

Fisheries Economics of the United States 2006

Economics and Sociocultural
Status and Trends Series

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service



Photo credits: Commander John C. Bortniak, Michael Dowgiallo,
William B. Folsom, Ralph S. Kresge, Wayne & Nancy Weikel,
Bob Williams, NOAA Photo Library



Contents

- 5 Preface**
- 7 National Overview**
- 8 U.S. Summary*
- 14 U.S. Tables*
- 17 North Pacific**
- 18 North Pacific Summary*
- 22 Alaska Tables*
- 25 Pacific**
- 26 Pacific Summary*
- 30 Pacific Tables*
- 32 California Tables*
- 35 Oregon Tables*
- 38 Washington Tables*
- 41 Western Pacific**
- 42 Western Pacific Summary*
- 45 Hawaii Tables*
- 49 New England**
- 50 New England Summary*
- 54 New England Tables*
- 56 Connecticut Tables*
- 59 Maine Tables*
- 62 Massachusetts Tables*
- 65 New Hampshire Tables*
- 68 Rhode Island Tables*
- 71 Mid-Atlantic**
- 72 Mid-Atlantic Summary*
- 76 Mid-Atlantic Tables*
- 78 Delaware Tables*
- 81 Maryland Tables*
- 84 New Jersey Tables*
- 87 New York Tables*
- 90 Virginia Tables*

93 South Atlantic

94 South Atlantic Summary

98 South Atlantic Tables

100 East Florida Tables

103 Georgia Tables

106 North Carolina Tables

109 South Carolina Tables

113 Gulf of Mexico

114 Gulf of Mexico Summary

119 Gulf of Mexico Tables

121 Alabama Tables

124 West Florida Tables

127 Louisiana Tables

130 Mississippi Tables

133 Texas Tables

137 Data Sources

141 Resources

159 Glossary

Preface

Fisheries Economics of the U.S., 2006

Fisheries Economics of the U.S., 2006 is the first volume in this new series, reporting economic data related to commercial and recreational fishing, and fishing-related industries in the United States. This report covers the 1997-2006 time period and includes descriptive statistics on commercial fisheries landings, revenue, and price trends and economic impacts of the commercial fishing industry in 2006; recreational fishing catch, effort, and participation rates and 2006 angler expenditures and economic impacts of saltwater angling; and employer and non-employer establishment, payroll, and annual receipt information for fishing-related industries. It is a companion to *Fishing Communities of the U.S., 2006*. The purpose of this publication is to provide the public with easily accessible economic information about the Nation's commercial and recreational fishing activities and associated 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, NMFS Office of Science & Technology. Other sources include: Alaska Fisheries Science Center, NMFS; the Pacific Coast Fisheries Information Network (PacFIN); Texas Parks & 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 & Sociocultural Analysis Division, NMFS Office of Science & Technology. Fishing-related industry information was obtained from the: U.S. Census Bureau (County Business Patterns data

Preface

series and non-employer statistics); Bureau of Economic Analysis (gross domestic product by state); and Bureau of Labor Statistics (location quotient).

Acknowledgements

Many people helped make this publication possible. Rita Curtis is Division Chief and originator for this series. Rosemary Kosaka is Editor for this series. Contributing authors include Rita Curtis, Rosemary Kosaka, and Sabrina Lovell. Other contributing analysts include Lauren Dolinger-Few, Sonia Jarvis, Steve Koplin, and Liz Pritchard. All are located in the NMFS Office of Science & Technology in Silver Spring, Maryland. Willis L. Hobart and David G. Stanton, NMFS Scientific Publications Office, Office of Science & Technology, Seattle, Washington, provided publication and design guidance for this new series, and Sandi Sellars, NMFS Office of Science & Technology, Silver Spring, Maryland, created the layout and design for the final report.

NMFS staff economists in the regional Fisheries Science Centers and Regional Offices who provided guidance in selecting key species and reviewed data generated for this report include: Ron Felthoven, Sam Herrick, Terry Hiatt, Andrew Kitts, Todd Lee, Dan Lew, Carl Lian, Phil Logan, Minling Pan, Mark Plummer, Barbara Rountree, Scott Steinback, Cindy Thomson, and Jim Waters. Other contributors include Josh Bennett, Guy Davenport, Kurt Kawamoto, and Joe Smith.

Address all comments or questions to:

Economic and Sociocultural Analysis Division, (F/ST5)
National Marine Fisheries Service, NOAA
1315 East-West Hwy, Rm 12340
Silver Spring, MD 20910-3282
Phone: 301-713-2328 / FAX: 301-713-4137
Website: <http://www.st.nmfs.noaa.gov/st5/index.htm>

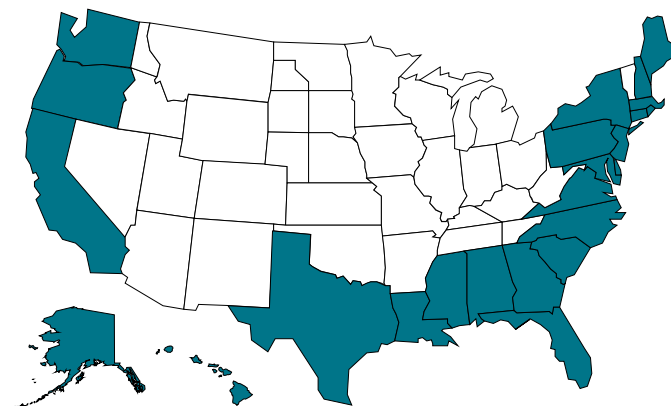
National Overview



U.S. Summary

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). 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. The National Marine Fisheries Service (NMFS) is the primary federal agency delegated authority from the Secretary of Commerce to oversee fishing activities in federal waters.



Nationwide, there are 47 fishery management plans that provide a framework for managing the harvest of 230 fish stocks or stock complexes. These fishery management plans or FMPs are developed by Fishery Management Councils 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 fish stocks and stock complexes currently managed under a FMP, 47 are currently categorized as overfished and 42 are categorized as subject to overfishing.

Threatened and Endangered Species

The National Marine Fisheries Service is the lead agency for the conservation and protection of over 60 fish and

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 33 marine and anadromous fish species and subspecies that are protected under the ESA. These species include: Atlantic salmon, chinook salmon, chum salmon, coho salmon, green sturgeon, gulf sturgeon, shortnose sturgeon, smalltooth sawfish, sockeye salmon, 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. These species include: 20 marine mammals (includes 10 whales, 3 dolphins, 1 porpoise, 5 seals, and 2 sea lions); 8 sea turtles; 3 marine invertebrates (2 corals, 1 abalone); and 1 marine plant. Listed as threatened and endangered in the 1970s, the Eastern North Pacific gray whale has since made a comeback and is currently listed as “recovered.”

Market-based Management Tools

There are several market-based management tools available to fishery managers. These tools include, but are not limited to: individual fishing quota programs (IFQs), community development quotas (CDQs), fishing cooperatives, and sector allocation programs. Collectively, these are

¹All fishery management plans (FMPs) for each region covered in this Report are listed in their respective sections. The Caribbean region and its four FMPs are not currently covered in this Report, nor is the one FMP for Highly Migratory Species that is developed and managed 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.

³Subspecies includes “distinct population segments” and “evolutionarily significant units,” terms defined under the ESA.

known as limited access privilege programs (LAPPs) or LAPP-like programs.⁴

Limited access privilege programs assign harvest privileges to individuals or groups. These harvest privileges are used or transferred (that is, sold or leased) to those who can use them more beneficially. Currently, there are 13 such programs nationwide in six different regions. In total, the ex-vessel value of these fisheries was greater than \$730 million in 2007, 18% of the total ex-vessel value for all U.S. commercial fisheries. In addition, there are six LAPP and LAPP-like programs anticipated within the next few years.

Existing LAPP and LAPP-like Programs (2007)

Program	First Year	Ex-vessel Value (\$ million)
Surfclam/ocean quahog IFQ	1990	\$49.0
South Atlantic wreckfish IFQ	1992	\$0.3
Western Alaska CDQ	1992	\$68.0
AK halibut/sablefish IFQ	1995	\$237.0
Pacific whiting cooperative	1997	\$21.8
Bering Sea pollock cooperatives	1998	\$266.0
Pacific sablefish permit stacking	2001	\$6.4
AK scallop cooperative	2001	\$1.0
Georges Bank hook sector	2004	\$0.6
AK crab rationalization (IFQ & cooperative)	2005	\$65.0
Georges Bank fixed gear sector	2006	\$0.9
Gulf of Mexico red snapper IFQ	2007	\$9.0
Central Gulf of Alaska rockfish pilot sector	2007	\$8.5

Ecolabels are another market-based management tool available to fishery managers. An ecolabeling scheme 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 schemes in the world. There are currently 34 international fisheries that meet MSC sustainability standards.⁶ Of these, nine are U.S. fishery products.

⁴For more information about LAPP and LAPP-like programs, please see Excess Harvesting Capacity in U.S. Fisheries, A Report to Congress listed in the Sources section of this Report.

⁵Currently, only the Western Pacific and Caribbean regions do not have LAPP or LAPP-like programs in place.

⁶For more information about MSC certified fisheries, please go to: <http://www.msc.org/track-a-fishery/certified>.

U.S. Fishery Products with MSC certification

Region	Fishery	Certified
North Pacific	Alaska salmon	Sept 2000; Nov 2007
North Pacific	Bering Sea/Aleutian Islands pollock	Feb 2005
North Pacific	Gulf of Alaska pollock	April 2005
North Pacific	Bering Sea/Aleutian Islands Pacific cod	Feb 2006
North Pacific	North Pacific halibut	April 2006
North Pacific	North Pacific sablefish	May 2006
Western Pacific	Pacific albacore tuna - north (American Albacore Fishing Association)	Aug 2007
Western Pacific	Pacific albacore tuna - south (American Albacore Fishing Association)	Aug 2007
Pacific	Oregon pink shrimp	Dec 2007

Other Fishery Management Tools

Vessel buyback programs are another tool used by fishery managers. 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 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. To date, there have been ten buyback programs instituted nationwide. Seven⁷ of these buybacks cost a total of \$397 million; 85% of this was funded by the commercial fishing industry.

Buyback Programs in the U.S. (1995-2007)

Program	Year	Buyback amount (\$ million)	Govt funding (\$ million)
Northwest Pacific salmon disaster	1994 1995 1998	NA	NA
Northeast multispecies	1995 1996 2002	\$1.89 \$22.5 \$10.0	\$1.89 \$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
AK BSAI groundfish freezer longliners	2007	\$35.0	NA

⁷This total excludes three buyback programs associated with Northwest Pacific salmon disasters in 1994, 1995, and 1998; data was not available at time of printing.

U.S. Summary

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. License limitation programs are more common than buyback programs, LAPP, or LAPP-like programs, and are implemented in every region except the Caribbean.

Commercial Fisheries

In 2006, landings by fishermen in the U.S. (9.5 billion pounds) had an ex-vessel value of \$4.1 billion. Top revenue-makers were shrimp (\$456 million), walleye pollock (\$429 million), American lobster (\$395 million), sea scallops (\$385 million), and Pacific salmon (\$312 million). These five species and species groups generated \$2.0 billion in 2006, accounting for almost 50% of total landings revenue. Shellfish and finfish and other fishery products each accounted for approximately half of total landings revenue annually.

Key U.S. Commercial Species

Commercially-important species and species groups in the U.S. include: blue crab, Pacific halibut, American lobster, menhaden, walleye pollock, sablefish, Pacific salmon, sea scallops, shrimp, and tunas.

Economic Impacts

The U.S. commercial fishing industry is defined for this report as the commercial harvest sector, seafood wholesalers and distributors, seafood processors and dealers, and seafood retailers. Overall, this industry generated over \$103 billion in sales and \$44.3 billion in income, and supported over 1.5 million jobs in 2006. The commercial fishing-related retail sector contributed the most to sales (58%), income (63%), and employment (75%) impacts relative to the other three sectors. The other three sectors reported the following sales impacts: seafood wholesalers and distributors, \$19 billion or 19%; seafood processors and dealers, \$14.9 billion or 15%; and commercial harvesters, \$9.1 billion or 9%.

Landings Revenue

Overall, ex-vessel revenue increased 15% from \$3.6 billion in 1997 to \$4.1 billion in 2006, a 3% decrease when adjusted for inflation. Finfish and other fishery products increased 8% (-8.3% in real terms) to \$2.0 billion in 2006, while shellfish increased 21% (2.7% in real terms) to \$2.1 billion. Finfish and other fishery products and shellfish

contributed equally to ex-vessel revenue throughout the 10 year period.

The ten key species and species groups comprised an average of 61% of ex-vessel value in the U.S. In 2006, American lobster, shrimp, sea scallops and walleye pollock contributed more to total landings revenue than any other key species or group, accounting for 10%, 11%, 9%, and 10%, respectively. Notably, sea scallop revenues increased 330% (264% in real terms) between 1997 and 2006. Large increases in ex-vessel revenue also occurred for Pacific halibut (67% nominally, 41% in real terms), walleye pollock (66% nominally, 40% in real terms), and American lobster (46% nominally, 23% in real terms). A small increase in ex-vessel price for Pacific salmon was also observed (4% nominally, -12% in real terms).

Commercial Fish Facts

Landings revenue

- On average, the ten key species or species groups accounted for 61% of the total landings revenue.
- Finfish and other fishery products and shellfish generally contributed equally to landings revenue in the U.S.: over \$2 billion each in 2006.
- Walleye pollock accounted for 21% of finfish landings revenue in 2006, while shrimp, American lobster, and sea scallops contributed 22%, 19%, and 18% of shellfish revenue, respectively.
- The largest annual increase in revenue from 1997-2006 was 66% for Pacific halibut (1998-1999). The largest annual decrease in revenue was -44% for sablefish (1997-1998).

Landings

- On average, the ten key species or species groups accounted for 65% of total landings annually.
- Finfish and other fishery products accounted for 87% of annual landings for the U.S. Walleye pollock and menhaden contributed the most to finfish landings, 36% and 20%, respectively.
- These two species also had the highest average annual landings of any species or group: 3.0 billion pounds for walleye pollock and 1.7 billion for menhaden.
- Sea scallop landings increased 82% from 1998-1999, the largest annual increase in the 10 year period. Tunas had the highest annual decrease in landings, falling 29% from 1998-1999.

Prices

- Sea scallops at \$5.40, American lobster at \$3.80, Pacific halibut at \$1.89, and sablefish at \$1.87 had the highest average price per pound for the 1997-2006 period.
- Menhaden and walleye pollock had the lowest average ex-vessel prices, \$0.06 and \$0.10 per pound, respectively, during this period.
- The largest annual decrease in ex-vessel price was -40% for Pacific halibut (1997-1998), only to increase 58% the following year, the largest annual increase.

Double digit declines in ex-vessel revenue were observed for five of the top ten key species or groups: menhaden (-44% nominally, -53% in real terms), blue crab (-27% nominally, -39% in real terms), tunas (-21% nominally, -34% in real terms), shrimp (-20% nominally, -33% in real terms), and sablefish (-10% nominally, -24% in real terms).

Landings

From 1997 through 2006, total landings averaged 9.5 billion pounds annually, ranging from 9.1 billion pounds (2000) to 10.0 billion (1997). Finfish and other fishery products contributed an average of 87% annually to total landings in the U.S. Total landings, landings from finfish and other fishery products, and shellfish landings, all decreased between 1997 and 2006: -5%, -4%, and -6%, respectively.

Landings of sea scallops increased 333% between 1997 and 2006, from 13.6 million pounds to over 59 million pounds. Landings for other species or groups also increased but less dramatically: walleye pollock (33%), Pacific salmon (18%), American lobster (12%), and shrimp (10%). Landings of tunas, menhaden, blue crab, sablefish, and Pacific halibut all declined during this period.

Landings of walleye pollock and menhaden contributed more to total U.S. landings than any other species or group. Over 3.4 billion pounds of walleye pollock was landed in 2006, contributing 36% of total landings. Menhaden landings were over 1 billion pounds in 2006, contributing 14% to total landings.

Prices

Between 1997 and 2006, ex-vessel prices for high value species such as sea scallop (\$6.52 per pound, 2006) remained flat (-16% in real terms), while prices for American lobster (\$4.27 per pound, 2006) increased 30% (10% in real terms). Ex-vessel price for Pacific halibut (\$2.83 per pound, 2006) increased more than any other species or group: 70% (43% in real terms) between 1997 and 2006. Tunas (32% nominally, 12% in real terms) and walleye pollock (25% nominally, 5% in real terms) experience double digit increases during this period. Of the other key species or groups in the U.S., only shrimp (27% nominally, -39% in real terms), menhaden (-17% nominally, 30% in real terms), and Pacific salmon (-12% nominally, -26% in real terms) experienced price declines.

Most key species or species groups had higher ex-vessel prices in 2006 compared to their corresponding average ex-vessel price for the time period. Ex-vessel price for Pacific halibut was \$2.83 per pound in 2006, 49% higher than the average price (\$1.89 per pound). Walleye pollock had an ex-vessel price of \$0.13 per pound in 2006, which was 23% higher than the average price (\$0.10 per pound).

In contrast, shrimp had an ex-vessel price of \$1.36 per pound (2006) compared to an average \$1.64 per pound, an 18% decrease.

Recreational Fishing

Across the U.S., there were 13.6 million recreational anglers in 2006. These anglers took 87 million saltwater fishing trips around the country, spending \$5.8 billion on fishing trips and \$25.6 billion on durable fishing-related equipment. These expenditures contributed \$82 billion in sales to the U.S. economy, supported over 500,000 jobs, and generated \$38.1 billion in value-added impacts.

Key U.S. Recreational Fishing Species

In the U.S., recreationally-important species and species groups include: striped bass, Atlantic croaker, spot, seatrouts, summer flounder, Alaskan halibut, little tunny and Atlantic bonito, Pacific rockfishes and scorpionfishes, salmon, sharks, and large Atlantic tunas.

Participation Rates⁸

There were more recreational anglers in 2006 than in any other year from 1997-2006: 13.6 million anglers in the U.S. This was a 53% increase from the 8.9 million anglers who fished in 1997. The majority of anglers in all years were coastal county residents. These anglers comprised 89% of total anglers on average, with their numbers increasing 46% between 1997 and 2006. The number of anglers from non-coastal counties increased 118% between 1997 and 2006. Participation in both groups peaked in 2006.

Recreational Fishing Trips⁹

In 2006, over 87 million fishing trips were taken, a 27% increase from the 69 million trips in 1997. Private/rental boat trips accounted for 50% of total trips or 43 million trips in 2006. Shore-based fishing trips numbered 40 million (46% of total trips). Fewer fishing trips were taken on a charter or party boat with just over 3.8 million trips taken (4% of total trips).

From 1997-1998, there was a 23% decrease in the number of party/charter fishing trips taken, a drop from 5.0

⁸Participation estimates do not include Alaska and Texas. Hawaii is included for 2003-2006; Pacific coast states are included for 2003-2006. Numbers include the Caribbean for 2000-2006.

⁹Effort numbers do not include Alaska and Texas. They include Hawaii only for 2003 to 2006. California numbers were estimated differently from 2004 to 2006.

U.S. Summary

million to 3.9 million. This decrease was the largest annual decrease for any of the three types of fishing trips from 1997-2006. The largest annual increase in the number of fishing trips taken in any of the three types of trips was a 41% increase in shore-based trips (1999-2000).

Recreational Fishing Facts

Participation

- There were 13.6 million anglers in the U.S. in 2006. Of these, 11.9 million anglers were coastal county residents and 1.8 million were from non-coastal counties.

Recreational trips

- In 2006, the Gulf of Mexico and South Atlantic regions had the highest number of total fishing trips taken in the U.S. There were 23.9 million trips taken in the Gulf and 23.8 million trips taken in the South Atlantic.
- Private/rental boat trips accounted for the majority of fishing trips taken in New England (49%), the Mid-Atlantic (57%), and the Gulf (58%) regions, relative to shore-based and party/charter boat trips.
- Shore-based trips accounted for the majority of fishing trips taken in the South Atlantic (57%), Pacific (65%), and Western Pacific (78%) regions.

Economic impacts

- In 2006, shore-based fishing trips contributed the most to the U.S. economy relative to the other two types of fishing trips. Shore trips generated \$5.7 billion in total sales and \$3.0 billion in value-added impacts.
- Shore-based fishing trips were closely followed by private boat trips (\$5.6 billion in total sales and \$2.8 billion in value-added impacts) and party/charter fishing trips (\$2.3 billion in total sales and \$1.3 billion in value-added impacts).
- The Gulf region had the highest angler expenditures in 2006: \$16.2 billion in total fishing-related expenditures.

Catch data for key species

- The species or group most often caught by recreational anglers in 2006 were seatrouts and Atlantic croaker and spot, with over 52,000 and 43,000 fish caught, respectively.
- The least often caught species or group were tunas (large Atlantic species) and Alaskan halibut with 707,000 and 816,000 fish caught, respectively.

Expenditures and Economic Impacts

In 2006, U.S. recreational anglers spent a total of \$5.8 billion on fishing trip expenditures. Private/rental boat trip expenditures were \$2.5 billion, shore trips totaled \$2.4 billion, and for-hire fishing trips totaled \$934 million. Durable fishing-related equipment expenditures totaled \$25.6 billion in 2006. Boat expenses contributed the most to this total with \$9.3 billion spent. Vehicle-related expenditures followed with \$7.0 billion with \$5.4 billion

spent on second home expenses and \$3.0 billion spent on fishing tackle.

Economic impacts from recreational angling were over \$82 billion in sales and \$38 billion in value-added impacts, generating over 500,000 jobs nationwide. Economic impacts related to durable equipment contributed \$69 billion in sales, \$31 billion in value-added impacts, and over 425,000 jobs. Shore-based and private boat fishing trips accounted for the majority of trip-related economic impacts. Shore-based trips contributed \$5.7 billion in sales, \$3.0 billion in value-added impacts, and generated 47,000 jobs. Private boat trips contributed \$5.6 billion in sales, \$2.8 billion in value-added impacts, and generated 41,000 jobs.

Recreational Catch and Release

The key recreational species or groups caught by anglers varied by geographic location. On the East and Gulf Coasts, seatrouts were the most widely caught species group with 53 million caught in 2006, a 34% increase from 39 million caught in 1997. Atlantic croaker and spot were also caught in large numbers with catch increasing 22% between 1997 and 2006. Sharks and striped bass had the highest increase in catch between 1997 and 2006, with shark catch increasing 208% and striped bass increasing 64%. In contrast, rockfishes and scorpionfishes, and salmon had the highest decreases in recreational catch, 24% and 8%, respectively.

The Marine Coastal Economy

In 2005, the gross domestic product for the U.S. was \$12.4 trillion, a 43% increase from \$8.7 trillion (1998). There were 7.5 million establishments nationwide that employed over 116 million employees. These establishments generated an annual payroll of \$4.5 trillion.

For this report, the Marine Coastal Economy – a subset of the National Economy – is comprised of two industry sectors: 1) Seafood Sales & Processing (employer establishments and non-employer 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 in terms of the number of establishments or firms, employees, and annual payroll or receipts.

Seafood Sales and Processing

In 2005, there were over 2,098 non-employer firms in the seafood retail industry, a 10% decline from 2,340 firms in 1998. Annual receipts increased 8% (-4% in real terms) from \$188 million (1998) to \$203 million (2005).

In contrast to non-employer firms, the number of employer establishments increased 22% from 1,772 (1998) to 2,155 establishments (2005). Employee numbers (10,381, 2005) and annual payroll (\$195 million, 2005) also increased 32% and 60% (42% in real terms), respectively.

The number of non-employer firms engaged in seafood processing increased 75% from 617 in 1998 to over 1,000 in 2005. Annual receipts also increased from \$49 million (1998) to \$79 million (2005), a 62% increase (43% in real terms).

Employer establishments engaged in seafood processing activities declined 14% between 1998 and 2005. The number of people employed in this industry also declined 14%. However, annual payroll increased from \$956 million in 1998 to \$1.2 billion in 2005, a 23% increase (9% in real terms).

Seafood wholesale industries in this sector showed trends similar to seafood processing industries. The number of employer establishments declined 25% from over 3,000 (1998) to 2,314 establishments (2005). The number of people employed also declined, showing a 17% drop in employees between 1998 and 2005. Annual payroll increased modestly from \$736 million (1998) to \$781 million (2005), a 6% increase (-6% in real terms).

Transport, Support, and Marine Operations

In the transport, support and marine operations sector, the ship/boat building and marina industries had the highest number of establishments in 2005: 1,800 and 4,100, respectively. The ship/boat building industry also employed the majority of people in this sector, over 141,000 employees or 51%. The marine cargo handling industry followed, employing 60,000 people in 2005.

The ship/boat building industry also reported the highest annual payroll in 2005, \$5.7 billion or 45% of annual payroll for this industry sector. This industry was followed by marine cargo handling (\$3.0 billion) and coastal/Great Lakes freight transportation (\$1.2 billion).

The largest increase in employer establishments between 1998 and 2005 occurred in the port and harbor operations industry. The largest decline in establishments was 11%, a decline seen in both the number of marine cargo handling industries and navigational services to shipping industries.

The number of employees increased 33% for the marine cargo handling industry, from almost 45,000 (1998) to 60,000 employees (2005). This increase was the largest between 1998 and 2005. The largest decline in employee numbers was seen in the deep sea freight transportation

industry. The number of employees dropped from 19,800 in 1998 to 11,400 in 2005, a 43% decline.

Marine cargo handling and marina industries showed the largest increases in annual payroll between 1998 and 2005: 49% for both industries. The largest decline in annual payroll was seen for deep sea freight transportation, declining 16% from \$960 million (1998) to \$802 million (2005).

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	102,539,452	44,262,555	1,509,108
Commercial Harvesters	9,100,130	3,457,237	111,472
Seafood Processors and Dealers	14,928,223	4,797,526	106,736
Seafood Wholesalers and Distributors	19,487,496	8,311,312	159,297
Retail Sectors	59,023,602	27,696,481	1,131,604

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	3,578,424	3,195,065	3,687,576	3,846,034	3,388,629	3,333,373	3,468,377	3,774,109	4,033,328	4,103,645
Finfish & Other	1,855,718	1,484,287	1,723,839	1,823,833	1,662,483	1,602,634	1,656,186	1,803,876	1,941,248	2,012,495
Shellfish	1,722,706	1,710,778	1,963,737	2,022,201	1,726,146	1,730,739	1,812,191	1,970,233	2,092,080	2,091,150
Crab, Blue	172,948	175,107	166,676	164,370	158,220	146,974	153,685	145,906	140,818	125,738
Halibut, Pacific	121,148	75,872	125,679	142,311	115,364	136,789	172,847	176,893	177,599	202,093
Lobster, American	271,540	255,091	329,501	313,766	249,510	293,894	283,516	374,303	415,438	395,175
Menhaden	114,627	105,176	114,457	114,344	104,791	81,607	71,988	75,045	62,520	64,405
Pollock, Walleye	259,028	181,708	211,899	298,124	334,938	359,159	312,344	347,405	414,255	429,445
Sablefish	116,566	64,985	75,047	97,288	80,442	77,016	99,901	90,663	100,219	104,844
Salmon, Pacific	300,816	278,459	360,323	271,227	211,524	157,557	200,811	304,230	331,410	311,506
Scallop, Sea	89,476	75,114	120,990	160,886	173,739	202,094	229,098	319,995	432,585	384,799
Shrimp	573,306	576,193	589,385	776,129	578,182	523,898	441,622	446,081	412,718	456,242
Tunas	110,309	94,887	90,819	99,249	94,077	85,483	86,820	89,953	86,371	86,714

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	9,952,114	9,332,776	9,411,405	9,142,639	9,510,229	9,435,318	9,497,864	9,682,522	9,712,968	9,498,171
Finfish & Other	8,691,033	8,083,492	8,041,359	7,828,232	8,348,228	8,232,111	8,360,511	8,514,132	8,631,140	8,318,408
Shellfish	1,261,081	1,249,284	1,370,046	1,314,407	1,162,001	1,203,207	1,137,353	1,168,390	1,081,828	1,179,763
Crab, Blue	234,674	224,233	219,272	186,036	159,004	175,574	170,890	174,561	159,242	165,631
Halibut, Pacific	72,449	75,608	79,324	74,369	77,147	80,977	78,863	79,182	76,264	71,428
Lobster, American	82,565	80,090	89,159	86,804	71,193	83,087	71,683	90,073	87,813	92,615
Menhaden	2,012,970	1,699,873	1,989,517	1,764,373	1,739,963	1,755,398	1,590,510	1,495,240	1,243,807	1,304,257
Pollock, Walleye	2,556,582	2,752,656	2,325,889	2,606,800	3,179,407	3,341,095	3,361,802	3,353,374	3,411,307	3,400,812
Sablefish	56,281	46,557	48,348	49,739	44,056	40,895	47,909	52,847	51,093	47,230
Salmon, Pacific	561,662	645,634	815,134	628,133	717,802	561,319	669,995	738,762	899,759	663,648
Scallop, Sea	13,633	12,125	22,023	32,163	46,689	52,672	55,968	64,329	56,580	59,004
Shrimp	306,977	318,857	316,239	386,508	346,252	345,249	324,170	316,568	264,163	336,500
Tunas	83,578	86,055	61,082	50,838	51,772	49,635	61,765	56,329	44,253	49,870

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab, Blue	0.74	0.78	0.76	0.88	1.00	0.84	0.90	0.84	0.88	0.76
Halibut, Pacific	1.67	1.00	1.58	1.91	1.50	1.69	2.19	2.23	2.33	2.83
Lobster, American	3.29	3.19	3.70	3.61	3.50	3.54	3.96	4.16	4.73	4.27
Menhaden	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05
Pollock, Walleye	0.10	0.07	0.09	0.11	0.11	0.11	0.09	0.10	0.12	0.13
Sablefish	2.07	1.40	1.55	1.96	1.83	1.88	2.09	1.72	1.96	2.22
Salmon, Pacific	0.54	0.43	0.44	0.43	0.29	0.28	0.30	0.41	0.37	0.47
Scallop, Sea	6.56	6.19	5.49	5.00	3.72	3.84	4.09	4.97	7.65	6.52
Shrimp	1.87	1.81	1.86	2.01	1.67	1.52	1.36	1.41	1.56	1.36
Tunas	1.32	1.10	1.49	1.95	1.82	1.72	1.41	1.60	1.95	1.74

Recreational Fishing Effort by Mode (thousands of trips)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	4,994	3,865	3,567	3,987	3,793	3,177	3,474	3,514	3,507	3,800
Private / Rental	34,194	31,150	29,866	40,442	42,980	37,565	44,046	40,995	41,355	43,386
Shore	29,375	25,970	22,895	32,302	36,350	29,745	35,580	36,428	36,589	40,001
Total Trips	68,563	60,985	56,328	76,731	83,123	70,487	83,100	80,937	81,451	87,187

Recreational Anglers by Residential Area (thousands of anglers)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	8,102	7,614	7,101	9,941	11,020	9,661	10,814	10,311	11,415	11,866
Non-Coastal	803	668	721	964	1,098	961	1,744	1,676	1,574	1,754
Total Anglers	8,905	8,282	7,822	10,904	12,118	10,622	12,557	11,987	12,989	13,620

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category		Expenditures
	Non-Residents ²	Residents			
			Fishing Tackle		\$2,994,410
Private Boat	NA	\$2,452,542	Other Equipment		\$988,053
Shore	NA	\$2,409,450	Boat Expenses		\$9,304,552
For-Hire	NA	\$933,653	Vehicle Expenses		\$6,975,161
Total Trip Expenditures		\$5,795,645	Second Home Expenses		\$5,373,898
			Total Durable Equipment Expenditures		\$25,636,074
Total State Trip and Durable Equipment Expenditures					\$31,431,719

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	40,790	\$5,552,228	\$2,824,058
Shore Mode Trip Impacts	46,745	\$5,712,317	\$2,970,874
Party/Charter Mode Trip Impacts	21,061	\$2,343,102	\$1,271,832
Total Durable Equipment Impacts	425,217	\$68,716,124	\$31,013,460
Total State Trip and Durable Equipment Economic Impacts	533,813	\$82,323,772	\$38,080,224

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)^{3,4}

Species	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H 1,560	1,395	1,368	1,993	2,039	1,841	2,515	2,536	2,340	2,688
	R 15,909	15,179	12,793	16,933	13,521	13,802	14,863	17,467	18,986	25,927
Drum (Atlantic Croaker and Spot)	H 18,565	17,189	13,939	17,678	22,207	17,833	20,879	20,473	21,334	23,175
	R 17,135	15,528	17,356	23,231	17,515	16,432	18,199	16,669	21,109	20,421
Drum (Seatrouts) ^{5,6}	H 15,821	14,076	19,376	21,130	16,263	13,749	15,029	15,838	15,781	21,887
	R 23,588	19,623	24,138	27,491	19,608	22,366	25,156	25,510	29,268	30,994
Flounder, Summer	H 7,185	7,003	4,123	7,820	5,307	3,281	4,578	4,653	4,110	4,227
	R 12,867	15,111	17,275	17,594	22,895	13,418	15,978	16,338	22,886	18,061
Halibut, Alaskan	H 380	350	333	403	366	351	403	483	500	463
	R 352	290	229	303	254	233	290	369	380	353
Little Tunny/Atlantic Bonito ⁷	H 449	421	421	421	329	323	254	363	202	310
	R 616	623	851	873	685	1,025	865	1,049	567	829
Rockfishes/Scorpionfishes (Pacific)	H 4,667	3,776	4,689	3,701	3,358	2,858	3,743	2,593	2,643	2,985
	R 838	801	1,032	980	1,040	1,187	1,915	1,158	1,181	1,200
Salmon	H 1,193	880	1,028	1,159	1,896	1,406	1,716	1,674	1,561	985
	R 1,467	1,174	1,575	1,441	2,086	1,716	2,030	2,240	2,059	1,467
Sharks (Requiem, Mackerel, & Unidentified) ⁸	H 250	246	153	247	284	229	178	189	200	164
	R 1,412	1,806	1,346	2,173	3,755	2,631	3,816	4,149	4,990	4,951
Tunas (Large Atlantic species) ⁹	H 424	395	486	524	485	310	726	740	692	610
	R 194	170	52	49	36	31	110	110	112	97

¹All data came from the Marine Recreational Fisheries Statistics Survey (MRFSS; currently known as the Marine Recreational Information Program or MRIP), except for 2003-2006 data for California, Oregon, and Washington; data from these states came from the data collection programs of each state. Data for Hawaii is included for 2003-2006 only and all Hawaii residents are considered coastal residents. Data from the Caribbean Region is included for 2000-2006 only. Data does not include Alaska or Texas.

²Angler expenditures reported in this table are those of U.S. residents thus the non-resident category is not applicable (NA).

³This table includes MRFSS data from the New England, Mid-Atlantic, South Atlantic, and Gulf of Mexico Regions' only.

⁴Data for California, Oregon, Washington, and Alaska come from the data collection programs of these individual states and are not directly comparable to MRFSS data due to differing data collection procedures.

⁵Seatrouts include all species of the Cynoscion family including spotted seatrout, silver seatrout, weakfish, and sand seatrout.

⁶Seatrout and spot/croaker include catch data from Texas for private and for-hire catch only.

⁷Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

⁸Requiem shark family includes all species in the Carcharhinidae family. Mackerel sharks include all species in the Lamnidae family. Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

⁹Large Atlantic Tunas include all tunas in the Thunnus family including albacore, bluefin, yellowfin, and bigeye caught in the Atlantic. This data does not include Pacific tuna.

National Economy						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross Domestic Product (\$ millions)	Commercial Fishing Location Quotient
1998	6,941,822	108,117,731	3,309,406	5,930,254 (2001) ¹	8,679,657	1.00 ²
2005	7,499,702	116,317,003	4,482,722	7,014,341	12,372,850	1.00
% change	8.0	7.6	35.5	18.3	42.5	--

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	2,340	2,207	2,161	2,119	2,210	2,346	2,260	2,098
	Receipts	188,031	194,115	188,870	190,629	199,937	210,231	210,450	203,951
Seafood product preparation & packaging	Firms	617	693	714	780	903	1,038	1,110	1,080
	Receipts	48,658	55,332	60,790	60,417	55,750	70,071	81,871	78,745

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	1,772	1,807	1,853	1,940	2,238	2,125	2,151	2,155
	Employees	7,855	8,299	8,458	8,990	9,771	10,346	10,714	10,381
	Payroll	121,537	137,701	137,306	149,310	167,634	186,087	192,187	194,602
Seafood sales, wholesale	Establishments	3,070	3,048	2,992	2,980	2,883	2,456	2,330	2,314
	Employees	27,234	27,706	28,710	28,405	26,719	23,091	22,501	22,666
	Payroll	736,100	797,304	854,649	882,232	895,718	743,479	771,749	781,459
Seafood product preparation & packaging	Establishments	838	842	854	823	754	764	734	717
	Employees	43,805	42,534	41,770	39,855	38,663	39,580	38,102	37,684
	Payroll	956,356	988,801	1,070,573	1,057,737	1,092,500	1,177,582	1,151,780	1,180,396

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	513	535	485	456	471	472	435	465
	Employees	19,754	14,784	13,014	11,964	12,916	12,175	11,314	11,357
	Payroll	960,259	714,701	650,148	697,266	784,149	734,781	735,804	801,863
Coastal & Great Lakes freight transportation	Establishments	559	554	546	544	520	606	579	610
	Employees	22,035	23,256	20,240	24,126	20,149	22,449	21,928	21,025
	Payroll	993,491	1,095,499	1,027,497	1,188,800	1,096,771	1,183,071	1,179,549	1,232,342
Marine cargo handling	Establishments	619	601	607	612	595	542	551	549
	Employees	44,967	43,785	53,496	50,273	50,428	50,644	58,618	59,670
	Payroll	2,029,910	2,016,081	2,194,692	2,249,516	2,425,187	2,422,537	2,899,703	3,034,672
Navigational services to shipping	Establishments	906	891	863	830	828	782	804	803
	Employees	11,535	11,393	11,775	11,957	11,224	11,795	11,881	10,819
	Payroll	429,598	430,114	478,748	507,806	509,953	629,541	591,510	584,689
Ship & boat building	Establishments	1,834	1,779	1,763	1,815	1,736	1,739	1,793	1,799
	Employees	142,682	145,065	146,969	138,962	131,292	133,395	137,633	141,620
	Payroll	4,761,819	4,804,405	5,044,270	5,094,086	5,111,708	5,119,596	5,499,783	5,654,818
Marinas	Establishments	4,226	4,170	4,126	4,121	4,021	4,150	4,092	4,143
	Employees	23,167	24,016	24,824	24,660	23,047	27,928	28,100	27,511
	Payroll	564,458	599,112	640,131	674,576	675,529	773,538	814,821	839,848
Port and harbor operations	Establishments	196	199	196	201	212	223	234	244
	Employees	7,471	7,427	7,445	7,304	6,304	6,413	6,888	7,453
	Payroll	277,692	264,651	265,766	254,864	245,979	279,970	300,692	319,338

¹Employee Compensation data is currently available from 2001-2005.

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



North Pacific Summary

Management Context

The North Pacific region includes the State of Alaska only. Federal fisheries in this region are managed by the North Pacific Fishery Management Council (NPFMC) and the National Marine Fisheries Service under one of five fishery management plans (FMPs). In addition, the NPFMC implements the catch limits for Pacific halibut, which are established by the International Pacific Halibut Commission.

North Pacific Fishery Management Plans

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

Limited access privilege programs or LAPPs are a form of market-based management. The North Pacific Region has seven LAPPs – more than in any other region. These are the: 1) Western Alaska Community Development Quota (CDQ) program (first year: 1992); 2) Alaska halibut / sablefish individual fishing quota (IFQ) program (1995); 3) Pacific whiting cooperative (1997); 4) Bering Sea pollock cooperative (1998); 5) Alaska scallop cooperative (2001); 6) Alaska crab rationalization program which includes both an IFQ and a fishing cooperative (2005); and 7) Central Gulf of Alaska rockfish pilot sector (2007). The ex-vessel values for these programs in 2007 were \$68.0 million, \$237.0 million, \$21.8 million, \$266.0 million, \$1.0 million, \$65.0 million, and \$8.5 million, respectively.

Ecolabels are another form of market-based management, encouraging fishermen to adopt “green” harvest practices through higher market prices for sustainable seafood. The BSAI pollock, GOA pollock, Alaska salmon, and Pacific halibut fisheries, and components of the BSAI Pacific cod fishery have received ecolabel certification from the Marine Stewardship Council. Currently, only one stock managed by the NPFMC is listed as overfished: blue king crab (Pribilof Islands). No stocks in this region are currently subject to overfishing.

Commercial Fisheries

Alaska fishermen earned over \$1.4 billion from their commercial harvest (5.4 billion pounds) in 2006. Landings revenue were dominated by walleye pollock (\$429 million), salmon (\$277 million), Pacific halibut (\$193 million), and Pacific cod (\$185 million). Walleye pollock also accounted for more than 60% of total landings (3.4 billion pounds) and had an average price of \$0.13 per pound. Overall, the commercial fishing industry generated over \$3 billion in sales, \$1.1 billion in income and 40,000 jobs.



A lingcod in temperate Alaskan waters

Key North Pacific Commercial Species

Commercially-important species and species groups in the North Pacific include: Pacific cod, crab, flatfish, Pacific halibut, Pacific herring, Atka mackerel, walleye pollock, rockfish, sablefish, and salmon.

Economic Impacts

In 2006, commercial fisheries generated \$3.0 billion in sales, \$1.1 billion of income, and 40,000 jobs. Seafood processing and dealer operations resulted in instate sales of \$1.7 billion for Alaskan businesses, about 58% of the total for the region, and over 14,000 jobs. The harvest sector alone generated approximately \$936 million in additional sales and supported 18,992 jobs.

Landings Revenue

Overall, ex-vessel revenue increased 21% from 1997-2006; after adjusting for inflation, however, real ex-vessel revenues were relatively flat, increasing only 2%. Landings of finfish and other fishery products increased 13% during this period, with ex-vessel revenue increasing 30% (9.9% after adjusting for inflation). In contrast, ex-vessel revenue of shellfish fell 30% (41% in real terms) in part due to the 49% decrease in shellfish landings. Walleye pollock, Pacific halibut, and rockfish landings revenues increased 66%, 75%, and 80% respectively, while crab landings revenue fell 34% during this period.

Landings

Over the 10 year period, total landings averaged 5.1 billion pounds, ranging from a low of 4.5 billion pounds (2000) to a high of 5.7 billion pounds (2005). Also during this period,

Alaska's regionally important species or species groups averaged 5.0 billion pounds or 99% of total landings.

Walleye pollock contributes more to the Alaska's total landings than any other species or group, averaging 3.0 billion pounds or 60% of average total landings. Walleye pollock landings have steadily increased over the time period, as has their price per pound.

Commercial Fish Facts

Landings revenue

- On average, the key species or species groups accounted for 98.8 % of the total revenue.
- Five of the species had average annual ex-vessel revenue in excess of \$130 million.
- Salmon and walleye pollock accounted for ~ 48% of the average annual total landings revenue.
- The largest annual decrease during the 10 year period was 51% for Atka mackerel (1997-1998); from 2000-2001, prices jumped 122% for Atka mackerel, the largest annual increase during this period.

Landings

- On average, the key species or species groups accounted for 99.4% of the total landings.
- Six of the top ten had average annual landings of >100 million pounds.
- The average annual landings for salmon and walleye pollock were 660 million pounds and 3.0 billion pounds, respectively. Together they accounted for 73% of the average annual landings of all key species combined.
- Crab landings increased 86% from 1997-1998, the largest annual increase in the 10 year period, only to fall 75% from 1999-2000, the largest annual decrease.

Prices

- Crab at \$2.05, sablefish at \$2.03, and Pacific halibut at \$1.86 had the highest average annual prices per pound.
- Walleye pollock at \$0.10, Atka mackerel at \$0.11, and flatfish and Pacific herring at \$0.14 per pound had the lowest average annual prices.
- The largest annual increase in the 10 year period was 97% for crab (1999-2000). The largest annual decrease was -43% for Atka mackerel (1997-1998).

Prices

From 1997-2006, ex-vessel prices increased 93% for cod, 72% for Pacific halibut, and 58% for rockfish. Adjusting for inflation, cod, Pacific halibut, and rockfish increased 64%, 45%, and 33%, respectively. In contrast, ex-vessel prices for Pacific herring decreased 35% (45% in real terms, corrected for inflation) and 16% for salmon (29% in real terms).

Overall, 2006 ex-vessel price for most of the key species or species groups was above their corresponding average price for the time period. The only exceptions were for crab

and Pacific herring: 2006 ex-vessel prices were 22% and 34%, respectively, less than their average price.

Recreational Fishing

In 2006, a total of approximately 317,000 resident and non-resident recreational anglers fished 941,000 days in Alaska. Expenditures throughout the region were \$258 million on recreational fishing trips and \$242 million on durable fishing-related equipment. These expenditures contributed \$563 million in total sales to the Alaskan economy, added 6,418 jobs, and generated \$333 million in value-added impacts.

Key North Pacific Recreational Fishing Species

The North Pacific's recreationally-important species are: razor clams, greenlings (lingcod), halibut, rockfish, Chinook salmon, chum salmon, coho salmon, pink salmon, and sockeye salmon.

Participation Rates

Resident Alaskan recreational anglers numbered 120,000 in 2006 compared to 197,000 non-resident anglers (62% of total anglers). The total number of anglers in 1997 was 294,000; however this number dropped by 4% in 1998. The number of anglers between 1999 and 2002 remained below 1997 levels before starting an upward trend from 2003 through 2005.

There were 334,000 resident and non-resident anglers in 2005, the highest number of total anglers during the time period. The highest number of non-resident anglers was also report in 2005 (207,000), while the highest number of resident anglers was reported in 1997 (137,000).

Recreational Days Fished

The number of days fished per year by Alaskan anglers varied between 704,000 and 1.1 million from 1997 to 2006. The largest annual decline occurred between 1997 and 1998: days fished fell 14%. Between 1998 and 1999, there was a 31% increase in the number of days fished, the largest annual increase during the ten year period.

Expenditures and Economic Impacts

In 2006, recreational anglers in Alaska spent a total of \$499 million on fishing trip expenditures and purchases of durable equipment. Residents spent \$48 million on total trip-related expenses while non-residents spent considerably more: \$210 million in 2006. Boat expenses (\$80 million) accounted for 33% of all durable equipment expenditures in 2006.

North Pacific Summary

Recreational angling contributed \$380 million in sales from trip-related expenses. Party/charter boat trips accounted for \$246 million in total sales (65% of trip impacts) to the region's economy, while private boat trips accounted for \$113 million (30% of trip impacts). Shore trips added \$21 million (5% of trip impacts) to the North Pacific's economy.

In 2006, the majority of recreational fishing-related jobs were attributed to the party/charter boat industry: approximately 3,075 jobs. Durable equipment expenditures generated 1,925 jobs, \$183 million in total sales, and \$124 million in value-added impacts across the region.

Recreational Fishing Facts

Angler participation

- Non-resident anglers outnumbered resident anglers for all years by an average of 38% over the ten year period.
- In 2002, resident anglers numbers declined to 113,000, the lowest number recorded between 1997 and 2006.

Recreational days fished

- Anglers fished a total of 941,000 days in 2006, an 11% decline from the previous year.
- Overall, the number of days fished increased 15% from 1997 to 2006.

Economic impacts

- Economic impacts from party/charter trips contributed more to the Alaskan economy than either private boat trips or shore trips.
- When considering trip-related impacts, the party/charter trip category accounted for 65% of total sales and 65% of value-added impacts.

Catch data for key species

- In 2006, recreational anglers caught over 1 million salmon.
- Razor clam is the only shellfish species listed among Alaska's ten key recreational species. Recreational harvest of razor clams peaked in 2000 with 883,000 clams harvested.

Recreational Catch and Release

Halibut was the number one species caught in the North Pacific region with 816,000 caught in 2006. Of this total, 463,000 were harvested and 353,000 were released. Between 1997 and 2005, the highest number of halibut was harvested in 2005 with 500,000 fish harvested and the lowest harvest (333,000) was in 1999.

Coho salmon was the species with the second highest catch levels among the key species. In 2006, a total of 503,000 fish were caught by anglers, with the majority of them harvested (395,000) rather than released (107,000).

Sockeye salmon was the key species with the lowest catch rates for all years between 1997 and 2006. In 2006, there

were 28,000 sockeye salmon caught: 21,000 fish were harvested and 7,000 were released.

Marine Coastal Economy

Overall, Alaska's 2005 establishment numbers, employee numbers, annual payroll, employee compensation, and gross domestic product by state all increased relative to 1998 levels. The gross state product (70%) and annual payroll (42%) increased the most. The smallest percentage change was seen for the number of establishments (9%) and employees (18%) in the state. The Commercial Fishing Location Quotient was not available for 1998 or 2005.

Seafood Sales and Processing

The number of non-employer firms engaged in seafood product preparation and packaging fluctuated over the time period, ranging from 34 firms in 2003 to 17 firms in 1998 and 2005. Receipts for this industry declined 7% (18% in real terms) during this time period. The number of employer establishments engaged in seafood product preparation and packaging also fluctuated, increasing from 105 establishments in 2001 to 124 firms in 2005. From 1999 to 2005, annual payroll for this industry increased from \$201 million to \$235 million, a 17% increase (in real terms, a 10% increase).

The number of employer establishments engaged in seafood retail remained relatively stable. From 1998 to 2005, annual payroll increased 24% nominally, 10% after adjusting for inflation. The number of employees, however, fell almost 60% during this time period.

Employer establishments primarily engaged in seafood wholesale ranged from 99 establishments in 2002 to 71 in 2001. Employee numbers also fluctuated but overall showed a downward trend, decreasing 26% from 1998 to 2005. Nominally, annual payroll increased 14% during this time period; in real terms, annual payroll was flat.

Transport, Support, and Marine Operations

The marine cargo handling industry had the most complete information in this sector, showing relatively steady establishment numbers, varying employee numbers, and decreasing annual payroll over the time period. From 1998 to 2005, the number of people employed by this sector increased 34%; payroll, however, declined 22% (31% in real terms).

Overall, establishment numbers for most industries fluctuated or decreased over the period. However, industries engaged in coastal freight transportation and port and harbor operations were exceptions to this, increasing 65% and 100%, respectively. In addition, the number of workers employed by the navigational services to shipping industry

increased 81% from 1999 to 2005; annual payroll for this industry increased 149% (135% in real terms) during this time period.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	3,023,778	1,051,057	39,844
Commercial Harvesters	936,180	334,567	18,992
Seafood Processors and Dealers	1,744,954	542,569	14,052
Seafood Wholesalers and Distributors	142,899	73,897	1,387
Retail Sectors	199,745	100,025	5,413

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	1,165,607	948,645	1,211,402	1,133,284	1,016,762	1,038,320	1,128,400	1,226,934	1,367,792	1,407,148
Finfish & Other	986,915	734,410	939,632	991,530	894,132	890,425	952,942	1,061,175	1,208,303	1,282,752
Shellfish	178,692	214,235	271,770	141,754	122,630	147,895	175,458	165,759	159,489	124,396
Cod, Pacific	136,813	97,853	142,581	160,962	126,863	135,775	149,662	132,910	141,281	185,131
Crab	166,682	202,716	261,107	130,427	115,670	139,828	165,833	153,742	146,131	110,572
Flatfish	66,722	37,927	30,757	42,750	31,376	37,481	37,637	41,983	62,393	70,831
Halibut, Pacific	110,410	68,432	116,913	134,825	109,053	128,922	165,906	168,658	170,075	192,905
Herring, Pacific	16,700	12,824	12,835	9,647	10,385	9,139	8,930	14,029	13,429	7,455
Mackerel, Atka	16,121	7,891	9,825	9,483	21,060	11,159	10,479	12,479	15,490	16,350
Pollock, Walleye	259,028	181,708	211,899	298,124	334,938	359,159	312,344	347,405	414,255	429,445
Rockfish	11,085	8,271	10,188	10,996	8,344	10,802	11,721	12,485	16,295	19,908
Sablefish	87,245	53,009	57,227	76,222	62,269	64,595	81,058	73,294	79,853	81,849
Salmon	276,702	262,674	345,686	246,641	188,497	129,902	168,093	255,000	293,562	276,512

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	4,876,385	4,935,227	4,492,648	4,465,988	5,036,340	5,066,264	5,305,959	5,354,645	5,651,307	5,421,264
Finfish & Other	4,721,653	4,657,089	4,279,599	4,408,826	4,983,621	5,001,781	5,242,033	5,294,442	5,583,797	5,342,241
Shellfish	154,732	278,138	213,049	57,162	52,719	64,483	63,926	60,203	67,510	79,023
Cod, Pacific	696,453	588,272	523,281	529,664	470,768	510,759	564,562	587,337	546,748	517,799
Crab	145,237	270,127	206,231	52,372	47,192	57,878	56,955	52,642	57,310	69,002
Flatfish	497,428	299,374	242,001	316,616	257,080	284,718	277,327	270,348	341,204	383,111
Halibut, Pacific	68,066	71,044	75,851	71,727	74,380	77,939	76,616	76,558	73,922	69,154
Herring, Pacific	115,616	86,790	85,276	68,005	84,754	69,858	68,984	70,893	85,701	79,845
Mackerel, Atka	130,436	112,871	113,396	98,308	125,874	83,244	99,542	108,423	129,482	130,814
Pollock, Walleye	2,556,582	2,752,656	2,325,888	2,606,800	3,178,821	3,333,647	3,361,261	3,353,236	3,410,065	3,400,810
Rockfish	65,181	61,561	74,431	64,484	61,718	68,054	73,495	68,399	65,513	74,316
Sablefish	38,155	36,480	33,316	35,563	31,296	32,217	35,705	39,942	37,352	33,509
Salmon	530,223	626,065	801,671	606,717	686,388	523,057	630,527	697,897	872,318	634,227

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cod, Pacific	0.20	0.17	0.27	0.30	0.27	0.27	0.27	0.23	0.26	0.36
Crab	1.15	0.75	1.27	2.49	2.45	2.42	2.91	2.92	2.55	1.60
Flatfish	0.13	0.13	0.13	0.14	0.12	0.13	0.14	0.16	0.18	0.18
Halibut, Pacific	1.62	0.96	1.54	1.88	1.47	1.65	2.17	2.20	2.30	2.79
Herring, Pacific	0.14	0.15	0.15	0.14	0.12	0.13	0.13	0.20	0.16	0.09
Mackerel, Atka	0.12	0.07	0.09	0.10	0.17	0.13	0.11	0.12	0.12	0.12
Pollock, Walleye	0.10	0.07	0.09	0.11	0.11	0.11	0.09	0.10	0.12	0.13
Rockfish	0.17	0.13	0.14	0.17	0.14	0.16	0.16	0.18	0.25	0.27
Sablefish	2.29	1.45	1.72	2.14	1.99	2.00	2.27	1.84	2.14	2.44
Salmon	0.52	0.42	0.43	0.41	0.27	0.25	0.27	0.37	0.34	0.44

Recreational Fishing Effort (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Trips	816	704	924	978	889	855	868	1,007	1,054	941

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Residents	137	126	118	123	120	113	129	130	127	120
Non-Residents	157	155	153	158	163	162	170	193	207	197
Total Anglers	294	281	270	281	283	275	299	323	334	317

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	51,457	28,802	Fishing Tackle	32,481
Shore	10,035	5,217	Other Equipment	33,249
For-Hire	148,050	14,012	Boat Expenses	79,879
Total Trip Expenditures	209,542	48,031	Vehicle Expenses	59,663
			Second Home Expenses	36,274
			Total Durable Equipment Expenditures	241,544
Total State Trip and Durable Equipment Expenditures				499,117

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	1,187	113,246	61,031
Shore Mode Trip Impacts	231	20,671	11,262
Party/Charter Mode Trip Impacts	3,075	245,765	136,185
Total Durable Equipment Impacts	1,925	182,823	124,445
Total State Trip and Durable Equipment Economic Impacts	6,418	562,505	332,923

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clam, Razor	H	852	661	774	883	678	791	591	554	451	483
	R	137	48	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Greenlings (Lingcod)	H	28	25	31	35	27	20	22	31	38	35
	R	29	21	32	33	30	43	44	52	67	53
Halibut	H	380	350	333	403	366	351	403	483	500	463
	R	352	290	229	303	254	233	290	369	380	353
Rockfish	H	88	87	120	132	117	120	118	180	184	173
	R	123	118	171	168	136	135	132	227	199	165
Salmon, Chinook	H	97	74	90	83	89	89	96	110	116	117
	R	105	67	114	91	105	104	105	124	127	104
Salmon, Chum	H	21	24	13	28	24	14	23	24	17	14
	R	45	36	43	52	51	31	51	61	42	34
Salmon, Coho	H	303	299	433	364	537	497	537	560	695	395
	R	115	104	124	108	154	136	156	193	191	107
Salmon, Pink	H	85	98	143	105	111	114	111	132	149	65
	R	176	157	312	213	224	194	291	297	343	167
Salmon, Sockeye	H	17	22	28	25	25	24	29	24	27	21
	R	15	13	10	14	13	14	14	10	11	7

Note: Data reported in these tables includes saltwater fishing activities only.

¹Data in this table are from the Sport Fish Division of the Alaska Department of Fish and Game.

²In this table, "(1)" = less than 1000 fish were harvested or released.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	18,212 (0.26%)	196,135 (0.18%)	6,884 (0.21%)	14,151 (0.24%) (2001) ¹	23,165 (0.27%)	ND ²
2005	19,808 (0.26%)	231,088 (0.20%)	9,774 (0.22%)	17,780 (0.25%)	39,394 (0.32%)	ND
% change	8.8	17.8	42.0	25.6	70.1	--

Seafood Sales and Processing – Non-employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	F	F	7	10	F	16	F	11
	Receipts	F	F	327	392	F	625	F	752
Seafood product preparation & packaging	Firms	17	20	19	27	25	34	26	17
	Receipts	1,420	2,076	1,780	1,815	2,140	1,864	1,731	1,315

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	10	9	8	9	12	8	6	11
	Employees	52	F	F	F	37	21	F	22
	Payroll	945	F	F	F	1,669	1,340	F	1,175
Seafood sales, wholesale	Establishments	97	85	79	71	99	90	93	88
	Employees	240	180	271	235	179	228	187	177
	Payroll	6,955	8,256	11,144	11,321	10,232	7,103	7,561	7,928
Seafood product preparation & packaging	Establishments	117	121	113	105	105	109	113	124
	Employees	F	8,563	F	F	F	6,493	6,749	6,621
	Payroll	F	200,794	F	F	F	205,702	216,599	235,457

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	7	6	7	6	10	5	4	5
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	26	26	25	27	23	30	30	43
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	14	15	15	16	16	15	13	13
	Employees	524	653	738	1,087	F	621	488	703
	Payroll	26,759	22,217	21,238	28,358	F	20,443	21,078	20,827
Navigational services to shipping	Establishments	34	33	35	27	25	28	29	32
	Employees	F	176	F	F	271	273	280	318
	Payroll	F	8,150	F	F	19,251	20,758	20,676	20,334
Ship & boat building	Establishments	13	9	10	12	12	10	14	14
	Employees	F	F	F	F	F	F	286	F
	Payroll	F	F	F	F	F	F	8,815	F
Marinas	Establishments	24	26	23	24	22	22	22	22
	Employees	F	F	F	F	101	F	62	71
	Payroll	F	F	F	F	3,625	F	2,367	2,612
Port and harbor operations	Establishments	1	1	1	2	4	2	3	2
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F

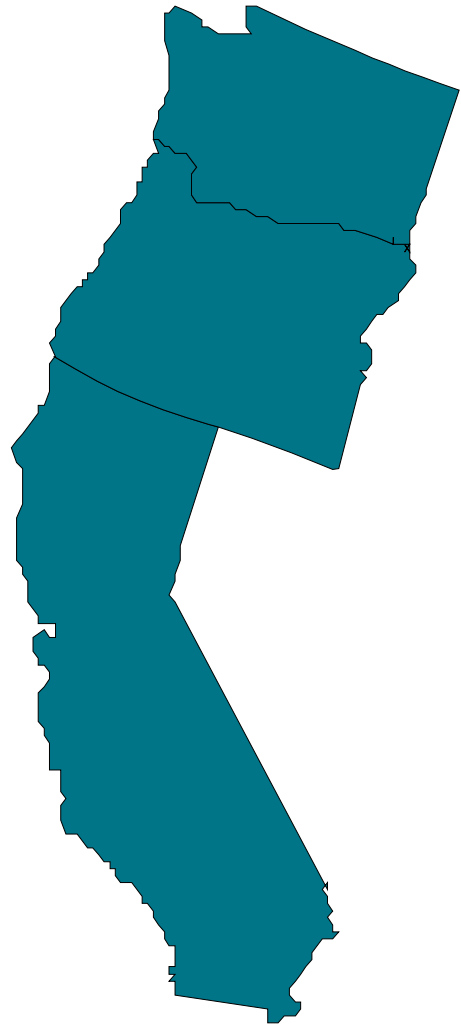
F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²ND = Data is not disclosable.

Pacific

- California
- Oregon
- Washington



Pacific Summary

Management Context

The Pacific region includes the states of California, Oregon, and Washington. Federal fisheries in this region are managed by the Pacific Fishery Management Council (PFMC) and the National Marine Fisheries Service (NMFS) under four fishery management plans (FMPs).

Pacific Fishery Management Plans

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

Of the stocks covered in these fishery management plans, bocaccio, darkblotched rockfish, cowcod, and yelloweye rockfish are currently considered overfished. Eastern Pacific yellowfin tuna and Pacific bigeye tuna stocks are currently characterized as subject to overfishing.

Catch limits for Pacific halibut are set by the International Pacific Halibut Commission (IPHC). The PFMC develops a catch-sharing plan for tribal and non-tribal (commercial and recreational) fisheries based on this catch limit.

Several species of Pacific salmon are listed as threatened or endangered under the Endangered Species Act. The incidental harvest of these species is a concern. Incidental harvest of a non-target species such as endangered Pacific salmon is known as bycatch. Salmon bycatch is of particular concern for the sardine fisheries off of Oregon and Washington.

One type of market-based management tool available for fishery managers are limited access privilege programs (LAPPs). The Pacific sablefish permit stacking fishery is one such program that was put into place in 2001 and had an ex-vessel value of \$6.4 million in 2007.

Ecolabels are also considered a market-based management tool and are intended to encourage fishermen to adopt “green” harvest practices through higher market prices for sustainable seafood. The Oregon pink shrimp and Pacific halibut fisheries have received ecolabel certification from the Marine Stewardship Council.

Commercial Fisheries

In 2006, landings by Pacific fishermen (1.2 billion pounds) had an ex-vessel value of \$472 million. Landings revenue was dominated by crab (\$144 million) and other shellfish (\$115 million). These species and groups accounted for \$259 million (55%) of landings revenue. Hake accounted for almost half of the landings in the region in 2006: 570 million pounds.



Northwest Seafoods Company Pier in Neah Bay, Washington

Key Pacific Commercial Species

Commercially-important species and species groups in the Pacific include: crab, flatfish, hake (whiting), other shellfish, rockfish, sablefish, salmon, shrimp, squid, and albacore tuna.

Economic Impacts

The Pacific region’s commercial fishing industry generated almost \$10 billion in sales impacts in California, followed by \$3.8 billion in Washington and over \$1 billion in Oregon. California also generated the highest income impacts (\$5.1 billion) and jobs (179,000). Washington had the highest landings revenue in the region with \$216 million in 2006, followed by California (\$130 million) and Oregon (\$108 million).

Landings Revenue

Overall, ex-vessel revenue increased over 18% between 1997 and 2006, though no increase occurred when adjusted for inflation. Finfish and other fishery products revenue dropped 22% (34% in real terms), while shellfish increased 71% (45% in real terms). In 2006, Washington had the highest average landings revenue in the region (\$216 million), followed by California (\$130 million) and Oregon (\$108 million). Washington experienced the largest growth in ex-vessel landings revenue, increasing 63% nominally (38% in real terms) between 1997 and 2006. California had the largest decrease in landings revenue, dropping 26% (38% in real terms).

The Pacific’s regionally-important species comprised an average of 87% of ex-vessel revenue in the region (\$331 million). On average, crab and other shellfish contributed more to total landings revenue than any other key species or group, accounting for 24% and 23%, respectively. Squid

revenues experienced the largest decrease and increase between 1997-2006, dropping 93% (\$20 million) between 1997 and 1998 following a large El Nino event, then increasing 1949% (\$32 million) the following year.

Commercial Fish Facts

Landings revenue

- On average, the regionally important species in the Pacific region accounted for 87% of the total revenue.
- Shellfish accounted for an average of 55% of total landings revenue. Crab contributed the most, approximately 44% of shellfish revenues.
- Over the 10-year period, landings revenue from finfish and other fishery products became less diversified. In 1997 salmon, hake and albacore accounted for 31% of landings revenue from this source but 53% by 2006.

Landings

- On average, the ten key species or groups accounted for 71% of total landings annually.
- Finfish and other fishery products accounted for almost 80% of average annual landings for the region. Hake and squid combined contributed over 50% of these landings.
- The largest annual decrease in annual landings during the time period was 96% (149 million pounds) for squid (1997-1998) following a large El Nino event, only to have the largest annual increase of 3062% (195 million pounds) the following year.

Prices

- Other shellfish (\$3.01 per pound), crab (\$1.81), and sablefish (\$1.44 per pound) had the highest average annual ex-vessel prices over the time period.
- Hake (\$0.05 per pound), squid (\$0.18 per pound), and flatfish (\$0.40 per pound) had the lowest average annual ex-vessel prices.
- 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 46% from 2000-2001.

Landings

From 1997-2006, total landings averaged 1.17 billion pounds with a range of 981 million pounds (2003) to a high of 1.34 billion pounds (1997). Total landings, landings of finfish and other fishery products, and shellfish landings all decreased between 1997 and 2006: -11%, -13%, and -4%, respectively.

Average landings for key species and species groups comprised 71% of total landings for the region. Landings of key species and groups increased 11% between 1997 and 2006 despite the decreasing landings trends for most key species and groups. Exceptions were for crab (145% increase), hake (12% increase), albacore tuna (14% increase), and other shellfish (landings were flat). Rockfish (-90%),

shrimp (-52%), flatfish (-31%), and squid (-30%) had the largest drop in landings between 1997 and 2006. Rockfish declines were largely due to management measures put in place to rebuild overfished stocks.

Squid landings experienced the largest decrease and increase of any key species or group between the 1997-2006 time period with a 96% drop in landings from 1997-1998 following a large El Nino event, only to reach a record high the following year.

Prices

Ex-vessel prices between 1997 and 2006 increased for almost all key species or groups. Rockfish prices increased 128% (92% in real terms) from \$0.40 per pound to \$0.91 per pound, while squid prices increased 79% (51% in real terms) from \$0.14 per pound to \$0.25 per pound. Crab was the only species group where ex-vessel prices decreased, from \$1.91 per pound in 1997 to \$1.69 per pound in 2006, a 12% drop in price (-25% in real terms).

Ex-vessel price for squid experienced the largest annual increase over the time period, increasing 136% from 2002-2003. Salmon experienced the largest annual decrease in ex-vessel price, dropping 46% from 2000-2001.

Recreational Fishing

In 2006, 1.97 million recreational anglers took fishing trips in the Pacific region. These anglers took approximately 5.9 million fishing trips, and spent \$442 million on fishing trips and \$4.2 billion on durable fishing-related equipment. These expenditures contributed between \$284 million (Oregon) and \$3.7 billion (California) in total sales of fishing trip and durable equipment impacts, between 2,500 (Oregon) and 23,000 (California) jobs, and between \$155 million (Oregon) and \$1.9 billion (California) in value-added impacts.

Key Pacific Recreational Fishing Species

The Pacific region's recreationally-important species and species groups are: salmon, rockfishes and scorpionfishes, greenlings, flatfishes, sculpins, surfperches, albacore and other tunas, bonito/barracuda/bass, mackerel, and croakers.

Participation Rates

The total number of recreational fisherman across the Pacific region declined between 1997 and 1999 from 2 million anglers to 1.6 million, a 20% drop. From 1999 to 2003, there was a 57% increase in participation. Total participation peaked in 2001 and 2003 at 2.5 million anglers.

Pacific Summary

In 2006, recreational anglers from coastal counties (1.3 million anglers) accounted for 65% of the total number of recreational anglers in the Pacific region. Non-coastal county residents accounted for 28% of total anglers (549,000 anglers) and out-of-state residents accounted for 7% (130,000 anglers).

Due to differences in the way California collected catch and effort information after 2003, total participation estimates in the Pacific region for 1997-2003 are not comparable to 2004-2006. Based on the new estimates for the 2004-2006 time period, participation was highest in 2006 with 1.97 million anglers. This was an increase of 23% from total participants in 2005.

Recreational Fishing Facts

Participation

- The total number of recreational anglers in the Pacific region remained relatively stable over the time period, averaging 2.0 million anglers annually.
- In 2006, California had over 1.5 million anglers. Of these, 1.1 million were coastal county residents, 346,000 were non-coastal county residents, and 97,000 were out-of-state anglers.

Recreational trips

- Overall, the number of recreational fishing trips taken in the Pacific region declined 13%, from 6.7 million trips taken in 1997 to 5.9 million in 2006.
- The majority of fishing trips are taken from the shore, with these trips increasing 23% in 2006 relative to the number of trips reported in 1997. Over 80% of these trips were taken in California.
- In 2005, shore-based trips comprised the majority of fishing trips taken in California (3.1 million out of 4.5 million total trips) and Washington (512,000 out of 653,000 total trips).

Catch data for key species

- Over 809,000 salmon were caught by recreational anglers in 2006, a 30% decline relative to the 1.2 million caught in 1997.
- The recreational catch of mackerels was highest in the Pacific region with 5.1 million fish caught in 2006. Over 70% of these were released rather than harvested.
- Only surfperches reported an increase in catch with recreational anglers catching 65% more in 2006 relative to the numbers caught in 1997. Most of the other key species or groups reported double digit declines in catch.

Recreational Fishing Trips

Between 1997 and 2006, the total number of fishing trips taken across the Pacific region decreased 13%, with the largest decreases in the number of party/charter boat trips (-42%) and private/rental boat trips (-43%). In contrast, fishing trips taken from shore increased 23%.

In California, 67% of fishing trips were taken from shore in 2006 with 3.1 million trips taken. Washington's anglers also preferred fishing from the shore with 512,000 shore trips in 2006, compared to 84,000 private/rental boat trips and 57,000 party/charter boat trips. In Oregon, most fishing trips were taken from a private/rental boat: 379,000 trips in 2006. Shore trips were also popular in Oregon with 232,000 trips taken, followed by 56,000 trips taken from a party/charter boat.

Expenditures and Economic Impacts

In 2006, Pacific anglers spent a total of \$4.6 billion on both trip expenditures and purchases of durable equipment. In-state residents spent \$332 million on trip-related expenses compared to non-residents who spent \$111 million. Overall, Pacific anglers spent \$1.4 billion on boat expenses and \$1.1 billion on fishing tackle.

Expenditures on shore-based fishing trips by residents were higher than private boat (\$107 million) and for-hire (\$93 million) expenditures. Oregon was the exception; trip expenditures on private boat fishing trips (\$26 million) was higher than other types of fishing trips. Across the region, non-resident expenditures were distributed fairly evenly between for-hire (\$41 million), private boat (\$37 million), and shore-based trip (\$33 million) expenditures.

In California, recreational fishing activities contributed \$3.7 billion in trip-related and durable equipment-related sales, generated over 23,000 jobs, and \$1.9 billion in value-added impacts. Durable expenditures accounted for the majority of these economic impacts. Washington's recreational fishing activities generated \$1.1 billion in trip-related and durable equipment-related sales, over 11,000 jobs, and \$606 million in value-added impacts. Oregon had \$284 million in trip-related and durable equipment-related sales, generating over 2,500 jobs, and \$155 million in value-added impacts.

Recreational Catch and Release

Anglers in the Pacific region caught more mackerels than any other key species or species group: 5.1 million fish in 2006. All of these fish were caught in California and was the most caught species in this state. The majority of mackerels were released (3.7 million) rather than harvested (1.4 million). Mackerels were followed by rockfishes and scorpionfishes (3.7 million fish) and surfperches (3.5 million fish) as the most caught species or groups in the region. Albacore and other tunas were the least caught of the key species or groups with approximately 69,000 fish caught in 2006, a 51% decline from the numbers caught in 1997.

Overall, almost all species and groups were caught in lower numbers in 2006 compared to 1997, with declines ranging from 51% for albacore and other tunas to 6% declines in the number of greenlings caught. Only surfperches were caught in higher numbers in 2006 with 3.5 million fish caught, a 65% increase from 1997.

Rockfishes were the most caught species or group in Oregon, with 373,000 fish caught in 2006, a 45% decline from 1997. The majority of these fish were harvested (333,000) rather than released (40,000). In Washington, herring and smelt were the most caught species or group with over 2.5 million fish caught in 2006. The majority of these were harvested (2.5 million) rather than released (126,000). This species group had the largest increase in catch compared to the other species and groups, increasing 140% between 1997 and 2006. The largest decline in catch between these years was for flatfishes (75% decline).

Marine Coastal Economy

When considering all industries in the Pacific region, California had the highest number of establishments and employees, followed by Washington and Oregon. In 2005, the gross domestic product by state for California was \$1.6 trillion (13% of the national total), followed by \$271 billion in Washington (2% of the national total), and \$142 billion in Oregon (1% of the national total).

When considering commercial fishing-related industries in 2006, the Commercial Fishing Location Quotient (CFLQ) for Washington was highest in the region at 13.9. That is, the proportion of Washington workers employed in commercial fishing industries was approximately 14 times larger than the proportion of U.S. workers engaged in this sector nationally. The 2006 CFLQ in Oregon was 2.96, a 12% decrease from 2001 while the 2006 California CFLQ was 0.73, a 27% decrease from 2001.

Seafood Sales and Processing

In 2005, there were 204 non-employer establishments in the seafood retail industry in the Pacific Region. Over 80% of these firms were located in California, 15% in Washington and 3% in Oregon. In Washington, the number of firms remained stable over the 1998-2005 time period but declined sharply in Oregon (-59%) and California (-26%). Annual receipts in the region decreased 20% between 1998 (\$25 million) and 2005 (\$20 million). Annual receipts increased 61% and 24% in Oregon and Washington, respectively, but declined 26% in California.

Employer firms engaged in seafood retail increased 19% between 1998 (211) and 2005 (251), ranging from a 6% increase in California to a 84% increase in Oregon. Annual

payroll increased 49% in California, 109% in Washington and 143% in Oregon during this time period. California accounted for 60% of the annual payroll of this industry in the Pacific Region in 2005.

Non-employer firms engaged in seafood processing activities increased from 111 firms (1998) to 151 firms (2005), a 36% increase over time. The number of firms in Oregon decreased 10% from 1998 and 2005. In contrast, the number of seafood processing firms in California and Washington increased 35 and 50%, respectively. Annual receipts increased in California and Oregon approximately 30% but were flat in Washington. The number of employer establishments engaged in seafood processing activities dropped 16% in Washington, 26% in Oregon, and 35% in California. Annual payroll in California increased 57% from \$59 million in 1997 to \$93 million in 2005.

From 1998-2005, the number of seafood wholesale establishments declined in California (-19%) and Washington (-33%) but held steady in Oregon, despite considerable fluctuation throughout the time period. Annual payroll increased 30% in California but declined 20% (the information on this industry was suppressed for Oregon).

Transport, Support, and Marine Operations

Marine cargo handling and ship and boat building were the two largest employers in this sector for both California and Washington. In 2005, the California ship and boat building industry had 10,100 employees and an annual payroll of \$410 million; the marine cargo industry employed 19,300 workers and had an annual payroll \$1.3 billion. Based upon employment, these sectors expanded 3% and 105%, respectively, from 1998-2005. In Washington, the ship and boat building industry had 7,200 employees and an annual payroll of \$308 million; the marine cargo industry employed 4,500 workers and had an annual payroll \$319 million. Employment in these sectors expanded 18% and 56%, respectively, from 1998-2005. Ship and boat building employed 1,300 workers in Oregon in 2005 and had an annual payroll of \$45 million, a 31% and 39% decrease, respectively, from 1998 levels.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Employment Impacts
California	129,910	9,753,315	5,069,503	179,400
Oregon	107,523	1,093,582	586,724	21,728
Washington	215,789	3,769,547	2,082,372	74,994

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	399,569	284,802	352,924	372,800	326,861	336,017	406,981	421,023	415,181	472,434
Finfish & Other	227,398	154,993	156,655	178,146	155,825	142,687	155,883	180,280	167,519	178,286
Shellfish	172,171	129,809	196,269	194,654	171,036	193,330	251,098	240,743	247,662	294,148
Crab	66,594	58,956	80,900	77,215	67,662	73,084	130,952	114,325	97,127	143,719
Flatfish	13,973	12,322	12,569	14,243	12,980	12,003	10,836	12,742	13,816	13,184
Hake (Whiting)	27,386	18,428	18,647	20,851	13,881	13,576	17,150	21,819	29,139	35,232
Other Shellfish	75,367	61,839	73,799	83,447	80,155	89,298	89,268	100,639	107,438	114,972
Rockfish	20,213	16,846	12,489	15,079	11,461	9,462	5,922	5,125	4,693	4,791
Sablefish	29,321	11,976	17,820	21,066	18,173	12,421	18,843	17,369	20,366	22,995
Salmon	23,897	15,613	14,563	24,359	22,762	27,534	32,637	49,131	37,783	34,947
Shrimp	24,064	14,997	21,265	21,819	17,852	22,459	12,582	12,389	15,706	12,457
Squid	21,882	1,624	33,277	27,242	16,918	18,258	25,331	19,730	31,473	26,960
Tuna, Albacore	19,675	18,702	17,704	17,139	20,608	14,219	24,366	27,241	20,574	23,722

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	1,339,654	993,005	1,299,395	1,293,507	1,133,805	1,068,086	980,535	1,129,948	1,301,644	1,187,150
Finfish & Other	1,095,375	928,351	1,009,691	943,729	859,656	796,664	753,018	935,153	1,071,074	953,019
Shellfish	244,702	65,046	288,605	350,870	280,787	278,749	231,177	197,313	231,119	234,332
Crab	34,871	32,717	40,969	36,617	33,614	42,445	81,892	68,490	61,849	85,290
Flatfish	40,852	35,253	39,678	36,772	31,580	29,364	24,661	29,909	31,495	28,211
Hake (Whiting)	507,981	509,486	491,246	452,752	379,165	285,547	309,300	474,460	569,273	570,459
Other Shellfish	30,450	22,110	27,088	31,036	29,081	30,874	27,611	30,270	30,907	30,516
Rockfish	50,704	37,666	25,688	24,307	17,065	11,840	7,672	6,632	6,014	5,253
Sablefish	18,126	10,077	15,031	14,176	12,760	8,678	12,204	12,904	13,742	13,721
Salmon	31,102	19,344	13,482	21,790	37,516	45,234	42,891	43,143	27,798	29,454
Shrimp	42,710	13,833	32,652	36,941	41,965	58,758	33,000	22,410	26,069	20,358
Squid	155,046	6,381	201,762	262,133	189,877	160,657	99,079	88,147	122,916	108,420
Tuna, Albacore	24,596	30,372	21,454	19,915	24,578	21,996	36,577	31,764	19,649	28,056

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab	1.91	1.80	1.97	2.11	2.01	1.72	1.60	1.67	1.57	1.69
Flatfish	0.34	0.35	0.32	0.39	0.41	0.41	0.44	0.43	0.44	0.47
Hake (Whiting)	0.05	0.04	0.04	0.05	0.04	0.05	0.06	0.05	0.05	0.06
Other Shellfish	2.48	2.80	2.72	2.69	2.76	2.89	3.23	3.32	3.48	3.77
Rockfish	0.40	0.45	0.49	0.62	0.67	0.80	0.77	0.77	0.78	0.91
Sablefish	1.62	1.19	1.19	1.49	1.42	1.43	1.54	1.35	1.48	1.68
Salmon	0.77	0.81	1.08	1.12	0.61	0.61	0.76	1.14	1.36	1.19
Shrimp	0.56	1.08	0.65	0.59	0.43	0.38	0.38	0.55	0.60	0.61
Squid	0.14	0.25	0.16	0.10	0.09	0.11	0.26	0.22	0.26	0.25
Tuna, Albacore	0.80	0.62	0.83	0.86	0.84	0.65	0.67	0.86	1.05	0.85

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 "2006 Economic Impacts of Commercial Fishing Industry" table above.

Recreational Fishing Effort by Mode (thousands of trips)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	1,094	958	891	1,212	927	714	869	638	623	630
Private / Rental	2,517	2,724	2,611	3,535	4,205	3,600	3,752	1,277	1,328	1,426
Shore	3,090	2,514	1,914	2,675	3,265	3,507	3,443	3,539	3,274	3,804
Total Trips	6,701	6,196	5,416	7,422	8,397	7,821	8,065	5,455	5,226	5,861

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	1,234	1,196	1,048	1,419	1,558	1,591	1,632	1,139	1,004	1,287
Non-Coastal	640	474	428	552	813	665	720	526	491	549
Out of State	150	137	133	176	178	166	178	130	107	130
Total Anglers	2,024	1,806	1,609	2,147	2,548	2,422	2,530	1,794	1,602	1,966

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	37,025	107,063	Fishing Tackle	1,128,949
Shore	33,020	131,807	Other Equipment	499,916
For-Hire	40,676	92,780	Boat Expenses	1,445,827
Total Trip Expenditures	110,721	331,650	Vehicle Expenses	786,717
			Second Home Expenses	333,540
			Total Durable Equipment Expenditures	4,194,949
Total Gulf of Mexico Region Trip and Durable Equipment Expenditures				4,637,320

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
California	4,540,000	23,454	3,699,176	1,918,317
Oregon	667,733	2,527	283,578	154,957
Washington	653,000	11,025	1,126,920	606,474

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Barracuda, Bass, and Bonito ²	H	1,624	1,462	1,262	2,493	1,720	1,965	1,888	2,126	780	670
	R	2,931	2,545	2,087	4,210	3,502	4,427	3,727	2,597	2,288	1,651
Croakers	H	857	641	524	541	631	1,513	758	619	688	597
	R	673	392	600	751	737	1,016	871	660	826	771
Flatfishes	H	699	491	485	947	691	1,209	681	499	530	295
	R	741	387	740	1,139	1,115	2,063	948	342	725	614
Greenlings	H	336	247	250	296	288	455	512	210	256	259
	R	182	172	160	372	446	957	858	329	265	225
Mackerels	H	2,106	1,055	479	587	1,356	800	918	945	919	1,446
	R	3,658	2,025	812	1,319	2,600	1,730	2,011	1,715	1,976	3,701
Rockfishes and Scorpionfishes	H	4,579	3,689	4,569	3,569	3,241	2,737	3,624	2,413	2,459	2,811
	R	626	596	741	681	787	931	1,665	751	798	862
Salmon	H	669	364	321	552	1,110	669	920	824	556	374
	R	487	281	265	358	754	500	616	705	339	435
Sculpins	H	140	123	94	85	114	116	107	77	72	73
	R	439	242	209	389	349	404	291	239	216	295
Surfperches	H	1,224	1,411	679	731	915	829	1,144	1,302	1,331	1,588
	R	884	529	382	508	579	729	1,174	1,556	1,463	1,889
Tuna, Albacore and Other	H	125	169	186	73	145	140	161	85	37	53
	R	15	48	17	24	38	15	87	14	9	16

¹Due to changes in data collection methods, the Pacific Region's effort (number of trips) and catch (number of fish harvested or released) estimates for 1997-2003 are not comparable to 2004-2006 estimates.

²Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	9,753,315	5,069,503	179,400
Commercial Harvesters	150,973	67,115	1,928
Seafood Processors and Dealers	838,727	264,731	5,706
Seafood Wholesalers and Distributors	2,252,663	1,071,722	19,392
Retail Sectors	6,510,953	3,665,934	152,374

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	176,510	110,094	148,902	142,126	107,837	111,749	133,580	139,674	116,125	129,910
Finfish & Other	110,295	70,622	79,747	82,315	65,296	59,822	53,834	59,100	46,681	43,167
Shellfish	66,215	39,472	69,155	59,811	42,541	51,927	79,746	80,574	69,444	86,743
Crab	20,233	21,517	18,242	15,207	10,630	15,076	37,455	42,340	19,653	46,483
Lobster, Spiny	6,759	4,707	3,650	4,710	4,524	4,761	5,278	5,942	6,039	8,111
Rockfish	8,600	8,173	4,544	6,212	5,143	5,287	3,462	3,228	2,752	3,104
Sablefish	9,065	3,380	4,304	5,224	4,174	3,509	4,721	3,722	4,295	4,892
Salmon	7,330	3,058	7,427	10,340	4,770	7,653	12,192	18,069	12,845	5,264
Sardine, Pacific	4,077	3,622	5,071	5,473	6,281	5,848	2,874	3,957	3,150	5,100
Sea Urchins	15,274	7,890	13,430	15,052	11,680	10,360	7,906	7,300	6,156	5,145
Shrimp	12,424	8,528	8,604	7,401	5,977	5,901	3,520	3,820	4,338	4,213
Squid	21,887	1,696	33,282	27,243	16,918	18,259	25,333	19,724	31,467	26,959
Swordfish	6,059	5,696	8,355	11,777	8,696	6,372	7,850	4,834	1,896	2,695

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	648,393	342,861	648,627	650,334	524,412	499,627	374,986	378,759	442,370	341,666
Finfish & Other	462,746	317,448	426,660	372,042	321,505	321,503	245,605	257,961	302,010	203,112
Shellfish	185,647	25,413	221,967	278,292	202,907	178,124	129,381	120,798	140,360	138,554
Crab	11,338	12,095	9,596	7,643	4,837	8,607	23,922	26,258	12,028	27,391
Lobster, Spiny	910	738	494	707	706	699	736	830	761	886
Rockfish	16,416	15,359	6,453	6,492	4,833	5,135	3,538	3,152	2,467	2,544
Sablefish	6,542	3,193	4,351	4,140	3,433	2,893	3,636	3,157	3,645	3,617
Salmon	6,080	2,125	4,422	5,913	2,767	5,689	7,358	7,133	4,979	1,189
Sardine, Pacific	94,541	95,484	130,850	118,308	114,235	128,583	76,528	97,483	76,324	102,683
Sea Urchins	18,130	10,429	14,198	15,194	13,117	14,141	11,107	12,219	11,304	10,664
Shrimp	16,852	4,401	7,943	5,791	5,598	5,867	3,498	3,522	2,944	1,197
Squid	155,059	6,620	201,776	262,134	189,877	160,665	99,088	88,105	122,887	108,410
Swordfish	3,179	2,978	4,429	5,849	4,837	3,778	4,706	2,613	653	1,187

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab	1.78	1.78	1.90	1.99	2.20	1.75	1.57	1.61	1.63	1.70
Lobster, Spiny	7.42	6.38	7.39	6.67	6.41	6.81	7.18	7.16	7.93	9.15
Rockfish	0.52	0.53	0.70	0.96	1.06	1.03	0.98	1.02	1.12	1.22
Sablefish	1.39	1.06	0.99	1.26	1.22	1.21	1.30	1.18	1.18	1.35
Salmon	1.21	1.44	1.68	1.75	1.72	1.35	1.66	2.53	2.58	4.43
Sardine, Pacific	0.04	0.04	0.04	0.05	0.05	0.05	0.04	0.04	0.04	0.05
Sea Urchins	0.84	0.76	0.95	0.99	0.89	0.73	0.71	0.60	0.54	0.48
Shrimp	0.74	1.94	1.08	1.28	1.07	1.01	1.01	1.08	1.47	3.52
Squid	0.14	0.26	0.16	0.10	0.09	0.11	0.26	0.22	0.26	0.25
Swordfish	1.91	1.91	1.89	2.01	1.80	1.69	1.67	1.85	2.90	2.27

Recreational Fishing Effort by Mode (thousands of trips)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	966	840	775	1,091	815	588	733	510	503	517
Private / Rental	1,919	2,241	2,113	2,812	2,861	2,905	3,117	708	826	963
Shore	2,423	1,884	1,447	2,006	2,238	2,501	2,699	2,795	2,530	3,060
Total Trips	5,308	4,965	4,335	5,909	5,914	5,994	6,549	4,013	3,859	4,540

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	1,012	988	866	1,164	1,141	1,261	1,379	898	776	1,069
Non-Coastal	449	304	240	324	401	444	493	310	285	346
Out of State	113	104	102	146	134	114	141	92	74	97
Total Anglers	1,574	1,396	1,208	1,635	1,676	1,818	2,014	1,300	1,135	1,512

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category		Expenditures
	Non-Residents	Residents			
Private Boat	22,856	74,359	Fishing Tackle		995,275
Shore	24,321	101,869	Other Equipment		400,039
For-Hire	35,543	74,668	Boat Expenses		371,485
Total Trip Expenditures	82,720	250,896	Vehicle Expenses		649,882
			Second Home Expenses		275,934
			Total Durable Equipment Expenditures		2,692,613
Total State Trip and Durable Equipment Expenditures					3,026,229

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	1,013	135,694	72,385
Shore Mode Trip Impacts	1,494	172,638	94,175
Party/Charter Mode Trip Impacts	1,631	176,944	100,982
Total Durable Equipment Impacts	19,316	3,213,900	1,650,775
Total State Trip and Durable Equipment Economic Impacts	23,454	3,699,176	1,918,317

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Barracuda, Bass, and Bonito ²	H	1,624	1,462	1,262	2,493	1,720	1,965	1,888	2,126	780	670
	R	2,931	2,545	2,087	4,210	3,502	4,427	3,727	2,597	2,288	1,651
Croakers	H	857	641	524	541	631	1,513	758	619	688	597
	R	673	392	600	751	737	1,016	871	660	826	771
Flatfishes	H	410	239	336	780	556	962	603	410	449	211
	R	589	282	644	1,034	1,043	1,844	850	295	677	565
Greenlings	H	135	103	122	102	109	215	357	72	111	128
	R	87	104	101	249	297	641	717	239	162	131
Mackerels	H	2,106	1,055	479	587	1,356	800	918	945	919	1,446
	R	3,658	2,025	812	1,319	2,600	1,730	2,011	1,715	1,976	3,701
Rockfishes and Scorpionfishes	H	3,547	2,485	3,737	2,753	2,585	2,116	3,035	1,778	1,751	2,196
	R	571	567	721	582	720	844	1,621	701	708	799
Salmon	H	273	140	104	207	116	201	109	261	170	121
	R	107	42	47	48	45	40	38	97	58	70
Sculpins	H	76	74	60	46	82	60	70	41	35	38
	R	197	83	126	132	206	184	140	98	72	153
Surfperches	H	966	1,113	498	404	630	586	878	1,046	1,075	1,333
	R	769	427	213	264	432	563	1,016	1,402	1,309	1,734
Tuna, Albacore and Other	H	94	136	174	57	125	103	134	44	5	8
	R	9	39	14	21	32	5	81	8	2	8

¹Due to changes in data collection methods, California recreational effort (number of trips) and catch (number of fish harvested or released) estimates for 1997-2003 are not comparable to 2004-2006 estimates.

²Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	773,925 (11.15%)	12,026,989 (11.12%)	406,481 (12.28%)	769,101 (12.97%) (2001) ¹	1,085,884 (12.51%)	1.00 (2001) ²
2005	860,866 (11.48%)	13,382,470 (11.51%)	588,450 (13.13%)	917,475 (13.08%)	1,616,351 (13.06%)	0.73 (2006) ²
% change	11.2	11.3	44.8	19.3	48.9	-27.0

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	223	180	166	157	165	192	193	166
	Receipts	22,725	19,315	19,270	18,138	18,225	19,771	19,092	16,892
Seafood product preparation & packaging	Firms	65	61	72	71	70	77	98	88
	Receipts	7,777	10,592	11,405	12,983	9,123	9,858	14,312	10,207

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	170	170	172	165	186	175	169	180
	Employees	883	902	828	917	988	968	945	999
	Payroll	12,654	12,906	13,815	15,172	16,775	19,919	16,686	18,832
Seafood sales, wholesale	Establishments	317	337	360	361	334	269	263	258
	Employees	3,618	3,793	4,174	4,507	4,539	3,536	3,744	3,925
	Payroll	103,705	115,021	128,092	142,656	151,789	115,669	124,657	134,576
Seafood product preparation & packaging	Establishments	74	70	78	73	63	60	55	48
	Employees	3,205	2,777	3,289	2,962	3,357	2,896	2,931	2,963
	Payroll	58,934	60,251	75,858	66,387	82,116	74,637	72,178	92,642

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	47	50	44	43	44	51	50	54
	Employees	2,141	F	1,323	1,117	F	902	901	F
	Payroll	117,289	F	51,131	63,891	F	62,417	69,815	F
Coastal & Great Lakes freight transportation	Establishments	26	22	24	31	31	22	20	26
	Employees	1,477	F	1,394	1,648	1,776	1,341	F	1,346
	Payroll	92,976	F	99,106	119,808	132,432	117,982	F	129,262
Marine cargo handling	Establishments	53	53	66	70	64	56	54	54
	Employees	9,397	9,288	15,330	15,076	15,274	15,557	20,456	19,303
	Payroll	810,330	836,880	880,397	944,374	1,000,809	1,040,515	1,179,221	1,273,698
Navigational services to shipping	Establishments	47	49	42	37	30	35	38	37
	Employees	747	806	702	647	476	850	F	F
	Payroll	33,590	33,164	35,480	33,764	28,197	53,162	F	F
Ship & boat building	Establishments	148	144	143	155	145	141	143	141
	Employees	9,864	9,166	9,204	8,589	7,782	8,574	8,865	10,132
	Payroll	334,276	329,705	335,172	322,296	315,090	314,706	354,404	410,446
Marinas	Establishments	265	265	266	249	248	263	271	263
	Employees	2,020	1,925	2,000	1,862	1,851	2,485	2,476	2,426
	Payroll	48,856	44,511	50,106	52,602	57,393	70,640	73,338	71,318
Port and harbor operations	Establishments	24	24	23	21	23	19	20	20
	Employees	806	649	650	163	139	417	F	F
	Payroll	29,102	19,023	19,056	9,990	7,668	23,110	F	F

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2/001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	1,093,582	586,724	21,728
Commercial Harvesters	120,718	63,129	1,579
Seafood Processors and Dealers	125,955	47,207	1,434
Seafood Wholesalers and Distributors	161,694	79,585	1,548
Retail Sectors	685,215	396,803	17,166

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	71,409	50,475	71,139	83,248	72,615	68,376	86,781	101,196	88,196	107,523
Finfish & Other	46,887	33,562	35,356	45,074	41,462	32,155	40,890	49,807	53,192	47,687
Shellfish	24,522	16,913	35,783	38,174	31,152	36,221	45,890	51,389	35,005	59,837
Crab	14,689	12,521	23,108	23,747	19,356	20,767	37,122	42,962	26,603	53,856
Flatfish	5,459	5,407	5,764	6,656	6,103	5,156	6,632	6,460	7,281	7,757
Hake (Whiting)	6,823	3,756	5,917	6,081	4,132	3,219	3,642	4,641	7,107	8,781
Oysters	1,334	495	2,857	3,540	3,536	3,143	3,292	3,292	1,232	1,163
Rockfish	7,367	6,679	5,928	6,956	4,791	2,937	1,812	1,191	970	1,108
Sablefish	10,404	4,648	7,764	9,267	7,987	4,481	7,407	7,076	8,657	9,790
Salmon	2,768	2,588	2,040	4,026	5,861	6,935	8,839	13,029	10,435	4,940
Sardine, Pacific	0	1	86	1,149	1,593	2,819	2,941	4,870	6,199	3,944
Shrimp	7,910	3,189	9,571	10,192	7,560	11,353	5,051	4,740	6,901	4,518
Tuna, Albacore	7,342	6,537	3,784	7,488	7,544	2,952	6,169	9,144	8,815	8,069

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	262,492	230,467	249,449	264,144	234,405	210,752	226,319	294,901	312,636	300,701
Finfish & Other	234,192	216,502	215,850	226,385	195,086	155,612	180,790	254,364	278,646	254,756
Shellfish	28,300	13,964	33,599	37,758	39,319	55,141	45,529	40,536	33,990	45,945
Crab	7,847	7,412	12,348	11,223	9,754	12,452	23,934	27,277	17,734	33,319
Flatfish	15,865	15,621	18,095	16,494	14,488	11,489	14,372	14,846	16,910	16,907
Hake (Whiting)	162,782	157,895	160,965	151,461	117,673	71,220	80,648	130,238	135,503	135,186
Oysters	333	198	674	834	884	786	823	823	308	255
Rockfish	21,915	16,962	14,128	13,604	8,903	4,076	2,782	1,904	1,416	1,399
Sablefish	6,543	3,889	6,590	6,256	5,697	3,185	4,798	5,627	5,834	5,841
Salmon	2,235	1,971	1,558	3,124	5,265	6,117	6,718	5,932	4,659	1,778
Sardine, Pacific	0	2	1,710	21,005	28,176	50,069	55,683	79,610	99,450	78,634
Shrimp	19,560	6,096	20,451	25,462	28,482	41,584	20,546	12,207	15,784	12,195
Tuna, Albacore	9,168	10,601	4,553	8,756	8,948	4,362	9,165	10,754	8,087	8,536

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab	1.87	1.69	1.87	2.12	1.98	1.67	1.55	1.58	1.50	1.62
Flatfish	0.34	0.35	0.32	0.40	0.42	0.45	0.46	0.44	0.43	0.46
Hake (Whiting)	0.04	0.02	0.04	0.04	0.04	0.05	0.05	0.04	0.05	0.06
Oysters	4.00	2.50	4.24	4.24	4.00	4.00	4.00	4.00	4.00	4.56
Rockfish	0.34	0.39	0.42	0.51	0.54	0.72	0.65	0.63	0.69	0.79
Sablefish	1.59	1.20	1.18	1.48	1.40	1.41	1.54	1.26	1.48	1.68
Salmon	1.24	1.31	1.31	1.29	1.11	1.13	1.32	2.20	2.24	2.78
Sardine, Pacific	0.00	0.35	0.05	0.05	0.06	0.06	0.05	0.06	0.06	0.05
Shrimp	0.40	0.52	0.47	0.40	0.27	0.27	0.25	0.39	0.44	0.37
Tuna, Albacore	0.80	0.62	0.83	0.86	0.84	0.68	0.67	0.85	1.09	0.95

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	74	73	67	69	79	67	67	64	58	56
Private / Rental	302	301	257	355	520	448	426	434	389	379
Shore	239	148	141	214	357	295	232	232	232	232
Total Trips	615	522	465	638	956	810	726	731	680	668

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	88	79	65	76	119	113	102	106	97	93
Non-Coastal	146	127	124	163	200	179	169	164	156	156
Out of State	25	20	20	19	29	27	24	25	22	22
Total Anglers	258	226	210	258	348	320	294	294	274	271

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	12,907	25,879	Fishing Tackle	35,296
			Other Equipment	30,992
Shore	3,753	10,718	Boat Expenses	22,255
			Vehicle Expenses	71,596
For-Hire	4,036	7,280	Second Home Expenses	28,377
			Total Durable Equipment Expenditures	188,516
Total Trip Expenditures	20,696	43,877		
Total State Trip and Durable Equipment Expenditures				253,089

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	544	47,397	27,328
Shore Mode Trip Impacts	205	17,448	9,941
Party/Charter Mode Trip Impacts	228	17,523	9,879
Total Durable Equipment Impacts	1,550	201,211	107,809
Total State Trip and Durable Equipment Economic Impacts	2,527	283,578	154,957

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Baitfishes	H	340	227	12	54	500	774	318	318	318	318
	R	25	4	8	(1)	88	21	24	24	24	24
Flatfishes	H	13	12	8	9	16	31	16	27	20	21
	R	6	9	3	3	6	10	6	6	7	7
Greenlings	H	97	44	64	95	106	155	96	99	106	99
	R	60	43	49	86	116	175	77	65	78	72
Rockfishes	H	668	673	528	548	457	384	406	379	401	333
	R	12	6	11	91	53	37	24	25	57	40
Salmon	H	61	41	41	92	259	148	241	215	95	79
	R	75	51	27	33	167	98	187	193	65	59
Sculpins	H	29	19	12	15	22	21	21	19	19	18
	R	53	40	18	55	58	78	51	51	54	52
Sturgeons	H	12	14	4	13	18	12	12	12	12	12
	R	28	33	7	24	30	27	25	25	25	25
Surfperches	H	100	96	73	129	196	139	122	122	122	122
	R	44	18	17	17	46	61	34	34	34	34
Tuna, Albacore	H	17	12	3	4	9	4	11	18	6	12
	R	5	4	1	2	3	2	(1)	(1)	(1)	(1)

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

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	99,183 (1.43%)	1,310,750 (1.21%)	37,723 (1.14%)	67,370 (1.14%) (2001) ¹	100,951 (1.16%)	3.38 (2001) ²
2005	108,571 (1.45%)	1,409,576 (1.21%)	50,019 (1.12%)	81,772 (1.17%)	141,831 (1.15%)	2.96 (2006) ²
% change	9.5	7.5	32.6	21.4	40.5	-12.4

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	17	13	16	14	13	10	11	7
	Receipts	613	858	628	851	644	428	507	985
Seafood product preparation & packaging	Firms	10	11	8	11	F	F	F	9
	Receipts	233	369	461	424	F	F	F	309

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	13	16	18	16	28	21	24	24
	Employees	86	99	113	116	129	F	171	204
	Payroll	1,423	1,794	1,844	1,945	2,311	F	3,259	3,464
Seafood sales, wholesale	Establishments	22	21	25	29	33	26	21	23
	Employees	360	310	F	295	F	F	126	F
	Payroll	9,364	8,174	F	8,698	F	F	4,446	F
Seafood product preparation & packaging	Establishments	27	28	27	27	19	19	18	20
	Employees	1,095	980	1,036	875	707	720	738	762
	Payroll	19,603	20,753	22,718	23,616	20,867	21,980	20,593	19,022

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	8	7	5	4	7	6	6	6
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	5	6	8	7	10	8	8	9
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	10	9	9	9	7	8	8	8
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Navigational services to shipping	Establishments	24	25	23	21	18	21	21	21
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Ship & boat building	Establishments	54	51	48	51	44	43	50	43
	Employees	1,883	2,095	2,506	1,969	1,323	1,284	1,285	1,298
	Payroll	73,822	79,567	87,018	69,200	47,303	42,270	43,357	45,183
Marinas	Establishments	44	43	38	33	41	42	41	40
	Employees	113	F	93	F	F	122	133	113
	Payroll	2,513	F	1,830	F	F	2,742	2,988	3,550
Port and harbor operations	Establishments	1	1	1	1	1	1	M	M
	Employees	F	F	F	F	F	F	M	M
	Payroll	F	F	F	F	F	F	M	M

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	3,769,547	2,082,372	74,994
Commercial Harvesters	248,321	124,021	3,364
Seafood Processors and Dealers	468,881	233,262	5,172
Seafood Wholesalers and Distributors	645,081	317,086	5,924
Retail Sectors	2,407,264	1,408,003	60,533

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	132,191	110,139	120,463	133,782	137,508	146,294	174,545	165,403	193,501	215,789
Finfish & Other	50,755	36,712	29,129	37,111	40,166	41,112	49,081	56,621	50,329	68,240
Shellfish	81,436	73,427	91,334	96,671	97,342	105,182	125,464	108,782	143,172	147,549
Clams	27,090	25,501	26,785	27,920	30,287	36,967	35,782	41,737	48,503	54,789
Crab	31,672	24,919	39,550	38,262	37,676	37,241	56,374	29,024	50,872	43,380
Hake (Whiting)	757	618	802	1,022	1,299	1,022	1,601	2,341	4,937	7,296
Halibut	9,914	7,053	7,986	6,729	5,760	6,777	5,991	7,264	6,512	8,232
Mussels	2,081	2,445	3,720	3,564	3,861	2,213	3,324	3,096	3,729	6,564
Oysters	16,487	17,308	17,798	22,473	20,915	23,645	25,658	30,257	33,697	38,102
Sablefish	9,852	3,934	5,752	6,545	5,981	4,376	6,675	6,517	7,395	8,307
Salmon	13,799	9,967	5,096	9,992	12,130	12,946	11,606	18,033	14,503	24,743
Shrimp	3,357	2,637	2,892	3,611	3,685	4,486	3,723	3,648	4,335	3,602
Tuna, Albacore	6,550	8,779	3,607	5,821	7,917	7,375	15,621	15,657	10,643	15,129

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	113,390	103,316	90,072	112,963	159,511	178,191	192,528	193,366	213,736	240,844
Finfish & Other	82,628	77,645	57,032	78,141	120,949	132,705	136,261	157,384	157,136	191,100
Shellfish	30,762	25,671	33,040	34,822	38,562	45,486	56,267	35,982	56,600	49,744
Clams	2,101	1,968	2,228	2,109	2,499	3,045	3,112	3,292	3,621	4,535
Crab	15,685	13,210	19,026	17,752	19,023	21,386	34,037	14,955	32,086	24,581
Hake (Whiting)	15,971	23,177	18,698	24,399	35,593	22,564	35,124	69,117	93,654	120,058
Halibut	3,962	4,302	3,093	2,289	2,490	2,487	1,868	2,254	1,948	1,980
Mussels	275	296	332	374	332	214	337	427	504	774
Oysters	5,972	6,518	6,769	8,458	8,258	9,085	9,391	10,111	12,190	12,281
Sablefish	5,041	2,959	4,088	3,755	3,589	2,559	3,736	4,064	4,240	4,259
Salmon	22,787	15,248	7,502	12,753	29,484	33,428	28,815	30,078	18,160	26,487
Shrimp	6,147	3,138	4,177	5,520	7,763	11,149	8,867	6,599	7,279	6,926
Tuna, Albacore	8,025	14,349	4,527	7,003	9,110	11,708	23,672	18,044	10,505	19,070

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clams	12.89	12.96	12.02	13.24	12.12	12.14	11.50	12.68	13.40	12.08
Crab	2.02	1.89	2.08	2.16	1.98	1.74	1.66	1.94	1.59	1.76
Hake (Whiting)	0.05	0.03	0.04	0.04	0.04	0.05	0.05	0.03	0.05	0.06
Halibut	2.50	1.64	2.58	2.94	2.31	2.73	3.21	3.22	3.34	4.16
Mussels	7.56	8.26	11.21	9.52	11.62	10.32	9.87	7.26	7.40	8.48
Oysters	2.76	2.66	2.63	2.66	2.53	2.60	2.73	2.99	2.76	3.10
Sablefish	1.95	1.33	1.41	1.74	1.67	1.71	1.79	1.60	1.74	1.95
Salmon	0.61	0.65	0.68	0.78	0.41	0.39	0.40	0.60	0.80	0.93
Shrimp	0.55	0.84	0.69	0.65	0.47	0.40	0.42	0.55	0.60	0.52
Tuna, Albacore	0.82	0.61	0.80	0.83	0.87	0.63	0.66	0.87	1.01	0.79

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	54	45	49	52	33	59	69	64	62	57
Private / Rental	296	182	241	368	824	247	209	135	113	84
Shore	428	482	326	455	670	711	512	512	512	512
Total Trips	778	709	616	875	1,527	1,017	790	711	687	653

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	134	128	117	179	297	217	150	136	131	125
Non-Coastal	45	42	64	65	212	41	58	52	50	47
Out of State	12	13	10	10	14	25	14	12	12	11
Total Anglers	192	183	191	254	524	284	222	200	193	183

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	1,262	6,825	Fishing Tackle	98,378
			Other Equipment	68,885
Shore	4,946	19,220	Boat Expenses	1,052,087
For-Hire	1,097	10,832	Vehicle Expenses	65,239
Total Trip Expenditures	7,305	36,877	Second Home Expenses	29,229
			Total Durable Equipment Expenditures	1,313,819
Total State Trip and Durable Equipment Expenditures				1,358,001

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	96	10,990	5,743
Shore Mode Trip Impacts	293	30,471	16,346
Party/Charter Mode Trip Impacts	197	18,313	10,225
Total Durable Equipment Impacts	10,440	1,067,145	574,160
Total State Trip and Durable Equipment Economic Impacts	11,025	1,126,920	606,474

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cod, Pacific	H	2	1	(1)	(1)	1	2	3	6	5	1
	R	1	2	(1)	1	(1)	(1)	(1)	1	(1)	(1)
Flatfishes	H	276	240	141	158	119	216	62	62	61	63
	R	146	96	93	102	66	209	92	41	41	42
Greenlings	H	105	100	65	100	73	85	59	39	39	33
	R	34	25	9	36	33	141	64	25	25	22
Herring and Smelt ²	H	1,060	3,511	1,545	2,065	3,649	3,254	2,487	2,486	2,486	2,486
	R	28	204	174	60	161	196	136	126	126	126
Rockfishes	H	364	531	304	268	199	237	184	256	307	282
	R	43	23	9	8	14	50	20	25	33	23
Salmon	H	335	183	176	253	735	320	570	348	291	174
	R	305	188	191	277	542	362	391	415	216	306
Sculpins	H	35	30	23	24	10	35	17	17	17	16
	R	189	119	64	202	85	142	101	91	91	91
Sturgeon	H	5	9	9	8	7	8	6	5	5	5
	R	18	39	34	28	21	27	18	25	30	21
Surfperches	H	158	202	108	198	89	104	143	133	133	133
	R	71	84	152	227	101	105	125	120	120	120
Tuna, Albacore	H	18	21	4	7	4	6	11	14	12	24
	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	1

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

²Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

State Economy (% of national total)							
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient	
1998	161,473 (2.33%)	2,134,598 (1.97%)	73,268 (2.21%)	133,974 (2.26%) (2001) ¹	195,794 (2.26%)	12.46 (2001) ²	
2005	175,658 (2.34%)	2,316,296 (1.99%)	94,928 (2.12%)	156,900 (2.24%)	271,381 (2.19%)	13.90 (2006) ²	
% change	8.8	8.5	29.6	17.1	38.6	11.6	

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	33	28	28	29	30	32	30	31
	Receipts	1,477	1,887	2,139	2,465	2,681	1,623	2,202	1,836
Seafood product preparation & packaging	Firms	36	32	37	41	48	59	53	54
	Receipts	5,455	1,965	3,052	3,432	2,763	5,680	4,446	5,568

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	28	31	28	32	44	37	40	47
	Employees	160	179	182	198	235	284	222	291
	Payroll	4,465	4,296	4,122	4,503	6,379	6,363	6,578	9,322
Seafood sales, wholesale	Establishments	189	184	176	176	175	121	116	126
	Employees	1,550	1,617	1,654	1,444	1,185	1,112	883	1,094
	Payroll	53,777	61,101	64,074	56,122	51,959	39,206	37,292	42,852
Seafood product preparation & packaging	Establishments	116	116	119	112	106	110	101	98
	Employees	8,587	7,276	6,784	6,498	6,728	5,968	5,851	5,743
	Payroll	219,324	207,487	218,517	216,660	221,978	231,153	247,316	239,962

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	25	27	21	22	23	27	23	24
	Employees	1,005	877	736	584	F	276	311	378
	Payroll	55,802	53,319	41,689	29,209	F	16,147	20,559	22,655
Coastal & Great Lakes freight transportation	Establishments	34	28	32	30	33	36	38	41
	Employees	2,543	2,484	2,356	2,330	2,173	1,607	2,039	1,672
	Payroll	122,338	128,253	128,747	129,997	130,456	112,319	128,786	122,000
Marine cargo handling	Establishments	32	33	36	36	33	23	30	30
	Employees	2,861	2,361	3,322	2,847	2,538	F	F	4,459
	Payroll	180,789	186,461	238,138	213,946	194,398	F	F	318,873
Navigational services to shipping	Establishments	62	57	56	57	55	52	53	53
	Employees	239	F	F	239	218	834	F	841
	Payroll	14,899	F	F	20,235	20,962	51,092	F	60,034
Ship & boat building	Establishments	155	141	132	134	135	138	141	154
	Employees	6,063	6,036	6,442	5,532	4,974	6,056	6,474	7,154
	Payroll	210,994	219,467	225,433	194,050	219,980	244,124	272,336	307,735
Marinas	Establishments	127	123	116	119	111	102	96	96
	Employees	515	574	575	573	406	430	449	442
	Payroll	12,951	14,211	15,714	14,516	11,283	12,400	12,763	13,556
Port and harbor operations	Establishments	5	7	6	5	4	3	4	6
	Employees	F	F	F	F	37	F	F	F
	Payroll	F	F	F	F	1,565	F	F	F

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

Western Pacific

■ Hawaii



Western Pacific Summary

Management Context

The Western Pacific region includes the state of Hawaii.¹ Federal fisheries in this region are managed by the Western Pacific Fishery Management Council (WPFMC) and the National Marine Fisheries Service (NMFS) under five fishery management plans (FMPs).

Western Pacific Fishery Management Plans

1. Bottomfish and Seamount Groundfish Fisheries
2. Coral Reef Ecosystem
3. Crustacean Fisheries
4. Pelagic Fisheries
5. Precious Coral Fisheries

Of the stocks covered in these fishery management plans, currently the Hancock Seamount groundfish complex is considered overfished. The bottomfish multispecies complex in the Hawaiian Archipelago is considered subject to overfishing.

In addition to the WPFMC and NMFS, pelagic fish species such as bigeye and yellowfin tunas which migrate across international boundaries are also managed by the Western and Central Pacific Fisheries Commission (WCPFC). The WCPFC is a regional fishery management organization with diverse membership that includes the U.S., Australia, Fiji, France, New Zealand, and Palau. Catch levels that are recommended by the WCPFC are considered by the WPFMC and NMFS but these catch levels are suggestions and not binding.

Commercial Fisheries

Fishermen in Hawaii earned \$66 million from their harvest (29 million pounds) in 2006. Tunas comprised two-thirds of ex-vessel value (\$44 million), followed by swordfish (\$5.1 million) and mahimahi (\$3.6 million). Lobsters commanded the highest price per pound (\$9.66) in 2006, followed by snappers (\$4.62 per pound) and tunas (\$3.01 per pound). Overall, the commercial fishing industry generated \$496 million in sales, \$254 million of income, and over 11,000 jobs.

Key Western Pacific Commercial Species

Commercially-important species and species groups in the Western Pacific include: lobsters, mahimahi (dolphinfish), marlin, moonfish (opah), pomfret, scad, snappers, swordfish, tunas, and wahoo.

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 Hawaii is reported here.



Coastline view of the Kohala Mountains on the northwest tip of Hawaii

Economic Impacts

The commercial fishing industry generated \$496 million in sales, \$254 million in income, and over 11,000 jobs. The seafood-related retail sector generated \$274 million in sales, \$166 million in income, and over 7,300 jobs. Commercial harvest operations resulted in instate sales of \$131 million for Hawaiian businesses and over 2,800 jobs.

Landings Revenue

Overall, ex-vessel revenue increased 7% between 1997 and 2006. After adjusting for inflation, however, real ex-vessel revenues declined 9%. Landings of finfish and other fishery products stayed relatively flat, increasing only 1% during this period, with ex-vessel revenues (\$66 million in 2006) increasing 10% (a decline of 7% in real terms). Ex-vessel revenue for shellfish dropped sharply from \$1.5 million in 1997 to \$106,000 in 2006, a 93% drop in revenue (94% in real terms) largely due to declining lobster revenues. Tuna landings revenue increased \$12 million (39% nominally, 18% in real terms) during this period, followed by mahimahi, which increased \$2 million (118% nominally, 85% in real terms).

Landings

Over the 10 year period, landings averaged 28 million pounds, ranging from a low of 25,000 pounds (2001) to a high of 31,000 pounds (2005). Tunas contribute more to the Western Pacific's total landings than any other species or group, averaging 16 million pounds or 56% of total landings. Tuna landings have remained relatively stable over the time period, increasing 4%. In contrast, tuna prices had an average annual increase of 4%.

Commercial Fish Facts

Landings revenue

- On average, the key species of groups accounted for 96% of the total revenue for this region.
- Eight of the top ten species or groups had average annual ex-vessel revenue in excess of \$1.2 million.
- Tunas have an average ex-vessel revenue of over \$38 million, about 63% of total revenue.

Landings

- Overall, finfish and other fishery products accounted for over 99% of total landings in the Western Pacific region.
- On average, the key species or species groups accounted for 94 % of the total landings.
- Tunas averaged 16 million pounds over the time period, contributing 56% to total landings.
- Landings for swordfish increased 580% from 2004-2005, 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, snappers, and tunas had the highest average ex-vessel prices per pound at \$11.44, \$4.03, and \$2.50, respectively.
- Marlin, moonfish, and pomfret had the lowest average ex-vessel prices per pound at \$1.16, \$1.42, and \$1.69 per pound, respectively.

in participation. Participation by residents was highest in 2003 (261,000 anglers) but by 2006 this number dropped 33% (173,000 anglers). Out-of state angler numbers increased from 2003-2006 from 180,000 to 224,000 anglers. By 2006, the number of out-of-state anglers was higher than resident anglers.

Key Western Pacific Recreational Fishing Species

The Western Pacific’s recreationally-important species or species groups are: blue marlin, mahimahi, goatfishes, bigeye and mackerel scad, skipjack tuna, smallmouth bonefish, snappers, trevally and other jacks, wahoo, and yellowfin tuna.

Recreational Fishing Trips

The number of fishing trips taken by anglers in Hawaii averaged 2.6 million annually from 2003-2006, ranging from 2.4 million (2003) to 2.9 million (2004), increasing 10% between 2003 and 2006. Fishing trips taken from shore comprised the majority of trips taken, averaging 77% of total fishing trips annually. In 2006, there were 2.1 million shore-based fishing trips (78% of total trips) compared to 570,000 trips made by a private or rental boat.

Expenditures and Economic Impacts

In 2006, recreational anglers in Hawaii spent a total of \$751 million on fishing trip expenditures and purchases of durable equipment. Residents spent \$119 million on all trip-related expenses, compared to non-residents who spent \$17 million. Expenditures on fishing tackle (\$199 million) accounted for 32% of all durable equipment expenditures in 2006. Fishing tackle was followed by vehicle expenses (\$135 million) and boat expenses (\$128 million).

Recreational angling contributed \$159 million in sales from just trip-related expenses. Expenditures for shore-based trips accounted for over \$100 million in sales, \$53 million in value-added impacts, and supported over a thousand jobs. Durable equipment expenditures generated over 5,000 jobs, \$613 million in total sales, and \$297 million in value-added impacts across the region.

Recreational Harvest and Released Catch

In 2006, Hawaiian recreational anglers caught 829,000 goatfishes and 812,000 scad. These two species were the most caught by recreational anglers in this region and the majority of these fish were harvested rather than released. Trevally (bluefin, giant) and other jack species (greater amberjack, island jack and others) were also caught in large numbers (420,000 fish), but only about half of these were harvested.

Prices

From 1997-2006, ex-vessel prices increased for all key species except swordfish and lobsters, which declined 33% (43% in real terms) and 18% (31% in real terms), respectively. Marlin prices remained flat (nominally) but decreased 15% in real terms. However, ex-vessel prices for moonfish (51% nominally, 28% in real terms), pomfret (50% nominally, 27% in real terms), and mahimahi (48% nominally, 25% in real terms) increased substantially. These species averaged \$1.42 per pound, \$1.69 per pound, and \$2.18 per pound, respectively, over the time period.

Recreational Fishing

In the state of Hawaii, there were 369,000 recreational anglers in 2006. These anglers took a total of 2.6 million saltwater fishing trips, spending \$136 million on recreational fishing trips and \$615 million on durable fishing-related equipment. These expenditures contributed \$773 million in total sales to the regional economy, added over 7,000 jobs, and generated \$381 million in value-added impacts.

Participation Rates

Overall, the total number of anglers (resident and non-resident) in the Western Pacific region decreased from 440,000 (2003) to 369,000 (2006) anglers, a 16% drop

Recreational Fishing Facts

Participation

- Hawaiian anglers, all of whom are coastal county residents, comprised, on average, 54% of total anglers annually.
- In 2006, out-of-state anglers made up 61% of the total number of recreational anglers who fished in Hawaii: a 35% increase in out-of-state angler participation from the previous year.

Recreational trips

- More fishing trips were taken in 2004 than in any other year: almost 2.9 million trips were taken from shore or from a private/rental boat.
- An average of 2.6 million fishing trips were taken annually between 2003-2006.

Economic impacts

- Hawaiian residents spent \$83 million on shore-based fishing trips, \$36 million on private boat trips, and \$30,000 on for-hire trips.
- Non-residents spent \$7.0 million on for-hire fishing trips, more than was spent on private boat trips (\$5.7 million) and shore-based fishing trips (\$4.3 million).

Catch data for key species

- Between 2003 and 2006, catch of barracuda, mahimahi, jacks, and goatfishes increased 124%, 99%, 42%, and 3%, respectively. Catch of all other species and groups reported double digit declines between these years.
- In 2005, Hawaiian anglers harvested a record number of blue marlin, 19,000 fish. The annual harvest of blue marlin did not exceed 5,000 fish in 2003, 2004, and 2006.

(1998 and 1999) to 31 establishments (2003 and 2004). Payroll for this industry increased 70% (51% in real terms), from \$2.9 million in 1998 to \$5 million in 2005.

The number of employer establishments engaged in seafood product preparation and packaging remained stable from 1998-2005. Non-employer firms engaged in this industry fluctuated, from 3 firms in 2000 to 11 firms in 2004. Annual receipts for these non-employer firms increased 809% between 1998 and 2005.

Employer establishments primarily engaged in seafood wholesale steadily decreased over time, dropping 43% between 1998 and 2005. Employee numbers also decreased from 507 employees (1998) to 485 employees (2005), a 4% decline. Annual payroll increased 1% (declining 10% in real terms) between 1998 and 2005, ranging from \$14 million in 2004 to \$18 million in 2001.

Transport, Support, and Marine Operations

The marine cargo handling industry had the most complete information in this sector, showing relatively steady establishment numbers despite increasing annual payroll over the time period. Annual payroll increased 61% (43% in real terms) between 1998 and 2005, ranging from \$25 million (2001) to \$53 million (2005). Employee number varied between 426 employees in 2001 to 756 employees in 2002.

Overall, establishment numbers for most industries in this sector remained stable over the time period. However, marina operations were an exception to this, fluctuating between 6 establishments (1999) and 11 establishments (2003 and 2004). Annual payroll for this industry increased from \$1.1 million in 1998 to \$3.4 million in 2005, a 193% increase (160% in real terms). The number of individuals employed by this industry also increased from 66 employees (1998) to 181 employees (2005), a 174% increase.

Marine Coastal Economy

Overall, Hawaii's establishment and employee numbers, annual payroll, employee compensation, and gross domestic product all increased in 2005 relative to 1998 levels. The gross state product and annual payroll increased the most, 46% and 43%, respectively. The smallest percentage change was seen for establishment (9%) and employee numbers (18%).

The Commercial Fishing Location Quotient for Hawaii decreased 37% from 7.26 in 2002 to 4.55 in 2006. Despite this, Hawaii's commercial fishing-related employment was still higher than the national baseline of 1.0.

Seafood Sales and Processing

The number of non-employer firms and employer establishments engaged in seafood retail varied over the time period. Non-employer firms ranged from 23 firms (2000) to 37 firms (1998) and receipts for this industry increased 23% (9% in real terms) from \$2.8 million in 1998 to \$3.5 million in 2005. Employer establishments engaged in seafood retail ranged from 21 establishments

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	496,227	254,252	11,148
Commercial Harvesters	130,649	39,738	2,849
Seafood Processors and Dealers	35,719	19,339	441
Seafood Wholesalers and Distributors	56,220	29,072	546
Retail Sectors	273,639	166,103	7,312

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	61,571	61,041	62,900	68,196	48,134	52,398	52,713	57,675	71,034	66,119
Finfish & Other	60,111	58,932	61,557	67,833	47,912	52,092	52,451	57,270	70,670	66,013
Shellfish	1,460	2,109	1,343	363	222	306	262	405	364	106
Lobsters	1,172	1,099	835	98	97	122	69	90	111	61
Mahimahi (Dolphin)	1,668	1,698	2,564	3,187	2,264	2,627	2,934	4,909	3,597	3,642
Marlin	2,411	2,187	2,314	2,235	2,139	2,011	1,985	2,472	2,512	2,558
Moonfish (Opah)	814	878	1,297	1,100	999	1,219	1,509	1,343	1,897	1,873
Pomfret	242	331	432	499	386	675	777	1,316	1,440	1,311
Scad	1,625	1,996	1,971	1,440	881	1,066	1,094	943	838	1,017
Snappers	2,420	2,113	2,202	2,478	2,033	2,077	2,059	2,235	2,033	1,780
Swordfish	16,386	14,327	14,244	12,280	1,368	1,381	702	1,225	7,768	5,125
Tunas	31,630	32,399	32,850	41,214	34,526	37,599	37,374	38,483	46,071	44,084
Wahoo	1,285	1,469	1,695	1,663	1,657	1,452	1,917	2,201	2,253	2,329

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	28,405	29,563	30,018	29,394	24,819	25,248	24,928	26,657	31,099	28,729
Finfish & Other	28,236	29,214	29,836	29,345	24,765	25,199	24,879	26,597	30,931	28,646
Shellfish	169	349	183	49	54	49	49	60	168	83
Lobsters	101	112	74	10	9	11	7	9	12	8
Mahimahi (Dolphin)	979	804	1,212	1,528	1,248	1,382	1,335	2,304	1,628	1,528
Marlin	2,438	1,983	2,017	1,582	2,490	1,652	2,520	1,983	2,395	2,662
Moonfish (Opah)	709	849	1,105	687	773	913	1,101	799	1,100	1,089
Pomfret	161	231	314	277	275	492	462	775	677	596
Scad	1,082	1,546	1,383	1,375	945	946	867	1,003	889	875
Snappers	673	619	647	698	600	555	554	600	497	451
Swordfish	5,435	6,284	5,635	6,368	581	726	327	534	3,629	3,200
Tunas	15,052	14,914	15,056	15,032	15,579	16,263	14,819	15,757	17,359	15,609
Wahoo	713	746	925	654	949	682	1,036	910	900	1,005

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Lobsters	11.80	10.08	11.51	12.14	12.61	12.66	11.88	11.08	10.99	9.66
Mahimahi (Dolphin)	1.83	2.30	2.26	2.09	1.82	1.91	2.21	2.21	2.50	2.71
Marlin	1.07	1.15	1.22	1.41	0.96	1.34	0.85	1.34	1.15	1.07
Moonfish (Opah)	1.16	1.04	1.17	1.60	1.31	1.34	1.38	1.71	1.75	1.75
Pomfret	1.52	1.44	1.38	1.80	1.42	1.38	1.69	1.72	2.23	2.28
Scad	1.64	1.43	1.57	1.65	1.75	1.87	1.74	1.97	2.11	2.31
Snappers	3.81	3.65	3.64	3.98	3.67	3.98	4.03	4.31	4.60	4.62
Swordfish	3.02	2.29	2.53	1.93	2.39	1.93	2.21	2.36	2.26	2.04
Tunas	2.15	2.22	2.23	2.74	2.26	2.37	2.59	2.57	2.86	3.01
Wahoo	2.00	2.16	2.01	2.54	1.83	2.20	1.94	2.58	2.75	2.61

Recreational Fishing Effort by Mode (thousands of trips)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Private / Rental							509	709	578	570
Shore							1,893	2,162	1,892	2,074
Total Trips							2,402	2,871	2,470	2,644

Recreational Anglers by Residential Area (thousands of anglers)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal							261	223	204	173
Non-Coastal ²							NA	NA	NA	NA
Out of State							180	183	166	224
Total Anglers							440	407	370	369

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	5,672	36,197	Fishing Tackle	198,844
Shore	4,257	83,267	Other Equipment	108,782
For-Hire	7,003	30	Boat Expenses	128,270
Total Trip Expenditures	16,932	119,494	Vehicle Expenses	135,316
			Second Home Expenses	43,314
			Total Durable Equipment Expenditures	614,527
Total State Trip and Durable Equipment Expenditures				750,953

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	466	49,166	25,141
Shore Mode Trip Impacts	1,176	100,489	53,049
Party/Charter Mode Trip Impacts	101	9,685	5,325
Total Durable Equipment Impacts	5,279	613,480	297,099
Total State Trip and Durable Equipment Economic Impacts	7,023	772,819	380,614

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)^{1,3}

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Barracuda (Smallmouth Bonefish)	H							25	61	25	63
	R							4	9	12	2
Dolphinfish (Mahimahi)	H							109	225	178	219
	R							1	(1)	1	(1)
Goatfishes ⁴	H							794	715	447	813
	R							10	17	8	16
Jacks (Trevallys and Other Jacks ⁵)	H							125	331	257	210
	R							171	146	182	210
Marlin, Blue	H							4	5	19	3
	R							(1)	(1)	(1)	(1)
Scad, Bigeye and Mackerel ⁶	H							1,951	179	726	812
	R							2	(1)	14	(1)
Snappers ⁷	H							233	236	223	177
	R							16	19	57	36
Tuna, Skipjack	H							440	420	302	201
	R							1	6	1	1
Tuna, Yellowfin	H							184	268	231	124
	R							5	(1)	9	1
Wahoo	H							105	97	54	62
	R							(1)	(1)	(1)	(1)

¹Effort (number of trips), participation (number of anglers) and catch (number of fish harvested or released) data for Hawaii was not available for 1997-2002.

²All Hawaii residents are considered coastal residents; NA = not applicable.

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

⁴Goatfishes include: Yellowstripe, Yellowfin, Pflugers, Bandtail, Doublebar, Sidespot, Whitesaddle, Manybar, Blue, and "Goatfish Family/Genus."

⁵Trevally and other jacks include: Bluefin Trevally, Giant Trevally, Bigeye Trevally, Black Trevally, African Pompano, Greater Amberjack, Island Jack, and "Other Jack Family/Genus."

⁶Scad (Jacks) include: Bigeye Scad and Mackerel Scad.

⁷Snappers include: Bluestip, Blacktail, Ruby, Longtailed, Pink, VonSiebolds, Bingham's, Green Jobfish, Ironjaw, and Smalltooth Jobfish.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	29,603 (0.43%)	416,571 (0.39%)	11,292 (0.34%)	24,568 (0.41%) (2001) ¹	37,549 (0.43%)	7.26 (2002) ²
2005	32,244 (0.43%)	490,682 (0.42%)	16,163 (0.36%)	32,314 (0.46%)	54,773 (0.44%)	4.55 (2006) ²
% change	8.9	17.8	43.1	31.5	45.9	-37.3

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	37	29	23	34	F	36	33	29
	Receipts	2,829	2,829	3,670	2,497	F	4,753	2,875	3,487
Seafood product preparation & packaging	Firms	6	8	3	7	7	9	11	5
	Receipts	45	160	44	231	1,566	1,034	1,309	409

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	21	21	23	27	29	31	31	29
	Employees	178	181	183	235	229	317	321	326
	Payroll	2,947	3,063	2,969	3,773	3,737	5,187	5,038	5,007
Seafood sales, wholesale	Establishments	56	50	49	51	44	33	36	32
	Employees	507	493	510	812	525	654	404	485
	Payroll	14,958	16,186	17,805	17,656	15,203	12,653	13,949	15,163
Seafood product preparation & packaging	Establishments	3	3	3	3	4	4	4	3
	Employees	F	F	F	F	86	F	F	F
	Payroll	F	F	F	F	2,584	F	F	F

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	2	2	2	2	2	1	M	M
	Employees	F	F	F	F	F	F	M	M
	Payroll	F	F	F	F	F	F	M	M
Coastal & Great Lakes freight transportation	Establishments	10	13	13	11	11	10	11	13
	Employees	F	F	507	463	F	F	F	F
	Payroll	F	F	30,087	25,782	F	F	F	F
Marine cargo handling	Establishments	7	7	7	6	7	8	8	8
	Employees	601	673	663	426	756	F	F	694
	Payroll	33,008	32,743	37,306	24,920	49,975	F	F	53,061
Navigational services to shipping	Establishments	6	6	6	5	7	7	6	6
	Employees	F	126	63	103	F	F	F	F
	Payroll	F	6,601	2,637	5,926	F	F	F	F
Ship & boat building	Establishments	17	19	17	17	16	14	17	16
	Employees	F	F	F	F	F	480	589	F
	Payroll	F	F	F	F	F	22,053	20,908	F
Marinas	Establishments	7	6	10	7	8	11	11	10
	Employees	66	76	F	F	56	177	178	181
	Payroll	1,145	1,257	F	F	1,414	3,285	3,439	3,354
Port and harbor operations	Establishments	2	2	2	2	2	2	2	2
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

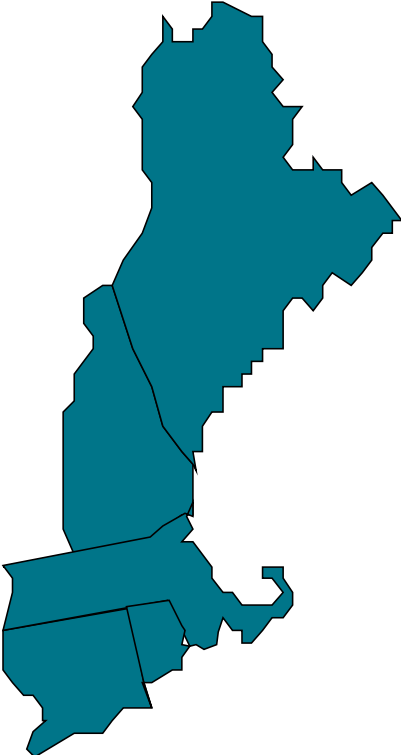
¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

Page intentionally left blank

New England

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



New England Summary

Management Context

The New England region includes Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut. Federal fisheries in this region are managed by the New England Fishery Management Council (NEFMC) and the National Marine Fisheries Service under one of nine fishery management plans (FMPs). Two of these FMPs are jointly managed with the MAFMC. The NEFMC is the lead council for the Monkfish FMP, while the MAFMC is the lead council for the Dogfish FMP.

New England Fishery Management Plans

1. Northeast Multispecies
2. Atlantic Sea Scallops
3. Monkfish (with the MAFMC)
4. Atlantic Herring
5. Small Mesh Multispecies
6. Dogfish (with the MAFMC)
7. Deep-sea Red Crab
8. Northeast Skate Complex
9. Atlantic Salmon

Of the stocks covered in these fishery management plans, 17 are currently listed as overfished: cod (2 stocks), haddock (2 stocks), American plaice, yellowtail flounder (3 stocks), white hake, windowpane flounder, winter flounder, ocean pout, Atlantic halibut, winter skate, thorny skate, smooth skate, and Atlantic salmon. Nine stocks are currently subject to overfishing: cod (2 stocks), yellowtail flounder (3 stocks), white hake, winter flounder (2 stocks), and thorny skate.

There are currently two limited access privilege programs or LAPPs in place in New England. The Georges Bank hook sector fishery was implemented in 2004 and the Georges Bank fixed gear sector fishery was established in 2006. The ex-vessel value of these fisheries was \$600,000 and \$900,000, respectively, for 2007.

Commercial Fisheries

In 2006, New England commercial fishermen received \$953 million for their harvest (701 million pounds). The ex-vessel value of shellfish landings (237 million pounds) was \$769 million, with lobster and sea scallops accounting for almost 70% of total landings revenue. The commercial fishing industry had the highest sales, income, and employment impacts in Massachusetts (\$4.4 billion in sales, \$2.3 billion in income, and 83,000 jobs).

Key New England Commercial Species

Commercially-important species and species groups in New England include: quahog clam, cod and haddock, flounders, goosefish, Atlantic herring, lobster, Atlantic mackerel, sea scallops, loligo squid, and bluefin tuna.



Restaurant sign in Maine, outside Acadia National Park

Economics Impacts

Overall, Massachusetts led the region in commercial fisheries-related sales and income, and full- and part-time jobs. Maine also generated over a billion dollars of in-state sales (\$1.4 billion), with a quarter billion dollars of sales generated by the harvest sector alone. The commercial fishing industry generated \$706 million, \$340 million, and \$311 million in sales in Rhode Island, Connecticut, and New Hampshire, respectively.

Landings Revenue

Overall, ex-vessel revenue increased 66% from 1997 to 2006 (41% after adjusting for inflation), largely due to the increase in ex-vessel revenue from shellfish (108% nominally, 76% in real terms). Ex-vessel revenues from finfish and other fishery products declined 9% (23% in real terms). Overall, Massachusetts had the highest average landings revenue (\$304 million nominally, \$321 million in real terms) followed by Maine (\$292 million nominally, \$308 million in real terms), Rhode Island (\$78 million nominally, \$83 million in real terms), Connecticut (\$33 million nominally, \$35 million in real terms), and New Hampshire (\$16 million nominally, \$17 million in real terms). New Hampshire, Maine, and Massachusetts experienced the largest growth in ex-vessel revenue during this period, increasing 50%, 61%, and 95%, respectively.

The ten key species/species groups were on average 84% of ex-vessel value in New England, with American lobster accounting for 42% of total landings revenue. Maine's harvest of American lobster accounted for 58% of New England's landings revenue from this species in 1997 but has averaged 76% of American lobster revenue since 2002. The ex-vessel value of sea scallops has increased more than fourfold since 1997, earning New England fishermen \$264 million in 2006. Massachusetts generates the majority of

sea scallop revenues, on average accounting for 91% of New England's landings revenue for this species.

Commercial Fish Facts

Landings revenue

- On average, the key species or species groups accounted for 83.7% of the total revenue.
- American lobster and sea scallops accounted for ~71% of the average annual revenue for all key species combined.
- The largest annual increase during the 10 year period was 764% for Atlantic mackerel (2001-2002). This species also had the largest annual decrease in revenue, declining 69% from 2004-2005.

Landings

- On average, the key species or species groups accounted for 73% of total landings.
- Atlantic herring averaged over 180 million pounds from 1997-2006. On average, this species contributed 43% of all finfish and other fishery landings.
- Landings for Atlantic mackerel increased 1575% from 2001-2002, the largest increase in landings in the 10 year period. This species also had largest annual decrease in landings, declining 90% from 2004-2005.

Prices

- Bluefin tuna, sea scallops, and quahog clams had the highest average prices per pound at \$6.09, \$5.58, and \$4.03, respectively.
- Atlantic herring, Atlantic mackerel, and loligo squid had the lowest average prices per pound at \$0.07, \$0.22, and \$0.62, respectively.
- The largest annual increase in ex-vessel price was 227% for Atlantic mackerel (2004-2005), which experienced the largest annual price decrease (-61%) the following year.

Landings

Over the 10 year period, total landings averaged 639 million pounds, ranging from a low of 576 million pounds (2000) to a high of 718 million pounds (2004). Shellfish landings increased 35% during this period, averaging 199 million pounds. Landings of finfish and other fishery products were relatively stable, averaging 441 million pounds.

Despite being a lower value species averaging \$0.07 per pound, Atlantic herring contributes more to New England's harvest than any other species or group, approximately 29% per year. Maine's contribution to Atlantic herring harvest is the highest for the region, approximately 51% per year.

Overall, Massachusetts had a 52% increase in landings, largely due to an increase in Atlantic mackerel landings (1.2 million pounds in 1997 to 89 million pounds in 2006). All other states experienced a decline in landings.

Prices

From 1997-2006, ex-vessel prices for high-valued species such as quahog clams (\$4.03 average annual price) and American lobster (\$3.78 average annual price) increased 84% and 30%, respectively. Adjusting for inflation, the prices of quahogs and American lobster increased 56% and 10%, respectively. Ex-vessel prices for sea scallops (\$5.58 average annual price) and bluefin tuna (\$6.09 average annual price) declined 4% and 16%, respectively. Atlantic mackerel, a low-value species (\$0.22 average annual price), experienced the largest price decline, decreasing 56% (63% in real terms).

Connecticut oysters had the largest annual increase in price, increasing from \$3.38 per pound to \$28.61 per pound. The \$25.23 increase in price was due to a change in product form to the growing half-shell oyster market.

All but one key species or species group had higher ex-vessel prices in 2006 relative to its average price over the time period. Quahog clams in 2006 were \$6.37 per pound compared to an average of \$4.03 per pound, a 58% increase over the average price. Atlantic mackerel had an average ex-vessel price of \$0.22 per pound but was at \$0.14 per pound in 2006, a 38% drop relative to its average price from 1997-2006.

Recreational Fishing

There were 2.8 million recreational anglers in the New England region in 2006. These anglers took 9.7 million fishing trips. Expenditures on recreational fishing trips and fishing-related equipment in 2006 were \$438 million and \$1.44 billion, respectively. Total sales generated by recreational fishing activities ranged from \$56 million (New Hampshire) to \$803 million (Massachusetts).

Key New England Recreational Fishing Species

New England's recreationally important species are: striped bass, Atlantic mackerel, bluefish, scup, summer flounder, Atlantic cod, tautog, winter flounder, little tunny, and bluefin tuna.

Participation Rates

In 2006, the number of recreational anglers in 2006 was highest among residents of coastal counties in New England: 1.4 million anglers. There were approximately 1.2 million out-of-state anglers, and 188,000 anglers from non-coastal counties in New England. This pattern of participation has remained consistent from 1997 to 2006 with coastal county residents outnumbering out-of-state anglers, followed by non-coastal county anglers.

New England Summary

Participation generally increased annually for all three angler groups from 1997-2006: an average 5% increase in total anglers. However, participation fell both overall and within each group from 1998-1999 (13% annual average decrease) compared to 1997. The largest annual increase for anglers in all three groups occurred from 1999-2000: 38% for coastal county anglers, 61% for non-coastal county anglers, and 24% for out-of-state anglers.

Recreational Fishing Facts

Of the top ten species caught in each of the five New England states only Atlantic cod, bluefish, striped bass, and winter flounder appear on all five state lists.

Participation

- The total number of anglers between 1997 and 2006 increased **47%**. Participation increased in all three angler groups: coastal county residents (41%), non-coastal county residents (51%), and out-of-state (53%).
- Massachusetts had the greatest number of recreational anglers in 2006 with **1.26 million**.
- New Hampshire had the fewest of any state in the region with **187,000** anglers.

Recreational trips

- In 2006, the number of fishing trips taken on a private or rented boat comprised **49%** of total fishing trips. This was followed by fishing trips taken from shore (47%) and from a party or charter fishing boat (5%).
- Fishing trips taken from a private/rental boat outnumbered those taken from shore in every year except 1997. These two fishing modes outnumbered party/charter fishing trips in all years.

Catch data for key species

- The total number of striped bass caught in 2006 was over **8 million** higher than the number caught in 1997; a **92%** increase.

was in 1997, when the number of fishing trips from shore was higher than the number of fishing trips from a private/rental boat. The largest annual increase in total fishing trips (all three fishing modes) was 35% from 1999-2000. The 1997-1998 period saw the biggest drop in the number of total fishing trips with an 11% decline.

Expenditure and Economic Impacts

Overall, Massachusetts had the highest number of jobs sustained and total sales impacts related to recreational fishing with over 6,081 jobs and \$803 million in sales in 2006. Massachusetts was followed by Connecticut (over 4,353 jobs and \$664 million in sales) and Maine (2,044 jobs and \$175 million in sales).

Fishing trip-related expenditures for all three fishing modes was higher for non-residents than residents in 2006: \$252 million compared to \$186 million, respectively. Residents spent more when taking trips on a private boat (\$104 million) compared to non-residents who spent more when fishing from shore (\$184 million). For all participants, expenditures on durable equipment were highest for vehicle expenses (\$582 million) and purchases of new boats (\$360 million). Total trip-related and durable goods expenditures in 2006 was \$1.87 million.

Economic impacts to the economy of each state are reported in terms of jobs sustained and sales of durable equipment grouped by fishing mode. When looking at which fishing mode generated the highest sales impacts in each state, shore trips in Massachusetts (\$215 million), Maine (\$65 million), and Rhode Island (\$36 million) ranked highest. In New Hampshire, party/charter fishing trips accounted for the highest total sales impacts (\$11 million). Private boat trips had the highest total sales impacts (\$23 million) in Connecticut.

Recreational Fishing Trips

New England anglers took 9.7 million recreational fishing trips in 2006 in one of three fishing modes: party/charter fishing boat, privately-owned or rented fishing boat, or from shore. More fishing trips were taken in Massachusetts than in any other state in the region: 4.7 million trips were taken in 2006. Rhode Island had the second highest number of fishing trips, (1.7 million trips), closely followed by Connecticut (1.5 million), and Maine (1.2 million).

Trips taken on a private or rented boat were the most common fishing mode with 4.7 million trips taken in New England in 2006. Fishing from shore was also popular, numbering 4.5 million trips. In contrast, the number of trips taken on a party or charter fishing boat was significantly lower, numbering 458,000 trips. This ranking of fishing modes is reflected over the time period. The only exception

Recreational Harvest and Released Catch

Of the ten key species caught in New England in 2006, striped bass was harvested and released the most: 585,000 fish harvested and 16.3 million released. The number of striped bass caught over the time period varied from an annual increase as high as 55% (1999-2000) to an annual decrease as low as 34% (1998-1999). Massachusetts had the highest number of released (8.7 million) and harvested (340,000) striped bass in the region in 2006. Maine reported the second highest numbers of released striped bass in 2006 (4 million), while Connecticut ranked second in the number of striped bass harvested (83,000).

Atlantic mackerel had the second highest levels of recreational catch across New England. In contrast to striped bass, most of this catch was harvested (4.8 million fish) rather than released (328,000 fish). Bluefish, scup,

and summer flounder were also caught in large numbers in 2006, while bluefin tuna had the lowest catch level (17,000 fish).

Marine Coastal Economy

When considering all industries in the New England region, Massachusetts has the highest number of establishments, employees, and annual payroll, followed by Connecticut, New Hampshire, Maine, and Rhode Island. In 2005, the gross domestic product by state in this region ranged from \$320.1 billion in Massachusetts (2.6% of the national total) to \$43.6 billion in Rhode Island (0.4% of the national total).

When considering commercial fishing-related industries in 2006, the Commercial Fishing Location Quotient (CFLQ) for Maine was the highest in the region at 12.43. That is, the proportion of Maine workers employed in commercial fishing industries is over 12 times higher than the proportion of U.S. workers engaged in this sector nationally. This was a 54% increase from 8.09 in 2001. Maine was followed by Massachusetts (9.54), Rhode Island (3.91), and Connecticut (0.52). This measure was unavailable for New Hampshire.

Seafood Sales and Processing

In 2005, there were 161 non-employer firms engaged in seafood retail across New England. The number of these firms remained stable over the time period, increasing only 3% from 156 firms in 1998. Annual receipts were flat across the region but increased 81% in New Hampshire and at least 20% in Maine, Rhode Island, and Connecticut. Annual receipts in Massachusetts, however, declined 37%, from \$8.7 million in 1998 to \$5.5 million in 2005.

Employer firms engaged in seafood retail increased in all states between 1998 and 2005, ranging from over 70% increases in Maine and New Hampshire, to an 8% increase in Massachusetts. Across the region, annual payroll increase 151% between 1998 (\$12.7 million) and 2005 (\$31.9 million). Annual payroll increased in all states except for New Hampshire (data was unavailable for this state): Massachusetts (154%), Connecticut (124%), Maine (121%), and Rhode Island (75%). Massachusetts employed the greatest number of employees in this industry: 53% of employees in 2005.

In 2005, there were 97 non-employer firms engaged in seafood processing activities. Over half of these firms were found in Maine, which also had the highest annual receipts: \$5.1 million in 2005 or 47% of receipts in the region. Massachusetts (\$2.3 million or 21% of annual receipts) and Rhode Island (\$2.0 million or 19% of annual receipts) followed.

Employer establishments engaged in seafood product processing remained flat across New England. Double digit increases in establishments in New Hampshire (25%) and Massachusetts (22%) were offset by double digit declines in Connecticut (25% drop), Maine (23% drop), and Rhode Island (13% drop). In 2005, annual payroll in this industry was \$154 million across the region, with Massachusetts contributing 75% (\$115 million). Annual payroll increased in Massachusetts from \$73 million in 1998 to \$116 million in 2005, a 59% increase. Massachusetts also contributed most to employees in this industry: 65% of the over 4,000 employees region-wide.

Employer establishments engaged in the seafood wholesale industry declined 31% overall, from 560 establishments in 1998 to 387 in 2005. All states in New England reported declines in establishments engaged in seafood wholesale, ranging from 16% in Maine to 41% in New Hampshire and Massachusetts. Annual payroll and employee numbers were available for Maine, Massachusetts, and Rhode Island only. All three of these states showed 10-19% declines in annual payroll, and 24-49% declines in employee numbers.

Transport, Support, and Marine Operations

With the exception of the marina industry, data was largely unavailable for this sector. The number of marina operations remained flat across the region but annual payroll increased 51% between 1998 (\$83 million) and 2005 (\$125 million). Annual payroll in all five states in this region increased, ranging from 72% increases in Massachusetts to a modest 8% increase in Maine. Massachusetts and Connecticut had the highest number of establishments and contributed the most to annual payroll in this industry. Of the 444 establishments engaged in marina operations in 2005, 31% were in Massachusetts (139 establishments) and 26% were in Connecticut (117 establishments). Annual payroll in these states was roughly equal: both Massachusetts and Connecticut contributed \$43 million each to the region in 2005.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Employment Impacts
Connecticut	36,891	339,544	178,238	6,575
Maine	361,847	1,443,039	757,752	29,352
Massachusetts	437,044	4,363,812	2,319,814	82,760
New Hampshire	18,842	310,931	173,310	6,452
Rhode Island	98,575	705,938	378,396	14,966

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	573,320	540,227	662,087	688,376	639,160	696,366	690,633	819,960	970,248	953,209
Finfish & Other	202,879	195,052	205,560	218,511	220,029	207,025	200,292	194,386	201,026	183,967
Shellfish	370,441	345,175	456,527	469,866	419,132	489,341	490,341	625,574	769,222	769,242
Clam, Quahog	15,019	9,302	11,179	17,456	17,716	17,193	16,857	16,723	6,711	26,865
Cod & Haddock	27,972	33,245	32,849	37,837	46,425	49,679	44,386	40,325	39,888	31,900
Flounders	47,054	46,325	42,602	48,340	49,846	49,201	47,222	43,761	42,317	37,724
Goosefish	27,294	24,708	36,210	44,160	35,721	29,194	30,031	27,972	34,384	26,591
Herring, Atlantic	11,433	10,775	10,999	9,655	12,634	9,005	15,274	14,926	19,980	21,328
Lobster	237,003	222,607	298,519	298,516	239,681	287,621	277,946	368,645	408,742	386,059
Mackerel, Atlantic	7,354	2,379	1,223	644	437	3,776	4,404	9,610	2,948	13,527
Scallop, Sea	56,218	44,393	78,823	94,604	96,773	109,636	116,454	157,593	250,851	263,665
Squid, Loligo	17,048	22,581	19,416	14,590	12,915	15,786	17,283	27,631	20,282	19,984
Tuna, Bluefin	16,227	11,700	14,042	17,305	17,043	14,349	8,267	4,297	3,186	1,715

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	647,911	601,997	583,870	576,058	631,320	588,868	660,262	717,979	683,506	700,760
Finfish & Other	472,509	425,555	402,235	382,712	458,055	387,304	468,490	484,807	461,050	463,683
Shellfish	175,402	176,442	181,635	193,347	173,265	201,564	191,772	233,172	222,456	237,077
Clam, Quahog	4,343	2,456	2,425	5,447	4,684	6,116	5,173	6,226	1,057	4,216
Cod & Haddock	31,871	30,682	28,212	33,791	45,945	45,469	38,482	34,358	30,586	19,812
Flounders	32,377	32,974	32,047	43,733	48,436	41,758	39,783	40,980	30,273	19,540
Goosefish	48,253	43,474	43,930	38,803	43,008	41,975	46,751	39,746	34,861	26,144
Herring, Atlantic	209,826	177,850	174,282	155,849	208,232	134,605	209,933	188,158	212,312	204,496
Lobster	72,791	70,842	81,160	83,029	68,560	81,382	70,502	88,678	86,228	90,843
Mackerel, Atlantic	22,730	8,248	5,783	2,468	1,591	26,649	34,839	84,939	8,223	99,751
Scallop, Sea	8,354	6,941	13,667	17,871	25,016	27,394	27,587	30,395	32,043	40,599
Squid, Loligo	31,101	42,985	25,203	28,842	24,959	27,893	29,405	45,848	26,748	25,333
Tuna, Bluefin	2,175	2,230	2,230	2,243	2,534	2,386	1,787	704	722	274

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clam, Quahog	3.46	3.79	4.61	3.20	3.78	2.81	3.26	2.69	6.35	6.37
Cod & Haddock	0.88	1.08	1.16	1.12	1.01	1.09	1.15	1.17	1.30	1.61
Flounders	1.45	1.40	1.33	1.11	1.03	1.18	1.19	1.07	1.40	1.93
Goosefish	0.57	0.57	0.82	1.14	0.83	0.70	0.64	0.70	0.99	1.02
Herring, Atlantic	0.05	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.09	0.10
Lobster	3.26	3.14	3.68	3.60	3.50	3.53	3.94	4.16	4.74	4.25
Mackerel, Atlantic	0.32	0.29	0.21	0.26	0.28	0.14	0.13	0.11	0.36	0.14
Scallop, Sea	6.73	6.40	5.77	5.29	3.87	4.00	4.22	5.18	7.83	6.49
Squid, Loligo	0.55	0.53	0.77	0.51	0.52	0.57	0.59	0.60	0.76	0.79
Tuna, Bluefin	7.46	5.25	6.30	7.71	6.73	6.01	4.63	6.10	4.41	6.26

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	349	252	223	309	303	235	319	300	418	458
Private / Rental	3,481	3,322	3,286	4,736	4,857	4,513	4,426	4,450	5,017	4,681
Shore	3,799	3,222	2,968	3,720	3,874	3,844	3,833	3,910	3,819	4,510
Total Trips	7,629	6,796	6,478	8,765	9,035	8,592	8,578	8,660	9,254	9,650

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	999	887	756	1,042	969	1,069	1,198	1,161	1,376	1,408
Non-Coastal	125	89	75	121	108	124	152	165	173	188
Out of State	774	661	597	738	857	883	916	863	976	1,187
Total Anglers	1,898	1,638	1,428	1,900	1,934	2,076	2,266	2,189	2,525	2,782

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	32,289	103,822	Fishing Tackle	381,671
Shore	183,834	61,773	Other Equipment	98,514
For-Hire	35,663	20,631	Boat Expenses	360,243
Total Trip Expenditures	251,786	186,226	Vehicle Expenses	582,396
			Second Home Expenses	13,306
			Total Durable Equipment Expenditures	1,436,130
Total State Trip and Durable Equipment Expenditures				1,874,142

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
Connecticut	1,476,698	4,353	664,457	381,538
Maine	1,197,426	2,044	174,741	90,794
Massachusetts	4,724,423	6,081	802,536	436,488
New Hampshire	546,952	497	56,307	30,664
Rhode Island	1,704,087	1,476	166,869	82,046

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	375	361	265	396	498	523	701	608	691	585
	R	8,444	9,759	6,436	10,002	7,931	8,577	6,760	8,586	10,831	16,327
Bluefish	H	1,012	637	734	669	974	865	1,167	1,279	1,234	1,541
	R	1,212	914	1,575	1,695	2,591	2,008	2,531	3,238	3,007	3,016
Cod, Atlantic	H	455	455	375	749	1,104	644	706	608	653	264
	R	511	672	583	1,193	1,378	1,143	1,175	945	1,525	802
Flounder, Summer	H	718	1,040	822	1,558	573	439	549	786	604	592
	R	950	749	1,162	1,809	1,008	1,559	1,071	1,048	1,491	2,503
Flounder, Winter	H	329	400	212	143	169	107	83	54	50	61
	R	225	171	110	136	155	74	41	32	43	65
Little Tunny ²	H	5	2	12	2	3	7	3	13	(1)	2
	R	31	16	48	108	38	54	33	109	52	38
Mackerel, Atlantic	H	3,310	1,705	2,797	4,067	3,851	3,543	2,399	1,588	3,062	4,849
	R	371	335	372	654	772	363	212	162	78	328
Porgies (Scup)	H	1,240	747	2,122	3,935	3,031	2,460	4,181	2,983	1,567	1,261
	R	709	873	1,073	2,549	2,837	2,382	2,829	1,759	1,902	2,548
Tuna, Bluefin	H	(1)	(1)	(1)	6	1	1	5	2	12	4
	R	1	2	(1)	(1)	(1)	(1)	4	15	12	13
Wrasses (Tautog)	H	142	148	159	137	172	265	335	294	228	321
	R	247	381	374	233	338	638	669	545	504	595

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

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

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	339,544	178,238	6,575
Commercial Harvesters	72,789	31,911	1,278
Seafood Processors and Dealers	20,066	6,393	138
Seafood Wholesalers and Distributors	64,116	31,525	564
Retail Sectors	182,573	108,410	4,595

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	33,086	34,356	38,086	31,227	31,173	27,781	29,820	33,396	37,569	36,891
Finfish & Other	4,951	4,803	5,782	6,427	5,707	4,284	4,129	4,572	5,095	3,731
Shellfish	28,135	29,553	32,304	24,800	25,466	23,497	25,691	28,824	32,474	33,160
Clam, Quahog	8,668	5,106	6,500	9,415	9,930	9,202	10,470	10,690	ND ²	18,135
Flounders	1,235	672	1,114	1,325	1,188	909	896	1,075	1,170	1,026
Goosefish	1,153	1,002	790	1,556	1,201	790	683	580	658	346
Hake	1,840	1,521	3,203	2,864	2,341	1,307	1,602	2,028	2,432	1,628
Lobster	11,092	12,129	9,603	5,501	5,450	4,226	3,170	3,166	3,821	4,031
Oyster, Eastern	5,104	8,978	11,050	4,839	3,245	2,012	2,274	1,356	NA ¹	2,206
Scallop, Sea	2,426	2,615	4,223	4,034	5,727	6,400	8,125	11,203	9,761	7,229
Scups or Porgies	152	189	177	175	171	195	167	191	263	302
Snails (Conchs)	4	15	73	45	95	199	119	209	233	533
Squid, Loligo	806	614	763	ND ²	687	1,178	1,400	1,298	1,224	954

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	19,070	17,626	18,425	19,562	18,745	16,178	16,419	18,189	13,626	11,746
Finfish & Other	9,459	9,488	10,884	11,173	10,605	7,801	7,826	6,829	6,547	5,807
Shellfish	9,611	8,138	7,541	8,389	8,140	8,377	8,593	11,360	7,079	5,939
Clam, Quahog	2,889	1,543	1,560	4,021	3,382	3,435	4,038	5,137	ND ²	2,665
Flounders	814	318	758	1,041	1,011	633	565	637	582	456
Goosefish	1,947	1,703	968	1,544	1,360	1,029	1,023	897	524	496
Hake	4,557	4,157	6,855	6,598	5,644	2,904	2,875	2,936	3,735	2,632
Lobster	3,468	3,715	2,596	1,394	1,330	1,067	671	647	714	793
Oyster, Eastern	1,511	1,383	1,309	624	434	247	279	186	NA ¹	77
Scallop, Sea	370	412	771	800	1,538	1,579	1,908	2,172	1,272	1,104
Scups or Porgies	110	98	96	142	220	314	292	256	328	298
Snails (Conchs)	11	35	116	70	36	128	70	31	50	101
Squid, Loligo	1,334	973	1,120	ND ²	1,026	1,778	1,572	1,699	1,537	1,157

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clam, Quahog	3.00	3.31	4.17	2.34	2.94	2.68	2.59	2.08	ND ²	6.80
Flounders	1.52	2.11	1.47	1.27	1.17	1.44	1.59	1.69	2.01	2.25
Goosefish	0.59	0.59	0.82	1.01	0.88	0.77	0.67	0.65	1.26	0.70
Hake	0.40	0.37	0.47	0.43	0.41	0.45	0.56	0.69	0.65	0.62
Lobster	3.20	3.26	3.70	3.95	4.10	3.96	4.72	4.89	5.35	5.08
Oyster, Eastern	3.38	6.49	8.44	7.76	7.48	8.16	8.14	7.30	NA ¹	28.61
Scallop, Sea	6.56	6.35	5.47	5.04	3.72	4.05	4.26	5.16	7.67	6.55
Scups or Porgies	1.37	1.93	1.84	1.23	0.77	0.62	0.57	0.75	0.80	1.01
Snails (Conchs)	0.35	0.44	0.63	0.64	2.65	1.55	1.69	6.69	4.66	5.28
Squid, Loligo	0.60	0.63	0.68	ND ²	0.67	0.66	0.89	0.76	0.80	0.82

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

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	35	30	22	46	46	51	64	39	38	45
Private / Rental	751	737	774	854	981	953	875	924	1,073	863
Shore	346	524	523	609	695	645	625	574	483	569
Total Trips	1,132	1,292	1,319	1,508	1,723	1,650	1,564	1,537	1,594	1,477

Recreational Anglers by Residential Area (thousands of anglers)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	258	290	243	222	246	283	361	304	333	336
Non-Coastal	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Out of State	70	73	55	53	78	87	112	65	80	44
Total Anglers	327	363	297	275	324	371	473	369	413	380

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	1,083	22,679	Fishing Tackle	137,569
Shore	1,079	7,739	Other Equipment	24,119
For-Hire	718	2,503	Boat Expenses	178,180
Total Trip Expenditures	2,880	32,921	Vehicle Expenses	289,270
			Second Home Expenses	0
			Total Durable Equipment Expenditures	629,141
Total State Trip and Durable Equipment Expenditures				664,942

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	183	23,259	14,610
Shore Mode Trip Impacts	77	8,603	5,325
Party/Charter Mode Trip Impacts	46	4,801	2,967
Total Durable Equipment Impacts	4,047	627,793	358,636
Total State Trip and Durable Equipment Economic Impacts	4,353	664,457	381,538

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	65	64	56	53	54	51	96	75	115	83
	R	723	1,026	704	926	1,108	697	843	1,079	1,714	1,682
Bluefish	H	246	201	196	166	229	269	437	529	293	476
	R	162	200	368	598	697	523	541	903	545	786
Cod, Atlantic	H	(1)	2	1	(1)	(1)	(1)	2	(1)	(1)	(1)
	R	(1)	3	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Flounder, Summer	H	244	261	215	372	153	93	166	217	213	107
	R	430	268	502	443	406	452	475	363	839	902
Flounder, Winter	H	163	235	67	10	15	16	24	4	4	8
	R	23	85	25	11	32	9	6	9	1	24
Little Tunny ³	H	(1)	(1)	1	(1)	1	(1)	1	2	(1)	(1)
	R	1	5	3	71	27	28	8	9	(1)	(1)
Perch, White	H	87	25	14	17	(1)	1	11	1	(1)	(1)
	R	8	23	14	140	7	27	28	30	3	3
Porgies (Scup)	H	143	190	374	1,318	1,016	882	1,529	564	724	519
	R	62	167	273	925	931	570	804	387	719	733
Shad, Hickory	H	56	50	40	(1)	16	71	71	28	52	80
	R	256	207	81	48	88	377	79	103	35	110
Wrasses (Tautog)	H	32	67	16	11	17	100	168	98	75	176
	R	67	208	68	29	59	219	283	329	144	141

¹In this table, "(1)" = less than 1000 anglers.

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

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

State Economy (% of national total)							
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient	
1998	92,362 (1.33%)	1,493,964 (1.38%)	58,256 (1.76%)	96,391 (1.63%) (2001) ¹	145,373 (1.67%)	0.60 (2001) ²	
2005	93,561 (1.25%)	1,529,827 (1.32%)	75,606 (1.69%)	110,480 (1.58%)	193,496 (1.56%)	0.52 (2006) ²	
% change	1.3	2.4	30.0	14.6	33.1	-13.3	

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	17	17	19	20	26	26	25	24
	Receipts	2,729	2,250	1,780	2,378	3,225	2,966	3,115	3,313
Seafood product preparation & packaging	Firms	F	F	4	F	F	7	7	7
	Receipts	F	F	441	F	F	1,022	1,404	551

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	32	36	31	34	36	34	38	39
	Employees	89	F	112	131	165	206	202	187
	Payroll	2,243	F	2,760	3,403	3,859	5,110	5,060	5,028
Seafood sales, wholesale	Establishments	28	29	26	25	28	19	19	17
	Employees	194	187	F	F	F	169	181	F
	Payroll	8,109	8,725	F	F	F	7,738	7,688	F
Seafood product preparation & packaging	Establishments	4	3	3	2	2	2	3	3
	Employees	F	F	F	F	F	F	F	113
	Payroll	F	F	F	F	F	F	F	3,656

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	8	10	13	12	11	12	13	11
	Employees	283	F	F	F	238	270	260	310
	Payroll	22,681	F	F	F	18,271	29,086	37,013	36,766
Coastal & Great Lakes freight transportation	Establishments	13	11	10	8	5	6	5	5
	Employees	462	F	396	506	F	F	F	F
	Payroll	30,673	F	22,291	31,940	F	F	F	F
Marine cargo handling	Establishments	3	4	1	2	1	M	1	3
	Employees	F	F	F	F	F	M	F	F
	Payroll	F	F	F	F	F	M	F	F
Navigational services to shipping	Establishments	3	6	5	4	8	6	6	8
	Employees	F	F	F	F	F	F	F	45
	Payroll	F	F	F	F	F	F	F	1,768
Ship & boat building	Establishments	20	18	18	14	12	14	17	17
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marinas	Establishments	115	107	101	101	108	116	117	117
	Employees	800	720	676	F	722	1,006	1,016	994
	Payroll	26,045	24,243	24,375	F	29,690	39,691	41,952	42,754
Port and harbor operations	Establishments	4	4	3	3	5	4	4	4
	Employees	F	F	F	F	185	F	F	F
	Payroll	F	F	F	F	5,527	F	F	F

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	1,443,039	757,752	29,352
Commercial Harvesters	252,347	95,364	3,129
Seafood Processors and Dealers	127,644	42,993	1,274
Seafood Wholesalers and Distributors	183,889	94,693	1,879
Retail Sectors	879,159	524,702	23,070

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	225,236	217,011	265,208	269,086	241,380	290,312	287,047	367,094	391,906	361,847
Finfish & Other	58,013	52,102	56,785	56,732	56,661	47,486	49,291	48,956	47,091	37,104
Shellfish	167,223	164,909	208,423	212,354	184,719	242,826	237,756	318,138	344,815	324,743
Bloodworms	2,132	2,702	2,888	1,592	4,851	5,759	5,292	7,524	6,039	5,037
Clam, Ocean Quahog	1,978	1,821	2,611	3,310	3,499	4,748	4,480	3,842	3,607	3,919
Clam, Softshell	7,325	10,082	10,465	9,546	16,609	14,370	15,859	16,628	14,081	13,165
Cod & Haddock	4,484	4,820	3,976	5,330	6,469	5,944	4,673	5,401	5,168	3,994
Goosefish	4,087	3,133	5,207	8,876	7,991	6,248	7,852	6,840	6,220	3,238
Herring, Atlantic	7,075	4,746	7,710	6,400	7,165	4,618	7,296	8,019	9,341	10,602
Lobster	138,292	137,189	184,614	187,715	153,982	210,950	205,715	289,079	317,948	297,165
Mussel, Blue	1,652	1,061	688	1,037	2,650	4,117	4,487	3,319	2,625	2,619
Pollock	1,972	3,098	3,111	3,258	2,448	2,386	2,206	2,347	3,105	2,309
Sea Urchins	21,257	17,072	20,300	17,739	12,694	7,657	8,569	7,866	5,142	3,693

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	246,246	184,088	229,597	228,210	236,236	202,480	223,531	228,386	214,344	217,714
Finfish & Other	175,298	114,013	155,588	144,480	167,018	113,131	141,619	130,404	121,160	121,340
Shellfish	70,948	70,075	74,009	83,730	69,218	89,349	81,912	97,982	93,184	96,374
Bloodworms	387	493	515	327	644	683	594	615	456	450
Clam, Ocean Quahog	754	728	948	1,208	1,083	1,287	1,194	1,013	1,001	1,214
Clam, Softshell	1,759	2,354	2,282	2,284	2,660	2,423	2,364	2,380	1,857	1,867
Cod & Haddock	4,993	4,198	3,163	4,295	5,741	5,172	3,860	4,594	4,039	2,448
Goosefish	8,107	6,237	7,629	8,601	10,983	11,127	13,291	10,567	7,115	3,666
Herring, Atlantic	123,237	68,255	111,416	100,097	115,825	67,169	96,681	90,598	87,375	96,214
Lobster	47,023	47,037	53,494	57,215	48,618	63,626	54,971	71,574	68,730	72,667
Mussel, Blue	4,348	2,795	1,809	2,838	2,749	4,793	4,287	4,102	3,357	2,898
Pollock	3,373	4,673	3,568	3,955	3,447	2,958	4,085	4,190	5,259	3,678
Sea Urchins	19,489	15,054	15,435	12,898	9,901	6,321	5,963	5,742	3,517	2,800

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bloodworms	5.50	5.49	5.61	4.87	7.53	8.43	8.91	12.24	13.24	11.20
Clam, Ocean Quahog	2.62	2.50	2.75	2.74	3.23	3.69	3.75	3.79	3.60	3.23
Clam, Softshell	4.16	4.28	4.59	4.18	6.25	5.93	6.71	6.99	7.58	7.05
Cod & Haddock	0.90	1.15	1.26	1.24	1.13	1.15	1.21	1.18	1.28	1.63
Goosefish	0.50	0.50	0.68	1.03	0.73	0.56	0.59	0.65	0.87	0.88
Herring, Atlantic	0.06	0.07	0.07	0.06	0.06	0.07	0.08	0.09	0.11	0.11
Lobster	2.94	2.92	3.45	3.28	3.17	3.32	3.74	4.04	4.63	4.09
Mussel, Blue	0.38	0.38	0.38	0.37	0.96	0.86	1.05	0.81	0.78	0.90
Pollock	0.58	0.66	0.87	0.82	0.71	0.81	0.54	0.56	0.59	0.63
Sea Urchins	1.09	1.13	1.32	1.38	1.28	1.21	1.44	1.37	1.46	1.32

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	6	3	9	17	20	13	14	38	38	31
Private / Rental	444	259	270	482	444	422	410	315	552	517
Shore	405	415	350	396	469	471	495	406	499	649
Total Trips	854	676	629	895	932	906	919	758	1,089	1,197

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	173	103	112	139	126	127	165	111	195	182
Non-Coastal	20	16	10	20	16	17	23	21	21	22
Out of State	130	115	95	150	166	172	170	155	175	285
Total Anglers	323	234	216	310	308	316	358	287	391	489

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	2,769	7,692	Fishing Tackle	30,994
Shore	44,352	3,561	Other Equipment	14,072
For-Hire	5,366	590	Boat Expenses	57,096
Total Trip Expenditures	52,487	11,843	Vehicle Expenses	26,044
			Second Home Expenses	780
			Total Durable Equipment Expenditures	128,984
Total State Trip and Durable Equipment Expenditures				193,314

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	124	10,479	6,186
Shore Mode Trip Impacts	914	65,341	36,015
Party/Charter Mode Trip Impacts	113	8,319	4,701
Total Durable Equipment Impacts	893	90,601	43,892
Total State Trip and Durable Equipment Economic Impacts	2,044	174,741	90,794

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	35	38	21	62	60	72	58	37	69	73
	R	1,418	691	650	943	871	1,392	847	748	3,024	4,063
Bluefish	H	13	2	8	(1)	15	24	14	17	19	6
	R	83	(1)	20	4	40	42	23	38	51	42
Cod, Atlantic	H	25	2	13	41	92	15	11	42	26	12
	R	37	7	30	50	73	16	25	43	43	41
Flounder, Winter	H	27	1	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)
	R	(1)	(1)	1	(1)	3	(1)	1	(1)	(1)	1
Haddock	H	(1)	(1)	1	11	12	3	1	12	7	8
	R	(1)	(1)	1	16	17	4	4	3	3	4
Mackerel, Atlantic	H	1,254	571	881	1,406	1,175	1,207	616	778	761	387
	R	189	157	165	304	319	234	106	79	32	95
Pollock	H	77	45	16	74	58	76	10	57	45	78
	R	27	20	33	103	130	48	17	39	53	27
Shad, American	H	(1)	(1)	1	1	(1)	(1)	(1)	(1)	1	4
	R	(1)	(1)	(1)	1	2	(1)	1	2	(1)	20
Shark, Blue	H	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	R	3	(1)	3	(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)" = less than 1000 fish were harvested or released.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	38,334 (0.55%)	456,715 (0.42%)	11,559 (0.35%)	22,035 (0.37%) (2001) ¹	31,731 (0.37%)	8.09 (2001) ²
2005	41,933 (0.56%)	497,387 (0.43%)	15,873 (0.35%)	25,869 (0.37%)	44,906 (0.36%)	12.43 (2006) ²
% change	9.4	8.9	37.3	17.4	41.5	53.6

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	53	56	60	51	62	60	55	51
	Receipts	5,782	6,602	9,505	8,486	8,980	8,365	8,621	7,331
Seafood product preparation & packaging	Firms	57	54	51	55	50	62	57	52
	Receipts	5,495	4,154	3,657	6,301	3,023	4,699	5,642	5,082

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	28	32	34	41	47	51	50	49
	Employees	138	146	F	F	173	181	189	184
	Payroll	2,119	2,512	F	F	3,971	4,663	5,112	4,678
Seafood sales, wholesale	Establishments	210	201	194	182	190	181	177	177
	Employees	1,840	1,722	1,631	1,235	1,256	985	1,048	1,152
	Payroll	33,912	34,045	36,325	32,599	36,043	29,643	30,108	30,513
Seafood product preparation & packaging	Establishments	35	43	40	36	33	35	28	27
	Employees	1,084	1,024	992	1,007	639	656	576	614
	Payroll	12,153	12,676	12,110	13,125	11,301	13,999	19,767	12,349

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	2	3	3	4	3	2	2	1
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	6	7	6	6	4	5	4	3
	Employees	F	F	F	F	30	F	F	F
	Payroll	F	F	F	F	939	F	F	F
Marine cargo handling	Establishments	6	5	4	4	4	4	4	3
	Employees	F	F	F	F	91	F	F	F
	Payroll	F	F	F	F	3,183	F	F	F
Navigational services to shipping	Establishments	17	16	14	16	18	17	16	16
	Employees	60	55	49	45	88	106	91	88
	Payroll	2,934	3,015	3,175	3,371	4,341	5,521	4,927	5,890
Ship & boat building	Establishments	76	75	72	79	87	91	86	92
	Employees	F	F	F	8,242	F	7,630	7,753	F
	Payroll	F	F	F	300,378	F	332,332	328,179	F
Marinas	Establishments	88	91	91	89	85	79	84	84
	Employees	467	508	592	600	503	416	406	411
	Payroll	13,208	14,712	16,454	18,121	16,055	12,853	13,369	14,215
Port and harbor operations	Establishments	1	1	1	1	M	1	1	1
	Employees	F	F	F	F	M	F	F	F
	Payroll	F	F	F	F	M	F	F	F

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	4,363,812	2,319,814	82,760
Commercial Harvesters	401,530	166,334	3,505
Seafood Processors and Dealers	510,127	199,899	4,272
Seafood Wholesalers and Distributors	653,370	318,443	5,689
Retail Sectors	2,798,785	1,635,139	69,294

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	224,360	205,703	260,246	290,948	280,108	296,914	292,600	326,003	427,072	437,044
Finfish & Other	100,806	108,123	110,155	120,599	122,950	122,838	116,765	109,395	117,246	110,167
Shellfish	123,554	97,580	150,091	170,349	157,158	174,076	175,835	216,608	309,826	326,877
Clam, Ocean Quahog	8,589	8,048	6,905	5,235	ND ¹	ND ¹	7,325	6,919	ND ¹	8,297
Clams, All Other	1,312	1,191	653	581	5,927	8,169	823	4,721	18,314	14,071
Cod & Haddock	21,440	26,215	27,372	29,573	36,915	40,550	36,668	31,678	32,051	25,452
Flounders	30,216	31,034	27,425	30,521	33,088	33,092	32,995	29,898	28,815	24,593
Goosefish	15,306	15,807	21,847	24,121	18,263	15,546	15,585	15,676	21,486	17,712
Herring, Atlantic	2,658	3,922	1,260	604	2,769	2,285	5,461	4,574	8,279	7,828
Lobster	61,959	48,576	66,770	70,116	53,430	56,569	52,329	51,581	49,587	52,557
Mackerel, Atlantic	287	721	331	184	141	713	1,888	6,542	ND ¹	10,202
Oyster, Eastern	NA ²	0	NA ²	NA ²	NA ²	NA ²	NA ²	24	2,739	4,620
Scallop, Sea	47,023	36,037	70,226	85,294	88,513	100,551	106,938	144,512	227,117	234,797

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	229,335	256,647	198,674	189,038	241,046	243,503	295,436	337,853	337,266	348,308
Finfish & Other	177,531	210,215	143,931	130,130	182,485	175,491	231,978	267,555	267,431	268,290
Shellfish	51,804	46,432	54,743	58,908	58,561	68,012	63,458	70,298	69,835	80,018
Clam, Ocean Quahog	20,438	19,189	16,530	12,397	ND ¹	ND ¹	14,226	14,085	ND ¹	16,798
Clams, All Other	1,545	1,675	880	734	10,836	17,057	1,045	6,314	19,703	4,515
Cod & Haddock	24,301	24,262	23,616	26,685	37,176	37,521	32,013	27,121	24,631	15,862
Flounders	21,393	22,904	21,384	29,041	33,991	28,987	29,418	30,705	22,115	13,182
Goosefish	26,885	27,564	26,422	20,888	22,120	22,794	23,979	22,358	21,853	17,496
Herring, Atlantic	53,404	74,672	23,756	9,615	48,960	40,508	79,873	68,464	99,449	82,821
Lobster	15,087	13,277	15,534	15,803	12,133	12,853	11,385	11,295	9,884	10,967
Mackerel, Atlantic	1,236	2,329	1,302	479	387	5,549	23,451	72,687	ND ¹	89,535
Oyster, Eastern	NA ²	0	NA ²	NA ²	NA ²	NA ²	NA ²	9	105	213
Scallop, Sea	7,078	5,751	12,254	16,175	22,915	25,290	25,371	27,909	29,062	36,108

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clam, Ocean Quahog	0.42	0.42	0.42	0.42	ND ¹	ND ¹	0.51	0.49	ND ¹	0.49
Clams, All Other	0.85	0.71	0.74	0.79	0.55	0.48	0.79	0.75	0.93	3.12
Cod & Haddock	0.88	1.08	1.16	1.11	0.99	1.08	1.15	1.17	1.30	1.60
Flounders	1.41	1.35	1.28	1.05	0.97	1.14	1.12	0.97	1.30	1.87
Goosefish	0.57	0.57	0.83	1.15	0.83	0.68	0.65	0.70	0.98	1.01
Herring, Atlantic	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.09
Lobster	4.11	3.66	4.30	4.44	4.40	4.40	4.60	4.57	5.02	4.79
Mackerel, Atlantic	0.23	0.31	0.25	0.38	0.36	0.13	0.08	0.09	ND ¹	0.11
Oyster, Eastern	NA ²	0.67	NA ²	NA ²	NA ²	NA ²	NA ²	2.74	26.08	21.74
Scallop, Sea	6.64	6.27	5.73	5.27	3.86	3.98	4.21	5.18	7.81	6.50

¹ND = data is confidential thus not disclosable.

²NA = data is not available.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	190	142	146	172	134	106	145	133	246	242
Private / Rental	1,772	1,765	1,552	2,518	2,569	2,399	2,329	2,456	2,383	2,438
Shore	2,179	1,544	1,285	1,931	1,821	1,701	1,611	1,913	1,809	2,044
Total Trips	4,141	3,451	2,983	4,622	4,524	4,206	4,085	4,502	4,439	4,724

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	412	342	240	493	392	465	434	540	600	623
Non-Coastal	96	65	57	90	79	96	112	133	138	151
Out of State	330	228	174	265	279	344	306	344	398	484
Total Anglers	838	635	471	848	750	906	852	1,018	1,136	1,258

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	15,751	57,183	Fishing Tackle	141,321
Shore	109,111	40,722	Other Equipment	38,418
For-Hire	21,594	12,935	Boat Expenses	95,619
Total Trip Expenditures	146,456	110,840	Vehicle Expenses	227,975
			Second Home Expenses	10,727
			Total Durable Equipment Expenditures	514,063
Total State Trip and Durable Equipment Expenditures				771,359

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	697	81,565	50,009
Shore Mode Trip Impacts	2,086	215,128	127,374
Party/Charter Mode Trip Impacts	542	52,148	31,112
Total Durable Equipment Impacts	2,756	453,695	227,991
Total State Trip and Durable Equipment Economic Impacts	6,081	802,536	436,488

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Atlantic Bonito	H	4	(1)	1	4	13	6	11	4	15	5
	R	6	1	1	8	8	17	(1)	3	12	18
Bass, Striped	H	199	208	127	181	288	309	407	400	368	340
	R	5,418	7,184	4,576	7,382	5,411	5,719	4,362	5,892	4,840	8,657
Bluefish	H	316	237	197	221	357	229	374	406	589	686
	R	644	510	397	596	948	628	1,019	1,468	1,812	1,507
Cod, Atlantic	H	340	370	284	599	842	585	583	519	558	188
	R	364	558	471	975	1,119	1,049	937	843	1,337	534
Flounder, Summer	H	220	383	175	379	152	155	177	281	203	219
	R	251	234	219	445	210	336	244	388	308	556
Flounder, Winter	H	73	97	60	74	61	53	45	40	42	43
	R	159	57	46	100	97	34	30	17	39	35
Haddock	H	6	23	6	81	73	61	75	215	334	151
	R	33	12	12	88	45	125	130	104	87	89
Mackerel, Atlantic	H	1,592	786	1,321	2,049	1,811	2,024	1,313	722	1,967	4,296
	R	109	89	77	231	157	61	45	73	21	203
Porgies (Scup)	H	810	322	1,029	1,382	881	975	1,624	1,511	397	314
	R	401	422	521	748	832	879	1,221	855	516	931
Wrasses (Tautog)	H	39	25	91	88	116	103	47	23	48	63
	R	105	81	152	139	205	284	190	63	148	266

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

Massachusetts' Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	167,929 (2.42%)	2,924,913 (2.71%)	105,871 (3.20%)	181,507 (3.06%) (2001) ¹	236,079 (2.72%)	7.54 (2001) ²
2005	175,291 (2.34%)	2,996,347 (2.58%)	140,581 (3.14%)	200,912 (2.86%)	320,050 (2.59%)	9.54 (2005) ²
% change	4.4	2.4	32.8	10.7	35.6	26.5

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	61	70	62	62	78	59	64	59
	Receipts	8,727	9,075	6,128	6,171	7,314	5,409	5,933	5,528
Seafood product preparation & packaging	Firms	19	31	22	29	26	23	25	28
	Receipts	2,291	3,455	2,684	1,762	1,296	676	2,284	2,266

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	107	111	109	115	126	124	128	116
	Employees	442	451	435	451	490	720	686	677
	Payroll	6,974	7,071	7,401	8,224	10,673	17,760	17,454	17,725
Seafood sales, wholesale	Establishments	256	247	229	212	207	163	148	151
	Employees	2,408	2,486	2,685	2,508	2,393	1,880	1,890	1,836
	Payroll	88,551	99,482	104,358	105,904	107,871	74,431	75,689	76,070
Seafood product preparation & packaging	Establishments	41	42	42	41	45	55	53	50
	Employees	1,841	1,880	2,251	2,164	2,231	2,717	2,743	2,671
	Payroll	72,700	77,625	82,907	83,249	92,776	110,917	112,642	115,704

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	15	14	12	14	12	10	10	10
	Employees	F	375	368	F	F	F	F	F
	Payroll	F	24,000	31,434	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	7	9	9	12	10	13	13	10
	Employees	F	585	F	F	F	F	688	F
	Payroll	F	27,494	F	F	F	F	36,533	F
Marine cargo handling	Establishments	4	3	6	7	7	6	6	5
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Navigational services to shipping	Establishments	7	6	4	5	5	5	7	6
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Ship & boat building	Establishments	53	51	54	56	50	53	55	50
	Employees	508	601	599	577	617	F	F	588
	Payroll	16,715	21,068	18,503	18,813	21,710	F	F	20,050
Marinas	Establishments	132	133	131	136	139	145	135	139
	Employees	856	838	865	996	988	969	989	973
	Payroll	25,022	28,090	30,790	34,865	35,169	40,700	41,474	43,103
Port and harbor operations	Establishments	1	M	M	M	M	3	3	3
	Employees	F	M	M	M	M	F	F	F
	Payroll	F	M	M	M	M	F	F	F

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	310,931	173,310	6,452
Commercial Harvesters	36,338	16,212	652
Seafood Processors and Dealers	35,440	18,247	408
Seafood Wholesalers and Distributors	50,098	25,523	482
Retail Sectors	189,055	113,327	4,910

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	12,570	11,183	12,539	16,198	17,865	16,692	15,122	17,211	22,116	18,842
Finfish & Other	5,380	5,251	5,513	7,850	8,231	7,353	5,743	6,448	6,874	4,783
Shellfish	7,190	5,932	7,026	8,348	9,634	9,339	9,379	10,763	15,242	14,059
Cod, Atlantic	1,636	1,550	394	1,807	2,017	1,983	1,853	2,244	1,892	1,708
Goosefish	798	671	1,714	2,715	2,812	1,853	1,097	1,456	1,472	794
Haddock	37	59	104	187	181	134	144	157	134	132
Hake	280	174	550	463	367	321	303	200	277	219
Herring, Atlantic	14	24	148	306	399	783	1,170	1,147	1,255	199
Lobster	5,545	4,702	5,916	7,081	8,072	2	ND ¹	10,199	14,375	13,915
Pollock	781	970	1,430	1,045	891	847	589	569	1,217	1,221
Scallop, Sea	8	51	ND ¹	ND ¹	689	726	375	276	527	24
Shark, Spiny Dogfish	146	350	205	605	148	85	27	0	ND ¹	183
Shrimp	1,079	791	282	375	369	104	212	222	340	120

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	10,886	10,169	11,247	17,887	18,584	23,199	27,432	23,792	21,280	10,339
Finfish & Other	7,064	7,301	8,748	14,932	15,077	20,354	24,745	21,071	18,081	7,376
Shellfish	3,822	2,868	2,499	2,955	3,507	2,845	2,687	2,721	3,199	2,963
Cod, Atlantic	2,003	1,491	350	1,756	1,976	1,583	1,458	1,633	1,293	1,024
Goosefish	932	821	1,384	1,873	2,463	1,876	1,629	1,640	1,226	621
Haddock	30	44	74	134	135	95	108	123	99	73
Hake	649	308	888	1,094	820	557	729	405	372	241
Herring, Atlantic	152	260	2,443	5,582	7,015	14,125	18,933	15,589	12,562	2,020
Lobster	1,414	1,195	1,380	1,710	2,028	0	ND ¹	2,097	2,556	2,666
Pollock	1,290	1,413	1,641	1,337	1,183	997	1,109	1,202	1,997	2,566
Scallop, Sea	1	7	ND ¹	ND ¹	171	177	100	44	76	3
Shark, Spiny Dogfish	1,009	1,893	1,238	2,334	536	349	175	0	ND ¹	620
Shrimp	1,257	887	376	468	506	90	223	432	567	294

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cod, Atlantic	0.82	1.04	1.13	1.03	1.02	1.25	1.27	1.37	1.46	1.67
Goosefish	0.86	0.82	1.24	1.45	1.14	0.99	0.67	0.89	1.20	1.28
Haddock	1.24	1.35	1.41	1.39	1.35	1.41	1.33	1.27	1.35	1.82
Hake	0.43	0.56	0.62	0.42	0.45	0.58	0.41	0.49	0.74	0.91
Herring, Atlantic	0.09	0.09	0.06	0.05	0.06	0.06	0.06	0.07	0.10	0.10
Lobster	3.92	3.94	4.29	4.14	3.98	3.86	ND ¹	4.86	5.62	5.22
Pollock	0.61	0.69	0.87	0.78	0.75	0.85	0.53	0.47	0.61	0.48
Scallop, Sea	7.58	7.38	ND ¹	ND ¹	4.04	4.10	3.76	6.22	6.89	7.44
Shark, Spiny Dogfish	0.14	0.19	0.17	0.26	0.28	0.24	0.16	0.19	ND ¹	0.30
Shrimp	0.86	0.89	0.75	0.80	0.73	1.16	0.95	0.51	0.60	0.41

¹ND = data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	56	30	25	34	83	29	35	39	47	88
Private / Rental	127	121	112	145	177	143	230	141	236	192
Shore	154	127	147	189	100	147	150	181	237	267
Total Trips	338	277	285	368	360	318	416	360	520	547

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	59	57	55	77	68	60	91	81	104	90
Non-Coastal	8	8	8	10	13	11	16	12	14	15
Out of State	67	58	60	85	74	65	75	71	85	82
Total Anglers	135	123	123	172	154	137	182	163	203	187

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	828	5,138	Fishing Tackle	16,461
			Other Equipment	4,538
Shore	3,770	3,117	Boat Expenses	7,306
			Vehicle Expenses	13,447
For-Hire	3,680	3,640	Second Home Expenses	0
			Total Durable Equipment Expenditures	41,750
Total Trip Expenditures	8,278	11,895		
Total State Trip and Durable Equipment Expenditures				61,923

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	57	5,905	3,569
Shore Mode Trip Impacts	81	7,336	4,346
Party/Charter Mode Trip Impacts	128	10,529	6,169
Total Durable Equipment Impacts	231	32,537	16,580
Total State Trip and Durable Equipment Economic Impacts	497	56,307	30,664

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	14	6	5	4	15	13	25	10	26	15
	R	279	243	146	210	164	238	260	197	513	568
Bluefish	H	25	3	4	1	8	19	8	21	23	10
	R	3	1	5	1	14	14	17	10	42	26
Bottom Fish, 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	62	24	39	70	164	39	108	44	69	61
	R	73	51	68	148	184	70	208	56	143	225
Flounder or Sole, Unidentified	H	(1)	(1)	(1)	4	(1)	(1)	(1)	2	1	(1)
	R	(1)	(1)	1	9	2	5	1	2	4	6
Flounder, Winter	H	11	29	11	8	9	8	7	2	3	10
	R	11	12	6	8	6	10	3	2	3	5
Haddock	H	19	10	7	17	36	19	44	51	107	120
	R	16	4	7	29	50	43	128	17	36	86
Mackerel, Atlantic	H	412	255	446	581	828	212	409	86	333	153
	R	72	73	109	120	297	69	61	10	25	31
Pollock	H	42	63	74	177	167	89	63	53	49	80
	R	53	79	110	293	265	63	42	28	29	39
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)" = less than 1000 fish were harvested or released.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	36,842 (0.53%)	518,526 (0.48%)	14,864 (0.45%)	26,752 (0.45%) (2001) ¹	39,102 (0.45%)	0.08 (2001) ²
2005	39,224 (0.52%)	562,398 (0.48%)	21,027 (0.47%)	32,038 (0.46%)	54,119 (0.44%)	ND ³
% change	6.5	8.5	41.5	19.8	38.4	--

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	11	7	6	8	9	14	15	11
	Receipts	735	850	419	1,055	862	960	1,438	1,330
Seafood product preparation & packaging	Firms	F	F	F	F	F	7	4	4
	Receipts	F	F	F	F	F	1,205	1,147	842

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	7	7	7	9	9	12	12	12
	Employees	F	F	F	F	F	F	F	79
	Payroll	F	F	F	F	F	F	F	2,053
Seafood sales, wholesale	Establishments	17	16	14	14	14	11	12	10
	Employees	81	F	68	75	78	F	82	F
	Payroll	2,045	F	1,813	2,222	2,093	F	2,511	F
Seafood product preparation & packaging	Establishments	8	8	10	8	9	11	10	10
	Employees	340	298	298	F	368	322	448	418
	Payroll	10,076	9,377	9,952	F	13,452	13,676	18,886	16,275

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	M	1	2	1	1	1	1	2
	Employees	M	F	F	F	F	F	F	F
	Payroll	M	F	F	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	M	M	1	1	1	M	M	1
	Employees	M	M	F	F	F	M	M	F
	Payroll	M	M	F	F	F	M	M	F
Marine cargo handling	Establishments	M	M	M	M	M	M	M	M
	Employees	M	M	M	M	M	M	M	M
	Payroll	M	M	M	M	M	M	M	M
Navigational services to shipping	Establishments	2	2	2	2	2	3	3	4
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Ship & boat building	Establishments	5	4	5	6	8	10	8	6
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marinas	Establishments	42	43	39	42	36	40	40	38
	Employees	210	233	249	209	228	196	226	194
	Payroll	5,845	6,757	7,768	8,135	10,872	9,043	9,315	8,871
Port and harbor operations	Establishments	1	1	1	1	1	M	M	M
	Employees	F	F	F	F	F	M	M	M
	Payroll	F	F	F	F	F	M	M	M

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

³ND = Data is not disclosable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	705,938	378,396	14,966
Commercial Harvesters	171,075	75,223	3,308
Seafood Processors and Dealers	50,924	18,474	465
Seafood Wholesalers and Distributors	97,988	50,549	947
Retail Sectors	385,951	234,149	10,246

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	78,062	71,953	85,997	80,918	68,618	64,658	66,023	76,252	91,578	98,575
Finfish & Other	33,732	24,762	27,314	26,901	26,468	25,058	24,349	25,009	24,716	28,178
Shellfish	44,334	47,197	58,682	54,016	42,154	39,602	41,679	51,241	66,867	70,397
Clam, Quahog	6,315	4,099	4,665	7,991	7,208	7,043	6,370	5,870	3,440	3,528
Flounder, Summer	3,907	3,914	3,766	3,800	3,787	3,992	4,061	5,312	5,877	5,045
Flounders, Other	2,669	2,899	3,337	3,962	3,085	3,194	2,728	2,133	1,735	3,502
Goosefish	5,950	4,095	6,652	6,892	5,455	4,757	4,813	3,419	4,549	4,501
Herring, Atlantic	1,671	2,065	1,865	2,337	2,295	1,312	1,195	1,185	970	2,667
Lobster	20,115	20,011	31,616	28,103	18,747	15,875	16,731	14,621	23,010	18,392
Mackerel, Atlantic	7,036	1,626	848	444	280	3,031	2,385	3,009	2,913	3,293
Scallop, Sea	ND ¹	ND ¹	ND ¹	1,392	684	ND ¹	279	1,512	13,275	20,783
Scups or Porgies	1,434	1,156	1,672	1,252	1,282	2,229	2,098	1,991	2,426	2,785
Squid, Loligo	14,878	20,059	16,128	12,937	11,596	13,208	14,319	24,631	17,049	16,731

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	142,362	133,469	125,908	121,352	116,699	103,507	97,435	109,748	96,984	112,649
Finfish & Other	103,146	84,537	83,069	81,989	82,857	70,529	62,319	58,937	47,828	60,868
Shellfish	39,216	48,933	42,839	39,363	33,842	32,978	35,116	50,811	49,155	51,781
Clam, Quahog	1,442	881	860	1,409	1,220	1,192	1,131	1,074	636	679
Flounder, Summer	1,565	1,712	1,635	1,704	1,799	2,286	2,178	3,085	2,926	2,123
Flounders, Other	2,220	2,379	2,899	4,070	3,148	2,781	2,428	2,360	1,315	1,850
Goosefish	10,381	7,150	7,526	5,897	6,081	5,148	6,830	4,284	4,143	3,864
Herring, Atlantic	32,894	34,322	36,362	40,414	36,400	12,774	13,440	13,481	11,605	23,150
Lobster	5,799	5,618	8,156	6,908	4,452	3,835	3,475	3,064	4,344	3,750
Mackerel, Atlantic	21,333	5,771	4,335	1,939	1,131	20,930	10,768	12,083	8,075	10,143
Scallop, Sea	ND ¹	ND ¹	ND ¹	238	181	ND ¹	76	249	1,612	3,290
Scups or Porgies	1,070	795	1,280	1,017	1,617	3,675	3,814	3,425	3,424	3,643
Squid, Loligo	28,091	38,559	20,233	26,051	22,769	23,713	25,862	41,644	22,135	21,296

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clam, Quahog	4.38	4.65	5.42	5.67	5.91	5.91	5.63	5.46	5.41	5.20
Flounder, Summer	2.50	2.29	2.30	2.23	2.11	1.75	1.86	1.72	2.01	2.38
Flounders, Other	1.20	1.22	1.15	0.97	0.98	1.15	1.12	0.90	1.32	1.89
Goosefish	0.57	0.57	0.88	1.17	0.90	0.92	0.70	0.80	1.10	1.16
Herring, Atlantic	0.05	0.06	0.05	0.06	0.06	0.10	0.09	0.09	0.08	0.12
Lobster	3.47	3.56	3.88	4.07	4.21	4.14	4.82	4.77	5.30	4.91
Mackerel, Atlantic	0.33	0.28	0.20	0.23	0.25	0.14	0.22	0.25	0.36	0.32
Scallop, Sea	ND ¹	ND ¹	ND ¹	5.86	3.78	ND ¹	3.67	6.07	8.23	6.32
Scups or Porgies	1.34	1.45	1.31	1.23	0.79	0.61	0.55	0.58	0.71	0.76
Squid, Loligo	0.53	0.52	0.80	0.50	0.51	0.56	0.55	0.59	0.77	0.79

¹ND = data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	62	47	22	40	20	37	60	51	48	52
Private / Rental	386	441	577	737	687	595	582	615	772	671
Shore	715	612	663	596	789	880	952	836	790	982
Total Trips	1,163	1,100	1,262	1,373	1,496	1,512	1,595	1,503	1,611	1,704

Recreational Anglers by Residential Area (thousands of anglers)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	97	96	108	112	137	134	147	124	143	177
Non-Coastal	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Out of State	178	187	214	184	260	214	253	227	238	291
Total Anglers	275	283	321	296	397	348	400	351	381	468

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	11,858	11,130	Fishing Tackle	55,326
			Other Equipment	17,367
Shore	25,522	6,634	Boat Expenses	22,042
			Vehicle Expenses	25,660
For-Hire	4,305	963	Second Home Expenses	1,799
			Total Trip Expenditures	41,685
Total State Trip and Durable Equipment Expenditures				182,606

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	239	22,461	13,455
Shore Mode Trip Impacts	426	35,783	20,575
Party/Charter Mode Trip Impacts	76	6,988	4,178
Total Durable Equipment Impacts	735	101,636	43,838
Total State Trip and Durable Equipment Economic Impacts	1,476	166,869	82,046

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Atlantic Bonito	H	15	5	25	3	2	11	2	6	1	(1)
	R	3	3	26	1	1	1	4	5	1	(1)
Bass, Striped	H	62	45	56	95	80	78	115	85	113	74
	R	607	613	360	542	377	530	449	670	741	1,356
Bluefish	H	412	194	330	280	365	325	334	307	310	362
	R	320	203	784	497	893	801	932	818	558	655
Cod, Atlantic	H	28	59	37	39	6	6	1	3	1	2
	R	36	52	13	20	2	8	5	3	2	2
Flounder, Summer	H	254	395	432	807	268	191	205	288	188	264
	R	269	245	440	921	392	770	351	297	341	1,044
Flounder, Winter	H	55	38	74	51	82	30	8	8	1	1
	R	33	17	32	17	17	20	1	3	(1)	(1)
Porgies (Scup)	H	286	235	719	1,235	1,134	603	1,027	908	446	428
	R	245	284	279	876	1,074	933	805	517	666	884
Sea Bass, Black	H	35	26	25	197	123	78	70	53	56	53
	R	36	26	121	401	151	241	205	39	52	259
Tuna, Yellowfin	H	2	(1)	2	5	1	1	2	(1)	1	(1)
	R	1	(1)	(1)	(1)	(1)	(1)	11	(1)	1	(1)
Wrasses (Tautog)	H	71	56	52	39	40	62	120	173	106	81
	R	75	91	153	64	74	135	197	153	212	188

¹In this table, "(1)" = less than 1000 anglers

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

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	28,245 (0.41%)	402,485 (0.37%)	11,116 (0.34%)	20,063 (0.34%) (2001) ¹	29,537 (0.34%)	2.88 (2001) ²
2005	30,331 (0.40%)	442,291 (0.38%)	15,756 (0.35%)	24,337 (0.35%)	43,623 (0.35%)	3.91 (2006) ²
% change	7.4	9.9	41.7	21.3	47.7	35.8

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	14	11	14	17	20	16	14	16
	Receipts	1,806	1,505	1,860	2,577	2,433	2,227	2,186	2,215
Seafood product preparation & packaging	Firms	F	F	F	F	F	F	F	6
	Receipts	F	F	F	F	F	F	F	2,024

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	22	24	26	26	27	29	34	31
	Employees	79	102	97	F	151	162	163	140
	Payroll	1,400	2,018	2,596	F	3,015	2,870	2,707	2,447
Seafood sales, wholesale	Establishments	49	43	40	41	39	38	35	32
	Employees	401	393	411	382	380	394	259	206
	Payroll	12,162	12,471	13,153	14,250	14,505	15,724	12,269	9,851
Seafood product preparation & packaging	Establishments	8	6	6	6	9	7	7	7
	Employees	F	241	227	240	184	355	355	270
	Payroll	F	6,681	7,184	7,581	7,284	10,381	10,867	5,549

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	1	1	2	2	1	1	2	2
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	1	1	1	1	2	1	1	1
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	2	3	4	3	3	1	1	1
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Navigational services to shipping	Establishments	11	8	8	9	10	8	8	8
	Employees	F	F	F	F	36	46	F	F
	Payroll	F	F	F	F	2,162	2,585	F	F
Ship & boat building	Establishments	35	32	28	33	31	37	38	36
	Employees	F	F	1,079	F	1,329	F	F	F
	Payroll	F	F	37,259	F	47,328	F	F	F
Marinas	Establishments	55	51	55	54	56	61	60	66
	Employees	388	414	504	555	522	405	475	408
	Payroll	12,452	13,146	14,698	18,967	17,609	14,456	15,111	15,843
Port and harbor operations	Establishments	1	1	1	M	M	2	2	2
	Employees	F	F	F	M	M	F	F	F
	Payroll	F	F	F	M	M	F	F	F

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

Mid-Atlantic

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



Mid-Atlantic Summary

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 the National Marine Fisheries Service under one of eight fishery management plans (FMPs). Two of these FMPs are jointly managed with the New England Fishery Management Council (NEFMC). The MAFMC is the lead Council for the Dogfish FMP, while the NEFMC is the lead Council for the Monkfish FMP.

Mid-Atlantic Fishery Management Plans

1. Summer Flounder, Scup, and Black Sea Bass
2. Spiny Dogfish (with the NEFMC)
3. Atlantic Surfclam and Ocean Quahog
4. Atlantic Mackerel, Squid, and Butterfish
5. Bluefish
6. Tilefish
7. Monkfish (with the NEFMC)

Of the stocks covered in these fishery management plans, summer flounder, scup, and Atlantic butterfish are currently considered overfished. Stocks currently subject to overfishing include summer flounder and scup.

Currently, there is one limited access privilege program (LAPP) in the Mid-Atlantic region: the surfclam/ocean quahog individual fishing quota (IFQ) program. This LAPP was implemented in 1990 and had an ex-vessel value of \$49.0 million in 2007.

Commercial Fisheries

In 2006, landings by Mid-Atlantic fishermen (667 million pounds) had an ex-vessel value of \$362 million. Top revenue-makers were sea scallops, which accounted for \$120 million (33%) of landings revenue, and blue crab, which accounted for \$56 million (15%) of landings revenue. Overall, shellfish accounted for almost 74% of total landings revenue in the Mid-Atlantic in 2006.

Key Mid-Atlantic Commercial Species

Commercially-important species and species groups in the Mid-Atlantic include: striped bass, Atlantic surf clam, quahog clam, blue crab, summer flounder, American lobster, menhaden, Eastern oyster, sea scallops, and squid.

Economic Impacts

The Mid-Atlantic region's commercial fishing industry generated over a billion dollars in sales in New Jersey (\$2.1 billion), New York (\$1.9 billion) and Virginia (\$1.4



Barrels of blue crab, Chesapeake Bay, Maryland

billion). Most of the commercial fishing-related jobs in this region were also sustained in these states: New Jersey with 40,000 jobs, Virginia with 32,000 jobs, and New York with 42,000 jobs. Collectively, these three states contributed the most to commercial fisheries-related sales, income, and jobs in the region.

Landings Revenue

Overall, ex-vessel revenue increased less than 1% between 1997 and 2006; a 15% drop when adjusted for inflation. Finfish and other fishery products dropped 13% (-26% in real terms) and shellfish increased 6.7% (-9.8% in real terms). Virginia had the highest average landing revenue in the region with \$124 million nominally and \$131 million in real terms. New Jersey (\$119 million nominally, \$126 million in real terms), New York (\$63 million nominally, \$68 million in real terms), Maryland (\$56 million nominally, \$60 million in real terms), and Delaware (\$6.1 million nominally, \$6.5 in real terms) followed. New Jersey experienced the largest growth in ex-vessel landings revenue, increasing 37% between 1997 and 2006.

The ten key species and species groups comprised an average of 81% of ex-vessel value in the Mid-Atlantic region. Sea scallop and blue crab contributed more to total landings revenue than any other key species or group, accounting for 25% and 19%, respectively. Notably, sea scallop revenue increased 265% (209% in real terms) from 1997 to 2006 while blue crab revenue declined 30% (41% in real terms). Virginia and New Jersey experienced the largest increases in sea scallop revenues, increasing \$32 million and \$45 million, respectively. Despite the fact that Maryland's blue crab landings revenue declined almost 30% from 1997 to 2006 (40% in real terms), Maryland's contribution to regional blue crab landings revenue (52%) has been relatively stable over the time period.

In addition to sea scallops, landings revenue of summer flounder and striped bass also increased during this time period, 72% and 45%, respectively. Landings revenues from all other key species and species groups declined.

Commercial Fish Facts

Landings revenue

- On average, the ten key species or species groups accounted for 81% of total landings revenue.
- Shellfish accounted for approximately 74% of annual total landings revenue for the Mid-Atlantic. Sea scallop, blue crab, Atlantic surf clam, and quahog clam were the largest contributors.
- The largest annual increase in revenue from 1997-2006 was 120% for squid (2003-2004). The largest annual drop in revenue was 51% for American lobster (1999-2000).

Landings

- On average, the ten key species or species groups accounted for 83% of total landings annually.
- Finfish and other fishery products accounted for 73% of annual landings for the Region. Menhaden contributed the most to finfish landings, almost 80%.
- Average annual landings for menhaden was 445 million pounds, more than any other species or group. Blue crab was the species or group with the next highest average annual landings, roughly 69 million pounds.
- Squid landings increased 298% from 2003-2004, the largest annual increase in the 10 year period, only to fall 71% from 2004-2005, the largest annual decrease.

Prices

- Quahog clam (\$5.90), sea scallop (\$5.19), Eastern oyster (\$4.78), and American lobster (\$4.05) all had average annual ex-vessel prices above \$4 per pound.
- Menhaden had the lowest average annual ex-vessel price at \$0.07 per pound. Squid and Atlantic surf clam had average annual prices just above \$0.50 per pound.
- The largest annual increase in ex-vessel price was 121% for squid from 2004-2005. Squid also had the largest annual decrease: -45% from 2003-2004.

Landings

From 1997 through 2006, total landings averaged 767 million pounds with a range of 667 million pounds in 2006 to 917 million pounds in 1998. Total landings, landings of finfish and other fishery products, and shellfish landings each decreased between 1997 and 2006: -26%, -28%, and -23%, respectively. Notable exceptions to these trends were sea scallops and summer flounder, which increased 250% and 46%, respectively. Landings of all other key species or species groups were either flat (striped bass and Atlantic surf clam) or experienced double digit declines during this time period.

Despite an average ex-vessel price of \$0.07 per pound, menhaden contributed more to total landings in the Mid-Atlantic than any other species or species group. Menhaden comprised an average of 58% of total landings or 445 million pounds. Although Virginia’s harvest of menhaden declined 25% from 1997 to 2006, it harvests an average of 93% of total regional menhaden landings or 412 million pounds annually. This proportion of total menhaden landings is stable over time, varying between 90% and 95%.

Prices

Ex-vessel prices between 1997 and 2006 increased for the high-value Eastern oyster (85% nominally, 57% in real terms) and American lobster (46% nominally, 23% in real terms). Squid increased 72% (45% in real terms), from \$0.46 per pound to \$0.79 per pound and striped bass increased 43% (21% in real terms), from \$1.47 per pound to \$2.10 per pound. Quahog clams was the only species where ex-vessel prices decreased between 1997 and 2006 (-3% nominally; -18% in real terms).

Most species or species groups had higher ex-vessel prices in 2006 compared to their corresponding average ex-vessel price for the time period. Ex-vessel price for squid in 2006 (\$0.79 per pound) was 39% higher than the average price per pound (\$0.57). Likewise, the 2006 price of eastern oysters (\$6.59 per pound) was 38% higher than the average annual price per pound (\$5.19). In contrast, the 2006 price of blue crab (\$0.90 per pound) was 9% less than the average annual price (\$0.99).

Recreational Fishing

In 2006, 4.7 million recreational anglers fished in the Mid-Atlantic region, taking a total of 21.4 million fishing trips. Anglers spent \$956 million on recreational fishing trips in the region and \$3.7 billion on durable fishing-related equipment. These expenditures contributed between \$265 million to \$1.6 billion in total sales to individual states in the region, between 1,700 and 9,800 jobs in a state, and between \$120 million and \$830 million in value-added impacts within a state.

Key Mid-Atlantic Recreational Fishing Species

The Mid-Atlantic region’s recreationally-important species are: Atlantic croaker, black sea bass, bluefish, scup, spot, striped bass, summer flounder, tautog, weakfish, and winter flounder.

Mid-Atlantic Summary

Participation Rates

Recreational anglers from coastal counties in the Mid-Atlantic region accounted for the majority of the region's anglers. From 1997 to 2006, this group averaged 58% of all anglers. Out-of-state anglers averaged 38% of total anglers and non-coastal county residents averaged 4% for this period.

Participation by all three groups peaked in 2005 with 5 million anglers, a 25% increase from 2004. Participation was also high in 2001 with 4.2 million anglers. Trends in angler participation for both coastal county residents and out-of-state residents were similar from 1997 to 2003. Between 2003 and 2006, there was a larger increase in participation among coastal county residents than out-of-state residents, 29% and 11%, respectively.

Recreational Fishing Trips

Private or rental boat fishing trips in the Mid-Atlantic region totaled 12 million in 2006: the highest number of trips taken by this fishing mode during the time period. This represented a 53% increase over the number of private boat trips in 1999, a year when the lowest number of private/rental boat trips were taken.

Recreational Fishing Facts

Participation

- The highest number of anglers in 2006 was reported for Maryland, with a total of 1.3 million. New Jersey had 1.2 million, and Virginia had 1 million.
- The total number of anglers in New Jersey reached a peak in 2005 (for the period 1997 to 2006), with 1.3 million. The lowest number of anglers during this time period occurred in 2002 with 656,000.

Recreational trips

- There were a combined 3.1 million shore trips taken in Delaware, Maryland, and Virginia in 2006.
- New Jersey and New York had the highest number of total fishing trips in 2006, with 7.3 million and 5.4 million respectively.

Economic impacts

- Maryland residents spent a total of \$94 million on fishing trips within the state in 2006; non-residents spent almost as much, with \$93 million.
- Recreational fishing in Maryland in 2006 added \$1.3 billion in total sales and \$628 million in value-added impacts to the state's economy.

Catch data for key species

- Of the top ten key species, Atlantic croaker was the species caught the most in Virginia in 2006, with 12 million fish both harvested and released.

Fishing trips taken from shore were highest in 2001, 2005 and 2006 with approximately 7.9 million trips each year.

Fishing trips on a party or charter boat were 6% of total fishing trips in 2006 (1.3 million fishing trips). For this fishing mode, the highest number of trips was reported in 1997 with 1.6 million trips.

Expenditures and Economic Impacts

In 2006, Mid-Atlantic anglers spent a total of \$4.6 billion on both fishing trip expenditures and purchases of durable equipment. In-state residents spent \$600 million on all fishing trip-related expenses, compared to non-residents who spent \$356 million. Vehicle expenses by both groups of anglers equaled \$1.4 billion, boat expenses were \$852 million, and fishing tackle expenses accounted for \$847 million.

Within the region, recreational fishing economic impacts were highest in New Jersey: \$1.6 billion in total sales, \$830 million in value-added impacts, and 9,814 jobs sustained. Maryland and Virginia had \$1.3 billion and \$774 million, respectively, in total sales impacts related to recreational fishing activities. In New York, total sales impacts in 2006 were \$812 million. There were 5,365 jobs sustained and \$424 million in value-added impacts related to recreational fishing. Delaware had \$265 million in total sales impacts and \$120 million in value-added impacts.

Recreational Catch and Release

Mid-Atlantic anglers caught more summer flounder than any other species: a total of 18.8 million fish in 2006. Of this total, the majority were released (15 million). New Jersey anglers had the highest recorded catch of summer flounder in 2006 with 1.6 million harvested and 6.8 million released. New York reported the second highest numbers with a harvest of 802,000 fish and release of 5.3 million fish.

The number of Atlantic croaker caught in the region was also high with a total catch of 17.5 million fish. This catch was almost equally distributed between fish that were harvested (9.5 million) and released (8.1 million).

Striped bass was also a recreationally-important species with a total catch of 11.5 million across the region. Of these, 9.5 million fish were released. Of the Mid-Atlantic states, Maryland reported the highest number of striped bass caught with 4.5 million fish. However, white perch was the most frequently caught species in Maryland with 6.9 million fish both harvested and released.

Marine Coastal Economy

When considering all industries in the Mid-Atlantic region, New York had the highest number of establishments and employees, followed by New Jersey, Virginia, Maryland,

and Delaware. In 2005, the gross domestic product by state in this region ranged from \$961 billion for New York (7.8% of the national total) to \$56 billion for Delaware (0.5% of the national total).

When considering commercial fishing-related industries only, New Jersey had the highest Commercial Fishing Location Quotient of all states in the region: 0.89 in 2006. This was a 24% decrease from 1.17 in 2001. Maryland (0.71), Virginia (0.48), and New York (0.12) followed. This measure was not available for Delaware in 2001 or 2006.

Seafood Sales and Processing

In 2005, there were 482 non-employer firms engaged in the seafood retail industry, down from 519 firms in 1998. Non-employer seafood retail firms increased slightly over the time period for Maryland, Virginia, and Delaware, remained relatively stable for New Jersey, and declined in New York. Annual receipts were relatively flat in New York and New Jersey but increased sharply in Delaware and Virginia (125% and 131%, respectively). Employer establishments engaged in seafood retail increased 27% in the Mid-Atlantic from 1998 to 2005; annual payroll from this industry increased from \$49 million in 2002 to \$59 million in 2005, a 21% increase (17% in real terms).

Excluding Delaware, for which data is not available, all Mid-Atlantic states experienced an increase in the number of non-employer seafood product preparation and packaging establishments but either flat or declines in the number of employer establishments in this industry from 1998 to 2005. For example, in Virginia, the number of non-employer firms increased five-fold in this industry but the number of employer establishments declined 15%. Virginia's receipts for the non-employer firms increased 13-fold; payroll of employer establishments increased 35% during this period.

The number of employer seafood wholesale establishments and the number of workers employed by this industry either declined or was relatively flat in all Mid-Atlantic states. Overall, this sector lost 131 employer establishments and 918 employees from 1998 to 2005; payroll, however, increased 15%, from \$144 million in 1998 to \$166 million in 2005.

Transport, Support, and Marine Operations

Though establishment numbers for industries in this sector were available for all states except Delaware, employee numbers and annual payroll data were often suppressed or missing. All employee and payroll information in the discussion below excludes Delaware, for which this data was largely unavailable or suppressed.

The number of employees (21,000) and annual payroll (\$938 million) from ship and boat building in Virginia dwarfed all other industries in this sector in the Mid-Atlantic region. The number of establishments and employees engaged in this industry in Virginia has been relatively flat since 1998; annual payroll has increased 10% nominally but declined 3% after adjusting for inflation.

In 2005, there were 72 employer establishments engaged in the marine cargo industry, down from 81 firms in 1998. Annual payroll for this industry increased 71% from 1998 to 2005, from \$319 million to \$546 million, while the number of workers employed by this sector has been relatively flat (8,127 employees in 2005).¹

There were 118 employer establishments engaged in the deep sea freight transportation industry in 2005, a modest increase from 116 firms in 1998. The number of employees declined 50% in this industry from 5,929 in 1998 to 2,956 in 2005. Annual payroll declined 26% (34% in real terms), from \$293 million to \$218 million during this time period.

Data for all industries in this sector was available for the state of New Jersey for 2005. Industries involved in handling marine cargo had the highest annual payroll (\$363.7 million) and employed the greatest number of people (4,972), relative to other industries in this sector. In comparison, navigational services industries had the lowest annual payroll (\$9.67 million) and employed the fewest people (169).

¹Note that 2004 data was used for New York.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Employment Impacts
Delaware	5,692	119,736	66,538	2,555
Maryland	53,581	582,976	292,045	10,442
New Jersey	136,053	2,107,594	1,137,693	40,083
New York	57,706	1,938,733	1,030,787	41,903
Virginia	109,071	1,396,667	779,115	32,197

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	359,818	358,472	352,414	347,357	348,233	342,397	357,216	408,026	440,486	362,198
Finfish & Other	109,769	119,852	106,462	98,479	90,645	84,091	87,706	88,180	101,946	95,516
Shellfish	250,050	238,620	245,952	248,878	257,589	258,306	269,509	319,846	338,540	266,683
Bass, Striped	6,911	7,775	8,469	9,238	8,616	8,215	9,751	7,678	11,336	10,045
Clam, Atlantic Surf	31,103	25,558	27,574	34,973	34,211	34,692	35,366	26,760	27,084	29,580
Clam, Quahog	29,182	31,370	29,278	27,655	22,744	16,935	20,160	19,918	20,773	20,229
Crab, Blue	79,790	71,908	74,960	66,278	70,871	61,660	60,799	69,365	71,073	55,638
Flounder, Summer	7,186	8,041	7,952	7,769	7,080	8,700	10,678	13,096	13,953	12,365
Lobster, American	34,537	32,483	30,982	15,250	9,828	6,273	5,569	5,658	6,696	9,116
Menhaden	33,569	44,160	33,125	30,041	27,783	24,123	24,352	25,570	28,188	24,466
Oyster, Eastern	10,171	12,335	10,042	9,949	8,587	9,814	8,903	5,663	6,703	6,485
Scallop, Sea	32,927	30,492	42,109	66,135	75,275	91,237	111,971	161,042	181,309	120,140
Squid	15,499	19,577	14,918	13,189	9,904	9,287	6,497	14,303	9,159	7,727

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	906,338	917,066	752,617	715,376	835,426	702,234	710,743	757,822	708,941	667,291
Finfish & Other	673,992	692,884	545,724	511,997	631,289	496,430	514,808	529,890	518,148	488,018
Shellfish	232,346	224,183	206,893	203,379	204,137	205,804	195,935	227,932	190,793	179,273
Bass, Striped	4,686	5,386	4,956	5,602	4,930	4,591	5,273	3,947	5,708	4,788
Clam, Atlantic Surf	52,544	48,610	54,178	63,614	60,421	62,134	64,601	50,984	50,921	50,556
Clam, Quahog	5,240	5,314	5,263	4,560	3,857	2,318	3,311	3,537	3,735	3,728
Crab, Blue	95,833	77,187	77,498	62,360	61,045	63,076	56,047	68,979	70,983	61,873
Flounder, Summer	4,517	5,311	4,922	4,879	5,165	6,433	7,315	8,339	8,541	6,609
Lobster, American	9,774	9,248	7,998	3,775	2,633	1,705	1,181	1,395	1,585	1,772
Menhaden	540,788	546,567	415,006	403,599	518,487	394,606	398,744	421,309	412,672	400,784
Oyster, Eastern	2,855	3,623	3,266	2,883	2,217	1,713	1,493	859	1,202	984
Scallop, Sea	5,222	5,141	8,342	14,258	21,160	24,887	28,213	33,670	24,475	18,258
Squid	33,382	50,294	24,333	28,238	15,465	15,187	10,462	41,622	12,261	9,744

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	1.47	1.44	1.71	1.65	1.75	1.79	1.85	1.94	1.99	2.10
Clam, Atlantic Surf	0.59	0.53	0.51	0.55	0.57	0.56	0.55	0.52	0.53	0.59
Clam, Quahog	5.57	5.90	5.56	6.06	5.90	7.31	6.09	5.63	5.56	5.43
Crab, Blue	0.83	0.93	0.97	1.06	1.16	0.98	1.08	1.01	1.00	0.90
Flounder, Summer	1.59	1.51	1.62	1.59	1.37	1.35	1.46	1.57	1.63	1.87
Lobster, American	3.53	3.51	3.87	4.04	3.73	3.68	4.71	4.06	4.22	5.15
Menhaden	0.06	0.08	0.08	0.07	0.05	0.06	0.06	0.06	0.07	0.06
Oyster, Eastern	3.56	3.40	3.08	3.45	3.87	5.73	5.96	6.59	5.58	6.59
Scallop, Sea	6.31	5.93	5.05	4.64	3.56	3.67	3.97	4.78	7.41	6.58
Squid	0.46	0.39	0.61	0.47	0.64	0.61	0.62	0.34	0.75	0.79

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	1,647	975	910	1,134	1,323	1,024	1,182	1,323	1,152	1,339
Private / Rental	9,725	8,630	7,935	11,324	11,982	9,551	11,286	11,084	11,730	12,123
Shore	5,895	4,848	5,259	6,993	7,901	6,071	7,383	6,327	7,935	7,895
Total Trips	17,267	14,453	14,105	19,451	21,206	16,646	19,852	18,734	20,817	21,357

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	1,820	1,655	1,591	1,944	2,290	1,643	2,229	2,366	3,026	2,876
Non-Coastal	134	102	148	148	190	139	144	155	250	224
Out of State	1,121	1,186	1,036	1,393	1,743	1,193	1,449	1,447	1,710	1,611
Total Anglers	3,074	2,943	2,774	3,485	4,224	2,976	3,822	3,968	4,986	4,711

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	169,604	364,030	Fishing Tackle	847,395
Shore	127,277	158,206	Other Equipment	238,453
For-Hire	59,246	77,479	Boat Expenses	851,778
Total Trip Expenditures	356,127	599,715	Vehicle Expenses	1,414,648
			Second Home Expenses	307,680
			Total Durable Equipment Expenditures	3,659,954
Total Mid Atlantic Region Trip and Durable Equipment Expenditures				4,615,796

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
Delaware	1,178,793	1,681	265,019	120,478
Maryland	3,588,800	8,935	1,257,101	628,415
New Jersey	7,291,533	9,814	1,608,701	830,356
New York	5,398,566	5,364	812,269	424,069
Virginia	3,899,641	6,839	774,380	407,383

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	1,093	960	1,008	1,554	1,475	1,252	1,662	1,574	1,503	1,994
	R	7,138	4,996	5,815	6,677	5,464	5,053	7,802	8,474	8,009	9,511
Bluefish	H	2,797	2,243	1,904	2,580	3,227	2,518	3,193	4,274	5,176	4,037
	R	3,494	2,462	4,135	6,311	6,519	4,579	4,196	5,793	7,121	5,513
Drum (Atlantic Croaker)	H	9,848	8,391	8,111	9,702	12,145	10,868	9,349	9,830	10,790	9,464
	R	9,269	9,074	10,031	14,162	9,811	10,361	9,425	7,928	11,136	8,059
Drum (Spot)	H	4,188	3,447	1,244	2,763	2,196	2,314	4,772	3,725	5,245	6,347
	R	2,792	1,623	975	1,788	1,562	1,016	1,657	1,591	4,163	2,587
Drum (Weakfish) ¹	H	2,510	2,151	1,396	1,876	1,315	918	308	331	1,125	497
	R	3,691	3,128	2,531	4,284	2,732	1,689	1,363	1,387	1,906	1,877
Flounder, Summer	H	6,161	5,548	3,048	5,869	4,393	2,633	3,922	3,598	3,303	3,393
	R	11,907	14,345	16,109	15,773	21,881	11,852	14,902	15,235	21,311	15,419
Flounder, Winter	H	955	247	511	1,317	795	362	541	331	196	248
	R	605	298	346	678	475	266	183	85	264	288
Porgies (Scup)	H	672	460	1,129	3,309	2,058	1,187	5,271	1,713	821	1,528
	R	445	585	312	1,491	1,983	1,551	2,379	2,857	1,839	3,145
Sea Bass, Black	H	4,669	1,090	1,275	3,330	2,636	3,057	3,033	1,590	1,060	1,317
	R	5,725	3,684	5,401	12,381	10,519	10,328	8,381	5,668	5,405	5,966
Wrasses (Tautog)	H	547	201	520	710	617	1,231	384	832	376	721
	R	833	1,018	1,908	1,493	1,694	2,534	1,010	1,648	1,221	2,239

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

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	119,736	66,538	2,555
Commercial Harvesters	11,402	3,960	218
Seafood Processors and Dealers	13,274	7,095	158
Seafood Wholesalers and Distributors	20,974	10,688	198
Retail Sectors	74,087	44,796	1,981

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	5,223	5,837	6,800	6,833	7,660	6,067	5,204	5,419	6,114	5,692
Finfish & Other	1,377	1,464	1,617	1,379	1,080	986	1,465	1,258	1,275	1,330
Shellfish	3,846	4,374	5,183	5,454	6,580	5,081	3,739	4,161	4,840	4,361
Bass, Striped	241	245	271	245	365	336	479	497	494	507
Clam, Quahog	172	218	215	243	233	392	435	175	220	193
Crab, Blue	3,556	4,018	4,599	5,086	5,140	3,511	1,899	2,839	3,429	2,961
Eel, American	0	296	182	192	126	118	230	169	100	275
Oyster, Eastern	0	0	0	0	172	478	305	361	485	459
Scallop, Sea	0	0	0	0	0	0	0	12	102	121
Sea Bass, Black	200	ND ¹	ND ¹	142	42	21	181	181	157	190
Spot	19	60	24	17	51	8	46	38	99	58
Weakfish	523	337	352	318	133	176	83	61	82	56
Whelks	112	121	330	113	1,015	694	1,079	690	562	601

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	9,085	7,866	8,372	6,741	7,140	5,857	5,018	4,288	4,854	4,380
Finfish & Other	3,466	3,344	3,129	2,497	2,078	1,933	2,264	1,349	1,472	1,156
Shellfish	5,619	4,523	5,243	4,244	5,062	3,925	2,754	2,938	3,381	3,224
Bass, Striped	166	163	176	145	199	146	191	176	174	184
Clam, Quahog	50	74	70	76	64	134	141	54	69	60
Crab, Blue	5,452	4,360	4,993	4,092	4,085	3,062	1,792	2,276	2,924	2,856
Eel, American	0	131	129	119	121	90	156	142	110	120
Oyster, Eastern	0	0	0	0	78	133	76	79	84	75
Scallop, Sea	0	0	0	0	0	0	0	2	13	20
Sea Bass, Black	152	ND ¹	ND ¹	94	25	12	98	84	73	87
Spot	36	140	52	32	78	14	77	59	158	63
Weakfish	559	553	440	329	188	173	91	51	71	34
Whelks	111	75	162	65	828	590	729	491	276	203

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	1.45	1.50	1.53	1.69	1.84	2.30	2.50	2.82	2.84	2.75
Clam, Quahog	3.44	2.97	3.07	3.21	3.67	2.92	3.09	3.26	3.18	3.22
Crab, Blue	0.65	0.92	0.92	1.24	1.26	1.15	1.06	1.25	1.17	1.04
Eel, American	0	2.25	1.41	1.61	1.04	1.31	1.48	1.19	0.91	2.28
Oyster, Eastern	0	0	0	0	2.21	3.60	4.00	4.57	5.76	6.10
Scallop, Sea	0	0	0	0	0	0	0	5.18	8.08	6.19
Sea Bass, Black	1.31	ND ¹	ND ¹	1.52	1.66	1.69	1.86	2.17	2.15	2.18
Spot	0.55	0.43	0.47	0.52	0.66	0.59	0.60	0.65	0.63	0.92
Weakfish	0.94	0.61	0.80	0.97	0.71	1.02	0.91	1.18	1.16	1.63
Whelks	1.01	1.61	2.04	1.73	1.23	1.18	1.48	1.41	2.04	2.96

¹ND = data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	73	31	43	42	71	63	38	65	48	42
Private / Rental	441	419	383	606	672	535	552	679	568	671
Shore	370	469	375	448	436	429	514	434	459	465
Total Trips	885	920	800	1,096	1,180	1,028	1,104	1,177	1,074	1,179

Recreational Anglers by Residential Area (thousands of anglers)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	87	103	69	82	107	89	127	115	118	137
Non-Coastal	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Out of State	137	188	168	201	226	177	199	239	187	205
Total Anglers	224	291	237	283	333	266	326	354	305	342

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	20,966	13,486	Fishing Tackle	38,815
Shore	22,452	7,458	Other Equipment	12,133
For-Hire	3,249	1,161	Boat Expenses	12,349
Total Trip Expenditures	46,667	22,105	Vehicle Expenses	150,455
			Second Home Expenses	12,152
			Total Durable Equipment Expenditures	225,903
Total State Trip and Durable Equipment Expenditures				294,675

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	330	38,882	19,383
Shore Mode Trip Impacts	352	33,804	17,953
Party/Charter Mode Trip Impacts	64	6,090	3,482
Total Durable Equipment Impacts	935	186,242	79,660
Total State Trip and Durable Equipment Economic Impacts	1,681	265,019	120,478

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	20	19	9	40	41	29	30	25	20	19
	R	130	185	106	152	163	115	169	151	225	246
Bluefish	H	159	150	84	132	102	117	89	136	152	96
	R	193	275	323	303	221	435	120	322	217	322
Drum (Atlantic Croaker)	H	386	391	663	518	312	262	341	494	934	863
	R	384	840	1,017	695	285	361	655	483	761	1,034
Drum (Weakfish) ²	H	648	456	224	312	72	122	20	7	19	11
	R	898	614	372	465	227	101	39	79	111	121
Flounder, Summer	H	201	219	181	336	146	107	106	124	91	110
	R	327	736	433	797	1,051	498	415	850	841	534
Mackerel, Atlantic	H	53	5	(1)	1	23	6	(1)	7	(1)	(1)
	R	6	(1)	(1)	(1)	1	1	(1)	(1)	(1)	(1)
Perch, White	H	41	63	107	48	44	40	30	63	43	65
	R	95	175	312	140	117	72	134	187	116	147
Sea Bass, Black	H	91	52	41	151	203	607	307	106	62	128
	R	272	284	213	820	1,003	1,233	832	448	250	460
Tuna, Yellowfin	H	3	1	(1)	6	16	10	2	1	3	2
	R	(1)	(1)	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)
Wrasses (Tautog)	H	65	63	95	114	51	186	63	143	72	117
	R	120	169	202	324	209	412	167	263	251	216

¹In this table, "(1)" = less than 1000 anglers.

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

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	22,871 (0.33%)	354,643 (0.33%)	11,831 (0.36%)	19,738 (0.33%) (2001) ¹	36,831 (0.42%)	ND ²
2005	25,319 (0.34%)	392,840 (0.34%)	16,875 (0.38%)	24,160 (0.34)	56,731 (0.46%)	ND ²
% change	10.7	10.8	42.6	22.4	54.0	--

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	6	4	F	5	5	7	9	12
	Receipts	676	562	F	214	435	959	803	1,523
Seafood product preparation & packaging	Firms	M	M	M	F	F	F	F	3
	Receipts	M	M	M	F	F	F	F	64

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	11	11	13	12	15	18	16	14
	Employees	F	64	F	65	94	F	144	138
	Payroll	F	1,123	F	1,243	1,779	F	3,363	3,264
Seafood sales, wholesale	Establishments	7	5	4	5	7	5	2	3
	Employees	F	F	F	F	65	F	F	F
	Payroll	F	F	F	F	2,279	F	F	F
Seafood product preparation & packaging	Establishments	1	1	1	1	1	1	1	1
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	2	3	3	3	2	2	1	1
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	1	1	1	4	8	5	3	3
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	5	6	6	5	6	5	5	4
	Employees	F	F	272	257	199	513	F	F
	Payroll	F	F	4,570	4,482	14,718	14,879	F	F
Navigational services to shipping	Establishments	9	9	8	10	10	10	9	9
	Employees	69	F	F	F	F	F	F	F
	Payroll	3,057	F	F	F	F	F	F	F
Ship & boat building	Establishments	4	4	4	3	1	1	1	1
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marinas	Establishments	15	12	14	12	13	17	17	16
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Port and harbor operations	Establishments	M	M	M	M	M	1	2	2
	Employees	M	M	M	M	M	F	F	F
	Payroll	M	M	M	M	M	F	F	F

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

¹Employee Compensation data is currently available from 2001-2005.

²ND = Data is not disclosable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	582,976	292,045	10,442
Commercial Harvesters	105,844	36,443	2,249
Seafood Processors and Dealers	94,263	40,629	1,045
Seafood Wholesalers and Distributors	154,168	77,346	1,420
Retail Sectors	228,701	137,627	5,729

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	64,313	57,962	62,927	53,874	55,591	49,013	49,038	49,294	63,670	53,581
Finfish & Other	10,758	10,958	11,278	10,010	8,574	8,135	8,095	4,763	10,718	9,897
Shellfish	53,556	47,003	51,649	43,864	47,017	40,878	40,943	44,531	52,952	43,685
Bass, Striped	3,412	3,717	3,886	4,216	3,418	3,759	3,916	1,576	4,234	4,591
Clams or Bivalves	5,072	4,817	5,221	5,094	8,073	8,002	5,170	2,579	4,784	4,889
Crab, Blue	43,579	34,269	38,859	30,843	34,681	30,338	34,532	39,104	39,962	31,141
Croaker, Atlantic	498	453	482	569	676	512	576	751	543	440
Flounder, Summer	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	527	ND ¹	673	549
Menhaden	481	426	463	523	382	423	337	232	1,514	609
Oyster, Eastern	4,508	7,635	7,111	7,192	3,789	2,172	706	181	3,435	1,238
Perch, White	885	884	763	941	801	559	556	347	848	569
Scallop, Sea	6	14	24	108	108	96	ND ¹	418	4,513	6,200
Sea Bass, Black	676	451	681	475	244	436	555	ND ¹	706	811

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	76,599	61,479	66,419	48,913	55,539	53,185	49,350	49,557	67,461	51,227
Finfish & Other	23,375	21,405	21,666	16,164	16,089	15,275	13,468	8,103	24,977	12,720
Shellfish	53,225	40,074	44,754	32,749	39,450	37,909	35,882	41,454	42,483	38,507
Bass, Striped	2,486	2,883	2,430	2,705	2,049	2,085	2,193	897	2,339	2,485
Clams or Bivalves	5,820	6,454	6,644	7,111	11,911	10,663	7,527	3,676	6,112	7,756
Crab, Blue	45,575	30,870	35,371	22,847	25,933	26,481	27,816	33,826	34,914	29,446
Croaker, Atlantic	1,456	1,376	1,584	1,502	2,233	1,513	1,532	1,801	1,389	877
Flounder, Summer	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	329	ND ¹	333	248
Menhaden	4,899	4,464	5,721	4,871	4,619	4,850	4,232	3,336	15,806	5,263
Oyster, Eastern	1,429	2,461	2,440	2,368	1,274	567	159	43	738	274
Perch, White	2,058	1,457	1,516	1,921	1,947	1,583	1,477	453	1,524	688
Scallop, Sea	1	2	4	21	28	27	ND ¹	93	584	931
Sea Bass, Black	513	315	439	305	150	280	313	ND ¹	330	350

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	1.37	1.29	1.60	1.56	1.67	1.80	1.79	1.76	1.81	1.85
Clams or Bivalves	0.87	0.75	0.79	0.72	0.68	0.75	0.69	0.70	0.78	0.63
Crab, Blue	0.96	1.11	1.10	1.35	1.34	1.15	1.24	1.16	1.14	1.06
Croaker, Atlantic	0.34	0.33	0.30	0.38	0.30	0.34	0.38	0.42	0.39	0.50
Flounder, Summer	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	1.60	ND ¹	2.02	2.22
Menhaden	0.10	0.10	0.08	0.11	0.08	0.09	0.08	0.07	0.10	0.12
Oyster, Eastern	3.15	3.10	2.91	3.04	2.97	3.83	4.45	4.23	4.66	4.52
Perch, White	0.43	0.61	0.50	0.49	0.41	0.35	0.38	0.77	0.56	0.83
Scallop, Sea	6.18	6.64	6.61	5.10	3.81	3.52	ND ¹	4.48	7.72	6.66
Sea Bass, Black	1.32	1.43	1.55	1.56	1.62	1.56	1.77	ND ¹	2.14	2.31

¹ND = data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	202	160	126	204	174	182	187	264	181	235
Private / Rental	1,743	1,554	1,413	2,204	2,340	1,596	2,033	1,499	1,933	1,980
Shore	970	1,124	1,343	1,442	1,275	1,059	1,110	881	1,066	1,374
Total Trips	2,915	2,839	2,883	3,851	3,790	2,837	3,330	2,645	3,180	3,589

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	427	423	383	461	565	430	526	448	633	733
Non-Coastal	29	29	41	51	50	41	53	37	50	84
Out of State	263	307	349	481	426	330	418	336	432	447
Total Anglers	719	759	773	994	1,041	801	997	821	1,115	1,264

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	19,843	48,570	Fishing Tackle	214,628
Shore	58,834	31,432	Other Equipment	51,266
For-Hire	14,090	14,300	Boat Expenses	151,685
Total Trip Expenditures	92,767	94,302	Vehicle Expenses	568,536
			Second Home Expenses	144,359
			Total Durable Equipment Expenditures	1,130,475
Total State Trip and Durable Equipment Expenditures				1,317,544

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	660	71,110	43,358
Shore Mode Trip Impacts	1,170	108,352	63,910
Party/Charter Mode Trip Impacts	485	42,086	24,740
Total Durable Equipment Impacts	6,620	1,035,553	496,407
Total State Trip and Durable Equipment Economic Impacts	8,935	1,257,101	628,415

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	334	392	263	506	383	282	525	380	490	649
	R	4,020	2,642	2,388	3,245	2,890	2,929	4,653	3,739	3,753	3,896
Bluefish	H	433	284	167	344	429	199	214	373	240	509
	R	891	492	605	1,150	1,074	577	518	683	344	850
Drum (Atlantic Croaker)	H	1,053	1,126	1,210	2,675	1,320	1,223	1,620	871	810	833
	R	1,498	3,022	2,484	4,968	1,586	2,523	1,393	819	951	1,792
Drum (Spot)	H	714	1,327	655	1,390	1,089	691	3,301	1,375	2,007	2,645
	R	1,316	634	619	1,080	577	501	670	577	2,186	1,467
Drum (Weakfish) ²	H	163	290	340	475	303	100	41	30	22	(1)
	R	324	462	753	1,209	737	286	181	132	55	57
Flounder, Summer	H	64	206	227	258	139	69	41	66	85	58
	R	361	1,716	1,012	1,513	1,245	383	373	952	433	511
Perch, White	H	2,343	1,692	838	1,611	565	1,156	2,020	1,441	2,436	2,558
	R	3,847	2,886	2,098	3,721	1,583	1,754	3,698	3,035	5,394	4,331
Sea Bass, Black	H	372	354	160	434	119	337	241	158	81	104
	R	586	754	1,487	3,224	2,324	925	773	618	784	799
Tuna, Yellowfin	H	17	20	8	9	26	18	26	4	11	21
	R	1	3	1	(1)	2	(1)	(1)	(1)	2	(1)
Wrasses (Tautog)	H	86	7	20	20	24	42	14	14	40	14
	R	51	29	183	128	138	295	96	36	255	211

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

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

State Economy (% of national total)							
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient	
1998	126,577 (1.82%)	1,938,727 (1.79%)	59,818 (1.81%)	119,732 (2.02%) (2001) ¹	161,954 (1.87%)	0.74 (2001) ²	
2005	138,481 (1.85%)	2,167,999 (1.86%)	88,965 (1.98%)	147,749 (2.11%)	244,447 (1.98%)	0.71 (2006) ²	
% change	9.4	11.8	48.7	23.4	50.9	-4.1	

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	65	71	71	62	79	78	70	78
	Receipts	5,433	6,856	7,012	5,904	8,629	6,771	10,100	6,976
Seafood product preparation & packaging	Firms	28	25	28	25	50	47	51	57
	Receipts	1,563	2,027	1,325	1,997	3,199	2,487	2,301	2,727

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	65	65	71	78	88	97	96	95
	Employees	375	399	474	475	488	459	579	576
	Payroll	6,801	7,786	8,309	8,853	10,033	10,634	12,328	13,019
Seafood sales, wholesale	Establishments	94	93	92	94	77	63	58	59
	Employees	1,001	950	903	913	870	686	733	709
	Payroll	23,498	24,214	26,940	28,847	33,072	27,934	29,813	30,148
Seafood product preparation & packaging	Establishments	28	27	27	26	24	23	23	23
	Employees	1,006	967	894	889	807	762	895	1,141
	Payroll	21,651	22,947	22,309	23,686	20,618	20,399	23,039	24,986

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	11	12	12	12	14	16	15	16
	Employees	104	F	F	F	123	F	281	316
	Payroll	5,501	F	F	F	9,216	F	18,983	14,131
Coastal & Great Lakes freight transportation	Establishments	7	9	9	10	8	9	11	10
	Employees	F	F	155	178	F	F	F	F
	Payroll	F	F	7,372	7,969	F	F	F	F
Marine cargo handling	Establishments	17	14	13	15	16	14	11	12
	Employees	1,824	1,794	1,751	1,505	1,487	1,862	1,725	1,639
	Payroll	68,008	60,105	60,915	63,172	66,525	69,084	75,911	81,219
Navigational services to shipping	Establishments	13	13	12	13	13	11	8	9
	Employees	F	311	F	275	F	195	F	F
	Payroll	F	13,125	F	18,710	F	38,619	F	F
Ship & boat building	Establishments	41	36	38	40	44	55	58	57
	Employees	1,697	1,902	F	1,421	1,223	1,426	1,022	F
	Payroll	51,552	56,547	F	48,561	40,743	36,444	35,364	F
Marinas	Establishments	193	196	187	185	188	180	183	185
	Employees	1,142	1,103	1,172	1,240	1,232	1,296	1,321	1,228
	Payroll	26,924	28,289	30,207	32,088	33,621	34,024	36,598	36,590
Port and harbor operations	Establishments	4	4	4	4	7	8	10	11
	Employees	217	236	F	319	259	376	479	F
	Payroll	6,109	8,708	F	9,545	11,655	16,099	19,218	F

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	2,107,594	1,137,693	40,083
Commercial Harvesters	152,026	59,485	1,724
Seafood Processors and Dealers	119,978	58,927	1,345
Seafood Wholesalers and Distributors	506,082	243,380	4,320
Retail Sectors	1,329,507	775,901	32,693

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	99,628	97,235	97,865	107,163	110,246	112,708	120,672	145,859	159,007	136,053
Finfish & Other	26,832	25,539	26,406	23,308	19,858	20,062	22,019	21,797	22,840	24,483
Shellfish	72,796	71,696	71,459	83,855	90,389	92,646	98,653	124,062	136,167	111,570
Clam, Quahog	6,701	8,712	7,363	6,757	5,636	ND ¹	5,228	7,409	7,556	7,615
Clams, Ocean Quahog & Surf	34,782	29,755	32,536	37,766	41,193	39,804	38,054	31,379	25,567	31,038
Crab, Blue	3,367	5,279	4,911	5,490	4,802	6,725	4,736	5,330	6,773	6,359
Flounder, Summer	2,052	2,732	3,038	2,604	2,313	3,504	3,683	4,431	4,642	4,926
Goosefish	4,108	5,809	7,782	6,505	6,135	5,896	6,200	3,496	4,429	4,416
Herring, Atlantic	33	274	44	ND ¹	32	60	145	6	297	389
Lobster, American	3,298	2,633	3,632	3,694	2,471	1,139	1,028	1,802	2,002	2,533
Mackerel, Atlantic	1,665	2,203	2,207	1,205	1,695	1,780	2,855	3,398	4,028	3,717
Oyster, Eastern	2,262	2,686	1,572	967	1,918	1,853	3,366	1,558	823	2,288
Scallop, Sea	12,431	9,816	14,534	24,108	29,983	33,336	43,507	67,500	88,482	57,471

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	174,857	197,143	168,658	171,803	168,541	162,139	170,133	187,813	156,977	152,783
Finfish & Other	75,824	84,899	77,538	71,574	71,867	65,737	75,471	71,823	74,454	66,317
Shellfish	99,033	112,243	91,120	100,229	96,674	96,401	94,662	115,990	82,523	86,466
Clam, Quahog	1,696	2,193	1,880	1,622	1,357	ND ¹	1,260	1,796	1,852	1,844
Clams, Ocean Quahog & Surf	63,889	60,498	66,114	72,858	73,900	73,949	71,683	61,155	49,849	55,286
Crab, Blue	4,563	5,829	5,579	5,093	4,724	6,229	4,012	4,350	6,333	5,981
Flounder, Summer	1,320	1,863	1,917	1,848	1,745	2,407	2,385	2,831	2,529	2,380
Goosefish	6,383	8,141	6,358	4,414	5,855	5,697	7,185	4,230	3,922	3,841
Herring, Atlantic	296	2,545	646	ND ¹	708	1,138	1,805	114	2,263	2,451
Lobster, American	858	722	931	891	580	264	210	371	369	471
Mackerel, Atlantic	9,563	18,233	20,035	9,645	25,224	20,486	33,056	36,091	32,415	24,977
Oyster, Eastern	593	703	411	202	412	379	714	323	162	350
Scallop, Sea	1,933	1,588	2,749	4,949	8,219	8,644	10,638	13,737	11,833	8,440

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clam, Quahog	3.95	3.97	3.92	4.17	4.15	ND ¹	4.15	4.13	4.08	4.13
Clams, Ocean Quahog & Surf	0.54	0.49	0.49	0.52	0.56	0.54	0.53	0.51	0.51	0.56
Crab, Blue	0.74	0.91	0.88	1.08	1.02	1.08	1.18	1.23	1.07	1.06
Flounder, Summer	1.55	1.47	1.58	1.41	1.32	1.46	1.54	1.57	1.84	2.07
Goosefish	0.64	0.71	1.22	1.47	1.05	1.03	0.86	0.83	1.13	1.15
Herring, Atlantic	0.11	0.11	0.07	ND ¹	0.05	0.05	0.08	0.05	0.13	0.16
Lobster, American	3.84	3.65	3.90	4.14	4.26	4.31	4.90	4.86	5.42	5.38
Mackerel, Atlantic	0.17	0.12	0.11	0.12	0.07	0.09	0.09	0.09	0.12	0.15
Oyster, Eastern	3.82	3.82	3.82	4.77	4.65	4.88	4.72	4.82	5.09	6.53
Scallop, Sea	6.43	6.18	5.29	4.87	3.65	3.86	4.09	4.91	7.48	6.81

¹ND = data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	871	459	419	518	643	368	466	501	408	630
Private / Rental	2,982	2,669	2,487	3,727	4,025	2,992	3,602	3,892	3,765	3,859
Shore	1,626	1,180	1,919	2,224	2,817	2,049	2,711	2,152	2,476	2,803
Total Trips	5,480	4,308	4,825	6,469	7,484	5,409	6,779	6,544	6,649	7,292

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	469	400	493	544	721	400	592	716	826	693
Non-Coastal	21	29	30	17	42	17	20	30	39	25
Out of State	385	357	303	430	543	239	462	374	474	481
Total Anglers	875	786	827	990	1,306	656	1,074	1,119	1,340	1,199

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	62,141	137,749	Fishing Tackle	300,216
Shore	32,324	59,807	Other Equipment	62,270
For-Hire	35,827	29,635	Boat Expenses	253,598
Total Trip Expenditures	130,292	227,191	Vehicle Expenses	370,227
			Second Home Expenses	47,936
			Total Durable Equipment Expenditures	1,034,248
Total State Trip and Durable Equipment Expenditures				1,391,731

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	1,785	252,905	130,838
Shore Mode Trip Impacts	941	112,758	61,304
Party/Charter Mode Trip Impacts	934	100,750	58,572
Total Durable Equipment Impacts	6,155	1,142,289	579,641
Total State Trip and Durable Equipment Economic Impacts	9,814	1,608,701	830,356

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	68	89	237	402	560	416	392	449	327	489
	R	737	488	1,153	885	966	715	926	1,324	1,197	2,102
Bluefish	H	942	817	809	1,236	1,431	1,321	1,571	2,012	2,035	1,457
	R	849	702	1,824	1,907	2,056	2,168	1,913	2,403	2,644	1,930
Drum (Weakfish) ²	H	1,028	921	584	760	736	493	151	184	1,053	418
	R	975	778	551	1,605	1,065	351	631	607	1,280	1,231
Flounder, Summer	H	3,742	2,728	1,503	3,023	2,070	989	1,784	1,887	1,396	1,561
	R	5,688	6,520	9,220	7,261	10,343	4,205	5,807	7,212	9,931	6,823
Flounder, Winter	H	541	169	376	1,080	562	208	307	95	46	43
	R	374	193	191	441	188	124	110	29	42	192
Hake, Red	H	333	79	116	96	51	12	16	12	6	111
	R	22	2	4	5	5	(1)	15	6	6	15
Sea Bass, Black	H	3,353	273	449	1,962	1,919	1,760	1,903	1,173	667	692
	R	2,811	1,235	1,728	5,545	4,371	4,318	4,295	2,833	2,463	2,090
Tuna, Bluefin	H	18	(1)	3	8	11	7	9	9	8	4
	R	73	(1)	(1)	(1)	4	(1)	(1)	31	26	35
Tuna, Yellowfin	H	10	4	19	55	9	14	22	25	22	41
	R	1	(1)	(1)	(1)	(1)	4	(1)	1	(1)	1
Wrasses (Tautog)	H	197	12	166	462	468	348	103	131	37	195
	R	420	225	671	627	1,006	836	394	426	335	563

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

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

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	230,860 (3.33%)	3,368,365 (3.12%)	125,787 (3.80%)	211,925 (3.57%) (2001) ¹	314,117 (3.62%)	1.17 (2001) ²
2005	242,128 (3.23%)	3,594,862 (3.09%)	166,018 (3.70%)	245,115 (3.49%)	427,654 (3.46%)	0.89 (2006) ²
% change	4.9	6.7	32.0	15.7	36.1	-23.9

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	93	98	94	87	92	100	89	93
	Receipts	8,707	8,457	8,289	8,368	8,348	8,822	9,219	9,194
Seafood product preparation & packaging	Firms	15	16	17	14	21	23	23	26
	Receipts	1,098	1,913	2,545	2,878	2,673	2,279	2,694	3,086

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	118	123	125	125	149	133	134	128
	Employees	428	429	571	549	559	454	547	524
	Payroll	7,655	8,188	9,621	10,183	10,225	10,513	11,952	11,787
Seafood sales, wholesale	Establishments	101	110	107	112	102	84	85	85
	Employees	936	1,027	1,028	1,023	969	920	948	914
	Payroll	32,296	35,333	37,609	39,677	37,394	35,991	38,066	37,828
Seafood product preparation & packaging	Establishments	14	18	16	18	17	16	15	17
	Employees	803	863	816	1,100	928	846	749	969
	Payroll	17,990	18,491	20,655	27,302	23,045	20,794	21,029	28,235

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	35	38	37	33	35	37	33	38
	Employees	3,807	1,484	1,373	1,451	1,397	1,287	1,028	948
	Payroll	146,969	79,060	74,916	86,618	78,258	70,996	65,691	68,633
Coastal & Great Lakes freight transportation	Establishments	20	19	18	21	13	15	17	18
	Employees	F	F	F	532	F	768	F	914
	Payroll	F	F	F	36,912	F	45,024	F	54,097
Marine cargo handling	Establishments	24	24	26	26	29	27	26	26
	Employees	3,526	2,907	3,887	3,418	3,408	4,108	4,685	4,972
	Payroll	158,301	166,705	227,064	187,150	247,217	318,325	340,085	363,714
Navigational services to shipping	Establishments	15	17	22	21	22	16	17	16
	Employees	F	F	408	183	F	210	F	169
	Payroll	F	F	22,315	10,359	F	8,028	F	9,673
Ship & boat building	Establishments	44	43	43	45	41	37	35	37
	Employees	1,796	1,992	2,178	2,185	2,223	2,005	2,040	2,320
	Payroll	61,814	66,141	71,918	70,980	76,607	75,149	80,301	89,421
Marinas	Establishments	224	220	209	211	199	203	201	206
	Employees	F	F	F	F	927	951	945	978
	Payroll	F	F	F	F	32,480	34,777	36,862	38,323
Port and harbor operations	Establishments	7	6	6	5	5	5	6	7
	Employees	F	F	375	376	F	240	F	194
	Payroll	F	F	18,804	21,855	F	10,644	F	11,599

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	1,938,733	1,030,787	41,903
Commercial Harvesters	115,748	39,627	2,421
Seafood Processors and Dealers	99,546	42,039	734
Seafood Wholesalers and Distributors	453,280	222,542	3,903
Retail Sectors	1,270,158	726,579	34,845

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	89,615	84,283	76,533	61,121	55,074	51,265	51,606	46,879	56,395	57,706
Finfish & Other	24,460	22,319	19,363	16,495	18,866	15,924	16,429	16,764	18,342	19,123
Shellfish	65,154	61,965	57,169	44,626	36,208	35,341	35,177	30,115	38,053	38,583
Clam, Atlantic Surf	3,935	2,497	2,203	3,602	4,885	5,520	7,934	4,475	7,055	4,473
Clam, Quahog	18,753	19,185	17,777	17,547	13,502	12,245	12,399	10,673	12,696	12,237
Clam, Softshell	907	712	975	848	561	679	888	1,227	1,468	2,055
Flounder, Summer	2,049	1,967	1,832	2,007	1,779	2,042	2,240	3,275	3,809	3,418
Lobster	31,087	29,846	27,324	11,555	7,357	5,131	4,426	3,721	4,395	6,288
Oyster, Eastern	2,442	1,356	392	1,311	2,137	4,995	4,263	3,367	1,961	2,390
Scallop, Sea	47	5	68	239	718	90	166	722	3,617	3,518
Scups or Porgies	1,303	1,099	713	909	703	1,185	1,330	1,637	2,027	2,448
Squid, Loligo	6,279	6,720	8,052	8,423	6,035	6,247	4,353	5,427	6,056	5,844
Tilefishes	4,247	3,329	1,885	2,053	3,191	3,195	2,736	2,082	2,765	3,323

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	60,890	57,473	48,881	44,702	42,389	38,548	39,392	34,507	38,123	32,628
Finfish & Other	30,596	31,490	23,568	18,585	21,019	16,540	17,227	16,531	14,641	14,029
Shellfish	30,294	25,982	25,313	26,116	21,370	22,008	22,165	17,976	23,482	18,599
Clam, Atlantic Surf	6,941	3,859	4,878	5,567	7,549	8,544	13,264	7,462	11,953	6,913
Clam, Quahog	2,811	2,504	2,647	2,349	1,828	1,502	1,553	1,346	1,616	1,650
Clam, Softshell	271	208	229	181	106	132	163	234	270	393
Flounder, Summer	822	822	801	812	752	1,053	1,073	1,594	1,804	1,220
Lobster	8,878	8,525	7,060	2,883	2,053	1,440	946	996	1,154	1,243
Oyster, Eastern	529	237	68	150	244	537	466	370	219	269
Scallop, Sea	10	3	18	111	259	26	39	163	610	554
Scups or Porgies	828	621	455	634	655	1,558	1,850	1,907	2,186	2,416
Squid, Loligo	8,218	8,300	10,197	13,208	7,625	9,613	4,603	6,363	6,695	6,460
Tilefishes	3,294	1,962	798	916	1,835	1,593	1,755	1,335	1,142	1,297

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clam, Atlantic Surf	0.57	0.65	0.45	0.65	0.65	0.65	0.60	0.60	0.59	0.65
Clam, Quahog	6.67	7.66	6.72	7.47	7.39	8.15	7.98	7.93	7.86	7.42
Clam, Softshell	3.34	3.42	4.25	4.70	5.30	5.15	5.45	5.25	5.43	5.23
Flounder, Summer	2.49	2.39	2.29	2.47	2.36	1.94	2.09	2.05	2.11	2.80
Lobster	3.50	3.50	3.87	4.01	3.58	3.56	4.68	3.74	3.81	5.06
Oyster, Eastern	4.62	5.73	5.76	8.77	8.77	9.30	9.15	9.10	8.97	8.87
Scallop, Sea	4.70	1.81	3.90	2.15	2.77	3.43	4.20	4.44	5.93	6.35
Scups or Porgies	1.57	1.77	1.57	1.43	1.07	0.76	0.72	0.86	0.93	1.01
Squid, Loligo	0.76	0.81	0.79	0.64	0.79	0.65	0.95	0.85	0.90	0.90
Tilefishes	1.29	1.70	2.36	2.24	1.74	2.01	1.56	1.56	2.42	2.56

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	364	244	281	306	344	339	406	397	475	398
Private / Rental	2,262	2,012	1,749	2,496	2,365	2,172	3,030	2,600	3,032	3,058
Shore	1,650	1,175	873	1,844	1,915	1,607	2,090	1,777	2,566	1,943
Total Trips	4,276	3,431	2,903	4,645	4,624	4,118	5,525	4,774	6,073	5,399

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	455	427	337	469	474	387	599	583	897	735
Non-Coastal	17	6	11	12	11	8	19	19	27	25
Out of State	50	42	28	20	29	41	82	75	113	114
Total Anglers	522	476	376	500	513	436	700	677	1,038	874

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	2,648	78,198	Fishing Tackle	171,976
Shore	3,444	31,581	Other Equipment	69,019
For-Hire	4,122	30,347	Boat Expenses	208,459
Total Trip Expenditures	10,214	140,126	Vehicle Expenses	117,788
			Second Home Expenses	53,395
			Total Durable Equipment Expenditures	620,643
Total State Trip and Durable Equipment Expenditures				770,983

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	654	79,162	49,561
Shore Mode Trip Impacts	326	35,185	21,479
Party/Charter Mode Trip Impacts	542	53,488	32,389
Total Durable Equipment Impacts	3,843	644,434	320,640
Total State Trip and Durable Equipment Economic Impacts	5,364	812,269	424,069

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	237	167	195	271	190	202	314	243	298	313
	R	1,019	885	1,229	1,373	824	588	1,084	1,493	1,348	1,578
Bluefish	H	816	768	710	718	1,005	751	1,147	1,499	2,376	1,534
	R	898	589	1,156	2,629	2,543	1,017	1,305	1,883	3,314	1,839
Drum (Weakfish) ²	H	113	21	18	42	28	25	9	8	(1)	9
	R	91	30	35	69	69	63	7	40	194	12
Flounder, Summer	H	1,206	1,230	760	1,671	700	696	1,539	937	1,147	802
	R	2,097	1,522	3,260	3,574	5,228	4,100	5,722	2,682	7,767	5,277
Flounder, Winter	H	406	78	136	237	233	154	234	236	150	204
	R	209	104	152	237	286	141	73	56	222	95
Herring, Atlantic ³	H	200	111	142	67	39	26	30	73	140	39
	R	39	5	118	83	48	14	(1)	4	2	3
Porgies (Scup)	H	623	444	875	3,126	1,734	1,091	5,112	1,581	686	1,277
	R	318	483	197	1,301	1,666	1,246	1,805	2,508	1,263	2,498
Sea Bass, Black	H	217	12	89	335	164	221	318	105	176	277
	R	523	79	731	1,222	641	1,411	739	490	963	1,634
Shortfin Mako	H	2	2	1	5	(1)	1	3	(1)	(1)	1
	R	4	3	9	13	2	4	3	2	5	2
Wrasses (Tautog)	H	93	69	197	79	46	630	129	381	119	253
	R	166	517	787	401	314	953	297	783	272	1,020

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

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

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

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	481,962 (6.94%)	6,993,814 (6.47%)	274,635 (8.30%)	482,888 (8.14%) (2001) ¹	686,906 (7.91%)	0.22 (2001) ²
2005	514,265 (6.86%)	7,417,463 (6.38%)	370,843 (8.27%)	547,812 (7.81%)	961,385 (7.77%)	0.12 (2006) ²
% change	6.7	6.1	35.0	13.4	40.0	-45.5

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	279	274	268	262	244	272	241	219
	Receipts	24,314	28,922	30,580	31,218	29,832	29,321	28,640	24,987
Seafood product preparation & packaging	Firms	17	43	39	45	40	62	49	57
	Receipts	1,093	3,621	3,538	2,607	1,730	2,580	3,517	2,652

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	302	297	307	323	381	376	386	392
	Employees	1,004	1,026	1,113	1,154	1,421	1,518	1,602	1,513
	Payroll	15,037	16,110	17,304	18,609	22,867	25,422	26,489	25,665
Seafood sales, wholesale	Establishments	323	313	305	296	315	291	274	269
	Employees	2,195	2,189	2,265	2,158	2,269	2,183	2,091	2,003
	Payroll	67,377	71,437	75,538	76,881	84,367	75,063	75,411	76,177
Seafood product preparation & packaging	Establishments	18	19	18	21	16	18	17	18
	Employees	339	452	F	370	352	271	323	324
	Payroll	13,404	15,350	F	18,258	20,430	15,676	14,782	14,810

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	48	42	43	40	38	35	36	39
	Employees	1,123	769	F	621	1,084	927	600	602
	Payroll	91,731	49,402	F	42,874	52,516	58,350	38,246	39,309
Coastal & Great Lakes freight transportation	Establishments	72	71	69	67	69	60	60	57
	Employees	F	1,687	1,653	2,182	2,284	1,751	1,452	1,448
	Payroll	F	91,895	91,296	129,403	141,213	115,452	94,074	91,347
Marine cargo handling	Establishments	19	20	22	19	11	14	14	12
	Employees	1,126	1,290	1,677	F	F	951	1,099	F
	Payroll	40,018	43,649	56,242	F	F	50,015	48,529	F
Navigational services to shipping	Establishments	41	36	41	41	32	34	34	35
	Employees	F	F	487	554	F	F	F	F
	Payroll	F	F	27,872	29,646	F	F	F	F
Ship & boat building	Establishments	50	52	48	44	41	44	45	47
	Employees	976	841	880	759	F	F	F	590
	Payroll	28,550	28,262	28,320	26,072	F	F	F	21,514
Marinas	Establishments	405	389	392	386	386	417	413	416
	Employees	1,811	1,682	1,778	1,805	1,680	2,167	2,185	2,093
	Payroll	53,425	55,844	64,661	66,508	69,242	77,398	81,737	84,832
Port and harbor operations	Establishments	3	3	3	3	4	3	3	3
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	1,396,667	779,115	32,197
Commercial Harvesters	91,186	39,853	1,879
Seafood Processors and Dealers	178,671	93,080	2,514
Seafood Wholesalers and Distributors	220,121	110,169	2,082
Retail Sectors	906,689	536,014	25,722

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	101,028	113,050	108,247	118,336	119,618	123,308	130,657	160,509	155,261	109,071
Finfish & Other	46,330	59,521	47,754	47,258	42,222	38,947	39,661	43,534	48,732	40,597
Shellfish	54,698	53,530	60,492	71,078	77,395	84,361	90,996	116,975	106,529	68,474
Bass, Striped	2,107	2,559	3,088	3,266	3,250	2,823	3,389	3,665	4,482	2,907
Catfishes & Bullhead	231	355	330	389	987	1,005	372	649	900	1,570
Crab, Blue	28,404	27,195	26,525	24,115	25,600	21,083	19,130	21,823	20,579	14,067
Croaker, Atlantic	3,567	4,162	3,499	5,598	3,126	3,815	2,822	3,013	3,684	4,344
Flounder, Summer	3,073	3,316	3,067	3,131	2,973	3,150	4,220	5,376	4,817	3,460
Goosefish	1,027	1,076	940	843	700	704	879	599	1,144	688
Menhaden	30,035	40,744	30,222	27,566	25,860	22,113	22,511	24,144	25,259	22,269
Scallop, Sea	20,443	20,658	27,483	41,680	44,466	57,715	68,298	92,388	84,595	52,819
Sea Bass, Black	844	1,308	1,195	1,335	1,317	1,589	1,306	1,167	1,244	1,072
Spot	1,452	1,536	1,040	2,256	1,326	1,256	1,688	2,236	2,227	1,762

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	584,895	592,733	460,254	443,197	561,792	442,490	446,828	481,611	441,510	426,235
Finfish & Other	540,719	551,711	419,790	403,157	520,211	396,929	406,359	432,038	402,586	393,76
Shellfish	44,176	41,022	40,464	40,041	41,581	45,560	40,469	49,573	38,923	32,475
Bass, Striped	1,574	1,855	1,859	2,209	2,050	1,841	2,104	2,128	2,484	1,431
Catfishes & Bullhead	1,076	1,577	1,455	1,680	1,964	1,886	1,799	1,922	1,622	1,360
Crab, Blue	39,065	34,599	31,437	28,846	25,057	27,301	21,464	27,642	26,064	22,719
Croaker, Atlantic	12,791	12,007	12,850	12,889	12,929	12,448	10,936	9,488	9,272	7,829
Flounder, Summer	2,370	2,616	2,196	2,207	2,660	2,970	3,522	3,906	3,869	2,757
Goosefish	2,692	2,995	2,629	942	887	970	1,270	1,002	1,157	677
Menhaden	497,161	508,728	378,158	367,131	487,144	364,941	373,868	399,798	372,578	370,98
Scallop, Sea	3,278	3,548	5,572	9,176	12,654	16,189	17,536	19,674	11,435	8,311
Sea Bass, Black	506	817	740	648	661	771	507	498	475	328
Spot	3,466	4,277	2,962	3,765	3,248	3,062	3,471	4,338	3,103	1,696

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	1.34	1.38	1.66	1.48	1.59	1.53	1.61	1.72	1.80	2.03
Catfishes & Bullhead	0.22	0.23	0.23	0.23	0.50	0.53	0.21	0.34	0.55	1.15
Crab, Blue	0.73	0.79	0.84	0.84	1.02	0.77	0.89	0.79	0.79	0.62
Croaker, Atlantic	0.28	0.35	0.27	0.43	0.24	0.31	0.26	0.32	0.40	0.55
Flounder, Summer	1.30	1.27	1.40	1.42	1.12	1.06	1.20	1.38	1.25	1.26
Goosefish	0.38	0.36	0.36	0.90	0.79	0.73	0.69	0.60	0.99	1.02
Menhaden	0.06	0.08	0.08	0.08	0.05	0.06	0.06	0.06	0.07	0.06
Scallop, Sea	6.24	5.82	4.93	4.54	3.51	3.56	3.89	4.70	7.40	6.36
Sea Bass, Black	1.67	1.60	1.61	2.06	1.99	2.06	2.58	2.34	2.62	3.27
Spot	0.42	0.36	0.35	0.60	0.41	0.41	0.49	0.52	0.72	1.04

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	137	80	41	64	91	72	86	96	41	34
Private / Rental	2,296	1,976	1,904	2,291	2,579	2,255	2,068	2,415	2,432	2,555
Shore	1,279	900	749	1,036	1,458	927	958	1,083	1,368	1,310
Total Trips	3,712	2,956	2,694	3,391	4,128	3,254	3,113	3,594	3,841	3,900

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	383	302	309	388	423	337	384	504	553	578
Non-Coastal	66	38	66	68	88	73	52	69	134	90
Out of State	286	291	187	262	520	407	288	423	502	364
Total Anglers	735	631	562	717	1,031	817	724	997	1,189	1,033

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	64,006	86,027	Fishing Tackle	121,760
Shore	10,223	27,928	Other Equipment	43,765
For-Hire	1,958	2,036	Boat Expenses	225,687
Total Trip Expenditures	76,187	115,991	Vehicle Expenses	207,642
			Second Home Expenses	49,838
			Total Durable Equipment Expenditures	648,689
Total State Trip and Durable Equipment Expenditures				840,867

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	1,730	170,099	98,740
Shore Mode Trip Impacts	477	43,966	25,209
Party/Charter Mode Trip Impacts	75	5,956	3,398
Total Durable Equipment Impacts	4,557	554,358	280,036
Total State Trip and Durable Equipment Economic Impacts	6,839	774,380	407,383

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	435	294	304	335	301	321	402	477	368	523
	R	1,232	796	941	1,022	621	707	971	1,768	1,485	1,690
Cobia	H	9	4	5	10	9	3	2	3	14	8
	R	3	9	16	8	10	10	15	7	23	29
Drum (Atlantic Croaker)	H	8,067	6,730	5,882	5,486	9,335	9,129	6,695	7,293	7,791	7,069
	R	7,275	4,991	5,669	7,811	7,087	7,108	6,544	5,791	8,144	4,599
Drum, Red	H	2	13	12	23	7	50	14	5	3	15
	R	110	94	233	197	30	801	43	34	31	159
Drum (Spot)	H	3,328	2,024	569	527	1,056	1,602	1,441	2,323	2,994	3,510
	R	1,366	900	340	503	969	482	934	975	1,799	921
Drum (Spotted Seatrout)	H	93	35	138	90	13	16	102	75	31	56
	R	169	75	152	265	110	136	207	296	277	125
Drum (Weakfish) ¹	H	558	464	229	287	176	178	86	103	30	59
	R	1,404	1,245	819	936	633	888	504	528	267	456
Flounder, Summer	H	947	1,165	378	581	1,338	772	451	584	584	862
	R	3,434	3,852	2,183	2,629	4,014	2,666	2,585	3,539	2,340	2,274
Sea Bass, Black	H	636	398	536	448	231	132	265	48	75	115
	R	1,533	1,332	1,242	1,570	2,180	2,441	1,742	1,280	945	983
Wrasses (Tautog)	H	107	51	43	35	29	26	76	163	108	142
	R	76	77	66	13	27	38	55	141	107	229

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

State Economy (% of national total)							
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient	
1998	172,182 (2.48%)	2,700,589 (2.50%)	81,261 (2.46%)	167,476 (2.82%) (2001) ¹	226,569 (2.61%)	0.38 (2001) ²	
2005	193,067 (2.57%)	3,060,127 (2.63%)	121,801 (2.72%)	208,354 (2.97%)	350,692 (2.83%)	0.48 (2006) ²	
% change	12.1	13.3	50.0	24.4	54.8	26.3	

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	76	73	68	89	94	88	89	80
	Receipts	3,788	4,707	5,505	10,148	8,266	7,193	8,346	8,762
Seafood product preparation & packaging	Firms	12	14	16	20	35	53	68	65
	Receipts	283	854	613	1,185	1,406	2,370	3,456	3,665

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	53	52	57	59	74	61	68	69
	Employees	F	F	243	203	259	165	297	286
	Payroll	F	F	3,262	3,104	3,662	3,146	4,479	4,865
Seafood sales, wholesale	Establishments	108	108	105	100	89	84	86	86
	Employees	1,087	1,056	1,072	875	790	742	756	675
	Payroll	20,721	22,086	21,054	21,138	21,591	20,133	22,235	21,864
Seafood product preparation & packaging	Establishments	46	42	41	42	39	38	42	39
	Employees	1,515	1,515	1,230	1,259	1,035	1,256	1,231	1,336
	Payroll	29,441	30,554	34,642	35,228	35,828	37,386	38,731	39,980

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	20	26	24	22	23	22	21	24
	Employees	895	953	1,172	F	1,254	1,087	1,124	1,090
	Payroll	49,207	71,298	72,961	F	92,591	87,099	91,978	95,871
Coastal & Great Lakes freight transportation	Establishments	16	15	15	14	13	16	13	15
	Employees	501	F	F	F	F	591	F	F
	Payroll	18,281	F	F	F	F	26,881	F	F
Marine cargo handling	Establishments	16	17	16	16	18	19	19	18
	Employees	1,387	F	1,820	1,284	F	F	F	1,516
	Payroll	52,862	F	53,584	50,553	F	F	F	52,254
Navigational services to shipping	Establishments	13	13	14	13	17	15	20	21
	Employees	374	F	F	F	F	F	F	F
	Payroll	9,359	F	F	F	F	F	F	F
Ship & boat building	Establishments	53	54	52	63	62	50	52	50
	Employees	21,711	21,176	21,429	20,198	21,240	20,720	21,022	21,230
	Payroll	853,817	765,462	856,081	989,524	963,644	901,156	920,372	938,375
Marinas	Establishments	121	119	121	129	122	136	137	141
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Port and harbor operations	Establishments	8	9	9	9	8	8	9	9
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F

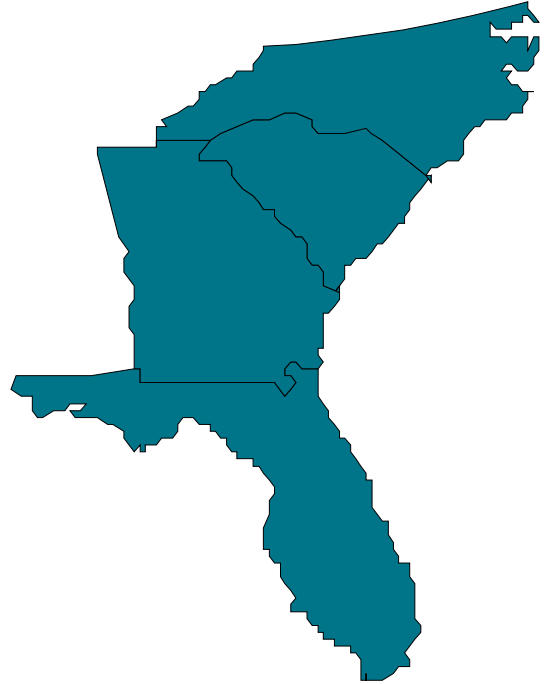
F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

South Atlantic

- East Florida
- Georgia
- North Carolina
- South Carolina



South Atlantic Summary

Management Context

The South Atlantic region includes the states of Georgia, North Carolina, and South Carolina, and eastern Florida. Federal fisheries in this region are managed by the South Atlantic Fishery Management Council (SAFMC) and the National Marine Fisheries Service under ten fishery management plans (FMPs). The spiny lobster fishery, coastal migratory pelagics fishery, and the coral, coral reef, and live/hard bottom habitats are managed with the Gulf of Mexico Fishery Management Council (GMFMC). The Dolphin Wahoo FMP is managed jointly with the Mid-Atlantic Fishery Management Council (MAFMC) and GMFMC.

South Atlantic Fishery Management Plans

1. Coastal Migratory Pelagic Resources (with GMFMC)
2. Coral, Coral Reef, and Live/Hard Bottom Habitats (with GMFMC)
3. Dolphin Wahoo (with MAFMC and NEFMC)
4. Golden Crab
5. Habitat Plan (basis for a Fishery Ecosystem Plan)
6. Pelagic Sargassum Habitat
7. Shrimp
8. Snapper Grouper
9. Spiny Lobster (with GMFMC)
10. Red Drum

Of the species covered in these fishery management plans, pink shrimp, snowy grouper, black sea bass, red porgy, and red snapper are currently considered overfished. Species currently subject to overfishing include vermillion snapper, red snapper, snowy grouper, tilefish, red grouper, black sea bass, gag, black grouper, speckled hind, warsaw grouper, and red drum.

The South Atlantic wreckfish fishery is managed as an individual fishing quota (IFQ) fishery. This limited access privilege program (LAPP) was put into place in 1992 and had an ex-vessel value of \$300,000 in 2007. A snapper-grouper IFQ program is anticipated for 2010.

Commercial Fisheries

In 2006, South Atlantic commercial fishermen received \$141 million for their harvest (116 million pounds). The ex-vessel value of shellfish landings (64 million pounds) was \$80 million with shrimp and blue crab accounting for 47% of total landings revenue. Landings of finfish and other fishery products (52 million pounds) had an ex-vessel value of \$61 million. The commercial fishing industry had the highest sales, income, and employment impacts in Florida (note that this is the entire state, not eastern Florida): \$5.2 billion in sales, \$2.9 billion in income, and 103,000 jobs.



Edwin S. Taylor Fishing Pier at Folly Beach, South Carolina

Key South Atlantic Commercial Species

Commercially-important species and species groups in the South Atlantic include: clams, blue crab, flounders, groupers, king mackerel, oysters, shrimp, snappers, swordfish, and tunas.

Economic Impacts

Overall, Florida led the region in commercial fisheries-related sales and income, and full- and part-time jobs. Georgia and North Carolina both generated in-state sales of over \$500 million. The commercial fishing industry generated \$89 million in sales in South Carolina. Florida and North Carolina led the region in landings revenue at \$192 million and \$70 million, respectively.

Landings Revenue

Overall, ex-vessel revenue decreased 37% from 1997 to 2006 (-47% after adjusting for inflation), largely due to the decrease in ex-vessel revenue from shellfish (-45% nominally, -54% in real terms). Ex-vessel revenue from finfish and other fishery products declined 22% (-34% in real terms). North Carolina had the highest average landing revenue (\$90 million nominally, \$96 million in real terms), followed by east Florida (\$42 million nominally, \$45 million in real terms), South Carolina (\$24 million nominally, \$26 million in real terms), and Georgia (\$18 million nominally, \$19 million in real terms). All four states experienced declines in ex-vessel revenue during this period: Georgia at -58%, South Carolina at -48%, North Carolina at -36%, and east Florida at -14%.

The ten key species or species groups were on average 78% of ex-vessel value in the South Atlantic, with shrimp and blue crab accounting for 31% and 24% of average annual total landings revenue, respectively. However,

landings revenue for both species decreased between 1997 and 2006, dropping 46% for shrimp to \$40 million and blue crab landings revenue dropping 48% to \$27 million. East Florida's harvest of shrimp accounted for an average of 31% of the region's landings revenue from this species, ranging from 19% in 1997 to 41% in 2006. North Carolina generated the majority of blue crab revenues, on average accounting for 73% of the South Atlantic's landings revenue from this species.

Commercial Fish Facts

- All four states in the South Atlantic region list clams, blue crab, groupers, shrimp, and snappers as key species or species groups.

Landings revenue

- On average, the key species or species groups accounted for 78% of the total revenue.
- Shrimp and blue crab accounted for 71% of the average annual revenue for all key species combined.
- The largest annual increase during the 10 year period was 109% for tunas (1999-2000).
- Shrimp had the largest annual decrease in revenue, declining 37% from 2000-2001.

Landings

- On average, the key individual species or species groups accounted for 49% of total landings.
- Blue crab averaged over 54 million pounds from 1997-2006. This species contributed an average of 46% of all finfish and other fishery landings.
- Landings for tunas increased 50% from 2005-2006, the largest increase in landings in the 10 year period, averaging 1.7 million pounds.
- Shrimp had the largest annual decrease in landings, declining 37% from 2004-2005, and averaging 25.7 million pounds.

Prices

- Clams, oysters, swordfish, and groupers had the highest average annual prices per pound at \$6.95, \$4.06, \$2.66, and \$2.49, respectively.
- Blue crab, king mackerel, flounders, and tunas had the lowest average annual prices per pound at \$0.82, \$1.62, \$1.76, and \$1.79, respectively.
- The largest annual increase in ex-vessel price was 52% for tunas (1997-1998). Tunas also experienced the largest annual decrease in price (-20%) the following year.

In contrast to the declines in blue crab and shrimp revenues, landings revenue for oysters and tunas increased 118% and 117%, respectively, for a combined net gain of \$4.6 million from 1997 to 2006.

Landings

Over the 10 year period, total landings averaged 203 million pounds, ranging from a low of 116 million in 2006 to a high of \$301 million in 1997; a 62% decrease between

these years. Landing of finfish and other fishery products decreased 75%, averaging 118 million pounds. Shellfish landings decreased 42%, averaging 85 million pounds.

Overall, the landings of all four states in the South Atlantic region decreased between 1997 and 2006, dropping 18% in east Florida, 39% in South Carolina, 43% in Georgia, and 70% in North Carolina. However, landings of some species increased between 1997 and 2006: Spanish mackerel (39%) and shrimp (41%) in east Florida; snappers (4%) and oysters (46%) in South Carolina; clams (188%) in Georgia; and black sea bass (2%), flounders (12%), and tunas (60%) in North Carolina.

Prices

Between 1997 and 2006, ex-vessel prices for high-valued species such as clams (\$6.95 average annual price) and oysters (\$4.06 average annual price) declined 29% for clams but increased 25% for oysters. Adjusting for inflation, the price of clams and oysters decreased 40% and increased 6%, respectively. Ex-vessel values for groupers (\$2.49 average annual price) and tunas (\$1.79 average annual price) increased 35% and 61%, respectively. Shrimp prices experienced the largest price decline, decreasing 34% (44% in real terms).

Conchs landed in Georgia had the largest annual increase in price of any species or group in the region: \$1.22 per pound compared to \$0.63 per pound, a 94% increase in price between 1997 and 2006.

With the exception of clams, blue crab, and shrimp, 2006 ex-vessel prices for key species or groups was higher relative to its average price over the time period. Flounders in 2006 were \$2.12 per pound compared to an average of \$1.76 per pound, a 21% increase in price. Groupers in 2006 were \$2.96 per pound compared to an average of \$2.49 per pound, a 19% increase in price.

Recreational Fishing

The South Atlantic region had 6 million recreational anglers in 2006 who took a total of 24 million fishing trips. Anglers spent \$1.3 billion on recreational fishing trips and \$9.2 billion on durable fishing related equipment. Economic impacts related to recreational fishing were highest in eastern Florida. Fishing related expenditures in eastern Florida contributed \$6.4 billion in total sales to the regional economy, added 55,643 jobs, and generated \$3.3 billion in value added impacts.

South Atlantic Summary

Key South Atlantic Recreational Fishing Species

The South Atlantic's recreationally important species are: black sea bass, bluefish, dolphinfish, king mackerel, red drum, sharks, sheepshead, Spanish mackerel, spot/Atlantic croaker, and spotted seatrout.

Participation Rates

Each year, coastal county residents and out-of-state anglers have accounted for an average of 92% of the total number of anglers during the 1997-2006 period. Coastal county residents averaged 43% and out-of-state anglers averaged 49%.

Participation for both angler groups stayed relatively stable during the time period. There was a slight decrease from 1997 to 1999 (from 3.6 million to 3.1 million for both groups), followed by an upward trend from 2000 to 2006 (from 4.5 million to 5.6 million).

Recreational Fishing Facts

Participation

- The total number of anglers between 1997 and 2006 increased **55%**. Participation increased for all angler groups: coastal county residents (58%), non-coastal county residents (66%), and out-of-state residents (50%).
- **Eastern Florida** had the greatest number of anglers in 2006 (**2.6 million**), while **Georgia** had the fewest number of anglers (**219,000**).

Recreational trips

- In 2006, the number of fishing trips taken from shore comprised **53% of total fishing trips** taken in the region. This was followed by trips taken from a private/rental boat (45%) and party/charter boat (2%).
- South Carolina anglers took 2.7 million trips in 2006, a **66% increase** from the 1.6 million trips taken in 1997. This increase was the largest in the region for this time period.
- In eastern Florida, **13 million fishing trips** were taken in 2006: 6.5 million by private/rental boat, 6.4 million from shore, and 173,000 by party/charter boat.

Catch data for key species

- In 2006, catch (harvest and release) of Atlantic croaker and spot was higher than any other key species or groups in this region: **12.8 million fish**.
- Catch of sharks increased **266%** from 1997 to 2006, the largest increase in catch of any key species or groups.

Recreational Fishing Trips

In 2006, 23.8 million fishing trips were taken in the South Atlantic region. In 2006, 53% of total fishing trips were

taken from shore, 45% were taken from a private/rental boat, and 2% were taken from a party/charter boat. On average, 19.7 million fishing trips were taken annually from 1997-2006.

Over the time period, the total number of trips taken in the South Atlantic region remained fairly steady. There was a 27% decline in trips between 1997 and 1999, (from 18.3 million to 14.4 million) and then a 40% increase in 2000 (20.1 million). Between 2002 and 2006, the number of trips increased from 17.8 million to 23.8 million.

The number of private/rental boat trips and shore trip increased from 1997-2006. However, the number of party/charter trips declined over the time period from a high of 929,000 in 1997 to 412,000 in 2003 (a 56% decline). In 2005, the number rose to 601,000 and then fell again in 2006 to 552,000.

Expenditures and Economic Impacts

Residents in the South Atlantic region spent \$563 million on all trip related expenses in 2006. Private boat trip expenditures were \$296 million, shore trip expenditures were \$228 million, and for-hire trip expenditures were \$39 million. Non-residents spent \$760 million on fishing trips in the region and of this total, \$556 million was spent on shore trips. Expenditures on durable equipment was highest for boat expenses at \$4.5 billion, with vehicle expenses following at \$2.5 billion.

In eastern Florida, recreational angling contributed most to the region with \$6.4 billion in total sales impacts, 56,000 jobs created, and \$3.3 billion in value-added impacts generated. Economic impacts from recreational angling in North Carolina followed with \$2.5 billion dollars in sales impacts, 24,000 jobs created, and \$1.2 billion in value-added impacts. Economic impacts in South Carolina (\$534 million in sales) and Georgia (\$192 million in sales) followed.

Recreational Harvest and Release

The combined catch of spot and Atlantic croaker was the largest catch of any key recreational species or species groups in 2006. Approximately 5.5 million fish were harvested and 7.3 million fish were released. Spotted seatrout was also caught in large numbers with over 6.6 million fish caught in 2006. Of the key species/groups, king mackerel had the lowest catch numbers with 707,000 fish harvested and released.

In 2006, the top three species caught in eastern Florida, were: spotted seatrout (3.2 million), gray snapper (2 million), and kingfish (1.8 million). In North Carolina, anglers harvested and released 8.6 million Atlantic croaker/spot, 3 million bluefish, and 1.4 million black sea

bass. In South Carolina, Atlantic croaker/spot (3.3 million), Southern kingfish (2.5 million), and black sea bass (1.1 million) were the most caught species. Georgia anglers caught more spotted seatrout (1.3 million), Southern kingfish (1.1 million), and Atlantic croaker (351,000) than any other key species or groups.

Marine Coastal Economy

Of the four states in the South Atlantic region, Florida contributes more to the national economy in terms of gross domestic product by state and in terms of establishments and employee numbers. Florida’s annual payroll and employee compensation was also highest in the region. For all categories, Florida was followed by Georgia, North Carolina, and South Carolina. In 2005, gross domestic product by state ranged from \$666.6 billion (Florida; 5.39% of the national total) to \$140.1 billion (South Carolina; 1.13% of the national total).

The Commercial Fishing Location Quotient decreased from 2001 to 2005 for all states except for Georgia. Despite this drop, Florida had the highest Commercial Fishing Location Quotient at 1.01 in 2006. South Carolina, Georgia, and North Carolina followed. Florida was the only state in this region with a measure slightly higher than the national baseline of 1.0.

Seafood Sales and Processing

In 2005, there were 502 non-employer firms in the seafood retail industry, up slightly from 1998 (493 firms). In contrast, employer establishments in this industry increased 31% from 1998 to 2005, with all states showing double-digit gains. In 2005, the annual payroll (\$29 million) and number of employees (1,700) of these establishments represented, respectively, a 76% and 41% increase over 1998 levels.

With the exception of North Carolina, all South Atlantic states experienced an increase in the number of non-employer seafood product preparation and packaging firms from 1998 to 2005. Most of these gains were due to increases in Florida, which added 116 firms to this industry, a 183% increase. Overall, receipts were up 80% (60% in real terms). In contrast, the number of non-employer establishments engaged in this industry declined 41%. Annual payroll fell to \$88 million in 2005, a 6% decrease from 1998 levels, and the number of employees fell 33% to 2,800 employees.

In 2005, there were 386 employer establishments engaged in seafood wholesale activities in the South Atlantic region, a decrease of 26% from 1998. The majority of these establishments are in Florida (258 or roughly two-thirds of the region’s total). There was considerable variability in the composition of this industry across states. For

example, in North Carolina there were 77 establishments with 703 employees and an annual payroll of \$18 million. In contrast, Georgia had 29 establishments, with 640 employees and an annual payroll of \$33 million. In 2005, overall, annual payroll in this region and employees working in this industry were \$122 million and 3,400 employees, respectively.

Transport, Support, and Marine Operations

Establishment numbers for industries in this sector were generally available for all states. However, with the exception of Florida, the availability of employee numbers and annual payroll data was limited.

In Florida, there were 1,233 establishments in this sector. Taken together, they had an annual payroll of \$1.1 billion and employed 30,000 workers in this sector in 2005. This represented an 8% increase in establishments, a 13% increase in employees, and a 45% increase in annual payroll since 1998. Ship and boat building accounted for 25% of the Florida establishments in this sector in 2005 and 43% and 41% of the employees and payroll. Overall, marinas accounted for the largest number of establishments (551) but ship and boat building employed the greatest number of people (12,729) and had the highest payroll (\$454.2 million). Marine cargo handling operations and marina operations ranked second and third in terms of the number of people employed.

Excluding Georgia, for which employment and payroll data was generally not available, ship and boat building represented the largest industry in this sector in the South Atlantic. In 2005, 425 establishments with an annual payroll of \$685 million employed 19,000 workers. Based on available data which in this case includes Georgia, marine cargo handling represented the second largest industry in this sector. In 2005, 110 establishments with an annual payroll of \$351 million employed 11,000 workers.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Employment Impacts
Florida	192,284	5,210,182	2,857,846	103,230
Georgia	11,533	638,547	346,711	12,849
North Carolina	70,124	548,023	294,460	13,209
South Carolina	17,025	89,252	43,520	2,120

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	224,029	198,212	204,900	220,080	177,880	171,034	156,703	159,444	131,410	140,639
Finfish & Other	77,509	61,822	59,127	71,527	65,345	63,901	54,821	66,849	56,902	60,698
Shellfish	146,520	136,390	145,773	148,553	112,535	107,133	101,882	92,595	74,508	79,941
Clams	13,256	10,611	8,234	8,745	7,926	6,132	6,248	5,561	4,779	4,221
Crab, Blue	51,648	57,497	48,585	50,517	44,487	42,397	46,643	34,249	31,784	27,021
Flounders	10,830	12,553	10,157	11,684	10,164	11,308	9,718	11,530	10,974	13,317
Groupers	3,366	3,486	3,323	2,928	2,802	2,831	2,851	2,728	2,814	3,194
Mackerel, King	5,879	5,059	5,028	5,062	4,592	4,067	4,102	5,260	5,551	6,495
Oysters	1,771	1,770	2,030	2,045	2,261	2,138	2,353	2,912	3,305	3,853
Shrimp	73,584	61,977	80,662	82,354	51,918	51,699	42,707	44,797	31,035	39,653
Snappers	2,706	2,524	2,846	4,027	4,668	3,618	2,331	3,208	3,314	2,748
Swordfish	4,629	3,931	5,596	5,384	3,582	3,248	4,113	3,555	3,134	2,753
Tunas	2,160	1,958	2,012	4,204	3,402	2,808	2,423	3,671	3,904	4,692

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	301,294	241,075	215,781	221,641	199,249	216,194	197,482	199,022	124,527	115,696
Finfish & Other	193,034	132,071	105,202	129,973	125,519	138,267	116,074	121,203	63,779	50,992
Shellfish	108,260	109,004	110,579	91,668	73,730	77,927	81,408	77,819	58,494	62,576
Clams	1,527	1,363	1,115	1,151	1,169	1,004	983	886	747	685
Crab, Blue	74,739	79,464	72,775	54,777	43,459	46,479	50,881	45,001	38,218	36,754
Flounders	5,593	6,948	5,811	6,608	6,319	7,586	5,799	7,325	5,944	6,282
Groupers	1,532	1,504	1,460	1,242	1,148	1,166	1,134	1,057	1,007	1,079
Mackerel, King	4,162	3,244	3,202	2,971	2,675	2,474	2,848	3,269	3,106	3,792
Oysters	463	476	517	533	575	551	595	689	730	808
Shrimp	27,006	24,833	32,325	33,128	24,559	26,503	24,343	26,472	16,048	22,077
Snappers	1,192	1,108	1,233	1,690	2,068	1,529	958	1,285	1,286	967
Swordfish	1,478	1,493	2,230	1,972	1,371	1,429	1,575	1,314	1,152	1,036
Tunas	1,736	1,481	1,577	2,161	2,181	1,418	1,235	1,739	1,569	2,360

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clams	8.68	7.79	7.39	7.60	6.78	6.11	6.35	6.27	6.40	6.16
Crab, Blue	0.69	0.72	0.67	0.92	1.02	0.91	0.92	0.76	0.83	0.74
Flounders	1.94	1.81	1.75	1.77	1.61	1.49	1.68	1.57	1.85	2.12
Groupers	2.20	2.32	2.28	2.36	2.44	2.43	2.51	2.58	2.79	2.96
Mackerel, King	1.41	1.56	1.57	1.70	1.72	1.64	1.44	1.61	1.79	1.71
Oysters	3.82	3.72	3.92	3.84	3.93	3.88	3.96	4.22	4.53	4.77
Shrimp	2.72	2.50	2.50	2.49	2.11	1.95	1.75	1.69	1.93	1.80
Snappers	2.27	2.28	2.31	2.38	2.26	2.37	2.43	2.50	2.58	2.84
Swordfish	3.13	2.63	2.51	2.73	2.61	2.27	2.61	2.71	2.72	2.66
Tunas	1.24	1.32	1.28	1.95	1.56	1.98	1.96	2.11	2.49	1.99

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	929	778	665	520	497	440	412	434	601	552
Private / Rental	8,276	7,535	6,935	9,119	9,565	8,266	9,963	9,369	10,073	10,749
Shore	9,168	8,525	6,835	10,436	11,534	9,057	10,872	11,060	11,138	12,511
Total Trips	18,373	16,837	14,435	20,075	21,596	17,763	21,246	20,862	21,813	23,813

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	1,644	1,595	1,451	2,089	2,279	1,948	2,271	2,105	2,620	2,603
Non-Coastal	287	256	257	384	419	334	473	509	478	477
Out of State	1,977	1,813	1,620	2,465	2,652	2,112	2,404	2,226	2,752	2,958
Total Anglers	3,907	3,664	3,328	4,938	5,350	4,394	5,148	4,840	5,850	6,038

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	111,153	296,147	Fishing Tackle	1,371,300
Shore	556,165	228,221	Other Equipment	373,122
For-Hire	92,613	38,705	Boat Expenses	4,478,034
Total Trip Expenditures	759,931	563,073	Vehicle Expenses	2,462,955
			Second Home Expenses	473,042
			Total Durable Equipment Expenditures	9,158,453
Total State Trip and Durable Equipment Expenditures				10,481,457

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
East Florida	13,114,987	55,643	6,383,425	3,324,446
Georgia	790,298	1,574	191,761	99,622
North Carolina	7,246,516	23,782	2,515,468	1,241,114
South Carolina	2,660,934	5,976	533,914	289,153

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bluefish	H	1,331	1,137	799	1,425	1,974	1,617	1,664	1,657	2,210	1,969
	R	2,323	1,421	1,720	3,092	3,906	3,190	2,276	2,723	3,005	3,707
Dolphinfish	H	1,286	1,068	1,387	1,860	1,526	1,297	1,138	891	1,134	1,127
	R	96	78	153	239	234	81	146	107	219	232
Drum (Atlantic Croaker and Spot)	H	3,238	4,339	3,385	3,222	6,146	3,702	5,520	5,881	4,440	5,509
	R	2,439	2,668	3,772	2,933	3,231	2,270	4,653	3,719	3,881	7,291
Drum, Red	H	252	294	302	384	353	294	470	469	498	356
	R	1,019	799	919	1,120	1,560	1,617	1,527	1,899	2,412	2,111
Drum (Spotted Seatrout)	H	764	806	1,408	1,245	806	760	825	1,100	1,350	1,624
	R	1,698	1,330	2,084	3,317	2,594	3,217	2,892	3,212	5,337	4,989
Mackerel, King	H	635	541	472	580	394	363	600	398	428	511
	R	87	97	108	99	99	99	256	156	208	196
Mackerel, Spanish	H	962	577	840	1,267	1,229	1,355	1,170	994	1,091	790
	R	372	208	438	717	459	770	840	453	705	322
Porgies (Sheepshead)	H	472	400	533	814	787	409	728	492	614	489
	R	335	407	435	436	604	454	558	382	436	438
Sea Bass, Black	H	558	358	321	377	550	340	423	892	811	783
	R	1,203	1,058	1,417	1,824	2,000	1,457	1,406	2,677	2,484	2,967
Sharks ¹	H	26	34	15	19	27	8	24	29	58	6
	R	464	788	479	778	1,451	1,020	1,366	1,653	2,049	1,792

¹Sharks includes: "Requiem Shark Genus," "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.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)¹

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	5,210,182	2,857,846	103,230
Commercial Harvesters	198,983	85,309	3,539
Seafood Processors and Dealers	390,566	187,572	3,753
Seafood Wholesalers and Distributors	1,146,858	569,013	10,894
Retail Sectors	3,473,774	2,015,952	85,042

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	48,715	44,160	50,348	52,279	42,640	34,411	33,114	39,977	35,487	41,961
Finfish & Other	18,993	18,040	18,117	18,588	15,111	14,594	14,249	15,323	16,493	17,413
Shellfish	29,722	26,120	32,231	33,691	27,529	19,817	18,865	24,654	18,994	24,548
Clams	5,639	3,265	1,495	1,211	960	879	791	506	390	435
Crab, Blue	5,251	4,078	3,828	4,580	2,916	2,723	2,507	3,685	4,648	3,671
Groupers	1,221	1,215	1,020	956	906	719	658	584	587	521
Lobsters	2,505	2,060	3,064	2,828	2,190	1,939	1,779	2,148	1,624	2,462
Mackerel, King	3,409	3,180	3,207	3,272	3,163	2,816	2,853	3,650	3,456	4,318
Mackerel, Spanish	1,138	1,263	981	979	1,152	1,131	1,437	1,827	2,198	2,094
Sharks	1,208	1,071	1,241	1,503	1,483	1,496	1,362	1,149	1,201	1,364
Shrimp	14,020	15,760	21,323	23,537	20,103	13,224	12,721	17,360	11,118	16,390
Snappers	1,098	968	835	966	1,178	1,113	919	1,098	1,009	972
Swordfish	3,191	3,264	3,559	3,643	1,609	1,642	1,698	1,491	1,625	1,219

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	32,796	29,925	31,079	31,411	27,130	21,687	23,435	28,702	22,960	26,993
Finfish & Other	17,535	17,156	15,396	13,943	12,659	12,139	12,877	12,495	12,810	13,850
Shellfish	15,261	12,769	15,683	17,468	14,471	9,548	10,558	16,207	10,150	13,143
Clams	540	323	183	132	105	109	99	54	42	47
Crab, Blue	5,697	4,533	4,415	4,748	2,672	2,233	1,988	3,536	4,045	3,105
Groupers	558	516	432	397	354	281	250	216	207	166
Lobsters	618	541	709	592	450	414	395	456	313	407
Mackerel, King	2,534	2,023	2,044	1,839	1,789	1,645	2,061	2,291	1,833	2,572
Mackerel, Spanish	2,269	2,498	1,567	1,675	2,116	1,995	2,741	3,066	3,134	3,143
Sharks	1,756	1,514	1,644	1,737	1,912	1,795	1,509	1,273	1,292	1,472
Shrimp	6,247	6,906	8,351	11,158	10,329	6,217	6,451	11,728	5,203	8,839
Snappers	508	444	381	422	525	494	398	453	407	355
Swordfish	999	1,228	1,244	1,262	545	708	725	511	543	407

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clams	10.45	10.11	8.17	9.20	9.12	8.09	8.00	9.30	9.27	9.22
Crab, Blue	0.92	0.90	0.87	0.96	1.09	1.22	1.26	1.04	1.15	1.18
Groupers	2.19	2.35	2.36	2.41	2.56	2.56	2.63	2.70	2.84	3.14
Lobsters	4.05	3.81	4.32	4.78	4.87	4.68	4.50	4.71	5.18	6.06
Mackerel, King	1.35	1.57	1.57	1.78	1.77	1.71	1.38	1.59	1.89	1.68
Mackerel, Spanish	0.50	0.51	0.63	0.58	0.54	0.57	0.52	0.60	0.70	0.67
Sharks	0.69	0.71	0.75	0.87	0.78	0.83	0.90	0.90	0.93	0.93
Shrimp	2.24	2.28	2.55	2.11	1.95	2.13	1.97	1.48	2.14	1.85
Snappers	2.16	2.18	2.19	2.29	2.24	2.25	2.31	2.42	2.48	2.74
Swordfish	3.19	2.66	2.86	2.89	2.95	2.32	2.34	2.92	2.99	3.00

¹Economic impact information reported in this table is for the state of Florida, not eastern Florida.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	480	430	371	279	251	216	187	198	201	173
Private / Rental	5,622	4,890	4,196	5,753	5,994	5,430	6,212	5,313	6,230	6,503
Shore	5,197	4,770	3,627	5,448	6,219	4,657	5,045	5,149	5,618	6,439
Total Trips	11,299	10,090	8,194	11,479	12,464	10,303	11,444	10,660	12,049	13,115

Recreational Anglers by Residential Area (thousands of anglers)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	1,114	1,077	936	1,394	1,561	1,304	1,413	1,161	1,565	1,660
Non-Coastal	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Out of State	788	742	574	894	1,088	784	793	685	945	935
Total Anglers	1,903	1,819	1,510	2,288	2,649	2,089	2,206	1,847	2,510	2,595

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	54,464	176,680	Fishing Tackle	916,229
			Other Equipment	235,657
Shore	78,429	81,970	Boat Expenses	3,857,733
For-Hire	22,192	14,963	Vehicle Expenses	2,230,688
Total Trip Expenditures	155,085	273,613	Second Home Expenses	6,754
			Total Durable Equipment Expenditures	7,247,065
Total State Trip and Durable Equipment Expenditures				7,675,763

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Trip Impacts	2,567	244,149	145,892
Shore Mode Trip Impacts	2,091	197,232	114,504
Party/Charter Mode Trip Impacts	626	60,877	35,840
Total Durable Equipment Impacts	50,359	5,881,167	3,028,210
Total State Trip and Durable Equipment Economic Impacts	55,643	6,383,425	3,324,446

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bluefish	H	494	418	235	439	581	759	644	494	549	640
	R	956	615	661	1,201	1,376	1,392	622	451	416	892
Dolphinfish	H	727	595	801	1,164	993	659	788	482	435	533
	R	88	60	141	221	220	72	129	105	216	209
Drum (Kingfish) ²	H	256	442	732	1,009	1,366	930	590	970	1,103	1,004
	R	565	408	372	714	799	588	368	628	758	811
Drum, Red	H	75	108	126	191	178	119	159	164	196	150
	R	561	481	566	693	850	664	749	1,138	1,271	894
Drum, (Spotted Seatrout)	H	228	190	241	288	251	206	170	200	338	299
	R	1,449	1,005	1,577	2,310	1,996	2,326	1,708	1,970	3,446	2,889
Jack (Florida Pompano)	H	183	263	166	242	141	141	374	275	226	176
	R	144	182	151	84	234	175	306	341	222	125
Mackerel, King	H	356	325	370	386	256	282	463	271	261	379
	R	32	80	72	71	70	83	233	106	128	163
Mackerel, Spanish	H	247	244	328	547	774	927	784	533	677	439
	R	169	88	185	353	286	555	446	214	368	192
Porgies (Sheepshead)	H	353	282	373	381	465	290	353	231	461	291
	R	288	334	368	311	511	352	351	308	337	299
Snapper, Gray	H	287	234	421	471	302	400	446	340	454	554
	R	1,234	1,371	1,633	1,658	1,302	1,438	1,654	1,396	1,228	1,457

¹In this table, "(1)" = less than 1000 anglers.

²Kingfish includes: "Kingfish Genus" and Gulf Kingfish.

State Economy (% of national total) ¹						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	420,638 (6.06%)	5,756,353 (5.32%)	149,937 (4.53%)	286,753 (4.84%) (2001) ²	417,169 (4.81%)	1.36 (2001) ³
2005	504,662 (6.73%)	7,107,378 (6.11%)	239,198 (5.34%)	369,862 (5.27%)	666,639 (5.39%)	1.01 (2006) ²
% change	20.0	23.5	59.5	29.0	59.8	-25.7

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)¹

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	239	221	219	212	243	240	247	247
	Receipts	19,361	20,274	18,978	17,935	20,837	18,064	18,004	22,787
Seafood product preparation & packaging	Firms	58	65	102	104	116	142	177	164
	Receipts	4,995	7,153	8,330	6,350	5,064	8,047	8,652	8,756

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)¹

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	135	133	135	159	190	174	190	176
	Employees	595	869	575	697	908	952	977	970
	Payroll	9,841	20,664	10,359	13,403	17,186	15,673	17,575	19,192
Seafood sales, wholesale	Establishments	346	349	329	323	314	293	261	258
	Employees	2,826	2,733	2,915	2,670	2,395	1,835	1,948	1,883
	Payroll	66,264	69,139	76,363	76,717	78,160	55,874	63,276	65,339
Seafood product preparation & packaging	Establishments	47	43	41	43	33	27	24	25
	Employees	2,488	2,336	2,188	2,033	2,359	2,084	2,193	1,616
	Payroll	51,439	52,842	58,821	58,977	65,914	61,452	65,881	47,529

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)¹

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	67	69	58	51	62	61	63	69
	Employees	3,576	3,622	2,209	2,123	1,858	2,535	2,567	2,622
	Payroll	154,115	119,744	99,384	106,848	107,564	131,904	150,701	207,300
Coastal & Great Lakes freight transportation	Establishments	49	55	54	58	51	66	59	59
	Employees	772	3,404	2,391	3,208	2,856	F	1,132	1,150
	Payroll	32,288	190,731	108,638	150,964	143,185	F	80,422	71,420
Marine cargo handling	Establishments	75	67	65	71	74	68	66	63
	Employees	4,988	4,209	4,549	4,863	4,405	5,651	5,671	6,409
	Payroll	101,915	96,650	92,843	124,760	109,555	171,481	175,257	177,983
Navigational services to shipping	Establishments	139	142	142	133	141	140	149	148
	Employees	651	749	866	755	714	817	686	660
	Payroll	29,634	35,977	36,730	35,854	34,040	39,524	39,309	42,200
Ship & boat building	Establishments	291	301	300	313	291	290	306	312
	Employees	12,089	13,755	14,773	13,182	11,407	11,830	12,503	12,729
	Payroll	350,304	391,289	447,253	405,856	379,828	393,985	443,379	454,209
Marinas	Establishments	496	484	476	509	481	528	532	551
	Employees	3,536	3,750	3,799	3,876	3,449	5,079	5,067	5,069
	Payroll	74,657	82,790	88,436	88,274	90,662	111,324	125,763	133,384
Port and harbor operations	Establishments	22	18	22	25	29	26	29	31
	Employees	542	556	914	1,355	1,180	592	1,045	973
	Payroll	22,160	17,401	19,082	25,246	26,928	19,071	24,327	22,606

F = Data is suppressed due to confidentiality restrictions.

¹Information in this table is for the entire state of Florida, not just eastern Florida.

²Employee Compensation data is currently available from 2001-2005.

³Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	638,547	346,711	12,849
Commercial Harvesters	22,594	6,396	533
Seafood Processors and Dealers	87,621	43,308	963
Seafood Wholesalers and Distributors	112,432	55,478	1,050
Retail Sectors	415,899	241,529	10,304

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	27,395	24,049	22,957	21,667	15,436	14,701	13,679	14,374	13,464	11,533
Finfish & Other	675	694	824	921	951	959	644	748	729	571
Shellfish	26,720	23,355	22,133	20,746	14,485	13,742	13,035	13,628	12,735	10,958
Clams	114	123	153	213	187	319	521	426	658	296
Crab, Blue	4,135	3,088	2,474	2,477	2,902	2,166	1,970	2,508	3,096	2,959
Groupers	171	242	298	181	191	203	159	150	162	115
Shrimp	22,060	19,715	19,031	17,771	11,037	11,048	10,320	10,589	8,936	7,640
Snails (Conchs)	389	407	415	277	245	50	69	4	3	6
Snappers	133	173	236	524	612	559	336	447	403	309

Total landings and landings of key species / species group (thousands of pounds)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	14,505	13,199	12,214	9,838	9,307	9,174	9,435	9,659	9,632	8,293
Finfish & Other	563	532	544	555	545	591	407	419	397	283
Shellfish	13,942	12,667	11,670	9,283	8,762	8,583	9,028	9,240	9,235	8,010
Clams	16	17	25	25	25	49	75	70	112	46
Crab, Blue	6,433	5,170	3,993	3,296	2,771	1,989	1,713	2,963	4,302	4,091
Groupers	76	103	127	71	80	81	64	58	58	36
Shrimp	6,861	6,885	6,907	5,537	4,476	5,079	5,591	5,090	4,531	3,851
Snails (Conchs)	621	583	591	421	326	64	90	4	3	5
Snappers	63	81	103	233	285	260	149	193	173	109

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clams	7.05	7.06	6.14	8.39	7.5	6.57	6.94	6.1	5.85	6.48
Crab, Blue	0.64	0.6	0.62	0.75	1.05	1.09	1.15	0.85	0.72	0.72
Groupers	2.27	2.34	2.35	2.54	2.38	2.51	2.51	2.60	2.82	3.17
Shrimp	3.22	2.86	2.76	3.21	2.47	2.18	1.85	2.08	1.97	1.98
Snails (Conchs)	0.63	0.7	0.7	0.66	0.75	0.78	0.77	1.1	1.03	1.22
Snappers	2.13	2.15	2.29	2.25	2.15	2.15	2.25	2.31	2.32	2.85

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	30	17	11	6	6	9	12	19	25	28
Private / Rental	352	345	292	435	449	338	549	442	501	472
Shore	194	210	170	355	352	272	410	475	326	291
Total Trips	576	572	473	796	807	619	971	936	851	790

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	47	69	59	89	83	58	112	104	136	121
Non-Coastal	49	28	32	86	91	54	113	118	68	66
Out of State	16	19	20	44	38	37	42	54	43	33
Total Anglers	112	115	111	219	212	148	268	276	247	219

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	175	7,002	Fishing Tackle	35,806
Shore	723	3,381	Other Equipment	12,580
For-Hire	343	1,112	Boat Expenses	92,823
Total Trip Expenditures	1,241	11,495	Vehicle Expenses	17,291
			Second Home Expenses	8,245
			Total Durable Equipment Expenditures	166,746
Total State Trip and Durable Equipment Expenditures				179,482

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	61	6,957	4,220
Shore Mode Trip Impacts	39	4,281	2,567
Party/Charter Mode Trip Impacts	26	2,200	1,284
Total Durable Equipment Impacts	1,449	178,323	91,551
Total State Trip and Durable Equipment Economic Impacts	1,574	191,761	99,622

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bluefish	H	5	22	12	20	10	2	1	1	3	3
	R	20	71	14	79	48	26	23	16	22	33
Drum (Atlantic Croaker)	H	64	65	104	129	22	36	249	45	40	40
	R	26	160	58	170	192	194	965	165	266	311
Drum, Black	H	10	5	6	63	13	23	44	26	22	23
	R	(1)	6	3	21	14	19	28	30	12	29
Drum, Red	H	39	25	67	94	90	91	122	140	108	82
	R	23	34	19	129	250	169	273	166	331	148
Drum (Southern Kingfish)	H	254	256	665	646	741	427	504	679	556	511
	R	63	117	32	561	598	379	847	624	547	630
Drum (Spotted Seatrout)	H	167	197	655	487	309	271	426	336	231	453
	R	61	100	161	548	365	358	738	608	678	872
Flounder, Southern	H	13	10	11	29	48	29	84	58	45	31
	R	11	2	1	15	15	11	16	29	13	25
Porgies (Sheepshead)	H	28	21	10	75	138	25	129	101	80	51
	R	(1)	7	3	13	37	39	122	38	42	61
Sea Bass, Black	H	139	39	7	52	102	23	104	66	91	77
	R	2	9	9	235	177	83	238	134	222	235
Sharks ²	H	1	4	3	2	3	1	3	1	2	(1)
	R	16	57	24	153	168	195	212	254	340	329

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

²Sharks includes: "Requiem Shark Genus," "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.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	194,213 (2.80%)	3,198,950 (2.96%)	94,687 (2.86%)	172,723 (2.91%) (2001) ¹	255,612 (2.94%)	0.12 (2001) ²
2005	220,528 (2.94%)	3,489,046 (3.00%)	128,827 (2.87%)	203,536 (2.90%)	358,365 (2.90%)	0.14 (2006) ²
% change	13.5	9.1	36.1	17.8	40.2	16.7

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	72	62	61	67	77	72	69	64
	Receipts	4,837	4,503	4,651	4,516	5,027	4,668	4,855	6,625
Seafood product preparation & packaging	Firms	8	11	12	14	20	24	29	24
	Receipts	2,044	1,303	1,705	1,104	1,560	2,249	2,030	2,642

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	47	51	48	46	52	46	50	59
	Employees	169	167	225	181	161	152	159	185
	Payroll	1,828	1,806	1,948	1,874	2,002	2,243	2,437	2,753
Seafood sales, wholesale	Establishments	52	56	51	50	53	39	36	29
	Employees	559	540	565	609	572	580	619	640
	Payroll	14,858	17,443	17,996	19,178	19,616	32,047	31,012	32,781
Seafood product preparation & packaging	Establishments	9	8	9	10	11	11	11	11
	Employees	1,214	1,139	F	1,131	1,014	994	F	1,155
	Payroll	27,125	29,175	F	30,187	29,867	28,432	F	39,839

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	16	18	15	15	19	23	18	19
	Employees	F	F	F	F	F	256	185	193
	Payroll	F	F	F	F	F	12,201	10,306	10,658
Coastal & Great Lakes freight transportation	Establishments	3	4	5	5	5	6	6	7
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	19	18	18	17	15	14	18	17
	Employees	2,235	2,010	2,316	1,747	3,197	F	2,018	2,350
	Payroll	48,394	39,257	53,102	48,346	75,368	F	68,696	80,706
Navigational services to shipping	Establishments	9	12	9	7	9	9	8	8
	Employees	F	F	F	F	107	F	F	136
	Payroll	F	F	F	F	5,109	F	F	7,784
Ship & boat building	Establishments	29	28	30	28	20	18	20	17
	Employees	2,064	2,060	F	F	F	1,580	F	F
	Payroll	57,888	57,200	F	F	F	40,768	F	F
Marinas	Establishments	67	66	63	64	63	69	57	60
	Employees	F	F	F	F	F	642	F	F
	Payroll	F	F	F	F	F	12,870	F	F
Port and harbor operations	Establishments	4	3	3	4	4	4	7	6
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	548,023	294,460	13,209
Commercial Harvesters	64,589	31,352	1,312
Seafood Processors and Dealers	65,805	25,545	995
Seafood Wholesalers and Distributors	69,604	34,502	667
Retail Sectors	348,025	203,060	10,235

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	108,980	101,018	99,301	108,319	88,136	94,746	84,928	79,702	64,891	70,124
Finfish & Other	46,289	38,625	34,765	39,607	36,086	37,276	31,562	38,908	34,902	37,719
Shellfish	62,691	62,393	64,536	68,712	52,050	57,470	53,366	40,794	29,989	32,405
Clams	4,892	4,590	3,788	4,696	5,036	3,534	3,399	3,390	2,798	2,656
Crab, Blue	37,686	44,960	37,812	37,438	32,231	33,149	37,108	24,465	20,274	17,087
Croaker, Atlantic	4,117	3,450	3,120	2,987	3,080	3,234	2,924	3,528	3,409	3,563
Flounders	10,810	12,538	10,149	11,652	10,142	11,270	9,671	11,503	10,963	13,301
Groupers	1,312	1,440	1,393	1,180	1,050	1,302	1,200	1,124	1,214	1,559
Mackerel, King	2,375	1,749	1,696	1,662	1,351	1,177	1,214	1,573	2,054	2,120
Sea Bass, Black	1,124	1,100	1,079	973	1,062	878	1,417	1,486	1,332	1,715
Shrimp	18,205	10,856	21,737	25,406	11,911	18,365	10,931	9,463	4,409	9,141
Snappers	873	851	1,067	1,281	1,219	1,186	686	873	1,116	953
Tunas	1,481	1,353	1,217	3,396	2,589	2,158	1,989	3,317	3,321	4,060

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	228,555	180,214	153,701	154,202	137,151	160,140	139,398	134,074	79,600	68,747
Finfish & Other	163,521	111,455	86,138	102,085	98,056	110,943	88,716	91,379	49,429	35,677
Shellfish	65,034	68,759	67,563	52,117	39,095	49,197	50,682	42,695	30,171	33,070
Clams	701	699	581	681	772	627	547	551	418	427
Crab, Blue	56,090	62,076	57,546	40,639	32,180	37,737	42,770	34,129	25,430	25,343
Croaker, Atlantic	10,712	10,866	10,186	10,123	12,017	10,189	14,429	11,993	11,903	10,397
Flounders	5,578	6,936	5,804	6,593	6,307	7,568	5,772	7,302	5,937	6,272
Groupers	618	652	653	537	471	581	518	478	481	587
Mackerel, King	1,559	1,143	1,083	1,049	837	778	765	955	1,246	1,186
Sea Bass, Black	766	742	613	567	644	592	851	881	690	778
Shrimp	6,989	4,636	9,004	10,335	5,254	9,969	6,167	4,881	2,358	5,737
Snappers	366	352	442	511	524	490	269	339	433	345
Tunas	1,236	1,043	1,085	1,714	1,713	1,000	914	1,424	1,271	1,982

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clams	6.98	6.57	6.52	6.90	6.52	5.64	6.22	6.15	6.69	6.21
Crab, Blue	0.67	0.72	0.66	0.92	1.00	0.88	0.87	0.72	0.80	0.67
Croaker, Atlantic	0.38	0.32	0.31	0.30	0.26	0.32	0.20	0.29	0.29	0.34
Flounders	1.94	1.81	1.75	1.77	1.61	1.49	1.68	1.58	1.85	2.12
Groupers	2.12	2.21	2.13	2.20	2.23	2.24	2.32	2.35	2.52	2.65
Mackerel, King	1.52	1.53	1.57	1.58	1.61	1.51	1.59	1.65	1.65	1.79
Sea Bass, Black	1.47	1.48	1.76	1.72	1.65	1.48	1.67	1.69	1.93	2.21
Shrimp	2.60	2.34	2.41	2.46	2.27	1.84	1.77	1.94	1.87	1.59
Snappers	2.38	2.42	2.42	2.51	2.33	2.42	2.55	2.57	2.58	2.76
Tunas	1.20	1.30	1.12	1.98	1.51	2.16	2.18	2.33	2.61	2.05

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	296	241	221	193	202	183	174	178	304	290
Private / Rental	1,570	1,638	1,861	2,224	2,169	1,941	2,181	2,543	2,354	2,656
Shore	3,026	2,582	2,473	4,043	4,279	3,462	4,379	4,306	4,129	4,300
Total Trips	4,892	4,461	4,555	6,460	6,650	5,586	6,733	7,027	6,786	7,247

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	330	312	324	416	454	409	524	613	685	588
Non-Coastal	166	143	164	229	251	226	281	290	285	265
Out of State	859	635	805	1,277	1,301	1,130	1,298	1,152	1,291	1,374
Total Anglers	1,355	1,091	1,293	1,922	2,007	1,765	2,103	2,055	2,262	2,227

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	44,412	82,020	Fishing Tackle	345,522
			Other Equipment	102,158
Shore	395,315	112,213	Boat Expenses	262,180
For-Hire	57,092	20,123	Vehicle Expenses	159,146
Total Trip Expenditures	496,819	214,356	Second Home Expenses	451,171
			Total Durable Equipment Expenditures	1,320,177
Total State Trip and Durable Equipment Expenditures				2,031,352

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	1,541	143,301	80,803
Shore Mode Trip Impacts	8,310	688,717	383,515
Party/Charter Mode Trip Impacts	1,464	115,078	64,582
Total Durable Equipment Impacts	12,466	1,568,371	712,214
Total State Trip and Durable Equipment Economic Impacts	23,782	2,515,468	1,241,114

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bass, Striped	H	85	70	92	41	66	60	138	352	145	107
	R	302	421	521	252	119	155	285	398	130	83
Bluefish	H	742	527	518	878	1,266	777	953	1,044	1,374	1,128
	R	1,149	534	986	1,630	2,329	1,610	1,416	1,907	2,206	1,875
Dolphinfish	H	543	462	561	683	492	621	335	387	686	590
	R	8	10	11	16	4	4	14	2	2	23
Drum (Atlantic Croaker and Spot)	H	2,102	3,253	1,750	2,315	4,286	2,995	4,287	4,533	3,419	3,205
	R	1,894	1,711	2,002	2,051	2,401	1,597	2,685	2,584	2,829	5,436
Drum (Spotted Seatrout)	H	257	295	410	250	182	197	106	317	512	578
	R	98	73	253	90	195	385	132	300	817	560
Flounder, Lefteye and Summer	H	314	416	263	414	363	216	110	200	164	186
	R	1,396	2,065	635	1,558	1,566	1,285	829	1,669	1,043	1,051
Mackerel, King	H	198	100	76	137	114	67	114	105	153	119
	R	35	6	26	13	9	7	22	45	71	22
Mackerel, Spanish	H	586	239	476	671	401	402	349	309	332	305
	R	141	81	206	300	161	197	165	122	174	90
Sea Bass, Black	H	146	133	88	148	175	84	166	264	241	156
	R	412	674	624	770	790	530	418	1,020	1,056	1,204
Tuna, Yellowfin	H	172	163	281	271	237	135	328	204	216	244
	R	3	27	14	6	1	8	56	12	10	15

¹In this table, "1" = 1000-1499 fish were harvested or released.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	198,690 (2.86%)	3,223,178 (2.98%)	86,781 (2.62%)	156,137 (2.63%) (2001) ¹	242,904 (2.80%)	0.23 (2001) ²
2005	216,944 (2.89%)	3,409,968 (2.93%)	115,740 (2.58%)	186,445 (2.66%)	350,700 (2.83%)	0.09 (2006) ²
% change	9.2	5.8	33.4	19.4	44.4	-60.1

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	122	127	140	116	117	133	144	130
	Receipts	9,706	11,928	9,408	9,395	11,560	11,565	12,294	10,913
Seafood product preparation & packaging	Firms	38	39	25	17	25	33	27	26
	Receipts	951	1,728	1,450	1,335	1,385	1,646	1,515	1,106

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	64	66	61	70	81	87	88	90
	Employees	250	240	238	245	301	304	340	316
	Payroll	2,532	2,548	2,976	3,512	3,890	3,982	4,234	4,185
Seafood sales, wholesale	Establishments	97	90	86	84	84	68	72	77
	Employees	905	880	969	983	961	628	627	703
	Payroll	20,516	22,639	24,943	22,597	21,716	16,170	17,411	17,577
Seafood product preparation & packaging	Establishments	33	27	32	27	21	18	18	17
	Employees	448	383	474	381	280	F	F	F
	Payroll	13,806	11,033	9,337	8,510	8,547	F	F	F

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	14	11	13	13	15	7	7	7
	Employees	F	F	142	104	168	F	F	F
	Payroll	F	F	9,995	8,154	52,665	F	F	F
Coastal & Great Lakes freight transportation	Establishments	4	6	6	3	6	5	5	5
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	10	10	9	8	6	7	10	12
	Employees	930	698	712	F	F	433	668	641
	Payroll	14,705	11,393	11,045	F	F	16,001	28,676	25,988
Navigational services to shipping	Establishments	7	6	5	6	4	6	6	8
	Employees	F	F	85	F	F	F	F	F
	Payroll	F	F	1,860	F	F	F	F	F
Ship & boat building	Establishments	54	52	55	59	62	55	62	65
	Employees	2,482	2,790	3,050	3,383	3,566	3,290	3,622	3,957
	Payroll	68,431	79,630	91,996	100,341	103,506	106,656	127,472	133,665
Marinas	Establishments	113	113	114	111	103	104	97	103
	Employees	F	533	557	616	557	F	644	654
	Payroll	F	12,037	13,505	14,720	13,186	F	16,529	16,530
Port and harbor operations	Establishments	5	5	6	5	7	6	5	5
	Employees	F	F	50	F	F	271	F	F
	Payroll	F	F	1,996	F	F	12,650	F	F

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	89,252	43,520	2,120
Commercial Harvesters	32,020	11,919	666
Seafood Processors and Dealers	5,722	1,807	66
Seafood Wholesalers and Distributors	8,399	4,215	82
Retail Sectors	43,112	25,579	1,306

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	32,524	28,880	32,119	30,532	23,910	21,341	21,243	18,538	17,568	17,025
Finfish & Other	5,428	4,463	5,420	5,503	5,743	5,375	4,650	5,037	4,778	4,995
Shellfish	27,096	24,417	26,699	25,029	18,167	15,966	16,593	13,501	12,790	12,030
Clams	2,611	2,633	2,798	2,625	1,744	1,399	1,537	1,238	934	834
Crab, Blue	4,339	5,269	4,299	5,652	6,141	4,239	5,057	3,591	3,766	3,304
Groupers	829	830	907	788	846	811	993	1,020	1,013	1,113
Oysters	771	730	986	1,092	1,074	1,025	1,199	1,229	1,471	1,369
Sea Bass, Black	230	190	282	143	132	95	168	302	191	168
Sharks	163	44	78	43	129	78	66	128	136	144
Shrimp	19,290	15,642	18,568	15,640	8,865	9,062	8,736	7,385	6,572	6,481
Snappers	605	537	713	1,264	1,738	1,319	725	1,237	1,190	823
Swordfish	980	ND ¹	993	803	660	670	616	555	ND ¹	ND ¹
Tilefish	256	191	265	24	292	423	287	221	143	271

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	17,343	17,645	18,573	15,901	14,267	13,561	13,727	12,436	11,208	10,599
Finfish & Other	3,570	2,928	3,123	3,381	3,149	3,052	2,596	2,765	2,270	2,246
Shellfish	13,773	14,717	15,450	12,520	11,118	10,509	11,131	9,671	8,938	8,353
Clams	270	324	326	313	266	219	263	211	175	165
Crab, Blue	6,283	7,596	6,608	5,818	5,566	4,435	4,411	4,374	4,440	4,215
Groupers	354	335	374	305	323	304	366	363	319	326
Oysters	199	204	254	274	272	262	283	275	308	291
Sea Bass, Black	166	122	185	82	97	60	104	212	115	86
Sharks	197	82	123	77	150	109	124	206	174	147
Shrimp	6,904	6,403	8,062	6,098	4,498	5,238	6,133	4,773	3,957	3,650
Snappers	257	235	310	528	765	544	290	492	447	267
Swordfish	303	ND ¹	375	295	229	240	219	200	ND ¹	ND ¹
Tilefish	187	124	151	22	149	195	145	124	80	139

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clams	9.67	8.13	8.59	8.38	6.55	6.38	5.85	5.86	5.34	5.05
Crab, Blue	0.69	0.69	0.65	0.97	1.10	0.96	1.15	0.82	0.85	0.78
Groupers	2.34	2.47	2.43	2.58	2.62	2.67	2.71	2.81	3.17	3.41
Oysters	3.86	3.59	3.89	3.99	3.95	3.91	4.24	4.46	4.78	4.71
Sea Bass, Black	1.39	1.56	1.53	1.74	1.37	1.56	1.61	1.42	1.66	1.97
Sharks	0.83	0.54	0.63	0.56	0.86	0.71	0.53	0.62	0.78	0.98
Shrimp	2.79	2.44	2.30	2.56	1.97	1.73	1.42	1.55	1.66	1.78
Snappers	2.35	2.29	2.30	2.39	2.27	2.42	2.50	2.51	2.66	3.08
Swordfish	3.24	ND ¹	2.65	2.73	2.88	2.79	2.81	2.78	ND ¹	ND ¹
Tilefish	1.37	1.54	1.75	1.10	1.96	2.17	1.98	1.78	1.78	1.95

¹ND = data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	122	90	62	42	38	32	39	39	72	61
Private / Rental	732	661	587	707	954	557	1,021	1,070	989	1,118
Shore	752	963	565	590	684	665	1,038	1,130	1,066	1,481
Total Trips	1,606	1,714	1,213	1,340	1,676	1,254	2,098	2,239	2,126	2,661

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	152	137	132	190	180	177	222	226	233	234
Non-Coastal	72	85	61	70	77	55	79	101	126	146
Out of State	313	416	221	250	224	161	270	335	472	617
Total Anglers	537	639	414	510	481	392	571	662	831	997

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	12,102	30,445	Fishing Tackle	73,743
Shore	81,698	30,657	Other Equipment	22,727
For-Hire	12,986	2,507	Boat Expenses	265,298
Total Trip Expenditures	106,786	63,609	Vehicle Expenses	55,830
			Second Home Expenses	6,872
			Total Durable Equipment Expenditures	424,469
Total State Trip and Durable Equipment Expenditures				594,864

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	495	43,516	25,391
Shore Mode Trip Impacts	1,664	135,982	75,718
Party/Charter Mode Trip Impacts	275	21,529	12,163
Total Durable Equipment Impacts	3,542	332,886	175,881
Total State Trip and Durable Equipment Economic Impacts	5,976	533,914	289,153

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bluefish	H	89	171	34	88	118	79	66	118	284	197
	R	197	200	59	182	152	163	215	349	362	907
Drum (Atlantic Croaker and Spot)	H	799	660	857	279	755	460	723	793	593	1,996
	R	383	574	204	212	269	196	672	699	455	1,289
Drum, Red	H	129	47	44	37	61	41	162	134	141	72
	R	176	84	88	94	221	143	430	401	492	607
Drum (Southern Kingfish)	H	440	224	177	166	359	226	982	1,026	1,058	1,113
	R	323	240	104	176	125	136	1,049	497	439	1,350
Drum (Spotted Seatrout)	H	112	125	101	220	63	85	123	247	268	294
	R	89	152	93	368	39	148	315	334	395	667
Flounder, Southern	H	113	117	48	103	82	112	111	237	104	148
	R	7	27	23	26	28	73	52	133	86	217
Mackerel, Spanish	H	101	66	27	28	44	24	25	144	70	43
	R	62	32	46	47	10	9	223	114	154	33
Porgies (Sheepshead)	H	36	15	37	173	113	31	129	107	28	88
	R	17	14	15	66	24	21	51	20	26	49
Sea Bass, Black	H	158	97	77	75	103	113	44	276	173	307
	R	467	179	225	314	421	335	289	952	680	812
Sharks ²	H	6	4	1	3	14	(1)	(1)	20	27	(1)
	R	163	390	177	124	520	276	380	368	339	493

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

²Sharks include: "Requiem Shark Family" and "Unidentified Sharks." Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	94,985 (1.37%)	1,526,106 (1.41%)	38,559 (1.17%)	67,746 (1.14%) (2001) ¹	102,945 (1.19%)	0.44 (2001) ²
2005	103,416 (1.38%)	1,584,914 (1.36%)	49,450 (1.10%)	80,871 (1.15%)	140,088 (1.13%)	0.18 (2006) ²
% change	8.9	3.9	28.2	19.4	36.1	-59.1

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	60	56	56	59	64	74	74	61
	Receipts	3,261	2,491	3,014	2,848	3,484	4,599	4,612	3,588
Seafood product preparation & packaging	Firms	7	9	13	13	20	19	22	14
	Receipts	185	182	1,277	304	547	1,115	1,797	2,234

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	50	47	49	52	58	55	58	64
	Employees	179	F	147	166	175	244	F	206
	Payroll	2,228	F	1,925	2,250	2,391	2,911	F	2,773
Seafood sales, wholesale	Establishments	30	30	29	31	28	22	18	22
	Employees	219	230	262	177	F	F	F	211
	Payroll	4,495	5,136	4,261	3,330	F	F	F	5,818
Seafood product preparation & packaging	Establishments	6	8	6	5	4	3	4	3
	Employees	19	44	54	F	F	F	28	7
	Payroll	390	969	1,206	F	F	F	805	145

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	10	12	9	8	10	8	7	10
	Employees	F	F	F	F	F	F	F	113
	Payroll	F	F	F	F	F	F	F	4,600
Coastal & Great Lakes freight transportation	Establishments	1	2	2	2	1	3	4	4
	Employees	F	F	F	F	F	F	F	45
	Payroll	F	F	F	F	F	F	F	1,882
Marine cargo handling	Establishments	14	14	13	14	16	15	17	18
	Employees	2,166	2,340	2,407	2,330	1,793	2,415	2,253	1,994
	Payroll	46,635	48,245	54,198	60,755	54,609	78,941	81,691	66,767
Navigational services to shipping	Establishments	10	12	12	12	11	6	5	7
	Employees	F	F	F	89	83	144	F	F
	Payroll	F	F	F	3,051	3,422	5,716	F	F
Ship & boat building	Establishments	39	42	37	40	43	41	46	48
	Employees	1,801	2,011	2,187	1,801	1,570	2,253	2,380	2,672
	Payroll	51,598	60,415	61,246	54,654	61,045	78,963	90,974	97,087
Marinas	Establishments	64	65	61	64	62	63	69	70
	Employees	F	F	F	343	357	365	378	398
	Payroll	F	F	F	6,807	6,395	6,696	7,645	8,050
Port and harbor operations	Establishments	1	1	M	M	M	1	1	1
	Employees	F	F	M	M	M	F	F	F
	Payroll	F	F	M	M	M	F	F	F

F = Data is suppressed due to confidentiality restrictions.

M = Data is not available.

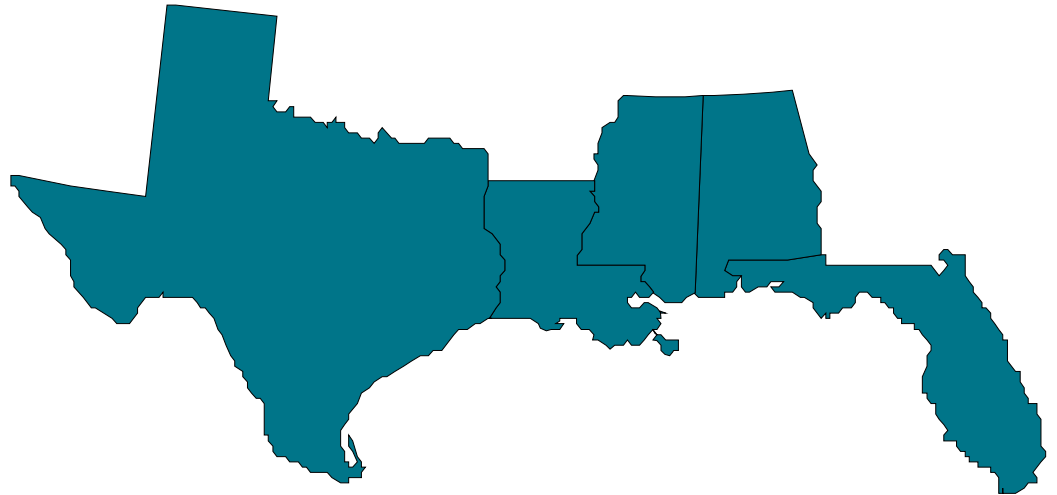
¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

Page intentionally left blank

Gulf of Mexico

- Alabama
- West Florida
- Louisiana
- Mississippi
- Texas



Gulf of Mexico Summary

Management Context

The Gulf region includes the states of Alabama, Louisiana, Mississippi, Texas, and western Florida. Federal fisheries in this region are managed by the Gulf of Mexico Fishery Management Council (GMFMC) and the National Marine Fisheries Service. The spiny lobster and coastal pelagics fisheries, and the harvest of corals, are jointly managed with the South Atlantic Fishery Management Council (SAFMC).

Gulf of Mexico Fishery Management Plans

1. Atlantic Red Drum
2. Shrimp
3. Stone Crab
4. Reef Fish Resources
5. Coastal Migratory Pelagic Resources (with SAFMC)
6. Spiny Lobster (with SAFMC)
7. Coral, Coral Reef, and Live/Hard Bottom Habitats (with SAFMC)

Of the species covered in these fishery management plans, red snapper, greater amberjack, and gray triggerfish are currently considered overfished. Stocks currently subject to overfishing include red snapper, greater amberjack, gag, and gray triggerfish.

There is one limited access privilege program (LAPP) in the Gulf Region. The Gulf of Mexico red snapper fishery has been managed as an individual fishing quota (IFQ) fishery since 2007 and had an ex-vessel value of \$9.0 million. A Gulf of Mexico grouper IFQ is anticipated for 2010.

Commercial Fisheries

In 2006, landings by Gulf of Mexico commercial fishermen were 1.3 billion pounds and had an ex-vessel value of \$674 million. Landings revenue from shellfish was \$542 million (371 million pounds), while landings revenue from finfish and other fishery products was \$132 million (975 million pounds). Shrimp accounted for nearly 60% of landings revenue, though comprising 20% of total landings. The commercial fishing industry generated the highest economic impacts in Florida (\$5.2 billion in sales, \$2.9 billion in income, and 103,000 jobs).

Key Gulf of Mexico Commercial Species

Commercially-important species and species groups in the Gulf of Mexico include: blue crab, stone crab, crawfish, groupers, menhaden, mullets, oyster, shrimp, red snapper, and tunas.



Three shrimp boats at the Municipal Pier in Key West, Florida

Economic Impacts

Florida led the region in commercial fisheries-related sales and income, and generated more full- and part-time jobs than the other states. The commercial fishing industries in Louisiana and Texas generated comparable economic activity. In Louisiana, commercial fishing generated \$2.1 billion in sales, \$1.1 billion in income, and supported 46,000 jobs. In Texas, the commercial fishing industry generated \$2.2 billion in sales, \$1.1 billion in income, and supported 47,000 jobs. Commercial fishing generated \$492 million and \$205 million in sales in Alabama and Mississippi, respectively.

Landings Revenue

Ex-vessel revenue decreased 13% from 1997 to 2006 (26% after adjusting for inflation). Decreases in ex-vessel revenues for both shellfish and finfish and other fishery products were also seen: shellfish revenues declined 10% (24% in real terms) and finfish and other fishery products dropped 21% (33% in real terms).

Overall, Louisiana had the highest average landings revenue (\$307 million nominally, \$327 million in real terms), followed by Texas (\$204 million nominally, \$217 million in real terms), west Florida (\$151 million nominally, \$161 million in real terms), Alabama (\$45 million nominally, \$48 million in real terms), and Mississippi (\$44 million nominally, \$47 million in real terms). Mississippi and Louisiana experienced the largest decrease in ex-vessel revenues between 1997 and 2006, decreasing 55% and 20%, respectively.

The Gulf region's key species or groups generated an average of \$684 million in revenue from 1997-2006. This comprised an average of 91% of the ex-vessel value

in the Gulf. Shrimp (65% of key species revenue; 59% of total revenue) had the highest average ex-vessel revenues, followed by menhaden (8% of key species revenue; 8% of total revenue) and blue crab (6% of key species revenue; 6% of total revenue). Texas generated the majority of shrimp revenues, comprising 40% of shrimp revenue on average per year. On average, Louisiana accounting for 36% of shrimp revenue. Overall, shrimp revenues in the region fell 16% between 1997 and 2006, with the largest drop occurring in Mississippi, a 61% decrease in shrimp revenues. Only Alabama experienced a growth in shrimp revenues, increasing \$37 million (1997) to \$39 million in 2006.

Commercial Fish Facts

- Blue crab, oysters, shrimp, and red snapper are key species or species groups for all five states in the Gulf Region.

Landings revenue

- On average, the key individual species and species groups accounted for 91% of total revenue.
- Shrimp landings revenue averaged \$444 million from 1997-2006, consistently accounting for ~55-65% of Gulf landings revenue. Overall, shrimp landings revenue decreased 16% (29% in real terms) during this time period.
- The largest annual increase and decrease in annual revenue was for crawfish: 1144% (2000-2001) and -93% (1999-2000).
- In contrast, blue crab, grouper, and oyster revenues remained relatively stable (1997-2006). That is, revenues generally did not fluctuate more than 10% from year to year.

Landings

- The Gulf Region's key species or species groups averaged 96% of total landings from 1997-2006.
- Menhaden landings averaged 1.2 billion pounds from 1997-2006, consistently accounting for ~65-75% of Gulf landings. Overall, menhaden landings declined 34% during this time period.
- Of the key species or groups, crawfish landings were the most variable, having both the largest annual increase (2549% from 2000-2001) and decrease (-97% from 1999-2000).

Prices

- Groupers and red snapper prices were relatively stable during the time period, generally varying less than 10% per year
- Stone crab at \$3.81, tunas at \$2.66, and oysters at \$2.33 had the highest average annual prices per pound.
- Menhaden at \$0.05, mullets at \$0.67, and blue crab at \$0.69 had the lowest average annual prices per pound.
- The largest annual increase in price was for stone crab, 189% from 1997-1998. The largest annual decrease was for crawfish, a 53% drop in price from 2000-2001.

Landings

Over the 10 year period, total landings averaged 1.6 billion pounds, ranging from 1.2 billion pounds (2005) to 2.0 billion pounds (1999). Finfish and other fishery products averaged 1.3 billion pounds, decreasing 34% between 1997 and 2006. Shellfish landings remained relatively stable over the time period, averaging 362 million pounds.

The Gulf's regionally important species or groups averaged 1.6 billion pounds. Landings ranged from 1.2 billion pounds (2005) to 1.9 billion pounds (1999). Menhaden comprises an average of 72% of total landings for the region (1.2 billion pounds). Louisiana's contribution to menhaden landings is highest in the region, averaging 83% of annual menhaden landings, despite a 43% drop in Louisiana's menhaden landings between 1997 and 2006.

Prices

From 1997-2006, ex-vessel prices for high-valued species such as stone crab (\$3.81 average annual price per pound; \$4.00 per pound in real terms), tunas (\$2.66 average annual price; \$2.82 per pound in real terms) and oyster (\$2.33 average annual price; \$2.47 per pound in real terms) increased 340%, 26%, and 50%, respectively. Adjusting for inflation, the prices of stone crab, tunas and oysters increased 272%, 7% and 27%, respectively. Landings for stone crab show a declining trend overall with 4.8 million pounds landed in 2006, the lowest landings in the past 10 years. The ex-vessel price of shrimp, which consistently accounts for 55-65% of landings revenue, averaged \$1.78 per pound (\$1.90 in real terms), but showed an overall declining trend in price, dropping 34% between 1997 and 2006.

With the exception of blue crab and shrimp, 2006 ex-vessel prices for key species or groups were higher relative to their corresponding average prices for the time period. Red snapper, crawfish, and oyster ex-vessel prices in 2006 were all above 20% or more above their average annual prices. Shrimp and blue crab 2006 ex-vessel prices were lower than their corresponding average prices, 21% and 7%, respectively.

Recreational Fishing

In the Gulf region, there were 6.2 million recreational anglers in 2006 who took a total of 23.9 million fishing trips. Anglers spent \$2.2 billion on recreational fishing trips in the region and \$14 billion on durable fishing-related equipment. The economic impacts from recreational fishing were highest in western Florida. In 2006, expenditures by anglers in western Florida contributed

Gulf of Mexico Summary

\$7.8 billion in total sales to the regional economy, added over 75,000 jobs, and generated \$4.2 billion in value-added impacts.

Key Gulf Recreational Fishing Species

The Gulf of Mexico's recreationally-important species are: Atlantic croaker, Gulf/southern kingfish, red drum, red snapper, sand/silver seatrout, sheepshead, southern flounder, Spanish mackerel, spotted seatrout, and striped mullet.

Participation Rates¹

There were 3.3 million anglers from coastal counties in the Gulf region in 2006 (54% of the total). There were 2.5 million out-of-state residents (41% of total anglers) and 315,000 non-coastal county residents (5% of total anglers).

Recreational Fishing Facts

Participation

- The total number of anglers between 1997 and 2006 increased 63% in the Gulf region. Participation increased in all three angler groups: coastal county residents (72%), non-coastal county residents (114%), and out-of-state anglers (49%).
- The number of anglers in Louisiana doubled from 1997 (616,000 anglers) to 2006 (1.2 million anglers).
- Western Florida had the highest number of recreational anglers in 2006 with 4.0 million anglers. Out-of-state anglers averaged almost 55% of total anglers between 1997-2006.
- The number of out-of-state anglers taking fishing trips in Mississippi fell 70% between 1997-2006.

Recreational trips

- In 2006, the number of fishing trips taken on a private or rented boat comprised 58% of the 23.9 million trips taken.

Economic impacts

- In western Florida, anglers spent a total of \$9.0 billion on fishing trips and durable equipment. Anglers in Texas followed, spending a total of \$3.2 billion on fishing trips and durable equipment.

Catch data for key species

- The total number of Spanish mackerel caught in the Gulf region in 2006 was almost 3 million higher than the number caught in 1997, a 134% increase. The majority of Spanish mackerel are caught in western Florida.
- The 2006 catch of red snapper (3.5 million fish) is an 18% increase over 1997 levels. Recreational harvest of red snapper declined 14% (969,000 fish) while the number of released red snapper increased 38% to 2.6 million fish.

The proportions of coastal county resident anglers and out-of-state anglers varied over the time period. From 1998 to 2001, out-of-state anglers comprised 49-50% of total anglers, while coastal county resident anglers comprised 46-47%. From 2002 to 2006, coastal county residents averaged 52% of total anglers.

Between 1997 and 2006, participation increased from 3.8 million anglers to 6.2 million anglers, a 63% increase. Total participation was highest in 2004 with 6.4 million anglers.

Recreational Fishing Trips¹

The number of total fishing trips taken in the Gulf region ranged between 15.9 million (1999) to 24.4 million (2004). There was an 28% increase in fishing trips taken between 1997 and 2006. In 2006, there were 13.8 million private/rental boat trips taken by Gulf region anglers, 58% of all fishing trips. There were 9.2 million fishing trips taken from shore (39% of total trips) and 820,000 fishing trips taken from a party/charter boat (3% of total trips). Private/rental trips outnumbered the other two fishing trip modes combined in each year from 1997-2006.

The majority of fishing trips in the region were taken in western Florida. In 2006, 16.2 million trips were taken, an increase of 21% over the 13.4 million trips taken in 1997. Private/rental boat trips were the most popular (8.9 million or 55% of trips), followed by fishing trips from shore (6.7 million trips or 42%) and party/charter boat trips (560,000 or 3% of trips).

Expenditures and Economic Impacts

Total trip and durable equipment expenditures in the Gulf region totaled over \$16 billion in 2006. Boat expenses by all anglers totaled \$8.2 billion, vehicle expenses were \$2 billion, and fishing tackle expenses were \$1.7 billion. Trip expenditures by residents were \$1.5 billion (68% of total trip expenditures). Private boat trips accounted for 58% of total trip expenditures by residents at \$878 million. Non-residents spent the most on fishing trips from shore: \$346 million or 50% of trip expenditures by non-residents.

Economic impacts to the economy of each state are reported in terms of those due to trip expenditures (by mode) and purchases of durable goods. When looking at which fishing mode generated the highest sales impacts in each state, shore trips in western Florida (\$467 million) and private boat trips in Texas (\$673 million) and Louisiana (\$260 million) ranked highest. In Mississippi, private boat trips accounted for the highest sales impacts (\$17.8 million). Fishing trips from shore generated the highest total sales impacts (\$95.6 million) in Alabama.

¹Note that Texas does not collect data on participation (number of anglers) and effort (number of fishing trips).

Western Florida sustained the highest number of jobs related to recreational fishing: over 75,000 jobs. Texas (34,000 jobs) and Louisiana (27,000 jobs) followed.

Recreational Harvest and Released Catch

The recreational catch of spotted seatrout is the most caught key species or group in the Gulf Region with 36 million fish caught in 2006. Anglers released 20.9 million and harvested 15.6 million. Louisiana accounted for 66% of the region’s catch of spotted seatrout with 24 million fish. The species with the second highest catch levels in the region was red drum. Over 9.8 million fish were caught in 2006.

From 1997-2006, angler harvest increased for eight of the 10 key species: spotted seatrout (89%), Gulf and southern kingfish (64%), Spanish mackerel (53%), and Atlantic croaker (37%) harvests increased the most during this period. Only one species had a decrease in number of released fish (Atlantic croaker). From 1997-2006, Spanish mackerel (252%), Gulf and southern kingfish (157%), southern flounder (84%), sand and silver seatrout (66%) and striped mullet (65%) had the largest increases in number of released fish. Only one species had a decline in overall catch (porgies) during this period.

Marine Coastal Economy

Of the five states in the Gulf Region, Texas and Florida contributed the most to the national economy in terms of gross domestic product by state. In 2005, Florida and Texas had the greatest number of establishments in the region, with Texas employing the greatest number of people. Annual payroll and employee compensation in Texas were also highest for the region.

Louisiana, Mississippi, and Florida all have Commercial Fishing Location Quotients (CFLQ) above the national baseline (1.0). Louisiana showed an increase in employment in commercial fishing industries from 2001 to 2005, 24% and 16% respectively. However, Florida’s CFLQ dropped 26% between 2001 and 2006. Decreases were also observed for Texas (43%) and Alabama (20%).

Seafood Sales and Processing

In 2005, the 647 non-employer firms in the seafood retail industry had receipts of \$64 million, an increase in receipts of 27% from 1998 levels (\$50 million). Employer establishments in this industry increased 22% between 1998 and 2005, with all states but Texas showing double-digit gains. In 2005, the annual payroll (\$33 million) and number of employees (2,000) of these establishments represented, respectively, a 53% and 41% increase over 1998 levels.

With the exception of Mississippi, for which information was not available, all Gulf states experienced a 40% or larger increase in the number of non-employer seafood product preparation and packaging firms from 1998 to 2005. Overall, 2005 receipts (\$24 million) were up 51% from 1998 levels. Alabama (217%), Louisiana (85%), and Florida (75%) experienced significant gains in receipts while in Texas, receipts by these firms declined 57%. In contrast, the number of employer establishments engaged in this industry declined 17% from 183 firms in 1998 to 152 firms in 2005. Annual payroll was \$217 million in 2005, a 16% increase over 1998 levels, while the number of employees declined 4% to 10,000 workers.

In 2005, there were 539 employer establishments engaged in seafood wholesale activities in the Gulf region, a decrease of 24% from 1998. Almost half of these establishments (258) are in Florida, while 24% (128 establishments) and 18% (97 establishments) were located in Louisiana and Texas, respectively. Overall, annual payroll in the region and employees working in this industry in 2005 were \$118 million and 4,700, respectively. The number of establishments, annual payroll, and number of employees engaged in this industry declined 24%, 8%, and 22%, respectively, from 1998 levels. All states experienced declines in each of these categories.

Transport, Support, and Marine Operations

Establishment numbers for industries in this sector were generally available for all states. The availability of employee numbers and annual payroll data was limited for Alabama and Mississippi and, to a lesser degree, Texas.

In Louisiana, there were 509 establishments with an annual payroll of \$946 million and 24,000 workers employed in this sector in 2005. This represents a 19% increase in establishments, a 27% decrease in employees, and a 9% increase in payroll since 1998. Coastal freight transportation, navigational services to shipping, and ship and boat building each accounted for roughly 20-25% of the Louisiana establishments in this sector. Ship and boat building and coastal freight transportation accounted for 40% and 31%, respectively, of the payroll in this sector; ship and boat building accounted for almost half the jobs in this sector in 2005.

In Florida, there were 1,233 establishments in this sector. Taken together, they had an annual payroll of \$1.1 billion and employed 30,000 workers in this sector in 2005. (See the discussion in the South Atlantic region for additional detail on Florida industries in this sector).

Ship and boat building represented the largest industry in this sector in the Gulf of Mexico region. In 2005, 584 establishments with an annual payroll of \$1.5 billion

Gulf of Mexico Summary

employed 42,000 workers. This is a critical industry in this sector for Mississippi.

Based on available data (excludes Mississippi), marine cargo handling represented the second largest industry in this sector. In 2005, 186 establishments with an annual payroll of \$468 million employed 16,000 workers. In addition, coastal freight transportation and navigational services were significant industries in Texas, Louisiana, and Florida. Marinas and deep sea freight transportation were significant industries in Florida.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Employment Impacts
Alabama	49,178	492,081	269,914	11,038
Florida	192,284	5,210,182	2,857,846	103,230
Louisiana	255,265	2,096,648	1,090,349	46,389
Mississippi	21,737	204,521	103,734	4,712
Texas	197,292	2,152,819	1,061,434	46,861

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	770,708	786,450	823,352	997,240	807,402	681,637	662,897	669,003	625,168	673,795
Finfish & Other	167,611	142,172	177,988	179,082	164,956	147,326	139,367	143,480	122,719	132,251
Shellfish	603,097	644,278	645,364	818,158	642,446	534,311	523,530	525,523	502,449	541,544
Crab, Blue	41,510	45,701	43,128	47,573	42,862	42,913	46,243	42,292	37,969	42,909
Crab, Stone	7,253	22,963	24,080	28,670	20,477	23,091	23,043	26,704	21,229	24,034
Crawfish	12,781	14,392	10,480	684	8,511	8,070	4,845	4,810	8,360	1,290
Groupers	17,551	18,192	22,684	24,124	25,986	24,631	24,257	25,807	24,716	22,821
Menhaden	72,009	56,655	78,514	80,674	72,366	52,116	45,863	44,921	32,938	40,628
Mulletts	12,423	8,297	14,129	11,697	10,206	8,877	8,265	8,956	6,599	9,435
Oyster	50,648	46,313	48,568	53,115	52,285	50,756	61,634	60,845	56,522	62,261
Shrimp	458,062	486,116	479,079	655,759	497,202	385,679	365,434	366,426	360,527	384,595
Snapper, Red	8,442	9,801	9,589	10,368	10,251	10,714	10,447	11,676	11,339	13,183
Tunas	13,877	9,646	11,635	14,017	9,187	13,227	12,000	12,335	9,431	8,462

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	1,811,648	1,576,296	2,004,427	1,795,388	1,613,157	1,728,881	1,595,881	1,475,126	1,198,285	1,346,041
Finfish & Other	1,472,483	1,184,890	1,637,503	1,397,433	1,254,161	1,377,400	1,228,799	1,110,228	887,996	975,303
Shellfish	339,165	391,406	366,924	397,955	358,996	351,481	367,082	364,898	310,289	370,738
Crab, Blue	64,102	67,580	68,996	68,898	54,500	66,019	63,961	60,581	50,047	67,004
Crab, Stone	6,382	6,978	5,654	6,848	6,682	6,433	5,292	5,971	4,535	4,789
Crawfish	22,921	21,978	13,226	393	10,410	15,602	8,337	8,537	15,177	1,469
Groupers	8,940	8,852	11,185	11,418	12,167	12,003	10,933	11,912	10,786	9,103
Menhaden	1,371,137	1,092,670	1,530,487	1,303,895	1,165,244	1,290,407	1,142,747	1,023,260	815,495	901,405
Mulletts	17,507	15,770	20,045	16,812	16,084	12,661	12,957	13,750	9,027	12,738
Oyster	23,972	20,560	24,016	25,767	25,621	24,110	27,033	25,052	20,181	19,658
Shrimp	213,101	264,211	242,795	288,628	257,088	233,759	256,357	255,782	216,296	272,873
Snapper, Red	4,824	4,694	4,888	4,844	4,642	4,803	4,435	4,677	4,110	4,643
Tunas	5,906	4,175	5,959	4,631	3,463	4,877	5,063	3,882	3,050	2,853

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab, Blue	0.65	0.68	0.63	0.69	0.79	0.65	0.72	0.70	0.76	0.64
Crab, Stone	1.14	3.29	4.26	4.19	3.06	3.59	4.35	4.47	4.68	5.02
Crawfish	0.56	0.65	0.79	1.74	0.82	0.52	0.58	0.56	0.55	0.88
Groupers	1.96	2.06	2.03	2.11	2.14	2.05	2.22	2.17	2.29	2.51
Menhaden	0.05	0.05	0.05	0.06	0.06	0.04	0.04	0.04	0.04	0.05
Mulletts	0.71	0.53	0.70	0.70	0.63	0.70	0.64	0.65	0.73	0.74
Oyster	2.11	2.25	2.02	2.06	2.04	2.11	2.28	2.43	2.80	3.17
Shrimp	2.15	1.84	1.97	2.27	1.93	1.65	1.43	1.43	1.67	1.41
Snapper, Red	1.75	2.09	1.96	2.14	2.21	2.23	2.36	2.50	2.76	2.84
Tunas	2.35	2.31	1.95	3.03	2.65	2.71	2.37	3.18	3.09	2.97

Recreational Fishing Effort by Mode (thousands of trips)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	975	903	877	812	742	764	691	818	712	820
Private / Rental	10,195	8,939	9,098	11,728	12,371	11,635	14,110	14,107	12,629	13,837
Shore	7,423	6,861	5,919	8,478	9,776	7,266	8,155	9,430	8,530	9,206
Total Trips	18,593	16,703	15,894	21,018	22,890	19,666	22,957	24,355	21,871	23,863

Recreational Anglers by Residential Area (thousands of anglers)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	1,935	1,884	1,834	2,539	2,898	2,485	3,039	3,201	3,126	3,328
Non-Coastal	147	122	151	191	227	216	256	349	195	315
Out of State	1,698	1,970	2,017	2,710	2,998	2,349	2,784	2,800	2,344	2,533
Total Anglers	3,780	3,976	4,002	5,440	6,124	5,050	6,078	6,350	5,666	6,176

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	212,913	878,947	Fishing Tackle	1,744,866
Shore	346,155	463,118	Other Equipment	653,121
For-Hire	134,264	159,545	Boat Expenses	8,179,193
Total Trip Expenditures	693,332	1,501,610	Vehicle Expenses	1,958,790
			Second Home Expenses	1,446,521
			Total Durable Equipment Expenditures	13,982,491
Total Gulf of Mexico Region Trip and Durable Equipment Expenditures				16,177,433

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Total Sales	Value Added
Alabama	2,143,425	6,572	630,181	325,523
Louisiana	4,491,281	26,612	2,382,034	1,199,333
Mississippi	997,911	3,731	490,501	189,450
Texas ²		34,175	4,197,011	2,154,891
Western Florida	16,230,273	75,257	7,823,752	4,235,087

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Drum (Atlantic Croaker)	H	1,046	760	974	1,783	1,432	832	1,057	938	747	1,430
	R	2,541	2,021	2,427	4,302	2,755	2,757	2,431	3,404	1,913	2,476
Drum (Gulf and Southern Kingfish)	H	910	1,219	1,670	1,652	2,552	1,205	1,802	1,886	1,636	1,494
	R	413	398	679	432	1,044	477	538	911	884	1,063
Drum, Red	H	2,290	1,845	2,134	3,266	3,115	2,478	2,673	2,850	2,173	2,814
	R	5,118	4,623	3,991	5,469	5,146	4,874	5,915	5,538	5,319	7,024
Drum (Sand and Silver Seatrout)	H	2,586	2,927	5,272	4,711	3,360	3,256	3,111	2,292	1,825	2,726
	R	1,012	965	1,738	1,596	1,063	1,069	1,003	1,064	790	1,677
Drum (Spotted Seatrout)	H	8,247	6,840	9,055	11,608	9,381	7,366	9,568	10,569	9,977	15,564
	R	15,734	13,337	16,167	16,758	11,202	15,298	19,217	18,282	19,702	20,872
Flounder, Southern	H	551	423	646	563	732	506	659	706	507	560
	R	97	88	101	108	171	117	252	212	185	178
Mackerel, Spanish	H	1,263	1,170	1,621	1,714	2,477	1,962	1,504	2,120	1,134	1,936
	R	855	714	1,243	1,497	1,845	1,920	2,211	2,183	1,385	3,011
Mullet, Striped ³	H	1,025	970	1,303	1,478	1,561	1,264	1,587	1,141	1,112	1,146
	R	95	90	148	390	733	76	280	116	211	157
Porgies (Sheepshead)	H	1,618	1,342	1,366	1,298	1,478	1,552	1,941	2,475	1,979	1,452
	R	1,514	1,654	1,433	1,728	1,649	1,701	2,004	2,194	1,982	1,541
Snapper, Red	H	1,126	1,319	1,207	767	848	1,106	993	1,077	829	969
	R	1,858	1,360	1,997	1,427	1,807	2,091	1,942	2,140	1,904	2,558

¹Excludes 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 was not available.

²Effort data (number of trips) for Texas was not available.

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

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	492,081	269,914	11,038
Commercial Harvesters	44,221	16,758	1,009
Seafood Processors and Dealers	94,221	47,060	1,078
Seafood Wholesalers and Distributors	19,484	9,617	187
Retail Sectors	334,154	196,479	8,764

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	43,263	47,012	50,488	64,072	44,940	35,923	36,843	37,036	39,725	49,178
Finfish & Other	2,558	1,996	2,818	2,557	3,358	3,172	3,184	3,905	3,982	5,125
Shellfish	40,705	45,016	47,670	61,515	41,582	32,751	33,659	33,131	35,743	44,053
Crab, Blue	2,064	1,948	2,079	3,086	1,744	1,490	1,715	1,774	663	1,319
Flounders	253	254	264	285	238	291	210	230	247	226
Mackerel, Spanish	173	134	138	229	310	371	443	554	401	603
Menhaden	388	301	198	147	130	102	104	89	63	49
Mulletts	1,199	840	1,656	1,072	1,448	985	772	1,187	1,117	1,178
Oysters	1,398	783	919	1,755	1,235	1,602	1,623	2,120	3,020	3,639
Sharks	2	2	1	36	14	275	337	431	478	887
Shrimp	37,230	42,277	44,669	56,661	38,592	29,603	30,284	29,197	32,002	39,090
Snapper, Red	94	126	140	218	280	368	359	382	638	553
Snapper, Vermilion	13	10	29	25	55	54	83	152	149	331

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	24,987	30,098	27,437	30,527	25,857	23,653	25,533	26,560	23,989	34,148
Finfish & Other	7,207	6,175	5,567	4,836	6,253	5,446	5,981	6,248	5,556	6,822
Shellfish	17,780	23,923	21,870	25,691	19,604	18,207	19,552	20,312	18,433	27,326
Crab, Blue	3,487	3,478	3,768	4,784	2,458	2,575	2,958	3,329	1,024	2,384
Flounders	147	148	155	159	137	176	118	138	130	120
Mackerel, Spanish	348	218	243	384	506	762	858	914	568	919
Menhaden	4,166	3,530	2,387	1,642	1,589	982	1,022	828	521	357
Mulletts	1,584	1,607	2,069	1,739	2,539	1,949	1,700	2,133	1,976	1,926
Oysters	695	340	377	792	575	759	816	908	1,041	940
Sharks	5	6	3	69	24	329	803	716	800	1,409
Shrimp	13,587	20,094	17,721	20,103	16,566	14,857	15,770	16,064	16,260	23,991
Snapper, Red	43	56	68	94	118	152	132	138	214	182
Snapper, Vermilion	7	5	16	13	27	28	36	66	66	127

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab, Blue	0.59	0.56	0.55	0.65	0.71	0.58	0.58	0.53	0.65	0.55
Flounders	1.72	1.72	1.70	1.79	1.74	1.65	1.78	1.67	1.91	1.89
Mackerel, Spanish	0.50	0.62	0.57	0.60	0.61	0.49	0.52	0.61	0.71	0.66
Menhaden	0.09	0.09	0.08	0.09	0.08	0.10	0.10	0.11	0.12	0.14
Mulletts	0.76	0.52	0.80	0.62	0.57	0.51	0.45	0.56	0.57	0.61
Oysters	2.01	2.30	2.44	2.22	2.15	2.11	1.99	2.33	2.90	3.87
Sharks	0.47	0.35	0.39	0.52	0.58	0.83	0.42	0.60	0.60	0.63
Shrimp	2.74	2.10	2.52	2.82	2.33	1.99	1.92	1.82	1.97	1.63
Snapper, Red	2.16	2.26	2.05	2.32	2.37	2.41	2.72	2.78	2.98	3.03
Snapper, Vermilion	1.92	1.89	1.81	2.01	2.04	1.92	2.31	2.32	2.26	2.60

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	83	71	80	62	63	68	67	77	55	77
Private / Rental	551	509	613	545	825	606	846	907	806	857
Shore	390	389	477	479	748	516	588	1,056	705	1,209
Total Trips	1,024	968	1,170	1,087	1,636	1,190	1,500	2,040	1,566	2,143

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	109	101	131	143	213	123	187	225	227	233
Non-Coastal	66	56	92	94	113	97	123	183	98	184
Out of State	99	100	143	148	227	193	214	398	162	320
Total Anglers	275	257	367	385	553	413	524	806	488	736

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	5,915	37,399	Fishing Tackle	78,521
Shore	51,609	25,562	Other Equipment	35,391
For-Hire	16,199	8,906	Boat Expenses	319,760
Total Trip Expenditures	73,723	71,867	Vehicle Expenses	54,989
			Second Home Expenses	28,264
			Total Durable Equipment Expenditures	516,925
Total State Trip and Durable Equipment Expenditures				662,515

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	464	44,179	24,187
Shore Mode Trip Impacts	1,175	95,646	51,452
Party/Charter Mode Trip Impacts	503	37,619	20,708
Total Durable Equipment Impacts	4,430	452,738	229,176
Total State Trip and Durable Equipment Economic Impacts	6,572	630,181	325,523

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

SPECIES		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bluefish	H	83	112	86	62	89	51	45	167	24	26
	R	155	57	76	59	113	64	126	187	93	264
Drum (Atlantic Croaker)	H	77	211	212	225	360	187	244	132	159	330
	R	233	356	605	539	546	467	512	786	748	683
Drum (Kingfishes) ¹	H	204	445	386	433	1,202	412	486	813	483	572
	R	48	114	214	193	368	162	185	382	300	589
Drum, Red	H	51	80	85	58	136	84	114	119	127	112
	R	47	79	95	73	172	104	245	145	160	176
Drum (Sand Seatrout)	H	675	868	892	557	712	428	709	716	410	725
	R	195	142	269	185	180	130	225	345	333	506
Drum (Spotted Seatrout)	H	42	72	155	166	295	193	345	199	344	308
	R	53	52	250	245	356	167	431	142	367	449
Flounder, Southern	H	46	63	126	65	182	82	113	114	114	113
	R	10	10	40	16	45	16	68	58	74	51
Mackerel, Spanish	H	131	143	341	185	328	106	122	398	94	143
	R	25	19	120	57	115	16	100	253	58	89
Porgies (Sheepshead)	H	123	96	130	141	313	191	299	383	284	216
	R	22	42	18	60	109	81	88	98	89	75
Snapper, Red	H	465	363	402	267	349	473	380	411	277	197
	R	818	487	618	685	910	983	665	654	560	688

¹Kingfishes include: Southern Kingfish and Gulf Kingfish.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	100,316 (1.45%)	1,604,110 (1.48%)	40,331 (1.22%)	71,810 (1.21%) (2001) ¹	106,656 (1.23%)	0.40 (2001) ²
2005	101,976 (1.36%)	1,667,526 (1.43%)	53,365 (1.19%)	87,549 (1.25%)	151,342 (1.22%)	0.32 (2006) ²
% change	1.7	4.0	32.3	21.9	41.9	-20.0

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	44	44	44	50	58	55	61	44
	Receipts	2,508	3,503	3,878	3,633	3,456	3,812	3,645	3,855
Seafood product preparation & packaging	Firms	27	47	46	39	44	36	43	40
	Receipts	1,076	2,598	3,677	2,711	3,603	1,168	3,413	3,414

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	24	22	28	30	35	37	35	34
	Employees	47	53	F	95	110	F	96	95
	Payroll	655	625	F	1,244	1,589	F	1,401	1,399
Seafood sales, wholesale	Establishments	47	47	47	45	36	33	31	26
	Employees	577	F	887	692	547	611	588	607
	Payroll	7,669	F	10,252	9,597	7,062	6,148	6,752	6,345
Seafood product preparation & packaging	Establishments	24	16	17	21	22	24	23	26
	Employees	1,799	1,776	1,725	1,880	1,951	2,057	2,037	1,925
	Payroll	28,604	29,809	33,811	32,692	36,198	36,766	36,130	38,229

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	1	4	3	2	2	5	3	3
	Employees	F	F	F	F	F	53	F	F
	Payroll	F	F	F	F	F	3,661	F	F
Coastal & Great Lakes freight transportation	Establishments	9	10	8	9	6	13	10	10
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	21	22	21	19	19	17	18	17
	Employees	733	687	F	617	635	445	577	672
	Payroll	27,624	23,312	F	20,809	20,592	19,642	26,201	28,458
Navigational services to shipping	Establishments	19	19	16	11	15	12	16	17
	Employees	173	184	F	F	220	410	F	F
	Payroll	6,343	5,116	F	F	9,317	19,602	F	F
Ship & boat building	Establishments	45	42	41	41	45	41	42	45
	Employees	3,201	2,954	2,421	2,575	2,901	2,781	2,195	2,591
	Payroll	86,700	83,325	78,014	105,756	92,916	81,092	83,756	86,453
Marinas	Establishments	61	57	59	61	48	53	52	58
	Employees	263	276	F	F	242	287	341	347
	Payroll	4,981	5,153	F	F	4,966	6,218	7,631	8,047
Port and harbor operations	Establishments	3	5	5	7	6	3	1	3
	Employees	F	16	F	F	162	F	F	F
	Payroll	F	668	F	F	6,321	F	F	F

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)¹

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	5,210,182	2,857,846	103,230
Commercial Harvesters	198,983	85,309	3,539
Seafood Processors and Dealers	390,566	187,572	3,753
Seafood Wholesalers and Distributors	1,146,858	569,013	10,894
Retail Sectors	3,473,774	2,015,952	85,042

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	148,775	168,559	165,857	159,622	146,559	144,180	141,178	148,060	138,048	150,323
Finfish & Other	46,624	43,463	50,743	48,332	52,707	51,603	51,444	52,334	50,683	50,349
Shellfish	102,151	125,096	115,114	111,290	93,852	92,577	89,734	95,726	87,365	99,974
Clams, Quahog	4,338	4,989	6,816	5,225	4,740	3,606	3,870	2,074	1,738	807
Crab, Blue	6,899	8,027	7,863	6,154	4,855	5,644	7,061	7,316	7,043	7,037
Crab, Stone	7,113	22,856	23,914	28,353	20,136	22,874	22,913	26,507	21,079	23,948
Gag	3,772	6,074	4,837	5,521	8,050	7,380	6,855	7,615	7,099	4,151
Grouper, Red	10,497	8,751	13,286	13,324	13,519	12,859	11,695	13,281	13,383	14,382
Lobsters	26,746	19,945	29,758	25,362	14,847	18,932	17,138	20,724	15,087	24,885
Mulletts	5,772	4,762	6,727	5,121	6,126	6,059	4,755	4,891	4,362	6,019
Oyster	2,719	2,440	3,595	3,873	3,855	3,125	2,932	2,884	2,867	5,415
Shrimp	52,754	63,057	39,875	40,660	44,021	37,252	34,893	34,737	38,639	37,150
Snapper, Red	351	461	978	1,303	1,509	2,188	2,284	2,168	1,674	1,991

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	87,497	99,938	91,760	77,342	80,336	82,068	79,162	83,890	73,126	73,512
Finfish & Other	40,258	39,063	44,497	39,294	44,497	43,577	41,694	41,129	36,623	35,874
Shellfish	47,239	60,875	47,263	38,048	35,839	38,491	37,468	42,761	36,503	37,638
Clams, Quahog	396	540	755	549	509	480	558	266	196	87
Crab, Blue	9,321	12,863	11,169	6,573	4,647	5,567	7,225	8,083	7,376	8,604
Crab, Stone	6,344	6,951	5,606	6,747	6,594	6,385	5,253	5,933	4,503	4,768
Gag	1,628	2,613	2,039	2,234	3,281	3,136	2,691	3,054	2,694	1,436
Grouper, Red	5,765	4,709	7,085	6,916	7,031	6,987	5,841	6,789	6,389	6,061
Lobsters	6,538	5,312	6,880	5,184	2,966	4,080	3,886	4,565	3,061	4,372
Mulletts	7,260	7,506	8,434	7,493	8,989	8,020	6,577	6,660	5,639	7,306
Oyster	1,868	1,537	2,307	2,520	2,559	1,944	1,753	1,644	1,423	2,394
Shrimp	21,182	29,520	16,097	14,906	17,471	19,128	18,131	18,258	19,302	16,966
Snapper, Red	180	217	469	563	652	948	928	811	585	649

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clams, Quahog	10.95	9.23	9.02	9.52	9.31	7.51	6.93	7.79	8.89	9.27
Crab, Blue	0.74	0.62	0.70	0.94	1.04	1.01	0.98	0.91	0.95	0.82
Crab, Stone	1.12	3.29	4.27	4.20	3.05	3.58	4.36	4.47	4.68	5.02
Gag	2.32	2.32	2.37	2.47	2.45	2.35	2.55	2.49	2.64	2.89
Grouper, Red	1.82	1.86	1.88	1.93	1.92	1.84	2.00	1.96	2.09	2.37
Lobsters	4.09	3.75	4.33	4.89	5.01	4.64	4.41	4.54	4.93	5.69
Mulletts	0.80	0.63	0.80	0.68	0.68	0.76	0.72	0.73	0.77	0.82
Oyster	1.46	1.59	1.56	1.54	1.51	1.61	1.67	1.75	2.01	2.26
Shrimp	2.49	2.14	2.48	2.73	2.52	1.95	1.92	1.90	2.00	2.19
Snapper, Red	1.96	2.12	2.08	2.32	2.31	2.31	2.46	2.67	2.86	3.07

¹Economic impact information reported in this table is for the state of Florida, not western Florida.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	752	733	694	628	543	581	496	590	522	560
Private / Rental	6,839	6,096	6,079	7,893	8,225	8,235	9,222	9,161	8,720	8,932
Shore	5,794	5,406	4,524	6,566	7,621	5,602	6,291	6,680	6,246	6,738
Total Trips	13,384	12,235	11,297	15,086	16,389	14,418	16,009	16,431	15,489	16,230

Recreational Anglers by Residential Area (thousands of anglers)¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	1,250	1,266	1,218	1,683	1,894	1,703	1,965	2,023	2,088	2,084
Non-Coastal	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Out of State	1,411	1,696	1,708	2,387	2,552	1,990	2,318	2,141	2,008	1,988
Total Anglers	2,661	2,963	2,926	4,071	4,447	3,693	4,283	4,165	4,096	4,072

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category		Expenditures
	Non-Residents	Residents			
Private Boat	161,576	220,371	Fishing Tackle		1,137,745
Shore	268,926	69,102	Other Equipment		368,380
For-Hire	81,502	20,222	Boat Expenses		5,287,580
Total Trip Expenditures	512,004	309,695	Vehicle Expenses		1,080,667
			Second Home Expenses		260,536
			Total Durable Equipment Expenditures		8,134,905
Total State Trip and Durable Equipment Expenditures					8,956,604

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	4,281	428,794	254,977
Shore Mode Trip Impacts	4,957	467,362	271,522
Party/Charter Mode Trip Impacts	1,689	164,354	97,445
Total Durable Equipment Impacts	64,330	6,763,242	3,611,142
Total State Trip and Durable Equipment Economic Impacts	75,257	7,823,752	4,235,087

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Drum, Red	H	329	274	229	377	266	292	365	323	459	378
	R	1,454	1,448	1,161	1,453	1,462	1,376	1,938	2,160	2,637	2,898
Drum (Sand and Silver Seatrouts)	H	568	639	1,961	1,841	1,047	1,354	751	571	372	412
	R	106	283	824	604	389	321	146	190	105	297
Drum (Spotted Seatrout)	H	1,188	1,439	1,497	1,610	1,080	1,532	1,629	1,841	1,964	1,506
	R	8,378	7,978	9,451	9,377	6,201	10,710	10,470	9,601	11,507	8,733
Gag	H	406	533	504	671	453	490	470	614	458	262
	R	1,718	2,066	1,437	1,416	1,905	2,449	3,359	3,530	2,377	1,793
Mackerel, King	H	413	371	285	213	212	262	196	189	175	368
	R	84	67	64	81	249	139	96	108	134	463
Mackerel, Spanish	H	914	959	1,197	1,346	2,122	1,810	1,317	1,687	985	1,754
	R	804	673	1,088	1,218	1,705	1,865	2,084	1,913	1,275	2,879
Mullet ²	H	814	900	1,210	1,109	1,436	1,010	840	1,112	1,017	1,241
	R	64	167	119	166	342	93	187	282	260	139
Porgies (Sheepshead)	H	655	697	884	725	745	686	761	871	798	732
	R	761	1,104	1,129	1,272	961	1,125	1,370	1,547	1,390	938
Snapper, Gray	H	722	795	552	682	805	655	980	881	838	654
	R	3,216	3,261	2,221	3,223	2,562	2,998	4,808	3,429	4,751	2,646
Snook, Common	H	99	63	57	42	36	50	45	69	65	38
	R	869	530	679	1,302	1,290	1,292	1,359	2,039	2,283	1,575

¹In this table, "(1)" = less than 1000 anglers.

²Mulletts include: "Mullet Genus" and Striped Mulletts. Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

State Economy (% of national total) ¹						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	420,638 (6.06%)	5,756,353 (5.32%)	149,937 (4.53%)	286,753 (4.84%) (2001) ²	417,169 (4.81%)	1.36 (2001) ³
2005	504,662 (6.73%)	7,107,378 (6.11%)	239,198 (5.34%)	369,862 (5.27%)	666,639 (5.39%)	1.01 (2006) ²
% change	20.0	23.5	59.5	29.0	59.8	-25.7

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)¹

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	239	221	219	212	243	240	247	247
	Receipts	19,361	20,274	18,978	17,935	20,837	18,064	18,004	22,787
Seafood product preparation & packaging	Firms	58	65	102	104	116	142	177	164
	Receipts	4,995	7,153	8,330	6,350	5,064	8,047	8,652	8,756

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)¹

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	135	133	135	159	190	174	190	176
	Employees	595	869	575	697	908	952	977	970
	Payroll	9,841	20,664	10,359	13,403	17,186	15,673	17,575	19,192
Seafood sales, wholesale	Establishments	346	349	329	323	314	293	261	258
	Employees	2,826	2,733	2,915	2,670	2,395	1,835	1,948	1,883
	Payroll	66,264	69,139	76,363	76,717	78,160	55,874	63,276	65,339
Seafood product preparation & packaging	Establishments	47	43	41	43	33	27	24	25
	Employees	2,488	2,336	2,188	2,033	2,359	2,084	2,193	1,616
	Payroll	51,439	52,842	58,821	58,977	65,914	61,452	65,881	47,529

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)¹

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	67	69	58	51	62	61	63	69
	Employees	3,576	3,622	2,209	2,123	1,858	2,535	2,567	2,622
	Payroll	154,115	119,744	99,384	106,848	107,564	131,904	150,701	207,300
Coastal & Great Lakes freight transportation	Establishments	49	55	54	58	51	66	59	59
	Employees	772	3,404	2,391	3,208	2,856	F	1,132	1,150
	Payroll	32,288	190,731	108,638	150,964	143,185	F	80,422	71,420
Marine cargo handling	Establishments	75	67	65	71	74	68	66	63
	Employees	4,988	4,209	4,549	4,863	4,405	5,651	5,671	6,409
	Payroll	101,915	96,650	92,843	124,760	109,555	171,481	175,257	177,983
Navigational services to shipping	Establishments	139	142	142	133	141	140	149	148
	Employees	651	749	866	755	714	817	686	660
	Payroll	29,634	35,977	36,730	35,854	34,040	39,524	39,309	42,200
Ship & boat building	Establishments	291	301	300	313	291	290	306	312
	Employees	12,089	13,755	14,773	13,182	11,407	11,830	12,503	12,729
	Payroll	350,304	391,289	447,253	405,856	379,828	393,985	443,379	454,209
Marinas	Establishments	496	484	476	509	481	528	532	551
	Employees	3,536	3,750	3,799	3,876	3,449	5,079	5,067	5,069
	Payroll	74,657	82,790	88,436	88,274	90,662	111,324	125,763	133,384
Port and harbor operations	Establishments	22	18	22	25	29	26	29	31
	Employees	542	556	914	1,355	1,180	592	1,045	973
	Payroll	22,160	17,401	19,082	25,246	26,928	19,071	24,327	22,606

F = Data is suppressed due to confidentiality restrictions.

¹Information in this table is for the entire state of Florida, not just western Florida.

²Employee Compensation data is currently available from 2001-2005.

³Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	2,096,648	1,090,349	46,389
Commercial Harvesters	296,894	124,403	6,351
Seafood Processors and Dealers	288,758	91,435	3,002
Seafood Wholesalers and Distributors	142,859	70,867	1,399
Retail Sectors	1,368,137	803,644	35,636

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	317,144	311,643	336,961	421,194	347,249	280,629	270,413	274,083	251,677	255,265
Finfish & Other	96,792	76,293	100,856	105,385	86,820	70,325	63,304	66,074	49,440	56,463
Shellfish	220,352	235,350	236,105	315,809	260,429	210,304	207,109	208,009	202,237	198,802
Crab, Blue	27,737	30,744	28,210	34,395	31,967	30,685	33,623	29,881	27,419	32,165
Crawfish	12,781	14,392	10,480	684	8,511	8,070	4,845	4,810	8,360	1,290
Mackerel, King	524	851	790	1,017	996	1,046	990	1,198	1,273	1,112
Menhaden	62,567	47,292	66,327	68,586	58,961	40,378	34,464	35,249	25,776	32,122
Mulletts	4,981	2,473	5,307	5,265	2,417	1,688	2,592	2,681	946	2,061
Oysters	29,771	30,994	25,777	27,526	31,853	30,296	33,358	34,814	33,305	35,944
Shrimp	149,894	159,176	171,481	253,032	187,969	141,213	135,153	138,466	133,143	129,393
Snapper, Red	4,767	6,166	5,644	5,841	5,411	4,696	3,960	3,861	3,568	4,471
Snapper, Vermilion	1,135	901	1,332	932	1,114	1,308	1,896	1,663	1,137	762
Tunas	11,433	7,612	9,081	12,027	7,895	10,845	9,471	10,739	7,687	7,040

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	1,425,883	1,131,975	1,524,722	1,359,237	1,195,650	1,312,133	1,181,603	1,095,564	849,275	899,422
Finfish & Other	1,252,866	941,462	1,331,601	1,148,591	1,003,395	1,124,622	985,159	895,331	681,317	714,572
Shellfish	173,017	190,513	193,121	210,646	192,255	187,511	196,444	200,233	167,958	184,850
Crab, Blue	43,526	43,657	46,664	52,047	41,799	50,123	48,089	44,397	38,100	52,923
Crawfish	22,921	21,978	13,226	393	10,410	15,602	8,337	8,537	15,177	1,469
Mackerel, King	522	843	838	949	818	866	911	984	867	971
Menhaden	1,216,373	908,070	1,288,558	1,111,979	971,102	1,093,997	953,714	862,947	657,702	689,853
Mulletts	8,083	6,252	8,954	7,253	4,260	2,555	4,524	4,754	1,238	3,361
Oysters	13,222	12,856	12,128	12,718	15,133	13,962	13,609	13,902	12,099	11,402
Shrimp	93,234	111,996	121,004	145,385	124,813	107,795	125,730	133,370	102,576	119,047
Snapper, Red	2,716	2,965	2,965	2,784	2,436	2,178	1,725	1,560	1,316	1,653
Snapper, Vermilion	614	458	741	504	601	755	1,053	921	588	365
Tunas	4,645	3,177	4,594	3,871	2,706	3,587	3,184	3,230	2,296	2,143

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab, Blue	0.64	0.70	0.60	0.66	0.76	0.61	0.70	0.67	0.72	0.61
Crawfish	0.56	0.65	0.79	1.74	0.82	0.52	0.58	0.56	0.55	0.88
Mackerel, King	1.00	1.01	0.94	1.07	1.22	1.21	1.09	1.22	1.47	1.15
Menhaden	0.05	0.05	0.05	0.06	0.06	0.04	0.04	0.04	0.04	0.05
Mulletts	0.62	0.40	0.59	0.73	0.57	0.66	0.57	0.56	0.76	0.61
Oysters	2.25	2.41	2.13	2.16	2.10	2.17	2.45	2.50	2.75	3.15
Shrimp	1.61	1.42	1.42	1.74	1.51	1.31	1.07	1.04	1.30	1.09
Snapper, Red	1.75	2.08	1.90	2.10	2.22	2.16	2.30	2.47	2.71	2.70
Snapper, Vermilion	1.85	1.97	1.80	1.85	1.86	1.73	1.80	1.81	1.93	2.09
Tunas	2.46	2.40	1.98	3.11	2.92	3.02	2.97	3.33	3.35	3.29

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	76	65	64	94	118	94	104	139	128	176
Private / Rental	2,221	1,862	1,979	2,722	2,646	2,251	3,295	3,446	2,639	3,381
Shore	889	746	579	935	851	674	872	1,209	1,159	934
Total Trips	3,185	2,673	2,621	3,752	3,615	3,019	4,271	4,795	3,926	4,491

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	471	434	409	552	593	484	727	757	703	868
Non-Coastal	49	41	33	67	67	68	79	138	67	108
Out of State	96	106	91	118	137	117	204	207	136	198
Total Anglers	616	581	533	737	797	669	1,011	1,102	906	1,174

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	26,252	171,761	Fishing Tackle	338,010
Shore	3,237	46,964	Other Equipment	164,311
For-Hire	25,761	24,803	Boat Expenses	1,735,710
Total Trip Expenditures	55,250	243,528	Vehicle Expenses	137,566
			Second Home Expenses	177,939
			Total Durable Equipment Expenditures	2,553,534
Total State Trip and Durable Equipment Expenditures				2,852,312

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	2,444	259,884	127,820
Shore Mode Trip Impacts	644	61,757	31,175
Party/Charter Mode Trip Impacts	822	78,151	44,374
Total Durable Equipment Impacts	22,702	1,982,242	995,965
Total State Trip and Durable Equipment Economic Impacts	26,612	2,382,034	1,199,333

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Drum (Atlantic Croaker)	H	576	407	369	958	532	281	379	405	528	914
	R	1,367	923	1,037	2,967	1,157	1,055	1,011	2,011	919	1,411
Drum, Black	H	357	401	351	679	446	511	485	509	314	389
	R	843	747	401	1,079	828	885	834	904	525	657
Drum, Red	H	1,831	1,427	1,763	2,774	2,652	2,042	2,143	2,349	1,554	2,254
	R	3,373	2,953	2,663	3,866	3,380	3,277	3,545	3,103	2,445	3,848
Drum (Sand Seatrout)	H	831	851	999	1,257	449	599	983	601	773	1,161
	R	604	409	402	610	205	506	302	419	204	651
Drum (Southern Kingfish)	H	84	81	160	153	145	105	159	309	335	153
	R	122	41	110	67	180	23	63	112	286	166
Drum (Spotted Seatrout)	H	6,703	4,996	7,025	9,616	7,698	5,270	7,318	8,082	7,317	13,230
	R	6,910	4,863	6,089	6,726	4,007	3,862	7,484	7,794	7,046	10,644
Flounder, Southern	H	324	230	380	388	258	272	407	475	290	387
	R	68	53	41	71	65	48	115	102	64	80
Porgies (Sheepshead)	H	670	478	322	389	326	607	805	1,174	867	474
	R	689	468	266	384	453	433	520	525	482	507
Snapper, Red	H	150	131	80	98	55	47	71	83	104	201
	R	94	99	198	112	48	40	166	240	308	438
Tuna, Yellowfin	H	(1)	5	7	3	14	8	14	8	14	11
	R	(1)	(1)	1	(1)	1	(1)	(1)	(1)	2	(1)

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

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	100,667 (1.45%)	1,577,220 (1.46%)	40,802 (1.23%)	70,219 (1.18%) (2001) ¹	118,085 (1.36%)	1.84 (2001) ²
2005	102,790 (1.37%)	1,617,507 (1.39%)	50,658 (1.13%)	82,858 (1.18%)	180,336 (1.46%)	2.28 (2006) ²
% change	2.1	2.6	24.2	18.0	52.7	23.9

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	148	165	172	170	185	208	204	156
	Receipts	13,155	13,847	11,806	12,586	15,201	22,637	18,148	14,585
Seafood product preparation & packaging	Firms	44	46	39	58	66	73	75	76
	Receipts	4,593	3,050	3,466	2,918	3,006	4,678	10,097	8,513

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	90	89	88	88	123	109	111	106
	Employees	478	502	438	518	640	796	745	723
	Payroll	4,934	4,954	5,162	5,636	7,033	9,406	9,567	8,277
Seafood sales, wholesale	Establishments	176	163	162	164	152	134	133	128
	Employees	1,264	1,354	1,187	1,245	1,270	1,001	975	1,037
	Payroll	18,886	19,741	21,717	23,053	22,363	19,539	19,639	17,649
Seafood product preparation & packaging	Establishments	59	56	56	50	50	54	54	50
	Employees	1,582	1,755	1,282	1,141	1,185	1,693	1,519	1,556
	Payroll	34,819	34,496	45,285	48,331	52,861	56,562	47,016	43,801

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	34	35	34	31	28	25	22	25
	Employees	769	900	F	860	647	831	705	F
	Payroll	26,650	32,851	F	37,269	29,432	43,634	38,949	F
Coastal & Great Lakes freight transportation	Establishments	141	137	131	118	109	160	148	136
	Employees	7,513	6,672	5,925	5,689	5,494	6,779	6,656	5,771
	Payroll	265,831	238,036	239,195	267,470	236,730	287,415	300,547	294,941
Marine cargo handling	Establishments	67	59	59	58	47	47	47	46
	Employees	2,898	3,343	3,183	3,313	3,089	3,784	3,278	3,263
	Payroll	94,749	94,890	94,375	102,484	114,659	131,274	127,896	110,129
Navigational services to shipping	Establishments	162	155	142	142	148	118	127	120
	Employees	3,610	3,434	3,288	3,614	3,371	2,738	2,472	2,136
	Payroll	122,977	118,525	120,337	133,061	135,223	112,412	109,008	96,202
Ship & boat building	Establishments	129	117	121	116	113	113	113	111
	Employees	15,572	14,596	14,023	13,643	12,786	12,910	13,206	11,016
	Payroll	471,197	457,339	434,510	477,137	448,749	452,315	460,606	376,407
Marinas	Establishments	79	78	74	74	57	53	52	53
	Employees	466	F	F	F	345	409	F	352
	Payroll	9,284	F	F	F	8,724	11,019	F	10,213
Port and harbor operations	Establishments	17	18	18	19	15	13	18	18
	Employees	1,415	1,769	1,413	1,292	1,136	363	F	418
	Payroll	47,768	48,919	49,875	51,443	47,191	18,331	F	19,510

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	204,521	103,734	4,712
Commercial Harvesters	44,502	13,576	895
Seafood Processors and Dealers	31,192	15,577	611
Seafood Wholesalers and Distributors	11,119	5,489	109
Retail Sectors	117,708	69,092	3,097

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	47,740	48,398	48,607	58,747	50,635	47,563	46,147	43,619	23,383	21,737
Finfish & Other	11,617	11,216	14,035	13,702	14,435	12,626	12,394	10,485	7,802	8,955
Shellfish	36,123	37,182	34,572	45,045	36,200	34,937	33,753	33,134	15,581	12,782
Crab, Blue	463	432	682	637	391	572	687	658	433	928
Flounders	54	94	164	184	131	63	49	32	20	36
Menhaden	9,022	9,051	11,965	11,922	13,252	11,625	11,277	9,564	7,074	8,447
Mulletts	391	166	366	167	114	22	34	54	38	23
Oysters	5,309	3,813	4,457	6,113	4,195	4,456	7,228	6,073	1,447	0
Shrimp	30,348	32,935	29,433	38,294	31,614	29,910	25,619	26,353	13,698	11,854
Snapper, Red	440	415	146	220	106	100	88	71	115	ND ¹
Snapper, Vermilion	216	230	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	180,429	210,721	267,586	217,763	213,920	217,966	213,462	183,555	167,609	221,828
Finfish & Other	163,869	191,618	249,379	198,558	194,883	197,688	190,727	161,667	158,720	212,209
Shellfish	16,560	19,103	18,207	19,205	19,037	20,278	22,735	21,888	8,889	9,619
Crab, Blue	685	593	923	840	434	717	877	811	429	1,127
Flounders	38	54	93	110	84	46	31	18	10	16
Menhaden	150,373	181,021	239,297	190,168	192,467	195,371	187,956	159,392	157,194	211,163
Mulletts	474	319	522	256	233	64	94	128	99	66
Oysters	3,500	2,389	2,793	3,548	2,653	2,738	4,042	3,029	610	0
Shrimp	12,374	16,120	14,490	14,814	15,949	16,822	17,560	17,992	7,848	8,491
Snapper, Red	240	209	79	103	52	46	43	35	54	ND ¹
Snapper, Vermilion	130	138	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab, Blue	0.68	0.73	0.74	0.76	0.90	0.80	0.78	0.81	1.01	0.82
Flounders	1.43	1.75	1.75	1.68	1.56	1.35	1.57	1.73	1.88	2.22
Menhaden	0.06	0.05	0.05	0.06	0.07	0.06	0.06	0.06	0.05	0.04
Mulletts	0.83	0.52	0.70	0.65	0.49	0.34	0.36	0.42	0.38	0.35
Oysters	1.52	1.60	1.60	1.72	1.58	1.63	1.79	2.00	2.37	0
Shrimp	2.45	2.04	2.03	2.58	1.98	1.78	1.46	1.46	1.75	1.40
Snapper, Red	1.84	1.98	1.85	2.15	2.04	2.17	2.06	2.05	2.13	ND ¹
Snapper, Vermilion	1.66	1.67	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹

¹ND = data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Party / Charter	65	35	40	27	18	21	24	12	8	7
Private / Rental	585	472	427	568	676	542	748	592	463	666
Shore	350	321	339	498	556	475	405	485	419	325
Total Trips	999	828	806	1,093	1,250	1,038	1,177	1,089	891	998

Recreational Anglers by Residential Area (thousands of anglers)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal	105	82	76	161	198	175	159	195	107	143
Non-Coastal	33	25	26	30	48	52	53	29	30	23
Out of State	91	68	75	57	82	49	48	54	38	27
Total Anglers	229	175	177	248	327	276	261	278	176	193

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	573	15,079	Fishing Tackle	51,396
Shore	712	3,536	Other Equipment	12,439
For-Hire	450	707	Boat Expenses	21,126
Total Trip Expenditures	1,735	19,322	Vehicle Expenses	421,791
			Second Home Expenses	0
			Total Durable Equipment Expenditures	506,750
Total State Trip and Durable Equipment Expenditures				527,807

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	154	17,777	8,520
Shore Mode Trip Impacts	43	4,114	2,051
Party/Charter Mode Trip Impacts	20	1,764	994
Total Durable Equipment Impacts	3,514	466,846	177,885
Total State Trip and Durable Equipment Economic Impacts	3,731	490,501	189,450

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Drum (Atlantic Croaker)	H	341	90	209	192	238	206	197	215	30	53
	R	801	604	398	540	818	937	701	351	158	233
Drum (Kingfishes) ²	H	233	276	537	497	490	278	327	316	198	178
	R	57	69	70	27	154	118	61	87	83	47
Drum, Red	H	80	64	56	56	60	60	50	59	33	70
	R	244	144	73	77	132	117	186	130	77	102
Drum (Sand and Silver Seatrout)	H	488	559	1,380	1,053	1,150	866	666	404	267	422
	R	108	131	241	197	288	111	330	109	149	221
Drum (Spotted Seatrout)	H	314	332	378	217	308	372	276	447	352	520
	R	393	444	378	409	638	559	832	745	783	1,046
Flounder, Southern	H	152	118	132	93	275	142	119	103	69	44
	R	6	20	18	20	51	48	67	46	40	26
Mullet, Striped ³	H	177	16	154	232	383	212	550	241	31	5
	R	21	(1)	9	9	516	12	65	1	(1)	4
Porgies (Sheepshead)	H	171	71	29	43	95	69	77	47	30	30
	R	42	39	19	11	127	62	27	24	22	21
Sharks ⁴	H	35	19	5	26	24	13	10	7	7	4
	R	25	84	26	163	65	118	59	46	39	44
Snapper, Red	H	110	39	30	9	21	43	39	16	1	5
	R	350	107	36	40	61	166	90	79	47	32

¹In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = less than 1000 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: "Requiem Shark Family," "Unidentified Sharks," Blacktip Sharks, and Atlantic Sharpnose Sharks. Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	59,771 (0.86%)	937,023 (0.87%)	21,067 (0.64%)	38,081 (0.64%) (2001) ¹	60,513 (0.70%)	1.69 (2001) ²
2005	60,542 (0.81%)	926,952 (0.80%)	25,796 (0.58%)	45,491 (0.65%)	79,786 (0.64%)	1.96
% change	1.3	-1.1	22.4	19.5	31.8	16.0

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	44	41	52	F	51	51	47	41
	Receipts	2,027	2,394	1,665	F	2,486	2,984	3,595	2,934
Seafood product preparation & packaging	Firms	F	F	10	13	15	23	18	12
	Receipts	F	F	1,300	1,186	915	1,561	1,056	1,045

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	19	18	12	17	28	19	17	21
	Employees	45	F	F	45	F	47	55	57
	Payroll	551	F	F	356	F	468	532	521
Seafood sales, wholesale	Establishments	32	32	30	28	29	26	29	30
	Employees	217	223	232	226	226	176	166	145
	Payroll	3,554	3,805	3,716	4,056	3,791	3,067	3,631	1,822
Seafood product preparation & packaging	Establishments	33	37	37	33	34	37	33	28
	Employees	3,483	4,335	4,339	4,053	3,675	4,438	3,728	3,637
	Payroll	55,274	69,197	73,350	65,237	70,792	80,229	66,047	63,957

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	1	1	2	1	1	2	2	3
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	6	6	5	5	5	5	6	5
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	12	10	9	9	7	4	5	6
	Employees	505	F	300	315	251	F	F	F
	Payroll	11,907	F	9,261	10,478	9,284	F	F	F
Navigational services to shipping	Establishments	10	10	8	8	8	10	9	8
	Employees	209	F	61	F	F	F	F	F
	Payroll	6,380	F	2,360	F	F	F	F	F
Ship & boat building	Establishments	26	23	24	24	26	21	19	17
	Employees	13,798	14,059	12,358	11,531	11,663	F	F	11,845
	Payroll	472,369	461,139	462,533	465,845	473,191	F	F	471,243
Marinas	Establishments	16	17	14	17	18	22	22	25
	Employees	117	F	F	F	86	141	220	158
	Payroll	1,507	F	F	F	1,388	2,532	2,603	2,358
Port and harbor operations	Establishments	M	2	1	1	1	1	2	2
	Employees	M	F	F	F	F	F	F	F
	Payroll	M	F	F	F	F	F	F	F

F = Data is suppressed due to confidentiality restrictions. M = Data is not available.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	2,152,819	1,061,434	46,861
Commercial Harvesters	290,768	108,564	3,270
Seafood Processors and Dealers	311,888	91,945	2,638
Seafood Wholesalers and Distributors	142,673	68,057	1,277
Retail Sectors	1,407,489	792,868	39,677

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	213,786	210,838	221,439	293,605	218,019	173,342	168,316	166,205	172,335	197,292
Finfish & Other	10,020	9,204	9,536	9,106	7,636	9,600	9,041	10,682	10,812	11,359
Shellfish	203,766	201,634	211,903	284,499	210,383	163,742	159,275	155,523	161,523	185,933
Crab, Blue	4,347	4,549	4,295	3,301	3,905	4,523	3,157	2,663	2,410	1,459
Croacker, Atlantic	161	200	306	315	385	451	489	382	415	500
Drum, Black	3,320	2,816	2,743	2,350	1,703	1,820	1,365	1,444	1,917	2,013
Flounders	342	423	603	322	249	371	336	325	276	164
Groupers	189	330	480	374	405	664	1,028	785	795	628
Oysters	11,451	8,282	13,820	13,847	11,146	11,276	16,493	14,954	15,883	17,263
Shrimp	187,836	188,670	193,621	267,112	195,006	147,701	139,485	137,674	143,045	167,108
Snapper, Red	2,790	2,633	2,680	2,786	2,945	3,363	3,757	5,193	5,345	6,168
Snapper, Vermilion	569	648	598	498	456	386	349	611	571	642
Tunas	1,098	697	1,081	1,331	617	1,190	720	0	340	0

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

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	92,852	103,564	92,922	110,519	97,394	93,061	96,121	85,557	84,286	117,131
Finfish & Other	8,283	6,572	6,459	6,154	5,133	6,067	5,238	5,853	5,780	5,826
Shellfish	84,569	96,992	86,463	104,365	92,261	86,994	90,883	79,704	78,506	111,305
Crab, Blue	7,084	6,989	6,472	4,653	5,163	7,037	4,811	3,961	3,119	1,966
Croacker, Atlantic	31	40	52	52	62	70	75	60	58	67
Drum, Black	3,866	2,691	2,838	2,837	2,320	2,331	1,677	1,717	2,077	2,212
Flounders	187	218	288	160	121	173	159	151	144	68
Groupers	97	162	237	182	187	274	416	329	303	220
Oysters	4,687	3,438	6,411	6,188	4,700	4,708	6,813	5,569	5,007	4,923
Shrimp	72,723	86,482	73,483	93,420	82,290	75,158	79,166	70,098	70,310	104,378
Snapper, Red	1,645	1,247	1,306	1,300	1,384	1,478	1,607	2,133	1,940	2,158
Snapper, Vermilion	303	339	316	251	242	217	192	322	279	273
Tunas	450	310	473	446	209	430	275	0	112	0

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Crab, Blue	0.61	0.65	0.66	0.71	0.76	0.64	0.66	0.67	0.77	0.74
Croacker, Atlantic	5.12	5.02	5.90	6.09	6.21	6.46	6.49	6.35	7.14	7.43
Drum, Black	0.86	1.05	0.97	0.83	0.73	0.78	0.81	0.84	0.92	0.91
Flounders	1.82	1.94	2.10	2.02	2.06	2.14	2.12	2.15	1.92	2.42
Groupers	1.95	2.04	2.02	2.06	2.17	2.43	2.47	2.39	2.62	2.85
Oysters	2.44	2.41	2.16	2.24	2.37	2.40	2.42	2.69	3.17	3.51
Shrimp	2.58	2.18	2.63	2.86	2.37	1.97	1.76	1.96	2.03	1.60
Snapper, Red	1.70	2.11	2.05	2.14	2.13	2.27	2.34	2.43	2.76	2.86
Snapper, Vermilion	1.88	1.91	1.89	1.98	1.89	1.78	1.82	1.90	2.05	2.35
Tunas	2.44	2.25	2.29	2.98	2.95	2.76	2.62	0.80	3.04	0.69

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	Residents		
Private Boat	18,597	434,337	Fishing Tackle	139,194
Shore	21,671	317,954	Other Equipment	72,600
For-Hire	10,352	104,907	Boat Expenses	815,017
Total Trip Expenditures	50,620	857,198	Vehicle Expenses	263,777
			Second Home Expenses	979,782
			Total Durable Equipment Expenditures	2,270,369
Total State Trip and Durable Equipment Expenditures				3,178,187

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	5,855	672,547	359,403
Shore Mode Trip Impacts	4,487	490,817	265,002
Party/Charter Mode Trip Impacts	2,113	194,106	108,196
Total Durable Equipment Impacts	21,720	2,839,540	1,422,290
Total State Trip and Durable Equipment Economic Impacts	34,175	4,197,011	2,154,891

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

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Drum (Atlantic Croaker)	H	233	187	115	170	218	108	96	94	97	96
Drum, Black	H	85	49	48	101	135	64	78	60	56	76
Drum, Red	H	206	184	250	245	211	179	232	214	213	266
Drum (Sand Seatrout)	H	160	100	155	199	58	129	92	133	124	83
Drum (Spotted Seatrout)	H	940	904	1,275	992	983	845	799	763	842	1,017
Flounder, Southern	H	67	81	129	61	61	65	81	81	53	46
Mackerel, King	H	86	40	37	32	17	23	24	27	20	43
Porgies (Sheepshead)	H	40	51	56	37	30	51	41	35	46	33
Snapper, Red	H	106	107	53	57	62	77	52	53	68	86

Note: Effort (number of trips) and participation (number of anglers) data was not available for Texas. To calculate trip expenditure estimates, effort by fishing mode was estimated based on 2006 NMFS data and these effort estimates were reviewed by the Texas Parks & Wildlife Department. To calculate angler expenditure estimates, participation estimates were based on the sum of saltwater licenses sold in Texas plus a proportion of combination licenses sold in Texas.

¹Data collected by the Texas Parks and Wildlife Department (TPWD) is reported in this table. The data collected by the TPWD differs from the data collected and reported in the Marine Recreational Fisheries Statistics Survey (MRFSS; currently called the Marine Recreational Information Program or MRIP). Please see the TPWD website for more information.

State Economy (% of national total)						
	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Fishing Location Quotient
1998	462,875 (6.67%)	7,570,820 (7.00%)	229,186 (6.93%)	424,133 (7.15%) (2001) ¹	629,209 (7.25%)	0.60 (2001) ²
2005	497,758 (6.64%)	8,305,102 (7.14%)	315,809 (7.05%)	502,317 (7.16%)	989,333 (8.00%)	0.34 (2006) ²
% change	7.5	9.7	37.8	18.4	57.2	-43.3

Seafood Sales and Processing – Non-Employer Firms and Annual Receipts (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	188	172	165	159	152	170	159	159
	Receipts	12,935	14,023	14,386	13,079	13,516	16,636	19,131	19,534
Seafood product preparation & packaging	Firms	76	86	85	108	104	99	100	108
	Receipts	5,188	5,008	5,596	5,575	3,901	5,234	1,989	2,228

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	56	56	60	63	73	67	60	59
	Employees	264	258	271	295	287	227	219	176
	Payroll	5,258	5,132	4,863	3,908	3,748	2,985	2,993	3,162
Seafood sales, wholesale	Establishments	112	112	113	129	115	99	103	97
	Employees	1,074	1,155	1,187	1,102	999	1,057	1,009	1,001
	Payroll	31,318	32,576	32,857	33,552	29,430	27,016	27,730	26,408
Seafood product preparation & packaging	Establishments	20	26	31	29	27	23	24	23
	Employees	1,043	1,165	1,305	1,506	1,453	1,274	1,177	1,288
	Payroll	17,707	19,037	24,374	24,507	25,772	25,426	24,394	23,842

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (thousands of dollars)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	57	54	44	43	45	48	41	43
	Employees	3,812	F	1,759	1,130	1,287	F	891	F
	Payroll	179,749	F	58,832	61,830	70,194	F	38,553	F
Coastal & Great Lakes freight transportation	Establishments	39	33	32	37	39	43	43	61
	Employees	F	F	846	1,071	866	2,705	2,565	F
	Payroll	F	F	43,979	49,992	42,377	88,033	91,995	F
Marine cargo handling	Establishments	63	60	51	54	56	59	60	60
	Employees	4,364	4,227	5,047	4,725	4,549	5,091	4,539	5,200
	Payroll	90,074	75,033	99,615	100,101	113,894	108,142	138,630	151,522
Navigational services to shipping	Establishments	109	103	99	96	95	92	92	87
	Employees	1,063	F	969	1,129	1,082	1,099	1,213	1,064
	Payroll	49,493	F	47,475	55,549	49,825	60,714	68,741	75,914
Ship & boat building	Establishments	119	115	125	122	110	107	103	99
	Employees	4,934	3,686	3,402	3,599	3,360	4,062	4,204	3,564
	Payroll	136,772	110,317	117,071	135,405	137,129	156,565	163,800	156,259
Marinas	Establishments	201	194	186	185	179	170	165	166
	Employees	1,158	1,198	1,221	1,107	1,255	1,410	F	F
	Payroll	27,150	26,044	26,051	29,083	28,471	31,197	F	F
Port and harbor operations	Establishments	9	10	10	11	13	16	15	15
	Employees	F	F	141	F	F	F	215	F
	Payroll	F	F	6,875	F	F	F	7,128	F

F = Data is suppressed due to confidentiality restrictions.

¹Employee Compensation data is currently available from 2001-2005.

²Commercial Fishing Location Quotient data is available from 2001-2006 for most states. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

Page intentionally left blank

Data Sources



Data Sources

Management Context

Excess Harvesting Capacity in U.S. Fisheries, A Report to Congress. April 28, 2008. National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries).
http://www.nmfs.noaa.gov/msa2007/docs/042808_312_b_6_report.pdf

“Status of U.S. Fisheries.” [Accessed 29 September 2008] Office of Sustainable Fisheries, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries).
<http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm>

“Endangered Species Act (ESA).” Office of Protected Resources, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). <http://www.nmfs.noaa.gov/pr/laws/esa/>

“Certified Fisheries.” [Accessed 30 September 2008] Marine Stewardship Council.
<http://www.msc.org/>

Fishery Management Councils and Fishery Management Plans

Caribbean Fishery Management Council. [Accessed 4 August 2008]
<http://www.caribbeanfmc.com/>

Gulf of Mexico Fishery Management Council. [Accessed 4 August 2008]
<http://www.gulfcouncil.org/>

Mid-Atlantic Fishery Management Council. [Accessed 4 August 2008]
<http://www.mafmc.org/mid-atlantic/mafmc.htm>

New England Fishery Management Council. [Accessed 4 August 2008]
<http://www.nefmc.org/>

North Pacific Fishery Management Council. [Accessed 4 August 2008]
<http://www.fakr.noaa.gov/npfmc/>

Pacific Fishery Management Council. [Accessed 4 August 2008]
<http://www.pcouncil.org/>

South Atlantic Fishery Management Council. [Accessed 4 August 2008]
<http://www.safmc.net/>

Western Pacific Fishery Management Council. [Accessed 4 August 2008]
<http://www.wpcouncil.org/>

Commercial Fisheries

Data for New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, North Pacific, and Pacific regions:

Commercial Landings Database. [Accessed 19 May 2008] Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries).
<http://www.st.nmfs.noaa.gov/st1/commercial/index.html>

Data for Western Pacific region:

Western Pacific Fisheries Information Network (WPacFIN). [Obtained 30 June 2008]
http://www.nmfs.hawaii.edu/wpacfin/hi/dar/Pages/hi_data_menu.php

Salmon data, California and Washington, Pacific region:

Pacific Fisheries Information Network (PacFIN). [Obtained 27 July 2008] (Primary differences between the Commercial Landings Database, NMFS Office of Science & Technology, and PacFIN is that the PacFIN database does not include kelp, seaweed, and some shellfish species.) <http://www.psmfc.org/pacfin/website.disclaimers.caveats>

Pacific cod, flatfish, Atka mackerel, walleye pollock, rockfish, and sablefish data, North Pacific region:

Alaska Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [Obtained 30 July 2008] <http://www.afsc.noaa.gov/>

Clam data, Gulf of Mexico region:

Southeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [Obtained 16 July 2008] <http://www.sefsc.noaa.gov/>

Additional information:

“Data Caveats.” [Accessed 30 September 2008] Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). <http://www.st.nmfs.noaa.gov/st1/commercial/landings/caveat.html>

“NOAA Fisheries Economics & Social Sciences Program.” [Accessed 30 September 2008] Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). <http://www.st.nmfs.noaa.gov/st5/index.html>

Recreational Fishing

Data for New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, and Western Pacific regions:

“Recreational Fishery Statistics Queries.” [Accessed 13 June 2008] Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). <http://www.st.nmfs.noaa.gov/st1/recreational/queries/index.html>

Data for California, Oregon, and Washington Pacific region:

Southwest Fisheries Science Center (Santa Cruz, CA), National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [Obtained 13 June 2008] <http://swfsc.noaa.gov/default1.aspx?Division=FED&id=554>

Data for Alaska, North Pacific region:

Alaska Department of Fish & Game. [Obtained 30 July 2008] <http://www.adfg.state.ak.us/>

Data for Texas, Gulf of Mexico region:

Texas Parks & Wildlife Department. [Obtained 13 June 2008] <http://www.tpwd.state.tx.us/>

The Marine Economy

“County Business Patterns Data Series.” [Accessed 2 August 2007] U.S. Census Bureau. <http://www.census.gov/epcd/cbp/index.html>

Data Sources

"Gross Domestic Product by State." [Accessed 9 June 2008] Bureau of Economic Analysis.
<http://www.bea.gov/bea/regional/gsp/>

"Location Quotient Calculator." [Accessed 9 June 2008] Bureau of Labor Statistics.
http://data.bls.gov/LOCATION_QUOTIENT/servlet/lqc.ControllerServlet

"Nonemployer Statistics." [Accessed 2 August 2007] U.S. Census Bureau.
<http://www.census.gov/epcd/nonemployer/>

Resources



Selected publications by NOAA Fisheries Economics & Social Sciences Program Staff

U.S.

Commercial Fisheries Economics Research

Curtis, R. and D. Squires, eds. 2007. Fisheries Buybacks. Blackwell Publishing: Oxford, United Kingdom. 288p.

Kirkley, J.E., Walden, J.B., and J.M. Ward. 2007. The status of USA's commercial fisheries and management and crystal-balling the future. *International Journal of Global Environmental Issues*, 7(2/3): 119-136.

Terry, J.M. 2007. An assessment of the use of capacity analysis in U.S. federal fishery management. *Marine Resource Economic*, 22: 99-103.

Branch, T., Hilborn, R., Haynie, A.C., Fay, G., Flynn, L., Griffiths, J., Marshall, K., Randall, J.K., Scheuerell, J.M., Ward, E.J., and M. Young. 2006. Fleet dynamics and fishermen behavior: lessons for fisheries managers. *Canadian Journal of Fisheries & Aquatic Sciences*, 63(7): 1647-1668. Available at: <http://www.fish.washington.edu/research/MPAM/Pubs/Branchetal2006.pdf>

Grafton, Q., Kirkley, J., Kompas, T., and D. Squires. 2006. *Economics for Fisheries Management*. Ashgate Publishing.

Grafton, R.Q., Arnason, R., Bjørndal, T., Campbell, D., Campbell, H., Clark, C.W., Connor, R., Dupont, D., Hannesson, R., Hilborn, R., Kirkley, J., Kompas, T., Lane, D., Munro, G., Pascoe, S., Squires, D., Steinshamn, S., Turris, B., and Q. Weninger. 2006. Incentive-based approaches to sustainable fisheries. *Canadian Journal of Fisheries and Aquatic Sciences*, 63(3): 699-710.

Kerstens, K., Squires, D., and N. Vestergaard. 2006. Methodological reflections on the short-run Johansen industry model in relation to capacity management. *Marine Resource Economics*, 20(4): 425-443.

Kerstens, K., Vestergaard, N., and D. Squires. 2006. A short-run Johansen industry model for common-pool resources: planning a fishery's industrial capacity to curb overfishing. *European Review of Agricultural Economics*, 33(3):1-29.

Kirkley, J.E., Ward, J., Nance, J., Patella, F., Brewster-Geisz, K., Rogers, C., Thunberg, E., Walden, J., Daspit, W., Stenberg, B., Freese, S., Hastie, J., Holiman, S., and M. Travis. 2006. *Reducing Capacity in U.S. Managed Fisheries*. NOAA Technical Memorandum NMFS-F/SPO-76.

Seung, C. and E. Waters. 2006. A review of regional economic models for fisheries management in the U.S. *Marine Resource Economics*, 21(1): 101-124.

Edwards, S.F. 2005. Ownership of multi-attribute fishery resources in Large Marine Ecosystems. Pp. 137-154 in T. Hennessey and J. Sutinen, eds. *Sustaining Large Marine Ecosystems: The Human Dimension*. Elsevier: New York.

Agar, J. and J.G. Sutinen. 2004. Rebuilding strategies for multispecies fisheries: a stylized bioeconomic model. *Environmental and Resource Economics*, 29(1): 1-29.

Edwards, S.F., Link, J.S., and B.P. Rountree. 2004. Portfolio management of wild fish stocks. *Ecological Economics*, 49(3): 317-329.

Felthoven, R.G. 2004. Methods for estimating fishing capacity with routinely collected data: a comparison. *Review of International Fisheries Law and Policy*, 1(2): 125-137.

Felthoven, R.G. and C.J. Morrison Paul. 2004. Directions for productivity measurement in fisheries. *Marine Policy*, 28: 161-169.

Kirkley, J.E., Walden, J., and J. Waters. 2004. Buyback programs: goals, objectives, and industry restructuring in fisheries. *Journal of Agricultural & Applied Economics*, 36(2): 333-345.

Ward, J., Mace, P., and E. Thunberg. 2004. The relationship of fish harvesting capacity to excess capacity and overcapacity. *Marine Resource Economics*, 19(4): 525-529.

Edwards, S.F. 2003. Property rights to multi-attribute fishery resources. *Ecological Economics*, 44(2-3): 309-323.

Kitts, A.W. and **S.F. Edwards**. 2003. Cooperatives in fisheries: realizing the potential of the Fishermen's Collective Marketing Act. *Marine Policy* 27: 357-366.

Curtis, R.E. and C. Sarmiento. 2002. Identification of economies of scope in a stochastic production environment. *Canadian Journal of Agricultural Economics*, 50(3): 257-267.

Fox, K.J., Grafton, R.Q., Kirkley, J., and **D. Squires**. 2002. *Property Rights in a Fishery: Regulatory Change and Firm Performance*. *Economics and Environment Network Working Paper*. Australian National University.

Grafton, R.Q. and **D. Squires**. 2002. A property-rights perspective of efficiency: privatizing the commons. Pp. 83-100 in *Efficiency in the Public Sector*, K.J. Fox, ed. Dordrecht and London: Boston, Massachusetts.

Kirkley, J., Morrison Paul, C., and **D. Squires**. 2002. Capacity and capacity utilization in common-pool resource industries: definition, measurement, and a comparison of approaches. *Environmental and Resource Economics*, 22(1-2): 71-97.

Recreational Fisheries Economics Research

Gentner, B. 2007. Sensitivity of angler benefit estimates from a model of recreational demand to the definition of the substitute sites considered by the angler. *Fishery Bulletin*, 105: 161-167.

Johnston, R.J., Ranson, M.H., Besedin, E.Y., and **E.C. Helm**. 2006. What determines willingness to pay per fish? A meta-analysis of recreational fishing values. *Marine Resource Economics*, 21(1): 1-32.

Leeworthy, V.R., Bowker, J.M., **Hospital, J.D.**, and E.A. Stone. 2005. *Projected Participation in Marine Recreation: 2005 & 2010*. Silver Spring, Maryland: Special Projects, NOS 164 pp.
<http://marineconomics.noaa.gov/NSRE/NSREForecast.pdf>

Kline, J.D., Alig, R.J., and **B. Garber-Yonts**. 2004. Forestland social values and open space preservation. *Journal of Forestry*, 102(8): 39-45.

Leeworthy, V.R., Wiley, P.C., and **J.D. Hospital**. 2004. *Importance-Satisfaction Ratings Five-year Comparison, SPA & ER Use, and Socioeconomic and Ecological Monitoring Comparison of Results 1995-96 to 2000-01*. Silver Spring, Maryland: Special Projects, NOS, 59p. Available on-line at: <http://marineconomics.noaa.gov/SocmonFK/impsat.pdf>

Steinback, S., Gentner, B. and J. Castle. 2004. *The Economic Importance of Marine Angler Expenditures in the U.S.* NOAA Professional Paper NMFS 2, p. 169.

Gentner, B. and A. Lowther. 2002. Evaluating marine sport fisheries in the USA. Pp. 186-206 in *Recreational Fisheries: Ecological, and Economic, and Social Evaluation*. T.J. Pitcher and C.E. Hollingsworth, eds. Blackwell Science, Oxford.

Hicks, R.L., **Gautam, A.B., Van Voorhees, D., Osborn, M., and B. Gentner**. 2000. Thalassorama: an introduction to the NMFS Marine Recreational Fisheries Statistics Survey with an emphasis on economic valuation. *Marine Resource Economics*, 14(2): 375-385.

Sociocultural Research

Clay, P.M. and **J. Olson**. 2008. Defining "fishing communities": vulnerability and the Magnuson-Stevens Fishery Conservation and Management Act. *Human Ecology Review*, 15(2): 143-160.

Abbott-Jamieson, S. 2007. Using oral history techniques in a NOAA Fisheries Service (NMFS) education and outreach project: pressing local fisheries knowledge, linking generations, and improving environmental literacy. *NAPA Bulletin*, 28(1): 136-147.

Resources

- Clay, P.M. and J. Olson. 2007. Defining fishing communities: issues in theory and practice. *NAPA Bulletin*, 28(1): 27-42.
- Ingles, P. and J. Sepez. 2007. Anthropology's contributions to fisheries management. *NAPA Bulletin*, 28(1): 1-12.
- Sepez, J., Norman, K., and R. Felthoven. 2007. A quantitative model for ranking and selecting communities most involved in commercial fisheries. *NAPA Bulletin*, 28(1): 43-56.
- Colburn, L.L., Abbott-Jamieson, S., and P.M. Clay. 2006. Anthropological applications in the management of federally managed fisheries: context, institutional history, and prospectus. *Human Organization*, 65(3): 231-239.
- Pollnac, R.B., Abbott-Jamieson, S., Smith, C., Miller, M.L., Clay, P.M., and B. Oles. 2006. Toward a model for fisheries social impact assessment. *Marine Fisheries Review*, 68(1-4): 1-18.
- Olson, J. 2005. Re-placing the space of community: a story of cultural politics, policies, and fisheries management. *Anthropological Quarterly*, 78(1): 233-254.
- Sepez, J. 2005. Introduction to traditional environmental knowledge in federal natural resource management agencies. *Practicing Anthropology*, 27(1): 1-48.
- Sepez, J. and H. Lazrus. 2005. Traditional environmental knowledge in federal natural resource management agencies. *Practicing Anthropology*, 27(1): 1-48.
- Sepez, J. 2002. Treaty rights and the right to culture: Native American subsistence issues in US law. *Cultural Dynamics*, 14(2): 143-159.

Marine Protected Areas Research

- Field, J.C., Punt, A.E., Methot, R.D., and C.J. Thomson. 2006. Does MPA mean "major problem for assessments"? Considering the consequences of place-based management systems. *Fish and Fisheries*, 7: 284-302.
- Curtis, R.E. and K.E. McConnell. 2004. Incorporating information and expectations in fishermen's spatial decisions. *Marine Resource Economics*, 19: 131-143.
- Holland, D.S., Sanchirico, J.N., Curtis, R.E., and R.L. Hicks. 2004. An introduction to spatial modeling in fisheries economics. *Marine Resource Economics*, 19(1): 1-6.
- Carter, D.W. 2003. Protected areas in marine resource management: another look at the economics and research issues. *Ocean and Coastal Management*, 46(5): 439-456.

Climate Change Research

- Dalton, M., O'Neill, B.C., Prskawetz, A., Jiang, L., and J. Pitkin. 2008. Population aging and future carbon emissions in the United States. *Energy Economics*, 30(2): 642-675.
- Hannesson, R., Barange, M., and S.F. Herrick Jr., eds. 2006. *Climate Change and the Economics of the World's Fisheries*. Edward Elgar, U.K.
- Dalton, M. 2002. Synthesizing trends of the twentieth century: population and climate change. *Climatic Change*, 55: 409-412.

U.S. Territories and International Research

- Griffith et al., 2007. *Entangled Communities: Socioeconomic Profiles of Fishers, Their Communities, and Their Responses to Marine Protective Measures in Puerto Rico*. J.J. Agar and B. Stoffle, eds. NOAA Technical Memorandum NMFS-SEFSC-556, 524 p.

Impact Assessment Inc. 2007. *Community Profiles and Socioeconomic Evaluations of Marine Conservation Districts: St. Thomas and St. John, U.S. Virgin Islands*. J.J. Agar and B. Stoffle, eds. NOAA Technical Memorandum NMFS-SEFSC-557, 123 p.

Miller, M.M., McClellan, D.B., Wiener, J.W., and B. Stoffle. 2007. Comment: apparent rapid fisheries escalation at a remote Caribbean island. *Environmental Conservation*, 34(2):1-3.

Jeon, Y., Ishak, O., Kuperan, K., Squires, D., and I. Susilowati. 2006. Developing country fisheries and technical efficiency: the Java Sea purse seine fishery. *Applied Economics*, 38(13): 1541-1552.

Agar, J.J., Shivlani, M., Waters, J.R., Valdes-Pizzini, M., Murray, T., Kirkley, J., and D. Suman. 2005. *U.S. Caribbean Fish Trap Fishery Costs and Earnings Study*. NOAA Technical Memorandum NMFS-SEFSC-534, 127p.

Squires, D., Grafton, R., Alam, F. and O. Ishak. 2003. Technical efficiency of the Malaysian artisanal gill net fishery. *Environment and Development Economics*, 8: 481-504.

Squires, D., Ishak, O., Jeon, Y., Kirkley, J., Kuperan, K., and I. Susilowati. 2003. Excess capacity and sustainable development in Java Sea fisheries. *Environment and Development Economics*, 8(1): 105-127.

Vestergaard, N., Squires, D., and J. Kirkley. 2003. Measuring capacity and capacity utilization in fisheries: the case of the Danish gill-net fleet. *Fisheries Research*, 60: 357-368.

Vestergaard, N., Squires, D., Jensen, F., and J.L. Andersen. 2003. Technical efficiency of the Danish trawl fleet: are the industrial vessels better than others? *Nationaløkonomisk Tidsskrift (Danish Journal of Economics)*, 141: 225-242.

Alam, F., Ishak, O., and D. Squires. 2002. Sustainable fisheries development in the tropics: trawlers and license limitation in Malaysia. *Applied Economics*, 34(3): 325-337.

Dupont, D., Grafton, R.Q., Kirkley, J., and D. Squires. 2002. Capacity utilization measures and excess capacity in multi-product privatized fisheries. *Resource and Energy Economics*, 24(3): 193-210.

Kuperan, K., Ishak, O., Jeon, Y., Kirkley, J., Squires, D., and I. Susilowati. 2002. A fishing capacity and fishing skill in developing country fisheries: the Kedah, Malaysia trawl fishery. *Marine Resource Economics*, 16(4): 293-313.

Squires, D., Grafton, R. Quentin, A., Mohammed, F., and I.H. Omar. 2002. *Technical Efficiency in the Malaysian Gill Net Artisanal Fishery*. Economics and Environment Network Working Paper. Australian National University.

North Pacific

Commercial Fisheries Economics Research

Layton, D.F. and S.T. Lee. 2006. Embracing model uncertainty: strategies for response pooling and model averaging. *Environmental and Resource Economics*, 34(1): 51-85.

Seung, C. and E. Waters. 2005. A Review of Regional Economic Models for Alaska Fisheries. Alaska Fisheries Science Center Processed Report 2005-01. National Marine Fisheries Service, U.S. Department of Commerce.

Felthoven, R.G. and C.J. Morrison Paul. 2004. Multi-output, non-frontier primal measures of capacity and capacity utilization. *American Journal of Agricultural Economics*, 86(3): 615-629.

Felthoven, R.G., Hiatt, T. and J.M. Terry. 2004. Measuring fishing capacity and utilization with commonly available data: an application to Alaskan fisheries. *Marine Fisheries Review*, 64(4): 29-39.

Felthoven, R.G. 2002. Effects of the American Fisheries Act on capacity, utilization and technical efficiency. *Marine Resource Economics*, 17(3): 181-205.

Resources

Felthoven, R.G., Hiatt, T., and **J.M. Terry**. 2002. Quantitative Estimates of Fishing Capacity, Capacity Utilization, and Fishery Utilization for Alaskan Commercial Fisheries, 2001. National Marine Fisheries Service, Alaska Fisheries Science Center.

Seafood Marketing & Trade Research

Seung, C. and E. Waters. 2006. The role of the Alaska seafood industry: a social accounting matrix (SAM) model approach to economic base analysis. *The Annals of Regional Science*, 40(2): 335-360.

Sociocultural Fisheries Research

Norman, K., Sepez, J., Lazrus, H., Milne, N., Package, C., Russell, S., Grant, K., Petersen, R., Primo, J., Styles, M., Tilt, B., and I. Vaccaro. 2007. Community Profiles for West Coast and North Pacific Fisheries - Washington, Oregon, California, and other U.S. States. NOAA Technical Memorandum, NMFS-NWFSC-85, 602p.

Sepez, J., Norman, K., and **R. Felthoven**. 2007. A quantitative model for ranking and selecting communities most involved in commercial fisheries. *NAPA Bulletin*, 28(1): 43-56.

Poole, A. and **J. Sepez**. 2006. Distribution and abundance of human populations in the Bering Sea and Aleutian Islands." Pp. 255-276 in 2005 North Pacific Groundfish Stock Assessment and Fishery Evaluation Reports for 2006, Economic Status of the Groundfish Fisheries Off Alaska, 2006, Terry Hiatt, ed. Alaska Fisheries Science Center: Seattle, Washington.

Poole, A. and **J. Sepez**. 2006. Historic and current human population trends in the Bering Sea and Aleutian Islands. Pp. 323-326 in 2005 North Pacific Groundfish Stock Assessment and Fishery Evaluation Reports for 2006, Appendix, Ecosystem Considerations for 2006, Jennifer Boldt, ed. Alaska Fisheries Science Center: Seattle, Washington.

Sepez, J., Norman, K., Poole, A., and B. Tilt. 2006. Fish scales: scale and method in social science research for North Pacific and West Coast fishing communities. *Human Organization*, 65(3): 280-293.

Lazrus, H. and **J. Sepez**. 2005. The NOAA Fisheries Alaska Native Traditional Knowledge Database. *Practicing Anthropology*, 27(1): 33-37.

Sepez, J., Tilt, B., Package, C., Lazarus, H., and I. Vaccaro. 2005. Community Profiles for North Pacific Fisheries - Alaska. U.S. Department of Commerce, NOAA Tech. Memo. NMFS-AFSC-160, 552p.

Package, C. and **J. Sepez**. 2004. Fishing communities of the North Pacific: social science research at the Alaska Fisheries Science Center. AFSC Quarterly Report, April-May-June 2004, available online at: <http://www.afsc.noaa.gov/Quarterly/amj2004/amj04featurelead.htm>

Sepez, J. 2003. Makah. In *Dictionary of American History*, 3rd Edition. Charles Scribner's Sons, New York.

Pacific

Commercial Fisheries Economics Research

Herrick, Jr. S.F., Norton, J. G., Mason, J. E., and C. Bessey. 2007. Management application of an empirical model of sardine-climate regime shifts. *Marine Policy*, 31: 71-80.

Grafton, R.Q., Hannesson, R., Shallard, B., Sykes, D., and **J. Terry**. 2006. The economics of allocation in tuna Regional Fisheries Management Organizations. Australian National University Economics and Environment Network Working Paper EEN0612. Available on-line at: http://een.anu.edu.au/download_files/een0612.pdf.

Thomson, C.J., VenTresca, D., and D. Colpo. 2007. Logbook Pilot Program for California's Nearshore Groundfish Fishery: Results and Lessons Learned. NOAA Tech. Memo. NOAA-NMFS-SWFSC-408.

- Tomberlin, D.** and G. Holloway. 2007. Trip-Level Analysis of Efficiency Changes in Oregon's Deepwater Trawl Fishery. FEEM Natural Resource Management Working Paper 145. Available at: <http://www.feem.it/NR/rdonlyres/D979B12A-C04A-47C1-8542-A7EDA3FD5DE3/2413/8607.pdf>
- Squires, D.**, Joseph, J., and T. Groves. 2006. Tuna resource management: buybacks in transnational fisheries. *Pacific Economic Bulletin*, 21(3): 63-74.
- Squires, D.**, Jeon, Y., Kim, T., and R. Clarke. 2006. Price linkages in Pacific tuna markets: implications for the South Pacific tuna treaty and the Western and Central Pacific region. *Environment and Development Economics*, 11(6): 747-767.
- Herrick, S.F.**, K. Hill and C. Reiss. 2006. An optimal harvest policy for the recently renewed United States Pacific sardine fishery. Pp. 126-150 in *Climate Change and the Economics of the World's Fisheries*, R. Hannesson, M. Barange, and S. Herrick, eds. Edward Elgar, U.K.
- Holloway, G. and **D. Tomberlin**. 2006. Bayesian ranking and selection of fishing boat efficiencies. *Marine Resource Economics*, 21(4): 415-432.
- Plummer, M.L.** 2006. The grand unified theory of natural resource economics: a special case. Pp. 150-160 in *Explorations in Environmental & Natural Resource Economics: Essays in Honor of Gardner M. Brown*, D.F. Layton and R. Halvorsen, eds. Edward Elgar.
- Holloway, G., **Tomberlin, D.**, and X. Irz. 2005a. Hierarchical analysis of production efficiency in a coastal trawl fishery. In: *Applications of Simulation Methods in Environmental and Resource Economics*, A. Alberini and R. Scarpa, eds. Boston: Kluwer Academic Press.
- Holloway, G., **Tomberlin, D.**, and X. Irz. 2005b. Hierarchical analysis of production efficiency in a coastal trawl fishery. Pp. 159-185 in *The Economics of Non-market Goods and Resources series, Volume 6*. Springer: Dordrecht and New York.
- Reid, C., Kirkley, J., **Squires, D.**, and J. Ye. 2005. An analysis of the fishing capacity of the global tuna purse seine fleet. Pp. 117-156 in *Management of Tuna Fishing Capacity: Conservation and Socio-economics*. Rome: Food and Agriculture Organization of the United Nations.
- Bosetti, V. and **D. Tomberlin**. 2004. Real Options Analysis of Fishing Fleet Dynamics: A Test. FEEM Natural Resource Management Working Paper 102. Fondazione Eni Enrico Mattei (FEEM): Milan.
- Dalton, M.** and S. Ralston. 2004. The California Rockfish Conservation Area and groundfish trawlers at Moss Landing Harbor. *Marine Resource Economics*, 19(1): 67-83.
- Haraden, J., **Herrick, S.**, **Squires, D.**, and C. Tisdell. 2004. Economic benefits of dolphins in the United States Eastern Tropical Pacific purse seine tuna industry. *Environmental and Resource Economics*, 28: 451-468.
- Kirkley, J., Morrison, P., Catherine, J., and **D. Squires**. 2004. Deterministic and stochastic capacity estimation for fishery capacity reduction. *Marine Resource Economics*, 19(3): 271-294.
- Fox, K., Grafton, R., Kirkley, J., and **D. Squires**. 2003. Property rights in a fishery: regulatory change and firm performance. *Journal of Environmental Economics and Management*, 46(1): 156-177.
- Kirkley, J., **Squires, D.**, Alam, F., and H.O. Ishak. 2003. Excess capacity and asymmetric information in developing country fisheries: the Malaysian purse seine fishery. *American Journal of Agricultural Economics*, 85(3): 647-662.
- Reid, C., **Squires, D.**, Jeon, Y., Clarke, L., and R. Clarke. 2003. Fishing capacity of tuna purse seine vessels in the Western and Central Pacific Ocean. *Marine Policy*, 27(6): 449-469.
- Dalton, M.G.** 2001. El Nino, expectations, and fishing effort in Monterey Bay, California. *Journal of Environmental Economics & Management*, 42(3): 336-359.

Resources

Thomson, C.J. 2001. Human ecosystem dimension. Pp. 47-66 in: California's Living Marine Resources: A Status Report, W. Leet et al., eds. California Department of Fish and Game.

Viswanathan, K.K., Omar, I.H., Jeon, Y., Kirkley, J., **Squires, D.**, and I. Susilowati. 2001. Fishing skill in developing country fisheries: the Kedah, Malaysia trawl fishery. *Marine Resource Economics*, 16(4): 293-314.

Campbell, H., **Herrick, S.**, and **D. Squires**. 2000. The role of research in fisheries management: the conservation of dolphins in the Eastern Tropical Pacific and the exploitation of southern bluefin tuna in the Southern Ocean. *Ocean Development and International Law*, 31(4): 347-375.

Grafton, R.Q., **Squires, D.**, and K.J. Fox. 2000. Private property and economic efficiency: a study of a common-pool resource. *Journal of Law and Economics*, 43(2): 679-713.

Recreational Fisheries Economics Research

Layton, D.F. and **S.T. Lee**. 2006. From ratings to rankings: the econometric analysis of stated preference ratings data. Pp. 224-244 in *Explorations in Environmental & Natural Resource Economics: Essays in Honor of Gardner M. Brown*, D.F. Layton, and R. Halvorsen, eds. Edward Elgar.

Lew, D.K. and D. Larson. 2005a. Accounting for stochastic shadow values of time in discrete-choice recreation demand models. *Journal of Environmental Economics & Management*, 50(2): 341-361.

Larson, D.M. and **D.K. Lew**. 2005. Measuring the utility of ancillary travel: revealed preferences in recreation site demand and trips taken. *Transportation Research*, 39(2-3): 237-55.

Gentner, B., **Steinback, S.**, and M. Price. 2001. Marine Angler Expenditures in the Pacific Coast Region, 2000. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-F/SPO-49.

Coastal & Marine Recreation Research

Lew, D.K. and D.M. Larson. 2005b. Valuing recreation and amenities at San Diego County beaches. *Coastal Management*, 33(1): 71-86.

Garber-Yonts, B.E., Kerkvliet, J., and R. Johnson. 2004. Public values for biodiversity conservation policies in the Oregon Coast Range. *Forest Science*, 50(5): 589-602.

Habitat Economics Research

Hildner, K.K. and **C.J. Thomson**. 2007. Using the California Habitat Restoration Project Database to estimate habitat restoration costs for ESA-listed salmonids. NOAA Tech. Memo. NOAA-TM-NMFS-SWFSC-403.

Hildner, K.K. and **C.J. Thomson**. 2007. Salmon Habitat Restoration Cost Modeling: Results and Lessons Learned. NOAA Tech. Memo. NOAA-TM-NMFS-SWFSC-404.

Ish, T. and **D. Tomberlin**. 2007. Simulation of Surface Erosion on a Logging Road in the Jackson Demonstration State Forest. U.S. Forest Service General Technical Report PSW-GTR-194, pp. 457-463.

Plummer, M.L. 2007. Welcome to the data-poor real world: incorporating benefit-cost principles into environmental policymaking. *Research in Law and Economics*, 23: 103-130.

Tomberlin, D. and V. Bosetti. 2006. An Iterative Finite Difference Approach to Project Valuation under Multiple, Interacting Options. NOAA Tech. Memo. NOAA-TM-NMFS-SWFSC-389.

O'Hanley, J. and **Tomberlin, D.** 2005. Optimizing the removal of small fish passage barriers. *Environmental Modeling and Assessment*, 10(2):85-98.

Plummer, M.L. 2005. The economic evaluation of stream and watershed restoration projects in *Methods for Monitoring Stream and Watershed Restoration*, P. Roni, ed. American Fisheries Society, Bethesda, Maryland, pp. 313-330.

Sociocultural Research

Norman, K., Sepez, J., Lazrus, H., Milne, N., Package, C., Russell, S., Grant, K., Petersen, R., Primo, J., Styles, M., Tilt, B., and I. Vaccaro. 2007. Community Profiles for West Coast and North Pacific Fisheries - Washington, Oregon, California, and other U.S. States. NOAA Technical Memorandum, NMFS-NWFSC-85, 602p.

Sepez, J., Norman, K., and R. Felthoven. 2007. A quantitative model for ranking and selecting communities most involved in commercial fisheries. *NAPA Bulletin*, 28(1): 43-56.

Western Pacific

Commercial Fisheries Economics Research

Pan, M., and A. Griesemer. 2006. Economic Analysis of Bottomfish Fishing Vessels Operating in the Northwestern Hawaiian Islands in 2003. Pacific Islands Fisheries Science Center Administrative Report, H-06-03, 12 p.

Cai, J., Leung, P.S., **Pan, M.,** and **S. Pooley.** 2005. Economic linkage impacts of Hawaii's longline fishing regulations. *Fisheries Research*, 74(1-3): 232-242.

Cai, J., Leung, P.S., **Pan, M.,** and **S. Pooley.** 2005. Linkage of Fisheries Sector to Hawaii's Economy and Economic Impacts of Longline Fishing Regulations. SOEST Publication 05-01, JIMAR Contribution 05-355, 24 pp.

O'Malley, J.M. and **S.G. Pooley.** 2002. Economic and Operational Characteristics of the Hawaii-based Longline Fleet in 2000. SOEST Publication 03-01, JIMAR Contribution 03-348, 31 pp.

O'Malley, J.M. and **S.G. Pooley.** 2002. A Description and Economic Analysis of Large American Samoa Longline Vessels. SOEST Publication 02-2, JIMAR Contribution 02-345, 24 pp.

Pan, M., Leung, P., and **S.G. Pooley.** 2001. A decision support model for fisheries management in Hawaii: a multilevel and multiobjective programming approach. *North American Journal of Fisheries Management*, 21: 293-309.

Porter, R.M., Wendt, M., **Travis, M.D.,** and I. Strand. 2001. Cost-earnings Study of the Atlantic-based U.S. Pelagic Longline Fleet. SOEST Publication 01-02, JIMAR Contribution 01-337, 102 pp.

Curtis, R. and R.L. Hicks. 2000. The cost of sea turtle preservation: the case of Hawaii's pelagic longliners. *American Journal of Agricultural Economics*, 82(5): 1191-1197.

Kawamoto K.E. and **S.G. Pooley.** 2000. Annual Report of the 1998 Western Pacific Lobster Fishery (with preliminary 1999 data). Southwest Fish. Sci. Cent. Admin. Rep. H-00-02, 38p. Available on-line at: http://www.pifsc.noaa.gov/adminrpts/2000-present/SWFC_Admin_Report_00-02.pdf

Pan, M., Leung, P.S., Ji, F., Nakamoto, S.T., and **S.G. Pooley.** 2000. A Multilevel and Multiobjective Programming Model for the Hawaii Fishery: Model Documentation and Application Results. JIMAR Contribution 99-324, University of Hawaii.

Recreational Fisheries Economics Research

Curran, D., Dalzell, P., Schultz, J., O'Malley, J., and **S. Pooley.** 2006. Recreational Metadata: Using Tournament Data to Describe a Poorly Documented Pelagic Fishery. SOEST Publication 06-03, JIMAR Contribution 06-363, 40p.

Pan, M., Griesemer, A., and R.J. Mamiit. 2006. Economic assessment of open fishing tournament in Hawaii. *Newsletter* Volume 11, Number 2, Pelagic Fisheries Program, University of Hawaii.

Resources

Sociocultural Research

Allen, S. and A. Gough. 2007a. Hawaii Longline Fishermen's Experiences with the Observer Program. U.S. Dept. Commerce, NOAA Tech. Memo. NOAA-TM-NMFS-PIFSC-8, 39 p.

Allen, S. and A. Gough. 2007b. Filipino crew community in Hawai'i-based longline fishing fleet. National Association for the Practice of Anthropology (NAPA) Bulletin, 28(1): 87-98.

Allen, S.D. and A. Gough. 2006a. A Sociocultural Assessment of Filipino Crew Members Working in the Hawaii-based Longline Fleet. U.S. Dept. Commerce, NOAA Tech. Memo. NOAA-TM-NMFS-PIFSC-6, 54 p.

Allen, S.D. and A. Gough. 2006b. Monitoring environmental justice impacts: Vietnamese-American longline fishermen adapt to the Hawaii swordfish fishery closure. Human Organization, 65(3): 319-328.

New England

Commercial Fisheries Economics Research

Steinback, S.R. Allen. R.B., and **E. Thunberg.** 2008. The benefits of rationalization: the case of the American lobster fishery. Marine Resource Economics, 23(1): 37-63.

Rountree, B., Kitts, A. and **P. Pinto da Silva.** 2008. Complexities of collaboration in fisheries management: the Northeast US tilefish fishery. In: Case Studies in Fisheries Self-governance, R. Townsend, R. Shotton, and H. Uchida, eds. FAO Fisheries Technical Paper, No. 504. Food and Agriculture Organization of the United Nations: Rome, Italy. 452p.

Färe, R., Kirkley, J., and **J.B. Walden.** 2007. Estimating Capacity and Efficiency in Fisheries with Undesirable Outputs. VIMS Marine Resource Report No. 2007-6. Available at: <http://www.vims.edu/Greylit/VIMS/mrr07-6.pdf>.

Kitts, A., Pinto da Silva, P., and **B. Pollard-Rountree.** 2007. Evolution and outcomes of collaborative management institutions in the NE US tilefish fishery. Marine Policy, 31: 192-200.

Thunberg, E., Kitts, A., and **J. Walden.** 2007. A case study of New England groundfish fishing capacity reduction. Fishery Buybacks, D. Squires and R. Curtis, eds. Blackwell Publishing.

Thunberg, E.M. 2007. Demographic and Economic Trends in the Northeastern United States Lobster (*Homarus americanus*) Fishery, 1970-2005. US Department of Commerce, Northeast Fisheries Science Center Reference Document 07-17. National Marine Fisheries Service, Woods Hole, MA.

Bisack, K.D. and J.D. Sutinen. 2006. Harbor porpoise bycatch: ITQs or time/area closures in the New England gillnet fishery. Land Economics, 82(1): 85-102.

Färe, R., Kirkley, J., and **J.B. Walden.** 2006. Adjusting technical efficiency to reflect discarding: the case of the U.S. Georges Bank multi-species otter trawl fishery. Fisheries Research, 78(2006): 257-265.

Jin, D., Hoagland, P., and **E. Thunberg.** 2006. An analysis of the relationship between fish harvesting and processing sectors in New England. Marine Resource Economics, 21(1): 47-62.

Steinback, S. and **E. Thunberg.** 2006. Northeast Region Commercial Fishing Input-output Model. NOAA Technical Memorandum NMFS-NE-188.

Walden, J.B. 2006. Estimating vessel efficiency using a bootstrapped data envelopment analysis model. Marine Resource Economics, 21(2): 181-192.

Edwards, S.F. 2005a. Accounting for rents in the U.S. Atlantic sea scallop fishery. Marine Resource Economics, 20(1): 61-76.

Edwards, S.F. 2005b. Ownership of multi-attribute fishery resources in Large Marine Ecosystems. Pp. 137-154 in *Sustaining Large Marine Ecosystems: The Human Dimension*, T. Hennessey and J. Sutinen, eds. Elsevier: New York.

Edwards, S.F. 2005c. Rents for the taking: a contemporary history of property rights formation in the U.S. Atlantic sea scallop fishery. Pp. 111-126 in *Evolving Property Rights in Marine Fisheries*, D. Leal, ed. Rowman & Littlefield Publishers: New York.

Edwards, S.F., Link, J.S., and **B.P. Rountree**. 2005. Portfolio management of fish communities in Large Marine Ecosystems. Pp. 181-200 in T. Hennessey and J. Sutinen, eds. *Sustaining Large Marine Ecosystems: The Human Dimension*. Elsevier: New York.

Hoagland, P., Jin, D., **Thunberg, E.**, and **S. Steinback**. 2005. Economic activity associated with the Northeast Shelf Large Marine Ecosystem: application of an input-output approach. Chapter 7 (pp. 157-179) in T.M. Hennessey and J.G. Sutinen, eds., *Sustaining Large Marine Ecosystems: The Human Dimension*. Elsevier B.V.: Amsterdam, The Netherlands.

Jin, D. and **E.M. Thunberg**. 2005. An analysis of fishing vessel accidents in fishing areas off the Northeastern United States. *Safety Science*, 43(8): 523-540.

Steinback, S.R. 2004. Using ready-made regional input-output models to estimate backward-linkage effects of exogenous output shocks. *Review of Regional Studies*, 34(1): 57-71.

Walden, J.B., Kirkley, J.E., and A.W. Kitts. 2003. A limited economics assessment of the Northeast groundfish fishery buyout program. *Land Economics*, 79(3): 426-439.

Edwards, S.F. 2002. Rent-seeking and property rights formation in the U.S. Atlantic sea scallop fishery. *Marine Resource Economics*, 16: 263-275.

Jin, D., Kite-Powell, H.L., **Thunberg, E.M.**, Solow, A.R., and W. K. Talley. 2002. A model of fishing vessel accident probability. *Journal of Safety Research*, 33: 497-510.

Jin, D., **Thunberg, E.**, Kite-Powell, H., and K. Blake. 2002. Total factor productivity change in the New England groundfish fishery: 1964-1993. *Journal of Environmental Economics and Management*, 44: 540-556. Available at: http://www.ksg.harvard.edu/sed/docs/k4dev/jin_et_al_envireconandmgemnt_2002.pdf

Link, J.S., Brodziak, J.K.T., **Edwards, S.F.**, Overholtz, W.J., Mountain, D., Jossi, J.W., Smith, T.D., and M.J. Fogarty. 2002. Marine ecosystem assessment in a fisheries management context. *Canadian Journal of Fisheries and Aquatic Sciences*, 59: 1429-1440.

Thunberg, E.M., Helser, T.E., and R.K. Mayo. 2002. Bioeconomic analysis of alternative selection patterns in the United States Atlantic silver hake fishery. Pp. 431-454 in *Fisheries Economics: Collected Essays, Volume 2*. International Library of Environmental Economics and Policy: Aldershot, United Kingdom.

Kitts, A., **Thunberg, E.**, and J. Robertson. 2000. Willingness to participate and bids in a fishing vessel buyout program: a case study of New England groundfish. *Marine Resource Economics*, 15(3): 221-232.

Steinback, S.R. and **E.M. Thunberg**. 2000. A Method of Analyzing Trip Limits in Northeast Fisheries: A Case Study of the Spiny Dogfish Fishery. Northeast Fisheries Science Center Reference Document 00-06.

Walden, J.B. and J.E. Kirkley. 2000. Measuring Technical Efficiency and Capacity in Fisheries by Data Envelopment Analysis using the General Algebraic Modeling System (GAMS): A Workbook. NOAA Technical Memorandum NMFS-NE-160.

Recreational Fisheries Economics Research

Thunberg, E.M. and **C.M. Fulcher**. 2006. Testing the stability of recreational fishing participation probabilities. *North American Journal of Fisheries Management*, 26: 636-644.

Resources

Salz, R.J., Loomis, D.K., Ross, M.R., and **S.R. Steinback**. 2002. A Baseline Socio-economic Study of Massachusetts' Marine Recreational Fisheries. NOAA Technical Memorandum NMFS-NE-165.

Thunberg, E.M. and J.W. Milon. 2002. Projecting recreational fishing participation. Pp. 63-73 in *Recreational Fisheries Ecological, Economic and Social Evaluation*, T. J. Pitcher and C. Hollingworth, eds. Blackwell Science: Oxford, U.K.

Steinback, S. and **B. Gentner**. 2001. Marine Angler Expenditures in the Northeast Region, 1998. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-F/SPO-4

Marine Protected Areas Research

Wallmo, K. and **S. Edwards**. 2007. Estimating Public Values for Marine Protected Areas in the Northeast: A Latent Class Modeling Approach. NOAA Technical Memorandum NMFS-F/SPO-84. 72p.

Sociocultural Research

Abbott-Jamieson, S. 2007. Using oral history techniques in a NOAA Fisheries Service (NMFS) education and outreach project: pressing local fisheries knowledge, linking generations, and improving environmental literacy. *National Association for the Practice of Anthropology (NAPA) Bulletin*, 28(1): 136-147.

Pinto da Silva, P. and **C. Fulcher**. 2007. Human dimensions of marine fisheries: using GIS to illustrate land-sea connections in the Northeast U.S. herring fishery. *Marine Fisheries Review*, 67(4): 19-25.

Olson, J. 2006. Changing property, spatializing difference: the sea scallop fishery in New Bedford, Massachusetts. *Human Organization*, 65(3): 307-318.

Pinto da Silva, P. 2006. Fishermen at the frontlines of conservation. *The Common Property Resource Digest*. March 2006 Issue.

Pinto da Silva, P. and **A. Kitts**. 2006. Collaborative fisheries management in the Northeast US: emerging initiatives and future directions. *Marine Policy*, 30(6): 832-841.

Ise, J. and **S. Abbott-Jamieson**. 2005. Students gather local fisheries knowledge as part of a NOAA Fisheries education and outreach project. *Practicing Anthropology*, 27(1): 29-32.

Olson, J. and **P.M. Clay**. 2001. An Overview of the Social and Economic Survey Administered During Round II of the Northeast Multispecies Fishery Disaster Assistance Program. NOAA Technical Memorandum NMFS-NE-164. 80p. Available at: <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm164/>

Mid-Atlantic

Commercial Fisheries Economics Research

Steinback, S. and **E. Thunberg**. 2006. Northeast region commercial fishing input-output model. NOAA Technical Memorandum NMFS-NE-188.

Edwards, S.F. 2005a. Accounting for rents in the U.S. Atlantic sea scallop fishery. *Marine Resource Economics*, 20(1): 61-76.

Edwards, S.F. 2005b. Rents for the taking: a contemporary history of property rights formation in the U.S. Atlantic sea scallop fishery. Pp. 111-126 in D. Leal, ed. *Evolving Property Rights in Marine Fisheries*. Rowman & Littlefield Publishers: New York.

Edwards, S.F., Link, J.S., and **B.P. Rountree**. 2005. Portfolio management of fish communities in Large Marine Ecosystems. Pp. 181-200 in T. Hennessey and J. Sutinen, eds. *Sustaining Large Marine Ecosystems: The Human Dimension*. Elsevier: New York.

Hoagland, P., Jin, D., **Thunberg, E.**, and **S. Steinback**. 2005. Economic activity associated with the Northeast Shelf Large Marine Ecosystem: application of an input-output approach. Chapter 7 (pp. 157-179) in T.M. Hennessey and J.G. Sutinen, eds., *Sustaining Large Marine Ecosystems: The Human Dimension*. Elsevier B.V.: Amsterdam, The Netherlands.

Jin, D. and **E.M. Thunberg**. 2005. An analysis of fishing vessel accidents in fishing areas off the Northeastern United States. *Safety Science*, 43(8): 523-540.

Walden, J.B., Kirkley, J.E., and **A.W. Kitts**. 2003. A limited economics assessment of the Northeast groundfish fishery buyout program. *Land Economics*, 79(3): 426-439.

Edwards, S.F. 2002. Rent-seeking and property rights formation in the U.S. Atlantic sea scallop fishery. *Marine Resource Economics*, 16: 263-275.

Jin, D., Kite-Powell, H.L., **Thunberg, E.M.**, Solow, A.R., and W. K. Talley. 2002. A model of fishing vessel accident probability. *Journal of Safety Research*, 33: 497-510.

Link, J.S., Brodziak, J.K.T., **Edwards, S.F.**, Overholtz, W.J., Mountain, D., Jossi, J.W., Smith, T.D., and M.J. Fogarty. 2002. Marine ecosystem assessment in a fisheries management context. *Canadian Journal of Fisheries and Aquatic Sciences*, 59: 1429-1440.

Thunberg, E.M., Helser, T.E., and R.K. Mayo. 2002. Bioeconomic analysis of alternative selection patterns in the United States Atlantic silver hake fishery. Pp. 431-454 in *Fisheries Economics: Collected Essays, Volume 2*. International Library of Environmental Economics and Policy: Aldershot, United Kingdom.

Kirkley, J., Fare, R., Grosskopf, S., McConnell, T., **Squires, D.**, and I. Strand. 2001. Assessing efficiency and capacity in fisheries when data are limited. *North American Journal of Fisheries Management*, 21(3): 482-497.

Steinback, S.R. and **E.M. Thunberg**. 2000. A method of analyzing trip limits in Northeast fisheries: a case study of the spiny dogfish fishery. Northeast Fisheries Science Center Reference Document 00-06.

Recreational Fisheries Economics Research

Massey, D.M., Newbold, S.C., and **B. Gentner**. 2006. Valuing water quality changes using a bioeconomic model of a coastal recreational fishery. *Journal of Environmental Economics & Management*, 52(1): 482-500.

Thunberg, E.M. and **C.M. Fulcher**. 2006. Testing the stability of recreational fishing participation probabilities. *North American Journal of Fisheries Management*, 26: 636-644.

Massey, M., Newbold, S., and **B. Gentner**. 2005. The effects of water quality on coastal recreation flounder fishing. NCEE Working Paper Series #05-03. National Center for Environmental Economics (NCEE), Environmental Protection Agency.

Thunberg, E.M. and J.W. Milon. 2002. Projecting recreational fishing participation. Pp. 63-73 in *Recreational Fisheries Ecological, Economic and Social Evaluation*, T. J. Pitcher and C. Hollingworth, eds. Blackwell Science: Oxford, U.K.

Steinback, S. and **B. Gentner**. 2001. Marine Angler Expenditures in the Northeast Region, 1998. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-F/SPO-4

Sociocultural Research

Olson, J. and **P.M. Clay**. 2001. An Overview of the Social and Economic Survey Administered During Round II of the Northeast Multispecies Fishery Disaster Assistance Program. NOAA Technical Memorandum NMFS-NE-164. 80p. Available at: <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm164/>

Resources

South Atlantic

Commercial Fisheries Economics Research

Perruso, L., Weldon, R. N., and S.L. Larkin. 2005. Predicting optimal targeting strategies in multispecies fisheries: a portfolio approach. *Marine Resource Economics*, 20(1): 25-45.

Thunberg, E.M. 2004. Buyback programs for overcapitalized fisheries: approaches, experiences, and impacts for Southeast fisheries: discussion. *Journal of Agricultural & Applied Economics*, 36(2): 347-349.

Waters, J. R., Rhodes, R. J., and R. Wiggers. 2001. Description of Economic Data Collected with Random Sample of Commercial Reef Fish Boats in the Florida Keys. NOAA Technical Report NMFS 154. NOAA NMFS, Seattle, Washington. 45p.

Recreational Fisheries Economics Research

Gentner, B., Steinback, S., and M. Price. 2001. Marine Angler Expenditures in the Southeast Region, 1999. NOAA Technical Memorandum NMFS-F/SPO-48, U.S. Department of Commerce.

Gulf of Mexico

Commercial Fisheries Economics Research

Perruso, L., Weldon, R. N., and S.L. Larkin. 2005. Predicting optimal targeting strategies in multispecies fisheries: a portfolio approach. *Marine Resource Economics*, 20(1): 25-45.

Weninger, Q. and **J.R. Waters**. 2003. Economic benefits of management reform in the Northern Gulf of Mexico reef fish fishery. *Journal of Environmental Economics and Management*, 46(2): 207-230.

Waters, J.R. 2001. Quota management in the commercial red snapper fishery. *Marine Resource Economics*, 16(1): 65-78.

Recreational Fisheries Economics Research

Oh, C.-O., Ditton, R., **Gentner, B.**, and R. Reichers. 2005. A stated preference choice approach to understanding angler preferences for management options. *Human Dimensions of Wildlife*, 10(3): 173-186.

Sociocultural Research

Ingles, P. and H. McIlvaine-Newsad. 2007. Any port in the storm: the effects of Hurricane Katrina on two fishing communities in Louisiana. *National Association for the Practice of Anthropology (NAPA) Bulletin*, 28(1): 69-86.

Federal Agencies

U.S.

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/g/oes/ocns/>

North Pacific

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/>

Office of Marine Conservation
U.S. Department of State
<http://www.state.gov/g/oes/ocns/>

Pacific

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/>

Office of Marine Conservation
U.S. Department of State
<http://www.state.gov/g/oes/ocns/>

Western Pacific

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/>

Office of Marine Conservation
U.S. Department of State
<http://www.state.gov/g/oes/ocns/>

New England

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/>

Office of Marine Conservation
U.S. Department of State
<http://www.state.gov/g/oes/ocns/>

Mid-Atlantic

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/>

Resources

Northeast Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/northeast/>

District 5, U.S. Coast Guard
<http://www.uscg.mil/D5/>

*Office of Marine Conservation
U.S. Department of State*
<http://www.state.gov/g/oes/ocns/>

South Atlantic

*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/>

*Office of Marine Conservation
U.S. Department of State*
<http://www.state.gov/g/oes/ocns/>

Gulf of Mexico

*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/>

*Office of Marine Conservation
U.S. Department of State*
<http://www.state.gov/g/oes/ocns/>

State Agencies

North Pacific

Alaska Department of Fish & Game
<http://www.adfg.state.ak.us/>

Pacific

Washington Department of Fish & Wildlife
<http://wdfw.wa.gov/>

Oregon Department of Fish & Wildlife
<http://www.dfw.state.or.us/>

California Department of Fish & Game
<http://www.dfg.ca.gov/>

Western Pacific

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://www.asg-gov.net/MARINE%20&%20WILDLIFE%20RESOURCES.htm>

*Division of Fish & Wildlife
Commonwealth of the Northern Mariana Islands*
<http://www.dfw.gov.mp/>

New England

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/>

Mid-Atlantic

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/fgw/>

Pennsylvania Fish & Boat Commission
<http://www.dfg.ca.gov/>

Delaware Division of Fish & Wildlife
<http://www.fw.delaware.gov/>

Fisheries Service
Maryland Department of Natural Resources
<http://www.dnr.state.md.us/fisheries/>

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/>

South Atlantic

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/>

Gulf of Mexico

Division of Marine Fisheries
Florida Fish & Wildlife Conservation Commission
<http://myfwc.com/marine/>

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 and Commissions

North Pacific

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

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>

Western Pacific

Western Pacific Fishery Management Council
<http://www.wpcouncil.org/>

New England

New England Fishery Management Council
<http://www.nefmc.org/>

Atlantic States Marine Fisheries Commission
<http://www.asafc.org/>

Mid-Atlantic

Mid-Atlantic Fishery Management Council
<http://www.mafmc.org/mid-atlantic/mafmc.htm>

Resources

Atlantic States Marine Fisheries Commission
<http://www.asafc.org/>

South Atlantic

South Atlantic Fishery Management Council
<http://www.safmc.net/>

Atlantic States Marine Fisheries Commission
<http://www.asafc.org/>

Gulf of Mexico

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>

Western & Central Pacific Fisheries Commission
<http://www.wcpfc.int/>

International Commission for the Conservation of Atlantic Tunas
<http://www.iccat.es/>

Commission for the Conservation of Antarctic Marine Living Resources
<http://www.ccamlr.org/>

International Maritime Organization
<http://www.imo.org/>

International Pacific Halibut Commission
<http://www.iphc.washington.edu/halcom/default.htm>

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 and Information

The Center for Independent Experts, University of Miami Rosenstiel School of Marine & Atmospheric Science
<http://www.rsmas.miami.edu/groups/cie/>

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/>

Glossary



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.

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.

Buyback Program¹¹

A type of management tool used by fishery managers 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.

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.

Comment: 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.

Coastal County⁸

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 Resident

For this Report, a coastal county resident refers to a recreational fishermen (angler) who is a resident of a given state and living in a county that is considered a coastal county.

Commercial Fishing Location Quotient or 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 (http://data.bls.gov/LOCATION_QUOTIENT/servlet/lqc.ControllerServlet).

Community Development Quota Program or CDP¹

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.

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.

Comment: 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 or Durable Goods⁹

For this Report, this term refers to equipment used for recreational fishing activities. It includes motor boats and accessories, non-motorized boats, boating electronics, mooring, boat storage, boat insurance and vehicles or second homes (vacation homes) used primarily for recreational angling.

Ecolabel or Ecolabelling Scheme⁷

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 conservation and sustainability standards. The logo or statement is intended to make provision for informed decisions of purchasers whose choice can be relied upon to promote and stimulate the sustainable use of fishery resources.

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 Act or ESA¹

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.

Effort

1. For this Report, effort refers to the number of fishing trips or fishing trips taken by recreational fishermen (anglers); 2. The term can also refer to the amount of time and fishing power used to harvest fish in commercial fisheries; includes gear size, boat size, and horsepower. 1

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 or EEZ¹

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

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 is also intended to include commercial invertebrates and plants.

Fish Stock Complex^{1,2}

A group of fish stocks or species with similar geographic distribution, co-occurrence in fisheries, and life history.

Fishery Management Council or Regional Fishery Management Council or FMC¹

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 or FMP¹

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 measures⁵; 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 Community

For this Report, selected fishing community refers to a community with the highest commercial landings by weight in 2006. This definition differs from what is presented in the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1802, Sec. 3(17)). 1A community that is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs. Includes fishing vessel owners, fishing families, operators, crew, recreational fishers, fish processors, gear supplies, and others in the community who depend on fishing.

Fishing Cooperatives^{1,1}

A market-based fisheries management tool where access to fisheries resources is limited to a specific group of fishermen. It is considered a LAPP-like program.

Fishing Day

For this Report, this term 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.

Fishing Mode

For this Report, this refers to the type that a recreational fisherman (angler) engaged in such as fishing from shore, a private or rental boat, or a party or charter boat. These three fishing modes are mentioned in this Report.

Fishing Trip

For this Report, this term 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.

Gross Domestic Product (GDP) by State⁴

Previously known as the Gross State Product (GSP), 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 of fish caught and kept from an area over a period of time. Note that landings, catch, and harvest are different.

Individual Fishing Quota or IFQ¹

A type of limited entry, an allocation to an individual (a person or a legal entity, e.g., 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).

Individual Transferable Quota or ITQ¹

A type of individual fishing quota (IFQ) allocated to individual fishermen or vessel owners that can be transferred (sold or leased) to others.

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, then combined into one of these two industry sectors.

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 or LAPP or Limited Access Privilege System¹³

A system that limits 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 but does not include community development quotas.

License Limitation Program¹

Legally restricting the number of commercial fishermen licensed to fish. Often a management agency uses this as a means of limited entry.

Limited Entry Program

Also known as a license limitation program (see above).

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 or MSA¹

Federal legislation responsible for establishing the 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 Management¹⁰

Research suggests that many commercial fisheries would benefit from a market-based system of management. NOAA will continue to explore these market-based approaches. Such approaches use economic incentives to protect fisheries, as opposed to conventional methods that rely on policies such as gear restrictions and seasonal limits to manage

fisheries. Such a system would maximize yield while empowering fishing communities to control their own financial destiny. One example of a market-based management system is the use of dedicated access privilege programs, such as individual fishing quotas, or IFQs. IFQs are management programs that provide individual fishermen an exclusive, market-based share of the annual harvest quota.

Marine Coastal County

For this Report, a marine coastal county is a coastal county that is adjacent to an ocean coastline.

Non-Coastal County Resident

For this Report, a non-coastal county resident refers to a recreational fishermen (angler) who is a resident of a given state and living in a county that is not considered a coastal county.

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.

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 overfished²; 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." This signpost is often taken as being FMSY, but the usage of the term may not always be consistent.

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 more³; 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.⁵

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 the National Marine Fisheries Service (NMFS). This includes all threatened, endangered, and candidate species, as well as all cetaceans and pinnipeds, excluding walrus.

Race⁶

Race is a self-identification data item in which respondents choose the race or races with which they most closely identify.

Sector Allocation Program¹⁴

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 LAPP-like program. 11

Species¹

Group of animals or plants having common characteristics, able to breed together to produce fertile (capable of reproducing) offspring, and maintaining 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 (e.g. in fishery statistics or commercial categories). (see Species Assemblage)

Species Assemblage¹

Group of species co-occurring in a given area and likely to be caught together in a given gear. (see Species Group)

Value-added¹

The dollar value of a firm's output (i.e. harvest) minus the dollar value of the inputs it purchases from other firms.

Glossary Source Materials

¹NOAA Fisheries Glossary. October 2005. K. Blackhart, D.G. Stanton, and A.M. Shimada, eds. Revised edition, June 2006. NOAA Technical Memorandum NMFS-F/SPO-69. National Oceanic & Atmospheric Administration, U.S. Department of Commerce. Available at: http://www.st.nmfs.gov/st4/documents/F_Glossary.pdf

²"CBP Definitions" (accessed 16 July 2008). County Business Patterns, U.S. Census Bureau, U.S. Department of Commerce. Available at: <http://www.census.gov/epcd/cbp/view/genexpl.html>

Glossary

³“Nonemployer Definitions” (accessed 16 July 2008). Non-employer Statistics, U.S. Census Bureau, U.S. Department of Commerce. Available at: <http://www.census.gov/epcd/non-employer/view/define.html>

⁴“Regional Definitions” (accessed 16 July 2008). Regional Economic Accounts, Bureau of Economic Analysis, U.S. Department of Commerce. Available at: <http://www.bea.gov/regional/definitions>

⁵“Location Quotient Calculator” (accessed 16 July 2008). Bureau of Labor Statistics, U.S. Department of Labor. Available at: http://data.bls.gov/help/def/lq.htm#location_quotient_application

⁶“Glossary” (accessed 16 July 2008). American FactFinder, U.S. Census Bureau, U.S. Department of Commerce. Available at: http://factfinder.census.gov/home/saff/main.html?_lang=en

⁷“Fisheries Glossary” (accessed 16 July 2008). FAO Fisheries Department, United Nations Food & Agriculture Organization. Available at: <http://www.fao.org/fi/glossary/default.asp>

⁸“Coastal Counties” (accessed 16 July 2008). U.S. Census Bureau, U.S. Department of Commerce. Available at: http://www.census.gov/geo/landview/lv6help/coastal_cty.html

⁹P3 in Marine Angler Expenditures in the Northeast Region, 1998. June 2001. Steinback, S. and B. Gentner. NOAA Technical Memorandum NMFS-F/SPO 47. National Marine Fisheries Service, National Oceanic & Atmospheric Administration, U.S. Department of Commerce.

¹⁰“Market-based Management” in “Fisheries Management: Building a Sustainable Future for America’s Fisheries.” National Oceanic & Atmospheric Administration, U.S. Department of Commerce. Available at: <http://celebrating200years.noaa.gov/visions/fisheries/welcome.html#impl>

¹¹Excess Harvesting Capacity in U.S. Fisheries: A Report to Congress. Mandated under Section 312(b)(6) of the Magnuson-Stevens Fishery Conservation and Management Act. April 28, 2008. [Accessed 30 September 2008] National Marine Fisheries Service, National Oceanic & Atmospheric Administration, U.S. Department of Commerce. Available at: www.nmfs.noaa.gov/msa2007/docs/042808_312_b_6_report.pdf

¹²“Status of U.S. Fisheries.” [Accessed 30 September 2008.] Office of Sustainable Fisheries, National Marine Fisheries Service, National Oceanic & Atmospheric Administration, U.S. Department of Commerce. Available at: <http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm>

¹³Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007. (P.L. 94-265, as amended through P.L. 109-479). Available at: <http://www.nmfs.noaa.gov/sfa/magact/>

¹⁴“Sector Allocation as a Management Tool.” [Accessed 30 September 2008] Northeast Sea Grant. Available at: http://seagrant.gso.uri.edu/fisheries/sector_allocation/index.html

