

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 (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 46 fishery management plans¹ that provide a framework for managing the harvest of 230 major fish stocks or stock complexes² 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 the NMFS, 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 173 stocks or stock complexes and the overfishing status of 188 stocks or stock complexes is known. Currently, 45 stocks or stock complexes are categorized as overfished and 40 are categorized as subject to overfishing.

Less is known about the 301 minor stocks or stock complexes. The overfished status of 26 of these stocks or stock complexes is known and one of these is currently considered overfished (Atlantic salmon). The

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).

²Generally, a fish stock is equivalent to a single species. Stock complexes, on the other hand, contain multiple species with similar geographic distributions, co-occurrence in fisheries, and life history.

overfishing status of 63 of the 301 minor stocks or stock complexes is known and one of these (parrotfishes) is currently considered to be subject to overfishing.

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). Examples of transboundary areas include the Gulf of Alaska and the Gulf of Maine. An example of international waters include ocean areas adjacent to the Antarctic.

Regional Fishery Management Organizations (RFMOs) are multinational organizations with interests in transboundary and international fish stocks and associated fishing activities. NOAA Fisheries has an interest in 14 RFMOs globally.³ 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.

Regional Fisheries Management Organizations

1. Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
2. Commission for the Conservation of Southern Bluefin Tuna (CCSBT)
3. Council of the Eastern Pacific Tuna Fishing Agreement (CEPTFA)
4. Inter-American Tropical Tuna Commission (IATTC)
5. International Commission for the Conservation of Atlantic Tunas (ICCAT)
6. Indian Ocean Tuna Commission (IOTC)
7. International Pacific Halibut Commission (IPHC)
8. International Whaling Commission (IWC)
9. Northwest Atlantic Fisheries Organization (NAFO)
10. North Atlantic Salmon Conservation Organization (NASCO)
11. North Pacific Anadromous Fishery Commission (NPAFC)
12. Pacific Salmon Commission (PSC)
13. Southeast Atlantic Fisheries Organization (SEAFO)
14. Western and Central Pacific Fisheries Commission (WCPFC)

³For more detailed information about international agreements that NOAA Fisheries has an interest in, please go to: http://www.nmfs.noaa.gov/ia/docs/2008_International_Agreements.pdf

Another issue of particular concern for NOAA Fisheries is the problem of illegal, unreported, and unregulated (IUU) fishing activities in international waters. Currently, 70 vessels flying the national flags of 18 nations are estimated to participate in IUU fishing activities.⁴ NMFS is actively working bilaterally and multilaterally with other nations on the adoption of strategies to reduce the level of IUU fishing around the world.⁵

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 and 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 subspecies⁶ that are protected under the ESA. These species include: Atlantic salmon, coho salmon, green sturgeon, shortnose sturgeon, smalltooth sawfish, steelhead trout, and totoaba. Many of these species are further delineated into “distinct population segments” or “evolutionarily significant units” that are based on genetic similarities within geographically- or reproductively-isolated populations.

Endangered and Threatened Species under NMFS’ Jurisdiction

Species Group	Number of Species
Marine and Anadromous Fish	34
Marine Mammals: Whales	11
Marine Mammals: Dolphins	3
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 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.

⁴An additional 45 vessels with unknown country affiliation also participate in IUU fishing activities.

⁵For more information about NOAA Fisheries’ response to IUU fishing activities, please see *Implementation of Title IV of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006* available at: http://www.nmfs.noaa.gov/msa2007/docs/msra_biennial_report_011309.pdf

⁶Subspecies includes “distinct population segments” and “evolutionarily significant units,” terms defined under the ESA.

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.

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

NOAA Fisheries is responsible for preventing the harrassment, capture, or killing of whales, dolphins, porpoises, seals, and sea lions.⁷ 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.⁸ Habitat areas that are necessary for a fish species’ growth, reproduction, and development are considered EFH. To the extent practicable, NMFS 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.

Market-based Tools for Sustainable Fisheries

A variety of market-based tools are available to fishery managers. The many types of catch share programs are examples of these tools. In the U.S., catch share programs include: 1) limited access privilege programs (LAPPs), which include individual fishing quota programs (IFQs), regional fishery associations, and fishing community quotas;⁹ 2) community development quota programs (CDQs);

⁷The U.S. Fish and Wildlife Service provides protection for walrus, manatees, otters, and polar bears.

⁸The 1996 reauthorization of the Magnuson-Stevens Fishery-Conservation and Management Act included this requirement.

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

3) fishing cooperatives; and 4) sector allocation programs.¹⁰

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 pollock cooperatives	1998	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	2006	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	Bering Sea groundfish (non-pollock) trawl catcher/processor cooperative	2008	\$120.6

With many catch share programs, the assigned harvest privileges can be used or transferred (that is, 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. However, a sector could 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

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>.

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

Nationwide, there are 14 such 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.

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); Mid-Atlantic tilefish; Gulf of Mexico grouper; and West Coast trawl groundfish (Pacific).

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 42 international fisheries that meet MSC sustainability standards,¹³ nine of which are U.S. fisheries.

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 pollock	April 2005
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)	Aug 2007
Pacific	Pacific albacore tuna - south (American Albacore Fishing Association)	Aug 2007
Pacific	Oregon pink shrimp	Dec 2007

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. That is, fishing vessels are purchased

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

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

by the government or by the fishing industry itself, and then removed from a specific fishery where fish stocks or stock complexes are overfished or subject to overfishing. Though 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 programs instituted nationwide. The cost of seven¹⁴ of these buyback programs cost a 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. (1995-2007)

Program	Year	Buyback amount (\$ millions)	Govt funding (\$ millions)
Northwest Pacific salmon disaster	1994 1995 1998	NA	NA
Northeast multispecies	1995 1996 2002	1.9 22.5 10.0	1.9 22.5 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 LAPPs and other 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 9.3 billion pounds of finfish and shellfish in 2007, earning over \$4.2 billion for their catch. Shrimp (\$433 million), sea scallop (\$386 million), walleye pollock (\$383 million), Pacific salmon (\$381 million), and American lobster (\$360 million) contributed most to total revenue in the U.S. In terms of pounds landed, walleye pollock (3.1 billion pounds) and menhaden (1.4 billion pounds) comprised the majority of total pounds landed in 2007. Sea scallop had the highest ex-vessel price in 2007 at \$6.59 per pound.

Alaska fishermen had the highest total revenue and total pounds landed in the U.S. in 2007, generating \$1.5 billion in revenue and landing 5.3 billion pounds. Alaska also contributed most to total revenue and landings of

sablefish (\$79 million, 32 million pounds) and walleye pollock (\$383 million, 3.1 billion pounds) in 2007.

When looking at other key species or species groups, commercial fishermen in Washington caught the most salmon (21 million pounds) and earned \$22 million for their catch in 2007. Tunas were caught in large numbers in Hawai'i (18 million pounds) and generated \$51 million in ex-vessel revenue.

On the East Coast of the U.S., Maine fishermen contributed most to total landings of American lobster (59 million pounds) and earned \$260 million for their catch in 2007. In Massachusetts, sea scallop was a major contributor to total revenue, generating \$218 million for 32 million pounds landed. The majority of blue crab was caught in Maryland (21 million pounds) earning fishermen in this state over \$30 million in revenue.

Virginia landed most of the menhaden in 2007, with fishermen landing 420 million pounds and generating \$25 million in total revenue. In the Gulf of Mexico, shrimp was a highly valued species. Fishermen in Texas earned \$145 million for their catch (71 million pounds). However, the majority of shrimp was landed in Louisiana (109 million pounds, \$138 million in total revenue).

When looking at key commercial species or species groups with the highest ex-vessel price per pound in 2007, Eastern oyster averaged the highest annual price: \$35.19 per pound in Massachusetts, \$21.21 per pound in New York, \$16.43 per pound in Connecticut, and \$9.73 per pound in Maryland. Other key species or groups with ex-vessel prices over \$10 per pound in 2007 included: clams (\$12.97 per pound in Washington), lobsters (\$11.84 per pound in Hawai'i), spiny lobsters (\$10.44 per pound in California), and bloodworms (\$10.97 per pound in Maine).

Key U.S. Commercial Species

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

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 2007, this industry supported approximately 1.5 million full- and part-time jobs and generated \$99 billion in sales impacts and \$43 billion in income impacts.

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 2007 and

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

generated \$57 billion in sales (57% of total sales impacts) and \$27 billion in income (62% of total income impacts). Seafood wholesalers and distributors (150,000 employees), commercial harvesters (114,000 employees), and seafood processors and dealers (103,000 employees) followed in terms of jobs supported across the U.S.

Jobs supported by the U.S. Commercial Seafood Industry (2007)

State	Jobs	State	Jobs
California	156,387	North Carolina	15,943
Florida	101,168	Rhode Island	11,755
Washington	73,379	Hawai'i	11,618
Massachusetts	73,196	Georgia	11,196
Louisiana	47,081	Maryland	11,041
Alaska	43,341	Alabama	10,979
Texas	42,240	Mississippi	8,244
New York	39,585	New Hampshire	7,121
New Jersey	36,618	Connecticut	6,499
Virginia	33,439	South Carolina	1,860
Maine	24,847	Delaware	1,582
Oregon	18,821		

Relative to 2006, employment, sales, and income impacts from the commercial seafood industry decreased in 2007: -3.7%, -1.3%, and -1.3%, respectively.¹⁵ Increases were observed in the commercial harvesting sector with increases in employment (1.7%), sales impacts (3.4%), and income impacts (4.2%). The largest decreases from 2006-2007 were seen for the seafood wholesalers and distributors sector with jobs decreasing 5.8%, sales impacts decreasing 3.3%, and income impacts decreasing 3.3%. In the retail sector, job impacts decreased 4% and decreased 3.2% in the seafood processors and dealers sector.

Total Sales Generated by the U.S. Commercial Seafood Industry (2007)
(thousands of dollars)

State	In-State Sales	State	In-State Sales
California	8,503,228	North Carolina	655,032
Florida	5,109,134	Maryland	594,294
Massachusetts	3,865,974	Rhode Island	556,874
Washington	3,688,407	Georgia	555,374
Alaska	3,283,940	Hawai'i	516,180
Louisiana	2,125,898	Alabama	488,264
New Jersey	1,927,389	Mississippi	362,963
Texas	1,942,379	New Hampshire	343,078
New York	1,830,881	Connecticut	335,092
Virginia	1,448,353	South Carolina	78,315
Maine	1,226,135	Delaware	73,890
Oregon	943,563		

Landings Revenue

Ex-vessel revenue in the U.S. totaled \$4.2 billion in 2007. This was a 33% increase (11% in real terms) from 1998 levels (\$4.2 billion) and a 3.2% increase (-2.5% in real terms) relative to 2006 (\$4.1 billion). Finfish and shellfish revenues mirrored this increasing trend. Totalling \$2.1 billion in 2007, finfish revenue increased 44% (20% in real terms) from 1998-2007 and 5% (-0.5% in real terms) from 2006-2007. U.S. shellfish revenue totaled \$2.1 billion in 2007, increasing 24% (3% in real terms) from 1998-2007 and 12% (-4.3% in real terms) from 2006-2007.

Total Landings Revenue by Region (2007)
(thousands of dollars)

Region	Total Revenue	Region	Total Revenue
U.S. total	4,240,796	Pacific	415,631
North Pacific	1,549,353	Mid-Atlantic	401,913
New England	915,918	South Atlantic	151,177
Gulf of Mexico	681,074	Western Pacific	75,703

Overall, most of the nation's ex-vessel revenue was generated in Alaska (\$1.5 billion) which contributed 37% to the U.S. total. Alaska also contributed more than any other state to total U.S. finfish revenue (\$1.4 billion), accounting for 64% to total finfish revenue. Most of Alaska's landings revenue came from walleye pollock and salmon. Massachusetts (\$349 million) and Louisiana (\$222 million) contributed most to total U.S. shellfish revenue, contributing 16% 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 State (2007)
(thousands of dollars)

State	Total Revenue	State	Total Revenue
Alaska	1,549,353	Rhode Island	76,882
Massachusetts	458,347	Hawai'i	75,703
Maine	319,522	New York	58,940
Louisiana	287,012	Maryland	52,273
Washington	198,124	Alabama	48,168
Texas	174,356	East Florida	42,747
New Jersey	152,560	Connecticut	42,079
West Florida	132,198	Mississippi	39,340
Virginia	130,562	New Hampshire	19,088
California	120,193	South Carolina	16,017
Oregon	97,314	Georgia	10,081
North Carolina	82,332	Delaware	7,578

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

The ten U.S. key species and species groups comprised 61% of total revenue in 2007. Of these, shrimp, sea scallop, walleye pollock, Pacific salmon, and American lobster contributed most to total revenue in the U.S. in 2007. These species or groups totaled approximately \$1.9 billion in 2007 or 46% of total revenue.

Key species or species groups with large increases in total revenue from 1998-2007 include: sea scallop (414% increase, 329% in real terms), Pacific halibut (200%, 151% in real terms), walleye pollock (111%, 76% in real terms), and sablefish (54%, 29% in real terms). Decreases in total revenue over the 10 year time period were observed for shrimp (25% decrease, -37% in real terms), blue crab (-17%, -31% in real terms), menhaden (-12%, -26% in real terms), and tunas (-1%, -17% in real terms).

Relative to 2006 totals, key species or species groups with the largest changes in total revenue in 2007 include: menhaden (33% increase, 26% in real terms), Pacific salmon (23%, 15% in real terms), and walleye pollock (-11%, -16% in real terms).

Landings

In 2007, U.S. commercial fishermen landed 9.3 billion pounds of finfish and shellfish. Relative to 1998 levels, this total did not change but there was a small decrease (-1.9%) relative to 2006 (9.5 billion pounds). Finfish landings totaled 8.2 billion pounds in 2007, a 2.1% increase from 1998 (8.1 billion pounds) and a 0.8% decrease from 2006 (8.3 billion pounds). The largest decrease in landings from 1998-2006 was seen for shellfish. Shellfish landings in 2007 (1.1 billion pounds) were a 15% decrease from 1998 levels (1.2 billion pounds) and a 9.6% decrease from 2006 levels (1.2 billion pounds).

Total Landings by Region (2007)
(thousands of pounds)

Region	Total Landings	Region	Total Landings
U.S. total	9,298,204	Mid-Atlantic	728,291
North Pacific	5,314,742	New England	584,193
Gulf of Mexico	1,398,602	South Atlantic	104,599
Pacific	829,982	Western Pacific	28,937

Most of the nation's total landings was harvested by Alaskan fishermen. Alaska contributed 57% to the U.S. total in 2007, landing 5.3 billion pounds of finfish and shellfish. Alaska also contributed most to the U.S. finfish total, landing 5.2 billion pounds or 64% of the U.S. finfish total. Walleye pollock comprised most of this Alaskan catch. In terms of shellfish, most were landed in Louisiana. With 183 million pounds landed in 2007, Louisiana's total accounted for 17% of the U.S. shellfish total. Shrimp accounted for most of this harvest.

Over 66% of total revenue in 2007 was made up of the ten U.S. key species and species groups. Walleye pollock and menhaden had the highest landings totals in 2007 with 3.1 billion pounds and 1.5 billion pounds landed, respectively. These two species accounted for approximately 49% of total U.S. landings in 2007.

Total Landings by State (2007)
(thousands of pounds)

State	Total Landings	State	Total Landings
Alaska	5,314,742	North Carolina	62,923
Louisiana	997,613	West Florida	59,244
Virginia	484,388	Maryland	48,575
California	383,586	New York	36,275
Massachusetts	313,895	Alabama	28,971
Oregon	253,551	Hawai'i	28,937
Mississippi	227,834	East Florida	25,186
Washington	192,845	Connecticut	10,263
Maine	176,005	South Carolina	9,310
New Jersey	153,964	New Hampshire	8,395
Texas	84,940	Georgia	7,180
Rhode Island	75,635	Delaware	5,089

Relative to 1998, landings totals for six of the ten U.S. key species or species groups decreased in 2007. The largest decreases were seen for tunas (41% decrease) and blue crab (-34%). However, a significant increase in landings was observed for sea scallop (383% increase). Pacific salmon experienced a more modest increase in landings (37%).

Key species or species groups with large changes in total landings from 2006-2007 include: Pacific salmon (33% increase), menhaden (14%), American lobster (15% decrease), and blue crab (-11%).

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 2007 at \$6.59 per pound, \$4.57 per pound, and \$3.25 per pound, respectively. Significant increases in price were observed for Pacific halibut which increased 225% (171% in real terms) from 1998-2007 and 16% (9.3% in real terms) from 2006-2007. American lobster ex-vessel price also increased, increasing 44% (20% in real terms) from 1998-2007 and 7.0% (1.1% in real terms) from 2006-2007. Sea scallop prices experienced smaller increases at 6.5% from 1989-2007 (-11% in real terms) and 1.1% from 2006-2007 (-4.5 in real terms).

Menhaden and walleye pollock had the lowest ex-vessel prices in 2007 at \$0.06 per pound and \$0.12 per pound, respectively. However, total landings of menhaden and walleye pollock were the largest among the U.S. key species and groups: 1.5 billion pounds of menhaden and 3.1 billion pounds of walleye pollock. Ex-vessel price for menhaden stayed

flat from 1998-2007 (-17% in real terms) but increased 20% from 2006-2007 (13% in real terms). Walleye pollock experienced a larger change, increasing 89% from 1998-2007 (58% in real terms) but decreasing 1.1% from 2006-2007 (-6.5% in real terms).

Overall, nine of the ten U.S. key species or species groups experienced an increase in ex-vessel price from 1998 and 2007. In addition to those mentioned above, tunas (68% increase, 40% in real terms), sablefish (64%, 37% in real terms), and blue crab (26%, 4.9% in real terms) experienced large or modest increases. Pacific salmon prices remained flat from 1998-2007 (-17% in real terms) and shrimp prices decreased 15% (-29% in real terms), the only nominal price decrease over this time period.

Between 2006 and 2007, ex-vessel price for eight of the ten U.S. key species or groups increased, with blue crab increasing the most (29%, 22% in real terms). Pacific salmon prices decreased 8.1% from 2006-2007 (-13% in real terms) and as mentioned above, walleye pollock prices decreased 1.1% (-6.5% in real terms).

Recreational Fishing

In 2007, there were approximately 13 million recreational anglers across the U.S. who took 86 million saltwater fishing trips around the country. These anglers spent \$4.6 billion on fishing trips and \$27 billion on durable fishing-related equipment. These expenditures contributed \$72 billion in sales impacts to the U.S. economy, generated \$33 billion in value-added impacts, and supported over 465,000 jobs. Of the U.S. key recreational species or species groups, Atlantic croaker (51 million fish) and seatrouts (48 million fish) were the most often caught by recreational anglers in 2007.

Key U.S. Recreational Species

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

Commercial Fish Facts

Landings revenue

- The ten U.S. key species or species groups accounted for 61% of total landings revenue in 2007.
- Finfish and other fishery products and shellfish contributed equally to total landings revenue in the U.S. with each generating \$2.1 billion in 2007.
- Walleye pollock and Pacific salmon each accounted for 18% of total finfish revenue in 2007, more than any other key species or group.
- Shrimp, sea scallops, and American lobster contributed most to total shellfish revenue in 2007, contributing 20%, 18%, and 17%, respectively.
- The largest annual increase in revenue was 66% for Pacific halibut (1998-1999). The largest annual decrease in revenue was -26% for shrimp (2000-2001).

Landings

- The U.S. key species and species groups accounted for 66% of total landings in 2007.
- Finfish and other fishery products accounted for 89% of total U.S. landings in 2007 or 8.2 billion pounds.
- Walleye pollock and menhaden contributed 37% and 18%, respectively, to U.S. finfish landings, more than any other key species or group.
- Shrimp and blue crab accounted for most of the U.S. shellfish landings: 26% and 14%, respectively.
- Sea scallop landings increased 82% from 1998-1999, the largest annual increase over the 10 year time period. Tunas had the largest annual decrease in landings, decreasing 29% from 1998-1999.

Prices

- Sea scallop (\$6.59), American lobster (\$4.57), and Pacific halibut (\$3.25) had the highest ex-vessel price per pound in 2007.
- Menhaden (\$0.06) and walleye pollock (\$0.12) had the lowest ex-vessel price per pound in 2007.
- The largest annual increase in price was 58% for Pacific halibut (1998-1999). Pacific salmon had the largest annual decrease in price, decreasing 32% (2000-2001).

Expenditures and Economic Impacts

U.S. anglers spent a total of \$4.6 billion on expenditures related to fishing trips in 2007. Of this total, expenditures for a private or rental boat fishing trip contributed the most (\$2.1 billion), followed by shore-based fishing trips (\$1.8 billion), and for-hire fishing trips (\$685,000). Expenditures on durable fishing-related equipment totaled over \$27 billion in 2007. Boat expenses contributed the most to this total with \$8.6 billion spent. Vehicle-related expenditures (\$5.8 billion), second home expenses (\$4.6 billion), and fishing tackle expenditures (\$3.0 billion) followed.

Jobs supported by the U.S. Recreational Fishing Industry (2007)

State	Jobs	State	Jobs
West Florida	65,799	South Carolina	6,134
East Florida	64,673	Massachusetts	6,124
Louisiana	27,446	Hawai'i	5,726
California*	23,454	Alaska	5,389
Texas	23,382	Mississippi	4,707
North Carolina	21,748	Connecticut	3,848
Washington*	11,025	Oregon*	2,527
New Jersey	10,893	Georgia	2,154
Maryland	9,228	Maine	1,972
Virginia	7,267	Delaware	1,784
Alabama	6,759	Rhode Island	1,286
New York	6,493	New Hampshire	488

*Employment estimates for California, Oregon, and Washington are for 2006.

Relative to 2006, angler expenditures on fishing trips increased 27% with double 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 11% from 2006-2007. Each of the durable expenditure categories mirrored this trend, ranging from -0.8% decreases in fishing tackle and other equipment expenditures, to -17% in vehicle expenses.

Economic impacts from recreational fishing activities (impacts from fishing trips and durable equipment combined) supported over 465,000 full- and part-time jobs across the U.S. in 2007. Sales impacts from recreational angling expenditures totaled \$72 billion and value-added impacts totaled \$33 billion. Durable equipment impacts contributed most to these totals, accounting for 82% of jobs, 85% of total sales impacts, and 83% of value-added impacts. Of the three fishing trip modes, shore-based fishing trips contributed most to the number of jobs supported by recreational angling, contributing 7.6% of jobs. Total sales and value-added impacts from private or rental boat trips was higher than the other fishing modes, accounting for 6.5% of sales impacts and 7.1% of value-added impacts.

Relative to 2006 totals, economic impacts from recreational angling nationwide increased in terms of jobs supported (15% increase), total sales (14%), and value-added impacts (14%). The largest increases from 2006-2007 were observed for for-hire (36% increase) and shore-based (32% increase) fishing modes in terms of jobs, total sales, and value-added impacts.

Total Sales generated by the U.S. Recreational Fishing Industry (2007)
(thousands of dollars)

State	In-State Sales	State	In-State Sales
East Florida	7,426,702	Alabama	654,353
West Florida	6,829,434	Hawai'i	622,111
California*	3,699,176	Mississippi	616,930
Texas	3,004,862	Connecticut	584,424
North Carolina	2,295,623	South Carolina	550,531
Louisiana	2,453,392	Alaska	480,899
New Jersey	1,806,606	Oregon*	283,578
Maryland	1,299,104	Delaware	273,433
Washington*	1,126,920	Georgia	263,073
New York	979,186	Maine	166,799
Virginia	822,986	Rhode Island	145,467
Massachusetts	805,956	New Hampshire	54,657

*Sales estimates for California, Oregon, and Washington are for 2006.

Participation¹⁶

Nationwide, there were approximately 13 million recreational anglers who fished in 2007. Approximately 11 million of these anglers were residents of a U.S. coastal county and 1.2 million anglers were residents of a non-coastal county. Between 1998 and 2007, the total number of U.S. anglers increased 53%. However, the number of anglers decreased 7.4% between 2006 and 2007. The number of coastal county anglers increased 58% from 1998-2007 and decreased 4.2% from 2006-2007. A more modest increase was observed for non-coastal county anglers during the 10 year time period (19%) but a larger decrease was observed between 2006 and 2007 (-30%).

The majority of U.S. anglers fished in the South Atlantic (3.7 million anglers), Gulf of Mexico (3.4 million anglers), and Mid-Atlantic Regions (3.4 million anglers). Pacific (1.8 million anglers)¹⁷, New England (1.6 million anglers), North Pacific (332,000 anglers), and Western Pacific (317,000 anglers) followed in terms of total anglers.

Fishing Trips¹⁸

Approximately 86 million fishing trips were taken in the U.S. in 2007. Of these, 46 million were fishing trips taken from a private or rental boat (53% 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 South Atlantic (26 million trips), Gulf of Mexico (24 million trips), and Mid-Atlantic (23 million trips). New England (9.7 million trips), the Pacific (5.9 million trips)¹⁹, and Western Pacific Regions (2.6 million trips) followed. Anglers in the North Pacific fished approximately 1.1 million fishing days in 2007.²⁰

The total number of fishing trips taken in the U.S. increased 41% from 1998-2007. Increases were also observed for two fishing modes: 47% increase in private or rental boat trips and 41% increase in shore-based trips. For-hire fishing trips decreased 12% during this time period, the only fishing mode to experience a decrease.

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

¹⁷This estimate reflects 2006 participation (number of anglers); 2007 estimates for the Pacific Region were not available for this report.

¹⁸Effort numbers do not include Alaska and Texas. They include Hawai'i only for 2003-2007. California numbers were estimated differently from 2004-2007.

¹⁹This estimate reflects 2006 fishing effort (number of trips); 2007 estimates for the Pacific Region were not available for this report.

²⁰In Alaska, fishing effort information is collected as the number of fishing days rather than the number of fishing trips taken.

Relative to 2006, total fishing trips taken in the U.S. decreased 2.4%, with larger decreases observed for for-hire trips (-11%) and shore-based trips (-9.4%). Private or rental boat trips experienced a small increase from 2006-2007, increasing 4.8%.

Recreational Fishing Facts

Participation

- There were 13 million anglers in the U.S. in 2007. Of these, 11 million anglers were coastal county residents and 1.2 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 86 million fishing trips were taken nationwide in 2007. 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 53% of total U.S. fishing trips or 46 million trips. This fishing mode comprised most of the trips in the Gulf of Mexico (60% of trips), Mid-Atlantic (55% of trips), South Atlantic (51% of trips), and New England (50% of trips).
- Shore-based fishing trips accounted for 43% of total U.S. fishing trips or 37 million trips. This was the most popular fishing mode in the Western Pacific (82% of trips) and Pacific (65% of trips) Regions.
- For-hire fishing boat trips accounted for 3.9% of total trips taken or 3.4 million trips taken.
- In the North Pacific, anglers spent approximately 1.1 million days fishing in 2007.

Harvest and release

- Atlantic croaker and seatrouts were the most caught by anglers in 2007 with approximately 51,000 and 48,000 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 (662,000 fish caught) and Alaskan halibut (1.0 million fish caught). Most of these fish 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 2004-2005.

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 2007. These species or groups were caught in large numbers relative to the other key species or groups: Atlantic croaker (52 million fish), seatrouts (48 million fish), summer flounder (23 million fish), and striped bass (19 million fish). Anglers fishing in the Mid-Atlantic and New England caught most of the Atlantic croaker, summer flounder, and striped bass in 2007, while most seatrout were caught in the Gulf of Mexico and the South Atlantic.

In the North Pacific Region, halibut and salmon species (chinook, chum, coho, pink, and sockeye) were the most caught species or group in 2007 with 1.0 million

fish and 1.3 million fish caught, respectively. Mackerels (5.1 million fish), rockfishes (3.7 million fish), and surfperches (3.5 million fish) were caught in high numbers in the Pacific Region, while bigeye and mackerel scad (1.1 million) comprised 42% of fish caught by anglers in the Western Pacific.

Recreational catch of requiem sharks increased 203% between 1998 and 2007, the largest increase during this 10 year time period. Over 6.2 million requiem sharks were caught in 2007. Other key species or groups with large increases in recreational catch include: Alaskan halibut (60% increase), Atlantic croaker (57%), seatrouts (42%), and little tunny (40%). Recreational catch of salmon (-34%) and rockfishes (-8.6%) decreased from 1998-2007, the only key species or groups experience a decreasing trend.

From 2006-2007, recreational catch of salmon (-44%), striped bass (-33%), seatrouts (-9.7%), and large Atlantic tunas (-6.4%) decreased, the only species or groups to do so. All other U.S. key recreational species or groups increased from 2006-2007, with the largest increases observed for little tunny (28%) and Alaskan halibut (25%).

Marine Economy²¹

In 2006, there were 7.6 million establishments in the U.S. These establishments employed approximately 120 million full- and part-time employees and had a total annual payroll of \$4.8 trillion. From 1998-2006, the number of establishments increased 9.5%, employee numbers increased 11%, and total annual payroll increased 45% nationwide. More modest increases were seen from 2005-2006: 1.4%, 3.1%, and 6.9%, respectively.

The nation's gross domestic product was \$13 trillion in 2006, a 51% increase relative to 1998 levels (\$8.7 trillion) and a 6.0% increase relative to 2005 levels (\$12 trillion). Employee compensation in 2006 was \$7.4 trillion, a 25% increase from 1998 (\$5.9 trillion) and a 6.0% increase from 2005 (\$7.0 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.

²¹Information for 2006 is reported in this section; 2007 data was not available for this report.

Seafood Sales and Processing

In 2006, there were 1,300 nonemployer firms engaged in seafood product preparation and packaging, a 111% increase from 1998 levels. Annual receipts increased 81% (60% in real terms) from \$49 million (1998) to \$88 million (2006). Most of these firms were located in Florida (174 firms).²²

In contrast to nonemployer firms, the number of employer establishments decreased 20% from 838 in 1998 to 670 in 2006. These firms employed approximately 36,000 full- and part-time employees in 2006 and had a total annual payroll of \$1.2 billion. Relative to 1998 levels, this was an 18% decrease in workers but a 26% increase (11% in real terms) in annual payroll. Most of these establishments were located in Alaska (113 establishments), Washington (96 establishments), and Oregon (91 establishments).

There were over 2,200 employer establishments involved in seafood wholesale activities in 2006. Most of these establishments were in Florida (259 establishments), California (252 establishments), and Maine (167 establishments). These establishments employed 22,000 workers and had an annual payroll of \$827 million. From 1998-2006, the number of establishments and employees decreased (-28% and -19%, respectively) but annual payroll increased (12%, -1% in real terms).

Nonemployer firms and employer establishments engaged in seafood retail activities saw increasing trends from 1998-2006. There was a 12% increase in firms (2,600 in 2006) and a 19% increase in establishments (2,100 in 2006). Annual receipts for nonemployer firms totaled \$232 million in 2006, a 23% increase (9% in real terms) relative to 1998 levels. Annual payroll for employer establishments totaled \$201 million, a 65% increase (46% in real terms) relative to 1998 levels. Approximately 11,000 full- and part-time workers were employed by the 2,100 establishments in 2006, a 34% increase from 1998. These establishments were primarily located in California (184 establishments) and Florida (173 establishments), while most firms were located in Florida (251 firms), California (173 firms), and North Carolina (115 firms).

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 2006, there were over 4,000 marina industries that employed over 28,000 full- and part-time workers. Compared to 1998 levels, this was a 5% decrease in establishment numbers and a 22% increase in employees. Annual payroll for this industry was \$894 million in 2006, a 58% increase (40% in real terms) over 1998 levels. Most of these marina industries were located in Florida

(513 establishments), California (268 establishments), and North Carolina (103 establishments).

In terms of employees, the marine cargo handling industry employed the most people in this industry sector nationwide. In 2006, approximately 62,000 full- and part-time employees worked in this industry, a 38% increase over 1998 levels. Most of these workers were located in Florida (66 establishments) and California (52 establishments). There were 540 establishments engaged in this industry in 2006, a 13% decrease from 1998 levels. This industry had an annual payroll of \$3.3 billion in 2006, a 61% increase (42% in real terms) relative to 1998.

In terms of which industry within this sector had the highest total annual payroll in 2006, ship and boat building operations ranked at the top with \$5.9 billion in annual payroll. Over 1,700 establishments engaged in this industry employed over 142,000 workers in 2006. Relative to 1998 levels, establishment numbers decreased 4% nationwide, employee numbers remained flat, and annual payroll increased 23%. Most of this annual payroll was generated in Florida (301 establishments), Washington (164 establishments), and California (132 establishments).

Between 1998 and 2006, the largest change in establishment numbers within this sector was seen in the deep sea passenger transportation industry. There was a 22% decrease in establishments from 87 in 1998 to 70 in 2006. This industry also saw a large change in annual payroll, a 44% decrease (-50% in real terms) from 1998 levels. The largest change in employee numbers during this period was in deep sea freight transportation industries which saw a 42% decrease 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 (63% increase), marine cargo handling (61%), and marinas (58%).

²²Due to data availability, information reported in this section is for the state of Florida and not East or West Florida as is discussed in other sections.