# Fisheries Economics of the United States 2006 

Economics and Sociocultural Status and Trends Series
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National Oceanic and Atmospheric Administration National Marine Fisheries Service


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## 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

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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.

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## 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 activiites 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
. Pacific Fishery Management Council
3. New England Fishery Management Council
4. Mid-Atlantic Fishery Management Council
5. South Atlantic Fishery Management Council
6. Gulf of Mexico Fishery Management Council
7. 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

[^0]
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 reproductivelyisolated 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,

[^1]and sector allocation programs. Collectively, these are 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 <br> Year | Ex-vessel <br> Value <br> (\$ 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 <br> (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 <br> 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.

[^2]
## U.S. Fishery Products with MSC certification

| Region | Fishery | Certified |
| :--- | :--- | :--- |
| North Pacific | Alaska salmon | Sept 2000; <br> Nov 2007 |
| North Pacific | Bering Sea/Aleutian Islands <br> pollock | Feb 2005 |
| North Pacific | Gulf of Alaska pollock | April 2005 |
| North Pacific | Bering Sea/Aleutian Islands <br> Pacific cod | Feb 2006 |
| North Pacific | North Pacific halibut | April 2006 |
| North Pacific | North Pacific sablefish | May 2006 |
| Western <br> Pacific | Pacific albacore tuna - <br> north (American Albacore <br> Fishing Association) | Aug 2007 |
| Western <br> Pacific | Pacific albacore tuna - <br> south (American Albacore <br> 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. Seven ${ }^{7}$ 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 | $\begin{aligned} & 1994 \\ & 1995 \\ & 1998 \\ & \hline \end{aligned}$ | NA | NA |
| Northeast multispecies | $\begin{aligned} & 1995 \\ & 1996 \\ & 2002 \end{aligned}$ | $\begin{aligned} & \$ 1.89 \\ & \$ 22.5 \\ & \$ 10.0 \end{aligned}$ | $\begin{aligned} & \$ 1.89 \\ & \$ 22.5 \\ & \$ 10.0 \\ & \hline \end{aligned}$ |
| 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 |

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

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 LAPPlike 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 19972006 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 scallop at $\$ 5.40$, American lobster at $\$ 3.80$, Pacific halibut at $\$ 1.89$, and sablefish at $\$ 1.87$ had the_highest average annual prices per pound.
- Menhaden and walleye pollock had the lowest average annual ex-vessel prices, $\$ 0.06$ and $\$ 0.10$ per pound, respectively.
- 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 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 Rates ${ }^{8}$

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 Trips ${ }^{9}$

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
${ }^{8}$ Participation 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.
${ }^{9}$ Effort numbers do not include Alaska and Texas. They include Hawaii only for 2003 to 2006. California numbers were estimated differently from 2004 to 2006.
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 $\$ 1.7$ 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 generated the highest economic impacts from recreational fishing in 2006 with $\$ 11.3$ 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 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 marinerelated 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 $\$ 1.2$ million 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total Revenue | $3,578,424$ | $3,195,06$ | $3,687,576$ | $3,846,034$ | $3,388,629$ | $3,333,373$ | $3,468,377$ | $3,774,109$ | $4,033,328$ | $4,103,645$ |
| Finfish \& Other | $1,855,71$ | $1,484,28$ | $1,723,839$ | $1,823,833$ | $1,662,483$ | $1,602,634$ | $1,656,186$ | $1,803,876$ | $1,941,248$ | $2,012,495$ |
| Shellfish | $1,722,70$ | $1,710,77$ | $1,963,737$ | $2,022,201$ | $1,726,146$ | $1,730,739$ | $1,812,191$ | $1,970,233$ | $2,092,080$ | $2,091,150$ |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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) ${ }^{\mathbf{1}}$

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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) ${ }^{\mathbf{1}}$

|  | 1997 | 1998 | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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- $^{2}$ |  | Residents | Fishing Tackle |

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 |  | $\mathbf{H}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Bass, Striped | H | 1,560 | 1,395 | 1,368 | 1,993 | 2,039 | 1,841 | 2,515 | 2,536 | 2,340 | R

[^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 Receipts | $\begin{array}{r} 2,340 \\ 188,031 \end{array}$ | $\begin{array}{r} 2,207 \\ 194,115 \end{array}$ | $\begin{array}{r} 2,161 \\ 188,870 \end{array}$ | $\begin{array}{r} 2,119 \\ 190,629 \end{array}$ | $\begin{array}{r} 2,210 \\ 199,937 \end{array}$ | $\begin{array}{r} 2,346 \\ 210,231 \end{array}$ | $\begin{array}{r} 2,260 \\ 210,450 \end{array}$ | $\begin{array}{r} 2,098 \\ 203,951 \end{array}$ |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 617 \\ 48,658 \\ \hline \end{array}$ | $\begin{array}{r} 693 \\ 55,332 \\ \hline \end{array}$ | $\begin{array}{r} 714 \\ 60,790 \\ \hline \end{array}$ | $\begin{array}{r} 780 \\ 60,417 \\ \hline \end{array}$ | $\begin{array}{r} 903 \\ 55,750 \\ \hline \end{array}$ | $\begin{array}{r} 1,038 \\ 70,071 \\ \hline \end{array}$ | $\begin{array}{r} 1,110 \\ 81,871 \\ \hline \end{array}$ | $\begin{array}{r} 1,080 \\ 78,745 \\ \hline \end{array}$ |

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 |

[^4]North Pacific
Alaska


## 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 19972006; 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 $\simeq 48 \%$ of the average annual total landings revenue.
- The largest annual decrease during the 10 year period was $51 \%$ for Atka mackerel (1997-1998); from 20002001, 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 expendi-
tures in 2006.

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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | Fishing Tackle | 32,481 |
| Private Boat | 51,457 | 28,802 | Other Equipment | 33,249 |
| Shore | 10,035 | 5,217 | Boat Expenses | 79,879 |
| For-Hire | 148,050 | 14,012 | Vehicle Expenses | 59,663 |
| Total Trip Expenditures | 209,542 | 48,031 | Second Home Expenses | 36,274 |
|  |  |  | Total Durable Equipment Expenditures | 241,544 |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{4 9 9 , 1 1 7}$ |

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.

[^5]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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 | 200511 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Seafood sales, retail | Firms | F | F | 7 | 10 | F | 16 | F |  |
|  | Receipts | F | F | 327 | 392 | F | 625 | F | 752 |
| Seafood product preparation \& | Firms | 17 | 20 | 19 | 27 | 25 | 34 | 26 | 17 |
| packaging | 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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^6]${ }^{2} \mathrm{ND}=$ 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 20022003. The largest annual decrease in price was for salmon, dropping 46\% from 2000-2001.


## Landings

From 1997-2006, total landings averaged 1.17 million pounds with a range of 981 million pounds (2003) to a high of 1.34 million 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 19972006 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 20022003. 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 valueadded 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.

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 20042006 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 over 3.1 million trips taken, a $26 \%$ increase from 1997. The number of party/charter and private/ rental boat trips in 2006 declined almost $50 \%$ from 1997 trip numbers. 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 triprelated expenses compared to non-residents who spent $\$ 111$ million. Overall, Pacific anglers spent $\$ 1.4$ billion on boat expenses and $\$ 1.1$ million 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 triprelated 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 <br> Revenue | Total Sales <br> Impacts | Total Income <br> Impacts | Total Employment <br> 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |

[^7]Recreational Fishing Effort by Mode (thousands of trips) ${ }^{1}$

|  | 1997 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| :--- | ---: | ---: | :--- | ---: |
| Private Boat | Non-Residents | Residents | Fishing Tackle | $1,128,949$ |
|  | 37,025 | 107,063 | Other Equipment | 499,916 |
|  | 33,020 | 131,807 | Boat Expenses | $1,445,827$ |
| Total Trip Expenditures | 40,676 | 92,780 | Vehicle Expenses | 786,717 |
|  | 110,721 | 331,650 | Second Home Expenses | 333,540 |
|  |  |  | Total Durable Equipment Expenditures | $4,194,949$ |
| Total Gulf of Mexico Region Trip and Durable Equipment Expenditures |  |  | $\mathbf{4 , 6 3 7 , 3 2 0}$ |  |

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) ${ }^{\mathbf{1}}$

| 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 |

[^8]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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) ${ }^{1}$

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 995,275 |
| Private Boat | 22,856 | 74,359 | Other Equipment | 400,039 |
| Shore | 24,321 | 101,869 | Boat Expenses | 371,485 |
| For-Hire | 35,543 | 74,668 | Vehicle Expenses | 649,882 |
| Total Trip Expenditures | 82,720 | 250,896 | Second Home Expenses | 275,934 |
|  |  |  | Total Durable Equipment Expenditures | $\mathbf{2 , 6 9 2 , 6 1 3}$ |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{3 , 0 2 6 , 2 2 9}$ |

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 |

[^9]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Firms | 223 | 180 | 166 | 157 | 165 | 192 | 193 | 166 |
| Seafood sales, retail | Receipts | 22,725 | 19,315 | 19,270 | 18,138 | 18,225 | 19,771 | 19,092 | 16,892 |
| Seafood product preparation \& packaging | Firms Receipts | 65 7,777 | 61 10,592 | 72 11,405 | 71 12,983 | 70 9,123 | 77 9,858 | 98 14,312 | 88 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 58 | 2,777 | 3,289 | 2,962 | 3,357 | 2,896 | 2,931 | 2,963 |

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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^10]2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

| Total Impacts | Sales Impacts | Income Impacts | Employment Impacts |
| :--- | ---: | ---: | ---: |
| Commercial Harvesters | $1,093,582$ | 586,724 | 21,728 |
| Seafood Processors and Dealers | 120,718 | 63,129 | 1,579 |
| Seafood Wholesalers and Distributors | 125,955 | 47,207 | 1,434 |
| Retail Sectors | 161,694 | 79,585 | 1,548 |

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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Crab | 696,453 | 588,272 | 523,281 | 529,664 | 470,768 | 510,759 | 564,562 | 587,337 | 546,748 | 517,799 |
| Flatfish | 145,237 | 270,127 | 206,231 | 52,372 | 47,192 | 57,878 | 56,955 | 52,642 | 57,310 | 69,002 |
| Hake (Whiting) | 497,428 | 299,374 | 242,001 | 316,616 | 257,080 | 284,718 | 277,327 | 270,348 | 341,204 | 383,111 |
| Oysters | 68,066 | 71,044 | 75,851 | 71,727 | 74,380 | 77,939 | 76,616 | 76,558 | 73,922 | 69,154 |
| Rockfish | 115,616 | 86,790 | 85,276 | 68,005 | 84,754 | 69,858 | 68,984 | 70,893 | 85,701 | 79,845 |
| Sablefish | 130,436 | 112,871 | 113,396 | 98,308 | 125,874 | 83,244 | 99,542 | 108,423 | 129,482 | 130,814 |
| Salmon | $2,556,582$ | $2,752,656$ | $2,325,888$ | $2,606,800$ | $3,178,821$ | $3,333,647$ | $3,361,261$ | $3,353,236$ | $3,410,065$ | $3,400,810$ |
| Sardine, Pacific | 65,181 | 61,561 | 74,431 | 64,484 | 61,718 | 68,054 | 73,495 | 68,399 | 65,513 | 74,316 |
| Shrimp | 38,155 | 36,480 | 33,316 | 35,563 | 31,296 | 32,217 | 35,705 | 39,942 | 37,352 | 33,509 |
| Tuna, Albacore | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crab | 0.20 | 0.17 | 0.27 | 0.30 | 0.27 | 0.27 | 0.27 | 0.23 | 0.26 | 0.36 |
| Flatfish | 1.15 | 0.75 | 1.27 | 2.49 | 2.45 | 2.42 | 2.91 | 2.92 | 2.55 | 1.60 |
| Hake (Whiting) | 0.13 | 0.13 | 0.13 | 0.14 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.18 |
| Oysters | 1.62 | 0.96 | 1.54 | 1.88 | 1.47 | 1.65 | 2.17 | 2.20 | 2.30 | 2.79 |
| Rockfish | 0.14 | 0.15 | 0.15 | 0.14 | 0.12 | 0.13 | 0.13 | 0.20 | 0.16 | 0.09 |
| Sablefish | 0.12 | 0.07 | 0.09 | 0.10 | 0.17 | 0.13 | 0.11 | 0.12 | 0.12 | 0.12 |
| Salmon | 0.10 | 0.07 | 0.09 | 0.11 | 0.11 | 0.11 | 0.09 | 0.10 | 0.12 | 0.13 |
| Sardine, Pacific | 0.17 | 0.13 | 0.14 | 0.17 | 0.14 | 0.16 | 0.16 | 0.18 | 0.25 | 0.27 |
| Shrimp | 2.29 | 1.45 | 1.72 | 2.14 | 1.99 | 2.00 | 2.27 | 1.84 | 2.14 | 2.44 |
| Tuna, Albacore | 0.52 | 0.42 | 0.43 | 0.41 | 0.27 | 0.25 | 0.27 | 0.37 | 0.34 | 0.44 |

Recreational Fishing Effort by Mode (thousands of trips)

|  | 1997 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 35,296 |
| Private Boat | 12,907 | 25,879 | Other Equipment | 30,992 |
| Shore | 3,753 | 10,718 | Boat Expenses | 22,255 |
| For-Hire | 4,036 | 7,280 | Vehicle Expenses | 71,596 |
| Total Trip Expenditures | 20,696 | 43,877 | Second Home Expenses | 28,377 |
|  |  |  | Total Durable Equipment Expenditures | 188,516 |
| 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) |

[^11]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual ${ }^{\text {Payroll ( } \$ \text { millions) }}$ | Employee ( $\$$ millions) | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | Location Quotient $3.38(2001)^{2}$ |
| 1998 | 99,183 (1.43\%) | 1,310,750 (1.21\%) $1,409,576(1.21 \%)$ | 37,723 (1.14\%) $50,019(1.12 \%)$ | $67,370(1.14 \%)(2001)^{1}$ $81,772(1.17 \%)$ | 100,951 (1.16\%) $141,831(1.15 \%)$ | $\frac{3.38(2001)}{} 2.96(2006)^{2}$ |
| \% change |  | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Firms | 17 | 13 | 16 | 14 | 13 | 10 | 11 | 7 |
| Seafood sales, reta | Receipts | 613 | 858 | 628 | 851 | 644 | 428 | 507 | 985 |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 10 \\ 233 \end{array}$ | $\begin{array}{r} 11 \\ 369 \end{array}$ | $\begin{array}{r} 8 \\ 461 \end{array}$ | $\begin{array}{r} 11 \\ 424 \end{array}$ | F | F | F | 9 309 |

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. $\quad M=$ Data is not available.

[^12]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Crab | 27,090 | 25,501 | 26,785 | 27,920 | 30,287 | 36,967 | 35,782 | 41,737 | 48,503 | 54,789 |
| Lobster, Spiny | 31,672 | 24,919 | 39,550 | 38,262 | 37,676 | 37,241 | 56,374 | 29,024 | 50,872 | 43,380 |
| Rockfish | 757 | 618 | 802 | 1,022 | 1,299 | 1,022 | 1,601 | 2,341 | 4,937 | 7,296 |
| Sablefish | 9,914 | 7,053 | 7,986 | 6,729 | 5,760 | 6,777 | 5,991 | 7,264 | 6,512 | 8,232 |
| Salmon | 2,081 | 2,445 | 3,720 | 3,564 | 3,861 | 2,213 | 3,324 | 3,096 | 3,729 | 6,564 |
| Sardine, Pacific | 16,487 | 17,308 | 17,798 | 22,473 | 20,915 | 23,645 | 25,658 | 30,257 | 33,697 | 38,102 |
| Sea Urchins | 9,852 | 3,934 | 5,752 | 6,545 | 5,981 | 4,376 | 6,675 | 6,517 | 7,395 | 8,307 |
| Shrimp | 13,799 | 9,967 | 5,096 | 9,992 | 12,130 | 12,946 | 11,606 | 18,033 | 14,503 | 24,743 |
| Squid | 3,357 | 2,637 | 2,892 | 3,611 | 3,685 | 4,486 | 3,723 | 3,648 | 4,335 | 3,602 |
| Swordfish | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Crab | 2,101 | 1,968 | 2,228 | 2,109 | 2,499 | 3,045 | 3,112 | 3,292 | 3,621 | 4,535 |
| Lobster, Spiny | 15,685 | 13,210 | 19,026 | 17,752 | 19,023 | 21,386 | 34,037 | 14,955 | 32,086 | $24,581 \mid$ |
| Rockfish | 15,971 | 23,177 | 18,698 | 24,399 | 35,593 | 22,564 | 35,124 | 69,117 | 93,654 | 120,058 |
| Sablefish | 3,962 | 4,302 | 3,093 | 2,289 | 2,490 | 2,487 | 1,868 | 2,254 | 1,948 | 1,980 |
| Salmon | 275 | 296 | 332 | 374 | 332 | 214 | 337 | 427 | 504 | 774 |
| Sardine, Pacific | 5,972 | 6,518 | 6,769 | 8,458 | 8,258 | 9,085 | 9,391 | 10,111 | 12,190 | 12,281 |
| Sea Urchins | 5,041 | 2,959 | 4,088 | 3,755 | 3,589 | 2,559 | 3,736 | 4,064 | 4,240 | 4,259 |
| Shrimp | 22,787 | 15,248 | 7,502 | 12,753 | 29,484 | 33,428 | 28,815 | 30,078 | 18,160 | 26,487 |
| Squid | 6,147 | 3,138 | 4,177 | 5,520 | 7,763 | 11,149 | 8,867 | 6,599 | 7,279 | 6,926 |
| Swordfish | 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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 2006 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Crab | 12.89 | 12.96 | 12.02 | 13.24 | 12.12 | 12.14 | 11.50 | 12.68 | 13.40 | 12.08 |
| Lobster, Spiny | 2.02 | 1.89 | 2.08 | 2.16 | 1.98 | 1.74 | 1.66 | 1.94 | 1.59 | 1.76 |
| Rockfish | 0.05 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.03 | 0.05 | 0.06 |
| Sablefish | 2.50 | 1.64 | 2.58 | 2.94 | 2.31 | 2.73 | 3.21 | 3.22 | 3.34 | 4.16 |
| Salmon | 7.56 | 8.26 | 11.21 | 9.52 | 11.62 | 10.32 | 9.87 | 7.26 | 7.40 | 8.48 |
| Sardine, Pacific | 2.76 | 2.66 | 2.63 | 2.66 | 2.53 | 2.60 | 2.73 | 2.99 | 2.76 | 3.10 |
| Sea Urchins | 1.95 | 1.33 | 1.41 | 1.74 | 1.67 | 1.71 | 1.79 | 1.60 | 1.74 | 1.95 |
| Shrimp | 0.61 | 0.65 | 0.68 | 0.78 | 0.41 | 0.39 | 0.40 | 0.60 | 0.80 | 0.93 |
| Squid | 0.55 | 0.84 | 0.69 | 0.65 | 0.47 | 0.40 | 0.42 | 0.55 | 0.60 | 0.52 |
| Swordfish | 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 | Fishing Tackle | 98,378 |
|  | 1,262 | 6,825 | Other Equipment | 68,885 |
| Private Boat | 4,946 | 19,220 | Boat Expenses | $1,052,087$ |
| Shore | 1,097 | 10,832 | Vehicle Expenses | 65,239 |
| For-Hire | 7,305 | 36,877 | Second Home Expenses | 29,229 |
| Total Trip Expenditures |  | Total Durable Equipment Expenditures | $1,313,819$ |  |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{1 , 3 5 8 , 0 0 1}$ |

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 |

[^13]${ }^{2}$ Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

| State Economy (\% of national total) |  |  | Annual Payroll (\$ millions) | Employee <br> Compensation (\$ millions) | Gross State <br> Product (\$ millions) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Establishments | Employees |  |  |  | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Firms | 33 | 28 | 28 | 29 | 30 | 32 | 30 | 31 |
| Seafood sales, retail | Receipts | 1,477 | 1,887 | 2,139 | 2,465 | 2,681 | 1,623 | 2,202 | 1,836 |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 36 \\ 5,455 \\ \hline \end{array}$ | $\begin{array}{r} 32 \\ 1,965 \\ \hline \end{array}$ | 37 3,052 | 41 3,432 | 48 2,763 | 59 5,680 | 53 4,446 | $\begin{array}{r} 54 \\ 5,568 \\ \hline \end{array}$ |

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)

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^14]Western Pacific
Hawaii


## 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.

[^15]

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 20042005, 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.


## 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 valueadded impacts.

## Participation Rates

Overall, the total number of anglers (resident and nonresident) in the Western Pacific region decreased from 440,000 (2003) to 369,000 (2006) anglers, a $16 \%$ drop
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 shorebased 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.

## 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.


## 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
(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.

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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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) ${ }^{\mathbf{1}}$

|  | 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 | Fishing Tackle | 198,844 |  |  |
| Private Boat | 5,672 | 36,197 | Other Equipment | 108,782 |  |  |
| Shore | 4,257 | 83,267 | Boat Expenses | 128,270 |  |  |
| For-Hire | 7,003 | 30 | Vehicle Expenses | 135,316 |  |  |
| Total Trip Expenditures | 16,932 | 119,494 | Second Home Expenses | 43,314 |  |  |
|  |  |  | Total Durable Equipment Expenditures | 614,527 |  |  |
| Total State Trip and Durable Equipment Expenditures |  |  |  |  |  | $\mathbf{7 5 0 , 9 5 3}$ |

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 |  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 2006 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Barracuda (Smallmouth <br> Bonefish) | H |  |  |  |  |  |  | 25 | 61 | 25 | 63 |
|  | R |  |  |  |  |  |  | 4 | 9 | 12 | 2 |
| Dolphinfish (Mahimahi) |  |  |  |  |  |  |  |  |  |  |  | H

[^16]| State Economy (\% of national total) |  |  | Annual Payroll (\$ millions) | Employee <br> Compensation (\$ millions) | Gross State Product (\$ millions) | Commercial Fishing Location Quotient |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Establishments | Employees |  |  |  |  |
| 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)


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


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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions. $\quad \mathrm{M}=$ Data is not available.

[^17]Page intentionally left blank

New England
Connecticut

- Maine
- Massachusetts
- New Hampshire
- Rhode Island



## 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.

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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, Ioligo 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 $\sim 71 \%$ 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 Ioligo 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.

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.


## 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
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 $\$ 1.87$ billion.

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 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 <br> Revenue | Total Sales <br> Impacts | Total Income <br> Impacts | Total Employment <br> Impacts |
| :--- | ---: | ---: | ---: | ---: |
| Connecticut | 36,891 | 339,544 | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 381,671 |
| Private Boat | 32,289 | 103,822 | Other Equipment | 98,514 |
| Shore | 183,834 | 61,773 | Boat Expenses | 360,243 |
| For-Hire | 35,663 | 20,631 | Vehicle Expenses | 582,396 |
| Total Trip Expenditures | 251,786 | 186,226 | Second Home Expenses | 13,306 |
|  |  |  | Total Durable Equipment Expenditures | $\mathbf{1 , 4 3 6 , 1 3 0}$ |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{1 , 8 7 4 , 1 4 2}$ |

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 |  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | 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 |

[^18]${ }^{2}$ This 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 $^{1}$ | 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 | $\mathrm{ND}^{1}$ | 687 | 1,178 | 1,400 | 1,298 | 1,224 | 954 |

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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 $^{1}$ | 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 | 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 | $\mathrm{ND}^{1}$ | 1,026 | 1,778 | 1,572 | 1,699 | 1,537 | 1,157 |

Average Annual Price for Key Species / Species Groups

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | ND $^{1}$ | 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 $^{1}$ | 0.67 | 0.66 | 0.89 | 0.76 | 0.80 | 0.82 |

${ }^{1} \mathrm{NA}=$ data is not available.
${ }^{2} \mathrm{ND}=$ data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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) ${ }^{\mathbf{1}}$

|  | 1997 | 1998 | 1999 | 2000 | 2001 | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | 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 | Fishing Tackle | 137,569 |
|  | 1,083 | 22,679 | Other Equipment | 24,119 |
| Private Boat | 1,079 | 7,739 | Boat Expenses | 178,180 |
| Shore | 718 | 2,503 | Vehicle Expenses | 289,270 |
| For-Hire | 2,880 | 32,921 | Second Home Expenses | 0 |
|  |  |  | Total Durable Equipment Expenditures | 629,141 |
| Total Trip Expenditures |  |  |  | $\mathbf{6 6 4 , 9 4 2}$ |
| Total State Trip and Durable Equipment Expenditures |  |  |  |  |

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) ${ }^{\mathbf{2}}$

| 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 |

[^19]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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)


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


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. $\quad M=$ Data is not available.

[^20]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | 2001 | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 | Fishing Tackle | 30,994 |
| Private Boat | 2,769 | 7,692 | Other Equipment | 14,072 |
| Shore | 44,352 | 3,561 | Boat Expenses | 57,096 |
| For-Hire | 5,366 | 590 | Vehicle Expenses | 26,044 |
| Total Trip Expenditures | 52,487 | 11,843 | 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) |

[^21]| State Economy (\% of national total) |  |  | Annual <br> Payroll (\$ millions) | Employee <br> Compensation (\$ millions) | Gross State Product (\$ millions) | Commercial Fishing Location Quotient |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Establishments | Employees |  |  |  |  |
| 1998 | 38,334 (0.55\%) | 456,715 (0.42\%) | 11,559 (0.35\%) | 22,035 (0.37\%) (2001) | $31,731(0.37 \%)$ $44.906(0.36 \%)$ | $8.09(2001)^{2}$ |
| \% change | 9,4 41.933 (0.56\%) | 497,9 887 (0.43\%) | 15,873 37.3 | 25,869 (0.37\%) 17.4 | 44,906 (0.36\%) 41.5 | 12.43 (2006 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 |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 57 \\ 5,495 \\ \hline \end{array}$ | $\begin{array}{r} 54 \\ 4,154 \\ \hline \end{array}$ | 51 3,657 | 55 6,301 | 50 3,023 | 62 4,699 | 57 5,642 | 52 5,082 |

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


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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions. $\quad \mathrm{M}=$ Data is not available.

[^22]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 |  |
| Seafood Processors and Dealers | 510,127 | 199,899 | 4,505 |
| Seafood Wholesalers and Distributors | 653,370 | 318,443 | 4,272 |
| Retail Sectors | $2,798,785$ | $1,635,139$ | 5,689 |

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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 $^{1}$ | $\mathrm{ND}^{1}$ | 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 | $N^{1}$ | 10,202 |
| Oyster, Eastern | $\mathrm{NA}^{2}$ | 0 | $\mathrm{NA}^{2}$ | $\mathrm{NA}^{2}$ | $\mathrm{NA}^{2}$ | $\mathrm{NA}^{2}$ | $\mathrm{NA}^{2}$ | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 $^{1}$ | $\mathrm{ND}^{1}$ | 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 | $N^{1}$ | 89,535 |
| Oyster, Eastern | $\mathrm{NA}^{2}$ | 0 | $\mathrm{NA}^{2}$ | $\mathrm{NA}^{2}$ | $\mathrm{NA}^{2}$ | $\mathrm{NA}^{2}$ | $\mathrm{NA}^{2}$ | 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 | $N A^{2}$ | 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 |

${ }^{1} \mathrm{ND}=$ data is confidential thus not disclosable.
${ }^{2} \mathrm{NA}=$ data is not available.

Recreational Fishing Effort by Mode (thousands of trips)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 | Fishing Tackle | 141,321 |
| Private Boat | 15,751 | 57,183 | Other Equipment | 38,418 |
| Shore | 109,111 | 40,722 | Boat Expenses | 95,619 |
| For-Hire | 21,594 | 12,935 | Vehicle Expenses | 227,975 |
| Total Trip Expenditures | 146,456 | 110,840 | 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 |

[^23]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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)


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


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 | 14 | 14 | 12 | 10 | 10 | 10 |
|  | Employees | F | 375 | F | F | F | F | F | F |
|  | Payroll | F | 24,000 | F | 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. $\quad M=$ Data is not available.

[^24]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 $^{1}$ | $\mathrm{ND}^{1}$ | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathrm{ND}^{1}$ | 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 | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | 171 | 177 | 100 | 44 | 76 | 3 |
| Shark, Spiny Dogfish | 1,009 | 1,893 | 1,238 | 2,334 | 536 | 349 | 175 | 0 | $\mathrm{ND}^{1}$ | 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 |

[^25]Recreational Fishing Effort by Mode (thousands of trips)

|  | 1997 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 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 | $\mathbf{2 0 0 2}$ | 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 | Fishing Tackle | 16,461 |
| Private Boat | 828 | 5,138 | Other Equipment | 4,538 |
| Shore | 3,770 | 3,117 | Boat Expenses | 7,306 |
| For-Hire | 3,680 | 3,640 | Vehicle Expenses | 13,447 |
| Total Trip Expenditures | 8,278 | 11,895 | Second Home Expenses | 0 |
|  |  |  | Total Durable Equipment Expenditures | 41,750 |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{6 1 , 9 2 3}$ |

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) |

[^26]| State Economy (\% of national total) |  |  | Annual | Employee |  | Commercial Fishing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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\%) | $\mathrm{ND}^{3}$ |
| \% 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Firms | 11 | 7 | 6 | 8 | 9 | 14 | 15 | 11 |
| Seafood sales, retail | Receipts | 735 | 850 | 419 | 1,055 | 862 | 960 | 1,438 | 1,330 |
| Seafood product preparation \& packaging | Firms Receipts | F | F | F | F | F | 7 1,205 | 4 1,147 | 4 842 |

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


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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions. $\quad \mathrm{M}=$ Data is not available.

[^27]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total Revenue | $\mathbf{7 8 , 0 6 2}$ | $\mathbf{7 1 , 9 5 3}$ | 85,997 | 80,918 | 68,618 | 64,658 | 66,023 | 76,252 | 91,578 | 98,575 |
| Finfish \& Other | 3,732 | 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 | $\mathrm{ND}^{1}$ | ND | $\mathrm{ND}^{1}$ | 1,392 | 684 | $\mathrm{ND}^{1}$ | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | 238 | 181 | $\mathrm{ND}^{1}$ | 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 |

[^28]Recreational Fishing Effort by Mode (thousands of trips)

|  | 1997 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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) ${ }^{\mathbf{1}}$

|  | 1997 | 1998 | 1999 | 2000 | 2001 | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | 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 | Fishing Tackle | 55,326 |
| Private Boat | 11,858 | 11,130 | Other Equipment | 17,367 |
| Shore | 25,522 | 6,634 | Boat Expenses | 22,042 |
| For-Hire | 4,305 | 963 | Vehicle Expenses | 25,660 |
| Total Trip Expenditures | 41,685 | 18,727 | Second Home Expenses | 1,799 |
|  |  |  | Total Durable Equipment Expenditures | 122,194 |
| Total State Trip and | able Equipme | Expendit | ures | 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 |

[^29]| State Economy (\% of national total) |  |  | Annual | Employee | Gross State | Commercial Fishing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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 |
| Seafood sales, retail | Receipts | 1,806 | 1,505 | 1,860 | 2,577 | 2,433 | 2,227 | 2,186 | 2,215 |
| Seafood product preparation \& packaging | Firms Receipts | F | F | F | F | F | F | F | 6 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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions. $\quad \mathrm{M}=$ Data is not available.

[^30]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 (\$19 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 19972006 was $120 \%$ for squid (2003-2004). The largest annual drop in revenue was $5 \underline{1 \%}$ 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 exvessel 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 MidAtlantic 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.

## Participation Rates

Recreational anglers from coastal counties in the MidAtlantic region accounted for the majority of the region's anglers. From 1997 to 2006, this group averaged 58\% of all anglers. Out-of-state angers 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-ofstate 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 valueadded 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 MidAtlantic 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 nonemployer 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 MidAtlantic 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 MidAtlantic 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).

[^31]2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

|  | Total Landings <br> Revenue | Total Sales <br> Impacts | Total Income <br> Impacts | Total Employment <br> 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total Landings | 906,338 | 917,066 | $\mathbf{7 5 2 , 6 1 7}$ | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 847,395 |
| Private Boat | 169,604 | 364,030 | Other Equipment | 238,453 |
| Shore | 127,277 | 158,206 | Boat Expenses | 851,778 |
| For-Hire | 59,246 | 77,479 | Vehicle Expenses | 1,414,648 |
| Total Trip Expenditures | 356,127 | 599,715 | 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 |

[^32]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathrm{ND}^{1}$ | $\mathrm{ND}{ }^{1}$ | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | ND | 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 |

[^33]Recreational Fishing Effort by Mode (thousands of trips)

|  | 1997 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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) ${ }^{\mathbf{1}}$

|  | 1997 | 1998 | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | 2001 | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 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 | Fishing Tackle | 38,815 |
| Private Boat | 20,966 | 13,486 | Other Equipment | 12,133 |
| Shore | 22,452 | 7,458 | Boat Expenses | 12,349 |
| For-Hire | 3,249 | 1,161 | Vehicle Expenses | 150,455 |
| Total Trip Expenditures | 46,667 | 22,105 | Second Home Expenses | 12,152 |
|  |  |  | Total Durable Equipment Expenditures | 225,903 |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{2 9 4 , 6 7 5}$ |

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 |

[^34]${ }^{2}$ This species may not be equivalent to species with similar names listed in the commercial tables.


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 |
| Seafood sales, retair | Receipts | 676 | 562 | F | 214 | 435 | 959 | 803 | 1,523 |
| Seafood product preparation \& packaging | Firms Receipts | M $M$ | $\begin{aligned} & M \\ & M \end{aligned}$ | $M$ $M$ | F | F | F | F | 3 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 |  |
|  | 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. $\quad M=$ Data is not available.

[^35]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | 527 | $\mathrm{ND}^{1}$ | 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 | $\mathrm{ND}^{1}$ | 418 | 4,513 | 6,200 |
| Sea Bass, Black | 676 | 451 | 681 | 475 | 244 | 436 | 555 | $\mathrm{ND}^{1}$ | 706 | 811 |

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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ | 329 | $\mathrm{ND}^{1}$ | 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 | $\mathrm{ND}^{1}$ | 93 | 584 | 931 |
| Sea Bass, Black | 513 | 315 | 439 | 305 | 150 | 280 | 313 | $\mathrm{ND}^{1}$ | 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 | $N D^{1}$ | 2.14 | 2.31 |

[^36]Recreational Fishing Effort by Mode (thousands of trips)

|  | 1997 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | 2001 | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 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 | Fishing Tackle | 214,628 |
| Private Boat | 19,843 | 48,570 | Other Equipment | 51,266 |
| Shore | 58,834 | 31,432 | Boat Expenses | 151,685 |
| For-Hire | 14,090 | 14,300 | Vehicle Expenses | 568,536 |
| Total Trip Expenditures | 92,767 | 94,302 | Second Home Expenses | 144,359 |
|  |  |  | Total Durable Equipment Expenditures | $1,130,475$ |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{1 , 3 1 7 , 5 4 4}$ |

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 |

[^37]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee ( Complions) | Gross State | Commercial Fishing |
| 1998 | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | Location Quotient |
| 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 |
| Seafood sales, retair | Receipts | 5,433 | 6,856 | 7,012 | 5,904 | 8,629 | 6,771 | 10,100 | 6,976 |
| Seafood product preparation \& packaging | Firms Receipts | 28 1,563 | 25 2,027 | 28 1,325 | 25 1,997 | 50 3,199 | 47 2,487 | 51 2,301 | 57 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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^38]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | 34,782 | 29,755 | 32,536 | 37,766 | 41,193 | 39,804 | 38,054 | 31,379 | 25,567 | 31,038 |
| Quahog \& Surf | 3,367 | 5,279 | 4,911 | 5,490 | 4,802 | 6,725 | 4,736 | 5,330 | 6,773 | 6,359 |
| Crab, Blue | 2,052 | 2,732 | 3,038 | 2,604 | 2,313 | 3,504 | 3,683 | 4,431 | 4,642 | 4,926 |
| Flounder, Summer | 4,108 | 5,809 | 7,782 | 6,505 | 6,135 | 5,896 | 6,200 | 3,496 | 4,429 | 4,416 |
| Goosefish | 33 | 274 | 44 | $\mathrm{ND}^{1}$ | 32 | 60 | 145 | 6 | 297 | 389 |
| Herring, Atlantic | 3,298 | 2,633 | 3,632 | 3,694 | 2,471 | 1,139 | 1,028 | 1,802 | 2,002 | 2,533 |
| Lobster, American | 1,665 | 2,203 | 2,207 | 1,205 | 1,695 | 1,780 | 2,855 | 3,398 | 4,028 | 3,717 |
| Mackerel, Atlantic | 2,262 | 2,686 | 1,572 | 967 | 1,918 | 1,853 | 3,366 | 1,558 | 823 | 2,288 |
| Oyster, Eastern | 12,431 | 9,816 | 14,534 | 24,108 | 29,983 | 33,336 | 43,507 | 67,500 | 88,482 | 57,471 |
| Scallop, Sea |  |  |  |  |  |  |  |  |  |  |

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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | 9,033 | 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 | $\mathrm{ND}^{1}$ | 1,260 | 1,796 | 1,852 | 1,844 |
| Clams, Ocean | 63,889 | 60,498 | 66,114 | 72,858 | 73,900 | 73,949 | 71,683 | 61,155 | 49,849 | 55,286 |
| Quahog \& Surf | 4,563 | 5,829 | 5,579 | 5,093 | 4,724 | 6,229 | 4,012 | 4,350 | 6,333 | 5,981 |
| Crab, Blue | 1,320 | 1,863 | 1,917 | 1,848 | 1,745 | 2,407 | 2,385 | 2,831 | 2,529 | 2,380 |
| Flounder, Summer | 6,383 | 8,141 | 6,358 | 4,414 | 5,855 | 5,697 | 7,185 | 4,230 | 3,922 | 3,841 |
| Goosefish | 296 | 2,545 | 646 | ND $^{1}$ | 708 | 1,138 | 1,805 | 114 | 2,263 | 2,451 |
| Herring, Atlantic | 858 | 722 | 931 | 891 | 580 | 264 | 210 | 371 | 369 | 471 |
| Lobster, American | 9,563 | 18,233 | 20,035 | 9,645 | 25,224 | 20,486 | 33,056 | 36,091 | 32,415 | 24,977 |
| Mackerel, Atlantic | 593 | 703 | 411 | 202 | 412 | 379 | 714 | 323 | 162 | 350 |
| Oyster, Eastern | 1,933 | 1,588 | 2,749 | 4,949 | 8,219 | 8,644 | 10,638 | 13,737 | 11,833 | 8,440 |
| Scallop, Sea |  |  |  |  |  |  |  |  |  |  |

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 | $N^{1}$ | 4.15 | 4.13 | 4.08 | 4.13 |
| Clams, Ocean <br> 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 | $N^{1}$ | 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 |

${ }^{1} \mathrm{ND}=$ data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 300,216 |
| Private Boat | 62,141 | 137,749 | Other Equipment | 62,270 |
| Shore | 32,324 | 59,807 | Boat Expenses | 253,598 |
| For-Hire | 35,827 | 29,635 | Vehicle Expenses | 370,227 |
| Total Trip Expenditures | 130,292 | 227,191 | Second Home Expenses | 47,936 |
|  |  |  | Total Durable Equipment Expenditures | $1,034,248$ |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{1 , 3 9 1 , 7 3 1}$ |

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 |

[^39]| State Economy (\% of national total) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Annual |  | Employee |  | Gross State |  | Commercial Fishing |  |
| Establishments | Employees | Payroll (\$ millions) |  | Compensation (\$ millions) |  | Product (\$ millions) |  | 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 Receipts | 15 1,098 | 16 1,913 | 17 2,545 | 14 2,878 | 21 2,673 | 23 2,279 | 23 2,694 | 26 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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^40]2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

| Total Impacts | Sales Impacts | Income Impacts | Employment Impacts |
| :--- | ---: | ---: | ---: |
| Commercial Harvesters | $1,938,733$ | $1,030,787$ | 41,903 |
| Seafood Processors and Dealers | 115,748 | 39,627 | 2,421 |
| Seafood Wholesalers and Distributors | 99,546 | 42,039 | 734 |
| Retail Sectors | 453,280 | 222,542 | 3,903 |

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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathbf{2 0 0 2}$ | 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 | Fishing Tackle | 171,976 |
| Private Boat | 2,648 | 78,198 | Other Equipment | 69,019 |
| Shore | 3,444 | 31,581 | Boat Expenses | 208,459 |
| For-Hire | 4,122 | 30,347 | Vehicle Expenses | 117,788 |
| Total Trip Expenditures | 10,214 | 140,126 | Second Home Expenses | 53,395 |
|  |  |  | Total Durable Equipment Expenditures | 620,643 |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{7 7 0 , 9 8 3}$ |

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 |

[^41]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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)


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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^42]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | 393,760 |
| 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 | 370,989 |
| 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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 | Fishing Tackle | 121,760 |
| Private Boat | 64,006 | 86,027 | Other Equipment | 43,765 |
| Shore | 10,223 | 27,928 | Boat Expenses | 225,687 |
| For-Hire | 1,958 | 2,036 | Vehicle Expenses | 207,642 |
| Total Trip Expenditures | 76,187 | 115,991 | Second Home Expenses | 49,838 |
|  |  |  | Total Durable Equipment Expenditures | 648,689 |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{8 4 0 , 8 6 7}$ |

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 |

[^43]| State Economy (\% of national total) |  |  | Annual | Employee | Gross State | Commercial Fishing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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)


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


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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^44]
## 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 snappergrouper 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.

## Ecomonic Impacts

Overall, Florida led the region in commercial fisheriesrelated 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, $\$ 45$ 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 billion 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.

## 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-ofstate 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 $\underline{266 \%}$ 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 nonemployer 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 nonemployer 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 with an annual payroll of $\$ 1.1$ billion and 30,000 workers employed 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 <br> Revenue | Total Sales <br> Impacts | Total Income <br> Impacts | Total Employment <br> 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | $1,371,300$ |  |  |
| Private Boat | 111,153 | 296,147 | Other Equipment | 373,122 |  |  |
| Shore | 556,165 | 228,221 | Boat Expenses | $4,478,034$ |  |  |
| For-Hire | 92,613 | 38,705 | Vehicle Expenses | $2,462,955$ |  |  |
| Total Trip Expenditures | 759,931 | 563,073 | Second Home Expenses | 473,042 |  |  |
|  |  |  | Total Durable Equipment Expenditures | $9,158,453$ |  |  |
| Total State Trip and Durable Equipment Expenditures |  |  |  |  |  | $\mathbf{1 0 , 4 8 1 , 4 5 7}$ |

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 |

[^45]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |

[^46]Recreational Fishing Effort by Mode (thousands of trips)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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) ${ }^{\mathbf{1}}$

|  | 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 | Fishing Tackle | 916,229 |
| Private Boat | 54,464 | 176,680 | 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 Mode 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 |

[^47]| State Economy (\% of national total) ${ }^{1}$ |  |  | Annual Payroll (\$ millions) | Employee <br> Compensation (\$ millions) | Gross State Product (\$ millions) | Commercial Fishing Location Quotient |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments | Employees |  |  |  |  |
| 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 Receipts | $\begin{array}{r} 239 \\ 19,361 \end{array}$ | $\begin{array}{r} 221 \\ 20,274 \end{array}$ | $\begin{array}{r} 219 \\ 18,978 \\ \hline \end{array}$ | $\begin{array}{r} 212 \\ 17,935 \end{array}$ | $\begin{array}{r} 243 \\ 20,837 \end{array}$ | $\begin{array}{r} 240 \\ 18,064 \end{array}$ | $\begin{array}{r} 247 \\ 18,004 \end{array}$ | $\begin{array}{r} 247 \\ 22,787 \end{array}$ |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 58 \\ 4,995 \\ \hline \end{array}$ | $\begin{array}{r} 65 \\ 7,153 \\ \hline \end{array}$ | $\begin{array}{r} 102 \\ 8,330 \\ \hline \end{array}$ | $\begin{array}{r} 104 \\ 6,350 \\ \hline \end{array}$ | $\begin{array}{r} 116 \\ 5,064 \\ \hline \end{array}$ | $\begin{array}{r} 142 \\ 8,047 \\ \hline \end{array}$ | $\begin{array}{r} 177 \\ 8,652 \\ \hline \end{array}$ | $\begin{array}{r} 164 \\ 8,756 \\ \hline \end{array}$ |

Seafood Sales and Processing - Employer Establishments, Employees, and Annual Payroll (thousands of dollars) ${ }^{1}$

| Seafood Sales and Processing - Employer Establishments, Employees, and Annual Payroll (thousands of dollars) |
| :--- |
| \begin{tabular}{\|l|r|r|r|r|r|r|r|r|}
\hline
\end{tabular} |

Transport, Support, and Marine Operations - Employer Establishments, Employees, and Annual Payroll (thousands of dollars) ${ }^{1}$


$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^48]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathbf{2 0 0 0}$ | 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 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 | Fishing Tackle | 35,806 |
| Private Boat | 175 | 7,002 | Other Equipment | 12,580 |
| Shore | 723 | 3,381 | Boat Expenses | 92,823 |
| For-Hire | 343 | 1,112 | Vehicle Expenses | 17,291 |
| Total Trip Expenditures | 1,241 | 11,495 | Second Home Expenses | 8,245 |
|  |  |  | Total Durable Equipment Expenditures | 166,746 |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{1 7 9 , 4 8 2}$ |

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 |

[^49]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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 Receipts | $\begin{array}{r} 72 \\ 4,837 \\ \hline \end{array}$ | $\begin{array}{r} 62 \\ 4,503 \\ \hline \end{array}$ | $\begin{array}{r} 61 \\ 4,651 \\ \hline \end{array}$ | $\begin{array}{r} 67 \\ 4,516 \\ \hline \end{array}$ | $\begin{array}{r} 77 \\ 5,027 \\ \hline \end{array}$ | $\begin{array}{r} 72 \\ 4,668 \\ \hline \end{array}$ | $\begin{array}{r} 69 \\ 4,855 \\ \hline \end{array}$ | $\begin{array}{r} 64 \\ 6,625 \\ \hline \end{array}$ |
| Seafood product preparation \& packaging | Firms | $\begin{array}{r} 8 \\ 2,044 \\ \hline \end{array}$ | 11 1,303 | 12 1,705 | 14 1,104 | 20 1,560 | 24 2,249 | 29 2,030 | 24 2,642 |

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


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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^50]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 345,522 |
| Private Boat | 44,412 | 82,020 | 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 |  |  |  | $\mathbf{2 , 0 3 1 , 3 5 2}$ |

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 |

[^51]| State Economy (\% of national total) |  |  | Annual | Employee | Gross State | Commercial Fishing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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 Receipts | $\begin{array}{r} 122 \\ 9,706 \end{array}$ | $\begin{array}{r} 127 \\ 11,928 \end{array}$ | $\begin{array}{r} 140 \\ 9,408 \\ \hline \end{array}$ | $\begin{array}{r} 116 \\ 9,395 \\ \hline \end{array}$ | $\begin{array}{r} 117 \\ 11,560 \end{array}$ | $\begin{array}{r} 133 \\ 11,565 \end{array}$ | $\begin{array}{r} 144 \\ 12,294 \\ \hline \end{array}$ | $\begin{array}{r} 130 \\ 10,913 \\ \hline \end{array}$ |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 38 \\ 951 \end{array}$ | $\begin{array}{r} 39 \\ 1,728 \end{array}$ | $\begin{array}{r} 25 \\ 1,450 \end{array}$ | $\begin{array}{r} 17 \\ 1,335 \\ \hline \end{array}$ | $\begin{array}{r} 25 \\ 1,385 \\ \hline \end{array}$ | $\begin{array}{r} 33 \\ 1,646 \end{array}$ | $\begin{array}{r} 27 \\ 1,515 \end{array}$ | $\begin{array}{r} 26 \\ 1,106 \end{array}$ |

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


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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^52]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathrm{ND}^{1}$ | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | $\mathrm{ND}^{1}$ | 2.65 | 2.73 | 2.88 | 2.79 | 2.81 | 2.78 | $\mathrm{ND}^{1}$ | $\mathrm{ND}^{1}$ |
| Tilefish | 1.37 | 1.54 | 1.75 | 1.10 | 1.96 | 2.17 | 1.98 | 1.78 | 1.78 | 1.95 |

${ }^{1} \mathrm{ND}=$ data is confidential thus not disclosable.

Recreational Fishing Effort by Mode (thousands of trips)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 73,743 |
|  | 12,102 | 30,445 | Other Equipment | 22,727 |
| Private Boat | 81,698 | 30,657 | Boat Expenses | 265,298 |
| Shore | 12,986 | 2,507 | Vehicle Expenses | 55,830 |
| For-Hire | 106,786 | 63,609 | Second Home Expenses | 6,872 |
| Total Trip Expenditures |  |  | Total Durable Equipment Expenditures | 424,469 |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{5 9 4 , 8 6 4}$ |

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 |

[^53]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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)


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


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 | 64 | 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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.
$\mathrm{M}=$ Data is not available.

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## Gulf of Mexico



## 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 $\$ 492,000$ and $\$ 205,000$ 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 $\sim 55-65 \%$ 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 $\sim 65-75 \%$ 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 fishingrelated equipment. The economic impacts from recreational fishing were highest in western Florida. In 2006, expenditures by anglers in western Florida contributed
$\$ 7.8$ billion in total sales to the regional economy, added over 75,000 jobs, and generated $\$ 4.2$ billion in valueadded 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 Rates ${ }^{1}$

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 billion 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.
${ }^{1}$ Note that Texas does not collect data on participation (number of anglers) and effort (number of fishing trips).

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 Trips ${ }^{1}$

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. 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. Nonresidents 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.

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 doubledigit 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 with an annual payroll of $\$ 1.1$ billion and 30,000 workers employed 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 <br> Revenue | Total Sales <br> Impacts | Total Income <br> Impacts | Total Employment <br> Impacts |
| :--- | ---: | ---: | ---: | ---: |
| Alabama | 49,178 | 492,081 | 269,914 |  |
| Florida | 192,284 | $5,210,182$ | $2,857,846$ | 1,038 |
| Louisiana | 255,265 | $2,096,648$ | 103,230 |  |
| Mississippi | 21,737 | 204,521 | 46,389 |  |
| Texas | 197,292 | $2,152,819$ | 4,712 |  |

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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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 |
| Mullets | 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) ${ }^{1}$

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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) ${ }^{1}$

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 1,744,866 |
| Private Boat | 212,913 | 878,947 | Other Equipment | 653,121 |
| Shore | 346,155 | 463,118 | Boat Expenses | 8,179,193 |
| For-Hire | 134,264 | 159,545 | Vehicle Expenses | 1,958,790 |
| Total Trip Expenditures | 693,332 | 1,501,610 | 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 |

[^55]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 |
| Mullets | 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 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 | $\mathbf{2 0 0 1}$ | 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 | Fishing Tackle | 78,521 |
| Private Boat | 5,915 | 37,399 | Other Equipment | 35,391 |
| Shore | 51,609 | 25,562 | Boat Expenses | 319,760 |
| For-Hire | 16,199 | 8,906 | Vehicle Expenses | 54,989 |
| Total Trip Expenditures | 73,723 | 71,867 | Second Home Expenses | 28,264 |
|  |  | Total Durable Equipment Expenditures | 516,925 |  |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{6 6 2 , 5 1 5}$ |

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 |

[^56]| State Economy (\% of national total) |  |  | Annual Payroll (\$ millions) | Employee <br> Compensation (\$ millions) | Gross State Product (\$ millions) | Commercial Fishing Location Quotient |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Establishments | Employees |  |  |  |  |
| 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 Receipts | $\begin{array}{r} 44 \\ 2,508 \\ \hline \end{array}$ | $\begin{array}{r} 44 \\ 3,503 \\ \hline \end{array}$ | 44 3,878 | 50 3,633 | 58 3,456 | 55 3,812 | 61 3,645 | $\begin{array}{r} 44 \\ 3,855 \\ \hline \end{array}$ |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 27 \\ 1,076 \end{array}$ | $\begin{array}{r} 47 \\ 2,598 \end{array}$ | $\begin{array}{r} 46 \\ 3,677 \end{array}$ | $\begin{array}{r} 39 \\ 2,711 \end{array}$ | 44 3,603 | $\begin{array}{r} 36 \\ 1,168 \end{array}$ | 43 3,413 | $\begin{array}{r} 40 \\ 3,414 \end{array}$ |

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


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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^57]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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 |
| Mullets | 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 |

[^58]Recreational Fishing Effort by Mode (thousands of trips)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 2005 | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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) ${ }^{\mathbf{1}}$

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 | Fishing Tackle | 1,137,745 |
| Private Boat | 161,576 | 220,371 | Other Equipment | 368,380 |
| Shore | 268,926 | 69,102 | Boat Expenses | 5,287,580 |
| For-Hire | 81,502 | 20,222 | Vehicle Expenses | 1,080,667 |
| Total Trip Expenditures | 512,004 | 309,695 | 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 |
| Mullets ${ }^{2}$ | 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 <br> (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 |

[^59]| State Economy (\% of national total) ${ }^{1}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Seaf | Firms | 239 | 221 | 219 | 212 | 243 | 240 | 247 | 247 |
| Seaf | Receipts | 19,361 | 20,274 | 18,978 | 17,935 | 20,837 | 18,064 | 18,004 | 22,787 |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 58 \\ 4,995 \\ \hline \end{array}$ | $\begin{array}{r} 65 \\ 7,153 \\ \hline \end{array}$ | $\begin{array}{r} 102 \\ 8,330 \\ \hline \end{array}$ | $\begin{array}{r} 104 \\ 6,350 \\ \hline \end{array}$ | $\begin{array}{r} 116 \\ 5,064 \\ \hline \end{array}$ | 142 8,047 | 177 8,652 | $\begin{array}{r} 164 \\ 8,756 \\ \hline \end{array}$ |

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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^60]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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 |
| Mullets | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 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 | Fishing Tackle | 338,010 |
| Private Boat | 26,252 | 171,761 | Other Equipment | 164,311 |
| Shore | 3,237 | 46,964 | Boat Expenses | $1,735,710$ |
| For-Hire | 25,761 | 24,803 | Vehicle Expenses | 137,566 |
| Total Trip Expenditures | 55,250 | 243,528 | Second Home Expenses | 177,939 |
|  |  |  | Total Durable Equipment Expenditures | $2,553,534$ |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{2 , 8 5 2 , 3 1 2}$ |

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) |

[^61]| State Economy (\% of national total) |  |  |  |  |  | Commercial Fishing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State |  |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Firms | 148 | 165 | 172 | 170 | 185 | 208 | 204 | 156 |
| afood sales, retail | Receipts | 13,155 | 13,847 | 11,806 | 12,586 | 15,201 | 22,637 | 18,148 | 14,585 |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 44 \\ 4,593 \\ \hline \end{array}$ | 46 3,050 | 39 3,466 | 58 2,918 | 66 3,006 | 73 4,678 | 75 10,097 | 76 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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^62]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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |
| Mullets | 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 |
| Mullets | 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 ${ }^{1}$ | $N D^{1}$ |

[^63]Recreational Fishing Effort by Mode (thousands of trips)

|  | 1997 | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | 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 | Fishing Tackle | 51,396 |  |  |
| Private Boat | 573 | 15,079 | Other Equipment | 12,439 |  |  |
| Shore | 712 | 3,536 | Boat Expenses | 21,126 |  |  |
| For-Hire | 450 | 707 | Vehicle Expenses | 421,791 |  |  |
| Total Trip Expenditures | 1,735 | 19,322 | Second Home Expenses | 0 |  |  |
|  |  |  | Total Durable Equipment Expenditures | 506,750 |  |  |
| Total State Trip and Durable Equipment Expenditures |  |  |  |  |  | $\mathbf{5 2 7 , 8 0 7}$ |

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 |

[^64]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | 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)


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


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. $\quad M=$ Data is not available.

[^65]2006 Economic Impacts of Commercial Fishing Industry (thousands of dollars)

| Total Impacts | Sales Impacts | Income Impacts | Employment Impacts |
| :--- | ---: | ---: | ---: |
| Commercial Harvesters | $2,152,819$ | $1,061,434$ | 46,861 |
| Seafood Processors and Dealers | 290,768 | 108,564 | 3,270 |
| Seafood Wholesalers and Distributors | 311,888 | 91,945 | 2,638 |
| Retail Sectors | 142,673 | 68,057 | 1,277 |

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

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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)

|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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 |  |

Average Annual Price for Key Species / Species Groups

|  | 1997 | 1998 | 1999 | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | 2002 | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | 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 | Fishing Tackle | 139,194 |
| Private Boat | 18,597 | 434,337 | Other Equipment | 72,600 |
| Shore | 21,671 | 317,954 | Boat Expenses | 815,017 |
| For-Hire | 10,352 | 104,907 | Vehicle Expenses | 263,777 |
| Total Trip Expenditures | 50,620 | 857,198 | Second Home Expenses | 979,782 |
|  |  |  | Total Durable Equipment Expenditures | $2,270,369$ |
| Total State Trip and Durable Equipment Expenditures |  |  |  | $\mathbf{3 , 1 7 8 , 1 8 7}$ |

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) ${ }^{\mathbf{1}}$

| Species |  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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.

[^66]| State Economy (\% of national total) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Employee ( $\$$ millions) | Gross State | Commercial Fishing |
|  | Establishments | Employees | Payroll (\$ millions) | Compensation (\$ millions) | Product (\$ millions) | Location Quotient |
| 1998 | 462,875 (6.67\%) | $7,570,820$ (7.00\%) $8,305,102(7.14 \%)$ | 229,186 (6.93\%) 315,809 (7.05\%) | 424,133 (7.15\%) (2001) ${ }^{1}$ $502,317(7.16 \%)$ | 629,209 (7.25\%) 989,333 (8.00\%) | $\begin{aligned} & 0.60(2001)^{2} \\ & 0.34(2006)^{2} \end{aligned}$ |
| \% change | 7.5 | $8,305,102$ (7.14\%) 9.7 | 315,809 (7.05\%) | 18.4 | 97.2 | -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 Receipts | $\begin{array}{r} 188 \\ 12,935 \end{array}$ | $\begin{array}{r} 172 \\ 14,023 \end{array}$ | $\begin{array}{r} 165 \\ 14,386 \end{array}$ | $\begin{array}{r} 159 \\ 13,079 \end{array}$ | $\begin{array}{r} 152 \\ 13,516 \end{array}$ | $\begin{array}{r} 170 \\ 16,636 \end{array}$ | $\begin{array}{r} 159 \\ 19,131 \end{array}$ | $\begin{array}{r} 159 \\ 19,534 \end{array}$ |
| Seafood product preparation \& packaging | Firms Receipts | $\begin{array}{r} 76 \\ 5,188 \end{array}$ | 86 5,008 | $\begin{array}{r} 85 \\ 5,596 \end{array}$ | 108 5,575 | 104 3,901 | 99 5,234 | 100 1,989 | $\begin{array}{r} 108 \\ 2,228 \end{array}$ |

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 |

$\mathrm{F}=$ Data is suppressed due to confidentiality restrictions.

[^67]
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## Sociocultural Research

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## South Atlantic

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## Gulf of Mexico

## Commercial Fisheries Economics Research

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## Sociocultural Research

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## 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\&ParentMen uId $=109$

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 Governorhttp://www.asg-gov.net/MARINE\ \&\ WILDLIFE\ R ESOURCES.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.asmfc.org/

## Mid-Atlantic

## Mid-Atlantic Fishery Management Council

 http://www.mafmc.org/mid-atlantic/mafmc.htm
## Resources

Atlantic States Marine Fisheries Commission
http://www.asmfc.org/

## South Atlantic

South Atlantic Fishery Management Council http://www.safmc.net/

Atlantic States Marine Fisheries Commission http://www.asmfc.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

## 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/

Red List of Threatened Species
http://www.iucnredlist.org/


## Glossary

## Annual Payroll ${ }^{2}$

Total payroll includes all forms of compensation, such as salaries, wages, reported tips, commissions, bonuses, vacation allowances, sick-leave pay, employee contributions to qualified pension plans, and the value of taxable fringe benefits. For corporations, it includes amounts paid to officers and executives; for unincorporated businesses, it does not include profit or other compensation of proprietors or partners. Payroll is reported before deductions for Social Security, income tax, insurance, union dues, etc.

## Annual Receipts ${ }^{3}$

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.

## Bycatch ${ }^{1}$

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 Program ${ }^{1 I}$

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.

## Catch ${ }^{1}$

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, notjust 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 County ${ }^{8}$

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 CDP

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.

## Discards ${ }^{1}$

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 nontarget species for the trip, and compliance with management regulations like minimum size limits or quotas.

## Durable Equipment or Durable Goods ${ }^{9}$

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 Scheme ${ }^{7}$

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 Establishments ${ }^{2}$

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 ESA ${ }^{1}$

The ESA is a statue 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-vessel ${ }^{1}$

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 EEZ ${ }^{1}$

The EEZ is the area that extends from the seaward boundaries of the coastal states to 200 nautical miles. The seaward boundary for most states is 3 nautical miles with the exceptions of Texas, Puerto Rico, and the Gulf Coast of Florida which is 9 nautical miles. The U.S. claims and exercises sovereign rights and exclusive fishery management authority over all fish and continental shelf resources through this 200 nautical mile boundary.

## Fish Stock ${ }^{1}$

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 ${ }^{12}$

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 $F M C^{1}$

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 FMP ${ }^{1}$

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 ${ }^{11}$

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.

## Glossary

## 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 State ${ }^{4}$

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.

## Harvest ${ }^{1}$

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 IFQ ${ }^{1}$

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 ITQ $^{1}$

A type of individual fishing quota (IFQ) allocated to individual fishermen or vessel owners that can be transferred (sold or leased) to others.

## 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." Fishingand 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.

## Landings ${ }^{1}$

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 System ${ }^{13}$

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 Program ${ }^{1}$

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 Quotient ${ }^{5}$

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 MSA ${ }^{1}$

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 Management ${ }^{10}$

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 finan-
cial 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 Firms ${ }^{3}$

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.

## Overfished ${ }^{1}$

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 overfi shed 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.

## Overfishing ${ }^{1}$

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 Species ${ }^{1}$

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 walruses.

## Race ${ }^{6}$

Race is a self-identification data item in which respondents choose the race or races with which they most closely identify.

## Sector Allocation Program ${ }^{14}$

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 LAPPlike program. 11

## Species ${ }^{1}$

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 Group ${ }^{1}$

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 Assemblage ${ }^{1}$

Group of species co-occurring in a given area and likely to be caught together in a given gear. (see Species Group)

## Value-added ${ }^{1}$

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

${ }^{1}$ NOAA 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
${ }^{3 \text { "Nonemployer Definitions" (accessed } 16 \text { July 2008). Non- }}$ employer Statistics, U.S. Census Bureau, U.S. Department of Commerce. Available at: http://www.census.gov/epcd/nonemployer/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
${ }^{7 " F i s h e r i e s ~ G l o s s a r y " ~(a c c e s s e d ~} 16$ July 2008). FAO Fisheries Department, United Nations Food \& Agriculture Organization. Available at: http://www.fao.org/fi/glossary/default. asp
${ }^{8 " C o a s t a l ~ C o u n t i e s " ~(a c c e s s e d ~} 16$ July 2008). U.S. Census Bureau, U.S. Department of Commerce. Available at: http:// www.census.gov/geo/landview/lv6help/coastal_cty.html
${ }^{9}$ P3 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
${ }^{11}$ Excess Harvesting Capacity in U.S. Fisheries: A Report to Congress. Mandated under Section 312 (b) (6) of the Mag-nuson-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
${ }^{12 " S t a t u s ~ o f ~ U . S . ~ F i s h e r i e s . " ~[A c c e s s e d ~} 30$ 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
${ }^{13}$ Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007. (P.L. 94-265, as amended through P.L. 109-479). Available at: http://www.nmfs.noaa.gov/sfa/magact/
${ }^{14 " S e c t o r ~ A l l o c a t i o n ~ a s ~ a ~ M a n a g e m e n t ~ T o o l . " ~[A c c e s s e d ~} 30$ September 2008] Northeast Sea Grant. Available at: http:// seagrant.gso.uri.edu/fisheries/sector_allocation/index.html

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[^0]:    ${ }^{1}$ All 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).
    ${ }^{2}$ Generally, a fish stock is equivalent to a single species. Stock complexes, on the other hand, contain multiple species with similar geographic distributions, cooccurrence in fisheries, and life history.

[^1]:    ${ }^{3}$ Subspecies includes "distinct population segments" and "evolutionarily significant units," terms defined under the ESA.

[^2]:    ${ }^{4}$ For 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.
    ${ }^{5}$ Currently, only the Western Pacific and Caribbean regions do not have LAPP or LAPP-like programs in place.
    ${ }^{6}$ For more information about MSC certified fisheries, please go to: http://www.msc.org/track-a-fishery/certified.

[^3]:    ${ }^{1}$ All 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.
    ${ }^{2}$ Angler expenditures reported in this table are those of U.S. residents thus the non-resident category is not applicable (NA).
    ${ }^{3}$ This table includes MRFSS data from the New England, Mid-Atlantic, South Atlantic, and Gulf of Mexico Regions' only.
    ${ }^{4}$ Data 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.
    ${ }^{5}$ Seatrouts include all species of the Cynoscion family including spotted seatrout, silver seatrout, weakfish, and sand seatrout.
    ${ }^{6}$ Seatrout and spot/croaker include catch data from Texas for private and for-hire catch only.
    ${ }^{7}$ Species included in this group may not be equivalent to species with similar names listed in the commercial tables.
    ${ }^{8}$ Requiem 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.
    ${ }^{9}$ Large 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.

[^4]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.

[^5]:    ${ }^{1}$ Data in this table are from the Sport Fish Division of the Alaska Department of Fish and Game.
    ${ }^{2}$ In this table, " $(1)$ " $=$ less than 1000 fish were harvested or released.

[^6]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.

[^7]:    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.

[^8]:    ${ }^{1}$ Due to changes in data collection methods, the Pacific Region's effort (number of trips) and catch (number of fish harvested or released) estimates for 1997-2003 are not comparable to 2004-2006 estimates.
    ${ }^{2}$ Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

[^9]:    ${ }^{1}$ Due 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.
    ${ }^{2}$ Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

[^10]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^11]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1) "=$ less than 1000 fish were harvested or released.

[^12]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^13]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1)$ " $=$ less than 1000 fish were harvested or released

[^14]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^15]:    ${ }^{1}$ The 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.

[^16]:    ${ }^{1}$ Effort (number of trips), participation (number of anglers) and catch (number of fish harvested or released) data for Hawaii was not available for 1997-2002.
    ${ }^{2}$ All Hawaii residents are considered coastal residents; $N A=$ not applicable.
    ${ }^{3}$ In this table, " 1 " = 1000-1499 fish were harvested or released and " $(1)$ " $=$ less than 1000 fish were harvested or released.
    ${ }^{4}$ Goatfishes include: Yellowstripe, Yellowfin, Pflugers, Bandtail, Doublebar, Sidespot, Whitesaddle, Manybar, Blue, and "Goatfish Family/Genus."
    ${ }^{5}$ Trevally and other jacks include: Bluefin Trevally, Giant Trevally, Bigeye Trevally, Black Trevally, African Pompano, Greater Amberjack, Island Jack, and "Other Jack Family/Genus."
    ${ }^{6}$ Scad (Jacks) include: Bigeye Scad and Mackerel Scad.
    ${ }^{7}$ 'Snappers include: Bluestip, Blacktail, Ruby, Longtailed, Pink, VonSiebolds, Binghams, Green Jobfish, Ironjaw, and Smalltooth Jobfish.

[^17]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^18]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1)$ " $=$ less than 1000 fish were harvested or released.

[^19]:    ${ }^{1}$ In this table, "(1)" = less than 1000 anglers.
    ${ }^{2}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1)$ " $=$ less than 1000 fish were harvested or released.
    ${ }^{3}$ This species may not be equivalent to species with similar names listed in the commercial tables.

[^20]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^21]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " 1$)^{\prime \prime}=$ less than 1000 fish were harvested or released.

[^22]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^23]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1)^{\prime \prime}=$ less than 1000 fish were harvested or released.

[^24]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^25]:    ${ }^{1} \mathrm{ND}=$ data is confidential thus not disclosable.

[^26]:    ${ }^{1}$ In this table, " 1 " = 1000-1499 fish were harvested or released and " $(1)$ " $=$ less than 1000 fish were harvested or released.

[^27]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.
    ${ }^{3} \mathrm{ND}=$ Data is not disclosable.

[^28]:    ${ }^{1} \mathrm{ND}=$ data is confidential thus not disclosable.

[^29]:    ${ }^{1}$ In this table," $(1) "=$ less than 1000 anglers
    ${ }^{2}$ In this table, " 1 " = 1000-1499 fish were harvested or released and " 1$)^{1)}$ = less than 1000 fish were harvested or released.

[^30]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^31]:    ${ }^{1}$ Note that 2004 data was used for New York.

[^32]:    ${ }^{1}$ This species may not be equivalent to species with similar names listed in the commercial tables.

[^33]:    ${ }^{1} \mathrm{ND}=$ data is confidential thus not disclosable.

[^34]:    ${ }^{1}$ In this table, "(1)" $=$ less than 1000 anglers.

[^35]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2} \mathrm{ND}=$ Data is not disclosable.

[^36]:    ${ }^{1} \mathrm{ND}=$ data is confidential thus not disclosable.

[^37]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1)$ " $=$ less than 1000 fish were harvested or released.
    ${ }^{2}$ This species may not be equivalent to species with similar names listed in the commercial tables.

[^38]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^39]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1) "=$ less than 1000 fish were harvested or released.
    ${ }^{2}$ This species may not be equivalent to species with similar names listed in the commercial tables.

[^40]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^41]:    ${ }^{1}$ In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = less than 1000 fish were harvested or released.
    ${ }^{2}$ This species may not be equivalent to species with similar names listed in the commercial tables.
    ${ }^{3}$ This species may not be equivalent to species with similar names listed in the commercial tables.

[^42]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^43]:    ${ }^{1}$ This species may not be equivalent to species with similar names listed in the commercial tables.

[^44]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^45]:    ${ }^{1}$ Sharks 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.

[^46]:    ${ }^{1}$ Economic impact information reported in this table is for the state of Florida, not eastern Florida.

[^47]:    ${ }^{1}$ In this table, " $(1)$ " $=$ less than 1000 anglers.
    ${ }^{2}$ Kingfish includes: "Kingfish Genus" and Gulf Kingfish.

[^48]:    ${ }^{1}$ Information in this table is for the entire state of Florida, not just eastern Florida.
    ${ }^{2}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{3}$ Commercial 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.

[^49]:    ${ }^{1}$ In this table, " 1 " = 1000-1499 fish were harvested or released and "(1)" = less than 1000 fish were harvested or released.
    ${ }^{2}$ Sharks 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.

[^50]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^51]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released.

[^52]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^53]:    ${ }^{1}$ In this table, " $1 "=1000-1499$ fish were harvested or released and " $(1)$ " = less than 1000 fish were harvested or released.
    ${ }^{2}$ Sharks 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.

[^54]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^55]:    ${ }^{1}$ Excludes 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.
    ${ }^{2}$ Effort data (number of trips) for Texas was not available.
    ${ }^{3}$ This species may not be equivalent to species with similar names listed in the commercial tables.

[^56]:    ${ }^{1}$ Kingfishes include: Southern Kingfish and Gulf Kingfish.

[^57]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^58]:    ${ }^{1}$ Economic impact information reported in this table is for the state of Florida, not western Florida.

[^59]:    ${ }^{1}$ In this table, " $(1)$ " $=$ less than 1000 anglers.
    ${ }^{2}$ Mullets include: "Mullet Genus" and Striped Mullets. Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

[^60]:    ${ }^{1}$ Information in this table is for the entire state of Florida, not just western Florida.
    ${ }^{2}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{3}$ Commercial 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.

[^61]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1)$ " $=$ less than 1000 fish were harvested or released.

[^62]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

[^63]:    ${ }^{1} \mathrm{ND}=$ data is confidential thus not disclosable.

[^64]:    ${ }^{1}$ In this table, " 1 " $=1000-1499$ fish were harvested or released and " $(1)$ " $=$ less than 1000 fish were harvested or released.
    ${ }^{2}$ Kingfishes include: Southern Kingfish and Gulf Kingfish.
    ${ }^{3}$ This species may not be equivalent to species with similar names listed in the commercial tables.
    ${ }^{4}$ Sharks 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.

[^65]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial Fishing Location Quotient data is available from 2001-2006. Data from other years is displayed when 2001 and/or 2006 data is unavailable.

[^66]:    ${ }^{1}$ Data 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.

[^67]:    ${ }^{1}$ Employee Compensation data is currently available from 2001-2005.
    ${ }^{2}$ Commercial 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.

