sectors. These increases ranged from 1.2% in the commercial harvester sector to 3.4% in the seafood wholesalers and distributor sector.

Total Sales generated by the U.S. Commercial Seafood Industry (2008)
(thousands of dollars)

State	In-State Sales	State	In-State Sales
California	9,104,910	North Carolina	635,530
Florida	5,657,246	Maryland	615,041
Massachusetts	3,965,159	Georgia	592,976
Alaska	3,732,488	Hawai'i	560,191
Washington	3,717,090	Rhode Island	520,340
New Jersey	2,170,232	Alabama	445,449
Louisiana	2,033,587	Mississippi	390,702
Texas	2,013,272	New Hampshire	371,868
New York	1,978,974	Connecticut	235,908
Virginia	1,369,390	South Carolina	84,022
Maine	1,009,250	Delaware	54,497
Oregon	962,534		

Landings Revenue

Ex-vessel revenue in the U.S. totaled \$4.4 billion in 2008. This was a 23% increase (2.0% decrease in real terms) from 1999 levels (\$3.6 billion) and a 5% increase (5.3% decrease in real terms) relative to 2007 (\$4.2 billion). Finfish and shellfish revenues mirrored this increasing trend. Totalling \$2.3 billion in 2008, finfish revenue increased 40% (12% in real terms) from 1999 to 2008 and increased 9.1% (1.5% decrease in real terms) from 2007 to 2008. U.S. shellfish revenue totaled \$2.1 billion in 2008, increasing 8.6% (13% decrease in real terms) from 1999 to 2008 and less than 1% increase (9.1% decrease in real terms) from 2007 to 2008.

Overall, the greatest portion of the nation's ex-vessel revenue was generated in Alaska (\$1.7 billion) which contributed 39% to the U.S. total. Alaska also contributed more than any other state to total U.S. finfish revenue (\$1.5 billion), accounting for 66% of total finfish revenue. More than half of Alaska's finfish landings revenue came from walleye pollock and salmon. Massachusetts (\$278

million) and Louisiana (\$209 million) contributed most to total U.S. shellfish revenue, contributing 13% and 10%, respectively. Sea scallops accounted for most of the revenue generated in Massachusetts and shrimp contributed the most to revenue in Louisiana.

Total Landings Revenue by Region (2008)
(thousands of dollars)

Region	Total Revenue	Region	Total Revenue
U.S. total	4,386,692	Pacific	503,653
North Pacific	1,700,851	Mid-Atlantic	451,817
New England	805,343	South Atlantic	164,456
Gulf of Mexico	659,104	Western Pacific	85,120

The ten U.S. key species and species groups comprised 58% of total revenue in 2008. Of these, shrimp, Pacific salmon, sea scallop, walleye pollock, and American lobster contributed most to total revenue in the U.S. in 2008. These species or groups totaled approximately \$1.9 billion in 2008 or 42% of total revenue.

Total Landings Revenue by State (2008)
(thousands of dollars)

State	Total Revenue	State	Total Revenue
Alaska	1,700,851	Rhode Island	66,647
Massachusetts	399,735	Hawai'i	85,120
Maine	301,021	Maryland	73,505
Louisiana	272,884	New York	57,231
Washington	243,426	Alabama	44,317
Texas	176,098	Connecticut	17,147
Florida	169,711	Mississippi	43,696
New Jersey	168,676	New Hampshire	20,793
Virginia	145,552	South Carolina	17,525
California	113,429	Georgia	12,523
Oregon	103,096	Delaware	6,713
North Carolina	86,815		

Key species or species groups with large increases in total revenue from 1999 to 2008 include: sea scallop (206% increase, 144% in real terms), walleye pollock (99%, 59% in real terms), Pacific halibut (73%, 39% in real terms), and sablefish (28%, 2.5% in real terms). Decreases in total revenue over the 10 year time period were observed for shrimp (24%, 39% in real terms), menhaden (23%, 38% in real terms), blue crab (2.6%, 22% in real terms), and American lobster (2.5%, 22% in real terms).

Relative to 2007 totals, key species or species groups with the largest changes in total revenue in 2008 include: increases in tunas (14%, 2.8% in real terms) and blue crab (12%, 1.3% in real terms); and decreases in American lobster (11.5%, 20% in real terms), menhaden (4.6%, 14% in real terms), and Pacific halibut (4.2%, 14% in real terms).

Landings

In 2008, U.S. commercial fishermen landed 8.3 billion pounds of finfish and shellfish. Relative to 1999 levels, this was an 11% decrease and a 10% decrease relative to

¹⁵Percent change between 2007 and 2008 was calculated using employment, sales, and income impacts normalized to 2006 dollars using the seafood producer price index.

2007 (9.4 billion pounds). Finfish landings totaled 7.3 billion pounds in 2008, a 9.3% decrease from 1999 (8.0 billion pounds) and a 12% one-year decrease from 2007 (8.2 billion pounds). The largest one-year decrease in landings seen over the last ten years was for finfish which experienced a 12% decrease from 8.2 million pounds in 2007 to 7.3 million pounds in 2008. The largest increase in landings was for shellfish between 2005 and 2006 which experienced a 9.1% decrease.

Total Landings by Region (2008)
(thousands of pounds)

Region	Total Landings	Region	Total Landings
U.S. total	8,329,597	Mid-Atlantic	678,113
North Pacific	4,533,627	New England	594,362
Gulf of Mexico	1,274,652	South Atlantic	115,985
Pacific	1,084,057	Western Pacific	30,682

Alaskan fishermen harvested the majority of the nation’s total landings. Alaska contributed 54% to the U.S. total in 2008, landing 4.5 billion pounds of finfish and shellfish. Alaska also contributed most to the U.S. finfish total, landing 4.4 billion pounds or 61% of the U.S. finfish total. Walleye pollock comprised most of this Alaskan catch (51%). There was more shellfish landed in Louisiana than any other single state. With 157 million pounds landed in 2008, Louisiana’s total accounted for 15% of the U.S. shellfish total. Shrimp accounted for over half of this harvest.

Total Landings by State (2008)
(thousands of pounds)

State	Total Landings	State	Total Landings
Alaska	4,533,627	North Carolina	71,205
Louisiana	915,956	Maryland	61,372
Virginia	415,719	West Florida	59,402
Massachusetts	326,082	New York	33,903
California	315,139	Alabama	24,423
Mississippi	201,822	Hawai’i	30,682
Oregon	195,733	East Florida	26,194
Washington	174,262	New Hampshire	10,953
Maine	178,545	South Carolina	9,948
New Jersey	162,470	Georgia	8,639
Texas	73,048	Connecticut	7,074
Rhode Island	71,709	Delaware	4,598

Over 60% of total catch in 2008 was made up of the ten U.S. key species and species groups. Walleye pollock and menhaden had the highest landings totals in 2008 with 2.3 billion pounds and 1.3 billion pounds landed, respectively. These two species accounted for 43% of total U.S. landings in 2008.

Sea scallops (143% increase) were the only species or species group to experience an increase in total landings between 1999 and 2008. The largest decreases were seen for menhaden (34%), blue crab (29%), and tuna (22%). Pacific salmon and shrimp both saw a 19% decrease in landings between 1999 and 2008.

Blue crab (6%) and American lobster (9%) were the only key species or species groups to experience increases in total landings between 2007 and 2008. Large decreases were seen in walleye pollock and Pacific salmon, which both experienced 26% decreases.

Prices

Of the ten U.S. key species and species groups, sea scallop, American lobster, and Pacific halibut received the highest ex-vessel prices in 2008 at \$6.91 per pound, \$3.72 per pound, and \$3.25 per pound, respectively. Significant increases in price were observed for Pacific halibut which increased 106% (65% in real terms) from 1999 to 2008 but decreased 10% in real terms from 2007 to 2008. Walleye pollock ex-vessel price also increased, increasing 100% (60% in real terms) from 1999 to 2008 and 40% (26% in real terms) from 2007 to 2008. Shrimp (25%), American lobster (19%) and menhaden (7%) were the only species groups to experience decreases in real ex-vessel prices between 1999 and 2008.

Menhaden and walleye pollock had the lowest ex-vessel prices in 2008 at \$0.07 per pound and \$0.14 per pound, respectively. However, total landings of menhaden and walleye pollock were the largest among the U.S. key species and groups: 1.3 billion pounds of menhaden and 2.3 billion pounds of walleye pollock. Ex-vessel price for menhaden increased from 1999 to 2008 (17%, 7% decrease in real terms). Between 2007 and 2008, the ex-vessel also increased 17%, but with a 5% increase in real terms.

Overall, seven of the ten U.S. key species or species groups experienced an increase in real ex-vessel price from 1999 to 2008. In addition to those mentioned above, Pacific halibut (106% increase, 65% in real terms), tunas (50%, 20% in real terms), and sablefish (43%, 15% in real terms) experienced large or modest increases. The largest decrease in ex-vessel price was experienced by shrimp (6%, 25% in real terms) followed by American lobster (1%, 19% in real terms).

Between 2007 and 2008, ex-vessel price for half of U.S. key species or groups increased, with walleye pollock increasing the most (40%, 26% in real terms). American lobster prices decreased 19% from 2007 to 2008 (27% decrease in real terms).

Recreational Fishing

In 2008, there were approximately 12 million recreational anglers across the U.S. who took 85 million saltwater fishing trips around the country. These anglers spent \$4.9 billion on fishing trips and \$18 billion on durable fishing-related equipment. These expenditures contributed \$59 billion in sales impacts to the U.S. economy, generated \$27 billion in value-added impacts, and supported over 384,000 jobs. Of the U.S. key recreational species or species groups, Atlantic croaker (47 million fish) and seatrouts (51 million fish) were the most often caught by recreational anglers in 2008.

Expenditures and Economic Impacts

U.S. anglers spent a total of \$4.9 billion on expenditures related for fishing trips in 2008. Of this total, expenditures

for a private or rental boat fishing trips contributed the most (\$2.2 billion), followed by shore-based fishing trips (\$2.0 billion), and for-hire fishing trips (\$746,000). Expenditures on durable fishing-related equipment totaled over \$23 billion in 2008. Boat expenses contributed the most to this total with \$6.2 billion spent. Vehicle-related expenditures (\$4.5 billion), second home expenses (\$3.5 billion), and fishing tackle expenditures (\$2.7 billion) followed.

Key U.S. Recreational Species

- Atlantic croaker and spot
- Alaskan halibut
- Large Atlantic tunas
- Salmon
- Little tunny and Atlantic bonito
- Seatrouts
- Sharks
- Striped bass
- Summer flounder
- Pacific rockfishes and scorpionfishes

Relative to 2007, angler expenditures on fishing trips increased 7% with single digit increases in expenditures observed in each of the three fishing modes (private boat, shore-based, and for-hire). Total expenditures on durable fishing-related equipment decreased 30% from 2007 to 2008. Each of the durable expenditure categories mirrored this trend, ranging from 10% decreases in fishing tackle and other equipment expenditures, to a 39% decrease in boat expenses.

Jobs supported by the U.S. Recreational Fishing Industry (2008)

State	Jobs	State	Jobs
West Florida	54,589	South Carolina	5,509
East Florida	35,467	Massachusetts	5,952
Louisiana	25,590	Hawai'i	5,623
California*	11,830	Alaska	4,821
Texas	25,544	Mississippi	2,930
North Carolina	22,201	Connecticut	4,884
Washington	3,725	Oregon	1,541
New Jersey	9,612	Georgia	2,549
Maryland	7,244	Maine	1,286
Virginia	5,564	Delaware	1,462
Alabama	4,719	Rhode Island	1,467
New York	5,766	New Hampshire	357

Economic impacts from recreational fishing activities (impacts from fishing trips and durable equipment combined) supported over 384,000 full- and part-time jobs across the U.S. in 2008. Sales impacts from recreational angling expenditures totaled \$59 billion and value-added impacts totaled \$27 billion. Durable equipment impacts contributed most to these totals, accounting for 76% of jobs, 81% of total sales impacts, and 78% of value-added impacts. Of the three fishing trip modes, shore fishing trips contributed most to the number of jobs supported by recreational angling with 10% of jobs. Total sales and value-added impacts from private or rental boat trips were higher than the other fishing modes, accounting for 8.3% of sales impacts and 9.1% of value-added impacts.

Relative to 2007 totals, economic impacts from recreational angling nationwide decreased 23% in terms of jobs supported, total sales, and value-added impacts. The largest increases from 2007 to 2008 were observed for the

shore fishing mode in terms of jobs, total sales, and value-added impacts. Shore based total sales increased by 9.2%.

Total Sales generated by the U.S. Recreational Fishing Industry (2008)
(thousands of dollars)

State	In-State Sales	State	In-State Sales
East Florida	4,042,417	Alabama	455,093
West Florida	5,650,068	Hawai'i	610,433
California	1,764,010	Mississippi	382,778
Texas	3,288,135	Connecticut	742,753
North Carolina	2,291,227	South Carolina	487,545
Louisiana	2,297,078	Alaska	429,368
New Jersey	1,592,965	Oregon	157,752
Maryland	999,402	Delaware	223,519
Washington	386,010	Georgia	311,224
New York	875,449	Maine	108,242
Virginia	618,884	Rhode Island	166,457
Massachusetts	785,893	New Hampshire	39,009

Participation¹⁶

Nationwide, there were approximately 12.4 million recreational anglers who fished in 2008. Approximately 11 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 1999 and 2008, the total number of U.S. anglers increased 66%. However, the number of anglers decreased 12% between 2007 and 2008. The number of coastal county anglers increased 65% from 1999 to 2008 and decreased 14% from 2007 to 2008. A similar increase was observed for non-coastal county anglers during the 10 year time period (72%) and a slight decrease was observed between 2007 and 2008 (1.4%).

The majority of U.S. anglers fished in Gulf of Mexico (3.2 million anglers), the South Atlantic (2.9 million anglers), and Mid-Atlantic Regions (3 million anglers). Pacific (1.45 million anglers), New England (1.6 million anglers), North Pacific (309,000 anglers), and Western Pacific (329,000 anglers) followed in terms of total anglers.

Fishing Trips¹⁷

Approximately 85 million fishing trips were taken in the U.S. in 2008. Of these, 46 million were fishing trips taken from a private or rental boat (52% of total fishing trips). Approximately 37 million trips were taken from shore and 3.4 million trips were taken from a for-hire fishing boat. Most of these trips were taken in the Gulf of Mexico (24 million), South Atlantic (22 million), and Mid-Atlantic (20.6 million). New England (9.2 million), the Pacific (5.8 million), and Western Pacific Regions (2.5 million) followed in number of trips taken. Anglers in the North Pacific fished approximately 935,000 thousand fishing days in 2008.¹⁸

¹⁶Participation estimates do not include Alaska and Texas. Hawai'i is included for 2003-2007; Numbers include the Caribbean for 2000-2007.

¹⁷Effort numbers do not include Alaska and Texas. They include Hawai'i only for 2003-2007. California numbers were estimated differently from 2004-2008.

¹⁸In Alaska, fishing effort information is collected as the number of fishing days rather than the number of fishing trips taken.

The total number of fishing trips taken in the U.S. increased 51% from 1999 to 2008. Increases were also observed for two fishing modes; there was a 48% increase in private or rental boat trips and 63% increase in shore-based trips. For-hire fishing trips decreased 1.4% during this time period, the only fishing mode to experience a decrease. Relative to 2007, total fishing trips taken in the U.S. decreased 8%, with larger decreases observed in the for-hire mode (16%).

Recreational Fishing Facts

Participation

- There were 12.4 million anglers in the U.S. in 2008. Of these, 11 million anglers were coastal county residents and 1.6 million were residents of a non-coastal counties. The majority of anglers in the U.S. fished in the South Atlantic, Gulf of Mexico, and Mid-Atlantic Regions.

Fishing trips

- Approximately 85 million fishing trips were taken nationwide in 2008. Most of these trips were taken in the South Atlantic, Gulf of Mexico, and Mid-Atlantic.
- Private or rental boat trips accounted for most of the fishing trips taken in the U.S., comprising 52% of total U.S. fishing trips or 44.5 million trips. This fishing mode comprised the majority of the trips in the Gulf of Mexico (60% of trips), Mid-Atlantic (57% of trips), South Atlantic (50% of trips), and New England (54% of trips).
- Shore-based fishing trips accounted for 44% of total U.S. fishing trips or 37 million trips. This was the most popular fishing mode in the Western Pacific (78% of trips) and Pacific (67% of trips) regions.
- For-hire fishing boat trips accounted for 3.9% of total trips taken with 3.4 million trips.
- In the North Pacific, anglers spent approximately 935,000 thousand days fishing in 2008.

Harvest and release

- Atlantic croaker and seatrouts were the most commonly caught species or species group by anglers in 2008 with approximately 47,000 and 51,000 fish caught, respectively. Most of these fish were caught in the Mid-Atlantic and Gulf Regions.
- The least caught key species or species group were large Atlantic tunas (791,000 fish caught) and Alaskan halibut (875 million fish caught). Most of these tuna were caught in New England.
- Large Atlantic tunas experienced the largest annual increase in catch from 1998-2007, increasing 145% from 2002-2003. Little tunny experienced the largest annual decrease in catch, decreasing 46% from 2004 to 2005. From 2007 to 2008, salmon experienced the largest decrease (43%) and large Atlantic tunas experienced the largest increase (20%).

Harvest and Release

Among the ten key U.S. recreational species or species groups, Atlantic croaker, seatrouts, summer flounder, and striped bass were the most caught by anglers in 2008. These species or groups were caught in large numbers relative to the other key species or groups: Atlantic croaker (47 million fish), seatrouts (51 million fish), summer flounder (25 million fish), and striped bass (14 million fish). Anglers fishing in the Mid-Atlantic and New England caught most of the Atlantic croaker, summer flounder, and striped bass in 2008, while most seatrout were caught in the Gulf of Mexico and the South Atlantic.

In the North Pacific Region, Pacific halibut and salmon species (Chinook, chum, coho, pink, and sockeye) were the most commonly caught species or group in 2008 with 875,000 fish and 961,000 fish caught, respectively. Mackerels (2.7 million fish), rockfishes (2.3 million fish), and surfperches (1.6 million fish) were caught in high numbers in the Pacific Region, while bigeye and mackerel scad (402 million) comprised 42% of fish caught by anglers in the Western Pacific.

Recreational catch of requiem sharks increased 266% between 1999 and 2008, the largest increase during this 10 year time period. There were 5.5 million requiem sharks caught in 2008. Other key species or groups with large increases in recreational catch include: Pacific halibut (56% increase), Atlantic croaker (49%), and large Atlantic tuna (47%). Recreational catches decreased for little tunny (20%) salmon (30%) and rockfishes (57%) between 1999 to 2008.

From 2007 to 2008, decreases occurred in the recreational catch of salmon (43%), striped bass (27%), little tunny (30%), requiem sharks (11.6%), rockfish and scorpion fish (17%), Pacific halibut (15%), and Atlantic Croaker (9%). All other U.S. key recreational species or groups increased from 2007 to 2008, with the largest increases in large Atlantic tuna (20%).

Marine Economy¹⁹

In 2007, there were 7.7 million establishments in the U.S, including marine and non-marine related establishments. These establishments employed over 120 million full- and part-time employees and had a total annual payroll of \$5.0 trillion. From 1999-2007, the number of establishments increased 11%, employee numbers increased 12%, and total annual payroll increased 52% (27% in real terms) nationwide. More modest increases were seen from 2006 to 2007: 1.4%, 0.57%, and 4.9% (0.88% decrease in real terms), respectively.

The nation's gross domestic product was \$14 trillion in 2007, a 62% increase (32% in real terms) relative to 1998 levels (\$8.7 trillion) and a 4.5% (12% decrease in real terms) increase relative to 2006 levels (\$13 trillion). Employee compensation in 2007 was \$7.8 trillion, a 32% (10% in real terms) increase from 1998 (\$5.9 trillion) and a 4.9% (0.90% decrease in real terms) increase from 2006 (\$7.4 trillion).

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.

¹⁹Information for 2007 is reported in this section; 2008 data were not available for this report.

Seafood Sales and Processing

In 2007, there were 1,300 nonemployer firms engaged in seafood product preparation and packaging, a 88% increase from 1999 levels. Annual receipts increased 59% (49% in real terms) from \$55 million (1999) to \$79 million (2007). Most of these firms were located in Florida (173 firms).

In contrast to nonemployer firms, the number of employer establishments decreased 20% from 842 in 1999 to 685 in 2007. These firms employed approximately 33,000 full- and part-time employees in 2007 and had a total annual payroll of \$1.2 billion. Relative to 1999 levels, this was an 19% decrease in workers but a 21% increase (7% in real terms) in annual payroll. Most of these establishments were located in Alaska (114 establishments) followed by Washington (98 establishments).

There were over 2,400 employer establishments involved in seafood wholesale activities in 2007. Most of these establishments were in California (300), New York (294), and Florida (267). These establishments employed 24,200 workers and had an annual payroll of \$925 million. From 1999 to 2007, the number of establishments and employees decreased 20% and 13%, respectively) but annual payroll increased (16%, 3% in real terms).

Nonemployer firms and employer establishments engaged in seafood retail activities saw increasing trends from 1999 to 2007. There was a 18% increase in firms (2,600 in 2007) and a 16% increase in employer establishments (2,100 in 2007). Annual receipts for nonemployer firms totaled \$232 million in 2007, a 19% increase (6% in real terms) relative to 1999 levels. Annual payroll for employer establishments totaled almost \$210 million, a 52% increase (35% in real terms) relative to 1999 levels. Approximately 10,000 full- and part-time workers were employed by the 2,100 establishments in 2007, 25% and 16% increases, respectively from 1999. The employer establishments were primarily located in New York (372), California (182) and Florida (169), while most non-employer firms were located in Florida (319 firms), New York (266), California (222), and Louisiana (196).

Transport, Support, and Marine Operations

In the U.S. transport, support, and marine operations industry sector, industries involved in marina activities had the highest number of establishments. In 2007, there were over 4,000 marina industries that employed almost 29,000 full- and part-time workers. Compared to 1999 levels, this was a 2% decrease in establishment numbers and a 20% increase in number of employees. Annual payroll for this industry was \$945 million in 2007, a 58% increase (40% in real terms) over 1999 levels. Most of these marina industries were located in Florida (493), California (276), and New Jersey (216).

The ship and boat building industry employed the most people and had the largest number of establishments in the transport, support and marine operations sector nationwide. In 2007, almost 150,000 full- and part-time employees worked in this industry, a 3% increase over 1999 levels. Most of these workers were located in Mississippi (14,578 employees), Louisiana (12,808), and

Florida (12,332). There were 1,771 establishments engaged in this industry in 2007, a 0.45% decrease from 1999 levels. This industry had an annual payroll of \$6.4 billion in 2007, a 33% increase (18% in real terms) relative to 1999. The same states with the largest number of employers in the ship and boat building industry, Mississippi, Louisiana, and Florida also had the highest payroll totaling \$1.6 billion.

Between 1999 and 2007, the largest change in establishment numbers within this sector was seen in the deep sea freight transportation industry. There was a 20% decrease in establishments from 535 in 1999 to 427 in 2007. Despite the declines in establishments the annual payroll increased 20% (6% in real terms) over the same time period. The largest change in employee numbers during this period was in the marine cargo industry which saw a 44% increase in full- and part-time employees. In terms of changes in total annual payroll, large changes were seen for industries engaged in navigational services to shipping (76% increase, 56% in real terms), marine cargo handling (70%, 51% in real terms), and marinas (58%, 40% in real terms). There were no decreases in annual payroll in either nominal or real terms between 1999 and 2007.

2008 Economic Impacts of US Seafood Industry (*thousands of dollars*)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	104,034,970	44,943,002	1,488,880
Commercial Harvesters	9,528,637	3,665,954	114,878
Seafood Processors & Dealers	15,100,930	4,853,029	104,826
Seafood Wholesalers & Distributors	19,572,431	8,347,540	155,331
Retail Sector	59,832,971	28,076,478	1,113,845

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	3,579,526	3,676,718	3,249,399	3,164,209	3,346,066	3,770,031	3,952,801	4,041,614	4,184,708	4,386,692
Finfish & Other	1,615,908	1,647,281	1,513,585	1,374,489	1,518,330	1,778,214	1,860,346	1,950,513	2,067,302	2,254,564
Shellfish	1,963,618	2,029,437	1,735,814	1,789,720	1,827,736	1,991,817	2,092,455	2,091,101	2,117,406	2,132,128
Crab, Blue	167,284	164,370	158,220	146,974	153,685	145,905	140,818	126,043	145,249	162,943
Halibut, Pacific	125,596	142,314	115,365	136,789	172,846	176,893	177,599	202,163	227,348	217,702
Lobster, American	327,147	313,766	249,510	293,894	283,516	374,262	415,408	395,175	360,390	319,010
Menhaden	114,457	114,344	104,791	81,607	71,988	75,045	62,520	69,683	92,717	88,483
Pollock, Walleye	162,812	160,525	230,727	203,633	203,183	271,630	306,972	329,879	297,461	323,212
Sablefish	97,243	101,282	80,375	78,132	100,172	135,316	136,240	132,156	115,610	124,588
Salmon, Pacific	359,958	270,722	209,441	156,194	198,946	302,775	330,816	310,865	381,197	394,789
Scallop, Sea	120,984	160,886	172,583	202,092	229,097	320,015	432,399	384,799	385,923	369,983
Shrimp	589,408	776,177	578,208	523,882	441,622	446,043	412,718	454,570	433,041	448,048
Tunas	90,848	99,277	94,091	85,473	86,818	89,950	86,358	86,758	93,884	106,920

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	9,399,210	9,142,869	9,511,792	9,436,477	9,505,337	9,689,571	9,713,328	9,481,137	9,297,746	8,329,597
Finfish & Other	8,027,263	7,828,416	8,348,260	8,232,370	8,367,711	8,517,101	8,631,096	8,300,788	8,231,258	7,282,107
Shellfish	1,371,947	1,314,453	1,163,532	1,204,107	1,137,626	1,172,470	1,082,232	1,180,349	1,066,488	1,047,490
Crab, Blue	220,489	186,036	159,004	175,574	170,890	174,561	159,242	166,133	148,106	156,894
Halibut, Pacific	79,288	74,370	77,147	80,977	78,862	79,181	76,264	71,897	69,967	66,992
Lobster, American	88,551	86,804	71,193	83,087	71,683	90,065	87,808	92,615	78,754	85,670
Menhaden	1,989,517	1,764,373	1,739,963	1,755,398	1,590,510	1,495,240	1,243,807	1,304,250	1,483,697	1,307,586
Pollock, Walleye	2,325,889	2,606,800	3,179,407	3,341,095	3,361,802	3,353,374	3,411,307	3,400,812	3,066,603	2,276,144
Sablefish	48,335	49,774	44,057	40,895	47,909	52,848	51,093	47,227	43,875	43,284
Salmon, Pacific	814,743	628,132	717,762	561,489	669,998	738,746	899,759	663,567	885,005	658,404
Scallop, Sea	22,022	32,163	46,414	52,672	55,968	64,101	56,609	59,024	58,558	53,546
Shrimp	316,347	386,497	346,288	345,249	324,170	316,570	264,173	336,912	281,847	257,139
Tunas	61,101	50,861	51,783	49,632	61,762	56,324	44,253	49,930	50,739	47,881

Average Annual Price for Key Species / Species Groups

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab, Blue	0.76	0.88	1.00	0.84	0.90	0.84	0.88	0.76	0.98	1.04
Halibut, Pacific	1.58	1.91	1.50	1.69	2.19	2.23	2.33	2.81	3.25	3.25
Lobster,	3.69	3.61	3.50	3.54	3.96	4.16	4.73	4.27	4.58	3.72
Menhaden	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.07
Pollock, Walleye	0.07	0.06	0.07	0.06	0.06	0.08	0.09	0.10	0.10	0.14
Sablefish	2.01	2.03	1.82	1.91	2.09	2.56	2.67	2.80	2.63	2.88
Salmon, Pacific	0.44	0.43	0.29	0.28	0.30	0.41	0.37	0.47	0.43	0.60
Scallop, Sea	5.49	5.00	3.72	3.84	4.09	4.99	7.64	6.52	6.59	6.91
Shrimp	1.86	2.01	1.67	1.52	1.36	1.41	1.56	1.35	1.54	1.74
Tunas	1.49	1.95	1.82	1.72	1.41	1.60	1.95	1.74	1.85	2.23

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	16,823	1,871,630	1,015,918
Private Boat	35,980	4,897,536	2,491,059
Shore	38,780	4,738,972	2,464,655
Total Durable Equipment Impacts	293,124	47,369,509	21,379,151
Total State Trip and Durable Equipment Economic Impacts	384,707	58,877,646	27,350,781

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents ¹	Residents		
For-Hire	NA	745,786	Fishing Tackle	2,704,847
Private Boat	NA	2,163,350	Other Equipment	892,555
Shore	NA	1,998,894	Boat Expenses	6,162,791
Total Trip Expenditures		4,908,030	Vehicle Expenses	4,453,713
			Second Home Expenses	3,458,338
			Total Durable Equipment Expenditures	17,672,245
Total State Trip and Durable Equipment Expenditures				22,580,275

Recreational Anglers by Residential Area (thousands of anglers)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	6,579	9,044	10,126	8,805	10,619	10,340	11,439	11,837	12,555	10,852
Non-Coastal	928	1,235	1,450	1,372	1,563	1,578	1,491	1,686	1,615	1,592
Total Anglers	7,507	10,279	11,576	10,177	12,181	11,919	12,931	13,523	14,170	12,444

Recreational Fishing Effort by Mode (thousands of trips)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	3,407	3,544	3,577	3,193	3,245	3,547	3,527	3,822	3,993	3,358
Private Boat	30,135	41,313	44,114	38,527	45,013	41,860	42,256	44,152	47,743	44,562
Shore	22,895	33,095	37,247	30,439	36,198	37,781	37,744	41,250	40,507	37,336
Total Trips	56,437	77,951	84,938	72,159	84,456	83,188	83,526	89,224	92,243	85,256

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)

Species/Groups	Region		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	Atlantic Ocean ³ and Gulf of Mexico ⁴	H	1,368	1,993	2,039	1,841	2,515	2,536	2,340	2,688	2,203	2,056
		R	12,793	16,933	13,521	13,802	14,863	17,467	18,986	25,927	16,904	11,930
Drum (Atlantic Croaker & Sandspot)	Atlantic Ocean and Gulf of Mexico	H	13,939	17,678	22,207	17,833	20,879	20,473	21,334	23,175	28,003	23,172
		R	17,356	23,231	17,515	16,432	18,199	16,669	21,109	20,421	23,195	23,416
Drum (Seatrouts)	Atlantic Ocean and Gulf of Mexico	H	19,376	21,130	16,263	13,749	15,029	15,838	15,781	21,887	17,843	20,121
		R	24,138	27,491	19,608	22,366	25,156	25,510	29,268	30,994	29,932	30,567
Flounder, Summer	Atlantic Ocean and Gulf of Mexico	H	4,123	7,820	5,307	3,281	4,578	4,653	4,110	4,227	3,397	2,312
		R	17,275	17,594	22,895	13,418	15,978	16,338	22,886	18,061	19,791	22,207
Halibut, Pacific	Alaska	H	333	403	366	351	403	483	500	463	585	516
		R	229	303	254	233	290	369	380	353	438	359
Little Tunny/ Atlantic Bonito ⁵	Atlantic Ocean and Gulf of Mexico	H	421	421	329	323	254	363	202	310	320	210
		R	851	873	685	1,025	865	1,049	567	829	1,141	817
Rockfishes/ Scorpionfishes	Pacific Region	H	4,569	3,569	3,241	2,737	3,624	2,416	3,433	2,506	2,257	1,842
		R	741	681	787	931	1,665	757	1,148	731	513	465
Salmon	Pacific Region and Alaska	H	1,000	1,120	1,823	1,359	1,661	1,618	1,530	929	1,338	770
		R	723	633	891	725	1,000	1,095	919	588	773	444
Sharks ⁶	Atlantic Ocean and Gulf of Mexico	H	153	247	284	229	178	189	200	164	223	200
		R	1,346	2,173	3,755	2,631	3,816	4,149	4,990	4,951	5,987	5,288
Large Tunas ⁷	Atlantic Ocean and Gulf of Mexico	H	486	524	485	310	726	740	692	610	563	720
		R	52	49	36	31	110	110	112	97	99	71

¹All anglers reported in this table are U.S. residents; NA = not applicable.

²The number of anglers and trips were not available for the Caribbean in 1999 and from 1999 to 2003 for Hawai'i; data from Alaska and Texas were not included in these tables.

³Includes New England, Mid-Atlantic, and South Atlantic Regions

⁴Excluded Texas

⁵Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

⁶Includes requiem (all species in the carcharhinidae family), mackerel sharks (all species in the lamnidae family) and unidentified sharks.

⁷Includes all tunas in the thunnus family.

National Economy

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation ¹ (\$ millions)	Gross Domestic Product (\$ millions)	Commercial Location Quotient ²
1998	6,941,822	108,117,731	3,309,406	5,930,254	8,679,657	1.0
2007	7,705,018	120,604,265	5,026,778	7,796,114	13,715,741	1.0
% change	10.99%	11.55%	51.89%	31.46%	62.19%	--

Seafood Sales & Processing – Nonemployer Firms (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	693	714	780	903	1,038	1,110	1,080	1,142	1,303
	Receipts	55,332	60,790	60,417	55,750	70,071	81,871	78,745	80,066	88,230
Seafood sales, retail	Firms	2,207	2,161	2,119	2,210	2,346	2,260	2,098	2,089	2,610
	Receipts	194,115	188,870	190,629	199,937	210,231	210,450	203,951	211,186	231,776

Seafood Sales & Processing – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	842	854	823	754	764	734	717	670	685
	Employees	42,534	41,770	39,855	38,663	39,580	38,102	37,684	35,894	33,169
	Payroll	988,801	1,070,573	1,057,737	1,092,500	1,177,582	1,151,780	1,180,396	1,205,890	1,196,086
Seafood sales, wholesale	Establishments	3,048	2,992	2,980	2,883	2,456	2,330	2,314	2,222	2,438
	Employees	27,706	28,710	28,405	26,719	23,091	22,501	22,666	22,013	24,232
	Payroll	797,304	854,649	882,232	895,718	743,479	771,749	781,459	826,720	924,654
Seafood sales, retail	Establishments	1,807	1,853	1,940	2,238	2,125	2,151	2,155	2,115	2,094
	Employees	8,299	8,458	8,990	9,771	10,346	10,714	10,381	10,545,00	10,380
	Payroll	137,701	137,306	149,310	167,634	186,087	192,187	194,602	200,971	209,404

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	554	546	544	520	606	579	610	579	573
	Employees	23,256	20,240	24,126	20,149	22,449	21,928	21,025	22,172	22,568
	Payroll	1,095,499	1,027,497	1,188,800	1,096,771	1,183,071	1,179,549	1,232,342	1,376,033	1,552,467
Deep sea freight transportation	Establishments	535	485	456	471	472	435	465	456.00	427
	Employees	14,784	13,014	11,964	12,916	12,175	11,314	11,357	11,473	11,308
	Payroll	714,701	650,148	697,266	784,149	734,781	735,804	801,863	825,752	855,683
Marinas	Establishments	4,170	4,126	4,121	4,021	4,150	4,092	4,143	4,025	4,085
	Employees	24,016	24,824	24,660	23,047	27,928	28,100	27,511	28,339.00	28,788
	Payroll	599,112	640,131	674,576	675,529	773,538	814,821	839,848	894,097	945,355
Marine cargo handling	Establishments	601	607	612	595	542	551	549	540	552
	Employees	43,785	53,496	50,273	50,428	50,644	58,618	59,670	61,905	62,941
	Payroll	2,016,081	2,194,692	2,249,516	2,425,187	2,422,537	2,899,703	3,034,672	3,261,953	3,428,126
Navigational services to shipping	Establishments	891	863	830	828	782	804	803	802	830
	Employees	11,393	11,775	11,957	11,224	11,795	11,881	10,819	12,043	12,997
	Payroll	430,114	478,748	507,806	509,953	629,541	591,510	584,689	699,375	756,552
Port & harbor operations	Establishments	199	196	201	212	223	234	244	229.00	223
	Employees	7,427	7,445	7,304	6,304	6,413	6,888	7,453	7,002	6,573
	Payroll	264,651	265,766	254,864	245,979	279,970	300,692	319,338	323,554	318,608
Ship & boat building	Establishments	1,779	1,763	1,815	1,736	1,739	1,793	1,799	1,764	1,771
	Employees	145,065	146,969	138,962	131,292	133,395	137,633	141,620	142,057	148,864
	Payroll	4,804,405	5,044,270	5,094,086	5,111,708	5,119,596	5,499,783	5,654,818	5,877,830	6,405,570

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

North Pacific

- Alaska



Management Context

The North Pacific Region includes the fisheries in the EEZ off of the state of Alaska. Federal fisheries in this region are managed by the North Pacific Fishery Management Council (NPFMC) and the National Marine Fisheries Service under six fishery management plans (FMPs). Catch limits for Pacific halibut are established by the International Pacific Halibut Commission and are implemented by the NPFMC. Salmon fishing in federal waters is limited to a few vessels using troll gear and management of salmon fisheries is deferred to the Alaska Department of Fish and Game.

North Pacific Fishery Management Plans

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 species or species groups managed under these FMPs, blue king crab from the Pribilof Islands is currently characterized as overfished. No stocks in this region are currently subject to overfishing.

The North Pacific Region has seven catch share programs (a type of market-based management), more than any other region.¹ These are the: 1) Western Alaska community development quota (CDQ) program; 2) Pacific halibut and sablefish individual fishing quota (IFQ) program; 3) Bering Sea pollock cooperative; 4) Alaska weathervane scallop cooperative; 5) Bering Sea king and tanner crab (crab rationalization) program that includes both an IFQ and a fishing cooperative; 6) Central Gulf of Alaska rockfish pilot sector program; and 7) Bering Sea groundfish (non-pollock) cooperative. The ex-vessel values for these programs totaled over \$766.1 million in 2007.

A particularly interesting management measure is the Western Alaska Community Development Quota (CDQ) program which is unique to Alaska. 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 the coastal, western Alaskan native communities. The purpose of the program is to provide western Alaska communities the opportunity to participate and invest in BSAI fisheries, to support economic development in western Alaska, to alleviate poverty and provide economic and social benefits for residents of western Alaska, and to achieve sustainable and diversified local economies in western Alaska. 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. These communities participate in the CDQ Program through six nonprofit corporations (CDQ groups) which manage and administer the CDQ allocations, investments, and economic development projects. CDQ

¹Information about the ex-vessel values of these fisheries as well as the first year of implementation is available in the "U.S. Summary" found in this report.

groups use the revenue derived from the harvest of their fisheries allocations to fund economic development activities and provide employment opportunities. In 2008, 220 million pounds of pollock were caught under the BSAI CDQ program with a value of approximately \$40 million.

Commercial Fisheries

Alaska fishermen earned over \$1.7 billion from their commercial harvest (4.5 billion pounds) in 2008. Landings revenue was dominated by walleye pollock (\$384 million), salmon (\$368 million), Pacific halibut (\$209 million), and Pacific cod (\$267 million). Walleye pollock contributed the most to landings in 2008, accounting for roughly 50% of total landings (2.3 billion pounds) and 23% of landings revenue, with an average annual price of \$0.14 per pound. In contrast, salmon accounted for 14% of total landings (640 thousand pounds) and generated 22% of landings revenue, with an average annual price of \$0.58 per pound in 2008.

Economic Impacts

Alaska's seafood industry generated \$3.7 billion in sales impacts, \$1.3 billion in income impacts, and over 48,000 jobs in 2008. Seafood processing and dealer operations contributed over 58% to in-state sales for Alaskan businesses with over \$2.1 billion generated in 2008. This sector also accounted for most of the income impacts in the North Pacific with over \$668 million generated, or 52% of the region's total income impacts. In terms of employment, the commercial harvest sector supported the most full- and part-time jobs: 22,800 jobs or 48% of the region's total job impacts.

Key North Pacific Commercial Species

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

Landings Revenue

In 2008, landings revenue for finfish and shellfish totaled over \$1.57 billion, a 40% increase from total revenue generated in 1999. When adjusting for inflation, real landings revenues increased 12%. Landings revenue in 2008 was a 14% increase relative to 2007 (\$1.50 billion). Finfish and other catch contributed more than shellfish to this 2008 total, accounting for 87% or \$1.48 billion. This was an 57% (26% in real terms) increase from 1999 finfish revenue totals. In contrast, shellfish revenues decreased 7% (26% in real terms) from \$271 million in 1999 to \$252 million in 2008. Shellfish landings decreased 79% from 278 million in 1998 to 57 million pounds in 2000 and the landings have never returned to the levels seen in the late 1990s.

The largest increases in landings revenue between 1999 and 2008 were for flatfish (220%), Atka mackerel (120%), Pacific halibut and Pacific herring both increased 79%, Pacific cod (87%), and rockfish (72%). Of the key species and species groups in this region, only crab landings revenue declined, decreasing 8%, a 26% decrease in real

terms. Landings revenue from salmon increased 6.5% over the time period with a 15% decrease in real terms.

Commercial Fish Facts

Landings revenue

- On average, key species or species groups accounted for 99% of total revenue generated in the North Pacific over the 1999 to 2008 time period.
- Five of the key species (walleye pollock, salmon, crab, Pacific cod, and Pacific halibut,) had average annual ex-vessel revenue in excess of \$200 million each.
- Walleye pollock and salmon accounted for 44% of average annual total landings revenue.
- The largest annual increase in landings revenue during the 10 year period was 122% for Atka mackerel (2000-2001). The largest annual decrease was 50% for crab (1999-2000).

Landings

- On average, key species or species groups accounted for nearly 100% of total landings in this region over the 1999 to 2008 time period.
- Four of the key species (walleye pollock, salmon, Pacific cod, and flatfish) had average annual landings of greater than 390 million pounds each.
- Annual landings of walleye pollock averaged over 3.0 billion pounds during the 10 year period, contributing over 60% to total average annual landings.
- Flatfish landings increased 42% from 2007 to 2008, the largest annual increase in the 10 year period. Crab landings decreased 75% from 1999-2000, the largest annual decrease.

Prices

- Sablefish (\$2.64), crab (\$2.34), and Pacific halibut (\$2.25) had the highest average annual prices per pound.
- Walleye pollock (\$0.08), Atka mackerel (\$0.08), flatfish (\$0.11), and Pacific herring (\$0.16) had the lowest average annual prices per pound.
- The largest annual price increase was 370% for flatfish between 2003 and 2004. The largest annual decrease was 89% for Atka mackerel between 2000 and 2001.

Landings

In 2008, North Pacific commercial fishermen landed over 4.5 billion pounds of finfish and shellfish, a less than 1% increase from 1999 totals. This was a 15% decrease from the 5.3 billion pounds landed in 2007. Finfish and other catch accounted for 98% of this total (4.5 billion pounds), a 3% increase from 1999 and a 15% decrease from 2007. Shellfish landings in 2008 decreased 50% from 213 million pounds in 1999 to 107 million pounds in 2008. Between 2007 and 2008, shellfish landings increased 36%. Overall, an average of 5.10 billion pounds were landed annually in the North Pacific from 1999-2008, ranging from a low of 4.3 billion pounds (2000) to a high of 5.65 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 50% of total landings in 2008 (2.28 billion pounds). Landings of salmon (640 million pounds), Pacific cod (490 million pounds), and flatfish (600 million pounds) were also a significant share of total landings.

Relative to 1999, landings of flatfish and rockfish in 2008 increased more than any other key species or group, increasing 148%, and 20% respectively. In contrast, crab

landings declined dramatically between 1999 and 2008, decreasing 52% from 206 million pounds to 99 million pounds. Salmon (20%), Pacific Halibut (15%) Pacific herring (1.7%), Pacific cod (5.6%), and sablefish (9.0%) landings also declined over this period.

Prices

In all, 2008 landings prices per pound for each of the key species and species groups were above their average annual price for the 10 year time period. When comparing 2008 landings prices to those in 1999, flatfish (533%), Pacific cod (243%), Atka mackerel (200%), and Pacific halibut (110%) had the largest increases at \$0.19, \$0.55, \$0.15, \$3.23 per pound, respectively.

Relative to landings prices in 2007, Pacific herring (23%), Atka mackerel (36%), walleye pollock (40%), Pacific cod (20%), and salmon (45%) all had double-digit increases in 2008. Rockfish prices decreased 8% from 2007 prices. Prices held steady for flatfish and halibut from 2007-2008.

Recreational Fishing

Recreational fishermen spent approximately 935,000 days fishing in Alaska in 2008. These anglers numbered over 309,000 with 62% of them non-residents. Halibut was the most caught finfish species or species group with approximately 875,000 harvested or released in 2008. Coho salmon and razor clam were also caught in large numbers with 492,000 and 592,000 caught, respectively. Together, these key species accounted for 67% of total catch by anglers in the North Pacific Region.

Economic Impacts and Expenditures

In 2008, approximately 4.8 million jobs in the North Pacific were related to recreational fishing activities and over \$389 million was spent by anglers who fished in the region. Most of these jobs were related to industries that provided services to anglers who fished from a for-hire boat (1.9 million jobs) or a private boat (1.2 million jobs). These fishing trip modes also generated the most in trip-related expenditures: \$98 million for for-hire fishing trips (51% of total trip expenditures) and \$81.6 million for private boat trips (41% of total trip expenditures). Over 64% of total trip-related expenditures in Alaska came from non-resident anglers.

In addition to jobs related to 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 \$149 million in sales (53% of total trip-related sales) and \$83 million in value-added impacts (54% of total trip-related value-added impacts) in 2008. Private boat trips contributed \$115 million in sales (41%) and \$62 million (41%) in value-added impacts. Shore based fishing trips contributed \$15.4 million in trip-related sales (5.5%) and \$8.4 million in trip-related value-added impacts (5.5%).

Anglers spent over \$197 million on durable equipment in 2008, contributing 51% to total expenditures in the region (trip and durable equipment combined). Most of this was spent on boat expenses (\$65 million). Expenditures related

to vehicles were \$31 million; second home expenses, \$33 million; other equipment, \$34 million; and fishing tackle, \$34 million.

Economic impacts from durable equipment expenditures in 2008 include approximately 1.6 million jobs, \$150 million in sales impacts, and \$102 million in value-added impacts.

Key North Pacific Recreational Species

- Razor clam
- Greenlings (lingcod)
- Halibut
- Rockfish
- Chinook salmon
- Chum salmon
- Coho salmon
- Pink salmon
- Sockeye salmon

Participation

In 2008, there were 309,000 recreational anglers who fished in Alaska. This was an 14% increase from 1999 (270,000 anglers) and a 7% decrease from 2007 (332,000 anglers). Recreational fishermen in Alaska are categorized as either a resident of Alaska or a non-resident. In 2008, non-resident anglers made up 62% of total anglers (190,000 anglers). This was a 24% increase from 1999 (153,000 anglers) and a 7.3% decrease from 2007 (205,000 anglers). In terms of resident anglers, there were 119,000 resident anglers who fished in the North Pacific in 2008. This was a small increase from 1999 (0.8%) and a decrease from 2007 (6.3%).

Days Fished²

Anglers who fished in Alaska spent approximately 935,000 days fishing in 2008. This was a 1% increase from the 924,000 days spent fishing in 1999. From 2007-2008, there was a 11% decrease in the number of days fished (1.1 million in 2007).

Harvest and Release

Of Alaska’s key species and species groups, Pacific halibut, coho salmon, and razor clams were most frequently caught by recreational fishermen. In 2008, 875,000 halibut, 492,000 coho salmon, and 592,000 razor clams were caught by anglers in Alaska. Razor clams (100% harvested), coho salmon (82%), and sockeye salmon (74%) were most often harvested than released, while pink salmon was more often released (63% released).

Three of the North Pacific’s key species or groups had large increases in catch totals between 1999 and 2008: greenlings and lingcod (62% increase), rockfish (36%), and Pacific halibut (56%). Large decreases in catch from 1999 to 2008 were experienced by the following key species; razor clams (23%), chum salmon (29%), Chinook salmon (26%), and pink salmon (48%). Razor clam and sockeye salmon experienced large changes in their harvest or release totals from 2007-2008. Pink salmon released decreased 46% and razor clam harvest increased 52% during this time. The dramatic changes in

²In Alaska, information related to how often a recreational fishermen fishes is collected in terms of the number of days spent fishing rather than the number of fishing trips taken.

pink salmon catch between 2007 and 2008 can at least be partially attributed to the biannual biological cycle.

Recreational Fishing Facts

Participation

- Approximately 302,000 anglers fished in Alaska annually over the 1999-2008 time period.
- In Alaska, out-of-state residents made up 62% of total anglers in 2008 and averaged 59% of total anglers annually from 1999-2008.
- The largest annual increase in anglers was a 14% increase in Alaska resident anglers from 2002-2003. Resident anglers also experienced the largest annual decrease in participation, decreasing 7.3% from 2007-2008.

Days fished

- On average, recreational fishermen spent 950,000 days fishing annually in Alaska from 1999-2008.
- The largest annual increase in total days fished was 16% from 868,000 days fishing (2003) to 1 million days fishing (2004). The largest annual decrease in total days fished was an 11% decrease from 1 million days fishing (2007) to 935,000 days fishing (2008).

Harvest and release

- Pacific halibut was the most caught key species or group, averaging 761,000 fish annually over the 10 year period. Of these, 59% were harvested rather than released in 2008.
- Key species or groups that were more often harvested than released in 2008 were coho salmon (82% harvested), sockeye salmon (74% harvested), and halibut (59% harvested), rockfish (57%).
- Sockeye salmon had the largest annual increase in catch, increasing 89% from 2006-2007. Pink salmon had the largest annual decrease in catch, decreasing 53% from 2005-2006 and the largest decrease when compared to other key species in catch from 2007-2008.

Marine Economy³

In Alaska, approximately 245,000 full- and part-time employees were employed by 20,000 establishments in 2007. Annual payroll totaled \$11.4 billion, employee compensation totaled \$20 billion, and gross state product totaled \$45 billion. Between 1998 and 2007, the largest changes were observed for gross state product (94% increase) and annual payroll (66%). Employee compensation (43% increase), employee numbers (25%), and establishment numbers (11%) also experienced modest increases. Relative to 2006 levels, each of these economic measures increased slightly in 2007, ranging from a 1.2% increase in number of employees to a 6% increase in employee compensation. The commercial fishing location quotient was not available for Alaska.

Seafood Sales and Processing

The number of nonemployer firms engaged in seafood product preparation and packaging increased 65% from 20 firms in 1999 to 33 firms in 2007. Despite this, annual receipts decreased 12% to \$1.8 million in 2007 (a 22% decrease in real terms). When considering employer establishments engaged in seafood product preparation and packaging, the number of establishments decreased 6% from 1999-2007 to 114 establishments and employee

³Information for 2007 is reported in this section; 2008 data were not available for this report.

numbers decreased 24% from 1999-2007 to approximately 6,500 full- and part-time employees. Annual payroll, on the other hand, increased 32% (16% in real terms) from 1999-2007 to \$250 million.

There were 68 seafood wholesale establishments in 2007. This was a 20% decrease relative to 1999 levels. Employee numbers also declined, decreasing 7% to 167 workers, while annual payroll increased 3% (9% decrease in real terms) to \$8.5 million in 2007.

There were 12 nonemployer seafood retail firms with an annual receipt total of \$1.36 million in 2007. From 2000-2007, the number of nonemployer firms increased 71% and annual receipts increased 315%.⁴ In contrast, the number of employer establishments engaged in seafood retail activities decreased 22% from 9 establishments in 1999 to 7 establishments in 2007. Employee and annual payroll information for this industry was not available for 2007.

Transport, Support, and Marine Operations

Data was largely unavailable for industries in this sector. When looking at available data, coastal and Great Lakes freight transportation industries had the highest number of establishments with 46 establishments in 2007. This was a 77% increase relative to 1999 totals. Large changes in establishment numbers were also observed in industries engaged in port and harbor operations (100% increase) and ship and boat building (78% increase). There were 2 establishments engaged in port and harbor operations and 16 engaged in ship and boat building in 2007.

The marine cargo handling operations produced annual payroll total of \$35 million, there were 17 establishments that employed 677 people in 2007. Between 1999 and 2007, the numbers of establishments increased 13%, employee numbers increased 4%, and annual payroll totals decreased 59% (41% in real terms).

⁴Information was not available for 1999 or 2008 thus the 2000-2007 time period is discussed here.

2008 Economic Impacts of Alaska Seafood Industry (*thousands of dollars*)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	3,732,488	1,297,233	47,725
Commercial Harvesters	1,161,433	414,829	22,790
Seafood Processors & Dealers	2,149,129	668,241	16,803
Seafood Wholesalers & Distributors	175,818	90,920	1,657
Retail Sector	246,108	123,243	6,476

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	1,211,877	1,136,316	1,016,762	1,038,328	1,136,122	1,231,095	1,372,209	1,418,016	1,558,220	1,728,883
Finfish & Other	940,107	994,562	894,132	890,433	960,664	1,065,336	1,212,720	1,293,620	1,377,307	1,477,165
Shellfish	271,770	141,754	122,630	147,895	175,458	165,759	159,489	124,396	180,913	251,718
Atka Mackerel	9,825	9,483	21,060	11,159	10,543	12,479	15,481	16,353	19,500	21,626
Cod, Pacific	142,599	163,257	126,863	135,775	156,342	136,938	145,852	193,898	218,830	267,159
Crab	261,107	130,427	115,670	139,828	165,833	153,742	146,131	110,572	168,195	240,747
Flatfish	31,051	42,770	31,376	37,481	37,965	41,990	62,215	70,845	76,274	99,428
Halibut, Pacific	116,913	134,825	109,053	128,922	165,906	168,658	170,075	192,905	217,399	208,983
Herring, Pacific	12,835	9,647	10,385	9,139	8,930	14,029	13,429	7,455	14,817	22,912
Pollock, Walleye	211,899	298,124	334,938	359,159	312,375	347,457	414,279	429,504	383,253	384,420
Rockfish	9,992	11,015	8,344	10,802	11,901	12,543	16,295	19,940	18,759	17,168
Sablefish	57,586	76,919	62,269	64,603	81,499	73,311	79,863	83,843	79,330	84,387
Salmon	345,686	246,641	188,497	129,902	168,093	255,000	293,562	276,512	347,625	368,219

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	4,492,648	4,465,988	5,036,340	5,066,264	5,305,959	5,354,645	5,651,307	5,421,264	5,312,288	4,533,627
Finfish & Other	4,279,599	4,408,826	4,983,621	5,001,781	5,242,033	5,294,442	5,583,797	5,342,241	5,233,919	4,426,680
Shellfish	213,049	57,162	52,719	64,483	63,926	60,203	67,510	79,023	78,369	106,947
Atka Mackerel	113,396	98,308	125,874	83,244	99,542	108,423	129,482	130,814	126,961	127,029
Cod, Pacific	523,281	529,664	470,768	510,759	564,562	587,337	546,748	517,799	487,347	493,814
Crab	206,231	52,372	47,192	57,878	56,955	52,642	57,310	69,002	70,699	99,445
Flatfish	242,001	316,616	257,080	284,718	277,327	270,348	341,204	383,111	421,824	599,342
Halibut, Pacific	75,851	71,727	74,380	77,939	76,616	76,558	73,922	69,154	67,242	64,639
Herring, Pacific	85,276	68,005	84,754	69,858	68,984	70,893	85,701	79,845	67,137	83,787
Pollock, Walleye	2,325,888	2,606,800	3,178,821	3,333,647	3,361,261	3,353,236	3,410,065	3,400,810	3,066,600	2,276,144
Rockfish	74,431	64,484	61,718	68,054	73,495	68,399	65,513	74,316	86,220	89,453
Sablefish	33,316	35,563	31,296	32,217	35,705	39,942	37,352	33,509	32,245	30,307
Salmon	801,671	606,717	686,388	523,057	630,527	697,897	872,318	634,227	861,253	640,070

Average Annual Price for Key Species / Species Groups

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Atka Mackerel	0.05	0.09	0.01	0.03	0.03	0.10	0.12	0.12	0.11	0.15
Cod, Pacific	0.16	0.27	0.25	0.19	0.28	0.25	0.27	0.38	0.46	0.55
Crab	1.27	2.49	2.45	2.42	2.91	2.92	2.55	1.60	2.38	2.42
Flatfish	0.03	0.07	0.07	0.05	0.03	0.14	0.15	0.18	0.19	0.19
Halibut, Pacific	1.54	1.88	1.47	1.65	2.17	2.20	2.30	2.79	3.23	3.23
Herring, Pacific	0.15	0.14	0.12	0.13	0.13	0.20	0.16	0.09	0.22	0.27
Pollock, Walleye	0.07	0.06	0.07	0.06	0.06	0.08	0.09	0.10	0.10	0.14
Rockfish	0.22	0.14	0.13	0.16	0.13	0.17	0.17	0.24	0.25	0.23
Sablefish	2.38	2.25	1.99	2.04	2.28	2.96	3.10	3.26	2.93	3.21
Salmon	0.43	0.41	0.27	0.25	0.27	0.37	0.34	0.44	0.40	0.58

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	1,869	149,343	82,755
Private Boat	1,207	115,128	62,045
Shore	172	15,406	8,393
Total Durable Equipment Impacts	1,574	149,491	101,756
Total State Trip and Durable Equipment Economic Impacts	4,821	429,368	254,950

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	83,623	14,856	Fishing Tackle	34,068
Private Boat	31,434	50,159	Other Equipment	34,571
Shore	6,504	4,863	Boat Expenses	65,034
Total Trip Expenditures	121,560	69,878	Vehicle Expenses	31,204
			Second Home Expenses	32,628
			Total Durable Equipment Expenditures	197,506
Total State Trip and Durable Equipment Expenditures				388,944

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal/Non-Coastal	118	123	120	113	129	130	127	120	127	119
Out-of-State	153	158	163	162	170	193	207	197	205	190
Total Anglers	270	281	283	275	299	323	334	317	332	309

Recreational Fishing Effort (thousands of days fished)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Days Fished	924	978	889	855	868	1,007	1,054	941	1,052	935

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)^{1,2}

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clam, Razor	H	774	883	678	791	591	554	451	483	389	593
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Greenlings (Lingcod)	H	31	35	27	20	22	31	38	35	42	37
	R	32	33	30	43	44	52	67	53	70	65
Halibut	H	333	403	366	351	403	483	500	463	585	516
	R	229	303	254	233	290	369	380	353	438	359
Rockfish	H	120	132	117	120	118	180	184	173	198	226
	R	171	168	136	135	132	227	199	165	178	171
Salmon, Chinook	H	90	83	89	89	96	110	116	117	110	71
	R	114	91	105	104	105	124	127	104	110	80
Salmon, Chum	H	13	28	24	14	23	24	17	14	18	12
	R	43	52	51	31	51	61	42	34	34	28
Salmon, Coho	H	433	364	537	497	537	560	695	395	506	403
	R	124	108	154	136	156	193	191	107	122	89
Salmon, Pink	H	143	105	111	114	111	132	149	65	133	88
	R	312	213	224	194	291	297	343	167	280	151
Salmon, Sockeye	H	28	25	25	24	29	24	27	21	32	29
	R	10	14	13	14	14	10	11	7	21	10

¹Data reported in these tables include saltwater fishing activities only.

²In this table, "(1)" = 0-999 fish were harvested or released.

Alaska's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	18,212 (0.3%)	196,135 (0.2%)	6,884 (0.2%)	14,151 (0.2%)	23,165 (0.3%)	ND ³
2007	20,198 (0.3%)	244,621 (0.2%)	11,401 (0.2%)	20,191 (0.3%)	44,887 (0.3%)	ND
% change	10.9%	24.7%	65.6%	42.6%	93.7%	--

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	20	19	27	25	34	26	17	22	33
	Receipts	2,076	1,780	1,815	2,140	1,864	1,731	1,315	1,055	1,837
Seafood Sales, retail	Firms	NA ⁴	7	10	NA	16	NA	11	12	12
	Receipts	ND	327	392	ND	625	ND	752	649	1,358

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	121	113	105	105	109	113	124	113	114
	Employees	8,563	ND	ND	ND	6,493	6,749	6,621	6,866	6,506
	Payroll	200,794	ND	ND	ND	205,702	216,599	235,457	246,067	262,127
Seafood sales, wholesale	Establishments	85	79	71	99	90	93	88	77	68
	Employees	180	271	235	179	228	187	177	224	167
	Payroll	8,256	11,144	11,321	10,232	7,103	7,561	7,928	8,509	8,528
Seafood sales, retail	Establishments	9	8	9	12	8	6	11	7	7
	Employees	ND	ND	ND	37	21	ND	22	ND	ND
	Payroll	ND	ND	ND	1,669	1,340	ND	1,175	ND	ND

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	26	25	27	23	30	30	43	46	46
	Employees	ND								
	Payroll	ND	27,357							
Deep sea freight transportation	Establishments	6	7	6	10	5	4	5	5	3
	Employees	ND								
	Payroll	ND								
Deep sea passenger transportation	Establishments	NA	NA	NA	NA	NA	1	1	1	6
	Employees	NA	NA	NA	NA	NA	ND	ND	ND	ND
	Payroll	NA	NA	NA	NA	NA	ND	ND	ND	ND
Marinas	Establishments	26	23	24	22	22	22	22	21	13
	Employees	ND	ND	ND	101	ND	62	71	ND	48
	Payroll	ND	ND	ND	3,625	ND	2,367	2,612	ND	1,763
Marine cargo handling	Establishments	15	15	16	16	15	13	13	11	17
	Employees	653	738	1,087	ND	621	488	703	503	677
	Payroll	22,217	21,238	28,358	ND	20,443	21,078	20,827	22,876	35,345
Navigational services to shipping	Establishments	33	35	27	25	28	29	32	31	31
	Employees	176	ND	ND	271	273	280	318	ND	ND
	Payroll	8,150	ND	ND	19,251	20,758	20,676	20,334	ND	25,058
Port & harbor operations	Establishments	1	1	2	4	2	3	2	2	2
	Employees	ND								
	Payroll	ND								
Ship & boat building	Establishments	9	10	12	12	10	14	14	17	16
	Employees	ND	ND	ND	ND	ND	286	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	8,815	ND	ND	ND

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

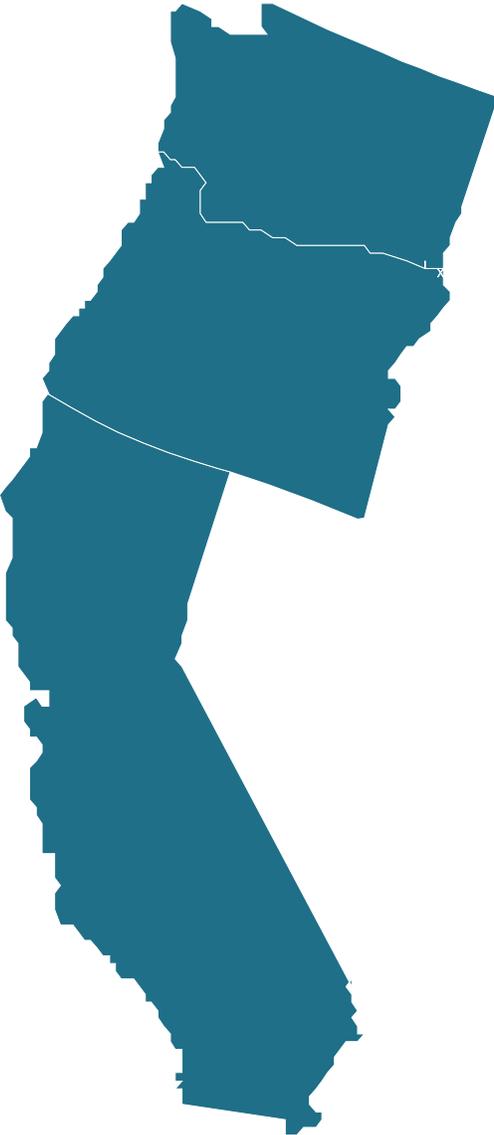
²The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.

³ND = Data are suppressed due to confidentiality restrictions

⁴NA = 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 four fishery management plans (FMPs).

Pacific Fishery Management Plans

1. Pacific Coast Groundfish
2. Pacific Coast Salmon
3. Coastal Pelagic Species
4. West Coast Highly Migratory Species

Of the stocks covered in these fishery management plans, canary and yelloweye rockfish, petrale sole and cowcod are currently overfished. Bocaccio, Pacific ocean perch, cowcod, and darkblotched and widow rockfish are currently in rebuilding plans. These stocks are subject to unprecedented harvest, season, and depth-based area restrictions to address rebuilding requirements for these overfished species.¹ Eastern Pacific yellowfin tuna and Pacific bigeye tuna stocks² which are internationally managed are currently characterized as subject to overfishing.³

Interesting management techniques are employed in the Pacific Region’s fisheries. 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 eight overfished groundfish stocks and salmon is listed under the Endangered Species Act as well as 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 resulted in unprecedented closures of ocean and in-river fisheries and federal disaster relief to affected entities.

¹These species are part of the Pacific Coast groundfish fishery, a multispecies fishery involving multiple commercial gear groups (trawl, line, and pot vessels) and recreational for-hire (party/charter) and private boat anglers.

²These stocks are part of the West Coast highly migratory species (HMS) fishery that includes tunas, sharks, marlin, swordfish, and dorado. Longline and drift gillnet activity has been severely restricted due to potential interactions with marine mammals, turtles, and seabirds.

³In contrast to Inter-American Tropical Tuna Commission’s recent stock assessments, the scientific committee of the International Seafood Sustainability Foundation, a tuna fishing industry organization, recently suggested that the Eastern Pacific yellowfin tuna stock is not overfished nor subject to overfishing.

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.

Key Pacific Commercial Species

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

Catch limits for Pacific halibut, a transboundary fish stock, are set every 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).⁴ 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.

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. LAPPs are used in various sectors of the groundfish fishery. The whiting industry voluntarily instituted the Pacific Whiting Conservation Cooperative in 1997. In 2001, the PFMC implemented the Pacific sablefish permit stacking program whereby vessels are allowed to stack permits in order to obtain additional trip limits. The PFMC is now considering a trawl rationalization program involving individual fishing quotas (IFQs) for non-whiting groundfish trawlers and coops and/or IFQs for whiting trawlers. The shore-based commercial groundfish fishery had an ex-vessel value of \$59.3 million in 2007.

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 and the American Albacore Fishing Association albacore tuna fishery have received certifications from the MSC. The California and Oregon dungeness crab fisheries are currently undergoing assessment to receive MSC certification.

⁴Waters off the coasts of California, Oregon, Washington, and Alaska comprise the U.S. EEZ subject to management by the IPHC.

Commercial Fisheries

In 2008, commercial fishermen in the Pacific Region landed 1.1 billion pounds of finfish and shellfish, generating \$504 million in ex-vessel revenue. Landings revenue was dominated by crab (\$107 million) and other shellfish (\$133 million). These high value species groups commanded an annual average price of \$2.38 and \$4.56 per pound, respectively, and comprised 48% of landings revenue but only 7% of total landings. Hake landings were the highest at 531 million pounds in 2008. However, with an annual price of \$0.11 per pound, hake contributed less than 12% to total landings revenue.

Washington contributed most to landings revenue in the region with over \$243 million in 2008, followed by California (\$113 million), and Oregon (\$103 million). In terms of pounds landed, California contributed the most (315 million pounds), followed by Oregon (196 million pounds), and Washington (174 million pounds).

Commercial Fish Facts

Landings revenue

- On average, the key species or species groups accounted for 90% of total revenue (\$459 million) generated in the Pacific Region over the 1999 to 2008 time period.
- Crab contributed more than any other species or species group, averaging \$101 million in landings revenue from 1999-2008. In 2008, Washington contributed the most to crab revenue in the region, followed by Oregon and California.
- Hake had the largest annual increase during the 10 year time period, increasing 80% from \$33 million in 2007 to \$59 million in 2008. Shrimp had the largest annual decrease in landings revenue (44%) from 2002 to 2003.

Landings

- Key species and species groups in the Pacific Region contributed an average of 76% annually to total landings.
- Hake, also known as whiting, contributed the most to landings in the region, averaging 446 million pounds from 1999-2008. In 2008, commercial fishermen in Washington harvested the more of this species than any other state.
- The largest annual changes in landings both occurred between 2002 and 2003. Crab experienced the greatest increase (93%) from 42 to 82 million pounds and shrimp experienced the greatest decrease (44%) from 59 to 33 million pounds.

Prices

- Other shellfish had the highest average annual ex-vessel price per pound (\$4.56) in 2008, followed by crab (\$2.38) and sablefish (\$2.10).
- Hake (\$0.11), squid (\$0.31), and flatfish (\$0.42) had the lowest average annual ex-vessel price per pound.
- The largest annual increase in annual ex-vessel price was for squid, a 136% increase from 2002-2003. The largest annual decrease in price was for salmon, dropping 42% from 2000-2001.

Economic Impacts

In 2008, the Pacific Region's seafood industry generated \$9.1 billion in sales impacts in California, \$3.7 billion in Washington, and \$960 million in Oregon. California generated the largest income and employment impacts (\$4.7 billion; 160,000 full and part-time jobs), followed by

Washington (\$2.0 billion; 72,000 jobs) and Oregon (\$517 million; 19,000 jobs).

Landings Revenue

In 2008, ex-vessel revenue for finfish and shellfish totaled \$503 million, a 43% increase (14% in real terms) from landings revenue in 1999 (\$353 million). However, this was a 13% increase from \$445 million in 2007. Shellfish revenue (\$288 million) accounted for 57% of the 2008 revenue generated. There was a 47% increase in revenue (18% in real terms) generated by shellfish compared to revenue in 1999 (\$210 million). Finfish revenue totaled \$215 million, a 37% increase (10% in real terms) from 1999 (\$157 million).

Washington contributed the most to shellfish revenue, generating \$176 million in 2008. This was a 93% increase (54% in real terms) from 1999 (\$91 million). Landings revenues from shellfish decreased 3.9% (23% in real terms) in California and increased 28% (3% in real terms) in Oregon during this period. In contrast, finfish revenue increased modestly across the region despite a drop in finfish revenue in California (42% from 1999 to 2008). Finfish landings revenue in Oregon (61%, 28% in real terms) and Washington (140%, 89% in real terms) increased between 1999 and 2008.

Between 1999 and 2008, the ex-vessel revenue from crab increased 32% and from other shellfish increased 81%. Other species or species groups with large increases in landings revenue between 1999 and 2008 includes hake (209%), salmon (87%), albacore tuna (62%), and sablefish (53%). Rockfish (47%) were the only species or species group to experience a large decrease in landings revenue.

Landings

Fishermen in the Pacific Region landed over 1 billion pounds of finfish and shellfish in 2008. This was a 15% decrease from the nearly 1.3 billion pounds landed in 1999 and a 2% drop from the 1.1 billion landed in 2007. Finfish landings contributed 83% of total landings in the Pacific (900 million pounds) in 2008, a 10% decrease from 1999. From 2007 to 2008, finfish landings dropped 0.4%. Shellfish landings decreased substantially during this period, from 290 million pounds in 1999 to 186 million pounds in 2008, a 36% decrease. Shellfish landings dropped 10% between 2007 and 2008.

Decreases in finfish landings in the Pacific Region occurred in California (50%) and Oregon (22%) between 1999 and 2008, while Washington experienced a 127% increase. Landings of shellfish increased 19% in Oregon and 42% in Washington, but decreased 56% in California. Washington contributed the most to both finfish (127 million pounds) and shellfish (47 million pounds) landings in 2008.

Of the Pacific Region's key species and groups, hake and squid contributed the most to total landings, with 531 million and 85 million pounds, respectively. Together, these species made up 57% of total landings in 2008. Washington and Oregon fishermen were major contributors to hake landings, while squid landings were mostly harvested by California fishermen.

Key species or groups with the largest increases in annual landings totals from 1999 to 2008 were salmon (42%), albacore tuna (14%), hake (11%), crab (10%) and shrimp (9.3%). Total landings of rockfish (70%), squid (58%) and sablefish (14%) dropped during this period. The decrease in rockfish landings is partly attributable to the establishment of rockfish conservation areas⁵ that were instituted in response to declining populations of this long-lived, slow-growing species group.

Prices

All ex-vessel prices in 2008 for each of the Pacific Region’s key species and groups was higher than their 10 year average annual price per pound. Ex-vessel prices for hake, squid and sable fish, saw the biggest increases between 1999 and 2008, increasing 175% (120% in real terms), 94% (55% in real terms) and 76% (41% in real terms) respectively. Hake prices increased 175% (120% in real terms) in Washington from \$0.04 to \$0.11 and 200% (140% in real terms) in Oregon during this time period (\$0.04 to \$0.12 per pound).

In California, the species or species group with the largest increase in ex-vessel price from 1999 to 2008 was salmon (148%, 98% in real terms, from \$1.68 to \$4.16), squid (94%, 55% in real terms, from \$0.16 to \$0.31), and rockfish (86%, 49% in real terms, from \$0.79 to \$1.47). The largest increases in species prices in Oregon were oysters (300%, 220% in real terms), hake (200%, 140% in real terms), and Pacific sardine (120%, 76% in real terms). There were no decreases in price in Oregon between 1999 and 2008. Hake and salmon experienced the greatest increases in Washington at 175% (120% in real terms) and 100% (60% in real terms). Mussels were the only species or species group to experience a decrease in both nominal and real prices (20%, 36% in real terms) in Washington.

Relative to ex-vessel prices in 2007, albacore tuna (39%, 25% in real terms), hake (57%, 42% in real terms), and other shellfish (26%, 14% in real terms) prices increased in 2008. Flatfish (2.3%, 12% in real terms) and rockfish (3.0%, 12% in real terms) prices decreased.

Recreational Fishing

In 2008, over 1.45 million recreational anglers took 5.8 million fishing trips in the Pacific Region. Most of these anglers (73%) were residents of a regional coastal county. Of the total fishing trips taken, 67% of them were shore-based. Mackerels were the most caught key species or species group with over 2.7 million fish caught in 2008, 26% of total fish caught in the region. Rockfishes and scorpion fish (2.3 million fish), surfperches (1.6 million fish), and barracuda, bass and bonito (1.5 million fish) were also species groups caught in large numbers.

Economic Impacts and Expenditures

Recreational fishing activities in California supported more jobs than in any other state in the region with approximately 12,000 full- and part-time jobs supported in 2008. Washington (3,700 jobs) and Oregon (1,500 jobs) followed in terms of employment impacts from recreational fishing activities. The majority of these jobs in each of these states were related to durable equipment expenditures (versus trip-related expenditures): 75% of jobs in Washington, 65% of jobs in California, and 39% of jobs in Oregon.

Key Pacific Recreational Species	
• Barracuda, bass, and bonito	• Rockfishes and scorpionfishes
• Croakers	• Salmon
• Flatfishes	• Sculpins
• Greenlings	• Surfperches
• Mackerels	• Albacore and other tuna

In terms of employment impacts related to fishing trips taken by anglers, shore fishing trips supported most of the trip-related full-and part-time jobs in California (1,961 jobs). Trip-related employment impacts were highest for the private boat mode in Oregon (515 jobs) and in Washington (501 jobs).

The contribution of recreational fishing activities in the Pacific are also reported in terms of state level sales and value-added impacts, and direct expenditures on fishing trips and durable equipment. In 2008, in-state sales and value-added impacts were highest in California (\$1.8 billion in sales impacts; \$924,000 million in value-added impacts). Washington (\$386 million; \$207 million) and Oregon (\$158 million; \$87 million) followed in terms of sales and value-added impacts. Across the region, these economic impacts were largely generated from durable equipment expenditures made by anglers rather than trip-related impacts.

Total fishing trip and durable equipment expenditures generated \$1.97 billion across the Pacific Region in 2008. Approximately 76% of these expenditures were related to durable equipment purchases. Boat-related (\$409 million) and fishing tackle expenses (\$537 million) accounted for the majority of durable equipment expenditures. Expenditures by Pacific Region residents related to fishing trips totaled \$448 million. Most of these purchases were related to fishing trips taken from shore (45% of trip-related expenditures by residents). The region’s non-resident anglers generated \$24 million in trip-related expenditures with most of these expenses related to for-hire fishing trips (74% of trip-related expenditures by non-residents).

⁵More information about these rockfish conservation areas is available at: <http://www.nwr.noaa.gov/Groundfish-Halibut/Groundfish-Fishery-Management/Groundfish-Closed-Areas/>.

Participation^{6,7}

In 2008, there were 1.45 million recreational fishermen from either a coastal or non-coastal county in the Pacific Region. This was a 9% decrease from 2004 (1.6 million anglers) and a 7% decrease from 2007 (1.56 million anglers). Over 73% of total anglers in 2008 were a resident of a coastal county. Over 79% of Pacific Region coastal and non-coastal county resident anglers resided in California.

In 2007, the majority of recreational fishermen who fished in California and Washington were residents of coastal counties within their respective states. In California, 71% of total anglers were coastal county residents and in Washington, 83% of total anglers were from coastal counties. In contrast, most of Oregon's anglers were residents of non-coastal counties within the state. Approximately 57% of anglers in Oregon in 2007 were from non-coastal counties. In all three states, out-of-state resident anglers were the minority accounting for 7.2%, 6.6%, and 7.4% of total anglers in California, Oregon, and Washington, respectively.

Fishing Trips

In the Pacific Region, anglers took 5.78 million fishing trips in 2008. This was a 13% decrease from 2004 (6.7 million trips) and an 8% decrease from 2007 (6.25 million trips). In the Pacific Region overall, fishing trips taken from each fishing trip mode decreased relative to 2004. In 2008, most fishing trips were taken from shore (3.84 million trips). Shore-based fishing trips accounted for 67% of total fishing trips taken in the Pacific Region. Fishing trips from a private or rental boat (1.4 million trips) and a for-hire boat (514,000 trips) followed. The majority of fishing trips were taken in California: 4.2 million fishing trips or 72% of total trips in the region.

Shore-based fishing trips were the most popular fishing trip mode in California and Washington. In 2008, these trips comprised 74% of total trips taken in California and 52% of total trips taken in Washington. In 2008, California's shore-based fishing trips increased 1% while Washington's shore-based fishing trips did not change. Anglers who fished in Oregon in 2007 favored fishing trips taken from a private or rental boat. This fishing mode made up 56% of total trips in 2008 despite dropping 12% relative to 2007.

Harvest and Release⁷

Of the Pacific Region's key species and species groups, mackerels; rockfishes and scorpionfishes; surfperches; and barracuda, bass and bonito were the most often caught by anglers. In 2008, 2.7 million mackerels, 2.3 million rockfishes and scorpionfishes, and 1.64 million surfperches

were caught by anglers fishing in the region. Sculpins (78% released), mackerels (65%), and barracuda, bass, and bonito (72%) were more often released than harvested. Anglers harvested rockfishes and scorpionfishes (80% harvested), greenlings (55%), and albacore and other tunas (100%) more often than releasing these species groups. Most of the rockfishes and scorpionfishes in the Pacific region were caught in California while most of the albacore and other tunas were caught in Washington and Oregon.

Recreational Fishing Facts

Participation

- An average of 1.6 million anglers fished in the Pacific region annually from 2004 to 2008. Most of these anglers lived in California.
- Coastal county residents accounted for 73% of total anglers in both 2008 and on average between 2004 and 2008.
- Coastal county resident anglers increased 22% from 2005 to 2006, the largest annual increase in participation. Coastal county resident anglers decreased 21% from 2006 to 2007, the largest annual decrease.

Fishing trips

- In the Pacific Region, an average of 6 million fishing trips were taken annually between 2004 and 2008. Most of these trips were taken in California.
- Shore-based fishing trips were the most popular fishing trip mode with over 3.8 million of these trips taken in 2008. Shore-based trips accounted for 67% of trips taken in the region.
- From 2004 to 2008, shore-based fishing trips increased 24%, the largest annual increase in trips taken by anglers. Private or rental boat trips decreased 59% from 2003-2004, the largest annual decrease.

Harvest and release

- On average, 3 million mackerels were caught annually from 2004 to 2008. Of these, 67% were released rather than harvested.
- Five of the Pacific's ten key species or groups were more often released by anglers rather than harvested in 2008. Sculpins (78% released), mackerels (65%), and barracuda, bass, and bonito (72%) are examples.
- Tuna (albacore and others) (99% harvested), rockfishes and scorpionfishes (80%), and surfperches (51%) were key species or groups that were more often harvested than released by recreational fishermen in the Pacific.
- Tuna (albacore and others) had the largest annual increase in catch, increasing 141% from 2006 to 2007. The largest annual decrease in catch was also for tunas, dropping 74% from 2004 to 2005.

Between 2004 and 2008, nine of the Pacific Region's key species or species groups showed decreases in catch totals. Key species or groups with the largest decreases were salmon (79%), barracuda (68%), croakers (54%), and greenlings (44%).

Mackerels and rockfishes were the most caught key species or species group in California and Oregon, respectively. In 2008, approximately 2.7 million mackerels were caught in California, a 33% increase relative to 2007 totals. Of these fish caught in 2008, 65% were released by anglers. In Oregon, 355,000 rockfishes were caught in 2008 with 87% of these harvested. Relative to 2007, this catch total was a 2% decrease. Herring and smelt was the key species most commonly caught in Washington with 2.6 million fish caught in 2008. Over 95% of these fish were

⁶ In *Fisheries Economics of the U.S., 2006* (FEUS 2006), angler participation totals from 1997-2006 incorrectly included out-of-state anglers at the region level. In this report, the 1999-2008 angler participation totals exclude these anglers.

⁷ Due to changes in data collection methods, the Pacific Region's participation, effort, and catch estimates for 1999-2003 are not comparable to 2004-2008 estimates.

harvested. Catch totals for herring and smelt remained constant between 2004 and 2008.

Relative to 2007, catch totals for three of the Pacific's key species or species groups increased: mackerels (33% increase), flatfish (18%), and sculpins (12%). Catch totals for all other key species or groups declined for 2007-2008 with the largest decreases seen for salmon (66%) albacore tuna (56%), croakers (44%) and barracuda, bass, and bonito (22%).

Marine Economy⁸

The sum of the gross domestic products by state for Washington, Oregon, and California was \$2.27 trillion in 2007. Employee compensation totaled \$1.3 trillion and annual payroll totaled \$822 billion. These economic measures increased 64%, 32%, and 59%, respectively, between 1998 and 2007, and 3.9%, 4.6%, and 3.9% between 2006 and 2007. Approximately 1.2 million establishments employed 18 million full- and part-time employees across the region in 2007. This was a 15% increase in establishment numbers and a 15% increase in employee numbers from 1998-2007. A small increase in these numbers was observed from 2006 to 2007 (1.8% and 0.2%, respectively).

In 2007, California had the highest establishment and employee numbers, annual payroll, employee compensation, and gross state product levels in the Pacific. California's approximately 890,000 establishments employed approximately 14 million employees in 2007. Gross state product in California was \$1.8 trillion, followed by Washington (\$310 billion) and Oregon (\$158 billion).

When considering commercial fishing-related industries in 2007, the commercial fishing location quotient (CFLQ) for Washington was highest in the region at 13.2. This was a 6.3% increase from 1998 and a 4.5% decrease from 2006. Washington's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately 13 times higher than the level of employment in these industries nationwide.⁹ The 2007 CFLQ in Oregon was 2.92 (a 14% decrease from 1998 and a 1.4% decrease from 2006), while the 2007 CFLQ in California was 0.71 (a 29% decrease from 2006; and a 2.7% decrease from 2006).

Seafood Sales and Processing

In 2007, there were 184 nonemployer firms engaged in seafood product preparation and packaging across the Pacific Region. This was a 77% increase from 1999 levels, despite a 100% decrease in number of firm in Oregon over this time period. In 2007, 66% of these firms were located in California. Region-wide, annual receipts totaled \$16 million in 2007 and increased 20% from 1999-2007. Annual receipt totals experienced large increases in Washington (139%) over the same time period.

In contrast to an increase in nonemployer firms region-wide, the number of employer establishments engaged in seafood product preparation and packaging decreased 21% from 214 in 1999 to 169 in 2007. Approximately 58% of these establishments were located in Washington. Employee numbers also decreased across the region, decreasing 25% to approximately 8,300 full- and part-time workers in 2007, despite annual payroll increasing 31% to \$379 million.

There were 445 seafood wholesale establishments in 2007 that employed approximately 5,500 full- and part-time workers. However, from 1999 to 2007, the number of seafood wholesale establishments and employees declined 18% and 4%, respectively across the Pacific Region.

In 2007, 75% of establishments and 78% of employees were located in California. Across the region, the number of establishments and the number of employees both increased between 13% and 17% from 1998 to 2007. Annual payroll totaled \$822 million in 2007, region-wide. This was a 59% increase from 1998 to 2007. California's total annual payroll increased 61% during this time period while Washington's total increased 53% and Oregon experienced a 48% increase. Almost 80% of annual payroll in the region was generated in California.

Nonemployer firms engaged in seafood retail in the Pacific Region totaled 265 in 2007, a 20% increase relative to 1999. Eighty-four percent of these firms were located in California. At the state level, these firms showed double-digit increases in Washington in California between 1999 and 2007. Oregon experienced a 15% decrease. Annual receipts in the region totaled \$22 million in 2007, a 1% increase from 1999 (10% decrease in real terms) and a 1% decrease from 2006 (6% real terms). Despite region-wide decrease of 10% in real terms, Oregon experienced a 25% increase in real terms.

Compared to nonemployer firms, employer establishments engaged in seafood retail increased 18% from 1999-2007, totaling 255 in 2007. These establishments employed 1,400 workers. Over 71% of these establishments and employees were located in California. Region-wide, the numbers of employees increased 20% between 1999 and 2007 with the largest increase seen in Oregon (73% increase). Annual payroll also increased across the Pacific, a 71% increase region-wide (51% in real terms), to \$32 million in 2007. The largest increases were seen in Washington (86% increase) and Oregon (78%).

Transport, Support, and Marine Operations

Marine cargo handling industries employed more people than any other industry in this sector, employing approximately 27,000 people in 2007. This industry also had the highest annual payroll in the region, totaling \$1.8 billion. Marina industries had the highest number of establishments in 2006 with 428 establishments, followed by the ship and boat building sector with 343 establishments. Deep sea passenger transportation had the fewest number of establishments (18).

In California, industries with large changes in establishment numbers, employees, or annual payroll from 1999-2007 were: marine cargo handling (141% increase in

⁸Information for 2007 is reported in this section; 2008 data were not available for this report.

⁹The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

employees, 78% increase (57% in real terms) in annual payroll); navigational services to shipping (92% increase (70% in real terms) in annual payroll); deep sea passenger transportation (30% increase in establishment numbers); and marina operations (80% increase (60% in real terms) in annual payroll), and port and harbor operations (58% increase (40% in real terms) in payroll). Large decreases occurred in number of establishments (30%) and employees (20%) in the seafood product preparation and packaging industry and in the number of employees in the port and harbor operations (32%).

In Oregon, large changes were seen for coastal and Great Lakes freight transportation (117% increase in establishments). Modest changes were seen in the ship and boat building industries (31% decrease in employees; and a 40% decrease (47% in real terms) in annual payroll).

In Washington, large changes were seen in the coastal and Great Lakes freight transportation (89% decrease (91% in real terms) in annual payroll); in marine cargo handling (108% increase in employees and a 79% increase (59% in real terms) in payroll).

2008 Economic Impacts of the Pacific Region Seafood Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Job Impacts
California	113,429	9,104,910	4,733,803	162,609
Oregon	103,096	962,534	516,948	18,693
Washington	243,426	3,703,605	2,045,064	71,517

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	353,151	372,663	329,572	333,379	407,651	422,240	414,584	471,788	445,674	503,653
Finfish & Other	156,955	177,856	153,777	141,259	156,596	178,693	166,922	176,425	175,712	215,307
Shellfish	196,196	194,807	175,794	192,120	251,054	243,547	247,662	295,363	269,962	288,347
Crab	80,864	77,271	67,677	73,073	130,952	115,365	97,127	143,758	121,148	107,097
Flatfish	13,322	14,267	12,982	12,004	13,441	12,741	13,816	12,974	14,462	15,736
Hake (Whiting)	18,294	20,851	13,881	13,576	17,150	21,819	29,139	34,425	32,603	58,559
Other Shellfish	73,854	83,524	84,867	88,164	89,222	102,423	107,438	116,161	106,851	133,735
Rockfish	17,437	16,744	12,685	11,365	7,803	6,832	6,559	6,848	7,541	9,253
Sablefish	17,813	21,104	18,175	12,323	18,817	17,230	20,366	22,991	20,984	27,277
Salmon	14,155	23,838	20,667	26,170	30,773	47,676	37,188	34,306	33,473	26,528
Shrimp	21,288	21,869	17,879	22,443	12,582	12,351	15,706	12,433	17,297	25,055
Squid	33,403	27,246	16,948	18,260	25,340	19,748	31,516	26,998	29,169	26,585
Tuna, Albacore	17,720	17,140	20,623	14,219	24,366	27,242	20,574	23,767	21,612	28,758

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	1,286,588	1,293,735	1,135,653	1,069,227	987,988	1,131,749	1,301,649	1,169,906	1,108,133	1,084,057
Finfish & Other	996,689	942,839	853,058	789,574	756,538	932,610	1,070,529	935,523	901,837	898,449
Shellfish	289,900	350,895	282,595	279,652	231,449	199,139	231,120	234,383	206,296	185,609
Crab	40,949	36,645	33,619	42,441	81,892	69,247	61,849	85,301	51,887	45,058
Flatfish	41,126	36,837	31,584	29,365	31,849	29,895	31,495	27,689	33,502	37,408
Hake (Whiting)	478,154	452,752	379,165	285,547	309,300	474,460	569,273	558,078	454,533	531,277
Other Shellfish	27,103	31,051	30,459	31,813	27,884	31,275	30,907	30,611	29,504	29,314
Rockfish	31,199	25,738	18,114	13,346	9,275	8,057	7,406	6,633	7,447	9,468
Sablefish	15,019	14,212	12,761	8,677	12,204	12,905	13,742	13,718	11,630	12,977
Salmon	12,828	20,697	30,838	38,077	39,234	40,609	27,249	29,172	23,550	18,248
Shrimp	32,760	36,934	42,001	58,758	33,000	22,408	26,069	20,290	26,497	35,802
Squid	203,060	262,146	190,282	160,669	99,115	88,215	123,090	108,561	109,464	85,201
Tuna, Albacore	21,470	19,916	24,589	21,996	36,577	31,764	19,649	28,117	25,483	24,439

Average Annual Price for Key Species / Species Groups

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab	1.97	2.11	2.01	1.72	1.60	1.67	1.57	1.69	2.33	2.38
Flatfish	0.32	0.39	0.41	0.41	0.42	0.43	0.44	0.47	0.43	0.42
Hake (Whiting)	0.04	0.05	0.04	0.05	0.06	0.05	0.05	0.06	0.07	0.11
Other Shellfish	2.72	2.69	2.79	2.77	3.20	3.27	3.48	3.79	3.62	4.56
Rockfish	0.56	0.65	0.70	0.85	0.84	0.85	0.89	1.03	1.01	0.98
Sablefish	1.19	1.49	1.42	1.42	1.54	1.34	1.48	1.68	1.80	2.10
Salmon	1.10	1.15	0.67	0.69	0.78	1.17	1.36	1.18	1.42	1.45
Shrimp	0.65	0.59	0.43	0.38	0.38	0.55	0.60	0.61	0.65	0.70
Squid	0.16	0.10	0.09	0.11	0.26	0.22	0.26	0.25	0.27	0.31
Tuna, Albacore	0.83	0.86	0.84	0.65	0.67	0.86	1.05	0.85	0.85	1.18

Note: The Pacific Region includes landings by Pacific at-sea processors. However, revenue from these landings are not included in the California, Oregon, and Washington information presented in the "2008 Economic Impacts of the Pacific Region Seafood Industry" table above.

2008 Economic Impacts of Recreational Fishing Expenditures (*thousands of dollars*)

	Trips	Jobs	Total Sales	Value Added
California	4,164,000	11,830	1,764,010	923,811
Oregon	634,000	1,541	157,752	87,426
Washington	982,000	3,725	386,010	207,043

2008 Angler Trip & Durable Equipment Expenditures (*thousands of dollars*)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	17,616	93,029	Fishing Tackle	537,119
Private Boat	3,110	152,650	Other Equipment	230,593
Shore	2,962	202,517	Boat Expenses	409,266
Total Trip Expenditures	23,688	448,196	Vehicle Expenses	208,513
			Second Home Expenses	113,103
			Total Durable Equipment Expenditures	1,498,594
Total State Trip and Durable Equipment Expenditures				1,970,478

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	947	1,233	1,497	1,462	1,437	1,168	1,028	1,258	1,184	1,064
Non-Coastal	297	391	505	559	539	428	408	482	379	385
Out-of-State	NA ¹	NA ²								
Total Anglers	1,244	1,624	2,002	2,021	1,976	1,596	1,436	1,739	1,563	1,450

Recreational Fishing Effort by Mode (*thousands of trips*)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	731	752	700	695	619	650	625	635	605	514
Private Boat	2,880	3,852	4,835	3,990	4,247	1,752	1,849	1,761	1,828	1,421
Shore	1,914	2,675	3,265	3,507	3,443	4,253	3,960	4,546	3,817	3,845
Total Trips	5,525	7,280	8,800	8,192	8,309	6,655	6,434	6,942	6,250	5,780

Harvest (H) and Release (R) of Key Species / Species Groups (*number of fish in thousands*)^{2,3}

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Barracuda, Bass, & Bonito ⁴	H	1,262	2,493	1,720	1,965	1,888	2,126	1,015	668	537	434
	R	2,087	4,210	3,502	4,427	3,727	2,597	2,011	1,660	1,407	1,093
Croakers	H	524	541	631	1,513	758	619	572	456	427	321
	R	600	751	737	1,016	871	660	618	553	631	272
Flatfishes	H	485	947	691	1,209	681	499	559	326	261	344
	R	740	1,139	1,115	2,063	948	344	513	519	339	362
Greenlings	H	250	296	288	455	512	211	270	236	194	172
	R	160	372	446	957	858	341	282	207	150	139
Mackerels	H	479	587	1,356	800	918	945	1,023	1,158	823	940
	R	812	1,319	2,600	1,730	2,011	1,715	1,872	3,287	1,209	1,765
Rockfishes & Scorpionfishes	H	4,569	3,569	3,241	2,737	3,624	2,416	3,433	2,506	2,257	1,842
	R	741	681	787	931	1,665	757	1,148	731	513	465
Salmon	H	293	515	1,037	621	865	768	526	317	539	167
	R	120	155	344	246	383	410	205	169	206	86
Sculpins	H	94	85	114	116	107	77	75	59	52	63
	R	209	389	349	404	291	239	232	217	202	222
Surfperches	H	679	731	915	829	1,144	1,302	950	1,168	865	837
	R	382	508	579	729	1,174	1,556	1,237	1,670	856	812
Tuna, Albacore, & Other	H	182	175	140	117	168	81	24	45	109	52
	R	15	39	36	8	83	10	2	4	9	(1)

¹Out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified; NA = data are not available.

²Due to changes in data collection methods, the Pacific Region's effort (number of trips) and catch (number of fish harvested or released) estimates for 1999-2003 are not comparable to 2004-2008 estimates.

³In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

⁴Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

2008 Economic Impacts of the California Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	9,104,910	4,733,803	162,609
Commercial Harvesters	128,308	57,385	1,576
Seafood Processors & Dealers	782,495	246,983	5,168
Seafood Wholesalers & Distributors	2,110,097	1,003,895	17,636
Retail Sector	6,084,010	3,425,541	138,229

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	149,796	142,451	107,890	111,923	136,152	140,615	116,084	129,907	120,212	113,429
Finfish & Other	80,621	82,530	65,335	59,888	56,402	58,798	46,640	43,164	50,363	46,979
Shellfish	69,175	59,920	42,554	52,035	79,750	81,816	69,444	86,743	69,850	66,450
Crab	18,258	15,264	10,635	15,074	37,455	43,381	19,653	46,483	28,626	24,208
Lobster, Spiny	3,648	4,711	4,475	4,784	5,278	6,160	6,039	8,111	6,916	7,969
Rockfish	7,596	7,152	5,798	6,560	4,761	4,447	4,145	4,630	4,924	5,778
Sablefish	4,310	5,263	4,175	3,508	4,721	3,724	4,295	4,892	4,873	6,222
Salmon	7,427	10,319	4,761	7,611	12,153	17,770	12,804	5,261	7,835	6
Sardine, Pacific	5,101	5,468	6,281	5,848	2,874	3,957	3,150	5,100	8,218	7,587
Sea Urchins	13,469	15,083	11,704	10,411	7,906	7,300	6,156	5,145	5,400	6,550
Shrimp	8,615	7,409	5,950	5,901	3,520	3,783	4,338	4,213	4,064	5,695
Squid	33,403	27,243	16,948	18,259	25,333	19,740	31,467	26,959	29,131	26,477
Swordfish	8,389	11,791	8,696	6,401	7,850	4,834	1,896	2,695	3,127	2,365

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	652,889	650,596	524,833	499,676	382,146	379,591	442,353	341,661	383,595	315,139
Finfish & Shellfish	429,579	372,270	321,527	321,539	252,764	257,944	301,993	203,107	258,625	216,450
Crab	9,605	7,671	4,841	8,609	23,922	27,016	12,028	27,391	12,393	9,830
Lobster, Spiny	493	707	697	702	736	860	761	886	663	738
Rockfish	9,660	7,194	5,291	5,991	4,399	3,843	3,181	3,252	3,136	3,933
Sablefish	4,357	4,176	3,434	2,893	3,636	3,158	3,645	3,617	3,240	3,506
Salmon	4,422	5,912	2,761	5,661	7,328	7,113	4,962	1,184	1,743	1
Sardine, Pacific	131,614	118,193	114,235	128,584	76,528	97,509	76,324	102,683	178,480	127,435
Sea Urchins	14,218	15,210	13,128	14,176	11,107	12,219	11,304	10,664	11,131	10,283
Shrimp	8,063	5,793	5,598	5,867	3,498	3,520	2,944	1,197	2,015	3,011
Squid	203,059	262,134	190,278	160,665	99,088	88,167	122,887	108,410	109,150	84,072
Swordfish	4,455	5,856	4,837	3,803	4,706	2,613	653	1,187	1,210	1,168

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab	1.90	1.99	2.20	1.75	1.57	1.61	1.63	1.70	2.31	2.46
Lobster, Spiny	7.39	6.67	6.42	6.81	7.18	7.16	7.93	9.15	10.44	10.80
Rockfish	0.79	0.99	1.10	1.10	1.08	1.16	1.30	1.42	1.57	1.47
Sablefish	0.99	1.26	1.22	1.21	1.30	1.18	1.18	1.35	1.50	1.77
Salmon	1.68	1.75	1.72	1.34	1.66	2.50	2.58	4.44	4.50	4.16
Sardine, Pacific	0.04	0.05	0.05	0.05	0.04	0.04	0.04	0.05	0.05	0.06
Sea Urchins	0.95	0.99	0.89	0.73	0.71	0.60	0.54	0.48	0.49	0.64
Shrimp	1.07	1.28	1.06	1.01	1.01	1.07	1.47	3.52	2.02	1.89
Squid	0.16	0.10	0.09	0.11	0.26	0.22	0.26	0.25	0.27	0.31
Swordfish	1.88	2.01	1.80	1.68	1.67	1.85	2.90	2.27	2.58	2.02

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	1,358	147,341	84,088
Private Boat	800	107,194	57,182
Shore	1,961	226,582	123,602
Total Durable Equipment Impacts	7,710	1,282,892	658,940
Total State Trip and Durable Equipment Economic Impacts	11,830	1,764,010	923,811

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	16,188	75,584	Fishing Tackle	478,003
Private Boat	242	76,555	Other Equipment	188,723
Shore	1,492	164,130	Boat Expenses	131,898
Total Trip Expenditures	17,923	316,268	Vehicle Expenses	184,394
			Second Home Expenses	91,791
			Total Durable Equipment Expenditures	1,074,810
Total State Trip and Durable Equipment Expenditures				1,409,001

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	748	959	948	1,110	1,113	865	740	991	878	819
Non-Coastal	184	244	298	379	378	280	263	335	226	246
Out of State	92	109	117	111	115	98	79	109	65	83
Total Anglers	1,024	1,312	1,362	1,600	1,606	1,243	1,082	1,435	1,168	1,148

Recreational Fishing Effort by Mode (thousands of trips)¹

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	615	631	588	569	483	521	504	522	489	424
Private Boat	2,113	2,812	2,861	2,905	3,117	708	902	896	768	640
Shore	1,447	2,006	2,238	2,501	2,699	3,509	3,216	3,802	3,072	3,100
Total Trips	4,175	5,449	5,687	5,975	6,299	4,738	4,622	5,220	4,329	4,164

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)^{1,2}

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Barracuda, Bass, & Bonito ³	H	1,262	2,493	1,720	1,965	1,888	2,126	1,015	668	537	434
	R	2,087	4,210	3,502	4,427	3,727	2,597	2,011	1,660	1,407	1,093
Croakers	H	524	541	631	1,513	758	619	572	456	427	321
	R	600	751	737	1,016	871	660	618	553	631	272
Flatfishes	H	336	780	556	962	603	410	478	241	187	276
	R	644	1,034	1,043	1,844	850	295	465	471	292	313
Greenlings	H	122	102	109	215	357	72	125	104	69	48
	R	101	249	297	641	717	239	179	113	67	53
Mackerels	H	479	587	1,356	800	918	945	1,023	1,158	823	940
	R	812	1,319	2,600	1,730	2,011	1,715	1,872	3,287	1,209	1,765
Rockfishes & Scorpionfishes	H	3,737	2,753	2,585	2,116	3,035	1,778	2,725	1,891	1,674	1,318
	R	721	582	720	844	1,621	701	1,058	668	456	402
Salmon	H	103	206	115	201	109	256	167	119	59	(1)
	R	48	49	46	40	39	103	71	74	36	(1)
Sculpins	H	60	46	82	60	70	41	39	25	19	29
	R	126	132	206	184	140	98	87	74	58	78
Surfperches	H	498	404	630	586	878	1,046	694	913	610	581
	R	213	264	432	563	1,016	1,402	1,083	1,516	702	658
Tuna, Albacore, & Other	H	175	164	127	107	146	49	6	9	22	5
	R	14	37	33	6	83	10	2	3	7	(1)

¹Due to changes in data collection methods, California's effort (number of trips) and catch (number of fish harvested or released) estimates for 1999-2003 are not comparable to 2004-2008 estimates.

²In this table, "(1)" = 0-999 fish were harvested or released.

³Species included in this group 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 (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	773,925 (11%)	12,026,989 (11%)	406,481 (12%)	769,101 (13%)	1,085,884 (13%)	1.0
2007	891,997 (112%)	13,771,650 (11%)	653,887 (13%)	1,014,973 (17%)	1,801,762 (13%)	0.71
% change	15.3%	14.5%	60.9%	31.9%	65.9%	-29.0%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	61	72	71	70	77	98	88	91	121
	Receipts	10,592	11,405	12,983	9,123	9,858	14,312	10,207	8,298	10,842
Seafood Sales, retail	Firms	180	166	157	165	192	193	166	163	222
	Receipts	19,315	19,270	18,138	18,225	19,771	19,092	16,892	19,875	19,703

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	70	78	73	63	60	55	48	47	49
	Employees	2,777	3,289	2,962	3,357	2,896	2,931	2,963	2,592	2,229
	Payroll	60,251	75,858	66,387	82,116	74,637	72,178	92,642	78,065	75,886
Seafood sales, wholesale	Establishments	337	360	361	334	269	263	258	252	300
	Employees	3,793	4,174	4,507	4,539	3,536	3,744	3,925	4,063	4,429
	Payroll	115,021	128,092	142,656	151,789	115,669	124,657	134,576	144,758	159,672
Seafood sales, retail	Establishments	170	172	165	186	175	169	180	184	182
	Employees	902	828	917	988	968	945	999	1,031	1,004
	Payroll	12,906	13,815	15,172	16,775	19,919	16,686	18,832	19,900	21,224

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	22	24	31	31	22	20	26	22	29
	Employees	ND ³	1,394	1,648	1,776	1,341	ND	1,346	ND	ND
	Payroll	ND	99,106	119,808	132,432	117,982	ND	129,262	ND	ND
Deep sea freight transportation	Establishments	50	44	43	44	51	50	54	54	51
	Employees	ND	1,323	1,117	ND	902	901	ND	957	1,643
	Payroll	ND	51,131	63,891	ND	62,417	69,815	ND	84,199	116,628
Deep sea passenger transportation	Establishments	10	8	9	11	14	15	15	16	13
	Employees	ND	ND	ND	ND	ND	ND	ND	1,552	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	72,119	ND
Marinas	Establishments	265	266	249	248	263	271	263	268	276
	Employees	1,925	2,000	1,862	1,851	2,485	2,476	2,426	2,457	2,680
	Payroll	44,511	50,106	52,602	57,393	70,640	73,338	71,318	74,778	80,216
Marine cargo handling	Establishments	53	66	70	64	56	54	54	52	56
	Employees	9,288	15,330	15,076	15,274	15,557	20,456	19,303	20,975	22,395
	Payroll	836,880	880,397	944,374	1,000,809	1,040,515	1,179,221	1,273,698	1,448,623	1,484,308
Navigational services to shipping	Establishments	49	42	37	30	35	38	37	36	39
	Employees	806	702	647	476	850	ND	ND	817	858
	Payroll	33,164	35,480	33,764	28,197	53,162	ND	ND	63,893	63,610
Port & harbor operations	Establishments	24	23	21	23	19	20	20	20	18
	Employees	649	650	163	139	417	ND	ND	582	443
	Payroll	19,023	19,056	9,990	7,668	23,110	ND	ND	32,523	30,001
Ship & boat building	Establishments	144	143	155	145	141	143	141	132	136
	Employees	9,166	9,204	8,589	7,782	8,574	8,865	10,132	9,801	9,250
	Payroll	329,705	335,172	322,296	315,090	314,706	354,404	410,446	453,255	433,846

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Oregon Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	962,534	516,948	18,693
Commercial Harvesters	110,623	58,243	1,409
Seafood Processors & Dealers	114,391	42,873	1,265
Seafood Wholesalers & Distributors	129,692	63,834	1,206
Retail Sectors	607,827	351,998	14,814

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	71,298	83,276	72,651	68,292	86,779	101,022	88,196	106,093	97,314	103,096
Finfish & Other	35,494	45,060	41,451	32,073	40,889	49,634	53,192	46,326	47,604	56,966
Shellfish	35,804	38,216	31,200	36,218	45,890	51,388	35,005	59,767	49,710	46,130
Crab	23,108	23,745	19,361	20,767	37,122	42,960	26,603	53,810	38,208	29,166
Flatfish	5,902	6,643	6,103	5,156	6,632	6,460	7,281	7,547	7,930	9,161
Hake (Whiting)	5,917	6,081	4,132	3,219	3,642	4,641	7,107	7,974	6,501	6,830
Oysters	2,857	3,540	3,536	3,143	3,292	3,292	1,232	1,163	1,847	2,748
Rockfish	7,724	7,595	5,287	3,511	2,327	1,633	1,387	1,564	2,002	2,610
Sablefish	7,764	9,266	7,986	4,405	7,381	6,935	8,657	9,787	9,494	13,737
Salmon	2,042	4,030	5,846	6,933	8,869	12,995	10,437	4,940	4,661	4,240
Sardine, Pacific	86	1,149	1,619	2,819	2,941	4,870	6,199	3,743	4,551	5,665
Shrimp	9,571	10,192	7,560	11,353	5,051	4,740	6,901	4,494	9,365	13,939
Tuna, Albacore	3,784	7,489	7,559	2,952	6,169	9,145	8,815	8,067	9,468	10,651

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	234,054	264,105	234,474	210,750	226,317	294,866	312,636	282,846	253,551	195,733
Finfish & Other	200,475	226,357	195,121	155,609	180,788	254,330	278,646	236,998	216,142	155,879
Shellfish	33,579	37,747	39,352	55,140	45,529	40,536	33,990	45,848	37,410	39,854
Crab	12,340	11,223	9,754	12,452	23,934	27,276	17,734	33,291	17,007	13,874
Flatfish	17,860	16,470	14,488	11,489	14,372	14,846	16,910	16,385	19,696	23,840
Hake (Whiting)	147,873	151,461	117,673	71,220	80,648	130,238	135,503	122,804	81,481	55,511
Oysters	674	834	884	786	823	823	308	255	197	162
Rockfish	16,274	14,231	9,400	4,653	3,434	2,574	2,007	1,967	2,905	3,820
Sablefish	6,582	6,256	5,697	3,185	4,798	5,627	5,834	5,838	5,349	6,514
Salmon	1,552	3,133	5,261	6,117	6,720	5,914	4,666	1,810	1,378	1,917
Sardine, Pacific	1,709	21,005	28,176	50,069	55,683	79,610	99,450	74,669	90,037	49,298
Shrimp	20,436	25,462	28,482	41,584	20,546	12,207	15,784	12,128	19,990	25,404
Tuna, Albacore	4,553	8,757	8,959	4,362	9,165	10,754	8,087	8,534	10,468	8,864

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab	1.87	2.12	1.98	1.67	1.55	1.58	1.50	1.62	2.25	2.10
Flatfish	0.33	0.40	0.42	0.45	0.46	0.44	0.43	0.46	0.40	0.38
Hake (Whiting)	0.04	0.04	0.04	0.05	0.05	0.04	0.05	0.06	0.08	0.12
Oysters	4.24	4.24	4.00	4.00	4.00	4.00	4.00	4.56	9.40	16.96
Rockfish	0.47	0.53	0.56	0.75	0.68	0.63	0.69	0.80	0.69	0.68
Sablefish	1.18	1.48	1.40	1.38	1.54	1.23	1.48	1.68	1.78	2.11
Salmon	1.32	1.29	1.11	1.13	1.32	2.20	2.24	2.73	3.38	2.21
Sardine, Pacific	0.05	0.05	0.06	0.06	0.05	0.06	0.06	0.05	0.05	0.11
Shrimp	0.47	0.40	0.27	0.27	0.25	0.39	0.44	0.37	0.47	0.55
Tuna, Albacore	0.83	0.86	0.84	0.68	0.67	0.85	1.09	0.95	0.90	1.20

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	191	14,703	8,289
Private Boat	515	44,874	25,873
Shore	229	19,481	11,099
Total Durable Equipment Impacts	606	78,694	42,164
Total State Trip and Durable Equipment Economic Impacts	1,541	157,752	87,426

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	521	8,975	Fishing Tackle	23,598
Private Boat	1,736	34,985	Other Equipment	17,330
Shore	470	15,687	Boat Expenses	10,267
Total Trip Expenditures	2,727	59,646	Vehicle Expenses	9,448
			Second Home Expenses	13,087
			Total Durable Equipment Expenditures	73,729
Total State Trip and Durable Equipment Expenditures				136,102

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	57	70	122	101	91	90	87	82	86	79
Non-Coastal	96	122	175	153	135	125	123	125	130	120
Out-of-State	10	13	20	21	15	16	14	15	15	14
Total Anglers	163	206	317	275	242	231	224	222	231	213

Recreational Fishing Effort (thousands of days fished)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	67	69	79	67	67	64	58	56	61	48
Private Boat	257	355	520	448	426	426	382	373	399	353
Shore	141	214	357	295	232	232	232	232	233	233
Total Trips	465	638	956	810	726	723	673	662	693	634

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Baitfishes	H	12	54	500	774	318	318	318	318	318	318
	R	8	(1)	88	21	24	24	24	24	24	24
Flatfishes	H	8	9	16	31	16	27	20	21	23	21
	R	3	3	6	10	6	8	7	7	7	9
Greenlings	H	64	95	106	155	96	100	106	99	97	95
	R	49	86	116	175	77	77	78	72	64	67
Rockfishes	H	528	548	457	384	406	382	401	333	323	308
	R	11	91	53	37	24	31	57	40	38	47
Salmon	H	41	92	259	148	241	215	95	79	129	64
	R	27	33	167	98	187	193	65	59	96	56
Sculpins	H	12	15	22	21	21	19	19	18	18	19
	R	18	55	58	78	51	51	54	52	53	53
Sturgeons	H	4	13	18	12	12	12	12	12	12	12
	R	7	24	30	27	25	25	25	25	25	25
Surfperches	H	73	129	196	139	122	122	122	122	122	122
	R	17	17	46	61	34	34	34	34	34	34
Tuna, Albacore	H	3	4	9	4	11	18	6	12	62	25
	R	1	2	3	2	(1)	(1)	(1)	(1)	2	(1)

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

Oregon's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	99,183 (1.43%)	1,310,750 (1.21%)	37,723 (1.14%)	67,370 (1.14%)	100,951 (1.16%)	3.38
2007	113,389 (1.47%)	1,477,553 (1.23%)	56,033 (1.11%)	88,369 (1.13%)	158,268 (1.15%)	2.92
% change	14.3%	12.7%	48.5%	31.1%	56.7%	-13.6%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	11	8	11	NA ³	NA	NA	9	7	NA
	Receipts	369	461	424	ND ⁴	ND	ND	309	54	ND
Seafood Sales, retail	Firms	13	16	14	13	10	11	7	11	11
	Receipts	858	628	851	644	428	507	985	914	1,210

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	28	27	27	19	19	18	20	21	22
	Employees	980	1,036	875	707	720	738	762	896	819
	Payroll	20,753	22,718	23,616	20,867	21,980	20,593	19,022	25,881	27,394
Seafood sales, wholesale	Establishments	21	25	29	33	26	21	23	16	18
	Employees	310	ND	295	ND	ND	126	ND	ND	ND
	Payroll	8,174	ND	8,698	ND	ND	4,446	ND	ND	ND
Seafood sales, retail	Establishments	16	18	16	28	21	24	24	22	23
	Employees	99	113	116	129	ND	171	204	306	171
	Payroll	1,794	1,844	1,945	2,311	ND	3,259	3,464	3,294	3,185

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	6	8	7	10	8	8	9	9	13
	Employees	ND	476							
	Payroll	ND	25,206							
Deep sea freight transportation	Establishments	7	5	4	7	6	6	6	6	5
	Employees	ND								
	Payroll	ND								
Deep sea passenger transportation	Establishments	NA	1	NA	NA	NA	NA	NA	NA	2
	Employees	NA	ND	NA	NA	NA	NA	NA	NA	ND
	Payroll	NA	ND	NA	NA	NA	NA	NA	NA	ND
Marinas	Establishments	43	38	33	41	42	41	40	37	38
	Employees	ND	93	ND	ND	122	133	113	ND	138
	Payroll	ND	1,830	ND	ND	2,742	2,988	3,550	ND	3,754
Marine cargo handling	Establishments	9	9	9	7	8	8	8	9	9
	Employees	ND								
	Payroll	ND								
Navigational services to shipping	Establishments	25	23	21	18	21	21	21	20	17
	Employees	ND	183							
	Payroll	ND	11,331							
Port & harbor operations	Establishments	1	1	1	1	1	NA	NA	NA	2
	Employees	ND	ND	ND	ND	ND	NA	NA	NA	ND
	Payroll	ND	ND	ND	ND	ND	NA	NA	NA	ND
Ship & boat building	Establishments	51	48	51	44	43	50	43	41	40
	Employees	2,095	2,506	1,969	1,323	1,284	1,285	1,298	1,230	1,441
	Payroll	79,567	87,018	69,200	47,303	42,270	43,357	45,183	43,416	47,950

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³NA = Data are not available.

⁴ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Washington Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	3,717,090	2,052,509	71,775
Commercial Harvesters	77,874	138,627	3,649
Seafood Processors & Dealers	456,604	227,154	4,890
Seafood Wholesalers & Distributors	619,247	04,388	5,521
Retail Sector	2,363,364	1,382,339	57,715

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	119,869	133,499	140,382	143,720	172,829	166,247	193,317	217,030	209,372	243,426
Finfish & Other	28,652	36,828	38,342	39,854	47,415	55,906	50,145	68,201	58,980	67,671
Shellfish	91,217	96,671	102,040	103,867	125,414	110,342	143,172	148,829	150,392	175,755
Clams	26,730	27,920	32,677	34,339	36,060	42,297	48,503	55,786	52,080	80,468
Crab	39,498	38,262	37,681	37,232	56,374	29,024	50,872	43,464	54,315	53,722
Hake (Whiting)	748	1,022	1,299	1,022	1,601	2,341	4,937	7,296	7,121	7,316
Halibut	7,903	6,729	5,759	6,777	5,991	7,264	6,512	8,303	8,842	7,525
Mussels	3,720	3,564	2,426	1,613	2,513	3,096	3,729	6,564	3,820	5,293
Oysters	17,798	22,473	24,642	25,578	26,142	31,257	33,697	38,302	35,433	29,661
Sablefish	5,738	6,545	5,984	4,354	6,675	6,517	7,395	8,307	6,608	7,312
Salmon	4,863	9,709	10,332	11,780	9,941	17,316	14,319	24,586	21,620	22,839
Shrimp	2,882	3,611	3,697	4,473	3,723	3,648	4,335	3,602	3,745	5,303
Tuna, Albacore	3,600	5,821	7,917	7,375	15,621	15,657	10,643	15,176	10,439	17,154

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	89,156	112,181	154,701	172,277	189,479	192,181	213,502	241,606	194,582	174,262
Finfish & Other	56,145	77,359	114,764	125,903	132,940	155,224	156,902	191,717	150,704	127,304
Shellfish	33,011	34,822	39,937	46,374	56,539	36,957	56,600	49,889	43,878	46,958
Clams	2,224	2,109	2,632	3,087	3,127	3,319	3,621	4,617	3,908	5,903
Crab	19,004	17,752	19,024	21,380	34,037	14,955	32,086	24,619	22,487	21,353
Hake (Whiting)	18,698	24,399	35,593	22,564	35,124	69,117	93,654	120,058	91,272	67,159
Halibut	3,060	2,289	2,490	2,487	1,868	2,254	1,948	2,451	2,428	2,055
Mussels	332	374	332	214	337	427	504	774	475	593
Oysters	6,769	8,458	9,497	9,935	9,649	11,058	12,190	12,306	11,836	10,417
Sablefish	4,078	3,755	3,589	2,559	3,736	4,064	4,240	4,259	3,035	2,954
Salmon	7,112	11,971	23,291	26,626	25,493	27,918	17,926	26,570	20,880	16,793
Shrimp	4,175	5,520	7,764	11,149	8,867	6,599	7,279	6,926	4,455	7,355
Tuna, Albacore	4,519	7,003	9,110	11,708	23,672	18,044	10,505	19,133	13,129	14,745

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clams	12.02	13.24	12.42	11.12	11.53	12.74	13.40	12.08	13.33	13.63
Crab	2.08	2.16	1.98	1.74	1.66	1.94	1.59	1.77	2.42	2.52
Hake (Whiting)	0.04	0.04	0.04	0.05	0.05	0.03	0.05	0.06	0.08	0.11
Halibut	2.58	2.94	2.31	2.73	3.21	3.22	3.34	3.39	3.64	3.66
Mussels	11.21	9.52	7.30	7.53	7.46	7.26	7.40	8.48	8.05	8.93
Oysters	2.63	2.66	2.59	2.57	2.71	2.83	2.76	3.11	2.99	2.85
Sablefish	1.41	1.74	1.67	1.70	1.79	1.60	1.74	1.95	2.18	2.48
Salmon	0.68	0.81	0.44	0.44	0.39	0.62	0.80	0.93	1.04	1.36
Shrimp	0.69	0.65	0.48	0.40	0.42	0.55	0.60	0.52	0.84	0.72
Tuna, Albacore	0.80	0.83	0.87	0.63	0.66	0.87	1.01	0.79	0.80	1.16

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	155	14,394	8,037
Private Boat	501	57,399	29,995
Shore	287	29,885	16,031
Total Durable Equipment Impacts	2,782	284,331	152,980
Total State Trip and Durable Equipment Economic Impacts	3,725	386,010	207,043

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)²

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	907	8,470	Fishing Tackle	35,518
Private Boat	1,132	41,110	Vehicle Expenses	24,540
Shore	1,000	22,700	Other Equipment	267,101
Total Trip Expenditures	3,039	72,280	Boat Expenses	14,671
			Second Home Expenses	8,225
			Total Durable Equipment Expenditures	350,055
Total State Trip and Durable Equipment Expenditures				425,374

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	141	203	427	252	233	213	201	184	220	167
Non-Coastal	17	25	33	27	25	24	23	21	23	19
Out of State	14	13	22	24	20	19	18	17	19	15
Total Anglers	172	240	481	303	278	255	242	222	262	201

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	49	52	33	59	69	64	62	57	55	42
Private Boat	510	685	1,454	637	704	618	565	492	661	428
Shore	326	455	670	711	512	512	512	512	512	512
Total Trips	885	1,192	2,157	1,407	1,285	1,194	1,139	1,061	1,228	982

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)^{1,2}

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Flatfishes	H	141	158	119	216	62	62	61	63	51	47
	R	93	102	66	209	92	41	41	42	40	40
Greenlings	H	65	100	73	85	59	39	39	33	28	29
	R	9	36	33	141	64	25	25	22	19	19
Herring & Smelt ³	H	1,545	2,065	3,649	3,254	2,487	2,486	2,486	2,486	2,486	2,486
	R	174	60	161	196	136	126	126	126	126	126
Rockfishes	H	304	268	199	237	184	256	307	282	260	216
	R	9	8	14	50	20	25	33	23	19	16
Salmon	H	149	217	663	272	516	297	264	119	351	103
	R	46	73	131	108	157	114	70	36	73	30
Sculpins	H	23	24	10	35	17	17	17	16	15	15
	R	64	202	85	142	101	91	91	91	91	91
Sharks & Skates	H	32	22	36	27	15	1	1	1	(1)	1
	R	372	286	445	331	203	14	12	14	5	7
Sturgeon	H	12	13	10	11	8	8	8	7	8	8
	R	32	31	20	30	18	25	30	21	18	12
Surfperches	H	108	198	89	104	143	133	133	133	133	133
	R	152	227	101	105	125	120	120	120	120	120
Tuna, Albacore	H	4	7	4	6	11	14	12	24	25	22
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	1	(1)	(1)

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

²Salmon catches include all retained and released catch except Puget Sound released catch (dead or alive), which was unavailable.

³Species included in this group 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 (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	161,473 (2.33%)	2,134,598 (1.97%)	73,268 (2.21%)	133,974 (2.26%)	195,794 (2.26%)	12.46
2007	184,542 (2.40%)	2,501,684 (2.07%)	112,308 (2.23%)	181,666 (2.33%)	310,279 (2.26%)	13.24
% change	14.3%	17.2%	53.3%	35.5%	58.4%	6.2%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	32	37	41	48	59	53	54	53	63
	Receipts	1,965	3,052	3,432	2,763	5,680	4,446	5,568	4,149	4,698
Seafood Sales, retail	Firms	28	28	29	30	32	30	31	29	32
	Receipts	1,887	2,139	2,465	2,681	1,623	2,202	1,836	1,727	1,458

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	116	119	112	106	110	101	98	96	98
	Employees	7,276	6,784	6,498	6,728	5,968	5,851	5,743	5,705	5,249
	Payroll	207,487	218,517	216,660	221,978	231,153	247,316	239,962	255,129	275,662
Seafood sales, wholesale	Establishments	184	176	176	175	121	116	126	115	127
	Employees	1,617	1,654	1,444	1,185	1,112	883	1,094	1,015	1,086
	Payroll	61,101	64,074	56,122	51,959	39,206	37,292	42,852	42,934	46,085
Seafood sales, retail	Establishments	31	28	32	44	37	40	47	49	50
	Employees	179	182	198	235	284	222	291	292	244
	Payroll	4,296	4,122	4,503	6,379	6,363	6,578	9,322	8,998	8,001

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	28	32	30	33	36	38	41	43	37
	Employees	2,484	2,356	2,330	2,173	1,607	2,039	1,672	2,353	1,903
	Payroll	128,253	128,747	129,997	130,456	112,319	128,786	122,000	145,144	136,543
Deep sea freight transportation	Establishments	27	21	22	23	27	23	24	23	30
	Employees	877	736	584	ND ³	276	311	378	197	227
	Payroll	53,319	41,689	29,209	ND	16,147	20,559	22,655	14,390	19,692
Deep sea passenger transportation	Establishments	6	7	8	7	3	2	3	3	3
	Employees	419	435	494	ND	ND	ND	ND	ND	ND
	Payroll	15,633	18,145	20,543	ND	ND	ND	ND	ND	ND
Marinas	Establishments	123	116	119	111	102	96	96	103	114
	Employees	574	575	573	406	430	449	442	466	485
	Payroll	14,211	15,714	14,516	11,283	12,400	12,763	13,556	14,269	15,623
Marine cargo handling	Establishments	33	36	36	33	23	30	30	29	28
	Employees	2,361	3,322	2,847	2,538	ND	ND	4,459	3,764	4,913
	Payroll	186,461	238,138	213,946	194,398	ND	ND	318,873	303,375	334,601
Navigational services to shipping	Establishments	57	56	57	55	52	53	53	56	61
	Employees	ND	ND	239	218	834	ND	841	942	950
	Payroll	ND	ND	20,235	20,962	51,092	ND	60,034	72,120	72,912
Port & harbor operations	Establishments	7	6	5	4	3	4	6	5	6
	Employees	ND	ND	ND	37	ND	ND	ND	53	129
	Payroll	ND	ND	ND	1,565	ND	ND	ND	3,436	4,631
Ship & boat building	Establishments	141	132	134	135	138	141	154	164	167
	Employees	6,036	6,442	5,532	4,974	6,056	6,474	7,154	7,669	7,742
	Payroll	219,467	225,433	194,050	219,980	244,124	272,336	307,735	313,230	354,084

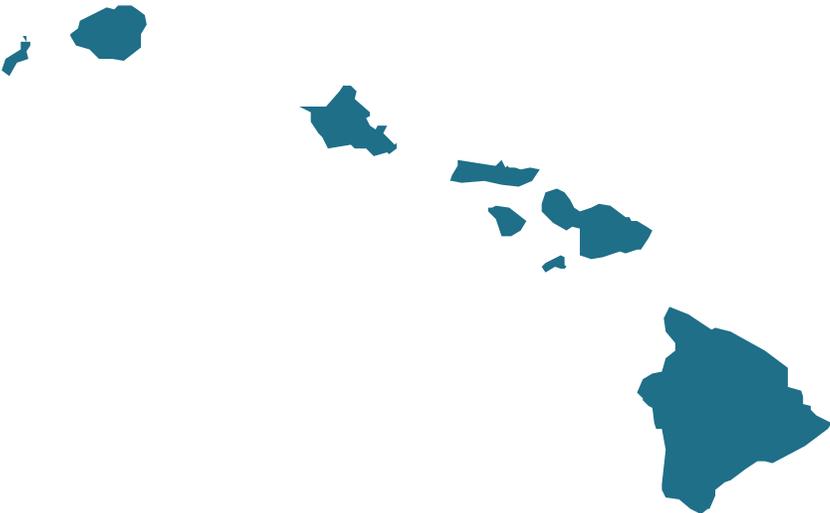
¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ ND = Data are suppressed due to confidentiality restrictions

Western Pacific

- Hawai'i



Management Context

The Western Pacific Region includes the state of Hawai'i.¹ 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). Fishery ecosystem plans manage marine resources from a place-based perspective rather than managing fishing activities in terms of targeted species. These FEPs replace the Council's existing fishery management plans (FMPs) for Bottomfish and Seamount Groundfish, Coral Reef Ecosystems, Crustaceans, and Precious Corals.

Western Pacific Fishery Ecosystem Plans

1. American Samoa Archipelago
2. Hawai'i Archipelago
3. Mariana Archipelago
4. Pacific Remote Island Areas
5. Pacific Pelagics

Of the stocks covered in these fishery ecosystem plans, the Hancock Seamount groundfish complex is currently considered overfished. This fishery has been closed since 1986. Pacific bigeye tuna is currently subject to overfishing and this status is considered to be primarily due to international fishing pressure. The U.S. harvested 4.5% (22.5 million pounds) of the Pacific-wide (western-central and eastern Pacific Ocean) total of Pacific bigeye tuna landings reported in 2007. Currently, there are no catch share programs in place in this region.

In addition to management oversight provided by the WPFMC and NOAA Fisheries, pelagic fish species such as bigeye and yellowfin tunas are also managed by two regional fishery management organizations (RFMOs). The Western and Central Pacific Fisheries Commission (WCPFC) is active in the western and central Pacific Ocean and the Inter-American Tropical Tuna Commission (IATTC) is active in the eastern Pacific Ocean. Species under the purview of the WCPFC and IATTC migrate across international boundaries and require coordinated management between countries with fishing interests in the Pacific Ocean. The annual bigeye tuna catch limit recommended by WCPFC for U.S. Longline in the Western and Central Pacific Ocean is 3,763 metric tons (mt) (8.3 million pounds (lbs)). NMFS responded to the measure by establishing a quota of 3,763 mt (8.3 million lbs) of bigeye tuna that may be caught in the Western and Central Pacific Ocean and retained by U.S. longline vessels beginning in 2009. In the meantime, the harvest limit established by the IATTC for U.S. Longline in eastern tropical Pacific bigeye tuna is 500 mt (1.1 million lbs). However, this quota is only applied to U.S. longline vessels greater than 24 meters (78.7 feet) in length. The U.S. longline vessels less than or equal to 24 meters (78.7 feet) are not bound by any catch limit in the Eastern tropical Pacific.²

¹The Western Pacific Region also includes the U.S. territories of American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands. However, due to data availability, only information from Hawai'i is reported here.

²Under the Tuna Conventions Act of 1950 (64 Stat. 777) as amended (16 U.S.C., 951-961), NMFS must publish regulations that carry out IATTC recommendations and resolutions that have been approved by the Department of State.

Commercial Fisheries

Fishermen in Hawai'i earned \$85 million from their commercial harvest in 2008, landing over 30 million pounds of finfish and shellfish. Tunas comprised nearly three quarters of this ex-vessel revenue (\$61 million) as well as 60% of total landings (18.3 million pounds). Swordfish (\$7.2 million), mahimahi (\$3.2 million), moonfish (\$2.2 million), and marlin (\$2.1 million) also contributed to landings revenue. Lobsters commanded the highest ex-vessel price in 2008, with an average annual price of \$12.14 per pound.

Key Western Pacific Commercial Species

- Lobsters
- Mahimahi (dolphin)
- Marlin
- Moonfish (opah)
- Pomfret
- Scad
- Snappers
- Swordfish
- Tunas
- Wahoo

Economic Impacts

Economic impacts from Hawai'i's seafood industry generated \$560 million in sales impacts, \$283 million in income impacts, and approximately 12,300 full- and part-time jobs in 2008. The retail sector contributed most to sales (54% of the total), income (65%), and employment impacts (64%) with over \$301 million in sales, \$183 million in income, and 7,800 jobs. The commercial harvest sector followed with \$162 million in in-state sales, \$49 million in income impacts, and over 3,400 jobs.

Landings Revenue

Ex-vessel landings revenue for finfish and shellfish totaled over \$85 million in 2008, a 35% increase from total revenue generated in 1999. When adjusted for inflation, real ex-vessel revenues increased 8%. Ex-vessel revenue in 2008 was a 12% increase (1.5% in real terms) from 2007 (\$76 million). Finfish and other catch contributed nearly 100% of total revenue in 2008 (\$84.8 million), a 38% increase from 1999 (10% in real terms). In contrast, revenue generated from shellfish landings decreased 73% (78% in real terms) from \$1.3 million in 1999 to \$357,000 in 2008. Lobster revenue between 1999 and 2008 decreased 86% (89% in real terms), contributing to this decrease in shellfish revenue.

Landings revenue in 2008 was dominated by tunas which contributed \$61 million or 71% of total ex-vessel revenue. On average, tunas contributed 69% to total revenue over the 10 year time period. The largest increases in landings revenue from 1999-2008 were for pomfret (285% or 208% in real terms), moonfish (69% or 35% in real terms), and tunas (85% or 48% in real terms). Landings revenue between 1999 and 2008 declined for five of the key species or groups in the Western Pacific. The largest declines in revenue were for lobsters (86%, 89% in real terms), scad (65%, 64% in real terms), and swordfish (50%, 60% in real terms).

Commercial Fish Facts

Landings revenue

- On average, the key species or species groups accounted for 96% of total revenue (\$82 million) generated in the Western Pacific.
- Eight of the key species or groups had average annual ex-vessel revenue in excess of \$1.6 million.
- Tunas averaged \$42 million annually over the 1999-2008 time period
- Landings revenue from swordfish decreased 89% from 2000 to 2001, the largest annual decrease, only to increase 561% from 2004 to 2005, the largest annual increase of any key species or group.

Landings

- On average, the key species and species groups accounted for 94% of total landings (94 million pounds) in this region.
- Tunas averaged 15.7 million pounds annually over the time period, contributing an average of 62% to total landings.
- Landings for swordfish increased 561% from 2004 to 2005, the largest increase in landings in the 10 year period. This species also had the largest annual decrease in landings, declining 91% from 2000-2001.

Prices

- Lobsters had the highest average annual ex-vessel price at \$12.14 per pound, followed by snappers (\$4.54) and tunas (\$3.33).
- Marlin (\$1.06), moonfish (\$1.67), and swordfish (\$1.87) had the lowest average ex-vessel prices of the key species or groups.
- Marlin had both the largest annual price increase and decrease of any key species or group, decreasing 37% from 2002-2003 then increasing 58% from 2003-2004.

Landings

In 2008 Hawaiian commercial fishermen landed 30.7 million pounds of finfish and shellfish, a 5.8% increase from 1999 landings totals. Compared to landings in 2007 (29 million pounds), this was a 6.0% increase. Finfish and other catch accounted for nearly 100% of total landings annually. Shellfish landings decreased 82% from 157,000 pounds landed in 1999 to 28,800 pounds in 2008, but increased 32% from 2007-2008.

Tunas contributed more to the Western Pacific's total landings than any other species or group with 18.3 million pounds landed in 2008. This was a 24% increase from 1999 total landings of tuna (14.7 million pounds). Swordfish followed with 3.8 million pounds landed in 2008. However, swordfish landings experienced dramatic changes from 1999 to 2008. From 2000 to 2001, swordfish landings decreased 89% from 6.4 million pounds to 559,000 pounds. A few years later (2004-2005), landings increased 534% from 520,000 pounds to 3.4 million pounds. Swordfish landings between 2001 and 2004 averaged approximately a half million pounds, while in 1999, 2000, and between 2005 and 2008, the average was over 4 million pounds.

Prices

Overall, 2008 ex-vessel price for all but two key species or species groups were above their 10 year average annual price. Swordfish had a lower price per pound (\$1.87) in 2008 relative to its annual average (\$2.17) over the time period and in 2008 the price per pound for marlin was \$1.06 which was \$0.13 less than the 10 year average.

When adjusted for inflation, only scad, pomfret and tunas did not receive an ex-vessel price in 2008 that was larger than the 10 year average. Scad received \$0.37, pomfret received \$0.23, and tunas received \$0.14 per pound more than the 10 year average between 1999 and 2008.

Relative to ex-vessel prices in 2007, scad (18%) and tuna (14%) both had double digit increases in 2008. Double digit decreases between 2007 and 2008 occurred in marlin, swordfish, and wahoo, declining 28%, 12%, and 10% respectively. In real terms, only scad and tunas did not experience declines in ex-vessel prices between 2007 and 2008.

Recreational Fishing

In 2008, there were 329,000 recreational anglers who fished in the state of Hawai'i. These anglers took 2.5 million fishing trips and of these, 78% were shore-based trips. Skipjack tuna was the most caught key species or species group with 570,000 fish caught in 2008. Almost all of these fish were harvested by anglers rather than released.

Economic Impacts and Expenditures

Over 5.6 million jobs in Hawai'i were associated with recreational fishing activities in 2008. Recreational anglers who fished in the region spent \$588 million in trip-related and durable equipment expenditures. Roughly 70% of the 5.6 million jobs were related to industries that provided support for durable equipment sales and services (3.9 million jobs) and shore-based fishing trip activities (1.2 million jobs). Durable equipment expenditures contributed \$454 million to Hawai'i's economy or 77% of total trip and durable equipment expenditures. Shore-based fishing trip expenditures contributed \$87 million or 15% of total trip and durable equipment expenditures (or 65% of total trip expenditures). Resident anglers accounted for over 92% of total trip-related expenditures in Hawai'i.

Key Western Pacific Recreational Species

- Barracuda (smallmouth bonefish)
- Blue marlin
- Dolphinfish (mahimahi)
- Goatfishes
- Jacks (trevallys and other jacks)
- Bigeye and mackerel scad
- Snappers
- Skipjack tuna
- Yellowfin tuna
- Wahoo

In addition to jobs, the contribution of recreational fishing to Hawai'i's economy can also be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value-added impacts). In 2008, shore-based fishing trips generated \$100 million in sales (65% of trip-related sales) and \$53 million in value-added impacts (64% of total trip-related value-added impacts). Private boat fishing activities contributed \$47 million in sales (30%) and \$24 million (29%) in value-added impacts. For-hire fishing trips contributed \$10 million in sales (7%) and \$6 million (7%) in value-added impacts.

Expenditures on durable equipment totaled \$454 million in 2008, contributing 77% to total expenditures in the region (trip and durable equipment combined). Expenditures on

fishing tackle (\$184 million) and vehicle expenses (\$99.6 million) accounted for most of the durable equipment expenditures, contributing 41% and 22%, respectively. Other equipment (\$82 million), boat expenses (\$59 million), and second home expenses (\$30 million) also contributed to this total.

In 2008, economic impacts from durable equipment expenditures included over 3.9 million jobs, \$453 million in sales impacts, and \$219 million in value-added impacts.

Recreational Fishing Facts

Participation

- Over 377,000 anglers fished in Hawai'i annually over the 2003-2008 time period.
- In 2008, Hawaiian residents made up 58% of total anglers active in the state and averaged 54% of total anglers annually from 2003-2008.
- The largest annual increase in angler participation was a 35% increase in out-of-state anglers from 2005-2006. Out-of-state anglers also experienced the largest annual decrease in participation, decreasing 35% from 2006-2007. In 2008, coastal angler participation increased from 12.9 % from 2007-2008, and out of state angler participation decreased 6.2% from 2007-2008.

Fishing trips

- In Hawai'i, an average of 2.6 million fishing trips were taken annually from 2004-2008.
- Shore-based fishing trips were very popular with recreational fishermen with 1.96 million trips taken in 2008. Shore-based trips averaged 78% of total fishing trips taken annually in Hawai'i from 2003-2008.
- From 2003-2004, private or rental boat fishing trips increased 39%, the largest annual increase in fishing trip mode. Private or rental boat trips also had the largest annual decrease, decreasing 19% from 2004-2005. From 2007-2008, private/rental boat trips experienced a 18.7% increase.

Harvest and release

- Bigeye and mackerel scad were the most caught key species or species group, averaging 863,000 fish over the 6 year period. All of these fish were harvested rather than released in 2008.
- Nine out of Hawai'i's ten key species or groups were harvested rather than released with 84-100% of fish harvested during the six year period. Only trevallies and other jacks were harvested at a lower quantity (59% harvested).
- Bigeye and mackerel scad had the largest annual increase in catch, increasing 313% from 2004-2005, and the largest annual decrease from 2003-2004. Blue marlin had the largest increase (267%) in catch from 2007-2008.

Participation³

There were 329,000 recreational anglers who fished in Hawai'i in 2008. This was a 25% decrease from 2003 (440,000) and a 3.8% increase from 2007 (317,000). An increase in coastal county resident⁴ was observed, and a decrease in out-of-state anglers was observed. Coastal county angler participation in 2008 decreased 26% relative to 2003 and increased 12.9% relative to 2007. Out-of-

state angler participation decreased 24% relative to 2003 and decreased 6.2% relative to 2007.

Fishing Trips³

Recreational fishermen took 2.5 million private or rental boat and shore-based fishing trips in 2008. This was a 5% increase from 2003 and a 2% decrease from 2007. Shore-based fishing trips accounted for most of the trips taken in Hawai'i: 78% of total fishing trips or 2 million trips in 2008. This was a 4% increase from 2003 and a 7% decrease from 2007. Fishing trips taken from a private or rental boat increased 11% between 2003 and 2007. From 2007 to 2008 private or rental Fishing trips increased to 564,000 trips or approximately 19%.

Harvest and Release³

Bigeye and mackerel scad had the highest catch totals of the Western Pacific's key species and species groups. In 2008, approximately 402 million of these fish were caught by anglers and all of these were harvested rather than released. Overall, all of Hawai'i's key species and groups were harvested more than released, at rates over 90%. The exception were Jacks which were harvested at 70%. Anglers harvested nearly every dolphinfish caught in 2008.

Four of Hawai'i's ten key species or species groups experienced double-digit declines in the total number of fish caught from 2003-2008. The largest decrease in catch was for bigeye and mackerel scad where 79% less fish were caught by anglers in 2008 (402,000 fish) relative to 2003 (2 million fish). Blue marlin experienced a large increase in percent catch (175% increase) from 2003. yellowfin tuna experienced a large increase (144%) in catch from 2003-2008, skipjack tuna also increased (29%) in catch from 2003-2008. Dolphinfish (mahimahi) and barracuda (smallmouth bonefish) experienced increases in catch from 2003-2007, increasing 67% and 86%, respectively.

Marine Economy⁵

In 2007, over 33,400 establishments employed approximately 519,000 full- and part-time employees in Hawai'i. Annual payroll totaled \$18 billion, employee compensation totaled \$37 billion, and gross product by state totaled \$62 billion. Gross state product and annual payroll increased 65% and 62%, respectively between 1998 and 2007. Modest increases were observed for employee compensation (49% increase), employee numbers (25%), and establishment numbers (13%). From 2006 to 2007, each of these economic measures increased slightly, ranging from a 0.8% increase in number of establishments and a 5.9% increase in annual payroll.

The commercial fishing location quotient (CFLQ) for Hawai'i decreased 37% from 7.26 in 2002 to 4.55 in 2007. Between 2006 and 2007, the CFLQ mirrored this declining trend, decreasing 1.3%. Despite these declines, Hawai'i's

³Due to data availability, the time period 2003-2008 is discussed in this section.

⁴All anglers in Hawaii are coastal county anglers.

⁵Data for 2008 were unavailable for this report therefore 2007 information is reported in this section.

level of commercial fishing-related employment was still higher than the national baseline.⁶

Seafood Sales and Processing

There were 10 nonemployer firms engaged in seafood product preparation and packaging in 2007. This was a 67% increase from 1999 levels. Annual receipts for this industry increased significantly, increasing 539% from \$45,000 in 1998 to \$1.0 million in 2007 (a 466% increase in real terms). The number of employer establishments engaged in this industry decreased to one establishment in 2007. Employee and annual payroll totals were not available.

In 2007, there were 36 seafood wholesale establishments that employed 550 full- and part-time workers with an annual payroll of \$19 million. The number of establishments decreased by 28% and employees increased 12% from 1999 to 2007. Despite these declines in establishments, annual payroll totals increased 17% (but increased 4% in real terms).

Nonemployer firms involved in seafood retail increased 41% between 1999 and 2007 from 29 firms to 41 firms. Annual receipt totals also increased 54% (36% in real terms) to \$4.4 million in 2007. In contrast, employer establishments involved in this industry increased 19% to 25 establishments in 2007. These establishments employed 393 workers with an annual payroll of \$7.2 million. Employee and annual payroll numbers also increased from 1999 to 2007, increasing 117% and 135% (108% in real terms), respectively.

Transport, Support, and Marine Operations

Data was largely unavailable for the transport, support and marine operation sector. According to the available information, ship and boat building industries had the highest number of establishments in 2007 (13 establishments). The marine cargo handling sector had the largest payroll (\$87 million) and the largest number of employees (1,050). The largest increase in number of establishments occurred between 1999 and 2007 (83%) and the greatest decrease occurred in the deep sea passenger transportation sector (50%) from two employees to one.

⁶The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

2008 Economic Impacts of Hawai'i Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	560,191	283,222	12,258
Commercial Harvesters	161,753	49,186	3,426
Seafood Processors & Dealers	37,347	20,220	448
Seafood Wholesalers & Distributors	59,764	30,905	563
Retail Sector	301,326	182,911	7,821

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	62,911	68,206	48,080	52,384	52,755	57,679	71,040	66,120	75,705	85,120
Finfish & Other	61,568	67,843	47,839	52,078	52,493	57,274	70,677	66,013	75,531	84,753
Shellfish	1,343	363	241	306	262	406	364	106	174	367
Lobsters	835	99	98	122	68	91	111	61	93	120
Mahimahi (dolphin)	2,564	3,188	2,262	2,630	2,940	4,909	3,597	3,640	3,482	3,182
Marlin	2,314	2,235	2,139	2,010	1,986	2,472	2,512	2,558	2,028	2,072
Moonfish (Opah)	1,297	1,100	999	1,219	1,509	1,343	1,897	1,873	2,170	2,197
Pomfret	432	499	386	675	777	1,316	1,440	1,311	1,460	1,665
Scad	1,971	1,441	882	1,067	1,105	944	839	1,020	1,099	896
Snappers	2,151	2,414	1,965	2,009	2,035	2,201	2,005	1,756	1,680	1,710
Swordfish	14,244	12,280	1,354	1,371	691	1,225	7,768	5,125	7,726	7,176
Tunas	32,858	41,215	34,491	37,598	37,381	38,484	46,071	44,085	51,148	60,874
Wahoo	1,695	1,663	1,657	1,452	1,919	2,201	2,253	2,329	2,087	2,235

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	28,989	28,622	23,484	23,968	23,740	24,456	28,140	25,659	28,938	30,682
Finfish & Other	28,831	28,594	23,460	23,937	23,711	24,426	28,113	25,644	28,916	30,653
Shellfish	157	28	24	31	28	31	26	15	22	29
Lobsters	73	8	8	10	6	8	10	6	8	10
Mahimahi (dolphin)	1,135	1,528	1,245	1,376	1,326	2,225	1,440	1,342	1,388	1,252
Marlin	1,892	1,582	2,220	1,497	2,337	1,844	2,190	2,389	1,376	1,951
Moonfish (Opah)	1,105	687	765	912	1,095	786	1,086	1,071	1,226	1,313
Pomfret	313	277	272	490	459	766	646	576	593	672
Scad	1,258	874	505	571	630	478	398	442	463	320
Snappers	588	600	526	499	501	508	436	377	376	376
Swordfish	5,629	6,368	559	703	306	520	3,439	2,514	3,643	3,835
Tunas	14,740	15,015	15,288	15,871	14,421	14,965	16,118	14,631	17,589	18,303
Wahoo	844	654	906	660	990	852	818	891	715	853

Average Annual Price for Key Species / Species Groups

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Lobsters	11.51	12.14	12.61	12.66	11.88	11.08	10.99	9.66	11.84	12.14
Mahimahi (dolphin)	2.26	2.09	1.82	1.91	2.22	2.21	2.50	2.71	2.51	2.54
Marlin	1.22	1.41	0.96	1.34	0.85	1.34	1.15	1.07	1.47	1.06
Moonfish (Opah)	1.17	1.60	1.31	1.34	1.38	1.71	1.75	1.75	1.77	1.67
Pomfret	1.38	1.80	1.42	1.38	1.69	1.72	2.23	2.28	2.46	2.48
Scad	1.57	1.65	1.75	1.87	1.75	1.97	2.11	2.30	2.37	2.80
Snappers	3.65	4.02	3.73	4.02	4.06	4.33	4.59	4.64	4.44	4.54
Swordfish	2.53	1.93	2.42	1.95	2.26	2.36	2.26	2.04	2.12	1.87
Tunas	2.23	2.74	2.26	2.37	2.59	2.57	2.86	3.01	2.91	3.33
Wahoo	2.01	2.54	1.83	2.20	1.94	2.58	2.75	2.61	2.92	2.62

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	108	10,343	5,687
Private Boat	444	46,882	23,973
Shore	1,174	100,306	52,953
Total Durable Equipment Impacts	3,897	452,901	219,333
Total State Trip and Durable Equipment Economic Impacts	5,623	610,433	301,946

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	7,479	32	Fishing Tackle	183,556
Private Boat	591	39,333	Other Equipment	81,734
Shore	2,029	85,336	Boat Expenses	58,867
Total Trip Expenditures	10,099	124,701	Vehicle Expenses	99,606
			Second Home Expenses	29,912
			Total Durable Equipment Expenditures	453,674
Total State Trip and Durable Equipment Expenditures				588,474

Recreational Anglers by Residential Area (thousands of anglers)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal					261	223	204	173	170	192
Non-Coastal					NA ¹					
Out of State					180	183	166	224	146	137
Total Anglers					440	407	370	396	317	329

Recreational Fishing Effort by Mode (thousands of trips)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Boat					509	709	578	570	475	564
Shore					1,893	2,162	1,892	2,074	2,102	1,966
Total Trips					2,402	2,871	2,470	2,644	2,577	2,530

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)³

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Barracuda (Smallmouth Bonefish)	H					25	61	25	63	20	50
	R					4	9	12	2	13	4
Dolphinfish (Mahimahi)	H					109	225	178	219	136	184
	R					1	(1)	1	(1)	(1)	(1)
Goatfishes ⁴	H					794	715	447	813	298	468
	R					10	17	8	16	9	6
Jacks (Trevallys & Other Jacks ⁵)	H					125	331	257	210	169	277
	R					171	146	182	210	130	120
Marlin, Blue	H					4	5	19	3	2	11
	R					(1)	(1)	(1)	(1)	1	(1)
Scad, Bigeye & Mackerel ⁶	H					1,951	179	726	812	1,089	402
	R					2	(1)	14	(1)	(1)	(1)
Snappers ⁷	H					233	236	223	177	104	138
	R					16	19	57	36	40	7
Tuna, Skipjack	H					440	420	302	201	228	568
	R					1	6	1	1	5	2
Tuna, Yellowfin	H					184	268	231	124	273	461
	R					5	(1)	9	1	2	(1)
Wahoo	H					105	97	54	62	57	78
	R					(1)	(1)	(1)	(1)	1	(1)

¹All Hawai'i residents are considered coastal county residents thus this category is not applicable (NA).

²Participation (number of anglers), effort (number of trips), and catch (number of fish harvested or released) data were not available for 1998-2002.

³In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

⁴Goatfishes include yellowstripe, yellowfin, pflugers, bandtail, doublebar, sidespot, whitesaddle, manybar, blue, and "Goatfish family/genus."

⁵Trevallys & Other Jacks includes bluefin trevally, giant trevally, bigeye trevally, black trevally, African pompano, greater amberjack, island jack, and other species in the jack family.

⁶Scad (Jacks) includes bigeye scad and mackerel scad.

⁷Snappers include bluestip, blacktail, ruby, longtailed, pink, VonSiebolds, Bingham's, green jobfish, ironjaw, and smalltooth jobfish.

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

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	29,603 (0.4%)	416,571 (0.4%)	11,292 (0.3%)	24,568 (0.4%)	37,549 (0.4%)	7.26 ³
2007	33,388 (0.4%)	519,060 (0.4%)	18,306 (0.4%)	36,563 (0.5%)	62,019 (0.5%)	4.61 (2006)
% change	12.8%	24.6%	62.1%	48.8%	65.1%	-37.3%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	8	3	7	7	9	11	5	11	10
	Receipts	160	44	231	1,566	1,034	1,309	409	1,011	1,023
Seafood Sales, retail	Firms	29	23	34	0	36	33	29	31	41
	Receipts	2,829	3,670	2,497	ND	4,753	2,875	3,487	3,627	4,353

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	3	3	3	4	4	4	3	3	1
	Employees	ND ⁴	ND	ND	86	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	2,584	ND	ND	ND	ND	ND
Seafood sales, wholesale	Establishments	50	49	51	44	33	36	32	33	36
	Employees	493	510	812	525	654	404	485	462	550
	Payroll	16,186	17,805	17,656	15,203	12,653	13,949	15,163	16,786	18,932
Seafood sales, retail	Establishments	21	23	27	29	31	31	29	27	25
	Employees	181	183	235	229	317	321	326	315	393
	Payroll	3,063	2,969	3,773	3,737	5,187	5,038	5,007	5,564	7,209

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	13	13	11	11	10	11	13	13	11
	Employees	ND	507	463	ND	ND	ND	ND	543	557
	Payroll	ND	30,087	25,782	ND	ND	ND	ND	36,941	36,635
Deep sea freight transportation	Establishments	2	2	2	2	1	NA ⁵	NA	NA	NA
	Employees	ND	ND	ND	ND	ND	NA	NA	NA	NA
	Payroll	ND	ND	ND	ND	ND	NA	NA	NA	NA
Deep sea passenger transportation	Establishments	2	2	1	1	1	1	2	2	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	6	10	7	8	11	11	10	9	11
	Employees	76	ND	ND	56	177	178	181	152	167
	Payroll	1,257	ND	ND	1,414	3,285	3,439	3,354	3,719	4,151
Marine cargo handling	Establishments	7	7	6	7	8	8	8	7	8
	Employees	673	663	426	756	ND	ND	694	ND	1,048
	Payroll	32,743	37,306	24,920	49,975	ND	ND	53,061	ND	87,770
Navigational services to shipping	Establishments	6	6	5	7	7	6	6	6	8
	Employees	126	63	103	ND	ND	ND	ND	ND	ND
	Payroll	6,601	2,637	5,926	ND	ND	ND	ND	ND	3,340
Port & harbor operations	Establishments	2	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
Ship & boat building	Establishments	19	17	17	16	14	17	16	14	13
	Employees	ND	ND	ND	ND	480	589	ND	545	ND
	Payroll	ND	ND	ND	ND	22,053	20,908	ND	23,134	ND

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

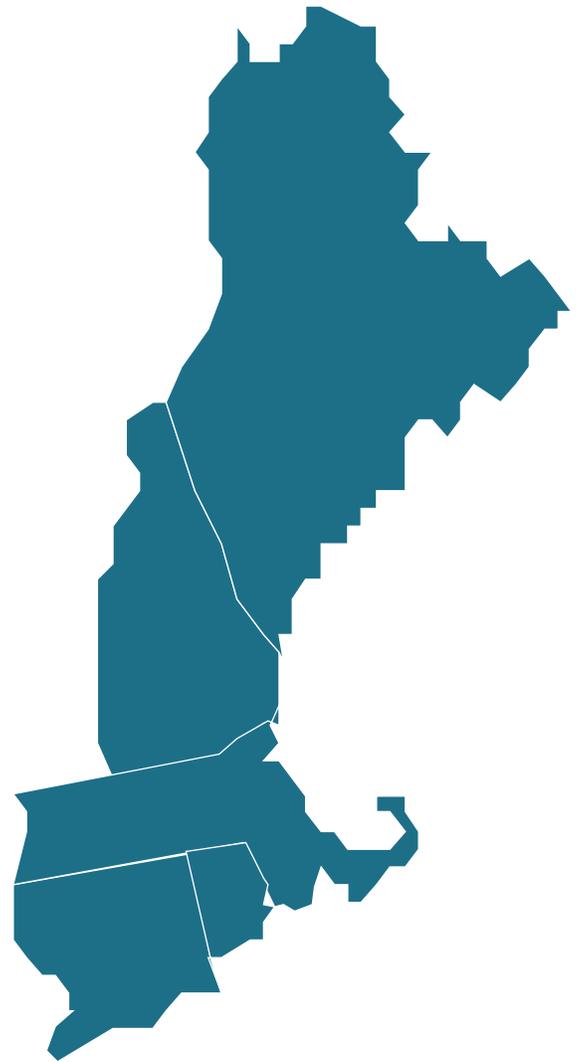
³CFLQ for 2001 was not available; 2002 data were used here.

⁴ND = Data are suppressed due to confidentiality restrictions.

⁵NA = Data are not available.

New England

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



Management Context

The New England Region includes the states of Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut. 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 jointly managed with the Mid-Atlantic Fishery Management Council (MAFMC). The NEFMC is the lead Council for the Monkfish FMP and the MAFMC is the lead for the Spiny Dogfish FMP.

New England Fishery Management Plans	
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, 16 are currently listed as overfished: Georges Bank cod, yellowtail flounder (3 stocks), white hake, Northern windowpane flounder, winter flounder (2 stocks), ocean pout, Atlantic halibut, pollock, witch flounder, winter skate, thorny skate, smooth skate, and Atlantic salmon. Thirteen stocks or stock complexes are currently subject to overfishing: cod (2 stocks), yellowtail flounder (3 stocks), white hake, windowpane flounder (2 stocks), winter flounder (2 stocks), pollock, witch flounder, and thorny skate.

Currently, expansion of the existing sector-based management program, a type of catch share program, initiated during 2004 for the Northeast Multispecies Plan is under development in New England.¹ The proposed changes would expand the number of sectors from 2 to 17. The two sectors currently operating include the Georges Bank cod hook gear sector fishery, which was implemented in 2004, and the Georges Bank cod fixed gear sector fishery, established in 2006. The ex-vessel value of these fisheries totaled over \$1.5 million in 2007. In the sea scallop fishery, a new individual fishing quota (IFQ) program for the general category vessel program is anticipated to start in 2010. In 2007, it was valued at \$32.3 million.

Commercial Fisheries

In 2008, New England commercial fishermen harvested 594 million pounds of finfish and shellfish and generated \$805 million in ex-vessel revenue. Landings revenue was dominated by shellfish such as lobster (\$312 million) and sea scallop (\$203 million) with ex-vessel prices in 2008 at \$3.70 and \$7.03, respectively, lobster contributed 39% to total landings revenue while sea scallops contributed 25%. These and other shellfish species and groups made up

¹The Northeast Multispecies Fishery Management Plan defines a sector as being a group of self selected vessel owners where a catch share is allocated to the group rather than to individual vessels.

76% of total revenue in New England. Atlantic herring was a significant component of total landings in 2008, making up 28% of the total. However, with an average annual price of \$0.12 per pound in 2008, Atlantic herring contributed only 2.5% to total landings revenue.

Of the five New England states, Massachusetts contributed the most to landings revenue and pounds landed with almost \$400 million and 326 million pounds landed in 2008, followed by Maine (\$301 million, 179 million pounds), Rhode Island (\$67 million, 72 million pounds), New Hampshire (\$21 million, 11 million pounds), and Connecticut (\$17 million, 7 million pounds).

Key New England Commercial Species	
• Quahog clam	• Lobster
• Cod and haddock	• Atlantic mackerel
• Flounders	• Sea scallop
• Goosefish	• Squid
• Atlantic herring	• Bluefin tuna

Economic Impacts

Massachusetts led the region in terms of sales, income, and job impacts related to the seafood industry in 2008. In-state sales in Massachusetts generated nearly \$3.97 billion in 2008 with income impacts totaling \$2.1 billion. Over 73,000 full- and part-time jobs were generated from the seafood industry in this state. Sales impacts in Maine also totaled over a billion dollars. Income (\$527 million) and job impacts (19,800 full- and part-time jobs) in Maine ranked second in New England. In terms of employment, Rhode Island (10,600), New Hampshire (4,800), and Connecticut (4,400) followed.

Landings Revenue

In 2008, ex-vessel revenue from finfish and shellfish harvest totaled \$805 million, a 22% increase (2.7% decrease in real terms) from landings revenue in 1999 (\$662 million) but a 10.9% decrease (19.5% in real terms) from 2007 (\$903 million). Massachusetts fishermen generated 50% of the revenue in New England in 2008. Shellfish revenue accounted for 76% of total revenue in New England, bringing in \$612 million in 2008. This was a 34% increase (7.2% in real terms) relative to 1999 (\$456 million), but a 16% (24% in real terms) decrease relative to 2007 (\$725 million). Finfish revenue decreased 6% (25% in real terms) from \$206 million (1999) to \$193 million (2008). Finfish revenue between 2007 and 2008 increased 8% (2.4% decrease in real terms).

Across New England, finfish revenue decreased in each state between 1999 and 2008 in real terms. Maine had the largest decrease with finfish revenue decreasing 29% (43% in real terms), followed by Connecticut (30%, 45% in real terms), New Hampshire (17%, 34% in real terms), and Rhode Island (17%, 33% in real terms). Massachusetts was the only state to experience an increase (11%) but there was still a 12% decrease in real terms.

In contrast, shellfish revenue varied across the region, with increases in revenue in New Hampshire (131%,

84.8% in real terms) and Massachusetts (85%, 48% in real terms) and Maine (25%, less than 1% in real terms). Shellfish revenue decreased in Connecticut (59%, 68% in real terms), and Rhode Island (25%, 40% in real terms).

New England key species and species groups with large changes in total revenue over the 10 year time period include sea scallop which experienced a 158% increase (106% in real terms) and Atlantic mackerel with a 252% increase (181% in real terms). Large decreases were seen in bluefin tuna (79%, 84% in real terms), flounders (29%, 43% in real terms), and squid (68, 74% in real terms).

At the state level, key species or groups with large changes in landings revenue from 1999 to 2008 include: increases in snails or conchs (596%), sea scallop (133%), and scups or porgies (116%), and decreases in lobster (77%), goosefish (34%), and hake (69%) in **Connecticut**; blood worms (104% increase), blue mussel (135% increase), and sea urchins (74% decrease) in **Maine**; clams other than ocean clams (3,700% increase), Atlantic mackerel (1,200% increase), sea scallop (171% increase), and lobster (33% decrease) in **Massachusetts**; Atlantic cod (443% increase), lobster (168% increase), spiny shark (102% increase), and goosefish (85% decrease) in **New Hampshire**; and scups or porgies (38% increase), quahog clam (25% increase), squid (74% decrease), Atlantic herring (66% decrease), and lobster (59% decrease) in **Rhode Island**. The dramatic percent increase in landings revenue from clams and Atlantic mackerel results from unusually low landings of both in 1999.

Landings

Fishermen in New England landed over 594 million pounds in 2008. This was a 1.8% decrease from the 584 million pounds landed in 1999, and a 1.9% decrease from the 583 million landed in 2007. Finfish contributed 66% of total landings in 2008 (394 million pounds), a 2% decrease from 1999. From 2007 to 2008, finfish landings increased 5%. Shellfish landings increased 10% from 1999 to 2008, from 182 million pounds (1999) to 200 million pounds (2008). Shellfish landings decreased 4% between 2007 and 2008.

Finfish landings decreased in four of the five New England states between 1999 and 2008. Connecticut and Rhode Island both decreased 59%. Maine and New Hampshire decreased 40% and 20% respectively. Massachusetts showed an increase in finfish landings with a 77.5% increase between 1999 and 2008.

Shellfish landings increased in Massachusetts (29%), Maine (16%), and New Hampshire (59%), but decreased in Rhode Island (13%) and Connecticut (66%).

Of New England's key species and species groups, Atlantic herring contributed the most to total landings with 164 million pounds landed in 2008. Fishermen in Massachusetts and Maine harvest the majority of this species, landing 94 million pounds and 66 million pounds, respectively.

Key species or groups with the largest increases in annual landings totals from 1999-2008 were Atlantic mackerel (514%) and sea scallop (111%). Total landings of bluefin

tuna (81%), goosefish (63%), flounder (52%), and squid (45%) decreased during this period.

Commercial Fish Facts

Landings revenue

- In 2008, New England's key species or species groups accounted for 81% of total revenue generated in the region.
- Lobster and sea scallops contributed the most to total revenue, averaging \$322 million and \$161 million, respectively, from 1999-2008.
- Fishermen in Maine generated most of the revenue from lobsters in 2008, while Massachusetts fishermen led the region in sea scallop revenue.
- The largest increase in revenue between 2007 and 2008 was 165% for squid, which increased from \$2.4 million to \$6.3 million. The largest annual decrease in the same time period was an 69% decrease in quahog revenue.

Landings

- New England's key species and groups contributed an average of 66% to total landings in 2008.
- Atlantic herring contributed the most to landings in the region, averaging 180 million pounds from 1999-2008. Commercial fishermen in Massachusetts and Maine harvested the majority of this species in 2008.
- Landings of Atlantic mackerel increased dramatically from 2001-2002, increasing 2622% largely due to an increase in landings in Rhode Island. The largest annual decrease in landings was for squid which decreased 89% from 2006-2007.

Prices

- Bluefin tuna (\$6.19) had the highest average ex-vessel price per pound from 1999-2008, followed by sea scallop (\$5.64), quahog clam (\$4.73), and lobster (\$3.97).
- Atlantic herring and Atlantic mackerel had the lowest average ex-vessel price per pound at \$0.08 and \$0.16, respectively.
- Quahog clam had the largest annual increase in ex-vessel price over the last ten years, increasing 130% between 2004 and 2005.
- The largest annual decrease in ex-vessel price over the last ten years occurred between 2001 and 2002 when the price of Atlantic mackerel decreased 50% from \$0.28 to \$0.14.

Prices

With the exception of Atlantic mackerel, lobster and squid, 2008 ex-vessel prices for New England's key species and groups were higher than their 10 year average price per pound. Large double-digit increases in prices were observed for six of the ten key species and groups between 1999 and 2008. The largest increases were for Atlantic herring (100%, 60% in real terms), quahog clam (69%, 35% in real terms), flounders (49%, 19% in real terms) and goosefish (39%, 11% in real terms).

Of the 10 dominant species, 6 experienced a decrease in ex-vessel price in real terms between 1999 and 2008. Atlantic mackerel experienced the largest decline (43%, 54% in real terms) followed by squid (42%, 53% in real terms). The other remaining four species cod and haddock, lobster, sea scallop, and bluefin tuna only experienced declines in real ex-vessel prices.

Relative to ex-vessel prices in 2007, the New England Region's quahog clam experienced the greatest increase (18.2%, 6.7% in real terms) from \$6.59 per pound in 2007 to \$7.79 per pound in 2008. Squid experienced the

greatest decline in ex-vessel price (49%, 54% in real terms) from \$0.88 in 2007 to \$0.45 in 2008.

At the state level, key species or groups with large changes in ex-vessel price from 1999 to 2008, include snails or conchs (338% increase), flounders (93% increase), goosefish (70% increase), and lobster (40% increase) in **Connecticut**; bloodworms (96% increase), blue mussel (87% increase), Atlantic herring (86% increase), and sea urchins (42% increase) in **Maine**; Atlantic herring (140% increase), Atlantic mackerel (52% decrease), and clams other than ocean clams (49% increase) in **Massachusetts**. Atlantic Herring (180% increase), quahog clam (90%), flounders (67% increase), and squid (56% decrease) in **Rhode Island**; spiny shark (76% increase) in **New Hampshire** which was the largest increase seen in New England between 1999 and 2008.

Recreational Fishing

In 2008, over 1.58 million recreational anglers took 9.2 million fishing trips in New England. Over 88% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 53.6% of them were taken from a private or rental boat and another 41.3% were shore-based. Striped bass were the most frequently caught key species or species group with over 7.5 million fish caught in 2008, 28.7 % of total fish caught in the region. This is a significant decrease in striped bass landings from 2007 (27% decrease). Almost all of these fish, over 92% of them, were released rather than harvested.

Economic Impacts and Expenditures

The contribution of recreational fishing activities in New England are reported in terms of economic impacts at the state level (employment, sales, and value-added impacts) and expenditures on fishing trips and durable equipment at the region level. Employment impacts in Massachusetts were highest in the region with over 5,900 full- and part-time jobs supported by recreational fishing activities in this state. Connecticut (4,884 full- and part-time jobs), Rhode Island (1,467 jobs), Maine (1,286 jobs), and New Hampshire (357 jobs) followed in terms of jobs supported by recreational fishing activities.

Overall, these jobs were related to 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 New England, most of the jobs supported in 2008 were related to expenditures on durable equipment: 91% of jobs in Connecticut, 49% of jobs in Rhode Island, 45% of jobs in Massachusetts, 40% of jobs in New Hampshire, and 38% of jobs in Maine.

When looking at which fishing mode contributed most to jobs in each state, shore-based fishing trips supported most of the jobs in Rhode Island, Maine, and Massachusetts. Most of the fishing trip-related jobs in Connecticut were related to private or rental boat trips and in New Hampshire, for-hire boat trips supported most trip-related jobs.

In addition to jobs, the contribution of recreational fishing activities to New England's economy can be measured in terms of sales impacts and the contribution of these

activities to gross domestic product (value-added impacts). In 2008, sales and value-added impacts were highest in Massachusetts (\$786 million in sales impacts; \$427 million in value-added impacts) and Connecticut (743 million; \$427 million). These states were followed by Maine (\$108 million; \$57 million), Rhode Island (\$166 million; \$82 million), and New Hampshire (\$39 million; \$21 million).

Key New England Recreational Species

- Striped bass
- Bluefish
- Atlantic cod
- Summer flounder
- Winter flounder
- Little tunny
- Atlantic mackerel
- Porgies (scup)
- Bluefin tuna
- Wrasses (tautog)

Most of these sales and value-added impacts were related to expenditures on durable equipment. In terms of which fishing mode contributed the most to sales and value-added impacts at the state level: shore-based fishing trips contributed the most in Massachusetts, Maine, and Rhode Island; private or rental boat trips in Connecticut; and for-hire boat trips in New Hampshire.

Overall, total fishing trip and durable equipment expenditures generated \$1.8 billion across New England in 2008. Approximately 76% of these expenditures were related to durable equipment purchases. Vehicle (\$553 million), fishing tackle (\$428 million), and boat-related expenses (\$311 million) accounted for the majority of durable equipment expenditures. Fishing-trip related expenditures by New England's non-residents totaled over \$231 million and most of this was related to shore-based fishing trips (\$152 million). New Englanders generated \$194 million in trip-related expenditures with most of these expenses related to private or rental boat trips (\$113 million).

Participation

There were 1.58 million recreational anglers who fished in New England in 2008. This was a 90% increase from 1999 (831,000 anglers). These anglers were New England residents from either a coastal (1.39 million anglers) or non-coastal county (187,000 anglers).² Over 88% of total anglers in 2008 were residents of a coastal county. Coastal county angler participation in 2008 increased 84% relative to 1999 (756,000 anglers) and decreased slightly by 19,000 anglers between 2007 and 2008. Non-coastal county angler participation increased 149% relative to 1999 (75,000 anglers) and decreased 8.8% relative to 2007 (205,000 anglers). Over 82% of New England's anglers fished in Massachusetts.

In 2008, the majority of recreational fishermen in Massachusetts, Connecticut, and New Hampshire were residents of a coastal county within their respective state. These anglers comprised 75% of total anglers in

²At the state level, out-of-state anglers are estimated. However at the region level, out-of-region anglers are not estimated thus only New England resident anglers are discussed here. In *Fisheries Economics of the U.S., 2006* (FEUS 2006), angler participation totals from 1997-2006 incorrectly included out-of-state anglers at the region level. In this report, the 1999-2008 angler participation totals excludes these anglers.

Connecticut, 53% of total anglers in New Hampshire, and 51% of total anglers in Massachusetts. In contrast, most of Maine and Rhode Island's anglers in 2008 were out-of-state residents: 180,00 anglers or 58% of total anglers in Maine, and 297,000 anglers or 63% of total anglers in Rhode Island. Throughout New England, anglers from a non-coastal county³ accounted for a minority of total anglers in 2008: 2.9% in Maine, 6.8% in New Hampshire, and 13.1% in Massachusetts.

Fishing Trips

Recreational fishermen took 9.19 million fishing trips in New England in 2008. This was a 42% increase from 1999 (6.5 million trips) and was 500,000 fewer trips than taken in 2007. Approximately half (54%) of total trips in the region were taken from a private or rental boat (4.9 million trips). Shore-based fishing trips were also popular with 3.8 million trips taken in 2008 (41%) of total trips in New England. This fishing mode was the only one to see a significant decrease from 2007 to 2008, decreasing 13%. There were 471,000 fishing trips taken from for-hire boats in 2008, a slight decrease of 1.9% from 2007.

There were 4.5 million fishing trips taken in Massachusetts in 2008. Trips taken from this state comprised most of the fishing trips taken in New England: 49% of total trips in the region. Private or rental boat trips were the most popular fishing mode in Massachusetts (2.3 million trips) despite a 4% decrease from 2007-2008. Connecticut ranked second in terms of the total number of fishing trips taken in New England with 1.9 million trips taken by anglers in 2008. Rhode Island (1.6 million trips), Maine (840,000 trips), and New Hampshire (349,000 trips) followed. Private or rental boat trips accounted for most of the trips taken in Connecticut, Rhode Island, and New Hampshire, while shore-based trips were the most popular mode in Maine.

Harvest and Release

Striped bass had the highest catch totals of any key species and species group in New England. In 2008, approximately 7.6 million fish were caught by anglers fishing in the region and 93% of these fish were released rather than harvested. Over 53% of the striped bass caught in the region were caught in Massachusetts. Little tunny were also released in large numbers (96.2% released rather than harvested). Overall, most of New England's key species or groups were released rather than harvested. Only Atlantic mackerel (86.4%), bluefin tuna (87.5%), and winter flounder (69%) were harvested more often than released.

Many of New England's key species and species groups had dramatic changes in catch totals from 1999 to 2008. Total catch of bluefin tuna increased from less than 1,000 fish caught in 1999 to 14,000 in 2008. Little tunny (31.7% increased), bluefish (77.9%), porgies or scup (72%), and wrasses or tautog (34.9%) all experienced significant increases in their catch totals. Total catch of winter flounder decreased moderately with anglers catching 23.9% fewer fish in 2008.

³All resident anglers in Rhode Island and Connecticut are coastal county anglers.

Recreational Fishing Facts

Participation

- An average of 1.32 million anglers fished in New England annually from 1999-2008. Most of these anglers fished in Massachusetts.
- In 2008, coastal county residents made up 88% of total anglers in this region. These anglers averaged 90% of total anglers annually over the 10 year time period.
- Non-coastal county resident anglers had the largest annual decrease in participation, decreasing 16% from 1998 to 1999. These anglers also had the largest annual increase in participation, increasing 61% from 1999 to 2000. From 2007 to 2008, non-coastal county resident anglers participation decreased 8.8%.

Fishing trips

- In New England, an average of 8.79 million fishing trips were taken annually from 1999 to 2008. Most of these trips were taken in Massachusetts.
- Private or rental boat and shore-based fishing trips accounted for 4.9 million and 3.8 million fishing trips, respectively in 2008. Together, these made up 95% of fishing trips taken in that year.
- From 2007-2008 the largest decrease in fishing mode in New England was shore based fishing 13%.

Harvest and release

- Striped bass was the most commonly caught key species or species group, averaging 9.8 million fish caught over the 10 year time period. Of these, 94% were released rather than harvested.
- Seven of New England's ten key species or groups were released by anglers rather than harvested over this time period. Examples include striped bass (94% released), little tunny (93%), and bluefish (70%).
- Atlantic mackerel (90% harvested), winter flounder (59% harvested), and porgies or scup (51% harvested) were key species or groups more often harvested than released by anglers.
- Winter flounder had the largest annual increase in catch (150%) from 2007 to 2008, and tautog had the largest decrease (50%) from 2007 to 2008.

Between 2007 and 2008, large changes in catch totals were observed for the following key species or species group: increases were experienced by winter flounder (150%), summer flounder (41%), porgies (scup) (25%), and Atlantic mackerel (23); and the largest decreases occurred in wrasses (tautog) at 49.8%, bluefin tuna (30%), and striped bass (27%) from 2007 to 2008.

At the state level, striped bass has continued to remain the most caught key species. In Massachusetts, catch decreased from 2007 to 2008 (35%) to a total catch of 4.0 million fish in 2008. Two and a half million striped bass were caught in Connecticut in 2008 (28% increase from 2007). The majority of these fish were released, rather than harvested. Striped bass catches in New Hampshire decreased (69%) from 2007 to 91,000 in 2008.

In Maine, Atlantic mackerel continued to be the most caught species in 2008 (1.1 million) and most were harvested rather than released. This was a relative decrease in catch (14%) decrease from 2007. In Rhode Island, porgies (scup) were the most commonly caught fish species in 2008 (1.85 million), a 56% increase from the previous year.

Marine Economy⁴

In 2007, New England's gross domestic product by state was \$715 billion. Employee compensation totaled \$435 billion and annual payroll totaled \$295 billion. Respectively, these totals were a 48%, 25%, and 46% increase (24%, 4.7%, and 22% increase in real terms) from 1998 levels, and a 3.9%, 5.1%, and 4.4% increase (1.8%, 0.7%, 1.3% decrease in real terms) from 2006 levels. There were approximately 382,000 establishments and 6.1 million full- and part-time employees across the region in 2007. Both of these economic indicators increased slightly between 1998 and 2007 (5.1% and 5.9%, respectively). Between 2006 and 2007 the number of establishments increased 0.39%, but the number of employees decreased 0.33%.

At the state level, Massachusetts had the highest number of establishments and employees, annual payroll, employee compensation, and gross state product levels in the region. Massachusetts' 177,000 establishments employed almost 3.1 million employees in 2007. The gross state product in Massachusetts was \$352 billion, followed by Connecticut (\$212 billion), New Hampshire (\$58 billion), Maine (\$48 billion), and Rhode Island (\$47 billion).

Among the New England states where data was available, Maine had the highest commercial fishing location quotient (CFLQ)⁵ at 14.38 in 2007. This was a 78% increase from 2001 (8.09) and a 13.6% increase from 2006 (12.42). Maine's CFLQ suggests that the level of employment in commercial fishing-related industries in Maine is over 14 times higher than the national level of employment in these industries.⁶ The CFLQ in 2007 was 3.04 in Rhode Island (a 5.6% increase relative to 2001) and 0.52 in Connecticut (a 13% decrease relative to 2001).

Seafood Sales and Processing

In 2007, there were 102 nonemployer firms engaged in seafood product preparation and packaging across New England. This was a 20% increase relative to 1999 levels. Most of these firms were located in Maine (64%). Region-wide, annual receipts for this industry totaled \$11 million in 2007, a 49% increase (32% in real terms) from 1999 to 2007.

Employer establishments engaged in seafood product preparation totaled 99 in 2007, with 53% of them located in Massachusetts. From 1999 to 2007, the number of establishments region-wide decreased 3%. Over 3,400 full- and part-time workers were employed by these establishments in 2007 (1% decrease relative to 1999) and the annual payroll totaled \$130 million (51% increase).

In 2007, there were 393 seafood wholesale establishments that employed approximately 3,300 workers with an annual payroll totaling \$137 million. Across New England,

these seafood wholesale establishments, employee numbers, and annual payroll decreased over the time period, 27%, 31%, and 11%, respectively between 1999 and 2007. Similar declining trends were also experienced in all five New England states.

Seafood retail non-employer firms (172 in 2007) and establishments (254 in 2007) increased by 109% and 21% from 1999 to 2007. A 109% increase in firm numbers was observed in Rhode Island, a 53% increase in Connecticut, and a 57% increase in New Hampshire, but decreases occurred in Maine (2%) and Massachusetts (19%). Annual receipts for these firms, which totaled \$20 million in 2007, experienced a 2% decrease (13% in real terms) from 1999.

Employer establishments engaged in seafood retail increased 21% region-wide from 1999-2007. Increases were observed in all states with the largest increases in New Hampshire (114%) and Maine (56%). Employee numbers increased 86% across New England to 1,300 workers in 2007. Annual payroll increased to \$33 million, an 188% increase from 1999 totals (155% in real terms). Almost half of these establishments were located in Massachusetts.

Transport, Support, and Marine Operations

Marina industries had the highest number of establishments in 2007 with 451 establishments across New England. This was a 6% increase over 1999 levels. Most of these marina operations were located in Massachusetts and Connecticut. Ship and boat building industries employed the most people (8,700 full- and part-time workers) and had the highest annual payroll (\$427 million). Large increases were experienced in this industry, with employee numbers increasing 1,350% and annual payroll totals increasing 1,928% from 1999 to 2007 (1,696% in real terms)⁷. Most of the ship and boat building activity in the region occurred in Maine and Rhode Island.

Other industries with large or modest changes from 1999-2007 were coastal and Great Lakes freight transportation (56% increase in establishments in Massachusetts, 64% decrease in Connecticut); deep sea freight transportation (100% increase in establishments in Rhode Island and 40% in Connecticut); deep sea passenger transportation (100% increase in establishments in Maine, Connecticut and New Hampshire and 67% and 50% decreases in Rhode Island and Massachusetts respectively); marina operations (110% increase in annual payroll and 70% increase in employees in Connecticut, and a 84% increase in Massachusetts and 68% increase in Rhode Island in number of employees); marine cargo handling (40% decrease in establishments in Maine and a 67% increase in establishments in Massachusetts); navigational services to shipping industries (50% increase in establishments in Massachusetts); and port and harbor operations (100% increase in establishments in Maine and a 100% increase in Rhode Island).

⁴Data for 2008 were unavailable for this report therefore 2007 information are reported in this section.

⁵The CFLQ for 2007 was not available for New Hampshire or Massachusetts.

⁶The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

⁷Payroll and employee number information was not available for Connecticut or New Hampshire.

2008 Economic Impacts of the New England Region Seafood Industry (*thousands of dollars*)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Job Impacts
Connecticut	17,147	235,908	125,787	4,416
Maine	301,021	1,009,250	527,232	19,806
Massachusetts	399,735	3,965,159	2,107,026	73,029
New Hampshire	20,793	239,913	136,763	4,829
Rhode Island	66,647	520,340	280,174	10,626

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	662,126	688,422	638,028	696,423	690,692	821,140	970,311	953,209	903,472	805,343
Finfish & Other	205,598	218,552	220,052	207,082	200,351	194,962	200,702	183,967	178,904	193,337
Shellfish	456,527	469,870	417,975	489,341	490,341	626,179	769,608	769,242	724,567	612,006
Clam, Quahog	11,179	17,456	17,716	17,193	16,857	16,723	6,710	26,865	31,093	11,506
Cod & Haddock	32,849	37,837	46,416	49,679	44,386	40,093	39,814	31,900	39,317	42,759
Flounders	42,602	48,340	49,845	49,201	47,221	43,762	42,312	37,724	33,716	30,409
Goosefish	36,210	44,160	35,721	29,194	30,031	27,970	34,394	26,591	21,203	18,378
Herring, Atlantic	11,014	9,655	12,634	9,005	15,274	14,957	20,086	21,328	18,777	20,246
Lobster	298,519	298,516	239,681	287,621	277,946	368,647	408,712	386,059	352,022	311,566
Mackerel, Atlantic	1,223	644	437	3,776	4,404	10,414	6,830	13,527	6,001	4,302
Scallop, Sea	78,823	94,604	95,616	109,634	116,454	157,808	250,675	263,665	237,171	203,196
Squid	19,416	14,597	12,915	15,786	17,283	28,016	20,207	19,984	2,371	6,285
Tuna, Bluefin	14,042	17,305	17,043	14,349	8,267	4,297	3,186	1,715	2,077	2,887

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	583,885	576,064	631,043	588,891	660,283	723,587	684,913	701,335	583,170	594,362
Finfish & Other	402,250	382,693	458,053	387,327	468,511	487,933	460,989	463,683	374,199	393,916
Shellfish	181,635	193,371	172,990	201,564	191,772	235,654	223,924	237,652	208,971	200,446
Clam, Quahog	2,425	5,447	4,684	6,116	5,173	6,231	1,088	4,216	4,715	1,476
Cod & Haddock	28,212	33,791	45,931	45,469	38,482	34,159	30,494	19,812	24,928	31,364
Flounders	32,047	43,733	48,435	41,758	39,782	40,980	30,272	19,540	16,136	15,322
Goosefish	43,930	38,803	43,008	41,975	46,751	39,745	34,858	26,144	19,589	16,144
Herring, Atlantic	174,384	155,849	208,232	134,605	209,933	188,348	212,389	204,496	156,057	163,862
Lobster	81,160	83,029	68,560	81,382	70,502	88,678	86,223	90,843	77,357	84,193
Mackerel, Atlantic	5,783	2,468	1,591	26,649	34,839	88,124	60,469	99,751	50,761	35,533
Scallop, Sea	13,667	17,871	24,741	27,394	27,587	30,425	32,026	40,596	35,372	28,895
Squid	25,203	28,870	24,959	27,893	29,405	47,743	26,748	25,333	2,701	13,945
Tuna, Bluefin	2,230	2,243	2,534	2,386	1,787	704	722	274	300	426

Average Annual Price for Key Species / Species Groups (*price per pound*)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clam, Quahog	4.61	3.20	3.78	2.81	3.26	2.68	6.17	6.37	6.59	7.79
Cod & Haddock	1.16	1.12	1.01	1.09	1.15	1.17	1.31	1.61	1.58	1.36
Flounders	1.33	1.11	1.03	1.18	1.19	1.07	1.40	1.93	2.09	1.98
Goosefish	0.82	1.14	0.83	0.70	0.64	0.70	0.99	1.02	1.08	1.14
Herring, Atlantic	0.06	0.06	0.06	0.07	0.07	0.08	0.09	0.10	0.12	0.12
Lobster	3.68	3.60	3.50	3.53	3.94	4.16	4.74	4.25	4.55	3.70
Mackerel, Atlantic	0.21	0.26	0.28	0.14	0.13	0.12	0.11	0.14	0.12	0.12
Scallop, Sea	5.77	5.29	3.86	4.00	4.22	5.19	7.83	6.49	6.71	7.03
Squid	0.77	0.51	0.52	0.57	0.59	0.59	0.76	0.79	0.88	0.45
Tuna, Bluefin	6.30	7.71	6.73	6.01	4.63	6.10	4.41	6.26	6.93	6.78

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
Connecticut	1,910,868	4,884	742,753	427,085
Maine	839,680	1,286	108,242	56,761
Massachusetts	4,464,747	5,952	785,893	427,484
New Hampshire	348,590	357	39,009	21,439
Rhode Island	1,620,867	1,467	166,457	82,197

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	38,270	21,507	Fishing Tackle	428,214
Private Boat	40,045	112,863	Other Equipment	107,425
Shore	152,262	59,784	Boat Expenses	311,025
Total Trip Expenditures	230,578	194,153	Vehicle Expenses	553,292
			Second Home Expenses	13,945
			Total Durable Equipment Expenditures	1,413,901
Total State Trip and Durable Equipment Expenditures				1,838,632

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	756	1,042	969	1,069	1,198	1,155	1,349	1,408	1,408	1,389
Non-Coastal	75	121	108	124	152	165	169	188	205	187
Out-of-State	NA ¹									
Total Anglers	831	1,163	1,077	1,194	1,349	1,319	1,518	1,596	1,614	1,576

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	223	309	303	235	319	300	418	458	480	471
Private Boat	3,286	4,736	4,857	4,513	4,426	4,450	5,017	4,681	4,863	4,921
Shore	2,968	3,720	3,874	3,844	3,833	3,910	3,819	4,510	4,355	3,793
Total Trips	6,478	8,765	9,035	8,592	8,578	8,660	9,254	9,650	9,699	9,185

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)²

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	265	396	498	523	701	608	691	585	638	568
	R	6,436	10,002	7,931	8,577	6,760	8,586	10,831	16,327	9,739	7,003
Bluefish	H	734	669	974	865	1,167	1,279	1,234	1,541	1,359	1,209
	R	1,575	1,695	2,591	2,008	2,531	3,238	3,007	3,016	3,141	2,899
Cod, Atlantic	H	375	749	1,104	644	706	608	653	264	313	481
	R	583	1,193	1,378	1,143	1,175	945	1,525	802	1,184	1,287
Flounder, Summer	H	822	1,558	573	439	549	786	604	592	417	473
	R	1,162	1,809	1,008	1,559	1,071	1,048	1,491	2,503	1,290	1,941
Flounder, Winter	H	212	143	169	107	83	54	50	61	54	169
	R	110	136	155	74	41	32	43	65	44	76
Little Tunny ³	H	12	2	3	7	3	13	(1)	2	5	3
	R	48	108	38	54	33	109	52	38	77	76
Mackerel, Atlantic	H	2,797	4,067	3,851	3,543	2,399	1,588	3,062	4,849	3,079	3,459
	R	372	654	772	363	212	162	78	328	188	546
Porgies (Scup)	H	2,122	3,935	3,031	2,460	4,181	2,983	1,567	1,261	1,871	1,901
	R	1,073	2,549	2,837	2,382	2,829	1,759	1,902	2,548	2,543	3,595
Tuna, Bluefin	H	(1)	6	1	1	5	2	12	4	14	14
	R	(1)	(1)	(1)	(1)	4	15	12	13	9	2
Wrasses (Tautog)	H	159	137	172	265	335	294	228	321	452	299
	R	374	233	338	638	669	545	504	595	981	420

¹Out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified; NA = data are not available.

²In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

³This species may not be equivalent to species with similar names listed in the commercial tables.

2008 Economic Impacts of the Connecticut Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	235,908	125,787	4,416
Commercial Harvesters	32,952	14,446	562
Seafood Processors & Dealers	13,278	4,230	89
Seafood Wholesalers & Distributors	53,865	26,484	460
Retail Sector	135,813	80,626	3,306

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	38,090	31,227	31,176	27,779	29,825	33,399	37,570	36,892	42,053	17,147
Finfish & Other	5,785	6,428	5,712	4,283	4,136	4,575	5,097	3,731	3,421	4,008
Shellfish	32,305	24,799	25,464	23,496	25,690	28,825	32,474	33,161	38,632	13,139
Clam, Quahog	6,500	9,415	9,930	9,202	10,470	10,690	ND ²	18,135	20,531	ND ²
Flounders	1,114	1,325	1,188	909	896	1,075	1,170	1,026	881	888
Goosefish	790	1,556	1,201	790	683	580	658	346	512	525
Hake	3,203	2,864	2,341	1,307	1,602	2,028	2,432	1,628	1,226	1,001
Lobster	9,603	5,501	5,450	4,226	3,170	3,166	3,821	4,031	3,222	2,208
Oyster, Eastern	11,050	4,839	3,245	2,012	2,274	1,356	NA ¹	2,206	5,142	NA ¹
Scallop, Sea	4,223	4,034	5,727	6,400	8,125	11,203	9,761	7,229	8,605	9,859
Scups or Porgies	177	175	171	195	167	191	263	302	311	383
Snails (Conchs)	73	45	95	199	119	209	233	533	312	508
Squid, Loligo	763	ND ²	687	1,178	1,400	1,298	1,224	954	744	ND ²

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	18,430	19,563	18,748	16,177	16,420	18,196	13,638	11,750	10,262	7,074
Finfish & Other	10,889	11,175	10,609	7,799	7,825	6,832	6,548	5,807	3,931	4,505
Shellfish	7,541	8,388	8,139	8,378	8,595	11,363	7,090	5,943	6,331	2,568
Clam, Quahog	1,560	4,021	3,382	3,435	4,038	5,137	ND ²	2,665	3,160	ND ²
Flounders	758	1,041	1,011	633	565	637	582	456	345	312
Goosefish	968	1,544	1,360	1,029	1,023	897	524	496	460	378
Hake	6,855	6,598	5,644	2,904	2,875	2,936	3,735	2,632	1,831	2,481
Lobster	2,596	1,394	1,330	1,067	671	647	714	793	569	427
Oyster, Eastern	1,309	624	434	247	279	186	NA ¹	77	313	NA ¹
Scallop, Sea	771	800	1,538	1,579	1,908	2,172	1,272	1,104	1,313	1,401
Scups or Porgies	96	142	220	314	292	256	328	298	256	281
Snails (Conchs)	116	70	36	128	70	31	50	101	117	184
Squid, Loligo	1,120	ND ²	1,026	1,778	1,572	1,699	1,537	1,157	811	ND ²

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clam, Quahog	4.17	2.34	2.94	2.68	2.59	2.08	ND ²	6.80	6.50	ND ²
Flounders	1.47	1.27	1.17	1.44	1.59	1.69	2.01	2.25	2.55	2.84
Goosefish	0.82	1.01	0.88	0.77	0.67	0.65	1.26	0.70	1.11	1.39
Hake	0.47	0.43	0.41	0.45	0.56	0.69	0.65	0.62	0.67	0.40
Lobster	3.70	3.95	4.10	3.96	4.72	4.89	5.35	5.08	5.67	5.17
Oyster, Eastern	8.44	7.76	7.48	8.16	8.14	7.30	NA ¹	28.61	16.43	NA ¹
Scallop, Sea	5.47	5.04	3.72	4.05	4.26	5.16	7.67	6.55	6.55	7.03
Scups or Porgies	1.84	1.23	0.77	0.62	0.57	0.75	0.80	1.01	1.22	1.36
Snails (Conchs)	0.63	0.64	2.65	1.55	1.69	6.69	4.66	5.28	2.66	2.76
Squid, Loligo	0.68	ND ²	0.67	0.66	0.89	0.76	0.80	0.82	0.92	ND ²

¹NA = these data are not available.²ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	67	6,971	4,308
Private Boat	276	35,086	22,039
Shore	85	9,534	5,901
Total Durable Equipment Impacts	4,456	691,162	394,836
Total State Trip and Durable Equipment Economic Impacts	4,884	742,753	427,085

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	1,215	3,462	Fishing Tackle	179,681
Private Boat	4,292	31,553	Other Equipment	33,692
Shore	2,031	7,741	Boat Expenses	179,886
Total Trip Expenditures	7,538	42,757	Vehicle Expenses	299,388
			Second Home Expenses	0
			Total Durable Equipment Expenditures	692,646
Total State Trip and Durable Equipment Expenditures				742,941

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	243	222	246	283	361	297	323	336	302	381
Non-Coastal	NA ¹									
Out of State	55	53	78	87	112	63	77	44	61	123
Total Anglers	297	275	324	371	473	359	400	380	363	504

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	22	46	46	51	64	39	38	45	50	62
Private Boat	774	854	981	953	875	924	1073	863	1089	1,286
Shore	523	609	695	645	625	574	483	569	544	562
Total Trips	1,319	1,508	1,723	1,650	1,564	1,537	1,594	1,477	1,683	1,910

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)²

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	56	53	54	51	96	75	115	83	110	113
	R	704	926	1,108	697	843	1,079	1,714	1,682	1,832	2,372
Bluefish	H	196	166	229	269	437	529	293	476	375	428
	R	368	598	697	523	541	903	545	786	847	1,132
Cod, Atlantic	H	1	(1)	(1)	(1)	2	(1)	(1)	(1)	(1)	(1)
	R	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Flounder, Summer	H	215	372	153	93	166	217	213	107	109	116
	R	502	443	406	452	475	363	839	902	325	792
Flounder, Winter	H	67	10	15	16	24	4	4	8	4	(1)
	R	25	11	32	9	6	9	1	24	14	(1)
Little Tunny ³	H	1	(1)	1	(1)	1	2	(1)	(1)	(1)	(1)
	R	3	71	27	28	8	9	(1)	(1)	5	(1)
Perch, White	H	14	17	(1)	1	11	1	(1)	(1)	(1)	74
	R	14	140	7	27	28	30	3	3	88	138
Porgies (Scup)	H	374	1,318	1,016	882	1,529	564	724	519	690	672
	R	273	925	931	570	804	387	719	733	871	1,131
Shad, Hickory	H	40	(1)	16	71	71	28	52	80	57	5
	R	81	48	88	377	79	103	35	110	8	24
Wrasses (Tautog)	H	16	11	17	100	168	98	75	176	211	177
	R	68	29	59	219	283	329	144	141	445	200

¹All Connecticut residents are considered coastal county residents thus this category is not applicable (NA).

²In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

³This 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 (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	92,362 (1.3%)	1,493,964 (1.4%)	58,226 (1.8%)	96,391 (1.6%)	145,373 (1.7%)	0.6
2007	93,615 (1.2%)	1,539,268 (1.3%)	81,460 (1.6%)	122,827 (1.6%)	212,252 (1.5%)	0.52 (2006)
% change	1.4%	3.0%	39.9%	27.4%	46.0%	-13.3%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	0	4	0	0	7	7	7	11	0
	Receipts	ND ³	441	ND	ND	1,022	1,404	551	3,206	ND
Seafood Sales, retail	Firms	17	19	20	26	26	25	24	15	26
	Receipts	2,250	1,780	2,378	3,225	2,966	3,115	3,313	2,915	4,436

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	3	3	2	2	2	3	3	4	3
	Employees	ND	ND	ND	ND	ND	ND	113	119	ND
	Payroll	ND	ND	ND	ND	ND	ND	3,656	4,242	ND
Seafood sales, wholesale	Establishments	29	26	25	28	19	19	17	19	20
	Employees	187	ND	ND	ND	169	181	ND	ND	183
	Payroll	8,725	ND	ND	ND	7,738	7,688	ND	ND	8,347
Seafood sales, retail	Establishments	36	31	34	36	34	38	39	35	36
	Employees	ND	112	131	165	206	202	187	196	177
	Payroll	ND	2,760	3,403	3,859	5,110	5,060	5,028	4,937	5,252

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	11	10	8	5	6	5	5	4	4
	Employees	ND	396	506	ND	ND	ND	ND	ND	ND
	Payroll	ND	22,291	31,940	ND	ND	ND	ND	ND	ND
Deep sea freight transportation	Establishments	10	13	12	11	12	13	11	14	14
	Employees	ND	ND	ND	238	270	260	310	235	228
	Payroll	ND	ND	ND	18,271	29,086	37,013	36,766	47,845	48,110
Deep sea passenger transportation	Establishments	1	1	2	2	2	2	2	1	2
	Employees	ND								
	Payroll	ND								
Marinas	Establishments	107	101	101	108	116	117	117	119	124
	Employees	720	676	ND	722	1,006	1,016	994	1,024	1,224
	Payroll	24,243	24,375	ND	29,690	39,691	41,952	42,754	44,829	50,809
Marine cargo handling	Establishments	4	1	2	1	.	1	3	3	5
	Employees	ND	ND	ND	ND	.	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	.	ND	ND	ND	5,925
Navigational services to shipping	Establishments	6	5	4	8	6	6	8	9	6
	Employees	ND	ND	ND	ND	ND	ND	45	69	ND
	Payroll	ND	ND	ND	ND	ND	ND	1,768	2,423	432
Port & harbor operations	Establishments	4	3	3	5	4	4	4	4	4
	Employees	ND	ND	ND	185	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	5,527	ND	ND	ND	ND	ND
Ship & boat building	Establishments	18	18	14	12	14	17	17	17	22
	Employees	ND								
	Payroll	ND								

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Maine Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	1,009,250	527,232	19,806
Commercial Harvesters	195,246	73,785	2,351
Seafood Processors and Dealers	85,114	28,668	825
Seafood Wholesalers and Distributors	125,136	64,438	1,241
Retail Sectors	603,755	360,341	15,389

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	265,213	269,082	241,383	290,315	287,049	367,093	391,903	361,849	348,336	301,021
Finfish & Other	56,789	56,732	56,662	47,489	49,292	48,954	47,090	37,104	36,894	40,100
Shellfish	208,425	212,350	184,721	242,826	237,757	318,139	344,813	324,745	311,442	260,921
Bloodworms	2,888	1,592	4,851	5,759	5,292	7,524	6,039	5,037	6,050	5,881
Clam, Ocean Quahog	2,611	3,310	3,499	4,748	4,480	3,842	3,607	3,919	3,194	2,195
Clam, Softshell	10,465	9,546	16,609	14,370	15,859	16,628	14,081	13,165	12,492	12,491
Cod & Haddock	3,976	5,330	6,469	5,944	4,673	5,401	5,168	3,994	3,728	1,484
Goosefish	5,207	8,876	7,991	6,248	7,852	6,840	6,219	3,238	2,402	ND ¹
Herring, Atlantic	7,710	6,400	7,165	4,618	7,296	7,943	9,341	10,602	9,176	8,305
Lobster	184,614	187,715	153,982	210,950	205,715	289,079	317,948	297,165	285,296	235,472
Mussel, Blue	688	1,037	2,650	4,117	4,487	3,319	2,625	2,619	1,943	1,614
Pollock	3,111	3,258	2,448	2,386	2,206	2,347	3,105	2,309	2,160	ND ¹
Sea Urchins	20,300	17,739	12,694	7,657	8,569	7,866	5,142	3,693	4,368	5,206

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	229,604	228,213	236,240	202,483	223,533	228,388	214,424	217,712	184,456	178,545
Finfish & Other	155,592	144,484	167,022	113,132	141,621	130,407	121,239	121,340	96,579	92,590
Shellfish	74,012	83,729	69,218	89,351	81,912	97,981	93,185	96,372	87,877	85,955
Bloodworms	515	327	644	683	594	615	456	450	549	535
Clam, Ocean Quahog	948	1,208	1,083	1,287	1,194	1,013	1,001	1,214	1,011	669
Clam, Softshell	2,282	2,284	2,660	2,423	2,364	2,380	1,857	1,867	1,931	1,945
Cod & Haddock	3,163	4,295	5,741	5,172	3,860	4,594	4,039	2,448	2,346	1,132
Goosefish	7,629	8,601	10,983	11,127	13,291	10,567	7,115	3,666	2,376	ND ¹
Herring, Atlantic	111,416	100,097	115,825	67,169	96,681	89,687	87,451	96,214	72,757	65,570
Lobster	53,494	57,215	48,618	63,626	54,971	71,574	68,730	72,667	64,335	67,227
Mussel, Blue	1,809	2,838	2,749	4,793	4,287	4,102	3,357	2,898	2,643	2,266
Pollock	3,568	3,955	3,447	2,958	4,085	4,190	5,259	3,678	4,249	ND ¹
Sea Urchins	15,435	12,898	9,901	6,321	5,963	5,742	3,517	2,800	2,762	2,788

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bloodworms	5.61	4.87	7.53	8.43	8.91	12.24	13.24	11.20	11.02	11.00
Clam, Ocean Quahog	2.75	2.74	3.23	3.69	3.75	3.79	3.60	3.23	3.16	3.28
Clam, Softshell	4.59	4.18	6.25	5.93	6.71	6.99	7.58	7.05	6.47	6.42
Cod & Haddock	1.26	1.24	1.13	1.15	1.21	1.18	1.28	1.63	1.59	1.31
Goosefish	0.68	1.03	0.73	0.56	0.59	0.65	0.87	0.88	1.01	ND ¹
Herring, Atlantic	0.07	0.06	0.06	0.07	0.08	0.09	0.11	0.11	0.13	0.13
Lobster	3.45	3.28	3.17	3.32	3.74	4.04	4.63	4.09	4.43	3.50
Mussel, Blue	0.38	0.37	0.96	0.86	1.05	0.81	0.78	0.90	0.74	0.71
Pollock	0.87	0.82	0.71	0.81	0.54	0.56	0.59	0.63	0.51	ND ¹
Sea Urchins	1.32	1.38	1.28	1.21	1.44	1.37	1.46	1.32	1.58	1.87

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	110	8,129	4,594
Private Boat	99	8,374	4,944
Shore	583	41,673	22,970
Total Durable Equipment Impacts	493	50,065	24,254
Total State Trip and Durable Equipment Economic Impacts	1,286	108,242	56,761

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	5,219	601	Fishing Tackle	20,983
Private Boat	2,789	5,571	Other Equipment	9,520
Shore	27,769	2,789	Boat Expenses	25,483
Total Trip Expenditures	35,777	8,961	Vehicle Expenses	14,765
			Second Home Expenses	526
			Total Durable Equipment Expenditures	71,275
Total State Trip and Durable Equipment Expenditures				116,013

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	112	139	126	127	165	113	190	182	174	121
Non-Coastal	10	20	16	17	23	21	20	22	13	9
Out of State	95	150	166	172	170	148	173	285	260	180
Total Anglers	216	310	308	316	358	282	383	489	447	310

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	9	17	20	13	14	38	38	31	33	31
Private / Rental	270	482	444	422	410	315	552	517	486	382
Shore	350	396	469	471	495	406	499	649	703	426
Total Trips	629	895	932	906	919	758	1,089	1,197	1,222	840

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	21	62	60	72	58	37	69	73	71	49
	R	650	943	871	1,392	847	748	3,024	4,063	1,105	470
Bluefish	H	8	(1)	15	24	14	17	19	6	37	24
	R	20	4	40	42	23	38	51	42	72	65
Cod, Atlantic	H	13	41	92	15	11	42	26	12	22	35
	R	30	50	73	16	25	43	43	41	79	59
Flounder, Winter	H	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	1	(1)	3	(1)	1	(1)	(1)	1	(1)	1
Haddock	H	1	11	12	3	1	12	7	8	13	15
	R	1	16	17	4	4	3	3	4	13	3
Mackerel, Atlantic	H	881	1,406	1,175	1,207	616	778	761	387	1,139	839
	R	165	304	319	234	106	79	32	95	95	227
Pollock	H	16	74	58	76	10	57	45	78	43	90
	R	33	103	130	48	17	39	53	27	19	162
Shad, American	H	1	1	(1)	(1)	(1)	(1)	1	4	(1)	(1)
	R	(1)	1	2	(1)	1	2	(1)	20	3	4
Shark, Blue	H	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	3	(1)	(1)	(1)	(1)	1	(1)	(1)	(1)	(1)
Tuna, Bluefin	H	(1)	(1)	(1)	(1)	(1)	(1)	1	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

Maine's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	38,334 (0.6%)	456,715 (0.4%)	11,559 (0.3%)	22,035 (0.4%)	31,731 (0.4%)	8.09
2007	42,506 (0.6%)	503,789 (0.4%)	17,049 (0.3%)	27,737 (0.4%)	48,021(0.4%)	14.38
% change	10.9%	10.3%	47.5%	23.8%	51.3%	77.7%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	54	51	55	50	62	57	52	54	65
	Receipts	4,154	3,657	6,301	3,023	4,699	5,642	5,082	6,463	7,177
Seafood Sales, retail	Firms	56	60	51	62	60	55	51	45	55
	Receipts	6,602	9,505	8,486	8,980	8,365	8,621	7,331	7,115	5,905

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	43	40	36	33	35	28	27	27	27
	Employees	1,024	992	1,007	639	656	576	614	616	536
	Payroll	12,676	12,110	13,125	11,301	13,999	19,767	12,349	12,304	9,351
Seafood sales, wholesale	Establishments	201	194	182	190	181	177	177	167	170
	Employees	1,722	1,631	1,235	1,256	985	1,048	1,152	996	1,015
	Payroll	34,045	36,325	32,599	36,043	29,643	30,108	30,513	32,192	32,005
Seafood sales, retail	Establishments	32	34	41	47	51	50	49	55	50
	Employees	146	ND	ND	173	181	189	184	179	181
	Payroll	2,512	ND	ND	3,971	4,663	5,112	4,678	4,753	4,635

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	7	6	6	4	5	4	3	3	3
	Employees	ND ³	ND	ND	30	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	939	ND	ND	ND	ND	ND
Deep sea freight transportation	Establishments	3	3	4	3	2	2	1	1	NA
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	NA
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	NA
Deep sea passenger transportation	Establishments	1	2	2	4	1	1	1	1	2
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	91	91	89	85	79	84	84	84	86
	Employees	508	592	600	503	416	406	411	417	464
	Payroll	14,712	16,454	18,121	16,055	12,853	13,369	14,215	15,353	18,600
Marine cargo handling	Establishments	5	4	4	4	4	4	3	3	3
	Employees	ND	ND	ND	91	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	3,183	ND	ND	ND	ND	ND
Navigational services to shipping	Establishments	16	14	16	18	17	16	16	12	15
	Employees	55	49	45	88	106	91	88	93	105
	Payroll	3,015	3,175	3,371	4,341	5,521	4,927	5,890	6,260	6,737
Port & harbor operations	Establishments	1	1	1	NA ⁴	1	1	1	1	2
	Employees	ND	ND	ND	NA	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	NA	ND	ND	ND	ND	ND
Ship & boat building	Establishments	75	72	79	87	91	86	92	89	94
	Employees	ND	ND	8,242	ND	7,630	7,753	ND	6,808	6,751
	Payroll	ND	ND	300,378	ND	332,332	328,179	ND	320,288	345,036

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

⁴NA = Data are not available.

2008 Economic Impacts of the Massachusetts Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	3,965,159	2,107,026	73,029
Commercial Harvesters	356,116	146,006	2,982
Seafood Processors and Dealers	466,914	182,965	3,796
Seafood Wholesalers and Distributors	595,583	290,278	5,035
Retail Sectors	2,546,546	1,487,776	61,216

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	260,250	290,950	278,946	296,922	292,602	325,982	427,340	437,047	420,177	399,735
Finfish & Other	110,159	120,595	122,944	122,845	116,767	109,158	117,000	110,169	109,442	121,838
Shellfish	150,091	170,356	156,002	174,077	175,835	216,824	310,340	326,879	310,735	277,897
Clam, Ocean Quahog	6,905	5,235	ND ²	ND ²	7,325	6,919	ND ²	8,297	10,100	ND ²
Clams, All Other	653	581	5,927	8,169	823	4,721	19,027	14,071	15,698	24,828
Cod & Haddock	27,372	29,573	36,905	40,550	36,668	31,447	31,954	25,452	32,033	38,640
Flounders	27,425	30,521	33,086	33,092	32,995	29,898	28,815	24,593	22,091	20,910
Goosefish	21,847	24,121	18,263	15,546	15,585	15,676	21,485	17,712	14,381	14,054
Herring, Atlantic	1,260	604	2,769	2,285	5,461	4,570	8,280	7,828	8,270	11,304
Lobster	66,770	70,116	53,430	56,569	52,329	51,581	49,556	52,557	51,357	45,155
Mackerel, Atlantic	331	184	141	713	1,888	6,542	3,907	10,202	4,736	4,258
Oyster, Eastern	NA ¹	24	2,738	4,620	4,559	5,466				
Scallop, Sea	70,226	85,294	87,357	100,551	106,938	144,728	226,948	234,797	218,291	190,217

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	198,677	189,031	240,759	243,501	295,439	338,215	338,006	348,651	304,811	326,082
Finfish & Other	143,932	130,095	182,473	175,490	231,978	267,338	267,302	268,293	227,648	255,474
Shellfish	54,745	58,937	58,286	68,011	63,461	70,877	70,704	80,357	77,162	70,607
Clam, Ocean Quahog	16,530	12,397	ND ²	ND ²	14,226	14,085	ND ²	16,798	20,158	ND ²
Clams, All Other	880	734	10,836	17,057	1,045	6,315	19,830	4,515	4,194	22,489
Cod & Haddock	23,616	26,685	37,162	37,521	32,013	26,922	24,539	15,862	20,369	28,548
Flounders	21,384	29,041	33,989	28,987	29,418	30,704	22,115	13,182	11,022	11,653
Goosefish	26,422	20,888	22,120	22,794	23,979	22,357	21,849	17,496	13,318	12,474
Herring, Atlantic	23,756	9,615	48,960	40,508	79,873	68,424	99,449	82,821	73,308	93,771
Lobster	15,534	15,803	12,133	12,853	11,385	11,295	9,879	10,967	10,155	10,530
Mackerel, Atlantic	1,302	479	387	5,549	23,451	72,687	52,246	89,535	46,240	35,446
Oyster, Eastern	NA ¹	9	105	213	127	149				
Scallop, Sea	12,254	16,175	22,640	25,290	25,371	27,940	29,045	36,108	32,540	27,056

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clam, Ocean Quahog	0.42	0.42	ND ²	ND ²	0.51	0.49	ND ²	0.49	0.50	ND ²
Clams, All Other	0.74	0.79	0.55	0.48	0.79	0.75	0.96	3.12	3.74	1.10
Cod & Haddock	1.16	1.11	0.99	1.08	1.15	1.17	1.30	1.60	1.57	1.35
Flounders	1.28	1.05	0.97	1.14	1.12	0.97	1.30	1.87	2.00	1.79
Goosefish	0.83	1.15	0.83	0.68	0.65	0.70	0.98	1.01	1.08	1.13
Herring, Atlantic	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.09	0.11	0.12
Lobster	4.30	4.44	4.40	4.40	4.60	4.57	5.02	4.79	5.06	4.29
Mackerel, Atlantic	0.25	0.38	0.36	0.13	0.08	0.09	0.07	0.11	0.10	0.12
Oyster, Eastern	NA ¹	2.74	26.09	21.74	36.02	36.64				
Scallop, Sea	5.73	5.27	3.86	3.98	4.21	5.18	7.81	6.50	6.71	7.03

¹NA = these data are not available.²ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	557	53,580	31,966
Private Boat	707	82,731	50,724
Shore	1,988	205,057	121,411
Total Durable Equipment Impacts	2,700	444,524	223,383
Total State Trip and Durable Equipment Economic Impacts	5,952	785,893	427,484

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	22,443	13,035	Fishing Tackle	158,118
Private Boat	14,971	59,006	Other Equipment	42,788
Shore	101,282	41,537	Boat Expenses	83,950
Total Trip Expenditures	138,696	113,578	Vehicle Expenses	207,311
			Second Home Expenses	11,505
			Total Durable Equipment Expenditures	503,672
Total State Trip and Durable Equipment Expenditures				755,946

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	240	493	392	465	434	535	585	623	664	655
Non-Coastal	57	90	79	96	112	131	135	151	179	170
Out of State	174	265	279	344	306	335	391	484	465	469
Total Anglers	471	848	750	906	852	1,000	1,112	1,258	1,309	1,293

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	146	172	134	106	145	133	246	242	242	235
Private Boat	1,552	2,518	2,569	2,399	2,329	2,456	2,383	2,438	2,419	2,322
Shore	1,285	1,931	1,821	1,701	1,611	1,913	1,809	2,044	2,049	1,907
Total Trips	2,983	4,622	4,524	4,206	4,085	4,502	4,439	4,724	4,710	4,465

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Atlantic Bonito	H	1	4	13	6	11	4	15	5	4	3
	R	1	8	8	17	(1)	3	12	18	12	5
Bass, Striped	H	127	181	288	309	407	400	368	340	347	343
	R	4,576	7,382	5,411	5,719	4,362	5,892	4,840	8,657	5,772	3,641
Bluefish	H	197	221	357	229	374	406	589	686	587	414
	R	397	596	948	628	1,019	1,468	1,812	1,507	1,344	1,242
Cod, Atlantic	H	284	599	842	585	583	519	558	188	239	372
	R	471	975	1,119	1,049	937	843	1,337	534	883	1,029
Flounder, Summer	H	175	379	152	155	177	281	203	219	76	150
	R	219	445	210	336	244	388	308	556	99	181
Flounder, Winter	H	60	74	61	53	45	40	42	43	37	155
	R	46	100	97	34	30	17	39	35	17	65
Haddock	H	6	81	73	61	75	215	334	151	291	263
	R	12	88	45	125	130	104	87	89	55	108
Mackerel, Atlantic	H	1,321	2,049	1,811	2,024	1,313	722	1,967	4,296	1,789	2,047
	R	77	231	157	61	45	73	21	203	83	261
Porgies (Scup)	H	1,029	1,382	881	975	1,624	1,511	397	314	729	660
	R	521	748	832	879	1,221	855	516	931	936	1,177
Wrasses (Tautog)	H	91	88	116	103	47	23	48	63	76	24
	R	152	139	205	284	190	63	148	266	331	86

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

Massachusetts' State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	167,929 (2.4%)	2,924,913 (2.7%)	105,871 (3.2%)	181,507 (3.1%)	236,079 (2.7%)	7.54 (2001)
2007	176,701 (2.3%)	3,073,941 (2.5%)	157,236 (3.1%)	224,373 (3.1%)	352,178 (2.6%)	9.25 (2005)
% change	5.2%	5.1%	48.5%	23.6%	49.1%	26.5%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	31	22	29	26	23	25	28	36	24
	Receipts	3,455	2,684	1,762	1,296	676	2,284	2,266	2,525	908
Seafood Sales, retail	Firms	70	62	62	78	59	64	59	62	57
	Receipts	9,075	6,128	6,171	7,314	5,409	5,933	5,528	4,905	4,421

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	42	42	41	45	55	53	50	47	52
	Employees	1,880	2,251	2,164	2,231	2,717	2,743	2,671	2,607	2,684
	Payroll	77,625	82,907	83,249	92,776	110,917	112,642	115,704	120,912	113,580
Seafood sales, wholesale	Establishments	247	229	212	207	163	148	151	139	160
	Employees	2,486	2,685	2,508	2,393	1,880	1,890	1,836	1,706	1,803
	Payroll	99,482	104,358	105,904	107,871	74,431	75,689	76,070	77,106	81,863
Seafood sales, retail	Establishments	111	109	115	126	124	128	116	115	126
	Employees	451	435	451	490	720	686	677	692	737
	Payroll	7,071	7,401	8,224	10,673	17,760	17,454	17,725	18,165	19,267

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	9	9	12	10	13	13	10	12	14
	Employees	585	ND ³	ND	ND	ND	688	ND	623	283
	Payroll	27,494	ND	ND	ND	ND	36,533	ND	38,421	18,620
Deep sea freight transportation	Establishments	14	12	14	12	10	10	10	11	12
	Employees	375	368	ND	ND	ND	ND	ND	509	ND
	Payroll	24,000	31,434	ND	ND	ND	ND	ND	38,982	ND
Deep sea passenger transportation	Establishments	2	2	2	2	1	1	4	4	1
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	133	131	136	139	145	135	139	141	173
	Employees	838	865	996	988	969	989	973	1,064	1,154
	Payroll	28,090	30,790	34,865	35,169	40,700	41,474	43,103	45,894	51,705
Marine cargo handling	Establishments	3	6	7	7	6	6	5	4	5
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	69
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	2,867
Navigational services to shipping	Establishments	6	4	5	5	5	7	6	11	9
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	65
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	4,540
Port & harbor operations	Establishments	NA ⁴	NA	NA	NA	3	3	3	4	3
	Employees	NA	NA	NA	NA	ND	ND	ND	ND	69
	Payroll	NA	NA	NA	NA	ND	ND	ND	ND	647
Ship & boat building	Establishments	51	54	56	50	53	55	50	47	49
	Employees	601	599	577	617	ND	ND	588	ND	588
	Payroll	21,068	18,503	18,813	21,710	ND	ND	20,050	ND	26,445

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

⁴NA = Data are not available.

2008 Economic Impacts of the New Hampshire Seafood Industry (*thousands of dollars*)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	371,868	208,042	7,492
Commercial Harvesters	36,426	16,251	635
Seafood Processors and Dealers	43,614	22,456	488
Seafood Wholesalers and Distributors	62,226	31,702	581
Retail Sectors	229,603	137,633	5,789

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	12,538	16,197	17,865	16,689	15,127	17,214	22,084	18,844	19,366	20,793
Finfish & Other	5,514	7,848	8,231	7,350	5,748	6,449	6,840	4,785	4,151	4,561
Shellfish	7,024	8,349	9,634	9,339	9,380	10,765	15,244	14,059	15,215	16,233
Cod, Atlantic	394	1,807	2,017	1,983	1,853	2,244	1,913	1,708	1,972	2,138
Goosefish	1,714	2,715	2,812	1,853	1,097	1,456	1,484	794	375	255
Haddock	104	187	181	134	144	157	136	132	123	75
Hake	550	463	367	321	303	200	279	219	244	ND ¹
Herring, Atlantic	148	306	399	783	1,170	1,147	1,255	199	147	ND ¹
Lobster	5,916	7,081	8,072	2	ND ¹	10,199	14,377	13,915	ND ¹	15,845
Pollock	1,430	1,045	891	847	589	569	1,138	1,221	902	ND ¹
Scallop, Sea	ND ¹	ND ¹	689	726	375	276	527	24	30	25
Shark, Spiny Dogfish	205	605	148	85	27	0	ND ¹	183	ND ¹	414
Shrimp	282	375	369	104	212	222	340	120	322	291

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	11,251	17,886	18,584	23,200	27,435	23,796	21,281	10,339	8,433	10,953
Finfish & Other	8,753	14,931	15,078	20,354	24,747	21,074	18,081	7,375	5,177	6,982
Shellfish	2,498	2,954	3,505	2,846	2,688	2,722	3,200	2,963	3,256	3,971
Cod, Atlantic	350	1,756	1,976	1,583	1,458	1,633	1,293	1,024	1,168	1,369
Goosefish	1,384	1,873	2,463	1,876	1,629	1,640	1,226	621	317	220
Haddock	74	134	135	95	108	123	99	73	61	44
Hake	888	1,094	820	557	729	405	372	241	313	ND ¹
Herring, Atlantic	2,443	5,582	7,015	14,125	18,933	15,589	12,562	2,020	936	ND ¹
Lobster	1,380	1,710	2,028	0	ND ¹	2,097	2,556	2,666	ND ¹	3,253
Pollock	1,641	1,337	1,183	997	1,109	1,202	1,997	2,566	2,036	ND ¹
Scallop, Sea	ND ¹	ND ¹	171	177	100	44	76	3	4	3
Shark, Spiny Dogfish	1,238	2,334	536	349	175	0	ND ¹	620	ND ¹	1,370
Shrimp	376	468	506	90	223	432	567	294	783	572

Average Annual Price for Key Species / Species Groups (*price per pound*)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Cod, Atlantic	1.13	1.03	1.02	1.25	1.27	1.37	1.48	1.67	1.69	1.56
Goosefish	1.24	1.45	1.14	0.99	0.67	0.89	1.21	1.28	1.18	1.16
Haddock	1.41	1.39	1.35	1.41	1.33	1.27	1.38	1.82	2.01	1.73
Hake	0.62	0.42	0.45	0.58	0.41	0.49	0.75	0.91	0.78	ND ¹
Herring, Atlantic	0.06	0.05	0.06	0.06	0.06	0.07	0.10	0.10	0.16	ND ¹
Lobster	4.29	4.14	3.98	3.86	ND ¹	4.86	5.62	5.22	ND ¹	4.87
Pollock	0.87	0.78	0.75	0.85	0.53	0.47	0.57	0.48	0.44	ND ¹
Scallop, Sea	ND ¹	ND ¹	4.04	4.10	3.76	6.22	6.89	7.44	8.26	7.79
Shark, Spiny Dogfish	0.17	0.26	0.28	0.24	0.16	0.18	ND ¹	0.30	ND ¹	0.30
Shrimp	0.75	0.80	0.73	1.16	0.95	0.51	0.60	0.41	0.41	0.51

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	129	10,582	6,200
Private Boat	47	4,833	2,921
Shore Mode	39	3,561	2,110
Total Durable Equipment Impacts	142	20,033	10,208
Total State Trip and Durable Equipment Economic Impacts	357	39,009	21,439

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	4,160	3,197	Fishing Tackle	10,859
Private Boat	717	4,166	Other Equipment	3,018
Shore	1,958	1,385	Boat Expenses	3,820
Total Trip Expenditures	6,835	8,748	Vehicle Expenses	8,008
			Second Home Expenses	0
			Total Durable Equipment Expenditures	25,705
Total State Trip and Durable Equipment Expenditures				41,288

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	55	77	68	60	91	81	105	90	97	63
Non-Coastal	8	10	13	11	16	13	14	15	13	8
Out of State	60	85	74	65	75	69	84	82	63	46
Total Anglers	123	172	154	137	182	163	203	187	172	118

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	25	34	83	29	35	39	47	88	94	82
Private Boat	112	145	177	143	230	141	236	192	248	147
Shore	147	189	100	147	150	181	237	267	196	119
Total Trips	285	368	360	318	416	360	520	547	538	349

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	5	4	15	13	25	10	26	15	7	7
	R	146	210	164	238	260	197	513	568	289	84
Bluefish	H	4	1	8	19	8	21	23	10	32	6
	R	5	1	14	14	17	10	42	26	18	2
Bottomfish, Unidentified	H	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Cod, Atlantic	H	39	70	164	39	108	44	69	61	51	73
	R	68	148	184	70	208	56	143	225	221	198
Flounder or Sole, Unidentified	H	11	8	9	8	7	2	3	10	13	14
	R	6	8	6	10	3	2	3	5	10	8
Flounder, Winter	H	(1)	4	(1)	(1)	(1)	2	1	(1)	5	(1)
	R	1	9	2	5	1	2	4	6	2	2
Haddock	H	7	17	36	19	44	51	107	120	95	81
	R	7	29	50	43	128	17	36	86	41	18
Mackerel, Atlantic	H	446	581	828	212	409	86	333	153	151	573
	R	109	120	297	69	61	10	25	31	11	58
Pollock	H	74	177	167	89	63	53	49	80	56	53
	R	110	293	265	63	42	28	29	39	15	18
Tuna, Bluefin	H	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

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

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	36,842 (0.5%)	518,526 (0.5%)	14,864 (0.5%)	26,752 (0.5%)	39,102 (0.5%)	0.08
2007	39,453 (0.5%)	573,209 (0.5%)	22,791 (0.5%)	34,872 (0.4%)	57,820 (0.4%)	ND
% change	6.9%	11.4%	47.3%	25.7%	43.4%	--

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	NA ³	NA	NA	NA	7	4	4	4	5
	Receipts	ND ⁴	NA	NA	ND	1,205	1,147	842	1,087	927
Seafood Sales, retail	Firms	7	6	8	9	14	15	11	10	11
	Receipts	850	419	1,055	862	960	1,438	1,330	1,496	1,540

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	8	10	8	9	11	10	10	10	7
	Employees	298	298	ND	368	322	448	418	ND	ND
	Payroll	9,377	9,952	ND	13,452	13,676	18,886	16,275	ND	ND
Seafood sales, wholesale	Establishments	16	14	14	14	11	12	10	9	8
	Employees	ND	68	75	78	ND	82	ND	ND	92
	Payroll	ND	1,813	2,222	2,093	ND	2,511	ND	ND	3,360
Seafood sales, retail	Establishments	7	7	9	9	12	12	12	15	15
	Employees	ND	ND	ND	ND	ND	ND	79	78	93
	Payroll	ND	ND	ND	ND	ND	ND	2,053	2,201	2,077

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	NA	1	1	1	NA	NA	1	1	1
	Employees	NA	ND	ND	ND	NA	NA	ND	ND	ND
	Payroll	NA	ND	ND	ND	NA	NA	ND	ND	ND
Deep sea freight transportation	Establishments	1	2	1	1	1	1	2	2	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	1	1	1	1	NA	NA	NA	NA	NA
	Employees	ND	ND	ND	ND	NA	NA	NA	NA	NA
	Payroll	ND	ND	ND	ND	NA	NA	NA	NA	NA
Marinas	Establishments	43	39	42	36	40	40	38	35	35
	Employees	233	249	209	228	196	226	194	ND	171
	Payroll	6,757	7,768	8,135	10,872	9,043	9,315	8,871	ND	7,774
Navigational services to shipping	Establishments	2	2	2	2	3	3	4	4	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	1	1	1	1	NA	NA	NA	NA	NA
	Employees	ND	ND	ND	ND	NA	NA	NA	NA	NA
	Payroll	ND	ND	ND	ND	NA	NA	NA	NA	NA
Ship & boat building	Establishments	4	5	6	8	10	8	6	6	8
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ NA = Data are not available.

⁴ ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Rhode Island Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	520,340	280,174	10,626
Commercial Harvesters	106,749	45,712	1,904
Seafood Processors & Dealers	38,214	13,863	339
Seafood Wholesalers & Distributors	78,556	40,525	737
Retail Sector	296,821	180,075	7,645

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	86,034	80,965	68,657	64,718	66,088	77,452	91,414	98,576	73,539	66,647
Finfish & Other	27,353	26,949	26,503	25,115	24,408	25,826	24,676	28,178	24,996	22,831
Shellfish	58,682	54,016	42,154	39,602	41,679	51,627	66,738	70,397	48,543	43,817
Clam, Quahog	4,665	7,991	7,208	7,043	6,370	5,870	3,439	3,528	5,080	5,851
Flounder, Summer	3,766	3,800	3,787	3,992	4,060	5,308	5,868	5,045	4,416	4,573
Flounders, All Other	3,337	3,962	3,085	3,194	2,728	2,137	1,734	3,502	3,585	2,106
Goosefish	6,652	6,892	5,455	4,757	4,813	3,418	4,547	4,501	3,533	3,545
Herring, Atlantic	1,865	2,337	2,295	1,312	1,195	1,213	1,075	2,667	982	634
Lobster	31,616	28,103	18,747	15,875	16,731	14,623	23,009	18,392	12,146	12,887
Mackerel, Atlantic	848	444	280	3,031	2,385	3,813	2,888	3,293	1,182	ND ¹
Scallop, Sea	ND ¹	1,392	684	ND ¹	279	1,511	13,268	20,783	8,963	2,022
Scups or Porgies	1,672	1,252	1,282	2,229	2,098	1,982	2,323	2,785	2,783	2,314
Squid	16,128	12,937	11,596	13,208	14,319	25,015	16,974	16,731	ND ¹	4,147

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	125,924	121,371	116,713	103,530	97,456	114,993	97,564	112,884	75,208	71,709
Finfish & Other	83,085	82,008	82,871	70,552	62,340	62,282	47,819	60,868	40,864	34,364
Shellfish	42,839	39,363	33,842	32,978	35,116	52,711	49,745	52,016	34,344	37,345
Clam, Quahog	860	1,409	1,220	1,192	1,131	1,080	642	679	615	567
Flounder, Summer	1,635	1,704	1,799	2,286	2,178	3,085	2,925	2,123	1,516	1,468
Flounders, All Other	2,899	4,070	3,148	2,781	2,428	2,360	1,315	1,850	1,872	1,097
Goosefish	7,526	5,897	6,081	5,148	6,830	4,284	4,143	3,864	3,117	3,072
Herring, Atlantic	36,362	40,414	36,400	12,774	13,440	13,639	11,605	23,150	7,537	4,511
Lobster	8,156	6,908	4,452	3,835	3,475	3,064	4,344	3,750	2,299	2,756
Mackerel, Atlantic	4,335	1,939	1,131	20,930	10,768	15,269	8,075	10,143	4,242	ND ¹
Scallop, Sea	ND ¹	238	181	ND ¹	76	249	1,612	3,290	1,357	290
Scups or Porgies	1,280	1,017	1,617	3,675	3,814	3,425	3,424	3,643	3,934	2,133
Squid	20,233	26,051	22,769	23,713	25,862	43,539	22,135	21,296	ND ¹	11,757

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clam, Quahog	5.42	5.67	5.91	5.91	5.63	5.44	5.35	5.20	8.26	10.32
Flounder, Summer	2.30	2.23	2.11	1.75	1.86	1.72	2.01	2.38	2.91	3.11
Flounders, All Other	1.15	0.97	0.98	1.15	1.12	0.91	1.32	1.89	1.91	1.92
Goosefish	0.88	1.17	0.90	0.92	0.70	0.80	1.10	1.16	1.13	1.15
Herring, Atlantic	0.05	0.06	0.06	0.10	0.09	0.09	0.09	0.12	0.13	0.14
Lobster	3.88	4.07	4.21	4.14	4.82	4.77	5.30	4.91	5.28	4.68
Mackerel, Atlantic	0.20	0.23	0.25	0.14	0.22	0.25	0.36	0.32	0.28	ND ¹
Scallop, Sea	ND ¹	5.86	3.78	ND ¹	3.67	6.07	8.23	6.32	6.61	6.98
Scups or Porgies	1.31	1.23	0.79	0.61	0.55	0.58	0.68	0.76	0.71	1.08
Squid	0.80	0.50	0.51	0.56	0.55	0.57	0.77	0.79	ND ¹	0.35

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	93	8,551	5,112
Private Boat	310	29,159	17,467
Shore	339	28,435	16,350
Total Durable Equipment Impacts	725	100,312	43,267
Total State Trip and Durable Equipment Economic Impacts	1,467	166,457	82,197

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	5,234	1,212	Fishing Tackle	58,573
Private Boat	17,276	12,567	Other Equipment	18,408
Shore	19,222	6,331	Boat Expenses	17,886
Total Trip Expenditures	41,732	20,110	Vehicle Expenses	23,819
			Second Home Expenses	1,914
			Total Durable Equipment Expenditures	120,602
Total State Trip and Durable Equipment Expenditures				182,444

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	108	112	137	134	147	129	145	177	171	169
Non-Coastal	NA ¹									
Out of State	214	184	260	214	253	237	241	291	229	297
Total Anglers	321	296	397	348	400	366	386	468	401	465

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	22	40	20	37	60	51	48	52	61	60
Private Boat	577	737	687	595	582	615	772	671	621	783
Shore	663	596	789	880	952	836	790	982	863	778
Total Trips	1,262	1,373	1,496	1,512	1,595	1,503	1,611	1,704	1,545	1,621

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)²

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Atlantic Bonito	H	25	3	2	11	2	6	1	(1)	4	(1)
	R	26	1	1	1	4	5	1	(1)	5	1
Bass, Striped	H	56	95	80	78	115	85	113	74	102	56
	R	360	542	377	530	449	670	741	1,356	741	436
Bluefish	H	330	280	365	325	334	307	310	362	327	337
	R	784	497	893	801	932	818	558	655	860	459
Cod, Atlantic	H	37	39	6	6	1	3	1	2	1	2
	R	13	20	2	8	5	3	2	2	1	1
Flounder, Summer	H	432	807	268	191	205	288	188	264	232	207
	R	440	921	392	770	351	297	341	1,044	867	968
Flounder, Winter	H	74	51	82	30	8	8	1	1	1	1
	R	32	17	17	20	1	3	(1)	(1)	3	1
Porgies (Scup)	H	719	1,235	1,134	603	1,027	908	446	428	452	569
	R	279	876	1,074	933	805	517	666	884	736	1,286
Sea bass, Black	H	25	197	123	78	70	53	56	53	54	51
	R	121	401	151	241	205	39	52	259	162	168
Tuna, Yellowfin	H	2	5	1	1	2	(1)	1	(1)	(1)	(1)
	R	(1)	(1)	(1)	(1)	11	(1)	1	(1)	(1)	(1)
Wrasses (Tautog)	H	52	39	40	62	120	173	106	81	164	99
	R	153	64	74	135	197	153	212	188	205	134

¹All Rhode Island residents are considered coastal county residents thus this category is not applicable (NA).

²In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

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

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	28,245 (0.4%)	402,485 (0.4%)	11,116 (0.3%)	20,063 (0.3%)	29,537 (0.3%)	2.88
2007	30,359 (0.4%)	441,353 (0.4%)	16,976 (0.3%)	26,026 (0.3%)	46,699 (0.3%)	3.04
% change	7.5%	9.7%	52.7%	29.7%	58.0%	5.5%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	NA ³	NA	NA	NA	NA	NA	6	8	8
	Receipts	ND ⁴	ND	ND	ND	ND	ND	2,024	1,662	2,291
Seafood Sales, retail	Firms	11	14	17	20	16	14	16	24	23
	Receipts	1,505	1,860	2,577	2,433	2,227	2,186	2,215	3,266	3,536

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	6	6	6	9	7	7	7	7	6
	Employees	241	227	240	184	355	355	270	231	196
	Payroll	6,681	7,184	7,581	7,284	10,381	10,867	5,549	6,137	6,876
Seafood sales, wholesale	Establishments	43	40	41	39	38	35	32	36	35
	Employees	393	411	382	380	394	259	206	188	224
	Payroll	12,471	13,153	14,250	14,505	15,724	12,269	9,851	10,209	11,447
Seafood sales, retail	Establishments	24	26	26	27	29	34	31	28	27
	Employees	102	97	ND	151	162	163	140	ND	109
	Payroll	2,018	2,596	ND	3,015	2,870	2,707	2,447	ND	2,207

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	1	1	1	2	1	1	1	1	1
	Employees	ND								
	Payroll	ND								
Deep sea freight transportation	Establishments	1	2	2	1	1	2	2	2	2
	Employees	ND								
	Payroll	ND								
Deep sea passenger transportation	Establishments	3	3	3	2	3	NA	NA	NA	1
	Employees	ND	ND	ND	ND	ND	NA	NA	NA	ND
	Payroll	ND	ND	ND	ND	ND	NA	NA	NA	ND
Marinas	Establishments	51	55	54	56	61	60	66	63	68
	Employees	414	504	555	522	405	475	408	457	463
	Payroll	13,146	14,698	18,967	17,609	14,456	15,111	15,843	18,748	22,029
Marine cargo handling	Establishments	3	4	3	3	1	1	1	2	2
	Employees	ND								
	Payroll	ND								
Navigational services to shipping	Establishments	8	8	9	10	8	8	8	7	7
	Employees	ND	ND	ND	36	46	ND	ND	ND	ND
	Payroll	ND	ND	ND	2,162	2,585	ND	ND	ND	ND
Port & harbor operations	Establishments	1	1	NA	NA	2	2	2	2	2
	Employees	ND	ND	NA	NA	ND	ND	ND	ND	ND
	Payroll	ND	ND	NA	NA	ND	ND	ND	ND	ND
Ship & boat building	Establishments	32	28	33	31	37	38	36	38	37
	Employees	ND	1,079	ND	1,329	ND	ND	ND	1,325	1,374
	Payroll	ND	37,259	ND	47,328	ND	ND	ND	52,682	55,788

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³NA = Data are not available.

⁴ND = Data are suppressed due to confidentiality restrictions.

Mid-Atlantic

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



Management Context

The Mid-Atlantic Region includes the states of New York, New Jersey, Delaware, Maryland, 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 Fishery 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 Fishery Management Plans

1. Atlantic Mackerel, Squids, and Butterfish
2. 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)

Of the stocks or stock complexes covered in these fishery management plans, Atlantic butterfish is currently considered overfished. No Mid-Atlantic species are currently subject to overfishing.

Currently, there are two catch share programs, in the Mid-Atlantic Region. The surfclam and ocean quahog individual fishing quota (IFQ) program was implemented in 1990 and had an ex-vessel value of \$49.0 million in 2007. A second catch share program, also an IFQ, for the golden tilefish fishery was implemented in November 2009. This program had an ex-vessel value of \$4.2 million in 2009 and \$4.5 million in 2007.

Commercial Fisheries

Mid-Atlantic fishermen earned over \$452 million for their catch in 2008, and harvested over 678 million pounds of finfish and shellfish. Sea scallop was a significant component of ex-vessel revenue, generating \$166 million in 2008 or 37% of total revenue. Despite accounting for just 0.20% of the total landings in the Mid-Atlantic, Eastern oyster averaged \$7.96 per pound in 2008, the highest annual price of any key species or species group. In terms of landings, menhaden accounted for 53% of total landings in the Mid-Atlantic, over 360 million pounds in 2008. This low value species had an average ex-vessel price of \$0.06 per pound in 2008, and contributed 5% to total revenue in the region.

In 2008, the total revenue in New Jersey was the highest in the region with fishermen generating \$169 million for their catch. Total landings in Virginia (416 million pounds) contributed 61% to total landings in the Mid-Atlantic. Menhaden made up over 85% of landings in Virginia. In terms of finfish revenue and catch, Virginia fishermen generated the most and received \$40 million for 384 million pounds harvested in 2008. Fishermen in New Jersey accounted for most of the shellfish revenue (\$149 million) and landings (100 million pounds). Virginia, Maryland, New York and Delaware followed in both revenue generated and shellfish catch harvested.

Economic Impacts

In 2008, the Mid-Atlantic Region's seafood industry generated over a billion dollars in sales in New Jersey (\$2.17 billion), New York (\$1.98 billion) and Virginia (\$1.37 billion). Most of the seafood industry-related jobs in this region were also sustained in the same states with 41,500 full- and part-time jobs in New York, 40,000 jobs in New Jersey, and 31,000 jobs in Virginia. Maryland (1,900 jobs) and Delaware (1,100 jobs) followed in terms of employment supported by the seafood industry. New Jersey also led the region in income impacts with almost \$1.2 billion dollars generated by the seafood industry in 2008.

Key Mid-Atlantic Commercial Species

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

Landings Revenue

Ex-vessel revenue for finfish and shellfish totaled \$452 million in 2008, a 29% increase (3% in real terms) from landings revenue in 1999 (\$350 million), and an 10% increase over revenue generated in 2007 (\$410 million). New Jersey and Virginia fishermen generated most of the 2008 revenue with \$169 million and \$146 million, respectively. Shellfish revenue contributed 80% to total revenue in the Mid-Atlantic, totaling \$362 million in 2008. This was a 48% increase (19% in real terms) over 1999 totals (\$244 million) and a 18% increase (7% in real terms) over 2007 (\$307 million). Finfish revenue decreased from \$106 million in 1999 to \$90 million in 2008, a 16% decrease (33% in real terms) over this period. Finfish revenue also decreased from 2007 to 2008 by 14% (22% in real terms) from \$104 million to \$89.6 million.

Total revenue trends over the 10 year time period varied by state. Delaware experienced a 1% decrease (21% in real terms) in total revenue while total revenue increased in New Jersey (72%, 38% in real terms) and Virginia (34%, 8% in real terms) from 1999 to 2008. These increases were largely driven by increases in shellfish revenue. New Jersey shellfish revenue increased 108% (66% in real terms) and in Virginia, the revenue increased 74% (39% in real terms).

Total shellfish revenue decreased 31% (45% in real terms) in New York, but increased 24% (1% decrease in real terms) in Maryland. This mirrored declines in total revenue (shellfish and finfish) from 1999-2008. New York experienced a 23% (39% in real terms) decrease in total revenue, while Maryland's revenue increased 17% (7% decrease in real terms).

Sea scallop contributed more to the Mid-Atlantic's total revenue in 2008 than any other key species or group: \$166 million or 37% of total revenue. This was a 294% increase (215% in real terms) from 1999 sea scallop revenue (\$42 million) and a 13% increase (1.8% in real

terms) from 2007 (\$147 million). Striped bass (18% increase, 5% decrease in real terms), American lobster (74% decrease, 79% decrease in real terms), and squid (20% decrease, 36% decrease in real terms) also experienced large changes in revenue between 1999 and 2008.

In contrast to shellfish revenue, finfish revenue declined in current and real terms across the Mid-Atlantic: Virginia (16%, 33% in real terms), Delaware (43%, 55% in real terms), New York (2.8%, 22% in real terms), New Jersey (24%, 40% in real terms), and Maryland (14%, 32% in real terms).

At the state level, key species or groups with large changes in landings revenue between 1999 and 2008 include: striped bass (46% increase), spot (67% increase), weakfish (97% decrease), and American eel (71% decrease) in **Delaware**; sea scallop (14,000% increase), menhaden (41% increase), blue crab (34% increase), Eastern oyster (68% decrease), and white perch (20% decrease) in **Maryland**; sea scallop (530% increase), goosefish (49% decrease), quahog clam (14% decrease), Eastern oyster (62% increase), and 48% increase in blue crab in **New Jersey**; sea scallop (7,300% increase), Atlantic surf clam (157% increase), scups or porgies (140% increase), Eastern oyster (632% increase) and lobster (84% decrease) in **New York**; catfishes and bullhead (241%), sea scallop (139% increase), Atlantic croaker (50% increase), black sea bass (36% decrease), and menhaden (30% decrease) in **Virginia**.

Landings

Fishermen in the Mid-Atlantic landed over 678 million pounds of finfish and shellfish in 2008. This was a 10% decrease from the 753 million pounds landed in 1999, and a 8% decrease from the 738 million pounds landed in 2007. Finfish accounted for 70% of total landings (477 million pounds) in 2008, with a 13% decrease from 1999 (546 million pounds). From 2007 to 2008, finfish landings decreased 14%. Shellfish landings decreased 3% from 208 million pounds in 1999 to 201 million pounds in 2008. These landings increased 11% between 2007 and 2008.

Finfish landings between 1999 and 2008 decreased in all five states across the Mid-Atlantic. The largest decreases were in Delaware where landings decreased 77% and in New York which had a 36% decrease in landings. These decreases were followed by Maryland (34%), New Jersey (19%), and Virginia (9%).

Shellfish landings across the Mid-Atlantic Region mostly declined over the 10 year time period. Decreases occurred in New York (28%), Delaware (26%), and Virginia (22%). Increases in shellfish landings were seen in New Jersey (9%) and Maryland (5%).

Menhaden landings constituted the largest component of total landings with 361 million pounds landed in 2008. Menhaden accounted for 53% of total landings that year, a 13% decrease from 1999 (415 million pounds) but a 24% decrease from 2007 (472 million pounds). Fishermen in Virginia harvested the majority (354 million pounds) of menhaden, 98% of the total landed in 2008 (361 million pounds).

Of the Mid-Atlantic's key species and species groups, sea scallop (194%), squid (29%), and striped bass (6.7%) increased in total landings from 1999-2008. Decreases in landings totals were experienced for all other key species or groups with the largest decrease in Atlantic surf clam (84%), American lobster (80%), and Eastern oyster (59%) landings. Notably, landings totals in 2008 increased for squid (264%) Eastern oyster (55%), and quahog clam (25%), and blue crab (15%) relative to 2007 totals.

Commercial Fish Facts

Landings revenue

- On average, the key species and species groups accounted for 80.3% of total landings revenue in the Mid-Atlantic Region.
- Sea scallops contributed the most to landings revenue in the region, averaging \$116 million over the 10 year time period. In 2008, fishermen in New Jersey generated most of this revenue, contributing 55% of the \$166 million generated from sea scallops that year.
- Squid had the largest annual increase in revenue from 1998-2007, increasing 120% from \$6.5 million to \$14 million (2003-2004). Atlantic Surf Clam had the largest annual decrease in revenue, decreasing 83% from 2007-2008.

Landings

- Key species and species groups in the Mid-Atlantic Region contributed an average of 82% annually to total landings.
- Menhaden was a significant contributor to landings, averaging 420 million pounds or 58% of total landings from 1999-2008. Virginia fishermen harvested the majority of this species.
- Landings of squid increased 298% from 2003-2004, only to decrease 70% from 2004-2005. Although squid experienced the largest increase by any year to year comparison, the largest decrease in the region was experienced by Atlantic surf clam 84% from 2007 to 2008 in the region.

Prices

- Quahog clam (\$5.94 per pound), Eastern oyster (\$5.70), sea scallop (\$5.29), and American lobster (\$4.45) had the highest average ex-vessel prices between 1999 and 2008.
- Menhaden (\$0.06 per pound), Atlantic surf clam (\$0.56), and squid (\$0.61) had the lowest average ex-vessel prices from 1999 to 2008.
- Squid prices were variable over the 10 year time period, Squid increased 121% from 2004-2005, the largest annual increase. It then decreased 56% from 2007-2008, the largest annual decrease.

Prices

With the exception of squid, 2008 ex-vessel prices for the Mid-Atlantic's key species and species groups were higher than their 10 year average price per pound. Between 1999 and 2008, Eastern oyster (158%, 8.3% in real terms), blue crab (35%, 8.3% in real terms), sea scallop (34%, 7.2% in real terms), and American lobster (30%, 4.1% in real terms) experienced the largest increases in price per pound.

Squid and menhaden both experienced large decreases in price between 1999 and 2008 in current and real terms. Squid decreased 38% (50% in real terms) and menhaden decreased 25% (40% in real terms).

Relative to ex-vessel prices in 2007, prices for six of the ten key species and species groups decreased in 2008. Squid experienced the largest decrease (56%) followed by

American lobster (16%) and menhaden (14%). Quahog clams experienced the highest increase in price (45%).

At the state level, key species or groups with large changes in ex-vessel price from 1999-2008 include: spot (162%), American eel (95%), and weakfish (89%) all experienced increases while whelk experienced a 21% decrease in **Delaware**; Eastern oyster (214%), Atlantic croaker (97%), and white perch (78%) all experienced increases while clams and other bivalves experienced a 20% decrease in **Maryland**; American lobster and sea scallop both increased 30%, summer flounder and blue crab increased 42%, and sea scallop increased 30% in **New Jersey**; Eastern oyster (268%), softshell clam (94%), sea scallop (66%), and summer flounder (49%) all experienced increases in **New York**; and catfishes and bullhead (183%), black sea bass (119%), spot (69%) all experienced increases while menhaden was the only species to experience a large decrease (25%) in **Virginia**.

Recreational Fishing

There were over three million recreational fishermen who took a fishing trip in the Mid-Atlantic Region in 2008. Over 93% of these anglers were residents of a regional coastal county. Of the 21 million fishing trips taken in 2008, over 57% of them were taken from a private or rental boat. Atlantic croaker and summer flounder were the most frequently caught key species or species group with 19.5 million Atlantic croaker and 22 million summer flounder harvested or released in 2008. Together, these key species accounted for 45% of fish caught by anglers in the Mid-Atlantic.

Economic Impacts and Expenditures

Recreational fishing activities in New Jersey supported more jobs than any other state in the Mid-Atlantic with approximately 9,612 full- and part-time jobs supported in 2008. Maryland (7,244 jobs), New York (5,766 jobs), Virginia (5,564 jobs), and Delaware (1,462 jobs) followed in terms of employment impacts from recreational fishing activities. The majority of these jobs were related to durable equipment expenditures (versus trip-related expenditures): 69% of jobs in Maryland; 72% of jobs in New York; 59% of jobs in Virginia; 65% of jobs in New Jersey; and 51% of jobs in Delaware.

In terms of employment impacts related to fishing trips taken by anglers, industries that provided services for shore-based fishing trips supported most of the trip-related full- and part-time jobs in Maryland (1,230 jobs) and Delaware (359 jobs). Private or rental boat trips supported most of the trip-related jobs in Virginia (1,728 jobs), New Jersey (1,741 jobs), and New York (748 jobs).

The contribution of recreational fishing activities in the Mid-Atlantic are also reported in terms of state level sales and value-added impacts, and direct expenditures on fishing trips and durable equipment. In 2008, in-state sales and value-added impacts were highest in New Jersey (\$1.6 billion in sales impacts; \$820 million in value-added impacts) and Maryland (\$1 billion; \$504 million). New York (\$875 million; \$457 million), Virginia (\$619 million; \$329 million), and Delaware (\$224 million; \$103 million) followed in terms of sales and value-added impacts. Across

the region, these economic impacts were largely generated from durable equipment expenditures made by anglers.

Key Mid-Atlantic Recreational Species

- Striped bass
- Bluefish
- Drum (Atlantic croaker)
- Drum (spot)
- Drum (weakfish)
- Summer flounder
- Winter flounder
- Porgies (scup)
- Black sea bass
- Wrasses (tautog)

Total fishing trip and durable equipment expenditures generated \$4.2 billion across the Mid-Atlantic in 2008. Approximately 77% of these expenditures were related to durable equipment purchases. Vehicle (\$1.1 billion), fishing tackle (\$896 million), and boat-related expenses (\$693 million) accounted for the majority of durable equipment expenditures. Expenditures by Mid-Atlantic residents related to fishing trips totaled \$589 million. Most of these purchases were related to fishing trips taken from a private or rental boat (63% of trip-related expenditures by residents). The region’s non-resident anglers generated \$346 million in trip-related expenditures with most of these expenses related to private or rental boat trips (48% of trip-related expenditures by non-residents).

Participation

Of the three million recreational fishermen from either a coastal or non-coastal county in the Mid-Atlantic Region¹, there was a 74% increase from 1999 (1.73 million anglers) and a 12% decrease from 2007 (3.4 million anglers). In 2008, 94% of total anglers who fished in the Mid-Atlantic were residents of a coastal county. The number of coastal county anglers in 2008 increased 77% relative to 1999 (1.6 million anglers) and decreased 12% relative to 2007 (3.23 million anglers). Non-coastal county angler participation increased 7% relative to 1999 (148,000 anglers) and decreased 6.5% relative to 2007 (212,000 anglers).

The majority of recreational fishermen in Maryland, New Jersey, New York, and Virginia were residents of a coastal county within their respective state. These anglers accounted for 84% of total anglers in New York, 61% of anglers in New Jersey, 54% of anglers in Maryland, and 52% of anglers in Virginia. In contrast, the majority of anglers who fished in Delaware were out-of-state residents (58% of total anglers). Anglers from the Mid-Atlantic’s non-coastal counties² comprised a minority of total anglers in 2008: 2% of anglers in New Jersey, 3.3% of anglers in New York, 4.1% of total anglers in Maryland, and 9.9% of anglers in Virginia.

¹At the state level, out-of-state anglers are estimated. However at the region level, out-of-region anglers are not estimated thus only Mid-Atlantic Region resident anglers are discussed here. In *Fisheries Economics of the U.S., 2006* (FEUS 2006), angler participation totals from 1997-2006 incorrectly included out-of-state anglers at the region level. In this report, the 1998-2007 angler participation totals excludes these anglers.

²All resident anglers in Delaware are considered coastal county anglers.

Fishing Trips

Anglers took 20.5 million fishing trips in 2008. This was a 46% increase from 1999 (14.1 million trips) and a 9.3% decrease from 2007 (22.7 million trips). In 2008, most fishing trips were taken from a private or rental boat: 11.7 million trips or 57% of total fishing trips taken in the Mid-Atlantic. Shore-based fishing trips were also popular with 7.9 million trips taken in 2007, followed by 940,000 fishing trips taken from a for-hire boat.

Most of the fishing trips in the region were taken in New Jersey (33% of total trips in the region) and New York (29% of total trips). In these states, private or rental boat trips was the most popular fishing mode: 53% of trips taken in New Jersey and 55% of trips taken in New York. This mode also accounted for the majority of trips taken in Virginia (69% of trips), Maryland (58% of total trips), and Delaware (52% of trips). Shore-based trips were the second most popular fishing mode in these states: 44% of trips in Delaware, 1% of trips in New Jersey, 40% of trips in New York, 38% of trips in Maryland, and 30% of trips in Virginia.

Harvest and Release

Of the Mid-Atlantic Region's key species and species groups, Atlantic croaker and summer flounder were the most frequently caught by anglers. In 2008, 19.6 million Atlantic croaker and 22 million summer flounder were caught by anglers fishing in the region. Together, these species accounted for 45% of the key species or species groups caught by recreational anglers and both species were more often released than harvested. In terms of where these fish were caught, the majority of Atlantic croaker were caught in Virginia (69% of fish caught in the region) and most of the summer flounder were caught in New Jersey (46.4% of fish caught).

In 2008, only two of the Mid-Atlantic's key species or groups were harvested more often than released by anglers: spot (61% harvested) and winter flounder (65% harvested). Summer flounder (92% released), black sea bass (92% released), and striped bass (77% released) were examples of key species or groups with a larger percentage of fish released rather than harvested.

Most of the Mid-Atlantic's key species and groups experienced large changes in catch totals between 1999 and 2008. Scup (290%), spot (468%), bluefish (82.5%), and black sea bass (46.8%) all experienced large increases in recreational catch. Only weakfish and winter flounder showed decreases in total recreational catch with 49% and 87% decreases, respectively.

Between 2007 and 2008, large changes in catch totals were observed for scup (40% increase), winter flounder (57% decrease), and weakfish (49% increase). There was a 27% decrease in striped bass caught, a 18% decline in tautog, and a 14% decrease in spot caught.

At the state level, summer flounder was the most frequently caught key species or species group in 2007 with 10.2 million fish caught in New Jersey, 6.7 million fish caught in New York, and 750,000 fish caught in Delaware. Atlantic croaker was the key species most often caught by

recreational fishermen in Virginia with 13.5 million fish caught in 2008. In Maryland, anglers caught 5 million white perch, the key species most commonly caught in this state.

Recreational Fishing Facts

Participation

- In the Mid-Atlantic, an average of 2.6 million anglers fished annually from 1999 to 2008. Most of these anglers fished in Maryland and New Jersey.
- The region's coastal county residents made up 94% of total anglers in 2008. These anglers averaged 93% of total anglers annually from 1999-2008.
- Non-coastal county resident anglers increased 61% from 2004-2005, the largest annual increase in participation in the Mid-Atlantic. Coastal county residents decreased 28% from 2001-2002, the largest annual decrease.

Fishing trips

- An average of 19.5 million fishing trips were taken annually in the Mid-Atlantic between 1999 and 2008. Most of these trips were taken in New Jersey and New York.
- Private or rental boat trips accounted for 11.7 million fishing trips in 2008. This mode of fishing trip made up 57% of trips taken that year.
- The largest annual increase was a 43% increase in private or rental boat trips from 1999-2000. The largest annual decrease was a 23% decrease in shore-based fishing trips from 2001-2002. Although all modes of fishing show decreases from 2007-2008, the for-hire mode had the largest decrease (33%).

Harvest and release

- The most commonly caught key species or species group in the Mid-Atlantic were summer flounder (22 million) and Atlantic croaker (19.6 million). Anglers caught an average of 20 million of each fish annually from 1999-2008. Most of these fish were released rather than harvested.
- Most of the Mid-Atlantic's key species or groups were released by anglers rather than harvested. Striped bass (77% released), summer flounder (92%), and black sea bass (92%) are examples.
- Key species or groups more often harvested by anglers were spot (61% harvested) and winter flounder (65%).
- Scup had the largest annual increase in catch, increasing 233% from 1999-2000. Tautog had the largest annual decrease in catch (63%) from 2002-2003.

Marine Economy³

The Mid-Atlantic's gross domestic product by state was 2.3 trillion in 2007. Employee compensation totaled 1.31 trillion and annual payroll totaled 868 billion. These economic measures in the gross domestic product of the Mid-Atlantic increased 60% (22% in real terms), 31% (10% in real terms) in employee compensation, and 57% (31% in real terms) in annual payroll. There were 1.1 million establishments which employed approximately 17 million employees across the region in 2007. This was a 9.3% increase in establishments, and a 11% increase in numbers of employees between 1998 and 2007. A small increase of 0.7% and 0.3% respectively occurred between 2006 to 2007.

In 2007, New York continued to report the highest number of establishment, the highest employee numbers, annual payroll, employee compensation, and gross state product

³Data for 2008 were unavailable for this report therefore 2007 information are reported in this section.

levels in the Mid-Atlantic region. It employed 7.5 million workers in 520,000 establishments. The gross state product in New York was 1.1 trillion followed by New Jersey (461 billion), then Virginia (384 billion), Maryland (264 billion) and Delaware (62 billion).

Among the Mid-Atlantic states where data was available, New Jersey had the highest commercial fishing location quotient (CFLQ)⁴ at 0.90 in 2007. This was a 1.1% increase from 2006. The 0.90 CFLQ number from New Jersey in 2007 would suggest that the level of employment in commercial fishing-related industries is lower than the level of employment in these industries nationwide. Across the Mid Atlantic, the CFLQ was lower than the national baseline of 1.00: 0.74 in Maryland, 0.55 in Virginia, 0.11 in New York.

Seafood Sales and Processing

In 2007 there were 211 non employer firms engaged in seafood product preparation and packaging totaling \$14.7 million in annual receipts. This was a 115% increase in non-employer firms and 75% increase (55% in real terms) in annual receipts relative to the 1999 levels. In 2007, New York had the most firms, followed by Virginia and Maryland. Virginia reported the largest increases in the industry with a 467% increase (402% in real terms) in annual receipts and 343% increase in firms.

Employer establishments engaged in seafood product preparation and packaging totaled 84 in 2007. These establishments employed approximately a total of 3,170 full and part-time workers and generated 104 million in annual payroll. Region-wide there was a 21% decrease in establishments engaged in this industry between 1999 and 2007, a 16% decrease in employees and 19% increase in annual payroll totals.

At the state level, the largest number of the seafood product preparation and packaging establishments were located in Virginia with 30 establishments in 2007 (decrease of 9% since 2006). Maryland continued to employ the most people with approximately 1300 employees whereas Virginia only employed 960 people. Virginia had a slightly higher payroll 34,500 compared to 32,300 in Maryland. In Virginia there was a 29% decrease in establishments and a 37% decrease in employees. Annual Payroll in Maryland jumped up 41% (29% in real terms) from 1999.

The Mid-Atlantic's seafood wholesale annual payroll totals increased 32% (17% in real terms) from 1999-2007 to approximately \$202 million in 2007. However, with continued increases in annual payroll, establishments decreased by 14% and employment decreased by 9.1%, although there were increases in relation to 2006 levels at 11% and 10%, respectively. These effects were mimicked at the state level. Delaware experienced the largest decrease in number of establishments at 40% decrease, followed by Maryland at 33% decrease and a 23% decrease in Virginia. Maryland experienced the largest increase in annual payroll with a 108% (84% in real terms) from 1999-2007.

In 2007 there were 551 seafood retail nonemployer firms with total annual receipts of \$53 million across the Mid-Atlantic Region. This was a 6% increase in firms region-wide from 1999 to 2007. Delaware experienced a 200% increase from 1999 and the number of firms in Maryland increased by 39%. Annual receipts increased the most in comparison to 1997 numbers in Delaware (82%, 62% in real terms), Virginia (54%, 37% in real terms) and Maryland (53%, 36% in real terms). New York stood out with a 20% decrease (29% in real terms) in annual receipts. The majority, 46 % of these firms were located in New York.

Employer establishments engaged in the seafood retail increased 26% across the Mid-Atlantic to 690 establishments in 2007. From 2006 to 2007 establishments decreased by 14 establishments. Fifty-four percent of the establishments were located in New York. Across the Mid-Atlantic Region there were approximately 2,770 employees with an annual payroll of \$62 million in 2007. From 1999 to 2007 employee numbers increased 44% and annual payroll increased 86% (65% in real terms). Delaware had the largest increase in payroll (167%, 136% in real terms); with Maryland (90%, 68% in real terms) having the second largest increase in payroll Delaware had the largest increase in establishments (73%) and employees (64%).

Transport, Support, and Marine Operations⁵

Marina industries had the highest number of establishments in this industry sector with 953 establishments in 2007. This was a 2% increase from the number of establishments in 1999. The majority of the marina establishments were located in New York, New Jersey and Virginia. From 1999 to 2007, the number of establishments rose 6% in both New York and Virginia and 42% in Delaware.

In marina industries there was a 20% increase in employment in Maryland and 23% increase in NY from 1999 to 2007. There was a 72% increase (53% in real terms) from 1999 to 2007 in payroll in Maryland, a 59% increase in New York (41% in real terms), and a 147% increase (119% in real terms) region-wide from 1999 to 2007.

Region-wide ship and boat building establishments increased 33% in Maryland to 48 between 1999 and 2007. The number of ship and boat building employees decreased in New Jersey, Virginia, and Delaware, with a 2% decrease region-wide in establishments. The number of employees decreased in Maryland (54%) and New York (24%), and payroll decreased 48% (54% in real terms) in Maryland but increased 38% (22% in real terms) in New Jersey. At the Mid-Atlantic level, ship and boat building employee determinations cannot be reported.

Other industries with large to modest changes from 1999 to 2007 were coastal and Great Lakes freight transportation (200% increase in establishments in Delaware, 30% decrease in New York, and 21% increase in

⁴The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

⁵Due to confidentiality restrictions, much of the data on this sector are unavailable.

New Jersey). Establishments in Maryland also decreased 11% from 1999-2007. Across the region there was a 100% increase in deep sea passenger establishments since 1999. Port and harbor operations establishments increased in all Mid-Atlantic states. The biggest increases occurred in Maryland (100%) and New York (67%) with a region-wide increase of 50%. There was a region-wide decrease of 16% in marine cargo establishments with the largest decreases in New York (40%) and Delaware (50%). Navigational services to shipping establishments increased 9% overall with a 53% increase in New York, a 38% increase in Virginia and a 38% decrease in Maryland.

2008 Economic Impacts of the Mid-Atlantic Region Seafood Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Job Impacts
Delaware	6,713	54,497	28,587	1,134
Maryland	73,505	188,069	92,588	1,938
New Jersey	168,676	2,170,232	1,169,681	40,061
New York	57,231	1,978,974	1,053,448	41,517
Virginia	145,552	1,369,390	762,559	30,734

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	350,661	347,357	348,231	342,397	357,210	407,793	440,398	362,198	410,361	451,817
Finfish & Other	106,459	98,479	90,643	84,091	87,702	88,003	101,874	95,516	103,761	89,595
Shellfish	244,202	248,878	257,589	258,306	269,508	319,790	338,524	266,683	306,600	362,222
Bass, Striped	8,469	9,238	8,616	8,215	9,751	7,671	11,332	10,045	11,122	10,024
Clam, Atlantic Surf	27,574	34,973	34,211	34,692	35,366	26,760	27,084	29,580	32,479	5,670
Clam, Quahog	29,278	27,655	22,744	16,935	20,160	19,918	20,773	20,229	20,448	35,024
Crab, Blue	75,568	66,278	70,871	61,660	60,799	69,364	71,073	55,638	65,848	84,355
Flounder, Summer	7,952	7,769	7,078	8,700	10,678	13,094	13,810	12,365	10,320	9,650
Lobster, American	28,629	15,250	9,828	6,273	5,569	5,615	6,696	9,116	8,368	7,443
Menhaden	33,125	30,041	27,783	24,123	24,352	25,570	28,188	24,466	29,910	21,955
Oyster, Eastern	10,042	9,949	8,587	9,814	8,903	5,663	6,703	6,485	7,154	10,785
Scallop, Sea	42,104	66,135	75,275	91,237	111,969	160,847	181,299	120,140	147,059	165,774
Squid	14,918	13,189	9,904	9,287	6,497	14,302	9,169	7,727	7,446	11,925

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	753,212	715,376	835,425	702,234	710,738	757,468	709,023	667,314	738,109	678,113
Finfish & Other	545,711	511,997	631,288	496,430	514,804	529,762	518,166	488,018	556,492	477,100
Shellfish	207,501	203,379	204,137	205,804	195,934	227,707	190,857	179,297	181,617	201,013
Bass, Striped	4,956	5,602	4,930	4,591	5,273	3,945	5,708	4,788	5,526	5,287
Clam, Atlantic Surf	54,178	63,614	60,421	62,134	64,601	50,984	50,921	50,556	53,952	8,753
Clam, Quahog	5,263	4,560	3,857	2,318	3,311	3,537	3,735	3,728	4,085	5,111
Crab, Blue	78,715	62,360	61,045	63,076	56,047	68,979	70,983	61,873	56,357	64,752
Flounder, Summer	4,922	4,879	5,164	6,433	7,315	8,337	8,564	6,609	4,502	4,256
Lobster, American	7,390	3,775	2,633	1,705	1,181	1,386	1,585	1,772	1,397	1,477
Menhaden	415,006	403,599	518,487	394,606	398,744	421,309	412,672	400,784	471,555	360,669
Oyster, Eastern	3,266	2,883	2,217	1,713	1,493	859	1,202	984	877	1,355
Scallop, Sea	8,341	14,258	21,160	24,887	28,213	33,411	24,520	18,282	22,919	24,488
Squid	24,333	28,238	15,465	15,187	10,462	41,622	12,279	9,744	8,609	31,305

Average Annual Price for Key Species / Species Groups

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	1.71	1.65	1.75	1.79	1.85	1.94	1.99	2.10	2.01	1.90
Clam, Atlantic Surf	0.51	0.55	0.57	0.56	0.55	0.52	0.53	0.59	0.60	0.65
Clam, Quahog	5.56	6.06	5.90	7.31	6.09	5.63	5.56	5.43	5.01	6.85
Crab, Blue	0.96	1.06	1.16	0.98	1.08	1.01	1.00	0.90	1.17	1.30
Flounder, Summer	1.62	1.59	1.37	1.35	1.46	1.57	1.61	1.87	2.29	2.27
Lobster, American	3.87	4.04	3.73	3.68	4.71	4.05	4.22	5.15	5.99	5.04
Menhaden	0.08	0.07	0.05	0.06	0.06	0.06	0.07	0.06	0.06	0.06
Oyster, Eastern	3.08	3.45	3.87	5.73	5.96	6.59	5.58	6.59	8.16	7.96
Scallop, Sea	5.05	4.64	3.56	3.67	3.97	4.81	7.39	6.57	6.42	6.77
Squid	0.61	0.47	0.64	0.61	0.62	0.34	0.75	0.79	0.86	0.38

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
Delaware	1,067,207	1,462	223,519	102,547
Maryland	3,393,182	7,244	999,402	504,410
New Jersey	6,759,578	9,612	1,592,965	820,098
New York	5,953,648	5,766	875,449	457,202
Virginia	3,425,307	5,564	618,884	328,723

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	44,273	57,709	Fishing Tackle	895,572
Private Boat	165,285	374,840	Other Equipment	253,722
Shore	136,199	166,434	Boat Expenses	693,106
Total Trip Expenditures	345,757	598,983	Vehicle Expenses	1,133,793
			Second Home Expenses	245,526
			Total Durable Equipment Expenditures	3,221,720
Total State Trip and Durable Equipment Expenditures				4,166,460

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	1,591	1,944	2,290	1,643	2,229	2,363	3,002	2,876	3,234	2,823
Non-Coastal	148	148	190	139	144	157	252	224	212	197
Out-of-State	NA ¹									
Total Anglers	1,739	2,091	2,480	1,783	2,372	2,520	3,254	3,100	3,446	3,020

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	910	1,134	1,323	1,024	1,182	1,323	1,152	1,339	1,399	940
Private Boat	7,935	11,324	11,982	9,551	11,286	11,084	11,730	12,123	12,551	11,710
Shore	5,259	6,993	7,901	6,071	7,383	6,327	7,935	7,895	8,768	7,949
Total Trips	14,105	19,451	21,206	16,646	19,852	18,734	20,817	21,357	22,718	20,599

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	1,008	1,554	1,475	1,252	1,662	1,574	1,503	1,994	1,512	1,432
	R	5,815	6,677	5,464	5,053	7,802	8,474	8,009	9,511	7,114	4,838
Bluefish	H	1,904	2,580	3,227	2,518	3,193	4,274	5,176	4,037	4,556	3,837
	R	4,135	6,311	6,519	4,579	4,196	5,793	7,121	5,513	7,736	7,187
Drum (Atlantic Croaker)	H	8,111	9,702	12,145	10,868	9,349	9,830	10,790	9,464	9,602	8,039
	R	10,031	14,162	9,811	10,361	9,425	7,928	11,136	8,059	12,331	11,522
Drum (Spot)	H	1,244	2,763	2,196	2,314	4,772	3,725	5,245	6,347	10,694	7,724
	R	975	1,788	1,562	1,016	1,657	1,591	4,163	2,587	3,933	4,879
Drum (Weakfish) ²	H	1,396	1,876	1,315	918	308	331	1,125	497	276	336
	R	2,531	4,284	2,732	1,689	1,363	1,387	1,906	1,877	1,079	1,687
Flounder, Summer	H	3,048	5,869	4,393	2,633	3,922	3,598	3,303	3,393	2,792	1,768
	R	16,109	15,773	21,881	11,852	14,902	15,235	21,311	15,419	18,489	20,260
Flounder, Winter	H	511	1,317	795	362	541	331	196	248	209	75
	R	346	678	475	266	183	85	264	288	57	40
Porgies (Scup)	H	1,129	3,309	2,058	1,187	5,271	1,713	821	1,528	1,715	1,753
	R	312	1,491	1,983	1,551	2,379	2,857	1,839	3,145	2,296	3,861
Sea Bass, Black	H	1,275	3,330	2,636	3,057	3,033	1,590	1,060	1,317	1,515	817
	R	5,401	12,381	10,519	10,328	8,381	5,668	5,405	5,966	7,534	8,981
Wrasses (Tautog)	H	520	710	617	1,231	384	832	376	721	808	630
	R	1,908	1,493	1,694	2,534	1,010	1,648	1,221	2,239	2,472	2,057

¹ Out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified; NA = data are not available.

² This species may not be equivalent to species with similar names listed in the commercial tables.

2008 Economic Impacts of Delaware Seafood Industry (*thousands of dollars*)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	54,497	28,587	1,134
Commercial Harvesters	13,100	4,549	243
Seafood Processors & Dealers	4,835	2,584	56
Seafood Wholesalers & Distributors	6,869	3,500	63
Retail Sector	29,693	17,953	772

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	6,800	6,833	7,660	6,067	5,204	5,234	6,113	5,692	7,894	6,713
Finfish & Other	1,617	1,379	1,080	986	1,465	1,121	1,273	1,330	1,306	916
Shellfish	5,183	5,454	6,580	5,081	3,739	4,113	4,840	4,361	6,588	5,796
Bass, Striped	271	245	365	336	479	497	494	507	430	397
Clam, Quahog	215	243	233	392	435	175	220	193	ND ¹	ND ¹
Crab, Blue	4,599	5,086	5,140	3,511	1,899	2,839	3,429	2,961	5,329	4,605
Eel, American	182	192	126	118	230	167	100	275	315	52
Oyster, Eastern	ND ¹	ND ¹	172	478	305	361	485	459	490	410
Scallop, Sea	ND ¹	7	102	121	ND ¹	256				
Sea Bass, Black	ND ¹	142	42	21	181	48	157	190	201	159
Spot	24	17	51	8	46	38	98	58	100	40
Weakfish	352	318	133	176	83	61	82	56	36	10
Whelks	330	113	1,015	694	1,079	690	562	601	ND ¹	351

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	8,372	6,741	7,140	5,857	5,018	4,208	4,851	4,380	5,326	4,598
Finfish & Other	3,129	2,497	2,078	1,933	2,264	1,279	1,470	1,156	1,095	711
Shellfish	5,243	4,244	5,062	3,925	2,754	2,929	3,381	3,224	4,231	3,887
Bass, Striped	176	145	199	146	191	176	174	184	189	183
Clam, Quahog	70	76	64	134	141	54	69	60	ND ¹	ND ¹
Crab, Blue	4,993	4,092	4,085	3,062	1,792	2,276	2,924	2,856	3,799	3,508
Eel, American	129	119	121	90	156	137	110	120	140	19
Oyster, Eastern	ND ¹	ND ¹	78	133	76	79	84	75	80	67
Scallop, Sea	ND ¹	1	13	20	ND ¹	38				
Sea Bass, Black	ND ¹	94	25	12	98	20	73	87	73	56
Spot	52	32	78	14	77	59	155	63	128	33
Weakfish	440	329	188	173	91	51	71	34	25	7
Whelks	162	65	828	590	729	491	276	203	ND ¹	217

Average Annual Price for Key Species / Species Groups

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	1.53	1.69	1.84	2.30	2.50	2.82	2.84	2.75	2.28	2.17
Clam, Quahog	3.07	3.21	3.67	2.92	3.09	3.26	3.18	3.22	ND ¹	ND ¹
Crab, Blue	0.92	1.24	1.26	1.15	1.06	1.25	1.17	1.04	1.40	1.31
Eel, American	1.41	1.61	1.04	1.31	1.48	1.22	0.91	2.28	2.26	2.75
Oyster, Eastern	ND ¹	ND ¹	2.21	3.60	4.00	4.57	5.76	6.10	6.14	6.09
Scallop, Sea	ND ¹	5.05	8.08	6.19	ND ¹	6.81				
Sea Bass, Black	ND ¹	1.52	1.66	1.69	1.86	2.35	2.15	2.18	2.76	2.83
Spot	0.47	0.52	0.66	0.59	0.60	0.65	0.63	0.92	0.78	1.23
Weakfish	0.80	0.97	0.71	1.02	0.91	1.18	1.16	1.63	1.47	1.51
Whelks	2.04	1.73	1.23	1.18	1.48	1.41	2.04	2.96	ND ¹	1.62

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	75	7,091	4,054
Private Boat	283	33,320	16,610
Shore Mode	359	34,462	18,302
Total Durable Equipment Impacts	746	148,646	63,579
Total State Trip and Durable Equipment Economic Impacts	1,462	223,519	102,547

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	3,696	1,439	Fishing Tackle	38,624
Private Boat	16,933	12,590	Other Equipment	11,901
Shore	21,965	8,526	Boat Expenses	12,398
Total Trip Expenditures	42,594	22,555	Vehicle Expenses	109,351
			Second Home Expenses	8,026
			Total Durable Equipment Expenditures	180,301
Total State Trip and Durable Equipment Expenditures				245,450

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	69	82	107	89	127	116	120	137	150	134
Non-Coastal	NA ¹									
Out of State	168	201	226	177	199	243	191	205	224	182
Total Anglers	237	283	333	266	326	359	311	342	374	315

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	43	42	71	63	38	65	48	42	53	46
Private Boat	383	606	672	535	552	679	568	671	731	553
Shore	375	448	436	429	514	434	459	465	512	468
Total Trips	800	1,096	1,180	1,028	1,104	1,177	1,074	1,179	1,296	1,067

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)²

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	9	40	41	29	30	25	20	19	10	17
	R	106	152	163	115	169	151	225	246	251	261
Bluefish	H	84	132	102	117	89	136	152	96	172	82
	R	323	303	221	435	120	322	217	322	479	246
Drum (Atlantic Croaker)	H	663	518	312	262	341	494	934	863	401	349
	R	1,017	695	285	361	655	483	761	1,034	618	609
Drum (Weakfish) ³	H	224	312	72	122	20	7	19	11	4	4
	R	372	465	227	101	39	79	111	121	19	61
Flounder, Summer	H	181	336	146	107	106	124	91	110	118	33
	R	433	797	1,051	498	415	850	841	534	1,096	722
Mackerel, Atlantic	H	(1)	1	23	6	(1)	7	(1)	(1)	(1)	(1)
	R	(1)	(1)	1	1	(1)	(1)	(1)	(1)	(1)	(1)
Perch, White	H	107	48	44	40	30	63	43	65	27	55
	R	312	140	117	72	134	187	116	147	143	162
Sea bass, Black	H	41	151	203	607	307	106	62	128	76	25
	R	213	820	1,003	1,233	832	448	250	460	544	477
Tuna, Yellowfin	H	(1)	6	16	10	2	1	3	2	(1)	1
	R	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Wrasses (Tautog)	H	95	114	51	186	63	143	72	117	89	122
	R	202	324	209	412	167	263	251	216	267	206

¹All Delaware residents are considered coastal county residents thus this category is not applicable (NA).

²In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

³This 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 (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	22,871 (0.3%)	354,643 (0.3%)	11,831 (0.4%)	19,738 (0.3%)	36,831 (0.4%)	ND
2007	25,521 (0.3%)	396,317 (0.3%)	18,608 (0.4%)	25,851 (0.3%)	61,545 (0.4%)	ND
% change	11.6%	11.8%	57.3%	30.9%	67.1%	--

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	NA ³	NA	NA	NA	NA	NA	3	3	NA
	Receipts	NA	NA	ND ⁴	ND	ND	ND	64	214	ND
Seafood Sales, retail	Firms	4	0	5	5	7	9	12	9	12
	Receipts	562	ND	214	435	959	803	1,523	835	1,025

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & 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	4	5	7	5	2	3	3	3
	Employees	ND	ND	ND	65	ND	ND	ND	9	ND
	Payroll	ND	ND	ND	2,279	ND	ND	ND	337	ND
Seafood sales, retail	Establishments	11	13	12	15	18	16	14	17	19
	Employees	64	ND	65	94	ND	144	138	135	105
	Payroll	1,123	ND	1,243	1,779	ND	3,363	3,264	3,133	2,997

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	1	1	4	8	5	3	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 freight transportation	Establishments	3	3	3	2	2	1	1	NA	NA
	Employees	ND	ND	ND	ND	ND	ND	ND	NA	NA
	Payroll	ND	ND	ND	ND	ND	ND	ND	NA	NA
Deep sea passenger transportation	Establishments	1	1	1	1	NA	NA	1	NA	NA
	Employees	ND	ND	ND	ND	NA	NA	ND	NA	NA
	Payroll	ND	ND	ND	ND	NA	NA	ND	NA	NA
Marinas	Establishments	12	14	12	13	17	17	16	18	17
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	88
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	2,540
Marine cargo handling	Establishments	6	6	5	6	5	5	4	4	3
	Employees	ND	272	257	199	513	ND	ND	597	527
	Payroll	ND	4,570	4,482	14,718	14,879	ND	ND	18,812	19,027
Navigational services to shipping	Establishments	9	8	10	10	10	9	9	8	8
	Employees	ND	ND	ND	ND	ND	ND	ND	75	76
	Payroll	ND	ND	ND	ND	ND	ND	ND	4,783	4,961
Port & harbor operations	Establishments	NA	NA	NA	NA	1	2	2	3	2
	Employees	NA	NA	NA	NA	ND	ND	ND	ND	ND
	Payroll	NA	NA	NA	NA	ND	ND	ND	ND	ND
Ship & boat building	Establishments	4	4	3	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

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.²The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.³NA = Data are not available.⁴ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Maryland Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	615,041	308,414	10,946
Commercial Harvesters	118,079	40,656	2,436
Seafood Processors and Dealers	94,620	40,783	1,018
Seafood Wholesalers and Distributors	151,863	76,189	1,358
Retail Sectors	250,479	150,786	6,134

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	62,927	53,874	55,591	49,013	49,038	49,294	63,670	53,581	58,681	73,505
Finfish & Other	11,278	10,010	8,574	8,135	8,095	4,763	10,718	9,897	11,925	9,660
Shellfish	51,649	43,864	47,017	40,878	40,943	44,531	52,952	43,685	46,756	63,845
Bass, Striped	3,886	4,216	3,418	3,759	3,916	1,576	4,234	4,591	5,331	4,630
Clams or Bivalves	5,221	5,094	8,073	8,002	5,170	2,579	4,784	4,889	5,074	5,436
Crab, Blue	38,859	30,843	34,681	30,338	34,532	39,104	39,962	31,141	38,462	52,240
Croaker, Atlantic	482	569	676	512	576	751	543	440	339	441
Flounder, Summer	ND ¹	ND ¹	ND ¹	ND ¹	527	ND ¹	673	549	ND ¹	526
Menhaden	463	523	382	423	337	232	1,514	609	1,371	653
Oyster, Eastern	7,111	7,192	3,789	2,172	706	181	3,435	1,238	ND ¹	2,277
Perch, White	763	941	801	559	556	347	848	569	516	610
Scallop, Sea	24	108	108	96	ND ¹	418	4,513	6,200	2,809	3,423
Sea Bass, Black	681	475	244	436	555	ND ¹	706	811	ND ¹	ND ¹

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	66,419	48,913	55,539	53,185	49,350	49,557	67,460	51,227	58,068	61,372
Finfish & Other	21,666	16,164	16,089	15,275	13,468	8,103	24,977	12,720	21,175	14,297
Shellfish	44,754	32,749	39,450	37,909	35,882	41,454	42,483	38,507	36,892	47,075
Bass, Striped	2,430	2,705	2,049	2,085	2,193	897	2,339	2,485	2,639	2,300
Clams or Bivalves	6,644	7,111	11,911	10,663	7,527	3,676	6,112	7,756	7,947	8,600
Crab, Blue	35,371	22,847	25,933	26,481	27,816	33,826	34,914	29,446	28,004	37,118
Croaker, Atlantic	1,584	1,502	2,233	1,513	1,532	1,801	1,389	877	579	753
Flounder, Summer	ND ¹	ND ¹	ND ¹	ND ¹	329	ND ¹	333	248	ND ¹	199
Menhaden	5,721	4,871	4,619	4,850	4,232	3,336	15,806	5,263	13,675	6,956
Oyster, Eastern	2,440	2,368	1,274	567	159	43	738	274	ND ¹	249
Perch, White	1,516	1,921	1,947	1,583	1,477	453	1,524	688	837	688
Scallop, Sea	4	21	28	27	ND ¹	93	584	931	450	524
Sea Bass, Black	439	305	150	280	313	ND ¹	330	350	ND ¹	ND ¹

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	1.60	1.56	1.67	1.80	1.79	1.76	1.81	1.85	2.02	2.01
Clams or Bivalves	0.79	0.72	0.68	0.75	0.69	0.70	0.78	0.63	0.64	0.63
Crab, Blue	1.10	1.35	1.34	1.15	1.24	1.16	1.14	1.06	1.37	1.41
Croaker, Atlantic	0.30	0.38	0.30	0.34	0.38	0.42	0.39	0.50	0.59	0.59
Flounder, Summer	ND ¹	ND ¹	ND ¹	ND ¹	1.60	ND ¹	2.02	2.22	ND ¹	2.64
Menhaden	0.08	0.11	0.08	0.09	0.08	0.07	0.10	0.12	0.10	0.09
Oyster, Eastern	2.91	3.04	2.97	3.83	4.45	4.23	4.66	4.52	ND ¹	9.13
Perch, White	0.50	0.49	0.41	0.35	0.38	0.77	0.56	0.83	0.62	0.89
Scallop, Sea	6.61	5.10	3.81	3.52	ND ¹	4.48	7.72	6.66	6.25	6.54
Sea Bass, Black	1.55	1.56	1.62	1.56	1.77	ND ¹	2.14	2.31	ND ¹	ND ¹

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	300	26,021	15,296
Private Boat	707	76,154	46,434
Shore	1,230	113,886	67,174
Total Durable Equipment Impacts	5,008	783,341	375,506
Total State Trip and Durable Equipment Economic Impacts	7,244	999,402	504,410

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	7,869	9,683	Fishing Tackle	199,973
Private Boat	23,682	49,583	Other Equipment	48,648
Shore	64,409	30,466	Boat Expenses	106,616
Total Trip Expenditures	95,961	89,733	Vehicle Expenses	405,970
			Second Home Expenses	93,940
			Total Durable Equipment Expenditures	855,145
Total State Trip and Durable Equipment Expenditures				1,040,839

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	383	461	565	430	526	442	620	733	850	643
Non-Coastal	41	51	50	41	53	39	49	84	78	50
Out of State	349	481	426	330	418	333	425	447	528	507
Total Anglers	773	994	1,041	801	997	815	1,095	1,264	1,456	1,200

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	126	204	174	182	187	264	181	235	219	142
Private / Rental	1,413	2,204	2,340	1,596	2,033	1,499	1,933	1,980	2,440	1,965
Shore	1,343	1,442	1,275	1,059	1,110	881	1,066	1,374	1,387	1,286
Total Trips	2,883	3,851	3,790	2,837	3,330	2,645	3,180	3,589	4,045	3,393

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	263	506	383	282	525	380	490	649	679	442
	R	2,388	3,245	2,890	2,929	4,653	3,739	3,753	3,896	2,998	1,406
Bluefish	H	167	344	429	199	214	373	240	509	705	660
	R	605	1,150	1,074	577	518	683	344	850	1,381	1,855
Drum (Atlantic Croaker)	H	1,210	2,675	1,320	1,223	1,620	871	810	833	1,093	689
	R	2,484	4,968	1,586	2,523	1,393	819	951	1,792	1,631	2,069
Drum (Spot)	H	655	1,390	1,089	691	3,301	1,375	2,007	2,645	3,843	2,297
	R	619	1,080	577	501	670	577	2,186	1,467	1,422	2,040
Drum (Weakfish) ²	H	340	475	303	100	41	30	22	(1)	10	3
	R	753	1,209	737	286	181	132	55	57	106	30
Flounder, Summer	H	227	258	139	69	41	66	85	58	157	90
	R	1,012	1,513	1,245	383	373	952	433	511	1,626	1,306
Perch, White	H	838	1,611	565	1,156	2,020	1,441	2,436	2,558	2,990	1,418
	R	2,098	3,721	1,583	1,754	3,698	3,035	5,394	4,331	5,101	3,557
Sea bass, Black	H	160	434	119	337	241	158	81	104	53	34
	R	1,487	3,224	2,324	925	773	618	784	799	1,331	1,128
Tuna, Yellowfin	H	8	9	26	18	26	4	11	21	7	(1)
	R	1	(1)	2	(1)	(1)	(1)	2	(1)	1	(1)
Wrasses (Tautog)	H	20	20	24	42	14	14	40	14	107	24
	R	183	128	138	295	96	36	255	211	390	335

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

²This 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	Employee	Gross State	Commercial
1998	126,577 (1.8%)	1,938,727 (1.8%)	59,818 (1.8%)	119,732 (2.0%)	161,954 (1.9%)	0.74
2007	141,332 (1.8%)	2,239,181 (1.9%)	99,468 (2.0%)	163,612 (2.0%)	264,426 (1.9%)	0.74
% change	11.7%	15.5%	66.3%	36.6%	63.2%	0%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	25	28	25	50	47	51	57	55	56
	Receipts	2,027	1,325	1,997	3,199	2,487	2,301	2,727	2,751	3,940
Seafood Sales, retail	Firms	71	71	62	79	78	70	78	73	99
	Receipts	6,856	7,012	5,904	8,629	6,771	10,100	6,976	7,755	10,493

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	27	27	26	24	23	23	23	19	22
	Employees	967	894	889	807	762	895	1,141	1,053	1,296
	Payroll	22,947	22,309	23,686	20,618	20,399	23,039	24,986	28,852	32,386
Seafood sales, wholesale	Establishments	93	92	94	77	63	58	59	59	62
	Employees	950	903	913	870	686	733	709	694	978
	Payroll	24,214	26,940	28,847	33,072	27,934	29,813	30,148	32,943	50,353
Seafood sales, retail	Establishments	65	71	78	88	97	96	95	97	102
	Employees	399	474	475	488	459	579	576	617	613
	Payroll	7,786	8,309	8,853	10,033	10,634	12,328	13,019	14,190	14,777

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	9	9	10	8	9	11	10	10	8
	Employees	ND ³	155	178	ND	ND	ND	ND	ND	ND
	Payroll	ND	7,372	7,969	ND	ND	ND	ND	ND	ND
Deep sea freight transportation	Establishments	12	12	12	14	16	15	16	14	14
	Employees	ND	ND	ND	123	ND	281	316	ND	244
	Payroll	ND	ND	ND	9,216	ND	18,983	14,131	ND	14,905
Deep sea passenger transportation	Establishments	NA ⁴	1	1	4	3	2	1	1	1
	Employees	NA	ND							
	Payroll	NA	ND							
Marinas	Establishments	196	187	185	188	180	183	185	179	183
	Employees	1,103	1,172	1,240	1,232	1,296	1,321	1,228	1,260	1,326
	Payroll	28,289	30,207	32,088	33,621	34,024	36,598	36,590	40,866	48,752
Marine cargo handling	Establishments	14	13	15	16	14	11	12	13	15
	Employees	1,794	1,751	1,505	1,487	1,862	1,725	1,639	1,659	1,791
	Payroll	60,105	60,915	63,172	66,525	69,084	75,911	81,219	73,367	85,328
Navigational services to shipping	Establishments	13	12	13	13	11	8	9	9	8
	Employees	311	ND	275	ND	195	ND	ND	ND	157
	Payroll	13,125	ND	18,710	ND	38,619	ND	ND	ND	4,882
Port & harbor operations	Establishments	4	4	4	7	8	10	11	11	8
	Employees	236	ND	319	259	376	479	ND	ND	323
	Payroll	8,708	ND	9,545	11,655	16,099	19,218	ND	ND	13,427
Ship & boat building	Establishments	36	38	40	44	55	58	57	55	48
	Employees	1,902	ND	1,421	1,223	1,426	1,022	ND	1,119	874
	Payroll	56,547	ND	48,561	40,743	36,444	35,364	ND	33,463	29,500

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

⁴NA = Data are not available.

2008 Economic Impacts of New Jersey Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	2,170,232	1,169,681	40,061
Commercial Harvesters	182,432	73,020	2,079
Seafood Processors & Dealers	126,759	62,257	1,380
Seafood Wholesalers & Distributors	503,805	242,285	4,176
Retail Sector	1,357,236	792,118	32,426

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	97,857	107,163	110,246	112,708	120,670	145,832	159,113	136,053	151,453	168,676
Finfish & Other	26,403	23,308	19,858	20,062	22,017	21,772	22,938	24,483	24,171	19,961
Shellfish	71,453	83,855	90,389	92,646	98,653	124,061	136,175	111,570	127,281	148,714
Clam, Quahog	7,363	6,757	5,636	ND ¹	5,228	7,409	7,556	7,615	968	6,306
Clams, Ocean Quahog & Surf	32,536	37,766	41,193	39,804	38,054	31,379	25,567	31,038	32,362	ND ¹
Crab, Blue	4,911	5,490	4,802	6,725	4,736	5,330	6,773	6,359	6,004	7,285
Flounder, Summer	3,038	2,604	2,313	3,504	3,683	4,429	4,649	4,926	3,989	3,466
Goosefish	7,782	6,505	6,135	5,896	6,200	3,496	4,492	4,416	4,485	4,005
Herring, Atlantic	44	ND ¹	32	60	145	6	371	389	563	ND ¹
Lobster, American	3,632	3,694	2,471	1,139	1,028	1,802	2,002	2,533	4,056	3,214
Mackerel, Atlantic	2,207	1,205	1,695	1,780	2,855	3,398	3,958	3,717	668	ND ¹
Oyster, Eastern	1,572	967	1,918	1,853	3,366	1,558	823	2,288	2,231	2,547
Scallop, Sea	14,528	24,108	29,983	33,336	43,507	67,498	88,494	57,471	77,366	91,454

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	168,644	171,803	168,541	162,139	170,133	187,772	156,976	152,783	153,979	162,470
Finfish & Other	77,525	71,574	71,867	65,737	75,471	71,782	74,454	66,317	65,296	62,960
Shellfish	91,119	100,229	96,674	96,401	94,662	115,990	82,522	86,466	88,684	99,510
Clam, Quahog	1,880	1,622	1,357	ND ¹	1,260	1,796	1,852	1,844	240	1,529
Clams, Ocean Quahog & Surf	66,114	72,858	73,900	73,949	71,683	61,155	49,849	55,286	55,746	ND ¹
Crab, Blue	5,579	5,093	4,724	6,229	4,012	4,350	6,333	5,981	4,821	5,816
Flounder, Summer	1,917	1,848	1,745	2,407	2,385	2,829	2,529	2,380	1,698	1,544
Goosefish	6,358	4,414	5,855	5,697	7,185	4,230	3,922	3,841	4,229	3,693
Herring, Atlantic	646	ND ¹	708	1,138	1,805	114	2,263	2,451	6,039	ND ¹
Lobster, American	931	891	580	264	210	371	369	471	681	633
Mackerel, Atlantic	20,035	9,645	25,224	20,486	33,056	36,091	32,415	24,977	5,384	ND ¹
Oyster, Eastern	411	202	412	379	714	323	162	350	444	550
Scallop, Sea	2,748	4,949	8,219	8,644	10,638	13,737	11,832	8,440	11,808	13,297

Average Annual Price for Key Species / Species Groups

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clam, Quahog	3.92	4.17	4.15	ND ¹	4.15	4.13	4.08	4.13	4.04	4.12
Clams, Ocean Quahog & Surf	0.49	0.52	0.56	0.54	0.53	0.51	0.51	0.56	0.58	ND ¹
Crab, Blue	0.88	1.08	1.02	1.08	1.18	1.23	1.07	1.06	1.25	1.25
Flounder, Summer	1.58	1.41	1.32	1.46	1.54	1.57	1.84	2.07	2.35	2.24
Goosefish	1.22	1.47	1.05	1.03	0.86	0.83	1.15	1.15	1.06	1.08
Herring, Atlantic	0.07	ND ¹	0.05	0.05	0.08	0.05	0.16	0.16	0.09	ND ¹
Lobster, American	3.90	4.14	4.26	4.31	4.90	4.86	5.42	5.38	5.96	5.08
Mackerel, Atlantic	0.11	0.12	0.07	0.09	0.09	0.09	0.12	0.15	0.12	ND ¹
Oyster, Eastern	3.82	4.77	4.65	4.88	4.72	4.82	5.09	6.53	5.02	4.63
Scallop, Sea	5.29	4.87	3.65	3.86	4.09	4.91	7.48	6.81	6.55	6.88

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	620	66,881	38,882
Private Boat	1,741	246,671	127,613
Shore	1,009	120,852	65,704
Total Durable Equipment Impacts	6,243	1,158,561	587,898
Total State Trip and Durable Equipment Economic Impacts	9,612	1,592,965	820,098

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	24,026	19,430	Fishing Tackle	342,858
Private Boat	53,946	141,016	Other Equipment	70,793
Shore	35,265	63,478	Boat Expenses	230,056
Total Trip Expenditures	113,237	223,925	Vehicle Expenses	363,132
			Second Home Expenses	42,141
			Total Durable Equipment Expenditures	1,048,981
Total State Trip and Durable Equipment Expenditures				1,386,143

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	493	544	721	400	592	708	818	693	890	765
Non-Coastal	30	17	42	17	20	31	39	25	19	26
Out of State	303	430	543	239	462	379	471	481	518	456
Total Anglers	827	990	1,306	656	1,074	1,117	1,328	1,199	1,427	1,246

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	419	518	643	368	466	501	408	630	545	388
Private Boat	2,487	3,727	4,025	2,992	3,602	3,892	3,765	3,859	3,634	3,567
Shore	1,919	2,224	2,817	2,049	2,711	2,152	2,476	2,803	3,256	2,804
Total Trips	4,825	6,469	7,484	5,409	6,779	6,544	6,649	7,292	7,436	6,760

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	237	402	560	416	392	449	327	489	206	318
	R	1,153	885	966	715	926	1,324	1,197	2,102	1,495	1,452
Bluefish	H	809	1,236	1,431	1,321	1,571	2,012	2,035	1,457	1,645	1,296
	R	1,824	1,907	2,056	2,168	1,913	2,403	2,644	1,930	3,146	1,752
Drum (Weakfish) ²	H	584	760	736	493	151	184	1,053	418	209	270
	R	551	1,605	1,065	351	631	607	1,280	1,231	581	1,255
Flounder, Summer	H	1,503	3,023	2,070	989	1,784	1,887	1,396	1,561	1,328	851
	R	9,220	7,261	10,343	4,205	5,807	7,212	9,931	6,823	7,125	9,349
Flounder, Winter	H	376	1,080	562	208	307	95	46	43	194	14
	R	191	441	188	124	110	29	42	192	42	10
Hake, Red	H	116	96	51	12	16	12	6	111	1	175
	R	4	5	5	(1)	15	6	6	15	(1)	24
Sea bass, Black	H	449	1,962	1,919	1,760	1,903	1,173	667	692	1,006	456
	R	1,728	5,545	4,371	4,318	4,295	2,833	2,463	2,090	2,882	4,221
Tuna, Bluefin	H	3	8	11	7	9	9	8	4	5	3
	R	(1)	(1)	4	(1)	(1)	31	26	35	1	(1)
Tuna, Yellowfin	H	19	55	9	14	22	25	22	41	25	6
	R	(1)	(1)	(1)	4	(1)	1	(1)	1	(1)	1
Wrasses (Tautog)	H	166	462	468	348	103	131	37	195	342	183
	R	671	627	1,006	836	394	426	335	563	1,353	709

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

²This 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 (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	230,860 (3.3%)	3,368,365 (3.1%)	125,787 (3.8%)	211,925 (3.6%)	314,117 (3.6%)	1.17
2007	243,350 (3.2%)	3,661,679 (3.0%)	184,165 (3.7%)	267,584 (3.4%)	461,295 (3.4%)	0.90
% change	5.4%	8.7%	46.4%	26.2%	46.8%	-23.0%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	16	17	14	21	23	23	26	27	16
	Receipts	1,913	2,545	2,878	2,673	2,279	2,694	3,086	3,027	1,913
Seafood Sales, retail	Firms	98	94	87	92	100	89	93	72	98
	Receipts	8,457	8,289	8,368	8,348	8,822	9,219	9,194	8,916	8,457

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	18	16	18	17	16	15	17	16	16
	Employees	863	816	1,100	928	846	749	969	667	628
	Payroll	18,491	20,655	27,302	23,045	20,794	21,029	28,235	22,097	18,403
Seafood sales, wholesale	Establishments	110	107	112	102	84	85	85	89	101
	Employees	1,027	1,028	1,023	969	920	948	914	941	978
	Payroll	35,333	37,609	39,677	37,394	35,991	38,066	37,828	41,506	41,994
Seafood sales, retail	Establishments	123	125	125	149	133	134	128	127	124
	Employees	429	571	549	559	454	547	524	493	472
	Payroll	8,188	9,621	10,183	10,225	10,513	11,952	11,787	11,373	10,352

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	19	18	21	13	15	17	18	18	23
	Employees	ND ³	ND	532	ND	768	ND	914	1,040	778
	Payroll	ND	ND	36,912	ND	45,024	ND	54,097	68,096	56,017
Deep sea freight transportation	Establishments	38	37	33	35	37	33	38	39	31
	Employees	1,484	1,373	1,451	1,397	1,287	1,028	948	648	566
	Payroll	79,060	74,915	86,618	78,258	70,996	65,691	68,633	45,940	44,133
Deep sea passenger transportation	Establishments	2	3	4	4	5	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	220	209	211	199	203	201	206	204	216
	Employees	ND	ND	ND	927	951	945	978	940	1,045
	Payroll	ND	ND	ND	32,480	34,777	36,862	38,323	39,154	41,624
Marine cargo handling	Establishments	24	26	26	29	27	26	26	25	23
	Employees	2,907	3,887	3,418	3,408	4,108	4,685	4,972	4,599	4,781
	Payroll	166,705	227,064	187,150	247,217	318,325	340,085	363,714	345,784	350,690
Navigational services to shipping	Establishments	17	22	21	22	16	17	16	19	26
	Employees	ND	408	183	ND	210	ND	169	ND	227
	Payroll	ND	22,315	10,359	ND	8,028	ND	9,673	ND	11,403
Port & harbor operations	Establishments	6	6	5	5	5	6	7	6	8
	Employees	ND	375	376	ND	240	ND	194	ND	271
	Payroll	ND	18,804	21,855	ND	10,644	ND	11,599	ND	12,197
Ship & boat building	Establishments	43	43	45	41	37	35	37	34	31
	Employees	1,992	2,178	2,185	2,223	2,005	2,040	2,320	2,307	2,305
	Payroll	66,141	71,918	70,980	76,607	75,149	80,301	89,421	88,367	91,460

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the New York Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	1,978,974	1,053,448	41,517
Commercial Harvesters	111,808	38,278	2,270
Seafood Processors & Dealers	101,302	42,780	725
Seafood Wholesalers & Distributors	465,576	228,579	3,892
Retail Sector	1,300,288	743,811	34,629

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	74,787	61,121	55,072	51,264	51,601	46,874	56,368	57,706	59,594	57,231
Finfish & Other	19,363	16,495	18,864	15,924	16,426	16,762	18,317	19,123	20,414	18,812
Shellfish	55,424	44,626	36,208	35,341	35,175	30,112	38,051	38,583	39,181	38,419
Clam, Atlantic Surf	2,203	3,602	4,885	5,520	7,934	4,475	7,055	4,473	5,932	5,670
Clam, Quahog	17,777	17,547	13,502	12,245	12,399	10,673	12,696	12,237	14,224	13,053
Clam, Softshell	975	848	561	679	888	1,227	1,468	2,055	1,628	1,030
Flounder, Summer	1,832	2,007	1,778	2,042	2,240	3,275	3,797	3,418	3,133	2,934
Lobster	24,970	11,555	7,357	5,131	4,426	3,722	4,396	6,288	4,312	4,079
Oyster, Eastern	392	1,311	2,137	4,995	4,263	3,367	1,961	2,390	2,627	2,868
Scallop, Sea	68	239	718	90	164	720	3,617	3,518	3,872	5,054
Scups or Porgies	713	909	703	1,185	1,330	1,637	2,027	2,448	2,349	1,711
Squid, Loligo	8,052	8,423	6,035	6,247	4,353	5,425	6,054	5,844	5,159	5,343
Tilefishes	1,885	2,053	3,191	3,195	2,736	2,082	2,765	3,323	3,845	3,344

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	49,490	44,702	42,388	38,548	39,388	34,513	38,150	32,651	35,591	33,903
Finfish & Other	23,568	18,585	21,018	16,540	17,223	16,530	14,631	14,029	16,492	15,114
Shellfish	25,922	26,116	21,370	22,008	22,165	17,983	23,519	18,622	19,099	18,789
Clam, Atlantic Surf	4,878	5,567	7,549	8,544	13,264	7,462	11,953	6,913	9,161	8,753
Clam, Quahog	2,647	2,349	1,828	1,502	1,553	1,346	1,617	1,650	1,592	1,461
Clam, Softshell	229	181	106	132	163	234	270	393	198	125
Flounder, Summer	801	812	752	1,053	1,073	1,594	1,799	1,220	942	857
Lobster	6,452	2,883	2,053	1,440	946	996	1,154	1,243	716	814
Oyster, Eastern	68	150	244	537	466	370	219	269	124	135
Scallop, Sea	18	111	259	26	39	170	647	577	619	783
Scups or Porgies	455	634	655	1,558	1,850	1,907	2,186	2,416	2,325	1,215
Squid, Loligo	10,197	13,208	7,625	9,613	4,603	6,363	6,693	6,460	5,439	5,504
Tilefishes	798	916	1,835	1,593	1,755	1,335	1,142	1,297	1,394	1,199

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clam, Atlantic Surf	0.45	0.65	0.65	0.65	0.60	0.60	0.59	0.65	0.65	0.65
Clam, Quahog	6.72	7.47	7.39	8.15	7.98	7.93	7.85	7.42	8.94	8.94
Clam, Softshell	4.25	4.70	5.30	5.15	5.45	5.24	5.43	5.23	8.23	8.24
Flounder, Summer	2.29	2.47	2.36	1.94	2.09	2.05	2.11	2.80	3.33	3.42
Lobster	3.87	4.01	3.58	3.56	4.68	3.74	3.81	5.06	6.02	5.01
Oyster, Eastern	5.76	8.77	8.77	9.30	9.15	9.10	8.97	8.87	21.21	21.21
Scallop, Sea	3.90	2.15	2.77	3.43	4.19	4.24	5.59	6.10	6.25	6.46
Scups or Porgies	1.57	1.43	1.07	0.76	0.72	0.86	0.93	1.01	1.01	1.41
Squid, Loligo	0.79	0.64	0.79	0.65	0.95	0.85	0.90	0.90	0.95	0.97
Tilefishes	2.36	2.24	1.74	2.01	1.56	1.56	2.42	2.56	2.76	2.79

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	456	45,049	27,279
Private Boat	748	90,550	56,690
Shore	420	45,334	27,675
Total Durable Equipment Impacts	4,142	694,516	345,558
Total State Trip and Durable Equipment Economic Impacts	5,766	875,449	457,202

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	3,604	25,426	Fishing Tackle	204,077
Private Boat	3,286	89,191	Other Equipment	81,882
Shore	3,607	41,521	Boat Expenses	201,422
Total Trip Expenditures	10,498	156,138	Vehicle Expenses	117,877
			Second Home Expenses	63,619
			Total Durable Equipment Expenditures	668,876
Total State Trip and Durable Equipment Expenditures				835,512

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	337	469	474	387	599	587	885	735	881	817
Non-Coastal	11	12	11	8	19	18	27	25	39	32
Out of State	28	20	29	41	82	76	110	114	147	118
Total Anglers	376	500	513	436	700	681	1,022	874	1,067	967

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	281	306	344	339	406	397	475	398	522	312
Private Boat	1,749	2,496	2,365	2,172	3,030	2,600	3,032	3,058	3,237	3,276
Shore	873	1,844	1,915	1,607	2,090	1,777	2,566	1,943	2,459	2,365
Total Trips	2,903	4,645	4,624	4,118	5,525	4,774	6,073	5,399	6,218	5,954

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	195	271	190	202	314	243	298	313	371	448
	R	1,229	1,373	824	588	1,084	1,493	1,348	1,578	1,456	1,277
Bluefish	H	710	718	1,005	751	1,147	1,499	2,376	1,534	1,660	1,320
	R	1,156	2,629	2,543	1,017	1,305	1,883	3,314	1,839	1,919	2,514
Drum (Weakfish) ²	H	18	42	28	25	9	8	(1)	9	7	31
	R	35	69	69	63	7	40	194	12	201	27
Flounder, Summer	H	760	1,671	700	696	1,539	937	1,147	802	711	565
	R	3,260	3,574	5,228	4,100	5,722	2,682	7,767	5,277	5,255	6,124
Flounder, Winter	H	136	237	233	154	234	236	150	204	15	61
	R	152	237	286	141	73	56	222	95	14	30
Herring, Atlantic ²	H	142	67	39	26	30	73	140	39	315	111
	R	118	83	48	14	(1)	4	2	3	176	41
Porgies (Scup)	H	875	3,126	1,734	1,091	5,112	1,581	686	1,277	1,601	1,617
	R	197	1,301	1,666	1,246	1,805	2,508	1,263	2,498	1,590	3,282
Sea bass, Black	H	89	335	164	221	318	105	176	277	312	245
	R	731	1,222	641	1,411	739	490	963	1,634	1,513	1,829
Shortfin Mako	H	1	5	(1)	1	3	(1)	(1)	1	1	(1)
	R	9	13	2	4	3	2	5	2	(1)	(1)
Wrasses (Tautog)	H	197	79	46	630	129	381	119	253	202	256
	R	787	401	314	953	297	783	272	1,020	368	775

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

²This 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 (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	481,962 (7.0%)	6,993,814 (6.5%)	274,635 (8.3%)	482,888 (8.1%)	686,906 (7.9%)	0.22
2007	519,489 (6.7%)	7,529,882 (6.2%)	429,074 (8.5%)	636,533 (8.2%)	1,105,020 (8.1%)	0.11
% change	7.8%	7.7%	56.2%	31.8%	60.8%	-50.0%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	43	39	45	40	62	49	57	61	68
	Receipts	3,621	3,538	2,607	1,730	2,580	3,517	2,652	3,044	3,516
Seafood Sales, retail	Firms	274	268	262	244	272	241	219	206	266
	Receipts	28,922	30,580	31,218	29,832	29,321	28,640	24,987	24,790	23,157

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	19	18	21	16	18	17	18	15	15
	Employees	452	ND ³	370	352	271	323	324	298	294
	Payroll	15,350	ND	18,258	20,430	15,676	14,782	14,810	16,491	18,723
Seafood sales, wholesale	Establishments	313	305	296	315	291	274	269	254	291
	Employees	2,189	2,265	2,158	2,269	2,183	2,091	2,003	2,066	2,058
	Payroll	71,437	75,538	76,881	84,367	75,063	75,411	76,177	78,198	84,361
Seafood sales, retail	Establishments	297	307	323	381	376	386	392	388	372
	Employees	1,026	1,113	1,154	1,421	1,518	1,602	1,513	1,495	1,575
	Payroll	16,110	17,304	18,609	22,867	25,422	26,489	25,665	26,701	28,497

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	71	69	67	69	60	60	57	55	50
	Employees	1,687	1,653	2,182	2,284	1,751	1,452	1,448	1,464	1,746
	Payroll	91,895	91,296	129,403	141,213	115,452	94,074	91,347	109,315	125,570
Deep sea freight transportation	Establishments	42	43	40	38	35	36	39	38	34
	Employees	769	ND	621	1,084	927	600	602	ND	ND
	Payroll	49,402	ND	42,874	52,516	58,350	38,246	39,309	ND	65,632
Deep sea passenger transportation	Establishments	2	4	5	4	8	7	6	4	4
	Employees	ND	ND	160	ND	212	ND	ND	ND	7
	Payroll	ND	ND	5,646	ND	6,673	ND	ND	ND	240
Marinas	Establishments	389	392	386	386	417	413	416	404	411
	Employees	1,682	1,778	1,805	1,680	2,167	2,185	2,093	2,112	2,070
	Payroll	55,844	64,661	66,508	69,242	77,398	81,737	84,832	83,807	88,862
Marine cargo handling	Establishments	20	22	19	11	14	14	12	12	12
	Employees	1,290	1,677	ND	ND	951	1,099	ND	ND	ND
	Payroll	43,649	56,242	ND	ND	50,015	48,529	ND	ND	ND
Navigational services to shipping	Establishments	36	41	41	32	34	34	35	36	36
	Employees	ND	487	554	ND	ND	ND	ND	ND	578
	Payroll	ND	27,872	29,646	ND	ND	ND	ND	ND	40,976
Port & harbor operations	Establishments	3	3	3	4	3	3	3	3	5
	Employees	ND	ND	ND	ND	ND	ND	ND	6	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	119	ND
Ship & boat building	Establishments	52	48	44	41	44	45	47	48	53
	Employees	841	880	759	ND	ND	ND	590	ND	643
	Payroll	28,262	28,320	26,072	ND	ND	ND	21,514	ND	26,653

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Virginia Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	1,369,390	762,559	30,734
Commercial Harvesters	118,245	50,741	2,275
Seafood Processors & Dealers	161,059	86,136	2,259
Seafood Wholesalers & Distributors	206,766	103,485	1,899
Retail Sector	883,319	522,196	24,302

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	108,247	118,336	119,618	123,308	130,657	160,491	155,096	109,071	132,612	145,552
Finfish & Other	47,754	47,258	42,222	38,947	39,661	43,522	48,589	40,597	45,818	40,104
Shellfish	60,492	71,078	77,395	84,361	90,996	116,970	106,507	68,474	86,794	105,448
Bass, Striped	3,088	3,266	3,250	2,823	3,389	3,659	4,478	2,907	3,846	3,311
Catfishes & Bullhead	330	389	987	1,005	372	649	900	1,570	978	1,124
Crab, Blue	26,525	24,115	25,600	21,083	19,130	21,822	20,578	14,067	15,252	19,580
Croaker, Atlantic	3,499	5,598	3,126	3,815	2,822	3,013	3,691	4,344	4,628	5,244
Flounder, Summer	3,067	3,131	2,973	3,150	4,220	5,376	4,680	3,460	3,187	2,720
Goosefish	940	843	700	704	879	599	1,143	688	750	ND ¹
Menhaden	30,222	27,566	25,860	22,113	22,511	24,144	25,259	22,269	25,317	21,268
Scallop, Sea	27,483	41,680	44,466	57,715	68,298	92,203	84,574	52,819	63,013	65,587
Sea Bass, Black	1,195	1,335	1,317	1,589	1,306	1,167	1,243	1,072	663	763
Spot	1,040	2,256	1,326	1,256	1,688	2,236	2,227	1,762	3,194	1,179

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	460,254	443,197	561,792	442,490	446,828	481,373	441,568	426,235	485,098	415,719
Finfish & Other	419,790	403,157	520,211	396,929	406,359	432,023	402,616	393,760	452,388	383,967
Shellfish	40,464	40,041	41,581	45,560	40,469	49,350	38,952	32,475	32,711	31,752
Bass, Striped	1,859	2,209	2,050	1,841	2,104	2,126	2,484	1,431	1,973	2,153
Catfishes & Bullhead	1,455	1,680	1,964	1,886	1,799	1,922	1,622	1,360	1,597	1,720
Crab, Blue	31,437	28,846	25,057	27,301	21,464	27,642	26,064	22,719	19,017	17,821
Croaker, Atlantic	12,850	12,889	12,929	12,448	10,936	9,488	9,272	7,829	10,941	11,112
Flounder, Summer	2,196	2,207	2,660	2,970	3,522	3,906	3,897	2,757	1,857	1,654
Goosefish	2,629	942	887	970	1,270	1,002	1,159	677	827	ND ¹
Menhaden	378,158	367,131	487,144	364,941	373,868	399,798	372,578	370,989	420,022	353,524
Scallop, Sea	5,572	9,176	12,654	16,189	17,536	19,409	11,444	8,312	10,041	9,847
Sea Bass, Black	740	648	661	771	507	498	476	328	190	216
Spot	2,962	3,765	3,248	3,062	3,471	4,338	3,103	1,696	4,275	1,987

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	1.66	1.48	1.59	1.53	1.61	1.72	1.80	2.03	1.95	1.54
Catfishes & Bullhead	0.23	0.23	0.50	0.53	0.21	0.34	0.55	1.15	0.61	0.65
Crab, Blue	0.84	0.84	1.02	0.77	0.89	0.79	0.79	0.62	0.80	1.10
Croaker, Atlantic	0.27	0.43	0.24	0.31	0.26	0.32	0.40	0.55	0.42	0.47
Flounder, Summer	1.40	1.42	1.12	1.06	1.20	1.38	1.20	1.26	1.72	1.64
Goosefish	0.36	0.90	0.79	0.73	0.69	0.60	0.99	1.02	0.91	ND ¹
Menhaden	0.08	0.08	0.05	0.06	0.06	0.06	0.07	0.06	0.06	0.06
Scallop, Sea	4.93	4.54	3.51	3.56	3.89	4.75	7.39	6.35	6.28	6.66
Sea Bass, Black	1.61	2.06	1.99	2.06	2.58	2.34	2.61	3.27	3.49	3.53
Spot	0.35	0.60	0.41	0.41	0.49	0.52	0.72	1.04	0.75	0.59

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	128	10,152	5,792
Private Boat	1,728	169,947	98,652
Shore	418	38,484	22,066
Total Durable Equipment Impacts	3,291	400,301	202,213
Total State Trip and Durable Equipment Economic Impacts	5,564	618,884	328,723

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	5,078	1,730	Fishing Tackle	110,040
Private Boat	67,438	82,460	Other Equipment	40,498
Shore	10,951	22,443	Boat Expenses	142,615
Total Trip Expenditures	83,466	106,633	Vehicle Expenses	137,463
			Second Home Expenses	37,801
			Total Durable Equipment Expenditures	468,417
Total State Trip and Durable Equipment Expenditures				658,516

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	309	388	423	337	384	510	559	578	463	464
Non-Coastal	66	68	88	73	52	69	137	90	76	89
Out of State	187	262	520	407	288	428	511	364	297	338
Total Anglers	562	717	1,031	817	724	1,007	1,206	1,033	836	891

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	41	64	91	72	86	96	41	34	59	53
Private Boat	1,904	2,291	2,579	2,255	2,068	2,415	2,432	2,555	2,510	2,348
Shore	749	1,036	1,458	927	958	1,083	1,368	1,310	1,154	1,025
Total Trips	2,694	3,391	4,128	3,254	3,113	3,594	3,841	3,900	3,723	3,425

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	304	335	301	321	402	477	368	523	246	207
	R	941	1,022	621	707	971	1,768	1,485	1,690	914	442
Cobia	H	5	10	9	3	2	3	14	8	10	7
	R	16	8	10	10	15	7	23	29	8	7
Drum (Atlantic Croaker)	H	5,882	5,486	9,335	9,129	6,695	7,293	7,791	7,069	7,753	6,525
	R	5,669	7,811	7,087	7,108	6,544	5,791	8,144	4,599	9,511	7,035
Drum, Red	H	12	23	7	50	14	5	3	15	71	27
	R	233	197	30	801	43	34	31	159	166	238
Drum (Spot)	H	569	527	1,056	1,602	1,441	2,323	2,994	3,510	6,609	5,061
	R	340	503	969	482	934	975	1,799	921	2,311	1,721
Drum (Spotted Seatrout)	H	138	90	13	16	102	75	31	56	146	80
	R	152	265	110	136	207	296	277	125	415	373
Drum (Weakfish) ¹	H	229	287	176	178	86	103	30	59	45	29
	R	819	936	633	888	504	528	267	456	172	314
Flounder, Summer	H	378	581	1,338	772	451	584	584	862	479	229
	R	2,183	2,629	4,014	2,666	2,585	3,539	2,340	2,274	3,388	2,758
Sea bass, Black	H	536	448	231	132	265	48	75	115	67	58
	R	1,242	1,570	2,180	2,441	1,742	1,280	945	983	1,265	1,327
Wrasses (Tautog)	H	43	35	29	26	76	163	108	142	67	45
	R	66	13	27	38	55	141	107	229	94	32

¹This 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 (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	172,182 (2.5%)	2,700,589 (2.5%)	81,261 (2.5%)	167,476 (2.8%)	226,569 (2.6%)	0.38
2007	200,503 (2.6%)	3,196,914 (2.7%)	136,312 (2.7%)	230,949 (2.8%)	384,132 (2.8%)	0.55
% change	16.4%	18.4%	67.7%	37.8%	69.5%	44.7%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	14	16	20	35	53	68	65	74	62
	Receipts	854	613	1,185	1,406	2,370	3,456	3,665	4,916	4,845
Seafood Sales, retail	Firms	73	68	89	94	88	89	80	86	84
	Receipts	4,707	5,505	10,148	8,266	7,193	8,346	8,762	8,027	7,265

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	42	41	42	39	38	42	39	33	30
	Employees	1,515	1,230	1,259	1,035	1,256	1,231	1,336	871	955
	Payroll	30,554	34,642	35,228	35,828	37,386	38,731	39,980	28,530	34,520
Seafood sales, wholesale	Establishments	108	105	100	89	84	86	86	80	83
	Employees	1,056	1,072	875	790	742	756	675	605	734
	Payroll	22,086	21,054	21,138	21,591	20,133	22,235	21,864	21,388	25,365
Seafood sales, retail	Establishments	52	57	59	74	61	68	69	75	73
	Employees	ND	243	203	259	165	297	286	334	282
	Payroll	ND	3,262	3,104	3,662	3,146	4,479	4,865	5,348	5,227

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	15	15	14	13	16	13	15	13	15
	Employees	ND ³	ND	ND	ND	591	ND	ND	ND	565
	Payroll	ND	ND	ND	ND	26,881	ND	ND	ND	30,704
Deep sea freight transportation	Establishments	26	24	22	23	22	21	24	22	20
	Employees	953	1,172	ND	1,254	1,087	1,124	1,090	1,564	1,611
	Payroll	71,298	72,961	ND	92,591	87,099	91,978	95,871	141,085	148,502
Deep sea passenger transportation	Establishments	NA ⁴	NA	NA	2	2	2	1	1	1
	Employees	NA	NA	NA	ND	ND	ND	ND	ND	ND
	Payroll	NA	NA	NA	ND	ND	ND	ND	ND	ND
Marinas	Establishments	119	121	129	122	136	137	141	131	126
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	992
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	26,186
Marine cargo handling	Establishments	17	16	16	18	19	19	18	17	15
	Employees	ND	1,820	1,284	ND	ND	ND	1,516	1,110	1,085
	Payroll	ND	53,584	50,553	ND	ND	ND	52,254	51,654	56,696
Navigational services to shipping	Establishments	13	14	13	17	15	20	21	17	18
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	216
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	11,700
Port & harbor operations	Establishments	9	9	9	8	8	9	9	10	10
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ship & boat building	Establishments	54	52	63	62	50	52	50	51	52
	Employees	21,176	21,429	20,198	21,240	20,720	21,022	21,230	21,741	ND
	Payroll	765,462	856,081	989,524	963,644	901,156	920,372	938,375	993,066	ND

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

⁴NA = Data are not available.

South Atlantic

- East Florida
- Georgia
- North Carolina
- South Carolina



Management Context

The South Atlantic Region is comprised of North Carolina, South Carolina, Georgia and East Florida. Federal fisheries in this region are managed by the South Atlantic Fishery Management Council (SAFMC) and NOAA Fisheries (NMFS) under eight fishery management plans (FMPs).¹ The spiny lobster and coastal migratory pelagic resources 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 Fishery Management Plans

1. Coastal Migratory Pelagic Resources (with GMFMC)
2. Coral, Coral Reef, and Live/Hardbottom Habitat Plan
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 species or species groups covered in these fishery management plans, pink shrimp, snowy grouper, black sea bass, red porgy, and red snapper are currently considered overfished. For short-lived species such as pink shrimp, environmental conditions are generally believed to have a more significant effect than from fishing. Species or species groups currently subject to overfishing are: vermilion snapper, red snapper, snowy grouper, tilefish, red grouper, black sea bass, gag, black grouper, speckled hind, and warsaw grouper. The South Atlantic Council recently has developed or is developing amendments to eliminate overfishing for these species.

The South Atlantic wreckfish fishery is managed as an individual fishing quota (IFQ) fishery. This limited access privilege program (LAPP) is a type of catch share program and was put into place in 1992. The fishery had an ex-vessel value of \$300,000 in 2007.

Commercial Fisheries

Commercial fishermen in the South Atlantic harvested 116 million pounds of finfish and shellfish in 2008, earning over \$164 million for their catch. Shrimp and blue crab were a major source of ex-vessel revenue in 2008, generating a combined \$92 million and 59% of total catch. These species also contributed the most to total landings in the region, with 44 million pounds of blue crab and 23 million pounds of shrimp landed in 2008. High value species, clams and oysters accounted for less than 2% of total landings in 2008, but generated 5% of total revenue that year due to their high ex-vessel price per pound (\$6.23 and \$4.70, respectively).

North Carolina contributed most to the ex-vessel revenue and landings in the region, with \$87 million earned for 71 million pounds landed in 2008. East Florida (\$47.6 million, 26 million pounds), South Carolina (\$17.5 million, 10

million pounds), and Georgia (\$12.5 million, 8.6 million pounds) followed.

Economic Impacts²

Florida led the region in terms of sales, income, and job impacts related to the seafood industry in 2008. In-state sales in Florida generated almost \$5.7 billion in 2008 with income impacts totaling \$3.1 billion. Over 108,000 full- and part-time jobs were generated from the seafood industry in this state. North Carolina ranked second in the South Atlantic in terms of economic impacts with \$636 million in in-state sales, \$340 million in income impacts, and 15,000 full- and part-time jobs. In terms of employment, Georgia (11,600 jobs) and South Carolina (1,900 jobs) followed.

Key South Atlantic Commercial Species

- Clams
- Blue crab
- Flounders
- Groupers
- King mackerel
- Oysters
- Shrimp
- Snappers
- Swordfish
- Tunas

Landings Revenue

Ex-vessel revenue for finfish and shellfish totaled \$164 million in 2008, a 20% decrease (36% in real terms) from landings revenue in 1999 (\$204 million) but a 8% increase (2.4% decrease in real terms) from 2007 (\$152 million). Shellfish revenue accounted for 63% of total revenue in the South Atlantic, bringing in \$104 million in 2008. This was a 29% decrease (43% in real terms) relative to 1999 (\$146 million) but a 15% increase (3.5% in real terms) from 2007 (\$89 million). Finfish revenue totaled \$60 million, a 2% increase (18% decrease in real terms) from 1999, and a 1.5% decrease (11% in real terms) from 2007.

Fishermen in North Carolina accounted for 53% of the region's landings revenue in 2008. This was a 13% decrease (30% in real terms) relative to total revenue in 1999 (\$99 million) but a 5% increase relative to 2007 (\$82 million). Blue crab (\$27.6 million), shrimp (\$19 million), and flounders (\$10.9 million) contributed the most to total revenue in North Carolina. Georgia (46%), South Carolina (45%), and East Florida (5.5%) experienced declining revenue trends from 1999 to 2008. East Florida (11%, 0.54% in real terms) and Georgia (13%, 2.5% in real terms) both experienced increases in total real revenue from 2007 to 2008.

Of the key species and species groups, revenue from shrimp and blue crab was the highest of the key species and species groups in 2008, contributing 55% to total revenue in the South Atlantic. This was true despite declining revenue trends over the 10 year time period. Shrimp landings revenue declined 37% (50% in real terms) and blue crab declined 18% (34% in real terms) relative to 1999 landings revenue for these species. However, both species experienced an increase in revenue

¹The authority to manage red drum was transferred to the Atlantic States Marine Fisheries Commission (ASMFC) in 2008.

²Economic impacts reported here are for the state of Florida, not East Florida.

from 2007 to 2008: 16% for shrimp (4.7% in real terms) and 19% for blue crab (7.5% in real terms).

Across the South Atlantic, species or groups of species experiencing revenue declines from 1999 to 2008 include clams (52%, 61% in real terms) and swordfish (35% decrease, 48% in real terms). In contrast to these declines, tuna revenue increased 132% increase (86% in real terms), oyster revenue increased 96% (57% in real terms), and snapper revenue increased 59% (27% in real terms). For 2007-2008, tuna revenue decreased 5% (14% in real terms).

At the state level, large changes in landings revenue over the 10 year period occurred for snappers (127% increase), king mackerel (88% increase), Spanish mackerel (86% increase) and clams (66% decrease) in **East Florida**; clams (227% increase), snails or conchs (99% decrease), blue crab (59% increase) and shrimp (60% decrease) in **Georgia**; tunas (179% increase), snappers (67% increase), clams (36% decrease), groupers (39% increase) and blue crab (27% decrease) in **North Carolina**; and oysters (71% increase), grouper (65% decrease), swordfish (82% decrease), tilefish (75% decrease), and clams (81% decrease) in **South Carolina**.

Landings

Across the South Atlantic, commercial fishermen harvested 116 million pounds of finfish and shellfish in 2008. This was a 46% decrease from 1999 (216 million pounds) and a 10% increase from 2007 (105 million pounds). Shellfish accounted for 62% of total landings (72 million pounds) in 2008. However, this was a 35% decrease from 1999 harvest levels (110 million pounds) and a 23% increase from 2007 (59 million pounds). Finfish harvest decreased 58% from 105 million pounds in 1999 to 44 million pounds in 2008. From 2007 to 2008, finfish landings declined 6.1%.

Finfish and shellfish landings experienced double digit declines in all four South Atlantic states between 1999 and 2008. The largest changes were in North Carolina where finfish landings decreased 68% and shellfish landings decreased 36%. Finfish and shellfish landings decreased as follows: 39% and 48%, respectively, in South Carolina; 71% and 27% in Georgia; and 9% and 23% in East Florida.

Blue crab and shrimp were a major component to landings totals across the South Atlantic. In 2008, 45 million pounds of blue crab and 23 million pounds of shrimp were harvested. These species accounted for 59% of the total harvest in 2008. Fishermen in North Carolina landed 73% of blue crabs harvested across the region. However, blue crab harvests declined 38% from 1999 to 2008. North Carolina and East Florida fishermen harvested 74% of total shrimp landings in 2008, harvesting 9.4 million and 7.6 million pounds, respectively. Relative to 1999 landings totals, this was a 5% increase in North Carolina and a 9% decrease in East Florida.

Other South Atlantic key species and groups with large changes in landings totals over the 10 year period include: a 63% increase in oysters, a 36% increase in king

mackerel, a 43% decrease in clams, and a 42% decrease in swordfish.

At the state level, dramatic changes in landings totals occurred for the following key species or groups: a 66% increase in snappers, 61% increase in king mackerel, and a 70% decrease in clams in **East Florida**; a 160% increase in clams, 56% decrease in shrimp, and a 99% decrease in snails or conchs in **Georgia**; a 43% decrease in blue crab, and Atlantic croaker and a 36% increase in snappers in **North Carolina**; and a 82% decrease in both tilefish and in swordfish, a 62% decrease in shrimp, and a 64% decrease in clams in **South Carolina**.

Commercial Fish Facts

Landings revenue

- On average, the South Atlantic's key species and species groups accounted for 81% of total landings revenue.
- Shrimp and blue crab contributed the most to total revenue from 1999 to 2008, averaging \$52 million and \$40 million, respectively. Fishermen in North Carolina generated most of this revenue.
- The largest annual increase in revenue was 109% for tunas, which increased from \$2.0 million to \$4.2 million from 1999-2000. The largest annual decrease was a 37% decrease in shrimp revenue (2000-2001).

Landings

- The South Atlantic's key species and groups contributed an average of 73% to total landings annually.
- Blue crab and shrimp contributed the most to total landings in the region, averaging 47 million pounds and 25 million pounds from 1999 to 2008. North Carolina fishermen harvested the majority of these species.
- Landings of tunas increased 50% from 2005-2006, the largest annual increase. Most of these landings were harvested in North Carolina. The largest annual decrease in landings was for shrimp which decreased 39% from 2004-2005.

Prices

- Clams (\$6.55) and oysters (\$4.27) had the highest average ex-vessel price per pound from 1999 to 2008.
- Blue crab (\$0.87) and king mackerel (\$1.68) had the lowest average ex-vessel price of the region's key species or groups.
- Swordfish had the largest annual increase in ex-vessel price, increasing 52% from 1999-2000. This was followed by a 20% decrease from 2000-2001, the largest annual decrease.

Prices

The ex-vessel prices for the South Atlantic's key species and species groups in 2008 were higher than their 10 year average price per pound for all but two species groups. Ex-vessel prices for clam decreased 15.7% (33% in real terms) and shrimp prices decreased 13% (30% in real terms) between 1999 and 2008. Tuna prices had the largest increase of any key species or group during this period, increasing 120% (76% in real terms) from \$1.28 per pound (\$1.37, in real terms) to \$2.82 per pound (\$2.41 in real terms).

Across the region and at the state level, only clam and shrimp prices declined between 1999 and 2008. The largest decreases in clam prices were in South Carolina (48%, 58% in real terms) and North Carolina (6.6%, 25%

in real terms). The largest decreases in shrimp prices were 15% (32% in real terms) in North Carolina.

Half the South Atlantic’s key species and species groups decreased in current ex-vessel price between 2007 and 2008. The price of tuna was the only real price to increase between 2007 and 2008. Tuna prices increased (33%, 20% in real terms), shrimp (6%, 4.4% decrease in real terms), snappers (3.8%, 6.3% decrease in real terms) and clams (1%, 8.8% decrease in real terms). Blue crab prices decreased the most (10.1%, 19% decrease in real terms) followed by flounders (8.8%, 18% decrease in real terms), swordfish (7.6%, 17% decrease in real terms) and king mackerel (3.8%, 13% decrease in real terms). The current price of groupers did not change but the real price decreased 9.7%.

The largest increases during the 1999-2008 time period were for tunas (191%, 133% in real terms) and Atlantic croaker (74%, 39% in real terms) in North Carolina; snail or conches (89%, 51% in real terms) in Georgia; groupers (64%, 23% in real terms) in South Carolina; and lobsters (53%, 22% in real terms) in East Florida.

Recreational Fishing

In 2008, there were 2.9 million recreational anglers who took 22 million fishing trips in the South Atlantic. Over 80% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 50% of them were taken from a private or rental boat and another 48% were shore-based. Atlantic croaker and spot were the most caught key species or species group with 10 million fish. The Atlantic croaker accounted for 27.8% of the total fish caught in the region. Over half of these fish (59%) were harvested rather than released.

Economic Impacts and Expenditures

In 2008, recreational fishing activities in East Florida supported more jobs than in any other state in the South Atlantic with approximately 35,000 full- and part-time jobs supported. This number of jobs was just over half of that reported in 2007 for East Florida. North Carolina (22,000 jobs), South Carolina (5,500 jobs), and Georgia (2,500 jobs) followed in terms of employment impacts from recreational fishing activities. The majority of these jobs were related to durable equipment expenditures (versus trip-related expenditures): 93% of jobs in Georgia; 87% of jobs in East Florida; 52% of jobs in South Carolina; and 49% of jobs in North Carolina.

Industries that provided services for shore-based fishing trips supported most of the trip-related full- and part-time jobs in North Carolina (8,420 jobs) and South Carolina (1,490 jobs). Private or rental boat trips supported most of the trip-related jobs in East Florida (2,570 jobs) and Georgia (100 jobs).

In addition to jobs, the contribution of recreational fishing activities to the South Atlantic’s economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value-added impacts). In 2008, sales and value-added impacts were highest in East Florida (\$4 billion in sales impacts and \$2.1 billion in value-added impacts). North Carolina (\$2.3 billion in sales

impacts and \$1.1 billion), South Carolina (\$488 million and \$266 million); and Georgia (\$311 million and \$162 million) followed.

Key South Atlantic Recreational Species	
• Bluefish	• King mackerel
• Dolphinfinh	• Spanish mackerel
• Drum (Atlantic croaker and spot)	• Porgies (sheepshead)
• Red drum	• Black sea bass
• Drum (spotted seatrout)	• Sharks

The majority of these sales and value-added impacts were supported by expenditures on durable equipment. Shore-based fishing trips generated most of the economic impacts in terms of sales and value-added impacts in North Carolina and South Carolina. In East Florida and Georgia, private or rental boat fishing trips contributed more to trip-related economic impacts than shore-based or for-hire fishing modes.

Across the South Atlantic Region, total fishing trip and durable equipment expenditures totaled approximately \$7.48 billion in 2008. Approximately 83% of this was related to durable equipment purchases. Boat-related expenses (\$2.57 billion), vehicle (\$1.6 billion) and fishing tackle expenses (\$1.3 billion) accounted for the majority of these durable equipment expenditures.

Fishing trip-related expenditures by South Atlantic resident and non-resident anglers totaled \$596 million and \$695 million, respectively. Most of the expenditures by resident anglers was related to private or rental boat fishing trips (\$330 million). Non-resident anglers spent most of their trip-related expenditures towards shore-based fishing trips (\$496 million).

Participation

The 2.9 million recreational fishermen who fished in the South Atlantic in 2008 was a 69% increase from 1999 (1.7 million anglers) and a 20.8% decrease from 2007 (3.7 million anglers). These anglers were residents of either a coastal (2.3 million anglers) or non-coastal county (560,000 anglers) in the South Atlantic region.³ The number of coastal county anglers in 2008 increased 61% from 1999 (1.45 million anglers) and decreased 26% from 2007 (3.2 million anglers). Non-coastal county angler participation increased 118% from 1999 (257,000 anglers) and increased 13.6% from 2007 (493,000 anglers). Seventy percent of the South Atlantic’s total anglers fished in East Florida.

In 2008, the majority of recreational fishermen in East Florida and Georgia were residents of a coastal county⁴ within their respective state. These anglers comprised 65% of total anglers in East Florida and 43% of total anglers in Georgia. In contrast, most of North Carolina and South

³ In *Fisheries Economics of the U.S., 2006* (FEUS 2006), angler participation totals from 1997-2006 incorrectly included out-of-state anglers at the region level. In this report, the 1999-2008 angler participation totals excludes these anglers.

⁴All resident anglers in Florida are considered coastal county anglers.

Carolina's anglers were out-of-state residents: 1.1 million anglers or 55% of total anglers in North Carolina and 604,000 anglers or 64.1% of total anglers in South Carolina. Non-coastal county residents accounted for a minority of total anglers in South Carolina (11%) and North Carolina (15%). Out-of-state residents comprised the smallest group of anglers in Georgia (22% of total anglers).

Recreational Fishing Facts

Participation

- An average of 2.72 million anglers fished in the South Atlantic annually from 1999 to 2008. There were more anglers fishing in East Florida than any other state.
- In 2008, coastal county residents made up 81% of total anglers in this region. These anglers averaged 84% of total anglers annually over the 10 year time period. Coastal county angler participation decreased significantly (26.2%) from 2007 to 2008.
- Non-coastal county resident anglers had the largest annual increase in participation, increasing 49% from 1999 to 2000.

Fishing trips

- In the South Atlantic, an average of nearly 21 million trips were taken annually between 1999 and 2008. Most of these fishing trips were taken in East Florida.
- Private or rental boat and shore-based fishing trips accounted for 11 million and 10.7 million fishing trips, respectively, in 2008. Together, these made up 97% of fishing trips taken that year.
- From 1999-2000, shore-based fishing trips increased 53%, the largest annual increase in fishing trip mode. From 1999-2000, for-hire fishing trips declined 22%, the largest annual decrease.

Harvest and release

- Atlantic croaker and spot was the most caught key species or species group in the region, averaging 9 million fish caught from 1999 to 2008. Of these, 59% were harvested rather than released in 2008.
- Half of the key species or groups caught from 1998-2007 were most often harvested rather than released. Dolphinfish (87% harvested), king mackerel (75%), and Spanish mackerel (64%) are examples.
- Key species or groups that are most often released rather than harvested from 1998-2007 include sharks (99% released), spotted seatrout (76%), and black sea bass (81%).
- Black sea bass had the largest annual increase in catch, increasing 95% from 2003 to 2004. The largest annual decrease in catch was for King Mackerel (decrease of 40% from 2007 to 2008).

Fishing Trips

Recreational fishermen took 22 million fishing trips in the South Atlantic in 2008. This was a 54.2% increase from 1999 (14.4 million trips) and a 13.2% decrease from 2007 (25.7 million trips). In 2008, over 49% of total trips taken in the region were taken from a private or rental boat (11 million trips). Shore-based fishing trips were also popular with 10.7 million trips taken in 2007 or 48% of total trips in the region. All fishing modes in 2008 experienced decreases from 2007 to 2008. For-hire fishing decreased 6.9%, rental fishing decreased 16.2% and shore based fishing trips decreased 10.3%. Fishing trips taken from a for-hire boat was the only fishing mode to see a decrease between 1999 and 2008, decreasing nearly 13%.

At the state level, there were 11 million fishing trips taken in East Florida in 2008. Trips taken in East Florida accounted for most of the fishing trips in the South Atlantic: 50% of total trips in the region. Private or rental boat trips were the most popular fishing mode in East Florida (6.45 million trips). North Carolina ranked second in terms of the total number of fishing trips taken in the South Atlantic with 7.18 million trips taken by anglers in 2008. South Carolina (2.6 million trips) and Georgia (1.28 million trips) followed. Private or rental boat trips accounted for most of the trips taken in South Carolina and Georgia, while shore-based trips were the most popular mode in North Carolina.

Harvest and Release

Atlantic croaker and spot had the highest catch totals of any key species or species groups in the South Atlantic. In 2008, approximately 10 million fish were caught by anglers in the region and 59% of these fish were harvested rather than released. Over 54% of these fish were caught in North Carolina. Spotted seatrout (6.3 million fish) and bluefish (5.3 million fish) were other key species that were caught in large numbers in 2008. Both of these species were more often released by anglers rather than harvested: 75% of spotted seatrout and 65% of bluefish. Sharks were also released in large numbers (99.7% of fish caught). In contrast, dolphinfish (84% harvested) and king mackerel (75%) were most often harvested rather than released.

All of the South Atlantic's key species and species groups showed increases in catch totals between 1999 and 2008, except dolphinfish which decreased by 18%. Key species or groups with dramatic changes over the ten years included a 130% increase in total catch of red drum, 386% increase in sharks, and 111% increase in bluefish.

Between 2007 and 2008, bluefish, dolphinfish, Atlantic croaker (24%), spotted sea trout (15%), king mackerel (5.1%), and black sea bass (17%) decreased in total catch. All other key species or species groups increased during this period with the largest increases observed for Spanish mackerel (29%) and porgies (20%).

At the state level, Atlantic croaker and spot were the most caught key species or species group in 2008 for North Carolina (5.4 million fish). About 50% these fish were harvested rather than released. Spotted seatrout was the most commonly caught key species or species groups in East Florida (2.3 million fish). The majority of these fish were released rather than harvested. In Georgia, southern kingfish was the most caught species (1.8 million fish). In South Carolina, Atlantic croaker and spot were the most caught key species or species group (2.8 million fish). Over 86% of these fish were harvested by anglers rather than released.

Marine Economy⁵

In 2007, the South Atlantic's gross domestic product totaled \$1.68 trillion. Employee compensation totaled \$933 billion and annual payroll totaled \$595 billion. These totals

⁵Data for 2008 were unavailable for this report therefore 2007 information is reported in this section.

were all increases from 1998 levels (64%, 37%, and 61%, respectively) and (37%, 14%, and 61% in real terms) and 2006 levels (3.4%, 4.3%, and 3.6%, respectively). There was a decrease between 2006 and 2007 (2.3%, 1.4%, and 2.1%, respectively). Across the region, there were approximately 1.1 million establishments that employed over 16 million full- and part-time employees in 2007. Both of these economic measures increased from 1998 to 2007 (20% and 19%, respectively) and from 2006 to 2007 (2% and less than 0.1%, respectively).

At the state level, Florida⁶ had the highest establishment and employee numbers, annual payroll, employee compensation, and gross state product levels in the region. Florida's 523,000 establishments employed over 7.4 million employees in 2007. The gross state product in Florida was \$741 billion followed by Georgia (\$391 billion), North Carolina (\$390 billion), and South Carolina (\$152 billion).

Florida had the highest commercial fishing location quotient (CFLQ) in the South Atlantic region: 0.99 in 2007. This was a 27% decrease from 2001 (1.36) and a 2% decrease from 2006 (1.01). Florida's CFLQ suggests that the level of employment in commercial fishing-related industries in Florida is slightly lower than the level of employment in these industries nationwide.⁷ The CFLQ in 2007 was 0.18 in South Carolina (59% decrease relative to 2001), 0.07 in Georgia (42% decrease relative to 2001), and 0.1 in North Carolina (a 57% decrease relative to 2001).

Seafood Sales and Processing

There were 249 nonemployer firms engaged in seafood product preparation and packaging across the South Atlantic region in 2007. These firms had an annual receipt total of \$15.4 million in 2007. Most of these firms were located in Florida (68%). The number of firms increased 101% Region-wide from 1999 to 2007, and increased 166% in Florida and 209% in Georgia. Region-wide annual receipt totals increased 48% (31% in real terms) relative to 1999 levels, with large state level increases in South Carolina (371%, 317% in real terms), Georgia (68%, 49% in real terms) and Florida (47%, 30% in real terms).

In 2007, 53 employer establishments involved in seafood product preparation. From 1999 to 2007, the number of establishments decreased 38% Region-wide and this trend was mirrored at the state level. Annual payroll increased (10%, 2% decrease in real terms) in Florida to \$58 million and increased 15% (2% in real terms) in North Carolina to \$13 million. Annual payroll amounts were not available for Georgia or South Carolina.

There were 406 establishments engaged in the seafood wholesale industry that employed over 3,800 full- and part-time workers across the South Atlantic in 2007. Two-thirds of these firms were located in Florida. From 1999-2007, the region's seafood wholesale establishment and employee numbers decreased 23% and 13%, respectively. With the exception of Georgia where employee numbers

increased 27%, double digit percentage declines were observed in all state establishment and employee numbers. South Carolina experienced a smaller decline in employee numbers (4%). Region-wide annual payroll totaled \$138 million in 2007, a 21% increase (7% in real terms) from 1999 levels. Georgia had the largest increase in annual payroll totals in the region, increasing 78% from 1999-2007.

Nonemployer seafood retail firms experienced a small increase in numbers, increasing 35% to 631 firms in 2007. The largest increase in firm numbers was in Florida (44%). Most firms were located in Florida (51%) and North Carolina (24%). Annual receipts totaled \$55 million Region-wide, a 41% increase (24% in real terms) from 1999-2007. The largest increase in annual receipts was in Georgia (93%, 71% in real terms).

Employer establishments engaged in seafood retail increased 21% Region-wide from 1999-2007. Double digit increases, excluding Georgia were also observed at the state level. These 359 establishments employed approximately 1,600 full- and part-time employees and had an annual payroll totaling \$31 million. Most of these establishments, employees, and annual payroll were located in Florida (47%, 61%, and 67%, respectively). Region-wide, employee numbers increased 27% from 1999 to 2007 with the largest increase in Florida (14%). Annual payroll totals increased 22% (8% in real terms) in the South Atlantic and 46% in Georgia and 64% in North Carolina. Florida experienced a less than 1% decrease in payroll over this time period.

Transport, Support, and Marine Operations

Within this industry sector, marina industries had the highest number of establishments in 2007 with 729 establishments across the South Atlantic. This was an 11% increase over 1999 levels. Over two-thirds of these marina operations were located in Florida. The number of people employed by this industry and annual payroll totals also increased 52% and 98% (75% in real terms), respectively. Most of this growth was in Florida.

Ship and boat building industries employed the most people in 2007 (17,500 full- and part-time workers) and had the highest annual payroll (\$640 million). Overall, a decrease was observed for this industry, employee numbers decreased 15% and annual payroll totals increased 9% from 1999-2007 (4% decrease in real terms). Most of the ship and boat building activity in the region occurred in Florida (73%). At the state level, large changes occurred in Georgia (25% decrease in establishments), North Carolina (5% increase in establishments), and South Carolina (70% increase (50% in real terms) in annual payroll).

Other industries with large changes from 1999 to 2007 were coastal and Great Lakes freight transportation (150% increase in establishments in South Carolina and a 50% increase in Georgia); deep sea freight transportation (50% decrease in establishments in South Carolina); and deep sea passenger transportation (67% decrease in establishments region-wide).

⁶Information reported here is for the state of Florida, not East Florida.

⁷The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

2008 Economic Impacts of the South Atlantic Region Seafood Industry (*thousands of dollars*)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Job Impacts
Florida	169,711	5,657,246	3,108,084	108,695
Georgia	12,523	592,976	321,330	11,621
North Carolina	86,815	635,530	340,948	15,083
South Carolina	17,525	84,022	40,622	1,939

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	204,900	220,080	177,880	171,034	156,703	159,444	131,410	140,674	152,119	164,456
Finfish & Other	59,139	71,544	65,350	63,906	54,820	66,858	56,907	60,707	61,349	60,421
Shellfish	145,775	148,551	112,534	107,140	101,882	92,592	74,507	79,976	90,779	104,044
Clams	8,234	8,745	7,926	6,132	6,248	5,561	4,779	4,223	4,150	3,965
Crab, Blue	48,585	50,517	44,487	42,397	46,643	34,249	31,784	27,050	33,546	39,916
Flounders	10,157	11,684	10,164	11,308	9,718	11,530	10,974	13,317	11,375	10,928
Groupers	3,323	2,928	2,802	2,831	2,851	2,728	2,814	3,416	4,565	4,058
Mackerel, King	5,028	5,062	4,592	4,067	4,102	5,260	5,551	6,495	6,872	7,691
Oysters	2,030	2,045	2,261	2,138	2,353	2,912	3,305	3,853	3,801	3,974
Shrimp	80,662	82,354	51,918	51,699	42,707	44,797	31,035	39,653	43,598	50,553
Snappers	2,846	4,027	4,668	3,618	2,331	3,208	3,314	2,748	3,922	4,516
Swordfish	5,596	5,384	3,582	3,248	4,113	3,555	3,134	2,753	4,298	3,652
Tunas	2,012	4,204	3,402	2,808	2,423	3,671	3,904	4,692	4,894	4,672

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	215,799	221,639	199,256	216,204	197,486	199,033	123,421	114,661	105,207	115,985
Finfish & Other	105,217	129,977	125,525	138,277	116,081	121,214	64,925	52,056	46,663	43,838
Shellfish	110,583	91,662	73,730	77,926	81,405	77,820	58,497	62,604	58,544	72,148
Clams	1,115	1,151	1,169	1,004	983	886	747	685	673	636
Crab, Blue	72,775	54,777	43,459	46,479	50,881	45,001	38,218	36,779	34,021	44,849
Flounders	5,811	6,608	6,319	7,586	5,799	7,325	5,944	6,282	4,778	5,034
Groupers	1,460	1,242	1,148	1,166	1,134	1,057	1,007	1,152	1,416	1,260
Mackerel, King	3,202	2,971	2,675	2,474	2,848	3,269	3,106	3,792	3,736	4,350
Oysters	517	533	575	551	595	689	730	808	774	845
Shrimp	32,325	33,128	24,559	26,503	24,343	26,472	16,048	22,080	21,147	23,146
Snappers	1,233	1,690	2,068	1,529	958	1,285	1,286	967	1,355	1,503
Swordfish	2,230	1,972	1,371	1,429	1,575	1,314	1,152	1,036	1,417	1,304
Tunas	1,577	2,161	2,181	1,418	1,235	1,739	1,569	2,360	2,310	1,658

Average Annual Price for Key Species / Species Groups (*price per pound*)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clams	7.39	7.60	6.78	6.11	6.35	6.27	6.40	6.16	6.17	6.23
Crab, Blue	0.67	0.92	1.02	0.91	0.92	0.76	0.83	0.74	0.99	0.89
Flounders	1.75	1.77	1.61	1.49	1.68	1.57	1.85	2.12	2.38	2.17
Groupers	2.28	2.36	2.44	2.43	2.51	2.58	2.79	2.97	3.22	3.22
Mackerel, King	1.57	1.70	1.72	1.64	1.44	1.61	1.79	1.71	1.84	1.77
Oysters	3.92	3.84	3.93	3.88	3.96	4.22	4.53	4.77	4.91	4.70
Shrimp	2.50	2.49	2.11	1.95	1.75	1.69	1.93	1.80	2.06	2.18
Snappers	2.31	2.38	2.26	2.37	2.43	2.50	2.58	2.84	2.90	3.01
Swordfish	2.51	2.73	2.61	2.27	2.61	2.71	2.72	2.66	3.03	2.80
Tunas	1.28	1.95	1.56	1.98	1.96	2.11	2.49	1.99	2.12	2.82

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
East Florida	11,215,370	35,467	4,042,417	2,114,882
Georgia	1,281,738	2,549	311,224	161,664
North Carolina	7,180,732	22,001	2,291,227	1,139,245
South Carolina	2,576,201	5,509	487,545	265,600

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	109,310	32,786	Fishing Tackle	1,266,755
Private Boat	90,137	329,897	Other Equipment	346,901
Shore	496,051	233,791	Boat Expenses	2,573,984
Total Trip Expenditures	695,498	596,474	Vehicle Expenses	1,643,805
			Second Home Expenses	356,397
			Total Durable Equipment Expenditures	6,187,843
Total State Trip and Durable Equipment Expenditures				7,479,816

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	1,451	2,089	2,279	1,948	2,271	2,105	2,615	2,603	3,157	2,330
Non-Coastal	257	384	419	334	473	511	472	477	493	560
Out-of-State	NA ¹									
Total Anglers	1,708	2,473	2,698	2,282	2,744	2,616	3,087	3,080	3,650	2,890

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	665	520	497	440	412	434	601	552	623	580
Private Boat	6,935	9,119	9,565	8,266	9,963	9,369	10,073	10,749	13,137	11,009
Shore	6,835	10,436	11,534	9,057	10,872	11,060	11,138	12,511	11,893	10,665
Total Trips	14,435	20,075	21,596	17,763	21,246	20,862	21,813	23,813	25,652	22,254

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bluefish	H	799	1,425	1,974	1,617	1,664	1,657	2,210	1,969	2,453	1,881
	R	1,720	3,092	3,906	3,190	2,276	2,723	3,005	3,707	4,540	3,441
Dolphinfish	H	1,387	1,860	1,526	1,297	1,138	891	1,134	1,127	1,217	1,058
	R	153	239	234	81	146	107	219	232	255	201
Drum (Atlantic Croaker & Spot)	H	3,385	3,222	6,146	3,702	5,520	5,881	4,440	5,509	6,272	5,917
	R	3,772	2,933	3,231	2,270	4,653	3,719	3,881	7,291	4,273	4,086
Drum, Red	H	302	384	353	294	470	469	498	356	456	473
	R	919	1,120	1,560	1,617	1,527	1,899	2,412	2,111	2,071	2,333
Drum (Spotted Seatrout)	H	1,408	1,245	806	760	825	1,100	1,350	1,624	1,450	1,544
	R	2,084	3,317	2,594	3,217	2,892	3,212	5,337	4,989	6,115	4,716
Mackerel, King	H	472	580	394	363	600	398	428	511	807	490
	R	108	99	99	99	256	156	208	196	303	167
Mackerel, Spanish	H	840	1,267	1,229	1,355	1,170	994	1,091	790	1,211	1,326
	R	438	717	459	770	840	453	705	322	587	995
Porgies (Sheepshead)	H	533	814	787	409	728	492	614	489	749	850
	R	435	436	604	454	558	382	436	438	604	774
Sea Bass, Black	H	321	377	550	340	423	892	811	783	612	379
	R	1,417	1,824	2,000	1,457	1,406	2,677	2,484	2,967	3,764	2,941
Sharks ²	H	15	19	27	8	24	29	58	6	27	8
	R	479	778	1,451	1,020	1,366	1,653	2,049	1,792	2,057	2,392

¹Out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified; NA = data are not available.

²Sharks include species within the requiem shark family, blacktip sharks, and unidentified sharks. Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

2008 Economic Impacts of the Florida Seafood Industry (thousands of dollars)¹

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	5,657,246	3,108,084	108,695
Commercial Harvesters	171,385	74,051	2,978
Seafood Processors & Dealers	423,923	203,592	3,955
Seafood Wholesalers & Distributors	1,272,539	631,370	11,736
Retail Sector	3,789,399	2,199,072	90,025

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	50,349	52,281	42,639	34,420	33,111	39,978	35,489	42,002	42,755	47,602
Finfish & Other	18,116	18,592	15,111	14,599	14,246	15,324	16,496	17,422	19,766	21,081
Shellfish	32,233	33,689	27,528	19,821	18,865	24,654	18,993	24,580	22,989	26,520
Clams	1,495	1,211	960	879	791	506	390	435	391	508
Crab, Blue	3,828	4,580	2,916	2,723	2,507	3,685	4,648	3,701	4,913	4,292
Groupers	1,020	956	906	719	658	584	587	521	923	723
Lobsters	3,064	2,828	2,190	1,939	1,779	2,148	1,624	2,462	2,488	3,215
Mackerel, King	3,207	3,272	3,163	2,816	2,853	3,650	3,456	4,318	4,833	6,031
Mackerel, Spanish	981	979	1,152	1,131	1,437	1,827	2,198	2,094	2,332	1,827
Sharks	1,241	1,503	1,483	1,496	1,362	1,149	1,201	1,364	727	636
Shrimp	21,323	23,537	20,103	13,224	12,721	17,360	11,118	16,390	13,821	17,165
Snappers	835	966	1,178	1,113	919	1,098	1,009	972	1,279	1,899
Swordfish	3,559	3,643	1,609	1,642	1,698	1,491	1,625	1,219	2,529	2,339

Total Landings and Landings of Key Species / Species Groups (thousands of pounds)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	31,083	31,409	27,134	21,693	23,432	28,707	22,964	27,021	25,189	26,194
Finfish & Other	15,399	13,945	12,663	12,144	12,874	12,497	12,815	13,848	13,891	14,060
Shellfish	15,684	17,464	14,471	9,549	10,558	16,209	10,149	13,173	11,298	12,133
Clams	183	132	105	109	99	54	42	47	41	55
Crab, Blue	4,415	4,748	2,672	2,233	1,988	3,536	4,045	3,130	4,057	3,309
Groupers	432	397	354	281	250	216	207	166	274	203
Lobsters	709	592	450	414	395	456	313	407	361	487
Mackerel, King	2,044	1,839	1,789	1,645	2,061	2,291	1,833	2,572	2,631	3,296
Mackerel, Spanish	1,567	1,675	2,116	1,995	2,741	3,066	3,134	3,143	3,264	2,262
Sharks	1,644	1,737	1,912	1,795	1,509	1,273	1,292	1,472	819	776
Shrimp	8,351	11,158	10,329	6,217	6,451	11,728	5,203	8,843	6,174	7,609
Snappers	381	422	525	494	398	453	407	355	461	633
Swordfish	1,244	1,262	545	708	725	511	543	407	772	791

Average Annual Price for Key Species / Species Groups (price per pound)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clams	8.17	9.20	9.12	8.09	8.00	9.30	9.27	9.20	9.52	9.30
Crab, Blue	0.87	0.96	1.09	1.22	1.26	1.04	1.15	1.18	1.21	1.30
Groupers	2.36	2.41	2.56	2.56	2.63	2.70	2.84	3.14	3.37	3.55
Lobsters	4.32	4.78	4.87	4.68	4.50	4.71	5.18	6.06	6.90	6.60
Mackerel, King	1.57	1.78	1.77	1.71	1.38	1.59	1.89	1.68	1.84	1.83
Mackerel, Spanish	0.63	0.58	0.54	0.57	0.52	0.60	0.70	0.67	0.71	0.81
Sharks	0.75	0.87	0.78	0.83	0.90	0.90	0.93	0.93	0.89	0.82
Shrimp	2.55	2.11	1.95	2.13	1.97	1.48	2.14	1.85	2.24	2.26
Snappers	2.19	2.29	2.24	2.25	2.31	2.42	2.48	2.74	2.78	3.00
Swordfish	2.86	2.89	2.95	2.32	2.34	2.92	2.99	3.00	3.28	2.96

¹Information reported in this table is for the state of Florida, not East Florida.

²Information reported in this table is for East Florida.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	647	62,912	37,038
Private Boat	2,565	243,960	145,779
Shore	1,394	131,510	76,349
Total Durable Equipment Impacts	30,860	3,604,036	1,855,716
Total State Trip and Durable Equipment Economic Impacts	35,467	4,042,417	2,114,882

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	25,929	12,468	Fishing Tackle	770,493
Private Boat	37,164	193,801	Other Equipment	197,453
Shore	39,921	67,031	Boat Expenses	2,032,377
Total Trip Expenditures	103,014	273,299	Vehicle Expenses	1,435,315
			Second Home Expenses	5,433
			Total Durable Equipment Expenditures	4,441,071
Total State Trip and Durable Equipment Expenditures				4,817,384

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	936	1,394	1,561	1,304	1,413	1,161	1,565	1,660	2,168	1,317
Non-Coastal	NA ¹									
Out of State	574	894	1,088	784	793	685	945	935	1,008	703
Total Anglers	1,510	2,288	2,649	2,089	2,206	1,847	2,510	2,595	3,176	2,021

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	371	279	251	216	187	198	201	173	178	161
Private Boat	4,196	5,753	5,994	5,430	6,212	5,313	6,230	6,503	8,317	6,451
Shore	3,627	5,448	6,219	4,657	5,045	5,149	5,618	6,439	6,674	4,603
Total Trips	8,194	11,479	12,464	10,303	11,444	10,660	12,049	13,115	15,169	11,215

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bluefish	H	235	439	581	759	644	494	549	640	807	425
	R	661	1,201	1,376	1,392	622	451	416	892	932	609
Dolphinfish	H	801	1,164	993	659	788	482	435	533	573	666
	R	141	221	220	72	129	105	216	209	231	194
Drum (Kingfish) ²	H	732	1,009	1,366	930	590	970	1,103	1,004	1,078	627
	R	372	714	799	588	368	628	758	811	1,136	475
Drum, Red	H	126	191	178	119	159	164	196	150	199	164
	R	566	693	850	664	749	1,138	1,271	894	897	822
Drum, (Spotted Seatrout)	H	241	288	251	206	170	200	338	299	303	160
	R	1,577	2,310	1,996	2,326	1,708	1,970	3,446	2,889	3,623	2,141
Jack (Florida Pompano)	H	166	242	141	141	374	275	226	176	178	170
	R	151	84	234	175	306	341	222	125	199	287
Mackerel, King	H	328	547	774	927	784	533	677	439	601	566
	R	185	353	286	555	446	214	368	192	198	353
Mackerel, Spanish	H	370	386	256	282	463	271	261	379	537	353
	R	72	71	70	83	233	106	128	163	220	119
Porgies (Sheepshead)	H	373	381	465	290	353	231	461	291	330	331
	R	368	311	511	352	351	308	337	299	371	547
Snapper, Gray	H	421	471	302	400	446	340	454	554	882	433
	R	1,633	1,658	1,302	1,438	1,654	1,396	1,228	1,457	2,929	1,827

¹All East Florida residents are considered coastal county residents thus this category is not applicable (NA).

²Kingfish includes species within the kingfish genus including Gulf kingfish.

East Florida's State Economy (% of national total) ¹

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ²	Gross State Product (\$ millions)	Commercial Location Quotient ³
1998	420,638 (6.1%)	5,756,353 (5.3%)	149,937 (4.5%)	286,753 (4.8%)	417,169 (4.8%)	1.36 (2001)
2007	523,461 (6.8%)	7,425,331 (6.2%)	267,524 (5.3%)	407,430 (5.2%)	741,861 (5.4%)	0.99
% change	24.4%	29.0%	78.4%	42.0%	77.8%	-27.2%

Seafood Sales & Processing - Nonemployer Firms (thousands of dollars) ¹

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	65	102	104	116	142	177	164	174	173
	Receipts	7,153	8,330	6,350	5,064	8,047	8,652	8,756	10,184	10,497
Seafood Sales, retail	Firms	221	219	212	243	240	247	247	251	319
	Receipts	20,274	18,978	17,935	20,837	18,064	18,004	22,787	20,708	27,557

Seafood Sales & Processing – Employer Establishment (thousands of dollars) ¹

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	43	41	43	33	27	24	25	22	20
	Employees	2,336	2,188	2,033	2,359	2,084	2,193	1,616	1,704	1,748
	Payroll	52,842	58,821	58,977	65,914	61,452	65,881	47,529	62,801	58,233
Seafood sales, wholesale	Establishments	349	329	323	314	293	261	258	259	267
	Employees	2,733	2,915	2,670	2,395	1,835	1,948	1,883	2,091	2,308
	Payroll	69,139	76,363	76,717	78,160	55,874	63,276	65,339	73,897	85,019
Seafood sales, retail	Establishments	133	135	159	190	174	190	176	173	169
	Employees	869	575	697	908	952	977	970	936	989
	Payroll	20,664	10,359	13,403	17,186	15,673	17,575	19,192	19,513	20,595

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars) ¹

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	55	54	58	51	66	59	59	54	47
	Employees	3,404	2,391	3,208	2,856	ND ⁴	1,132	1,150	1,217	1,242
	Payroll	190,731	108,638	150,964	143,185	ND	80,422	71,420	91,638	94,429
Deep sea freight transportation	Establishments	69	58	51	62	61	63	69	73	69
	Employees	3,622	2,209	2,123	1,858	2,535	2,567	2,622	3,729	3,190
	Payroll	119,744	99,384	106,848	107,564	131,904	150,701	207,300	226,810	208,144
Deep sea passenger transportation	Establishments	31	30	30	31	36	32	31	37	34
	Employees	7,846	9,165	8,719	7,863	8,879	8,849	8,492	9,077	ND
	Payroll	306,202	349,974	394,932	315,551	428,941	536,753	504,625	571,590	ND
Marinas	Establishments	484	476	509	481	528	532	551	513	493
	Employees	3,750	3,799	3,876	3,449	5,079	5,067	5,069	5,494	4,935
	Payroll	82,790	88,436	88,274	90,662	111,324	125,763	133,384	146,390	148,592
Marine cargo handling	Establishments	67	65	71	74	68	66	63	66	53
	Employees	4,209	4,549	4,863	4,405	5,651	5,671	6,409	7,266	6,585
	Payroll	96,650	92,843	124,760	109,555	171,481	175,257	177,983	189,020	173,788
Navigational services to shipping	Establishments	142	142	133	141	140	149	148	142	145
	Employees	749	866	755	714	817	686	660	781	1,484
	Payroll	35,977	36,730	35,854	34,040	39,524	39,309	42,200	48,370	61,470
Port & harbor operations	Establishments	18	22	25	29	26	29	31	27	29
	Employees	556	914	1,355	1,180	592	1,045	973	584	459
	Payroll	17,401	19,082	25,246	26,928	19,071	24,327	22,606	19,417	12,872
Ship & boat building	Establishments	301	300	313	291	290	306	312	301	296
	Employees	13,755	14,773	13,182	11,407	11,830	12,503	12,729	12,385	12,332
	Payroll	391,289	447,253	405,856	379,828	393,985	443,379	454,209	427,888	469,382

¹Information reported in this table is for the entire state of Florida, not East Florida.

²Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

³The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.

⁴ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Georgia Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	592,976	321,330	11,621
Commercial Harvesters	23,867	6,773	550
Seafood Processors & Dealers	81,161	40,115	866
Seafood Wholesalers & Distributors	102,275	50,466	927
Retail Sector	385,672	223,976	9,278

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	22,958	21,674	15,440	14,703	13,685	14,374	13,465	11,534	11,035	12,523
Finfish & Other	827	926	953	960	649	747	729	574	623	366
Shellfish	22,131	20,748	14,486	13,743	13,036	13,627	12,736	10,960	10,412	12,157
Clams	153	213	187	319	521	426	658	298	404	500
Crab, Blue	2,474	2,477	2,902	2,166	1,970	2,508	3,096	2,959	3,767	3,923
Groupers	3	4	NA ¹	123	NA ¹					
Shrimp	19,031	17,771	11,037	11,048	10,320	10,589	8,936	7,640	6,153	7,589
Snails (Conchs)	415	277	245	50	69	4	3	6	1	5
Snappers	231	517	533	NA ¹	269	NA ¹				

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	12,219	9,841	9,308	9,177	9,437	9,659	9,638	8,293	7,180	8,639
Finfish & Other	549	557	546	596	409	420	401	285	299	161
Shellfish	11,670	9,284	8,762	8,582	9,028	9,239	9,237	8,009	6,880	8,478
Clams	25	25	25	49	75	70	112	46	47	65
Crab, Blue	3,993	3,296	2,771	1,989	1,713	2,963	4,302	4,091	3,963	4,156
Groupers	1	2	NA ¹	37	NA ¹					
Shrimp	6,907	5,537	4,476	5,079	5,591	5,090	4,531	3,851	2,548	3,022
Snails (Conchs)	591	421	326	64	90	4	3	5	1	4
Snappers	100	229	255	NA ¹	92	NA ¹				

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clams	6.14	8.39	7.50	6.57	6.94	6.10	5.85	6.48	5.82	7.69
Crab, Blue	0.62	0.75	1.05	1.09	1.15	0.85	0.72	0.72	0.83	0.94
Groupers	2.10	2.02	NA ¹	3.33	NA ¹					
Shrimp	2.76	3.21	2.47	2.18	1.85	2.08	1.97	1.98	2.29	2.51
Snails (Conchs)	0.70	0.66	0.75	0.78	0.77	1.10	1.03	1.22	1.22	1.32
Snappers	2.31	2.26	2.09	NA ¹	2.89	NA ¹				

¹NA=these data are not available.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	13	1,069	624
Private Boat	102	11,676	7,082
Shore	76	8,335	4,998
Total Durable Equipment Impacts	2,358	290,145	148,960
Total State Trip and Durable Equipment Economic Impacts	2,549	311,224	161,664

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	192	515	Fishing Tackle	72,164
Private Boat	588	11,458	Other Equipment	26,231
Shore	1,779	6,209	Boat Expenses	128,257
Total Trip Expenditures	2,558	18,183	Vehicle Expenses	28,466
			Second Home Expenses	16,191
			Total Durable Equipment Expenditures	271,308
Total State Trip and Durable Equipment Expenditures				292,049

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	59	89	83	58	112	104	135	121	149	190
Non-Coastal	32	86	91	54	113	120	67	66	115	154
Out of State	20	44	38	37	42	53	43	33	45	98
Total Anglers	111	219	212	148	268	278	245	219	308	441

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	11	6	6	9	12	19	25	28	26	17
Private Boat	292	435	449	338	549	442	501	472	553	747
Shore	170	355	352	272	410	475	326	291	348	517
Total Trips	473	796	807	619	971	936	852	791	926	1,282

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bluefish	H	12	20	10	2	1	1	3	3	11	7
	R	14	79	48	26	23	16	22	33	92	128
Drum (Atlantic Croaker)	H	104	129	22	36	249	45	40	40	47	46
	R	58	170	192	194	965	165	266	311	222	337
Drum, Black	H	6	63	13	23	44	26	22	23	51	104
	R	3	21	14	19	28	30	12	29	31	69
Drum, Red	H	67	94	90	91	122	140	108	82	103	143
	R	19	129	250	169	273	166	331	148	192	365
Drum (Southern Kingfish)	H	665	646	741	427	504	679	556	511	663	875
	R	32	561	598	379	847	624	547	630	670	922
Drum (Spotted Seatrout)	H	655	487	309	271	426	336	231	453	500	624
	R	161	548	365	358	738	608	678	872	958	720
Flounder, Southern	H	11	29	48	29	84	58	45	31	81	57
	R	1	15	15	11	16	29	13	25	(1)	1
Porgies (Sheepshead)	H	10	75	138	25	129	101	80	51	65	78
	R	3	13	37	39	122	38	42	61	67	93
Sea bass, Black	H	7	52	102	23	104	66	91	77	36	107
	R	9	235	177	83	238	134	222	235	231	566
Sharks ²	H	3	2	3	1	3	1	2	(1)	3	2
	R	24	153	168	195	212	254	340	329	512	581

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

²Sharks include species within the requiem shark family, blacktip sharks, and unidentified sharks. Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

Georgia's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	194,213 (2.8%)	3,198,950 (3.0%)	94,687 (2.9%)	172,723 (2.9%)	255,612 (2.9%)	0.12
2007	231,810 (3.0%)	3,648,418 (3.0%)	142,115 (2.8%)	224,739 (2.9%)	391,241 (2.9%)	0.07
% change	19.4%	14.1%	50.1%	30.1%	53.1%	-4.17%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	11	12	14	20	24	29	24	21	34
	Receipts	1,303	1,705	1,104	1,560	2,249	2,030	2,642	1,957	2,187
Seafood Sales, retail	Firms	62	61	67	77	72	69	64	78	87
	Receipts	4,503	4,651	4,516	5,027	4,668	4,855	6,625	7,180	8,671

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	8	9	10	11	11	11	11	8	6
	Employees	1,139	ND ³	1,131	1,014	994	ND	1,155	1,164	ND
	Payroll	29,175	ND	30,187	29,867	28,432	ND	39,839	43,637	ND
Seafood sales, wholesale	Establishments	56	51	50	53	39	36	29	30	42
	Employees	540	565	609	572	580	619	640	659	688
	Payroll	17,443	17,996	19,178	19,616	32,047	31,012	32,781	31,654	31,033
Seafood sales, retail	Establishments	51	48	46	52	46	50	59	55	44
	Employees	167	225	181	161	152	159	185	184	179
	Payroll	1,806	1,948	1,874	2,002	2,243	2,437	2,753	2,724	2,633

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	4	5	5	5	6	6	7	6	6
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	33
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	1,883
Deep sea freight transportation	Establishments	18	15	15	19	23	18	19	15	13
	Employees	ND	ND	ND	ND	256	185	193	ND	132
	Payroll	ND	ND	ND	ND	12,201	10,306	10,658	ND	10,090
Deep sea passenger transportation	Establishments	NA ⁴	NA	1						
	Employees	NA	NA	NA	NA	NA	NA	NA	NA	ND
	Payroll	NA	NA	NA	NA	NA	NA	NA	NA	ND
Marinas	Establishments	66	63	64	63	69	57	60	66	68
	Employees	ND	ND	ND	ND	642	ND	ND	ND	569
	Payroll	ND	ND	ND	ND	12,870	ND	ND	ND	12,701
Marine cargo handling	Establishments	18	18	17	15	14	18	17	17	17
	Employees	2,010	2,316	1,747	3,197	ND	2,018	2,350	3,003	2,501
	Payroll	39,257	53,102	48,346	75,368	ND	68,696	80,706	104,596	110,857
Navigational services to shipping	Establishments	12	9	7	9	9	8	8	10	11
	Employees	ND	ND	ND	107	ND	ND	136	ND	217
	Payroll	ND	ND	ND	5,109	ND	ND	7,784	ND	11,141
Port & harbor operations	Establishments	3	3	4	4	4	7	6	5	4
	Employees	ND	ND	ND	ND	ND	ND	ND	196	98
	Payroll	ND	ND	ND	ND	ND	ND	ND	3,303	3,108
Ship & boat building	Establishments	4	5	5	5	6	6	7	6	6
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	33
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	1,883

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

⁴NA = Data are not available.

2008 Economic Impacts of the North Carolina Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	635,530	340,948	15,083
Commercial Harvesters	76,716	36,688	1,576
Seafood Processors & Dealers	79,457	30,844	1,167
Seafood Wholesalers & Distributors	71,664	35,523	667
Retail Sector	407,694	237,892	11,673

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	99,306	108,326	88,141	94,747	84,926	79,703	64,890	70,121	82,332	86,815
Finfish & Other	34,770	39,613	36,090	37,274	31,560	38,910	34,901	37,716	36,217	34,447
Shellfish	64,537	68,713	52,051	57,473	53,366	40,793	29,989	32,405	46,115	52,368
Clams	3,788	4,696	5,036	3,534	3,399	3,390	2,798	2,656	2,660	2,435
Crab, Blue	37,812	37,438	32,231	33,149	37,108	24,465	20,274	17,087	21,432	27,554
Croaker, Atlantic	3,120	2,987	3,080	3,234	2,924	3,528	3,409	3,563	2,726	3,142
Flounders	10,149	11,652	10,142	11,270	9,671	11,503	10,963	13,301	11,335	10,886
Groupers	1,393	1,180	1,050	1,302	1,200	1,124	1,214	1,559	1,995	1,939
Mackerel, King	1,696	1,662	1,351	1,177	1,214	1,573	2,054	2,120	1,967	1,632
Sea Bass, Black	1,079	973	1,062	878	1,417	1,486	1,332	1,715	1,195	1,156
Shrimp	21,737	25,406	11,911	18,365	10,931	9,463	4,409	9,141	17,938	19,243
Snappers	1,067	1,281	1,219	1,186	686	873	1,116	953	1,601	1,784
Tunas	1,217	3,396	2,589	2,158	1,989	3,317	3,321	4,060	4,046	3,393

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	153,709	154,202	137,147	160,142	139,401	134,078	79,607	68,744	62,923	71,205
Finfish & Other	86,144	102,086	98,055	110,944	88,721	91,383	49,435	35,675	30,476	27,706
Shellfish	67,564	52,116	39,092	49,198	50,681	42,696	30,172	33,069	32,447	43,499
Clams	581	681	772	627	547	551	418	427	438	400
Crab, Blue	57,546	40,639	32,180	37,737	42,770	34,129	25,430	25,343	21,425	32,915
Croaker, Atlantic	10,186	10,123	12,017	10,189	14,429	11,993	11,903	10,397	7,301	5,792
Flounders	5,804	6,593	6,307	7,568	5,772	7,302	5,937	6,272	4,754	5,009
Groupers	653	537	471	581	518	478	481	587	701	683
Mackerel, King	1,083	1,049	837	778	765	955	1,246	1,186	1,059	1,037
Sea Bass, Black	613	567	644	592	851	881	690	778	473	485
Shrimp	9,004	10,335	5,254	9,969	6,167	4,881	2,358	5,737	9,552	9,424
Snappers	442	511	524	490	269	339	433	345	550	603
Tunas	1,085	1,714	1,713	1,000	914	1,424	1,271	1,982	1,836	1,041

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clams	6.52	6.90	6.52	5.64	6.22	6.15	6.69	6.21	6.07	6.09
Crab, Blue	0.66	0.92	1.00	0.88	0.87	0.72	0.80	0.67	1.00	0.84
Croaker, Atlantic	0.31	0.30	0.26	0.32	0.20	0.29	0.29	0.34	0.37	0.54
Flounders	1.75	1.77	1.61	1.49	1.68	1.58	1.85	2.12	2.38	2.17
Groupers	2.13	2.20	2.23	2.24	2.32	2.35	2.52	2.65	2.84	2.84
Mackerel, King	1.57	1.58	1.61	1.51	1.59	1.65	1.65	1.79	1.86	1.57
Sea Bass, Black	1.76	1.72	1.65	1.48	1.67	1.69	1.93	2.21	2.53	2.39
Shrimp	2.41	2.46	2.27	1.84	1.77	1.94	1.87	1.59	1.88	2.04
Snappers	2.42	2.51	2.33	2.42	2.55	2.57	2.58	2.76	2.91	2.96
Tunas	1.12	1.98	1.51	2.16	2.18	2.33	2.61	2.05	2.20	3.26

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	1,401	110,151	61,817
Private Boat	1,497	139,199	78,490
Shore	8,420	697,852	388,602
Total Durable Equipment Impacts	10,683	1,344,024	610,336
Total State Trip and Durable Equipment Economic Impacts	22,001	2,291,227	1,139,245

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	57,592	16,316	Fishing Tackle	351,875
Private Boat	32,946	89,867	Other Equipment	100,651
Shore	378,394	135,866	Boat Expenses	214,361
Total Trip Expenditures	468,932	242,050	Vehicle Expenses	135,642
			Second Home Expenses	328,804
			Total Durable Equipment Expenditures	1,131,333
Total State Trip and Durable Equipment Expenditures				1,842,315

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	324	416	454	409	524	613	685	588	564	587
Non-Coastal	164	229	251	226	281	290	285	265	265	303
Out of State	805	1,277	1,301	1,130	1,298	1,156	1,280	1,374	1,079	1,079
Total Anglers	1,293	1,922	2,007	1,765	2,103	2,058	2,250	2,227	1,908	1,970

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	221	193	202	183	174	178	304	290	286	283
Private Boat	1,861	2,224	2,169	1,941	2,181	2,543	2,354	2,656	2,784	2,550
Shore	2,473	4,043	4,279	3,462	4,379	4,306	4,129	4,300	3,910	4,348
Total Trips	4,555	6,460	6,650	5,586	6,733	7,027	6,786	7,247	6,979	7,181

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bass, Striped	H	92	41	66	60	138	352	145	107	51	53
	R	521	252	119	155	285	398	130	83	44	86
Bluefish	H	518	878	1,266	777	953	1,044	1,374	1,128	1,338	1,299
	R	986	1,630	2,329	1,610	1,416	1,907	2,206	1,875	2,496	2,285
Dolphinfish	H	561	683	492	621	335	387	686	590	608	382
	R	11	16	4	4	14	2	2	23	8	5
Drum (Atlantic Croaker & Spot)	H	1,750	2,315	4,286	2,995	4,287	4,533	3,419	3,205	4,667	2,718
	R	2,002	2,051	2,401	1,597	2,685	2,584	2,829	5,436	2,959	2,696
Drum (Spotted Seatrout)	H	410	250	182	197	106	317	512	578	525	584
	R	253	90	195	385	132	300	817	560	974	1,005
Flounder, Lefteye and Summer	H	263	414	363	216	110	200	164	186	222	83
	R	635	1,558	1,566	1,285	829	1,669	1,043	1,051	1,293	1,627
Mackerel, King	H	476	671	401	402	349	309	332	305	491	687
	R	206	300	161	197	165	122	174	90	278	542
Mackerel, Spanish	H	76	137	114	67	114	105	153	119	229	109
	R	26	13	9	7	22	45	71	22	39	21
Sea bass, Black	H	88	148	175	84	166	264	241	156	122	69
	R	624	770	790	530	418	1,020	1,056	1,204	1,208	854
Tuna, Yellowfin	H	281	271	237	135	328	204	216	244	115	27
	R	14	6	1	8	56	12	10	15	1	(1)

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

North Carolina's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	198,690 (2.9%)	3,223,178 (3.0%)	86,781 (2.6%)	156,137 (2.6%)	242,904 (2.8%)	0.23
2007	227,906 (3.0%)	3,586,552 (3.0%)	131,961 (2.6%)	210,919 (2.7%)	390,467 (2.8%)	0.10
% change	14.7%	11.3%	52.1%	35.0%	60.7%	-56.5%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	39	25	17	25	33	27	26	27	30
	Receipts	1,728	1,450	1,335	1,385	1,646	1,515	1,106	1,084	1,813
Seafood Sales, retail	Firms	127	140	116	117	133	144	130	115	150
	Receipts	11,928	9,408	9,395	11,560	11,565	12,294	10,913	11,342	14,999

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	27	32	27	21	18	18	17	18	22
	Employees	383	474	381	280	ND ³	ND	ND	475	ND
	Payroll	11,033	9,337	8,510	8,547	ND	ND	ND	11,563	12,659
Seafood sales, wholesale	Establishments	90	86	84	84	68	72	77	70	71
	Employees	880	969	983	961	628	627	703	582	597
	Payroll	22,639	24,943	22,597	21,716	16,170	17,411	17,577	16,543	15,655
Seafood sales, retail	Establishments	66	61	70	81	87	88	90	89	86
	Employees	240	238	245	301	304	340	316	250	241
	Payroll	2,548	2,976	3,512	3,890	3,982	4,234	4,185	4,129	4,170

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	6	6	3	6	5	5	5	4	6
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	54
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	2,061
Deep sea freight transportation	Establishments	11	13	13	15	7	7	7	8	6
	Employees	ND	142	104	168	ND	ND	ND	ND	ND
	Payroll	ND	9,995	8,154	52,665	ND	ND	ND	ND	510
Deep sea passenger transportation	Establishments	3	2	5	3	3	2	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	113	114	111	103	104	97	103	103	96
	Employees	533	557	616	557	ND	644	654	681	522
	Payroll	12,037	13,505	14,720	13,186	ND	16,529	16,530	16,616	14,922
Marine cargo handling	Establishments	10	9	8	6	7	10	12	9	13
	Employees	698	712	ND	ND	433	668	641	757	652
	Payroll	11,393	11,045	ND	ND	16,001	28,676	25,988	19,736	25,164
Navigational services to shipping	Establishments	6	5	6	4	6	6	8	7	14
	Employees	ND	85	ND	ND	ND	ND	ND	ND	102
	Payroll	ND	1,860	ND	ND	ND	ND	ND	ND	3,773
Port & harbor operations	Establishments	5	6	5	7	6	5	5	5	3
	Employees	ND	50	ND	ND	271	ND	ND	ND	ND
	Payroll	ND	1,996	ND	ND	12,650	ND	ND	ND	ND
Ship & boat building	Establishments	52	55	59	62	55	62	65	74	78
	Employees	2,790	3,050	3,383	3,566	3,290	3,622	3,957	4,232	ND
	Payroll	79,630	91,996	100,341	103,506	106,656	127,472	133,665	153,672	ND

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the South Carolina Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	84,022	40,622	1,939
Commercial Harvesters	32,044	11,937	647
Seafood Processors & Dealers	5,471	1,728	61
Seafood Wholesalers & Distributors	6,983	3,504	66
Retail Sector	39,524	23,452	1,164

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	32,126	30,533	23,908	21,340	21,242	18,542	17,570	17,025	16,006	17,525
Finfish & Other	5,425	5,506	5,741	5,375	4,650	5,042	4,781	4,995	4,744	4,526
Shellfish	26,701	25,027	18,166	15,965	16,592	13,499	12,789	12,031	11,262	12,999
Clams	2,798	2,625	1,744	1,399	1,537	1,238	934	834	695	523
Crab, Blue	4,299	5,652	6,141	4,239	5,057	3,591	3,766	3,304	3,434	4,146
Groupers	907	788	846	811	993	1,020	1,013	1,335	1,524	1,397
Oysters	986	1,092	1,074	1,025	1,199	1,229	1,471	1,369	1,370	1,687
Sea Bass, Black	282	143	132	95	168	302	191	168	236	257
Sharks	78	43	129	78	66	128	136	144	78	78
Shrimp	18,568	15,640	8,865	9,062	8,736	7,385	6,572	6,481	5,686	6,556
Snappers	713	1,264	1,738	1,319	725	1,237	1,190	823	774	833
Swordfish	ND ¹	993	803	660	670	616	555	ND ¹	ND ¹	179
Tilefish	265	24	292	423	287	221	143	271	5	66

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	18,573	15,897	14,273	13,559	13,728	12,439	11,212	10,602	9,304	9,948
Finfish & Other	3,123	3,380	3,152	3,052	2,598	2,768	2,274	2,249	1,994	1,910
Shellfish	15,450	12,517	11,120	10,507	11,130	9,670	8,938	8,353	7,310	8,038
Clams	326	313	266	219	263	211	175	165	134	117
Crab, Blue	6,608	5,818	5,566	4,435	4,411	4,374	4,440	4,215	4,118	4,469
Groupers	374	305	323	304	366	363	319	399	404	373
Oysters	254	274	272	262	283	275	308	291	284	312
Sea Bass, Black	185	82	97	60	104	212	115	86	114	133
Sharks	123	77	150	109	124	206	174	147	105	110
Shrimp	8,062	6,098	4,498	5,238	6,133	4,773	3,957	3,650	2,736	3,090
Snappers	310	528	765	544	290	492	447	267	251	267
Swordfish	375	295	229	240	219	200	ND ¹	ND ¹	ND ¹	68
Tilefish	151	22	149	195	145	124	80	139	4	28

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clams	8.59	8.38	6.55	6.38	5.85	5.86	5.34	5.06	5.17	4.48
Crab, Blue	0.65	0.97	1.10	0.96	1.15	0.82	0.85	0.78	0.83	0.93
Groupers	2.43	2.58	2.62	2.67	2.71	2.81	3.17	3.35	3.77	3.75
Oysters	3.89	3.99	3.95	3.91	4.24	4.46	4.78	4.71	4.82	5.40
Sea Bass, Black	1.53	1.74	1.37	1.56	1.61	1.42	1.66	1.97	2.07	1.94
Sharks	0.63	0.56	0.86	0.71	0.53	0.62	0.78	0.98	0.75	0.71
Shrimp	2.30	2.56	1.97	1.73	1.42	1.55	1.66	1.78	2.08	2.12
Snappers	2.30	2.39	2.27	2.42	2.50	2.51	2.66	3.08	3.09	3.12
Swordfish	2.65	2.73	2.88	2.79	2.81	2.78	ND ¹	ND ¹	ND ¹	2.63
Tilefish	1.75	1.10	1.96	2.17	1.98	1.78	1.78	1.95	1.36	2.30

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	516	40,411	22,831
Private Boat	631	55,444	32,351
Shore	1,491	121,808	67,826
Total Durable Equipment Impacts	2,872	269,882	142,593
Total State Trip and Durable Equipment Economic Impacts	5,509	487,545	265,600

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	25,597	3,486	Fishing Tackle	72,223
Private Boat	19,440	34,771	Other Equipment	22,567
Shore	75,958	24,685	Boat Expenses	198,989
Total Trip Expenditures	120,994	62,943	Vehicle Expenses	44,382
			Second Home Expenses	5,969
			Total Durable Equipment Expenditures	344,131
Total State Trip and Durable Equipment Expenditures				528,068

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	132	190	180	177	222	227	230	234	277	236
Non-Coastal	61	70	77	55	79	101	120	146	113	103
Out of State	221	250	224	161	270	334	448	617	551	604
Total Anglers	414	510	481	392	571	662	798	997	941	942

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	62	42	38	32	39	39	72	61	132	120
Private Boat	587	707	954	557	1,021	1,070	989	1,118	1,483	1,260
Shore	565	590	684	665	1,038	1,130	1,066	1,481	961	1,196
Total Trips	1,213	1,339	1,676	1,254	2,098	2,239	2,126	2,661	2,577	2,576

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bluefish	H	34	88	118	79	66	118	284	197	297	150
	R	59	182	152	163	215	349	362	907	1,020	418
Drum (Atlantic Croaker & Spot)	H	857	279	755	460	723	793	593	1,996	1,044	2,445
	R	204	212	269	196	672	699	455	1,289	592	395
Drum, Red	H	44	37	61	41	162	134	141	72	88	109
	R	88	94	221	143	430	401	492	607	537	524
Drum (Southern Kingfish)	H	177	166	359	226	982	1,026	1,058	1,113	1,281	819
	R	104	176	125	136	1,049	497	439	1,350	849	688
Drum (Spotted Seatrout)	H	101	220	63	85	123	247	268	294	122	176
	R	93	368	39	148	315	334	395	667	560	850
Flounder, Southern	H	48	103	82	112	111	237	104	148	136	91
	R	23	26	28	73	52	133	86	217	184	124
Mackerel, Spanish	H	27	28	44	24	25	144	70	43	105	58
	R	46	47	10	9	223	114	154	33	84	93
Porgies (Sheepshead)	H	37	173	113	31	129	107	28	88	133	252
	R	15	66	24	21	51	20	26	49	47	56
Sea bass, Black	H	77	75	103	113	44	276	173	307	189	110
	R	225	314	421	335	289	952	680	812	1,356	1,011
Sharks ²	H	1	3	14	(1)	(1)	20	27	(1)	10	1
	R	177	124	520	276	380	368	339	493	252	293

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

²Sharks include species within the requiem shark family, blacktip sharks, and unidentified sharks. Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

South Carolina's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	94,985 (1.4%)	1,526,106 (1.4%)	38,559 (1.2%)	67,746 (1.1%)	102,945 (1.2%)	0.44
2007	107,893 (1.4%)	1,648,146 (1.4%)	53,866 (1.1%)	89,791 (1.1%)	151,703 (1.1%)	0.18
% change	13.6%	8.0%	39.7%	32.5%	47.3%	-59.0%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	9	13	13	20	19	22	14	12	12
	Receipts	182	1,277	304	547	1,115	1,797	2,234	1,303	857
Seafood Sales, retail	Firms	56	56	59	64	74	74	61	76	75
	Receipts	2,491	3,014	2,848	3,484	4,599	4,612	3,588	3,427	3,876

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	8	6	5	4	3	4	3	3	5
	Employees	44	54	ND ³	ND	ND	28	7	ND	ND
	Payroll	969	1,206	ND	ND	ND	805	145	ND	ND
Seafood sales, wholesale	Establishments	30	29	31	28	22	18	22	19	26
	Employees	230	262	177	ND	ND	ND	211	191	220
	Payroll	5,136	4,261	3,330	ND	ND	ND	5,818	5,542	6,186
Seafood sales, retail	Establishments	47	49	52	58	55	58	64	62	60
	Employees	ND	147	166	175	244	ND	206	190	210
	Payroll	ND	1,925	2,250	2,391	2,911	ND	2,773	2,905	3,155

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	2	2	2	1	3	4	4	4	5
	Employees	ND	ND	ND	ND	ND	ND	45	ND	60
	Payroll	ND	ND	ND	ND	ND	ND	1,882	ND	2,352
Deep sea freight transportation	Establishments	12	9	8	10	8	7	10	9	6
	Employees	ND	ND	ND	ND	ND	ND	113	ND	67
	Payroll	ND	ND	ND	ND	ND	ND	4,600	ND	3,419
Deep sea passenger transportation	Establishments	3	2	1	1	3	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	65	61	64	62	63	69	70	71	72
	Employees	ND	ND	343	357	365	378	398	452	469
	Payroll	ND	ND	6,807	6,395	6,696	7,645	8,050	10,105	11,498
Marine cargo handling	Establishments	14	13	14	16	15	17	18	17	15
	Employees	2,340	2,407	2,330	1,793	2,415	2,253	1,994	2,707	1,419
	Payroll	48,245	54,198	60,755	54,609	78,941	81,691	66,767	83,142	75,967
Navigational services to shipping	Establishments	12	12	12	11	6	5	7	8	6
	Employees	ND	ND	89	83	144	ND	ND	155	152
	Payroll	ND	ND	3,051	3,422	5,716	ND	ND	7,588	7,369
Port & harbor operations	Establishments	1	NA ⁴	NA	NA	1	1	1	1	3
	Employees	ND	NA	NA	NA	ND	ND	ND	ND	113
	Payroll	ND	NA	NA	NA	ND	ND	ND	ND	7,058
Ship & boat building	Establishments	42	37	40	43	41	46	48	45	41
	Employees	2,011	2,187	1,801	1,570	2,253	2,380	2,672	2,425	2,962
	Payroll	60,415	61,246	54,654	61,045	78,963	90,974	97,087	92,098	102,531

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

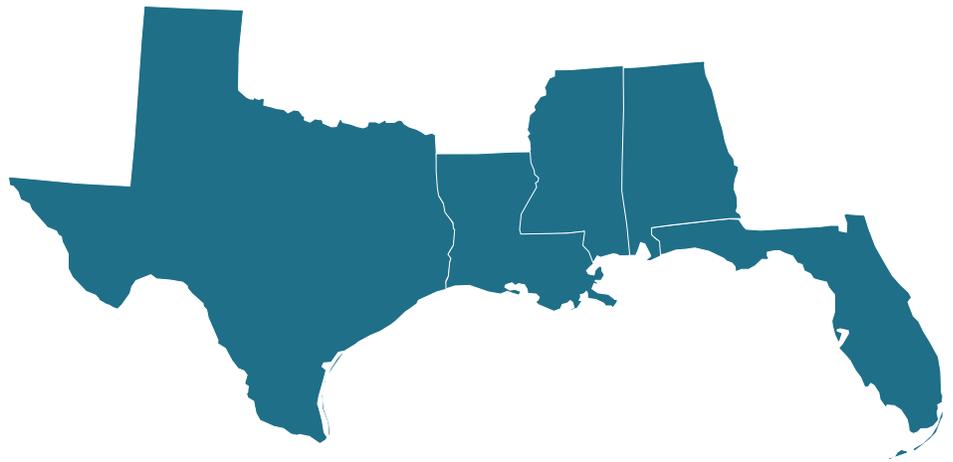
²The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.

³ND = Data are suppressed due to confidentiality restrictions.

⁴NA = Data are not available.

Gulf of Mexico

- Alabama
- West Florida
- Louisiana
- Mississippi
- Texas



Management Context

The Gulf Region is comprised of Texas, Louisiana, Mississippi, Alabama 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 spiny lobster and coastal migratory pelagic resources fisheries are managed in conjunction with the South Atlantic Fishery Management Council (SAFMC).

Gulf of Mexico Fishery Management Plans

1. Red Drum
2. Shrimp
3. Stone Crab
4. Reef Fish
5. Coastal Migratory Pelagic Resources (with SAFMC)
6. Spiny Lobster (with SAFMC)
7. Coral and Coral Reefs

Of the species or species groups covered in these fishery management plans, red snapper, greater amberjack, gag, and gray triggerfish are currently overfished. Of these species or species groups, only red snapper is not currently subject to overfishing.

There are two limited access privilege programs (LAPP), a type of catch share program, currently in operation in the Gulf Region. The Gulf of Mexico red snapper fishery has been managed as an individual fishing quota (IFQ) fishery since 2007. A second IFQ program for Gulf of Mexico grouper and tilefish was implemented in 2010.

Commercial Fisheries

In 2008, commercial fishermen in the Gulf of Mexico harvested 1.27 billion pounds of finfish and shellfish that earned \$659 million in total landings revenue. Shellfish landings generated 78% of total revenue in the region (\$513 million). Shrimp was a significant component of total revenue (56% of total revenue), generating \$366 million in 2008 for 188 million pounds of catch. Menhaden had the highest landings of any key species or species group with over 927 million pounds landed in 2008. This species accounted for 73% of total landings in the Gulf. At \$0.07 per pound, this low value species generated \$64.4 million in revenue or 10% of total revenue generated across the region.

Total revenue generated by fishermen in Louisiana and Texas was highest in the Gulf with \$273 million and \$176 million, respectively. West Florida (\$122 million), Alabama (\$44.3 million), and Mississippi (\$43.7 million) followed in total revenue of finfish and shellfish. In terms of landings, Louisiana (916 million pounds) and Mississippi (202 million pounds) harvested the most catch in the region. Menhaden contributed most to these total landings with 738 million pounds and 189 million pounds landed, respectively. Texas (73 million pounds), West Florida (60 million pounds), and Alabama (24 million pounds) followed. Shrimp contributed \$130 million to Louisiana’s landings revenue with 89 million pounds harvested in 2008. However, shrimp revenue in Texas was higher at \$157 million for 63.9 million pounds landed.

Economic Impacts¹

In 2008, the Gulf Region’s seafood industry generated \$5.7 billion in sales in Florida, \$2 billion in Louisiana, and \$1.1 billion in Texas. Most of the seafood industry-related jobs in this region were also sustained in these states with 108,600 full- and part-time jobs in Florida, 44,000 jobs in Louisiana, and 42,500 jobs in Texas. Alabama (9,800 jobs) and Mississippi (8,600 jobs) followed in terms of employment supported by the seafood industry. Florida, Louisiana, and Texas also led the region in income impacts generated by the seafood industry with \$3.1 billion, \$1.1 billion, and \$990 million, respectively.

Landings Revenue

In 2008, ex-vessel revenue from finfish and shellfish harvest totaled \$659 million, a 20% decrease (36% in real terms) from 1999 (\$823 million) and a 4% decrease (9% decrease in real terms) from 2007 (\$690 million). Louisiana fishermen generated 41% of this revenue in 2008 (\$273 million). Shellfish revenue accounted for 78% of total revenue in the Gulf, bringing in \$513 million in 2008. This was a 20% decrease (36% in real terms) from 1999 (\$645 million) and a 6% decrease (15% in real terms) from 2007 (\$544 million). Finfish revenue decreased 18% (35% in real terms) from \$178 million in 1999 to \$146 million in 2008. Finfish revenue between 2007 and 2008 increased 0.25% (9.5% decrease in real terms).

Key Gulf of Mexico Commercial Species

- Blue crab
- Stone crab
- Crawfish
- Groupers
- Menhaden
- Mulletts
- Oyster
- Shrimp
- Red snapper
- Tunas

Total revenue decreased in real terms in all Gulf States from 1999-2008: 26% (35% in real terms) in **West Florida**, 10% (25% in real terms) in **Mississippi**, 21% (56% in real terms) in **Texas**, 6% decrease (35% in real terms) in Louisiana, and 12% decrease (30% in real terms) in Alabama. Shellfish revenue followed this declining trend with the largest decrease in West Florida (38%, 50% in real terms) followed by Mississippi (29%, 43% in real terms), Texas (21%, 36% in real terms), Louisiana (12%, 29% in real terms), and Alabama (16%, 33% in real terms).

Finfish revenue trends were more variable than the shellfish trends across the Gulf States largely due to the effect of lost oyster beds on total shellfish revenues from Hurricane Katrina in 2005. Mississippi (37% increase, 9.6% in real terms) and Alabama (47%, 18% in real terms) experienced increases over the 10 year period. In Mississippi, this increase was largely due to menhaden revenue which increased 55% (24% in real terms) from \$12 million (1999) to \$19 million (2008). Large increases in revenue generated from sharks (34,400%, 27,490% in real terms), vermillion snapper (1,534%, 1,207% in real terms), and Spanish mackerel (343%, 254% in real terms)

¹Economic impacts for commercial fisheries reported here are for the state of Florida, not West Florida.

drove **Alabama's** finfish revenue trend. In contrast, finfish revenue in West Florida (0.40%, 20% in real terms) and **Texas** (19%, 35% in real terms) experienced modest decreases, while Louisiana's finfish revenue experienced a larger decrease (37%, 49% in real terms).

Commercial Fish Facts

Landings revenue

- The Gulf's key species and species groups accounted for an average of 91% of total landings revenue from 1999-2008.
- **Shrimp** accounted for the majority of total landings revenue in the region, averaging \$424 million over the 10 year time period. Fishermen in Texas generated most of this total in 2008, followed by Louisiana, West Florida, Alabama, and Mississippi.
- **Crawfish** revenue decreased 93% from 1999-2000, the largest annual decrease. This was followed by an 1,144% increase from 2000-2001, the largest annual increase.

Landings

- The Gulf's key species and species groups accounted for an average of 96% of total landings annually between 1999 and 2008.
- Menhaden was a significant component of total landings over the 10 year time period, averaging 1.1 billion pounds annually. Fishermen in Louisiana harvested the majority of this species.
- **Crawfish** landings decreased 97% from 1999-2000, the largest annual decrease, only to have the largest annual increase the following year, increasing 2,549% from 2000-2001.

Prices

- **Stone crab** had the highest ex-vessel price over the 10 year time period, averaging \$4.12 per pound. **Tunas** (\$2.85), **red snapper** (\$2.56), **oyster** (\$2.49), and **groupers** (\$2.30) all averaged over \$2 per pound.
- **Menhaden** had the lowest average ex-vessel price at \$0.05 per pound. **Mulletts** (\$0.67), **blue crab** (\$0.72), and **crawfish** (\$0.76) averaged under \$1 per pound.
- The largest annual increase in ex-vessel price was 120% for crawfish from 1999-2000. Crawfish also had the largest annual decrease the following year, decreasing -53% from 2000-2001.

Shrimp contributed more to the Gulf Region's total revenue over the ten year period from 1999 to 2008 than any other key species or group: \$424 million or 58% of total revenue. The shrimp revenue in 2008 was a 24% less (38% in real terms) than the 1999 shrimp revenue (\$479 million) and there was a less than 1% decrease (10% in real terms) relative to 2007 (\$367 million). Oyster (23% increase, but a 2% decrease in real terms), crawfish (12% decrease, 29% in real terms), and mulletts (58% decrease, 62% in real terms) also experienced large changes in revenue between 1999 and 2008.

Other Gulf of Mexico key species or species groups with large changes in state landings revenue from 1999-2008 include: vermillion snapper (1,500% increase), and sharks (34,400% increase), oysters (74% decrease), red snapper (69% increase), and menhaden (70% decrease) in **Alabama**; red snapper (201% increase), oyster (48% increase), quahog clams (87% decrease), and shrimp (42% decrease) in **West Florida**; king mackerel (64% increase), mulletts (86% decrease), and red snapper (64% decrease) in **Louisiana**; blue crab (34% decrease), mulletts (91% decrease), flounders (75% decrease), oysters (54% increase), and shrimp (42% decrease) in

Mississippi; and vermillion snapper (139% increase), oysters (36% decrease), Atlantic croaker (46% increase), and flounders (76% decrease) in **Texas**.

Landings

Commercial fishermen in the Gulf Region landed over 1.27 billion pounds of finfish and shellfish in 2008. This was an 36% decrease from the 2.0 billion pounds landed in 1999 and 9% decrease from 2007. Over 72% of total landings were harvested in Louisiana. Finfish were a significant component of landings totals (78% of total landings) with Gulf fishermen harvesting 990 million pounds in 2008. This was a 39% decrease from 1999 (1.6 billion pounds) but a 7% decrease from 2007 (1 billion pounds). Shellfish landings also declined, decreasing 23% from 1999 to 2008 and decreasing 15% from 2007-2008.

Finfish landings decreased in all five Gulf states between 1999 and 2008. Louisiana (43%) had the largest decrease followed by Texas (40%), Mississippi (23%), West Florida (22%), and Alabama (4%).

Shellfish landings also decreased in all five states in the region. The largest decrease was observed in West Florida (48%), Mississippi (36%), followed by Texas (20%), and Louisiana (19%), and Alabama (13%). Menhaden contributed 73% to total landings in 2008 with most of this catch harvested in Louisiana (738 million pounds) and Mississippi (189 million pounds). Between 1999 and 2008, menhaden harvest decreased 39% and decreased 8% between 2007 and 2008. From 1999-2008 Menhaden landings decreased 39%. Menhaden catch in Louisiana mirrored these trends, decreasing 43% from 1999 to 2008 and decreasing 8% from 2007 to 2008. Mississippi's menhaden harvest decreased 21% from 1999-2008 and 12% from 2007 to 2008.

Other key species or species groups in the Gulf Region with large changes in landings between 1999 and 2008 include: sharks (14,000% increase), vermillion snapper (1050% increase), Spanish mackerel (249% increase), and oysters (81% decrease) in **Alabama**; red snapper (81% increase), blue crab (76% increase), quahog clam (83% decrease), and shrimp (38% decrease) in **West Florida**; mulletts (83% decrease) and tunas (73% decrease) in **Louisiana**; flounders (81% decrease) and mulletts (89% decrease), and blue crabs (51% decrease) in **Mississippi**; and vermillion snapper (87% increase) and flounders (80% decrease) in **Texas**.

Prices

Overall, in 2008 the ex-vessel price for seven of the ten key species or species groups was higher than their 10 year average annual price per pound. From 1999 to 2008 large changes included tuna (77% increase), red snapper (71% increase), oyster (45% increase); stone crab (27% decrease), and crawfish (24% decrease).

Between 2007 to 2008, stone crab had the largest decrease in price (31%), and menhaden (17%). Shrimp (19%) and tuna (13%) experienced double digit increases. All other key species or groups experienced single digit changes.

Across the Gulf Region, other key species or groups with large changes in ex-vessel price from 1999 to 2008 include: sharks (110% increase), menhaden (175%), red snapper (92%), oyster (37%), and shrimp (11% decrease) in **Alabama**; lobsters (48% increase), red snapper (67%), blue crab (77%), and quahog clam (22% decrease) in **West Florida**; red snapper (82% increase), king mackerel (76%), oyster (42%), and tuna (78%) in **Louisiana**; menhaden (100%), oyster (64%), blue crab (33%), in **Mississippi**; and Atlantic croaker (28%), red snapper (54%), oysters (53%), tuna (86%) and grouper (61%) in **Texas**.

Recreational Fishing

There were 3.2 million resident recreational fishermen who took a fishing trip in the Gulf of Mexico Region in 2008. Almost 92% of these anglers were residents of a regional coastal county. Of the 24 million fishing trips taken in 2008, over 60% of them were taken from a private or rental boat. The most commonly caught key species or species group was spotted seatrout with 32.6 million fish harvested or released in 2008. This key species accounted for 49% of fish caught by anglers in the Gulf Region.

Key Gulf Recreational Species

- Drum (Atlantic croaker)
- Drum (Gulf and southern kingfish)
- Drum (sand and silver seatrout)
- Drum (spotted seatrout)
- Red drum
- Southern flounder
- Spanish mackerel
- Striped mullet
- Porgies (sheepshead)
- Red snapper

Economic Impacts and Expenditures

Recreational fishing activities in West Florida supported more jobs than any other state in the Gulf Region with approximately 54,600 full- and part-time jobs supported in 2008. Louisiana (25,600 jobs), Texas (25,500 jobs), Alabama (4,700 jobs), and Mississippi (2,900 jobs) followed in terms of employment impacts from angler fishing trips and durable equipment expenditures. The majority of these jobs were related to durable equipment expenditures: 92% in Mississippi, 91% in Texas, 84% of jobs in Louisiana, 80% of jobs in West Florida, and 67% in Alabama.

In terms of employment impacts related to fishing trips taken by anglers, industries that provided services for shore-based fishing trips supported most of the trip-related full-and part-time jobs in West Florida (4,800 jobs) and Alabama (600 jobs). Private or rental boat trips supported most of the trip-related jobs in Louisiana (2,600 jobs), Texas (1,300 jobs), and Mississippi (146 jobs).

The contribution of recreational fishing activities in the Gulf Region are also reported in terms of state level sales and value-added impacts as well as expenditures on fishing trips and durable equipment. In 2008, in-state sales and value-added impacts were highest in West Florida (\$5.65 billion in sales impacts; \$3.1 billion in value-added impacts) and Texas (\$3.3 billion ; \$1.7 billion). Louisiana (\$2.3 billion; \$1.2 billion), Alabama (\$455 million; \$235 million), and Mississippi (\$383 million; \$149 million)

followed in sales and value-added impacts. Across the region, these economic impacts were largely generated from direct expenditures on durable equipment made by anglers rather than fishing trip-related expenditures.

Total fishing trip and durable equipment expenditures were \$12.5 billion across the Gulf of Mexico Region in 2008. Approximately 89% of these expenditures were related to durable equipment purchases. Boat (\$5.8 billion), fishing tackle (\$1.7 billion), and vehicle expenses (\$1.5 billion) accounted for the majority of durable equipment expenditures. Expenditures by Gulf of Mexico residents related to fishing trips totaled \$866 million. Most of these purchases were related to fishing trips taken from a private or rental boat (70% of trip-related expenditures by residents). The region’s non-resident anglers generated \$582 million in trip-related expenditures with most of these expenses related to fishing trips taken from shore (48% of trip-related expenditures by non-residents).

Participation²

In 2008, there were nearly 3.2 million recreational fishermen from either a coastal or non-coastal county in the Gulf of Mexico Region.³ This was a 61% increase from 1999 (2.0 million anglers) but a 10.5% decrease from 2007 (over 3.6 million anglers). The number of coastal county anglers in 2008 (2.9 million anglers) increased 60% relative to 1999 (1.8 million anglers) but decreased 9.6% relative to 2007 (3.2 million anglers). Non-coastal county angler participation in 2008 (262,000 anglers) increased 73.5% relative to 1999 (151,000 anglers) and decreased 19.6% relative to 2007 (326,000 anglers). Approximately 57% of the total number of resident anglers in the Gulf region were located in West Florida.

The majority of recreational fishermen in Louisiana and Mississippi were residents of a coastal county within their respective state. These anglers accounted for 73% of total anglers in Louisiana (795,000 anglers) and 61% of anglers in Mississippi (119,000 anglers). Out-of-state residents made up the majority of anglers in West Florida and Alabama: 53% of total anglers in West Florida (2.0 million anglers) and 43% of total anglers in Alabama (240,000 anglers). Anglers from the Gulf Region’s non-coastal counties⁴ comprised a minority of total anglers in 2008: 11% of anglers in Louisiana, 13% of anglers in Mississippi, and 21% of anglers in Alabama.

Fishing Trips

Anglers took 24 million fishing trips in 2008. This was a 52% increase from 1999 (16 million trips) and a 1%

²These estimates do not include Texas. Participation (number of anglers) and effort (number of fishing trips) information for Texas was not available for this report.

³At the state level, out-of-state anglers are estimated. However at the region level, out-of-region anglers are not estimated thus only Gulf Region resident anglers are discussed here. In *Fisheries Economics of the U.S., 2006* (FEUS 2006), angler participation totals from 1997-2006 incorrectly included out-of-state anglers at the region level. In this report, the 1999-2008 angler participation totals excludes these anglers and so the annual region totals reported here are smaller than those reported in FEUS 2006.

⁴All resident anglers in Florida are considered coastal county anglers.

decrease from 2007 (24.3 million trips). In 2008, most fishing trips were taken from a private or rental boat: 14.6 million fishing trips or 60% of total trips taken in the Gulf of Mexico. Shore-based fishing trips ranked second in popularity with 8.7 million trips taken in 2008 despite a 2.9% decrease in trips taken between 2007 and 2008. Approximately 839,000 fishing trips were taken from a for-hire boat.

There were approximately 17 million fishing trips taken in West Florida in 2008. This represented 71% of total trips taken in the region. Most of these trips were taken from a private or rental boat (57% of trips taken in West Florida). Private or rental boat trips were also popular in Louisiana and Mississippi: 75% of trips in Louisiana and 61% of trips in Mississippi. In Alabama, private boat rentals (57%) were the most popular mode in 2008. Shore-based (40% of trips) were the second most popular fishing mode in Alabama.

Harvest and Release

Of the Gulf Region's key species and species groups, spotted seatrout was the most often caught by anglers with 32.6 million fish caught in 2008. This key species accounted for 49% of the key species or species groups caught by recreational fishermen. Over 60% of these spotted seatrout were released by anglers rather than harvested. Red drum was another key species that was caught in large numbers: over 9.7 million fish caught in 2008 with 67% of these fish released rather than harvested. These fish were most often caught in West Florida and Louisiana.

In 2008, five of the Gulf Region's key species or species groups were more often harvested rather than released by anglers: striped mullet (81.7% harvested), southern flounder (78% harvested), Gulf and southern kingfish (69% harvested), sand and silver seatrout (60% harvested), and sheepshead (55% harvested). Red snapper (73% released) and Atlantic croaker (67% released) were examples of key species or groups with a greater percentage of fish released rather than harvested.

Of the Gulf's key species or species groups, Spanish mackerel (44.3% increase), red drum (58%), and spotted seatrout (29%) experienced the largest increases in recreational catch between 1999 and 2008. The following Gulf key species decreased in catch from 1999 to 2008; Gulf and southern kingfish (4% decrease), sand and silver seatrout (15% decrease), southern flounder (7.5% decrease), striped mullet (15 % decrease), and red snapper (18% decrease). All other key species or groups increased during this period.

Between 2007 and 2008, two key species or species groups experienced double digit percentage declines: southern flounder and red snapper. Catch totals for the other key species or groups experienced changes in catch totals of less than 10%. Significant (double digit) increases in catch were experienced by Gulf and southern kingfish (16%), sand and silver seatrout (26%), and sheepshead (35%). All other key species that increased from 2007-2008 experienced an increase of less than 10%.

Recreational Fishing Facts

Participation

- In the Gulf of Mexico, an average of 3.1 million anglers fished annually from 1999-2008. Most of these anglers fished in West Florida.
- The region's coastal county residents made up 92% of total anglers both in 2008 over the ten year time period.
- Non-coastal county resident anglers increased 66% from 2005-2006 experienced the largest annual increase in participation. These anglers also had the largest annual decrease in participation, decreasing 40% from 2004-2005. In 2008, non-coastal county residents decreased nearly 20% from 2007.

Fishing trips

- An average of 22 million fishing trips were taken annually in the Gulf Region between 1999 and 2008. Most of these trips were taken in West Florida.
- Private or rental boat trips accounted for 14.6 million fishing trips in 2008. This mode of fishing trip made up 61% of trips taken that year.
- The largest annual increase in fishing trip mode was a 43% increase in shore-based fishing trips from 1999-2000. This type of fishing trip also had the largest annual decrease over the time period, a 26% decrease from 2001-2002.

Harvest and release

- The key species or species group in the Gulf of Mexico that were most often caught was spotted seatrout with an average of 28 million fish caught over the 10 year time period. Over 62% of these fish was released rather than harvested.
- Six of the Gulf's ten key species or groups were more often released rather than harvested by recreational fishermen from 1999 to 2008. Atlantic croaker (70% released), red drum (67%), red snapper (68%), and spotted seatrout (62%) are examples.
- Key species or groups more often harvested by anglers were striped mullet (83% harvested), southern flounder (78%), sand and silver seatrout (70%), and Gulf and southern kingfish (69%).
- Spanish mackerel had the largest annual increase in catch, increasing 96% from 2005-2006. Gulf and southern kingfish had the largest annual decrease in catch, decreasing 53% from 2001-2002.

At the state level, spotted seatrout was the most commonly caught key species or species group in Louisiana, West Florida, Mississippi, and Texas. In 2008, nearly 20 million fish were caught in Louisiana, 10.5 million fish were caught in West Florida, 1.2 million fish were caught in Mississippi, and 920,000 fish were caught in Texas. Atlantic croaker was key species most often caught by recreational fishermen in Alabama with 2 million fish caught in 2008.

Marine Economy⁵

The Gulf of Mexico's gross domestic product was \$2.35 trillion in 2007. Employee compensation totaled \$1.23 trillion and annual payroll totaled \$787 billion. These economic measures increased 77%, 39%, and 63%, respectively, from 1998 to 2007, and 25%, 21%, and 19%, from 2006 to 2007. Approximately 1.3 million establishments employed 21 million full- and part-time employees in 2007. This was a 15% increase in number of

⁵Information for 2007 is reported in this section; 2008 data were not available for this report.

establishments and a 19% increase in number of employees from 1998 to 2007. Increases were also observed from 2006 to 2007, 1.3% and 7.6%, respectively.

In 2007, Texas had the highest number of employees, annual payroll, employee compensation, and gross state product levels in the region, while Florida⁶ had the highest establishment numbers. Florida had over 523,000 establishments that employed 7.43 million employees and Texas had 521,000 establishments that employed 9 million employees. Gross state product in Texas was \$1.15 trillion, followed by Florida (\$741 billion), Louisiana (\$207 billion), Alabama (\$165 billion), and Mississippi (\$88 billion).

Louisiana had the highest commercial fishing location quotient (CFLQ) at 2.5 in 2007. This was a 36% increase from 1998 and a 10% increase from 2006. Louisiana's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is more than two times higher than the level of employment in these industries nationwide.⁷ Across the Gulf region, the CFLQ was also higher than the national baseline in Mississippi (1.96) but lower than the national CFLQ in Florida (0.99), Alabama (0.33), and Texas (0.32).

Seafood Sales and Processing

In 2007, there were 399 nonemployer firms engaged in seafood product preparation and packaging with annual receipt totals of \$24 million. Respectively, this was a 64% and 34% increase (19% in real terms) relative to 1999 levels. Most of these firms were located in Florida and this state experienced the largest increases from 1999-2007 in this industry: 166% increase in number of firms and 47% increase (30% in real terms) in annual receipt totals. Louisiana also experienced large increases in firms (85%) and annual receipts (114%), while Alabama experienced a 40% decrease (47% in real terms) in annual receipts during this time period.

Employer establishments engaged in seafood product preparation and packaging totaled 132 in 2007. These establishments employed approximately 8,740 full-and part-time workers and generated \$220 million in annual payroll. Region-wide, there was a 26% decrease in establishments engaged in this industry, a 23% decrease in employees, and a 8% increase in annual payroll totals (5% decrease in real terms). More of these establishments were located in Louisiana (31%) than anywhere else in the region, but the largest change in establishment numbers was observed in Florida, a 53% decrease from 1999 levels.

The Gulf of Mexico's seafood wholesale annual payroll totals increased 34% (19% in real terms) between 1999 and 2007 to \$168 million in 2007. Establishment and employee numbers decreased 22% and 13%, respectively, to 546 establishments and approximately 4,700 full-and part-time employees. These declining trends were mirrored at the state level with the largest declines in Alabama (34% decrease in number of establishments) and

Mississippi (52% decrease in number of employees, and 14% decrease in annual payroll (24% in real terms)). The payroll in Texas increased the most over this time period from \$33 million in 1999 to \$52 million in 2007, a 58% increase (40% in real terms).

In 2007, there were 815 seafood retail nonemployer firms with total annual receipts of \$74 million across the region. This was a 27% increase in firm numbers and a 38% increase in annual receipts region-wide from 1999 to 2007. The largest state level increases in annual payroll occurred in Mississippi (72%, 53% in real terms) and Louisiana (51%, 34% in real terms). More of these firms were located in Florida (39%) than in any other state in the region.

Employer establishments engaged in seafood retail increased 19% across the Gulf of Mexico to 380 establishments in 2007. More of these establishments were located in Florida (44%) than in any other state in the region. Region-wide, this industry employed almost 2,000 full- and part-time workers with an annual payroll of \$38 million in 2007. From 1999 to 2007, employee numbers increased 16% and annual payroll totals increased 21% (7% in real terms). At the state level, the largest changes were observed in Alabama with a 50% increase in establishments and 189% increase in payroll; Louisiana experienced a 56% increase in employees; Florida saw a 14% increase in employees and a 27% increase in establishments; there was a 140% increase (110% in real terms) in annual payroll in Louisiana, and in Texas there was a 28% decrease in annual payroll, and 27% decrease (36% in real terms) in number of employees.

Transport, Support, and Marine Operations

Marina industries had the highest number of establishments in this sector with 755 establishments region-wide in 2007. This was a 9% decrease relative to 1999 levels. Most of these industries were located in Florida (65%). At the state level, the largest decrease in marina-related establishments was in Louisiana (36%) and the largest increase was in marina-related payroll which experienced a 79% increase (59% in real terms) in Florida. Ship and boat building industries employed the most people in 2007 (48,000 full- and part-time workers) and had the highest annual payroll (\$2.0 billion). Employment numbers decreased 2% from 1999-2007. Annual payroll totals increased 31% over this time period (16% in real terms) despite a 110% increase (83% in real terms) in Alabama.

Other industries with large to modest changes from 1999-2007 were: coastal and Great Lakes freight transportation (33% decrease in number of establishments in Mississippi); deep sea passenger transportation (300% increase in number of establishments in Texas and a 57% decrease in establishments in Louisiana); marina industries (32% increase in number of employees in Florida, 82% increase (61% in real terms) in annual payroll in Alabama and 79% increase (59% in real terms) in Florida); marine cargo handling (50% decrease in establishments in Mississippi and a 21% decrease in Florida); and port and harbor operations (61% increase in number of establishments in Florida and 60% decrease in establishments in Alabama).

⁶Information reported here is for the state of Florida, not West Florida.

⁷The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

2008 Economic Impacts of the Gulf of Mexico Region Seafood Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Job Impacts
Alabama	44,317	445,449	244,568	9,750
Florida	169,711	5,657,246	3,108,084	108,695
Louisiana	272,884	2,033,587	1,059,617	43,711
Mississippi	43,696	390,702	197,903	8,575
Texas	176,098	2,013,272	994,140	42,541

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	823,364	997,270	807,403	681,646	662,902	669,002	625,038	691,220	689,614	659,104
Finfish & Other	177,997	179,109	164,959	147,338	139,373	143,479	122,642	135,982	145,282	145,639
Shellfish	645,367	818,161	642,444	534,308	523,530	525,523	502,396	555,238	544,332	513,466
Crab, Blue	43,128	47,573	42,862	42,913	46,243	42,292	37,961	43,355	45,851	38,671
Crab, Stone	24,080	28,670	20,477	23,091	23,043	26,704	21,223	24,115	26,189	18,830
Crawfish	10,480	684	8,511	8,070	4,845	4,810	8,360	1,290	9,011	9,273
Groupers	22,684	24,124	25,986	24,631	24,257	25,807	24,692	22,795	20,240	22,762
Menhaden	78,514	80,674	72,366	52,116	45,863	44,921	32,938	44,946	62,109	64,376
Mulletts	14,129	11,697	10,206	8,877	8,265	8,956	6,593	9,429	5,432	5,970
Oyster	48,568	53,115	52,285	50,756	61,634	60,845	56,510	62,316	69,533	59,509
Shrimp	479,079	655,759	497,202	385,679	365,434	366,426	360,513	397,706	367,029	366,269
Snapper, Red	9,589	10,368	10,251	10,714	10,447	11,676	11,336	13,167	9,565	7,964
Tunas	11,635	14,017	9,187	13,227	12,000	12,335	9,431	8,461	10,535	6,151

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	2,004,446	1,795,396	1,613,163	1,728,899	1,595,895	1,475,139	1,198,203	1,362,326	1,403,246	1,274,652
Finfish & Other	1,637,524	1,397,440	1,254,170	1,377,421	1,228,816	1,110,240	887,920	974,969	1,070,591	993,371
Shellfish	366,922	397,955	358,993	351,478	367,080	364,899	310,283	387,357	332,656	281,281
Crab, Blue	68,996	68,898	54,500	66,019	63,961	60,581	50,041	67,481	57,728	47,293
Crab, Stone	5,654	6,848	6,682	6,433	5,292	5,971	4,534	4,806	5,854	6,086
Crawfish	13,226	393	10,410	15,602	8,337	8,537	15,177	1,469	15,802	15,346
Groupers	11,185	11,418	12,167	12,003	10,933	11,912	10,776	9,092	7,307	8,500
Menhaden	1,530,487	1,303,895	1,165,244	1,290,407	1,142,747	1,023,260	815,495	901,398	1,005,324	927,517
Mulletts	20,045	16,812	16,084	12,661	12,957	13,750	9,023	12,727	8,747	10,349
Oyster	24,016	25,767	25,621	24,110	27,033	25,052	20,174	19,674	22,518	20,414
Shrimp	242,795	288,628	257,088	233,759	256,357	255,782	216,291	288,973	225,154	188,492
Snapper, Red	4,888	4,844	4,642	4,803	4,435	4,677	4,109	4,637	2,997	2,368
Tunas	5,959	4,631	3,463	4,877	5,063	3,882	3,050	2,851	3,426	1,777

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab, Blue	0.63	0.69	0.79	0.65	0.72	0.70	0.76	0.64	0.79	0.82
Crab, Stone	4.26	4.19	3.06	3.59	4.35	4.47	4.68	5.02	4.47	3.09
Crawfish	0.79	1.74	0.82	0.52	0.58	0.56	0.55	0.88	0.57	0.60
Groupers	2.03	2.11	2.14	2.05	2.22	2.17	2.29	2.51	2.77	2.68
Menhaden	0.05	0.06	0.06	0.04	0.04	0.04	0.04	0.05	0.06	0.07
Mulletts	0.70	0.70	0.63	0.70	0.64	0.65	0.73	0.74	0.62	0.58
Oyster	2.02	2.06	2.04	2.11	2.28	2.43	2.80	3.17	3.09	2.92
Shrimp	1.97	2.27	1.93	1.65	1.43	1.43	1.67	1.38	1.63	1.94
Snapper, Red	1.96	2.14	2.21	2.23	2.36	2.50	2.76	2.84	3.19	3.36
Tunas	1.95	3.03	2.65	2.71	2.37	3.18	3.09	2.97	3.07	3.46

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
Alabama	1,671,081	4,719	455,093	235,481
Louisiana	4,540,890	25,590	2,297,078	1,156,796
Mississippi	968,800	2,930	382,778	148,837
Texas ¹	1,337,146	25,544	3,288,135	1,656,545
West Florida	16,928,072	54,589	5,650,068	3,075,710

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	136,959	88,338	Fishing Tackle	1,710,813
Private Boat	164,123	608,883	Other Equipment	658,565
Shore	280,967	169,194	Boat Expenses	5,822,630
Total Trip Expenditures	582,049	866,416	Vehicle Expenses	1,536,283
			Second Home Expenses	1,368,065
			Total Durable Equipment Expenditures	11,096,356
Total State Trip and Durable Equipment Expenditures				12,544,820

Recreational Anglers by Residential Area (thousands of anglers)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	1,834	2,539	2,898	2,485	3,039	3,185	3,133	3,328	3,235	2,926
Non-Coastal	151	191	227	216	256	318	190	315	326	262
Out-of-State	NA ³									
Total Anglers	1,985	2,730	3,125	2,701	3,294	3,503	3,323	3,643	3,562	3,188

Recreational Fishing Effort by Mode (thousands of trips)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	877	812	742	764	691	818	712	820	876	839
Private Boat	9,098	11,728	12,371	11,635	14,110	14,107	12,629	13,837	14,435	14,574
Shore	5,919	8,478	9,776	7,266	8,155	9,430	8,530	9,206	8,957	8,695
Total Trips	15,894	21,018	22,890	19,666	22,957	24,355	21,871	23,863	24,267	24,109

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)²

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Drum (Atlantic Croaker)	H	974	1,783	1,432	832	1,057	938	747	1,430	1,332	1,409
	R	2,427	4,302	2,755	2,757	2,431	3,404	1,913	2,476	2,648	2,836
Drum (Gulf & Southern Kingfish)	H	1,670	1,652	2,552	1,205	1,802	1,886	1,636	1,494	1,260	1,548
	R	679	432	1,044	477	538	911	884	1,063	671	700
Drum, Red	H	2,134	3,266	3,115	2,478	2,673	2,850	2,173	2,814	2,973	3,189
	R	3,991	5,469	5,146	4,874	5,915	5,538	5,319	7,024	6,057	6,512
Drum (Sand & Silver Seatrout)	H	5,272	4,711	3,360	3,256	3,111	2,292	1,825	2,726	2,998	3,565
	R	1,738	1,596	1,063	1,069	1,003	1,064	790	1,677	1,739	2,401
Drum (Spotted Seatrout)	H	9,055	11,608	9,381	7,366	9,568	10,569	9,977	15,564	11,575	13,150
	R	16,167	16,758	11,202	15,298	19,217	18,282	19,702	20,872	19,036	19,415
Flounder, Southern	H	646	563	732	506	659	706	507	560	609	540
	R	101	108	171	117	252	212	185	178	194	151
Mackerel, Spanish	H	1,621	1,714	2,477	1,962	1,504	2,120	1,134	1,936	1,708	1,873
	R	1,243	1,497	1,845	1,920	2,211	2,183	1,385	3,011	2,110	2,259
Mullet, Striped ³	H	1,303	1,478	1,561	1,264	1,587	1,141	1,112	1,146	986	1,006
	R	148	390	733	76	280	116	211	157	176	225
Porgies (Sheepshead)	H	1,366	1,298	1,478	1,552	1,941	2,475	1,979	1,452	1,324	1,787
	R	1,433	1,728	1,649	1,701	2,004	2,194	1,982	1,541	1,073	1,442
Snapper, Red	H	1,207	767	848	1,106	993	1,077	829	969	1,117	709
	R	1,997	1,427	1,807	2,091	1,942	2,140	1,904	2,558	2,755	1,916

¹The Marine Recreational Information Program (MRIP) does not collect participation (number of anglers) or effort (number of trips) data for Texas. Participation and effort estimates for Texas are therefore not included in either the Recreational Anglers by Residential Area or Recreational Fishing Effort tables. To calculate trip and durable equipment expenditures and impacts, effort and participation was estimated based on 2008 data provided by the Texas Parks and Wildlife Department (TPWD).

²Excludes Texas; effort (number of trips), participation (number of anglers), and key species (number of species harvested or released) data from Texas was either not compatible with the other Gulf states or were not available.

³This species may not be equivalent to species with similar names listed in the commercial tables.

2008 Economic Impacts of the Alabama Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	445,449	244,568	9,750
Commercial Harvesters	39,003	14,699	883
Seafood Processors & Dealers	86,651	43,279	963
Seafood Wholesalers & Distributors	15,331	7,567	143
Retail Sectors	304,464	179,022	7,761

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	50,488	64,075	44,941	35,925	36,844	37,036	39,726	48,558	48,723	44,317
Finfish & Other	2,818	2,560	3,361	3,175	3,185	3,905	3,982	4,572	3,595	4,140
Shellfish	47,670	61,515	41,580	32,751	33,658	33,131	35,744	43,986	45,128	40,176
Crab, Blue	2,079	3,086	1,744	1,490	1,715	1,774	663	1,319	1,711	1,533
Flounders	264	285	238	291	210	230	247	223	261	214
Mackerel, Spanish	138	229	310	371	443	554	401	573	440	611
Menhaden	198	147	130	102	104	89	63	48	70	59
Mulletts	1,656	1,072	1,448	985	772	1,187	1,117	1,171	981	1,011
Oysters	919	1,755	1,235	1,602	1,623	2,120	3,020	3,639	2,698	243
Sharks	1	36	14	275	337	431	478	463	204	345
Shrimp	44,669	56,661	38,592	29,603	30,284	29,197	32,002	39,022	40,710	38,386
Snapper, Red	140	218	280	368	359	382	638	536	208	237
Snapper, Vermilion	29	25	55	54	83	152	149	318	320	474

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	27,438	30,530	25,858	23,658	25,535	26,559	23,985	34,033	29,379	24,423
Finfish & Other	5,568	4,837	6,253	5,451	5,982	6,248	5,552	6,498	4,810	5,370
Shellfish	21,870	25,693	19,605	18,207	19,553	20,311	18,432	27,535	24,569	19,053
Crab, Blue	3,768	4,784	2,458	2,575	2,958	3,329	1,024	2,384	2,557	1,799
Flounders	155	159	137	176	118	138	130	118	133	107
Mackerel, Spanish	243	384	506	762	858	914	568	873	565	849
Menhaden	2,387	1,642	1,589	982	1,022	828	521	350	469	268
Mulletts	2,069	1,739	2,539	1,949	1,700	2,133	1,976	1,913	1,793	1,977
Oysters	377	792	575	759	816	908	1,041	940	769	73
Sharks	3	69	24	329	803	716	800	1,227	315	423
Shrimp	17,721	20,103	16,566	14,857	15,770	16,064	16,260	24,201	21,238	17,171
Snapper, Red	68	94	118	152	132	138	214	177	58	60
Snapper, Vermilion	16	13	27	28	36	66	66	122	128	184

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab, Blue	0.55	0.65	0.71	0.58	0.58	0.53	0.65	0.55	0.67	0.85
Flounders	1.70	1.79	1.74	1.65	1.78	1.67	1.91	1.89	1.97	2.01
Mackerel, Spanish	0.57	0.60	0.61	0.49	0.52	0.61	0.71	0.66	0.78	0.72
Menhaden	0.08	0.09	0.08	0.10	0.10	0.11	0.12	0.14	0.15	0.22
Mulletts	0.80	0.62	0.57	0.51	0.45	0.56	0.57	0.61	0.55	0.51
Oysters	2.44	2.22	2.15	2.11	1.99	2.33	2.90	3.87	3.51	3.34
Sharks	0.39	0.52	0.58	0.83	0.42	0.60	0.60	0.38	0.65	0.82
Shrimp	2.52	2.82	2.33	1.99	1.92	1.82	1.97	1.61	1.92	2.24
Snapper, Red	2.05	2.32	2.37	2.41	2.72	2.78	2.98	3.03	3.61	3.93
Snapper, Vermilion	1.81	2.01	2.04	1.92	2.31	2.32	2.26	2.61	2.50	2.57

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	389	29,063	15,998
Private Boat	580	55,207	30,225
Shore	599	48,751	26,225
Total Durable Equipment Impacts	3,151	322,071	163,033
Total State Trip and Durable Equipment Economic Impacts	4,719	455,093	235,481

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	12,846	6,550	Fishing Tackle	62,069
Private Boat	15,146	38,978	Other Equipment	28,006
Shore	21,816	17,519	Boat Expenses	218,563
Total Trip Expenditures	49,807	63,047	Vehicle Expenses	36,762
			Second Home Expenses	22,333
			Total Durable Equipment Expenditures	367,733
Total State Trip and Durable Equipment Expenditures				480,587

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	131	143	213	123	187	223	231	233	253	192
Non-Coastal	92	94	113	97	123	159	93	184	169	116
Out of State	143	148	227	193	214	345	161	320	291	237
Total Anglers	367	385	553	413	524	728	485	736	712	545

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	80	62	63	68	67	77	55	77	74	56
Private Boat	613	545	825	606	846	907	806	857	1,007	949
Shore	477	479	748	516	588	1,056	705	1,209	1,038	666
Total Trips	1,170	1,087	1,636	1,190	1,500	2,040	1,566	2,143	2,120	1,671

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bluefish	H	86	62	89	51	45	167	24	26	33	24
	R	76	59	113	64	126	187	93	264	208	80
Drum (Atlantic Croaker)	H	212	225	360	187	244	132	159	330	289	730
	R	605	539	546	467	512	786	748	683	930	1,287
Drum (Kingfishes) ¹	H	386	433	1,202	412	486	813	483	572	514	821
	R	214	193	368	162	185	382	300	589	247	240
Drum, Red	H	85	58	136	84	114	119	127	112	99	94
	R	95	73	172	104	245	145	160	176	128	221
Drum (Sand Seatrout)	H	892	557	712	428	709	716	410	725	688	1,257
	R	269	185	180	130	225	345	333	506	428	493
Drum (Spotted Seatrout)	H	155	166	295	193	345	199	344	308	308	269
	R	250	245	356	167	431	142	367	449	418	684
Flounder, Southern	H	126	65	182	82	113	114	114	113	98	84
	R	40	16	45	16	68	58	74	51	38	36
Mackerel, Spanish	H	341	185	328	106	122	398	94	143	99	136
	R	120	57	115	16	100	253	58	89	30	36
Porgies (Sheepshead)	H	130	141	313	191	299	383	284	216	282	314
	R	18	60	109	81	88	98	89	75	33	126
Snapper, Red	H	402	267	349	473	380	411	277	197	232	132
	R	618	685	910	983	665	654	560	688	659	435

¹Kingfishes include southern kingfish and Gulf kingfish.

Alabama's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	100,316 (1.4%)	1,604,110 (1.5%)	40,331 (1.2%)	71,810 (1.2%)	106,656 (1.2%)	0.4
2007	105,627 (1.4%)	1,722,834 (1.4%)	58,263 (1.2%)	96,788 (1.2%)	164,524 (1.2%)	0.33
% change	5.3%	7.4%	44.5%	34.7%	54.2%	-17.5%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	47	46	39	44	36	43	40	34	47
	Receipts	2,598	3,677	2,711	3,603	1,168	3,413	3,414	1,558	1,547
Seafood Sales, retail	Firms	44	44	50	58	55	61	44	57	61
	Receipts	3,503	3,878	3,633	3,456	3,812	3,645	3,855	4,802	4,279

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	16	17	21	22	24	23	26	24	23
	Employees	1,776	1,725	1,880	1,951	2,057	2,037	1,925	1,629	1,510
	Payroll	29,809	33,811	32,692	36,198	36,766	36,130	38,229	34,703	32,774
Seafood sales, wholesale	Establishments	47	47	45	36	33	31	26	26	31
	Employees	ND ³	887	692	547	611	588	607	395	395
	Payroll	ND	10,252	9,597	7,062	6,148	6,752	6,345	6,195	6,202
Seafood sales, retail	Establishments	22	28	30	35	37	35	34	28	33
	Employees	53	ND	95	110	ND	96	95	ND	ND
	Payroll	625	ND	1,244	1,589	ND	1,401	1,399	ND	1,809

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	10	8	9	6	13	10	10	6	8
	Employees	ND	ND	ND	ND	ND	ND	ND	15	48
	Payroll	ND	ND	ND	ND	ND	ND	ND	754	3,266
Deep sea freight transportation	Establishments	4	3	2	2	5	3	3	3	5
	Employees	ND	ND	ND	ND	53	ND	ND	ND	46
	Payroll	ND	ND	ND	ND	3,661	ND	ND	ND	3,553
Deep sea passenger transportation	Establishments	1	1	2	NA ⁴	1	1	1	1	1
	Employees	ND	ND	ND	NA	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	NA	ND	ND	ND	ND	ND
Marinas	Establishments	57	59	61	48	53	52	58	52	52
	Employees	276	ND	ND	242	287	341	347	312	364
	Payroll	5,153	ND	ND	4,966	6,218	7,631	8,047	8,388	9,382
Marine cargo handling	Establishments	22	21	19	19	17	18	17	14	19
	Employees	687	ND	617	635	445	577	672	ND	491
	Payroll	23,312	ND	20,809	20,592	19,642	26,201	28,458	ND	21,076
Navigational services to shipping	Establishments	19	16	11	15	12	16	17	18	16
	Employees	184	ND	ND	220	410	ND	ND	ND	338
	Payroll	5,116	ND	ND	9,317	19,602	ND	ND	ND	17,554
Port & harbor operations	Establishments	5	5	7	6	3	1	3	3	2
	Employees	16	ND	ND	162	ND	ND	ND	ND	ND
	Payroll	668	ND	ND	6,321	ND	ND	ND	ND	ND
Ship & boat building	Establishments	42	41	41	45	41	42	45	47	42
	Employees	2,954	2,421	2,575	2,901	2,781	2,195	2,591	3,027	3,570
	Payroll	83,325	78,014	105,756	92,916	81,092	83,756	86,453	121,185	172,380

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

⁴NA = Data are not available.

2008 Economic Impacts of the Louisiana Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	2,033,587	1,059,617	43,711
Commercial Harvesters	288,703	122,563	6,150
Seafood Processors & Dealers	273,892	86,728	2,765
Seafood Wholesalers & Distributors	150,070	74,444	1,427
Retail Sectors	1,320,922	775,882	33,369

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	336,963	421,199	347,253	280,630	270,408	274,082	251,678	278,292	289,010	272,884
Finfish & Other	100,860	105,389	86,823	70,327	63,299	66,074	49,443	60,735	65,180	64,010
Shellfish	236,104	315,810	260,430	210,303	207,109	208,008	202,235	217,557	223,830	208,874
Crab, Blue	28,210	34,395	31,967	30,685	33,623	29,881	27,419	32,605	34,816	31,075
Crawfish	10,480	684	8,511	8,070	4,845	4,810	8,360	1,290	9,011	9,273
Mackerel, King	790	1,017	996	1,046	990	1,198	1,273	1,112	1,298	1,297
Menhaden	66,327	68,586	58,961	40,378	34,464	35,249	25,776	36,441	41,368	45,768
Mulletts	5,307	5,265	2,417	1,688	2,592	2,681	946	2,061	686	748
Oysters	25,777	27,526	31,853	30,296	33,358	34,814	33,305	35,999	40,139	38,225
Shrimp	171,481	253,032	187,969	141,213	135,153	138,466	133,143	147,652	139,842	130,290
Snapper, Red	5,644	5,841	5,411	4,696	3,960	3,861	3,568	4,472	2,529	2,038
Snapper, Vermilion	1,332	932	1,114	1,308	1,896	1,663	1,137	762	991	819
Tunas	9,081	12,027	7,895	10,845	9,471	10,739	7,687	7,040	8,334	4,393

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	1,524,728	1,359,242	1,195,654	1,312,139	1,181,607	1,095,571	849,280	918,675	999,054	915,956
Finfish & Other	1,331,608	1,148,595	1,003,402	1,124,627	985,164	895,336	681,322	714,545	814,643	759,269
Shellfish	193,121	210,647	192,252	187,511	196,443	200,235	167,959	204,130	184,411	156,687
Crab, Blue	46,664	52,047	41,799	50,123	48,089	44,397	38,100	53,394	44,865	39,762
Crawfish	13,226	393	10,410	15,602	8,337	8,537	15,177	1,469	15,802	15,346
Mackerel, King	838	949	818	866	911	984	867	971	879	786
Menhaden	1,288,558	1,111,979	971,102	1,093,997	953,714	862,947	657,702	689,853	789,621	738,092
Mulletts	8,954	7,253	4,260	2,555	4,524	4,754	1,238	3,361	1,375	1,499
Oysters	12,128	12,718	15,133	13,962	13,609	13,902	12,099	11,417	12,858	12,613
Shrimp	121,004	145,385	124,813	107,795	125,730	133,370	102,576	137,839	110,860	88,962
Snapper, Red	2,965	2,784	2,436	2,178	1,725	1,560	1,316	1,653	807	589
Snapper, Vermilion	741	504	601	755	1,053	921	588	365	517	409
Tunas	4,594	3,871	2,706	3,587	3,184	3,230	2,296	2,143	2,476	1,244

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab, Blue	0.60	0.66	0.76	0.61	0.70	0.67	0.72	0.61	0.78	0.78
Crawfish	0.79	1.74	0.82	0.52	0.58	0.56	0.55	0.88	0.57	0.60
Mackerel, King	0.94	1.07	1.22	1.21	1.09	1.22	1.47	1.15	1.48	1.65
Menhaden	0.05	0.06	0.06	0.04	0.04	0.04	0.04	0.05	0.05	0.06
Mulletts	0.59	0.73	0.57	0.66	0.57	0.56	0.76	0.61	0.50	0.50
Oysters	2.13	2.16	2.10	2.17	2.45	2.50	2.75	3.15	3.12	3.03
Shrimp	1.42	1.74	1.51	1.31	1.07	1.04	1.30	1.07	1.26	1.46
Snapper, Red	1.90	2.10	2.22	2.16	2.30	2.47	2.71	2.71	3.13	3.46
Snapper, Vermilion	1.80	1.85	1.86	1.73	1.80	1.81	1.93	2.09	1.92	2.00
Tunas	1.98	3.11	2.92	3.02	2.97	3.33	3.35	3.29	3.37	3.53

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	876	83,241	47,264
Private Boat	2,620	278,573	137,012
Shore	700	67,115	33,880
Total Durable Equipment Impacts	21,395	1,868,150	938,640
Total State Trip and Durable Equipment Economic Impacts	25,590	2,297,078	1,156,796

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures
	Non-Residents	Residents	
For-Hire	28,635	25,223	Fishing Tackle 337,076
Private Boat	25,098	187,154	Other Equipment 162,931
Shore	3,455	51,100	Boat Expenses 1,623,196
Total Trip Expenditures	57,188	263,477	Vehicle Expenses 122,308
			Second Home Expenses 161,050
			Total Durable Equipment 2,406,560
Total State Trip and Durable Equipment Expenditures			2,727,225

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	409	552	593	484	727	747	706	868	853	795
Non-Coastal	33	67	67	68	79	133	68	108	124	120
Out of State	91	118	137	117	204	179	138	198	157	170
Total Anglers	533	737	797	669	1,011	1,059	911	1,174	1,134	1,084

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	64	94	118	94	104	139	128	176	141	175
Private Boat	1,979	2,722	2,646	2,251	3,295	3,446	2,639	3,381	3,165	3,416
Shore	579	935	851	674	872	1,209	1,159	934	1,210	950
Total Trips	2,621	3,752	3,615	3,019	4,271	4,795	3,926	4,491	4,516	4,541

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Drum (Atlantic Croaker)	H	369	958	532	281	379	405	528	914	856	373
	R	1,037	2,967	1,157	1,055	1,011	2,011	919	1,411	1,173	1,013
Drum, Black	H	351	679	446	511	485	509	314	389	351	501
	R	401	1,079	828	885	834	904	525	657	682	967
Drum, Red	H	1,763	2,774	2,652	2,042	2,143	2,349	1,554	2,254	2,390	2,559
	R	2,663	3,866	3,380	3,277	3,545	3,103	2,445	3,848	3,360	3,819
Drum (Sand Seatrout)	H	999	1,257	449	599	983	601	773	1,161	1,122	1,177
	R	402	610	205	506	302	419	204	651	578	1,130
Drum (Southern Kingfish)	H	160	153	145	105	159	309	335	153	118	103
	R	110	67	180	23	63	112	286	166	34	141
Drum (Spotted Seatrout)	H	7,025	9,616	7,698	5,270	7,318	8,082	7,317	13,230	9,337	10,811
	R	6,089	6,726	4,007	3,862	7,484	7,794	7,046	10,644	7,401	8,993
Flounder, Southern	H	380	388	258	272	407	475	290	387	356	309
	R	41	71	65	48	115	102	64	80	83	45
Porgies (Sheepshead)	H	322	389	326	607	805	1,174	867	474	309	714
	R	266	384	453	433	520	525	482	507	290	485
Snapper, Red	H	80	98	55	47	71	83	104	201	148	90
	R	198	112	48	40	166	240	308	438	277	254
Tuna, Yellowfin	H	7	3	14	8	14	8	14	11	8	19
	R	1	(1)	1	(1)	(1)	(1)	2	(1)	1	8

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

Louisiana's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	100,667 (1.5%)	1,577,220 (1.5%)	40,802 (1.2%)	70,219 (1.2%)	118,085 (1.4%)	1.84
2007	104,622 (1.4%)	1,646,151 (1.4%)	59,190 (1.2%)	94,817 (1.2%)	207,407 (1.5%)	2.50
% change	3.9%	4.4%	45.1%	35.0%	75.6%	35.8%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	46	39	58	66	73	75	76	99	85
	Receipts	3,050	3,466	2,918	3,006	4,678	10,097	8,513	8,179	6,523
Seafood Sales, retail	Firms	165	172	170	185	208	204	156	181	196
	Receipts	13,847	11,806	12,586	15,201	22,637	18,148	14,585	20,046	20,932

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	56	56	50	50	54	54	50	40	41
	Employees	1,755	1,282	1,141	1,185	1,693	1,519	1,556	1,506	1,253
	Payroll	34,496	45,285	48,331	52,861	56,562	47,016	43,801	45,439	41,391
Seafood sales, wholesale	Establishments	163	162	164	152	134	133	128	112	119
	Employees	1,354	1,187	1,245	1,270	1,001	975	1,037	807	954
	Payroll	19,741	21,717	23,053	22,363	19,539	19,639	17,649	21,243	21,604
Seafood sales, retail	Establishments	89	88	88	123	109	111	106	101	101
	Employees	502	438	518	640	796	745	723	759	781
	Payroll	4,954	5,162	5,636	7,033	9,406	9,567	8,277	10,560	11,827

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	137	131	118	109	160	148	136	137	138
	Employees	6,672	5,925	5,689	5,494	6,779	6,656	5,771	6,397	7,680
	Payroll	238,036	239,195	267,470	236,730	287,415	300,547	294,941	386,136	527,290
Deep sea freight transportation	Establishments	35	34	31	28	25	22	25	24	22
	Employees	900	ND ³	860	647	831	705	ND	595	685
	Payroll	32,851	ND	37,269	29,432	43,634	38,949	ND	35,269	39,843
Deep sea passenger transportation	Establishments	7	9	8	6	4	3	3	2	3
	Employees	ND	ND	ND	66	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	2,748	ND	ND	ND	ND	ND
Marinas	Establishments	78	74	74	57	53	52	53	41	50
	Employees	ND	ND	ND	345	409	ND	352	ND	378
	Payroll	ND	ND	ND	8,724	11,019	ND	10,213	ND	17,794
Marine cargo handling	Establishments	59	59	58	47	47	47	46	51	49
	Employees	3,343	3,183	3,313	3,089	3,784	3,278	3,263	3,100	2,978
	Payroll	94,890	94,375	102,484	114,659	131,274	127,896	110,129	118,748	128,207
Navigational services to shipping	Establishments	155	142	142	148	118	127	120	129	128
	Employees	3,434	3,288	3,614	3,371	2,738	2,472	2,136	2,204	2,508
	Payroll	118,525	120,337	133,061	135,223	112,412	109,008	96,202	115,222	141,757
Port & harbor operations	Establishments	18	18	19	15	13	18	18	18	14
	Employees	1,769	1,413	1,292	1,136	363	ND	418	436	467
	Payroll	48,919	49,875	51,443	47,191	18,331	ND	19,510	29,676	31,734
Ship & boat building	Establishments	117	121	116	113	113	113	111	108	112
	Employees	14,596	14,023	13,643	12,786	12,910	13,206	11,016	11,521	12,808
	Payroll	457,339	434,510	477,137	448,749	452,315	460,606	376,407	437,028	503,199

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Mississippi Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	390,702	197,903	8,575
Commercial Harvesters	85,740	26,443	1,600
Seafood Processors & Dealers	58,575	29,251	1,115
Seafood Wholesalers & Distributors	25,898	12,785	245
Retail Sectors	220,488	129,424	5,615

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	48,609	58,751	50,633	47,565	46,149	43,618	23,386	21,586	39,340	43,696
Finfish & Other	14,036	13,706	14,432	12,627	12,396	10,485	7,804	8,959	21,359	19,233
Shellfish	34,573	45,046	36,201	34,938	33,753	33,133	15,582	12,628	17,981	24,464
Crab, Blue	682	637	391	572	687	658	433	928	741	447
Flounders	164	184	131	63	49	32	20	36	58	40
Menhaden	11,965	11,922	13,252	11,625	11,277	9,564	7,074	8,447	20,658	18,534
Mulletts	366	167	114	22	34	54	38	23	35	32
Oysters	4,457	6,113	4,195	4,456	7,228	6,073	1,447	ND ¹	819	6,869
Shrimp	29,433	38,294	31,614	29,910	25,619	26,353	13,698	11,699	16,418	17,146
Snapper, Red	146	220	106	100	88	71	115	ND ¹	ND ¹	ND ¹

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	267,591	217,764	213,922	217,968	213,469	183,558	167,610	221,720	227,834	201,822
Finfish & Other	249,384	198,559	194,885	197,691	190,733	161,669	158,721	212,213	216,375	190,191
Shellfish	18,207	19,204	19,037	20,277	22,736	21,889	8,889	9,507	11,459	11,631
Crab, Blue	923	840	434	717	877	811	429	1,127	737	450
Flounders	93	110	84	46	31	18	10	16	25	17
Menhaden	239,297	190,168	192,467	195,371	187,956	159,392	157,194	211,163	215,182	189,118
Mulletts	522	256	233	64	94	128	99	66	70	57
Oysters	2,793	3,548	2,653	2,738	4,042	3,029	610	ND ¹	299	2,610
Shrimp	14,490	14,814	15,949	16,822	17,560	17,992	7,848	8,380	10,421	8,570
Snapper, Red	79	103	52	46	43	35	54	ND ¹	ND ¹	ND ¹

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab, Blue	0.74	0.76	0.90	0.80	0.78	0.81	1.01	0.82	1.01	0.99
Flounders	1.75	1.68	1.56	1.35	1.57	1.73	1.88	2.22	2.38	2.36
Menhaden	0.05	0.06	0.07	0.06	0.06	0.06	0.05	0.04	0.10	0.10
Mulletts	0.70	0.65	0.49	0.34	0.36	0.42	0.38	0.35	0.50	0.57
Oysters	1.60	1.72	1.58	1.63	1.79	2.00	2.37	ND ¹	2.74	2.63
Shrimp	2.03	2.58	1.98	1.78	1.46	1.46	1.75	1.40	1.58	2.00
Snapper, Red	1.85	2.15	2.04	2.17	2.06	2.05	2.13	ND ¹	ND ¹	ND ¹

¹ND = these data are confidential thus not disclosable

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	47	4,115	2,319
Private Boat	146	16,898	8,099
Shore	51	4,887	2,436
Total Durable Equipment Impacts	2,686	356,879	135,983
Total State Trip and Durable Equipment Economic Impacts	2,930	382,778	148,837

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	1,895	804	Fishing Tackle	49,373
Private Boat	855	14,022	Other Equipment	12,196
Shore	809	4,238	Boat Expenses	16,201
Total Trip Expenditures	3,559	19,065	Vehicle Expenses	309,614
			Second Home Expenses	0
			Total Durable Equipment Expenditures	387,383
Total State Trip and Durable Equipment Expenditures				410,007

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	76	161	198	175	159	191	108	143	196	119
Non-Coastal	26	30	48	52	53	26	29	23	34	26
Out of State	75	57	82	49	48	46	39	27	55	48
Total Anglers	177	248	327	276	261	263	176	193	284	194

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	40	27	18	21	24	12	8	7	20	13
Private Boat	427	568	676	542	748	592	463	666	848	593
Shore	339	498	556	475	405	485	419	325	366	363
Total Trips	806	1,093	1,250	1,038	1,177	1,089	891	998	1,233	969

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)¹

Species		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Drum (Atlantic Croaker)	H	209	192	238	206	197	215	30	53	80	167
	R	398	540	818	937	701	351	158	233	274	395
Drum (Kingfishes) ²	H	537	497	490	278	327	316	198	178	169	179
	R	70	27	154	118	61	87	83	47	61	58
Drum, Red	H	56	56	60	60	50	59	33	70	54	63
	R	73	77	132	117	186	130	77	102	77	142
Drum (Sand & Silver Seatrout)	H	1,380	1,053	1,150	866	666	404	267	422	280	370
	R	241	197	288	111	330	109	149	221	254	173
Drum (Spotted Seatrout)	H	378	217	308	372	276	447	352	520	361	539
	R	378	409	638	559	832	745	783	1,046	786	692
Flounder, Southern	H	132	93	275	142	119	103	69	44	118	116
	R	18	20	51	48	67	46	40	26	35	68
Mullet, Striped ³	H	154	232	383	212	550	241	31	5	71	111
	R	9	9	516	12	65	1	(1)	4	22	4
Porgies (Sheepshead)	H	29	43	95	69	77	47	30	30	25	16
	R	19	11	127	62	27	24	22	21	11	18
Sharks ⁴	H	5	26	24	13	10	7	7	4	5	3
	R	26	163	65	118	59	46	39	44	41	27
Snapper, Red	H	30	9	21	43	39	16	1	5	7	5
	R	36	40	61	166	90	79	47	32	24	45

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

²Kingfishes include southern kingfish and Gulf kingfish.

³This species may not be equivalent to species with similar names listed in the commercial tables

⁴Sharks include species within the requiem shark family, blacktip sharks, Atlantic sharpnose sharks, and unidentified sharks. Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

Mississippi's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	59,771 (0.9%)	937,023 (0.9%)	21,067 (0.6%)	38,081 (0.6%)	60,513 (0.7%)	1.69
2007	61,874 (0.8%)	941,328 (0.8%)	28,572 (0.6%)	49,709 (0.6%)	87,652 (0.6%)	1.96 (2005)
% change	3.5%	0.5%	35.6%	30.5%	44.8%	15.9%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	NA	10	13	15	23	18	12	22	NA ³
	Receipts	ND ⁴	1,300	1,186	915	1,561	1,056	1,045	1,537	ND
Seafood Sales, retail	Firms	41	52	0	51	51	47	41	53	57
	Receipts	2,394	1,665	ND	2,486	2,984	3,595	2,934	4,021	4,126

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	37	37	33	34	37	33	28	24	22
	Employees	4,335	4,339	4,053	3,675	4,438	3,728	3,637	3,353	3,022
	Payroll	69,197	73,350	65,237	70,792	80,229	66,047	63,957	60,510	60,633
Seafood sales, wholesale	Establishments	32	30	28	29	26	29	30	23	25
	Employees	223	232	226	226	176	166	145	58	106
	Payroll	3,805	3,716	4,056	3,791	3,067	3,631	1,822	2,063	3,285
Seafood sales, retail	Establishments	18	12	17	28	19	17	21	12	15
	Employees	ND	ND	45	ND	47	55	57	41	ND
	Payroll	ND	ND	356	ND	468	532	521	395	ND

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	6	5	5	5	5	6	5	5	4
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	7,585
Deep sea freight transportation	Establishments	1	2	1	1	2	2	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	NA	NA	NA	1	1	1	1	1
	Employees	NA	NA	NA	NA	ND	ND	ND	ND	ND
	Payroll	NA	NA	NA	NA	ND	ND	ND	ND	ND
Marinas	Establishments	17	14	17	18	22	22	25	16	19
	Employees	ND	ND	ND	86	141	220	158	ND	ND
	Payroll	ND	ND	ND	1,388	2,532	2,603	2,358	ND	2,145
Marine cargo handling	Establishments	10	9	9	7	4	5	6	5	5
	Employees	ND	300	315	251	ND	ND	ND	238	ND
	Payroll	ND	9,261	10,478	9,284	ND	ND	ND	8,621	ND
Navigational services to shipping	Establishments	10	8	8	8	10	9	8	8	9
	Employees	ND	61	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	2,360	ND	ND	ND	ND	ND	ND	1,754
Port & harbor operations	Establishments	2	1	1	1	1	2	2	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	23	24	24	26	21	19	17	20	23
	Employees	14,059	12,358	11,531	11,663	ND	ND	11,845	11,909	14,578
	Payroll	461,139	462,533	465,845	473,191	ND	ND	471,243	498,660	615,837

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³NA = Data are not available.

⁴ND = Data are suppressed due to confidentiality restrictions.

2008 Economic Impacts of the Texas Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	2,013,272	994,140	42,541
Commercial Harvesters	253,790	93,210	2,726
Seafood Processors & Dealers	288,053	84,918	2,366
Seafood Wholesalers & Distributors	148,901	71,028	1,293
Retail Sectors	1,322,527	744,984	36,155

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	221,440	293,609	218,019	173,340	168,317	166,208	172,337	197,291	180,575	176,098
Finfish & Other	9,536	9,110	7,637	9,600	9,041	10,684	10,813	11,359	9,452	7,709
Shellfish	211,905	284,499	210,382	163,741	159,276	155,524	161,523	185,932	171,123	168,389
Crab, Blue	4,295	3,301	3,905	4,523	3,157	2,663	2,410	1,459	2,763	2,342
Croacker, Atlantic	306	315	385	451	489	382	415	500	450	446
Drum, Black	2,743	2,350	1,703	1,820	1,365	1,444	1,917	2,013	1,660	1,363
Flounders	603	322	249	371	336	325	276	164	62	144
Groupers	480	374	405	664	1,028	785	795	628	417	553
Oysters	13,820	13,847	11,146	11,276	16,493	14,954	15,883	17,263	19,246	8,835
Shrimp	193,621	267,112	195,006	147,701	139,485	137,674	143,045	167,108	149,084	157,187
Snapper, Red	2,680	2,786	2,945	3,363	3,757	5,193	5,345	6,168	3,762	2,744
Snapper, Vermilion	598	498	456	386	349	611	571	642	1,554	1,430
Tunas	1,081	1,331	617	1,190	720	ND ¹	340	ND ¹	ND ¹	ND ¹

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	92,923	110,518	97,393	93,059	96,122	85,557	84,289	117,131	87,912	73,048
Finfish & Other	6,460	6,153	5,132	6,066	5,240	5,852	5,782	5,825	4,800	3,866
Shellfish	86,463	104,365	92,261	86,993	90,883	79,705	78,507	111,306	83,111	69,182
Crab, Blue	6,472	4,653	5,163	7,037	4,811	3,961	3,119	1,966	3,454	2,635
Croacker, Atlantic	52	52	62	70	75	60	58	67	62	59
Drum, Black	2,838	2,837	2,320	2,331	1,677	1,717	2,077	2,212	1,687	1,468
Flounders	288	160	121	173	159	151	144	68	24	58
Groupers	237	182	187	274	416	329	303	220	141	170
Oysters	6,411	6,188	4,700	4,708	6,813	5,569	5,007	4,923	5,633	2,679
Shrimp	73,483	93,420	82,290	75,158	79,166	70,098	70,310	104,378	74,007	63,855
Snapper, Red	1,306	1,300	1,384	1,478	1,607	2,133	1,940	2,158	1,213	870
Snapper, Vermilion	316	251	242	217	192	322	279	273	672	592
Tunas	473	446	209	430	275	ND ¹	112	ND ¹	ND ¹	ND ¹

Average Annual Price for Key Species / Species Groups (price per pound)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crab, Blue	0.66	0.71	0.76	0.64	0.66	0.67	0.77	0.74	0.80	0.89
Croacker, Atlantic	5.90	6.09	6.21	6.46	6.49	6.35	7.14	7.43	7.29	7.58
Drum, Black	0.97	0.83	0.73	0.78	0.81	0.84	0.92	0.91	0.98	0.93
Flounders	2.10	2.02	2.06	2.14	2.12	2.15	1.92	2.42	2.55	2.48
Groupers	2.02	2.06	2.17	2.43	2.47	2.39	2.62	2.85	2.96	3.25
Oysters	2.16	2.24	2.37	2.40	2.42	2.69	3.17	3.51	3.42	3.30
Shrimp	2.63	2.86	2.37	1.97	1.76	1.96	2.03	1.60	2.01	2.46
Snapper, Red	2.05	2.14	2.13	2.27	2.34	2.43	2.76	2.86	3.10	3.15
Snapper, Vermilion	1.89	1.98	1.89	1.78	1.82	1.90	2.05	2.35	2.31	2.42
Tunas	2.29	2.98	2.95	2.76	2.62	ND ¹	3.04	ND ¹	ND ¹	ND ¹

¹ND = these data are confidential thus not disclosable.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)¹

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	616	56,617	31,559
Private Boat	1,329	152,711	81,607
Shore	291	31,847	17,195
Total Durable Equipment Impacts	23,307	3,046,959	1,526,184
Total State Trip and Durable Equipment Economic Impacts	25,544	3,288,135	1,656,545

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars) ¹

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	389	33,230	Fishing Tackle	168,114
Private Boat	4,785	98,061	Other Equipment	88,182
Shore	2,664	19,373	Boat Expenses	909,992
Total Trip Expenditures	7,839	150,663	Vehicle Expenses	234,707
			Second Home Expenses	1,035,217
			Total Durable Equipment Expenditures	2,436,212
Total State Trip and Durable Equipment Expenditures				2,594,714

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)²

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Drum (Atlantic Croaker)	H	115	170	218	108	96	94	97	96	95	64
Drum, Black	H	48	101	135	64	78	60	56	76	66	82
Drum, Red	H	250	245	211	179	232	214	213	266	289	267
Drum (Sand Seatrout)	H	155	199	58	129	92	133	124	83	95	152
Drum (Spotted Seatrout)	H	1,275	992	983	845	799	763	842	1,017	916	920
Flounder, Southern	H	129	61	61	65	81	81	53	46	49	64
Mackerel, King	H	37	32	17	23	24	27	20	43	11	8
Porgies (Sheepshead)	H	56	37	30	51	41	35	46	33	46	46
Snapper, Red	H	53	57	62	77	52	53	68	86	45	39

¹The Marine Recreational Information Program (MRIP) does not collect participation (number of anglers) or effort (number of trips) data for Texas. To calculate trip and durable equipment expenditures and impacts, effort and participation was estimated based on 2008 data provided by the Texas Parks and Wildlife Department (TPWD). Participation (number of anglers) and effort (number of trips) information were not available for this report.

²Data collected by the TPWD are reported in this table. The data collected by the TPWD differ from the data collected and reported in the MRIP. Please see the TPWD website for more information: <http://www.tpwd.state.tx.us/fishboat/>. A change in the method of reporting landings occurred in 2007 so data from 2007 and 2008 are not comparable to earlier years.

Texas' State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ¹	Gross State Product (\$ millions)	Commercial Location Quotient ²
1998	462,875 (6.7%)	7,570,820 (7.0%)	229,186 (6.9%)	424,133 (7.2%)	629,209 (7.2%)	0.6
2007	521,408 (6.8%)	9,041,030 (7.5%)	373,037 (7.4%)	588,839 (7.6%)	1,148,531 (8.4%)	0.32
% change	12.6%	19.4%	62.8%	38.8%	82.5%	-46.6%

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

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	86	85	108	104	99	100	108	109	94
	Receipts	5,008	5,596	5,575	3,901	5,234	1,989	2,228	2,974	5,386
Seafood Sales, retail	Firms	172	165	159	152	170	159	159	141	182
	Receipts	14,023	14,386	13,079	13,516	16,636	19,131	19,534	18,355	17,442

Seafood Sales & Processing – Employer Establishment (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	26	31	29	27	23	24	23	21	26
	Employees	1,165	1,305	1,506	1,453	1,274	1,177	1,288	1,155	1,207
	Payroll	19,037	24,374	24,507	25,772	25,426	24,394	23,842	24,302	27,813
Seafood sales, wholesale	Establishments	112	113	129	115	99	103	97	92	104
	Employees	1,155	1,187	1,102	999	1,057	1,009	1,001	897	970
	Payroll	32,576	32,857	33,552	29,430	27,016	27,730	26,408	28,586	51,597
Seafood sales, retail	Establishments	56	60	63	73	67	60	59	58	62
	Employees	258	271	295	287	227	219	176	207	189
	Payroll	5,132	4,863	3,908	3,748	2,985	2,993	3,162	3,229	3,703

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	33	32	37	39	43	43	61	45	43
	Employees	ND ³	846	1,071	866	2,705	2,565	ND	2,270	2,513
	Payroll	ND	43,979	49,992	42,377	88,033	91,995	ND	107,328	131,946
Deep sea freight transportation	Establishments	54	44	43	45	48	41	43	40	41
	Employees	ND	1,759	1,130	1,287	ND	891	ND	751	920
	Payroll	ND	58,832	61,830	70,194	ND	38,553	ND	41,969	49,761
Deep sea passenger transportation	Establishments	1	2	1	5	5	3	4	3	4
	Employees	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Payroll	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marinas	Establishments	194	186	185	179	170	165	166	150	141
	Employees	1,198	1,221	1,107	1,255	1,410	ND	ND	ND	1,200
	Payroll	26,044	26,051	29,083	28,471	31,197	ND	ND	ND	28,359
Marine cargo handling	Establishments	60	51	54	56	59	60	60	64	62
	Employees	4,227	5,047	4,725	4,549	5,091	4,539	5,200	5,349	6,237
	Payroll	75,033	99,615	100,101	113,894	108,142	138,630	151,522	161,386	186,416
Navigational services to shipping	Establishments	103	99	96	95	92	92	87	84	90
	Employees	ND	969	1,129	1,082	1,099	1,213	1,064	1,373	1,709
	Payroll	ND	47,475	55,549	49,825	60,714	68,741	75,914	98,244	125,061
Port & harbor operations	Establishments	10	10	11	13	16	15	15	16	15
	Employees	ND	141	ND	ND	ND	215	ND	112	98
	Payroll	ND	6,875	ND	ND	ND	7,128	ND	4,992	5,163
Ship & boat building	Establishments	115	125	122	110	107	103	99	90	96
	Employees	3,686	3,402	3,599	3,360	4,062	4,204	3,564	3,515	4,810
	Payroll	110,317	117,071	135,405	137,129	156,565	163,800	156,259	170,308	210,275

¹Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

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

³NA = Data are not available.

2008 Economic Impacts of the Florida Seafood Industry (thousands of dollars)¹

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	5,657,246	3,108,084	108,695
Commercial Harvesters	171,385	74,051	2,978
Seafood Processors & Dealers	423,923	203,592	3,955
Seafood Wholesalers & Distributors	1,272,539	631,370	11,736
Retail Sectors	3,789,399	2,199,072	90,025

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

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Revenue	165,864	159,635	146,558	144,185	141,185	148,058	137,912	145,494	131,965	122,109
Finfish & Other	50,748	48,344	52,707	51,609	51,451	52,331	50,600	50,358	45,696	50,546
Shellfish	115,116	111,291	93,851	92,576	89,734	95,727	87,312	95,136	86,269	71,562
Clams, Quahog	6,816	5,225	4,740	3,606	3,870	2,074	1,736	807	914	904
Crab, Blue	7,863	6,154	4,855	5,644	7,061	7,316	7,035	7,043	5,819	3,275
Crab, Stone	23,914	28,353	20,136	22,874	22,913	26,507	21,074	24,029	26,161	18,809
Gag	4,837	5,521	8,050	7,380	6,855	7,615	7,084	4,151	4,348	4,884
Grouper, Red	13,286	13,324	13,519	12,859	11,695	13,281	13,376	14,384	11,023	13,455
Lobsters	29,758	25,362	14,847	18,932	17,138	20,724	15,077	24,885	24,546	19,167
Mulletts	6,727	5,121	6,126	6,059	4,755	4,891	4,355	6,021	3,559	4,063
Oyster	3,595	3,873	3,855	3,125	2,932	2,884	2,854	5,415	6,631	5,336
Shrimp	39,875	40,660	44,021	37,252	34,893	34,737	38,625	32,225	20,976	23,259
Snapper, Red	978	1,303	1,509	2,188	2,284	2,168	1,671	1,991	3,066	2,945

Total Landings and Landings of Key Species / Species Groups (thousands of pounds)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total Landings	91,765	77,342	80,336	82,075	79,163	83,894	73,038	70,766	59,067	59,402
Finfish & Other	44,504	39,296	44,498	43,586	41,697	41,134	36,543	35,887	29,962	34,675
Shellfish	47,261	38,046	35,838	38,489	37,466	42,760	36,496	34,879	29,105	24,727
Clams, Quahog	755	549	509	480	558	266	212	96	116	128
Crab, Blue	11,169	6,573	4,647	5,567	7,225	8,083	7,370	8,610	6,115	2,648
Crab, Stone	5,606	6,747	6,594	6,385	5,253	5,933	4,502	4,784	5,846	6,080
Gag	2,039	2,234	3,281	3,136	2,691	3,054	2,688	1,436	1,339	1,470
Grouper, Red	7,085	6,916	7,031	6,987	5,841	6,789	6,386	6,062	4,351	5,576
Lobsters	6,880	5,184	2,966	4,080	3,886	4,565	3,059	4,372	3,405	2,980
Mulletts	8,434	7,493	8,989	8,020	6,577	6,660	5,635	7,308	5,437	6,764
Oyster	2,307	2,520	2,559	1,944	1,753	1,644	1,417	2,394	2,959	2,439
Shrimp	16,097	14,906	17,471	19,128	18,131	18,258	19,297	14,176	8,628	9,934
Snapper, Red	469	563	652	948	928	811	584	649	919	848

Average Annual Price for Key Species / Species Groups (price per pound)²

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Clams, Quahog	9.02	9.52	9.31	7.51	6.93	7.79	8.17	8.44	7.90	7.07
Crab, Blue	0.70	0.94	1.04	1.01	0.98	0.91	0.95	0.82	0.95	1.24
Crab, Stone	4.27	4.20	3.05	3.58	4.36	4.47	4.68	5.02	4.47	3.09
Gag	2.37	2.47	2.45	2.35	2.55	2.49	2.64	2.89	3.25	3.32
Grouper, Red	1.88	1.93	1.92	1.84	2.00	1.96	2.09	2.37	2.53	2.41
Lobsters	4.33	4.89	5.01	4.64	4.41	4.54	4.93	5.69	7.21	6.43
Mulletts	0.80	0.68	0.68	0.76	0.72	0.73	0.77	0.82	0.65	0.60
Oyster	1.56	1.54	1.51	1.61	1.67	1.75	2.02	2.26	2.24	2.19
Shrimp	2.48	2.73	2.52	1.95	1.92	1.90	2.00	2.27	2.43	2.34
Snapper, Red	2.08	2.32	2.31	2.31	2.46	2.67	2.86	3.07	3.34	3.47

¹Information reported in this table is for the state of Florida, not West Florida.

²Information reported in this table is for West Florida.

2008 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
For-Hire	1,921	186,977	110,858
Private Boat	4,359	436,607	259,623
Shore	4,827	455,138	264,420
Total Durable Equipment Impacts	43,481	4,571,347	2,440,809
Total State Trip and Durable Equipment Economic Impacts	54,589	5,650,068	3,075,710

2008 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents		
For-Hire	93,195	22,531	Fishing Tackle	1,094,181
Private Boat	118,238	270,667	Other Equipment	367,250
Shore	252,223	76,965	Boat Expenses	3,054,679
Total Trip Expenditures	463,656	370,163	Vehicle Expenses	832,892
			Second Home Expenses	149,465
			Total Durable Equipment Expenditures	5,498,468
Total State Trip and Durable Equipment Expenditures				6,332,287

Recreational Anglers by Residential Area (thousands of anglers)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Coastal	1,218	1,683	1,894	1,703	1,965	2,023	2,088	2,084	1,934	1,820
Non-Coastal	NA ¹									
Out of State	1,708	2,387	2,552	1,990	2,318	2,141	2,008	1,988	2,151	2,029
Total Anglers	2,926	4,071	4,447	3,693	4,283	4,165	4,096	4,072	4,085	3,849

Recreational Fishing Effort by Mode (thousands of trips)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
For-Hire	694	628	543	581	496	590	522	560	641	595
Private Boat	6,079	7,893	8,225	8,235	9,222	9,161	8,720	8,932	9,415	9,617
Shore	4,524	6,566	7,621	5,602	6,291	6,680	6,246	6,738	6,343	6,716
Total Trips	11,297	15,086	16,389	14,418	16,009	16,431	15,489	16,230	16,399	16,928

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)

Species/Groups		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Drum, Red	H	229	377	266	292	365	323	459	378	430	472
	R	1,161	1,453	1,462	1,376	1,938	2,160	2,637	2,898	2,493	2,330
Drum (Sand & Silver Seatrouts)	H	1,961	1,841	1,047	1,354	751	571	372	412	867	739
	R	824	604	389	321	146	190	105	297	450	597
Drum (Spotted Seatrout)	H	1,497	1,610	1,080	1,532	1,629	1,841	1,964	1,506	1,569	1,532
	R	9,451	9,377	6,201	10,710	10,470	9,601	11,507	8,733	10,432	9,046
Gag	H	504	671	453	490	470	614	458	262	299	419
	R	1,437	1,416	1,905	2,449	3,359	3,530	2,377	1,793	2,923	4,270
Mackerel, King	H	285	213	212	262	196	189	175	368	252	195
	R	64	81	249	139	96	108	134	463	79	141
Mackerel, Spanish	H	1,197	1,346	2,122	1,810	1,317	1,687	985	1,754	1,582	1,705
	R	1,088	1,218	1,705	1,865	2,084	1,913	1,275	2,879	2,058	2,204
Mullet ²	H	1,210	1,109	1,436	1,010	840	1,112	1,017	1,241	729	1,002
	R	119	166	342	93	187	282	260	139	214	240
Porgies (Sheepshead)	H	884	725	745	686	761	871	798	732	709	743
	R	1,129	1,272	961	1,125	1,370	1,547	1,390	938	740	813
Snapper, Gray	H	552	682	805	655	980	881	838	654	890	1,397
	R	2,221	3,223	2,562	2,998	4,808	3,429	4,751	2,646	4,360	6,017
Snook, Common	H	57	42	36	50	45	69	65	38	30	22
	R	679	1,302	1,290	1,292	1,359	2,039	2,283	1,575	1,574	1,665

¹All Florida residents are considered coastal county residents thus this category is not applicable (NA).

²Mulletts include species within the mullet genus including striped mullets.

West Florida's State Economy (% of national total)¹

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions) ²	Gross State Product (\$ millions)	Commercial Location Quotient ³
1998	420,638 (6.1%)	5,756,353 (5.3%)	149,937 (4.5%)	286,753 (4.8%)	417,169 (4.8%)	1.36 (2001)
2007	523,461 (6.8%)	7,425,331 (6.2%)	267,524 (5.3%)	407,430 (5.2%)	741,861 (5.4%)	0.99
% change	24.4%	29.0%	78.4%	42.0%	77.8%	-27.2%

Seafood Sales & Processing - Nonemployer Firms (thousands of dollars)¹

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Firms	65	102	104	116	142	177	164	174	173
	Receipts	7,153	8,330	6,350	5,064	8,047	8,652	8,756	10,184	10,497
Seafood Sales, retail	Firms	221	219	212	243	240	247	247	251	319
	Receipts	20,274	18,978	17,935	20,837	18,064	18,004	22,787	20,708	27,557

Seafood Sales & Processing – Employer Establishment (thousands of dollars)¹

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Seafood product preparation & packaging	Establishments	43	41	43	33	27	24	25	22	20
	Employees	2,336	2,188	2,033	2,359	2,084	2,193	1,616	1,704	1,748
	Payroll	52,842	58,821	58,977	65,914	61,452	65,881	47,529	62,801	58,233
Seafood sales, wholesale	Establishments	349	329	323	314	293	261	258	259	267
	Employees	2,733	2,915	2,670	2,395	1,835	1,948	1,883	2,091	2,308
	Payroll	69,139	76,363	76,717	78,160	55,874	63,276	65,339	73,897	85,019
Seafood sales, retail	Establishments	133	135	159	190	174	190	176	173	169
	Employees	869	575	697	908	952	977	970	936	989
	Payroll	20,664	10,359	13,403	17,186	15,673	17,575	19,192	19,513	20,595

Transport, Support, & Marine Operations – Employer Establishments (thousands of dollars)¹

		1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal & Great Lakes freight transportation	Establishments	55	54	58	51	66	59	59	54	47
	Employees	3,404	2,391	3,208	2,856	ND ⁴	1,132	1,150	1,217	1,242
	Payroll	190,731	108,638	150,964	143,185	ND	80,422	71,420	91,638	94,429
Deep sea freight transportation	Establishments	69	58	51	62	61	63	69	73	69
	Employees	3,622	2,209	2,123	1,858	2,535	2,567	2,622	3,729	3,190
	Payroll	119,744	99,384	106,848	107,564	131,904	150,701	207,300	226,810	208,144
Deep sea passenger transportation	Establishments	31	30	30	31	36	32	31	37	34
	Employees	7,846	9,165	8,719	7,863	8,879	8,849	8,492	9,077	ND
	Payroll	306,202	349,974	394,932	315,551	428,941	536,753	504,625	571,590	ND
Marinas	Establishments	484	476	509	481	528	532	551	513	493
	Employees	3,750	3,799	3,876	3,449	5,079	5,067	5,069	5,494	4,935
	Payroll	82,790	88,436	88,274	90,662	111,324	125,763	133,384	146,390	148,592
Marine cargo handling	Establishments	67	65	71	74	68	66	63	66	53
	Employees	4,209	4,549	4,863	4,405	5,651	5,671	6,409	7,266	6,585
	Payroll	96,650	92,843	124,760	109,555	171,481	175,257	177,983	189,020	173,788
Navigational services to shipping	Establishments	142	142	133	141	140	149	148	142	145
	Employees	749	866	755	714	817	686	660	781	1,484
	Payroll	35,977	36,730	35,854	34,040	39,524	39,309	42,200	48,370	61,470
Port & harbor operations	Establishments	18	22	25	29	26	29	31	27	29
	Employees	556	914	1,355	1,180	592	1,045	973	584	459
	Payroll	17,401	19,082	25,246	26,928	19,071	24,327	22,606	19,417	12,872
Ship & boat building	Establishments	301	300	313	291	290	306	312	301	296
	Employees	13,755	14,773	13,182	11,407	11,830	12,503	12,729	12,385	12,332
	Payroll	391,289	447,253	405,856	379,828	393,985	443,379	454,209	427,888	469,382

¹Information reported in this table is for the entire state of Florida, not West Florida.

²Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

³The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.

⁴ND = Data are suppressed due to confidentiality restrictions.

Tug Boat, New Orleans, LA (photo credit: S. Walker)

Data Sources



Data Sources

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Cabrillo Pier, San Pedro, CA (photo credit: S. Lovell)

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Selected publications by NOAA Fisheries Economics & Social Sciences Program staff are grouped by geographic region of focus then organized under the following categories:

Commercial Fisheries Economics Research
Seafood, Marketing & Trade Research
U.S. Territories & International Fisheries Research
Recreational Fisheries Economics Research
Coastal & Marine Recreation Research
Sociocultural Research

Habitat Economics Research
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Recreational Fisheries Economics Research

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Mid-Atlantic

Commercial Fisheries Economics Research

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Oyster Haul, Cape Cod, MA (photo credit: S. Walker)

Resources



Resources

U.S.

Federal Agencies

Economics & Social Analysis Division
Office of Science & Technology, NOAA Fisheries
<http://www.st.nmfs.gov/st5/index.html>

Office of Science & Technology, NOAA Fisheries
<http://www.st.nmfs.gov/index.html>

Marine Recreational Information Program
<http://www.st.nmfs.noaa.gov/mrip/index.html>

Office of International Affairs, NOAA Fisheries
<http://www.nmfs.noaa.gov/ia/index.htm>

Office of Marine Conservation
U.S. Department of State
<http://www.state.gov/q/oes/ocns/>

North Pacific

Federal Agencies

Economic & Social Sciences Research
Alaska Fisheries Science Center, NOAA Fisheries
<http://www.afsc.noaa.gov/REFM/Socioeconomics/Default.php>

Alaska Fisheries Science Center, NOAA Fisheries
<http://www.afsc.noaa.gov/>

Alaska Regional Office, NOAA Fisheries
<http://www.fakr.noaa.gov/>

Alaska Region, U.S. Fish & Wildlife Service
<http://alaska.fws.gov/>

District 17, U.S. Coast Guard
<http://www.uscg.mil/D17/>

State Agencies

Alaska Department of Fish & Game
<http://www.adfg.state.ak.us/>

Councils & Commissions

North Pacific Fishery Management Council
<http://www.fakr.noaa.gov/npfmc/>

Pacific States Marine Fisheries Commission
<http://www.psmfc.org/index.php>

Fisheries Economics Data Program
Pacific States Marine Fisheries Commission
<http://www.psmfc.org/efin/>

International Pacific Halibut Commission
<http://www.iphc.washington.edu/halcom/default.htm>

Pacific

Federal Agencies

Human Dimensions Program
Northwest Fisheries Science Center, NOAA Fisheries
<http://www.nwfsc.noaa.gov/research/divisions/cbd/humandim.cfm>

Economics, Groundfish Analysis Program
Northwest Fisheries Science Center, NOAA Fisheries
<http://www.nwfsc.noaa.gov/research/divisions/fram/economics.cfm>

Northwest Fisheries Science Center, NOAA Fisheries
<http://www.nwfsc.noaa.gov/>

Northwest Regional Office, NOAA Fisheries
<http://www.nwr.noaa.gov/>

Socioeconomics Research
Southwest Fisheries Science Center, NOAA Fisheries
<http://swfsc.noaa.gov/textblock.aspx?id=1038&ParentMenuId=109>

Southwest Fisheries Science Center
<http://swfsc.noaa.gov/>

Southwest Regional Office
<http://swr.nmfs.noaa.gov/>

Pacific Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/pacific/>

California & Nevada, U.S. Fish & Wildlife Service
<http://www.fws.gov/cno/>

District 13, U.S. Coast Guard
<http://www.uscg.mil/D13/>

State Agencies

California Department of Fish & Game
<http://www.dfg.ca.gov/>

Oregon Department of Fish & Wildlife
<http://www.dfw.state.or.us/>

Washington Department of Fish & Wildlife
<http://wdfw.wa.gov/>

Councils & Commissions

Pacific Fishery Management Council
<http://www.pcouncil.org/>

Pacific States Marine Fisheries Commission
<http://www.psmfc.org/index.php>

Fisheries Economics Data Program
Pacific States Marine Fisheries Commission
<http://www.psmfc.org/efin/>

International Pacific Halibut Commission
<http://www.iphc.washington.edu/halcom/default.htm>

Resources

Western Pacific

Federal Agencies

Fisheries Monitoring & Socioeconomics Division
Pacific Islands Fisheries Science Center,
NOAA Fisheries
<http://www.pifsc.noaa.gov/fmsd/>

Pacific Islands Fisheries Science Center,
NOAA Fisheries
<http://www.pifsc.noaa.gov/index.php>

Pacific Islands Regional Office, NOAA Fisheries
<http://www.fpir.noaa.gov/>

Pacific Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/pacific/>

District 14, U.S. Coast Guard
<http://www.uscg.mil/d14/>

State Agencies

Hawaii Department of Land & Natural Resources
<http://www.hawaii.gov/dlnr/>

Guam Office of the Governor
<http://www.guamgovernor.net/>

Department of Marine & Wildlife Resources
American Samoa Office of the Governor
<http://americansamoa.gov/departments/depts/mwr.htm>

Division of Fish & Wildlife
Commonwealth of the Northern Mariana Islands
<http://www.dfw.gov.mp/>

Councils & Commissions

Western Pacific Fishery Management Council
<http://www.wpcouncil.org/>

New England

Federal Agencies

Social Sciences Branch
Northeast Fisheries Science Center, NOAA Fisheries
<http://www.nefsc.noaa.gov/read/socialsci/>

Northeast Fisheries Science Center, NOAA Fisheries
<http://www.nefsc.noaa.gov/>

Northeast Regional Office, NOAA Fisheries
<http://www.nero.noaa.gov/nero/>

Northeast Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/northeast/>

District 1, U.S. Coast Guard
<http://www.uscg.mil/D1/>

State Agencies

Maine Department of Marine Resources
<http://www.maine.gov/dmr/index.htm>

Rhode Island Department of Environmental Management
<http://www.dem.ri.gov/>

Massachusetts Division of Marine Fisheries
<http://www.mass.gov/dfwele/dmf/>

Connecticut Department of Environmental Protection
<http://www.ct.gov/dep/site/default.asp>

New Hampshire Fish & Game Department
<http://www.wildlife.state.nh.us/>

Councils & Commissions

New England Fishery Management Council
<http://www.nefmc.org/>

Atlantic States Marine Fisheries Commission
<http://www.asmfmc.org/>

Mid-Atlantic

Federal Agencies

Social Sciences Branch
Northeast Fisheries Science Center, NOAA Fisheries
<http://www.nefsc.noaa.gov/read/socialsci/>

Northeast Fisheries Science Center, NOAA Fisheries
<http://www.nefsc.noaa.gov/>

Northeast Regional Office, NOAA Fisheries
<http://www.nero.noaa.gov/nero/>

Northeast Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/northeast/>

District 5, U.S. Coast Guard
<http://www.uscg.mil/D5/>

State Agencies

Bureau of Marine Resources
New York Department of Environmental Conservation
<http://www.dec.ny.gov/about/796.html>

New Jersey Division of Fish & Wildlife
<http://www.state.nj.us/dep/fqw/>

Pennsylvania Fish & Boat Commission
<http://fishandboat.com/mpag1.htm>

Delaware Division of Fish & Wildlife
<http://www.fw.delaware.gov/>

Fisheries Service
Maryland Department of Natural Resources
<http://www.dnr.state.md.us/fisheries/>

Resources

Virginia Marine Resources Commission
<http://www.mrc.state.va.us/>

Division of Marine Fisheries
North Carolina Department of Environment & Natural Resources
<http://www.ncfisheries.net/>

Councils & Commissions

Mid-Atlantic Fishery Management Council
<http://www.mafmc.org/>

Atlantic States Marine Fisheries Commission
<http://www.asmfmc.org/>

South Atlantic

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
<http://www.sefsc.noaa.gov/>

Southeast Regional Office, NOAA Fisheries
<http://sero.nmfs.noaa.gov/>

Southeast Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/southeast/>

Southwest Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/southwest/>

District 7, U.S. Coast Guard
<http://www.uscg.mil/D7/>

State Agencies

North Carolina Division of Marine Fisheries
<http://www.ncfisheries.net/>

Marine Resources Division,
South Carolina Department of Natural Resources
<http://www.dnr.sc.gov/>

Coastal Resources Division
Georgia Department of Natural Resources
<http://crd.dnr.state.ga.us/>

Florida Fish & Wildlife Conservation Commission
<http://myfwc.com/>

Councils & Commissions

South Atlantic Fishery Management Council
<http://www.safmc.net/>

Atlantic States Marine Fisheries Commission
<http://www.asmfmc.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
<http://www.sefsc.noaa.gov/>

Southeast Regional Office, NOAA Fisheries
<http://sero.nmfs.noaa.gov/>

Southeast Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/southeast/>

Southwest Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/southwest/>

District 8, U.S. Coast Guard
<http://www.uscg.mil/D8/>

State Agencies

Division of Marine Fisheries
Florida Fish & Wildlife Conservation Commission
http://myfwc.com/RECREATION/Saltwater_index.htm

Marine Resources Division
Alabama Department of Conservation & Natural Resources
<http://www.outdooralabama.com/>

Mississippi Department of Marine Resources
<http://www.dmr.state.ms.us/>

Louisiana Department of Wildlife & Fisheries
<http://www.wlf.state.la.us/>

Texas Parks & Wildlife Department
<http://www.tpwd.state.tx.us/>

Councils & Commissions

Gulf of Mexico Fishery Management Council
<http://www.gulfcouncil.org/>

Gulf States Marine Fisheries Commission
<http://www.gsmfc.org/>

International Organizations

Pacific Salmon Commission
<http://www.psc.org>

North Atlantic Salmon Conservation Organization
<http://www.nasco.int/>

International Pacific Halibut Commission
<http://www.iphc.washington.edu/halcom/default.htm>

InterAmerican Tropical Tuna Commission
<http://www.iattc.org/HomeENG.htm>

Resources

Western & Central Pacific Fisheries Commission
<http://www.wcpfc.int/>

International Commission for the Conservation of Atlantic Tunas
<http://www.iccat.int/en/>

Commission for the Conservation of Antarctic Marine Living Resources
<http://www.ccamlr.org/>

International Maritime Organization
<http://www.imo.org/>

Red List of Threatened Species
<http://www.iucnredlist.org/>

Professional Organizations

North American Association of Fisheries Economists
<http://oregonstate.edu/Dept/IIFET/NAAFE/Home.html>

International Institute of Fisheries Economics & Trade
<http://oregonstate.edu/dept/iifet/>

Other Organizations & Information

The Center for Independent Experts
<http://www.ciereviews.org/>

Organisation for Economic Co-operation & Development
<http://www.oecd.org/home/>

FishWatch – U.S. Seafood Facts
<http://www.nmfs.noaa.gov/fishwatch/>

Marine Stewardship Council
<http://www.msc.org/>

Galilee, RI (photo credit: S. Walker)

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Angler¹

A person catching fish or shellfish with no intent to sell, including people releasing the catch. Also known as a recreational fisherman.

Annual Payroll²

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 Receipts³

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 Program¹⁰

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.

Bycatch¹

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.

Catch¹

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 Program¹⁶

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 County⁷

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.

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Community Development Quota Program (CDQ)¹

A program in western Alaska under which a percentage of the total allowable catch (TAC) of Bering Sea commercial fisheries is allocated to specific communities. Communities eligible for this program must be located within 50 miles of the Bering Sea coast, or on an island within the Bering Sea; meet criteria established by the State of Alaska; be a village certified by the Secretary of the Interior pursuant to the Alaska Native Claims Settlement Act; and consist of residents who conduct more than half of their current commercial or subsistence fishing in the Bering Sea or waters surrounding the Aleutian Islands. Currently 7.5% of the TAC in the pollock, halibut, sablefish, crab, and groundfish fisheries is allocated to the CDQ program.

Dedicated Access Privileges (DAPs)¹⁵

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.

Discards¹

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 Expenditures⁸

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 Scheme⁶

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 Model¹⁴

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.

For this report, the economic impacts of the commercial fishing sector and seafood industry were obtained from an IMPLAN model developed by Dr. James Kirkley (Virginia Institute of Marine Science, College of William and Mary) for NMFS. Expenditures related to commercial fishing activities were allocated to IMPLAN sectors and aggregated into the following categories: commercial harvesters, seafood processors and dealers, seafood wholesalers and distributors, and retail sectors. For more information about this model and how industries were grouped into each sector, please see *The NMFS Commercial Fishing & Seafood Industry Input/Output Model* available at: <http://www.st.nmfs.noaa.gov/st5/publication/index.html>

The economic impacts of the saltwater angling were derived from IMPLAN models modified by Scott Steinback (Northeast Fisheries Science Center, NOAA Fisheries Service) and Brad Gentner (Gentner Consulting Group). Angler expenditures were allocated to IMPLAN sectors and aggregated into durable equipment expenditures (fishing tackle, other equipment, boat expenses, vehicle expenses, and second home expenses), and fishing trip expenditures (by fishing mode and

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residency). For more information about this model, please contact Scott.Steinback@noaa.gov, or refer to *The Economic Contribution of Marine Angler Expenditures in the United States, 2006* that is available at: http://www.st.nmfs.noaa.gov/st5/publication/marine_angler.html.

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.¹

Employee Compensation⁴

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 Establishments²

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^{1, 17}

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)^{1, 17}

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-vessel¹

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)¹

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 Stock¹

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 Complex¹¹

A group of fish stocks or species with similar geographic distribution, co-occurrence in fisheries, and life history.

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Fishery Management Council (FMC) or Regional Fishery Management Council^{1, 12}

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)^{1, 12}

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 Cooperatives¹⁰

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 Effort⁶

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)⁴

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.

Harvest¹

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)¹

A type of limited entry, an allocation to an individual (a person or a legal entity, for example, a vessel owner or company) of a right [privilege] to harvest a certain amount of fish in a certain period of time. It is also often expressed as an individual share of an aggregate quota, or total allowable catch (TAC). See also "Individual Transferable Quota" and "Catch Share Program."

Individual Transferable Quota (ITQ)¹

A type of individual fishing quota (IFQ) allocated to individual fishermen or vessel owners that can be transferred (sold or leased) to others. See also "Individual Transferable Quota."

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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.

Landings¹

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 System¹²

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 Program¹

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 Quotient⁵

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)¹

Federal legislation responsible for establishing the Regional Fishery Management Councils (FMCs) and the mandatory and discretionary guidelines for federal fishery management plans (FMPs). This legislation was originally enacted in 1976 as the Fishery Management and Conservation Act; its name was changed to the Magnuson Fishery Conservation and Management Act in 1980, and in 1996 it was renamed the Magnuson-Stevens Fishery Conservation and Management Act.

Market-based Management^{9, 12}

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.

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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 Firms³

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.

Overcapitalization⁶

When the amount of harvesting capacity in a fishery exceeds the amount needed to harvest the desired amount of fish at least cost.

Overfished¹

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."

Overfishing¹

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 Species¹

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)¹²

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.

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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 Program¹³

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."

Species¹

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 Group¹

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 Species¹⁷

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-added¹

A firm's sales minus the cost of the goods and services it purchases from other industries to produce its outputs.

Glossary Source Materials

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