

Fishing Communities of the United States 2006

Economics and Sociocultural
Status and Trends Series

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



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Cover image: Unisea seafood processing plant, Dutch Harbor/Unalaska, in the Aleutian Islands, Alaska, the largest U.S. port by pounds landed

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Preface

Fishing Communities of the U.S., 2006

Fishing Communities of the U.S., 2006 is the first volume in this new periodic series. It reports descriptive demographic data on a subset of each coastal state's commercial fishing communities and ports, as well as descriptive geographic information and other social indicator data for each state. It is a companion to *Fisheries Economics of the U.S., 2006*. The purpose of the publication is to provide the public with easily accessible information about the Nation's fishing communities and the states where they are located. Up to ten communities and ports per state were selected by experts in each region primarily on the basis of commercial landings data for 2006. These communities are not necessarily "fishing communities" as defined by the Magnuson-Stevens Fishery Conservation and Management Act (see Appendix).

Sources of Data

Information in this report came from many sources. The commercial landings data for 2006 used to select communities and ports were obtained from various NMFS field offices (Fisheries Science Centers and Regional offices) in cooperation with various state agencies and interstate Marine Fisheries Commissions. Other sources of data include the U.S. Census Bureau, Bureau of Labor Statistics, Environmental Protection Agency, Federal Emergency Management Agency, World Atlas, and the Central Intelligence Agency World Fact Book.

Acknowledgements

Many people helped make this publication possible. Rita Curtis is Division Chief and originator for this series.

Preface

Rosemary Kosaka is Editor for this series. Susan Abbott-Jamieson is Senior Author for *Fishing Communities of the U.S., 2006*; Rita Curtis and Rosemary Kosaka are contributing authors. All are located in the NMFS Office of Science & Technology in Silver Spring, Maryland. Contributing analysts include John Primo and Alexandria Zirbel, both formerly of the NMFS Office of Science & Technology. Deborah Hogans, NMFS Office of Science & Technology, also assisted with the preparation of this report. Willis L. Hobart and David G. Stanton, NMFS Scientific Publications Office, Office of Science & Technology, Seattle, Washington, provided publication and design guidance for this new series, and Sandi Sellars, NMFS Office of Science Technology, Silver Spring, Maryland created the layout and design for the final report.

NMFS staff social scientists in the regional Fisheries Science Centers and Regional Offices who provided guidance in selecting communities and ports for their region, sets of demographic and geographic data on those communities, and comments on drafts on the sections for their regions include: Stewart Allen, Patricia M. Clay, Palma Ingles, Karma Norman, Julia Olsen, Jennifer Sepez, and Brent Stoffle. Other contributors include Kim Engie, Jena McNeal, and Leila Sievanen.

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National Overview



THEY THAT GO
DOWN TO THE SEA
IN SHIPS

1623 ~ 1923

U.S. Summary

Overview of the Report

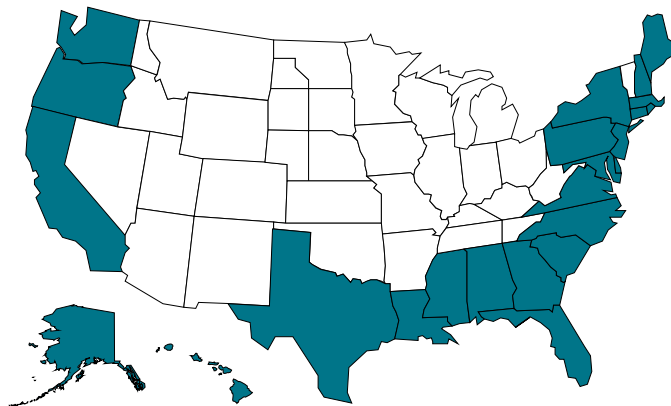
This report presents descriptive demographic data on a subset of the Nation's fishing communities and ports for each of the Nation's coastal states, as well as descriptive geographic and other social indicator data for the states where these communities are located. The communities all have one feature in common: they participate in some aspect of commercial fishing. They were selected by experts in each region primarily because they had the highest landings volume in pounds in their state for 2006. By placing these community and state data snapshots side by side, we can compare the communities and the states where they are located to identify their similarities and differences. Identifying patterned similarities and differences among the Nation's fishing communities within and between regions is one of the steps in developing scientific understanding of how fishing communities are integrated into larger regional ecologies. Fisheries ecosystem-based management recognizes that human sociocultural and economic systems interact with marine ecosystems in profound ways. Additionally, these are some of the data used to assess how different kinds of communities in particular states and regions are impacted by fisheries management actions.

The National Oceanic & Atmospheric Administration's National Marine Fisheries Service (NMFS or NOAA Fisheries) divides the United States' twenty-four coastal states and its four territories and Puerto Rico among six distinct regions: the Northeast, Southeast, Southwest, Northwest, Alaska, and the Pacific Islands. Each region has responsibility for conducting relevant fisheries-related scientific research in support of the agency's mandated mission to conserve and manage the Nation's living marine resources under the Magnuson-Stevens Fisheries Conservation and Management Act (P.L. 94-265, as amended by P.L. 109-479).

These six NMFS regions are included in or overlap eight Fishery Management Council regions: New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, Caribbean, Pacific, North Pacific, and the Western Pacific. Fishery Management Councils (FMCs) are responsible for creating fisheries management plans with the advice of scientific advisory committees and others. The management plans must be approved by the Secretary of Commerce before they go into effect.

This report is divided into eight sections: a National Overview and regional overviews for the North Pacific, Pacific, Western Pacific, New England, Mid-Atlantic, South Atlantic, and Gulf of Mexico regions. All twenty-three coastal states are included in one of these seven regions.¹

¹Pennsylvania is not included in this report. Florida is included for the South Atlantic and Gulf of Mexico regions as East and West Florida, respectively.



The Caribbean territories of the U.S. Virgin Islands and the Commonwealth of Puerto Rico were not included in this report due to data limitations. Similarly, the territories of American Samoa, Guam, and the Commonwealth of the Northern Marianas Islands are also excluded.

The report groups the information on the top fishing communities by state within each region. Each section begins with a regional summary that provides an overview of the regional coastal physical geography, some information on historical importance and involvement in marine fishing, some highlights of the demographic similarities and differences among the fishing communities, and ends with a list of "Fishing Communities Facts" for the region. This is followed by one page of tables for each state in the region. The tables compare: sex and age and race/ethnicity distributions in 2000 for the fishing communities combined compared to the state as a whole; demographic attributes for the individual fishing communities in 2000 compared to the state; and indicators of growth, marine health, and population well-being for the state for 1997-2006. A list of other communities and ports in the state with involvement in marine fisheries concludes each state's section. The report concludes with: a Data Sources list identifying the report's data sources, a Resources section listing web-based resources and publications for those who want to learn more about U.S. marine fishing communities and the management of our living marine resources, and a Glossary providing definitions of specialized terminology.

U.S. Summary

Great diversity characterizes the Nation's marine fishing communities and ports. Patterned similarities also exist. A few highlights follow.

Physical Geography

The United States' fishing communities and ports are located in coastal areas within the North Pacific region's arctic and polar zones, as well as the temperate middle latitudes that characterize the New England and Mid-

Atlantic regions, most of the Pacific region, and some of the South Atlantic region. The southern third of California, the coastal areas of the South Atlantic region's states of South Carolina, Georgia, and Florida are all subtropical, as are the coastal areas of all the states in the Gulf of Mexico region. The tip of the Florida Keys, the Caribbean region, and the Western Pacific region are in the tropics. These differences affect local and regional fisheries.

Among the regions, the North Pacific (Alaska) has the longest ocean coastline (6,640 miles), while the shortest ocean coastlines are found in New England (473 miles) and the Mid-Atlantic (428 miles). The other regions fall in between as follows: South Atlantic (1,168 miles), Gulf of Mexico (1,631 miles), and the Pacific (1,293 miles). Hawaii in the Western Pacific region is composed of islands. The Hawaiian chain is 1,500 miles long, and the seven inhabited islands share 750 miles of coastline.

Susceptibility to Natural Disasters

Fishing communities and ports are located in coastal zones putting them at risk for hurricanes and tropical storms, and other dangers like tsunamis. Fishing communities and ports around the Gulf of Mexico share the Nation's highest potential for annual hurricane seasons that disrupt commercial and recreational fishing, while the worst among these storms can destroy entire communities. For example, the devastation caused by Hurricanes Katrina and Rita in 2005. The Gulf of Mexico's per annum average is 10.7 declared disasters and emergencies due to hurricanes, tropical storms, and depressions combined, while the South Atlantic region comes in second with an average of 6.4 major weather-related disasters. Severe winter storms are most likely to affect marine fisheries in the North Pacific region.

Early History

For thousands of years prior to European colonization of North America, Native Americans were utilizing marine and aquatic resources along the coasts, while Polynesian peoples whose cultures were intimately involved with the marine environment began occupying the Pacific islands by at least 400 A.D. The earliest European arrivals found a variety of marine resources already being utilized in most coastal areas. Marine resources were among the first natural resources targeted by these early Europeans.

Historic patterns of involvement in commercial fishing by particular racial or ethnic groups continue to characterize contemporary commercial fishing in many parts of the country. Some examples include: Scandinavians (Norwegians, Danes, and Swedes) in the New England, Mid-Atlantic, and Pacific regions; Portuguese and Sicilians in the New England region and Italians in the Pacific region;

francophone Acadians in New England and Cajuns in the Gulf of Mexico; British in the New England and Mid-Atlantic regions; African Americans in the Mid-Atlantic, South Atlantic, and Gulf of Mexico; Chinese in the Pacific region; Vietnamese in the Gulf of Mexico and the Western Pacific; and Native Americans in the Pacific and North Pacific regions.

Some Fishing Community Contrasts Across Regions

The Nation's top commercial fishing communities and ports range from subareas of major metropolitan centers such as Houston, Texas (pop. 1,953,631), San Diego, California (pop. 1,223,400), Honolulu, Hawaii (pop. 876,156), and Jacksonville, Florida (pop. 735,617), to small villages such as Winter Harbor, Maine (pop. 988), Naknek, Alaska (pop. 678), La Push, Washington (pop. 371), Wachapreague, Virginia (pop. 236), and Valona, Georgia (pop. 123). Some interesting points made in the regional summaries follow.

The North Pacific region's top fishing communities all tend to be smaller communities, with an average population of 3,620, within a state in which ninety-nine percent of its fishing communities have populations with fewer than 12,000. Alaska's fishing communities with shoreside processing facilities attract large temporary populations who sometimes outnumber permanent residents.

Fishing communities in the State of Hawai'i are defined as the seven main inhabited islands. Most small-scale commercial fishing boats are transported by trailer so they can be launched at diverse sites. Honolulu is the home port for the Hawaii-based longline fishing fleet, responsible for the majority of commercial fish landed in Hawai'i.

The median population for the top commercial fishing communities in the Pacific region's three states combined is 84,038. Seven of California's, nine of Washington's top fishing communities, and all ten of Oregon's top fishing communities fall below the median. Five of Washington's top commercial fishing communities have populations of fewer than 1,000 compared to three of California's and none of Oregon's. Four of California's top commercial fishing communities are located in urban areas of more than 75,000 people, while only one of Washington's, and none of Oregon's top commercial fishing communities are in urban areas.

The Gulf of Mexico's top fishing communities tend to be smaller towns and villages with populations below 20,000 persons. However one major metropolitan center approaching 2 million (Houston, Texas), and a few larger coastal cities also have significant fisheries involvement (Tampa and St. Petersburg, Florida; Mobile, Alabama; and Brownsville, Texas). The majority of Louisiana's and Alabama's top fishing communities have populations below 5,000.

U.S. Summary

Nine of Louisiana's top fishing communities and seven of Alabama's top fishing communities fall in this group.

Florida's top commercial fishing communities are the largest in the South Atlantic region. They include subareas of large cities like Jacksonville (pop. 735,617) and Miami (pop. 362,470); none have populations below 10,000. In contrast, North Carolina's top commercial fishing communities have populations below 6,000 and six are smaller than 2,000. Both Georgia and South Carolina are more mixed. Each has a larger city – Savannah, Georgia (pop. 131,510) and Charleston, South Carolina (pop. 96,650) – involved in commercial and saltwater recreational fishing, as well as some small fishing villages. Examples include Valona (pop. 123) and Midway (pop. 1,100), Georgia, and McClellanville (pop. 459) and Wadmalaw Island (pop. 2,611), South Carolina.

Several major metropolitan areas are located in the Mid-Atlantic region, a center of population for the United States. The Mid-Atlantic region's top fishing communities located within larger urban areas are all located in Virginia. They include Virginia Beach (pop. 425,257), Richmond (pop. 197,790), Newport News (pop. 180,150), and Hampton (pop. 146,437). Seven of the region's top fishing communities are smaller cities with populations between 10,000 and 41,000. Examples include Atlantic City (pop. 40,517) and Point Pleasant (pop. 19,306), New Jersey, and Ocean-side (pop. 32,733), Islip (pop. 20,575), and Hampton Bays (pop. 12,236), New York. The majority of Maryland's (seven of nine), Delaware's (three of five), New Jersey's (seven of ten), and New York's (five of eight) top fishing communities fall between 1,000 and 7,700 in population. Six of the region's top fishing communities have fewer than 1,000 inhabitants.

The largest metropolitan area in the New England region is Boston (pop. 589,141), a center for financial services and insurance for the fishing industry, as well as the home of the Nation's oldest continuously operating daily fish pier. The other New England region's top fishing communities that are located within urban areas of more than 100,000 population are Providence (pop. 173,618), Rhode Island, and Bridgeport (pop. 139,529) and New Haven (pop. 123,626), Connecticut. Exclusive of these large cities, the average population for the top fishing communities is 32,846 for Massachusetts, 31,456 for Connecticut, and 26,175 for Rhode Island. Maine averages 3,196 (excludes Portland, pop. 64,249), while New Hampshire averages 6,115 (excludes Portsmouth, pop. 20,784). Both Maine and New Hampshire's top fishing communities are predominantly smaller communities. Eight of Maine's and four of New Hampshire's have populations of less than 8,000. Only two of Massachusetts' and one of Rhode Island's top fishing communities have populations of less than 8,000, while Connecticut has none.

The Effects of Population Growth on Coastal Areas

Many coastal areas in these states are experiencing growth in their populations as people seek homes near the ocean. This is particularly true in the areas with milder climates. These patterns affect everything from fish habitat, particularly nursery grounds in shallow coastal waters, to the continued availability of commercial fishing infrastructure like docking facilities and other support services, as real estate values increase in the face of demand for alternative uses. In some regions, commercial fishing is being eclipsed by saltwater recreational fishing. The South Atlantic region, which includes the Atlantic Coast of Florida and several desirable beach vacation areas in Georgia, South Carolina, and North Carolina, is a good example of this change. The Mississippi's Gulf Coast in the Biloxi area is another example. In this area, Hurricane Katrina's devastation has served to speed the transformation of real estate from commercial fishing support uses to uses that support the gaming industry.

Community Resiliency, Growth, Marine Health, and Well Being

According to the 2000 U.S. Census, 9.2% of family households in the U.S. live below the poverty rate. The 222 top fishing communities in the U.S. have an average poverty rate of 10.1%, just above the national rate. Poverty rates range in top fishing communities from 0% in Valona, Georgia to 33.7% in Crescent City, California, with the majority of communities falling between 2% and 10%. All states except Alaska, Delaware, Maine, and New Hampshire have fishing communities with poverty rates above 11%. The majority of fishing communities in Georgia (seven of ten), Alabama (seven of ten), Texas (seven of ten), Mississippi (four of seven), and Louisiana (nine of ten), and half of the fishing communities in Oregon and South Carolina have poverty rates above 11%.

Nationwide, 18% of residents five years of age or older speak a language other than English at home according to the 2000 U.S. Census. Overall, top fishing communities ranged from 0% of residents five years of age or older speaking a language other than English at home (Crescent, Georgia) and 1% (Bowers Beach, Delaware) to 87% (Brownsville, Texas) and 93% (Ni'ihau, Hawaii). Twenty-two percent (48 of 222) of the top fishing communities in the U.S. had a higher rate than the national rate. The majority of fishing communities in Hawai'i (six of seven), California (seven of ten), and Texas (seven of ten), and half of the communities in Alaska, reported rates above the national rate.

The national median household income was \$42,000 according to the 2000 U.S. Census. Top fishing communi-

ties had median household incomes that ranged between \$18,000 (Crisfield, Maryland) to \$146,755 (Darien, Connecticut). Thirty-eight percent (84 of 222) of the top fishing communities in the U.S. had a higher median income than the national median. The majority of fishing communities in Alaska (nine of ten), California (seven of ten), Connecticut (seven of ten), Rhode Island (seven of ten), New Jersey (seven of ten), New York (six of eight), Hawaii (four of seven), and all fishing communities in New Hampshire had median household incomes above \$42,000.

Conclusion

The above concludes our overview of the Nation's coastlines. The following sections return in detail to individual regions embracing the twenty-three states covered by this report. A list of fishing communities and ports is provided at the end of each regional summary. More detailed information on some of these communities can be found in the regional community profiles. If available, citations for these profiles are also listed at the end of each regional summary. For additional information related to fishing communities and sociocultural research conducted by NMFS social science staff, a detailed bibliography and list of other source materials appears at the end of this publication.



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North Pacific

■ Alaska



North Pacific Summary

Regional Context

The North Pacific region includes only the state of Alaska. The state's coastline is 6,640 miles; its tidal shoreline is enormous at 33,904 miles, more than 2.8 times longer than the next longest regional tidal shoreline. Fishing communities can be found along most of the subarctic parts of Alaska's coastline and some of its tidal shoreline. Commercially important communities occur adjacent to the Gulf of Alaska from the Canadian border, north to the end of the Alaskan Peninsula on Kodiak Island and on some of the islands in the Aleutian chain and the Pribilof Islands, and along Bristol Bay on the Bering Sea. Located in the high northern latitudes, Alaska is characterized by short summers and long, dark, cold winters, creating rigorous, often dangerous fishing conditions for its fishermen. Important species sought by commercial fishermen include pollock, mackerel, cod, herring, salmon, crab, and groundfish species such as rockfish, sablefish and halibut.

Communities that are heavily involved in processing as well as commercial harvesting activities attract large temporary populations of workers, including many Asians and Hispanics, from outside the region. In these communities, temporary workers sometimes outnumber permanent residents, and in some places are housed in group quarters during the fishing season, for example, Akutan (90% of the population) and Sand Point (36% of the population). This is a regionally unique feature.

Native Americans comprise 80-90% of the population in some remote areas of Alaska. They continue to fish, hunt sea mammals, and gather other marine resources as part of their annual round of subsistence activities. Native Americans have continuously inhabited the region for at least 12,000 years, closely tied to the marine environment since their arrival. Major coastal cultural-linguistic groups include Inupiaq, Yupik, Aleut, Alutiiq, Tlingit, and Haida. Even communities in the interior of Alaska are tied to the marine environment by dependence on anadromous fish (for example, salmon) that spend part of their lives in the ocean and then return to inland watersheds to spawn.

Recreational fishing has also become economically important in Southeast and South Central Alaska. Many remote Alaska communities are also dependent on subsistence fisheries and the harvest of marine mammals.

The Fishing Communities

The Alaskan region is unique in the number and proportion of communities that are involved in, and dependent on, commercial fishing to earn their livelihoods. Overall, 136 fishing communities have been profiled by NMFS social scientists because of the nature of their links with commercial and/or recreational fishing. In 2006, eleven



A fisherman mends his nets at St. Paul Harbor, Alaska

of the United States' top fifty ports by pounds landed were located in Alaska. By order of ranking, they are: Dutch Harbor/Unalaska (1); Kodiak (4); Naknek-King Solomon (12); Petersburg (17); Ketchikan (18); Sitka (19); Cordova (21); Seward (25); Juneau (39); Homer (44); and Kenai (49). On average, from 1997-2006, Alaska accounted for 53% of U.S. landings and 32% of landings revenue.

Alaska has the smallest population (626,932 in 2000) among the nation's coastal states. Alaska's fishing communities also have small populations ranging from fewer than 100 to only a few thousand for even major fishing communities. The ten top commercial fishing communities have an average population of 3,620 ranging from the smallest, Akutan at 713, to Sitka, the largest at 8,835. Sitka is also Alaska's 5th largest city.

Community, Resiliency, Growth, Marine Health and Well Being

According to the 2000 U.S. Census, 9.2% of families in the U.S. live below the poverty line, the median income level is \$42,000, and 18% of residents over five years of age speak a language other than English at home. The state of Alaska has a lower percentage of families living in poverty (6.7%), a higher median income level (\$52,000), and a lower number of residents older than five who speak a language other than English at home (14.3%) than the rest of the U.S. More information on these and other factors that may affect community resiliency are discussed below.

Alaska's top fishing communities generally have family household poverty rates below the national average. The lone exceptions are Dillingham and Sand Point with poverty rates of 10%.¹ The percentage of residents over five

¹Note that in contrast to its top fishing communities, many of Alaska's other fishing communities have relatively high poverty rates. (See Sepez et al. for additional information.)

Fishing Communities Facts

- Alaska communities are small. Ninety-nine percent of Alaska’s communities have fewer than 12,000 residents; 65% have less than 400 residents.

Fishing activities

- The isolated Aleutian outpost of Dutch Harbor/Unalaska (pop. 4,283) is the nation’s busiest fishing port by volume of landings.
- The pollock fishery is the largest in the U.S. Though pursued by a relatively small fleet, including about 21 large catcher/processor vessels and 133 catcher vessels, it comprises about 58% of landings in Alaska.
- Commercial fishing communities with shoreside processing plants tend to have a higher proportion of males in the population than the state. For example, Akutan (77% male), Dutch Harbor/Unalaska (66% male), and Sand Point (62% male) all have higher proportions of males than the state as a whole (52%).
- Many non-Alaskans participate in commercial fisheries in the state. Many of these participants come from Washington and Oregon.
- Seaford, VA and Pleasantville, NJ are home to the majority of the permit holders for the specialized Alaskan scallop fishery.
- Each year, more than 15,000 people from all over the world buy an Alaska Commercial Fishing Vessel Crewmember license.
- The number of crew has declined since 1993 when about 32,000 held crew licenses. In 2006, 18,498 crew licenses were sold.
- Almost half a million people buy sport fishing licenses in Alaska each year, catching over three million fish. Halibut and salmon are the most popular species.

Subsistence activities

- Alaskans harvest a lot of food from the wild and 65% of this harvest is fish. On average, each person harvests 22 pounds of food each year from the wild. Alaskans in rural areas average 375 pounds per year.

Native Alaskans

- Sixty-five Alaska Native villages along the Bering Sea belong to a Community Development Quota (CDQ) Program that have been allocated 10% of the harvest from several different Bering Sea fisheries.
- Marine mammals, including bowhead whales and several seal species, are important food sources for Alaska Natives in many coastal communities.

Historical context

- Several World War II battles were fought on Alaska’s fishing grounds. While the United States fought the Japanese in the Aleutian Islands, the entire Native population in the archipelago was forcibly removed to internment camps.
- The community of Adak, once a large military base in the Aleutian Islands, is currently being redeveloped by the Aleut Corporation as a fishing community.

Harbor/Unalaska (42%), Kodiak, (42%), King Cove (37%), and Sand Point (36%).

Another factor potentially affecting community resiliency is the relative isolation of Alaska’s fishing communities. Most of Alaska’s fishing communities are reached only by sea or air; no roads connect them to other communities. Weather conditions can make sea and air travel unreliable. This means that these communities can be very isolated. It also means that many foodstuffs and other commercial goods including fuel must be shipped in, raising their local cost. Further, many basic services including medical care are more difficult to access.

The state population grew 8.2% from 1997-2006. The number of building permits issued grew 7% and the unemployment rate declined 8.5% for this period. From 2005-2006, the number of building permits issued decreased 5.1%. There were 12 disaster declarations during the 1997-2006 time period and no emergency declarations.

List of Fishing Communities & Ports

The following list contains fishing communities and ports that have been identified by NMFS social science staff as having ties to commercial and/or recreational fisheries in the North Pacific region. Profiles of these fishing communities can be found in *Community Profiles for North Pacific Fisheries – Alaska*, currently available at <http://www.afsc.noaa.gov/Publications/techmemos.htm>. For the other states, see *Community Profiles for West Coast and North Pacific Fisheries – Washington, Oregon, California, and Other U.S. States*, currently available at <http://www.nwfsc.noaa.gov/publications/displayallinfo.cfm?docmetadataid=6718>.

Alaska

- | | |
|----------------|-----------------------|
| Adak | Cordova |
| Akhiok | Craig |
| Akiachak | Dillingham |
| Akutan | Douglas |
| Aleknagik | Dutch Harbor/Unalaska |
| Alitak Bay | Eagle River |
| Anchor Point | Edna Bay |
| Anchorage | Eek |
| Angoon | Egegik |
| Atka | Ekuk |
| Auke Bay | Ekwok |
| Bethel | Elfin Cover |
| Chefornak | Elim |
| Chignik (Bay) | Emmonak |
| Chignik Lagoon | Excursion Inlet |
| Chignik Lake | Fairbanks |
| Chugiak | False Pass |
| Clam Gulch | Fritz Creek |
| Clarks Point | Galena |
| | Girdwood |
| | Goodnews Bay |

years of age who spoke a language other than English was 14% for the state. In contrast, the percentage of residents who spoke a language other than English at home was more than twice the national rate in Akutan (66%), Dutch

North Pacific Summary

Gustavus
Haines
Halibut Cove
Hobart Bay
Homer
Hoonah
Hooper Bay
Hydaburg
Igiugig
Iliamna
Ivanof Bay
Juneau
Kake
Karluk
Kasilof
Kenai
Ketchikan
King Cove
King Salmon
Kipnuk
Klawock
Kodiak
Kokhanok
Koliagnek
Kongiganak
Kotlik
Kwigillingok
Larsen Bay
Levelock
Manokotak
Marshall
Mekoryuk
Metlakatla
Meyers Chuck
Naknek
Napakiak
Nelson Lagoon
New Stuyahok
Newhalen
Newtok
Nightmute
Nikiski
Nikolaevsk
Ninilchik
Nome
Old Harbor
Ouzinkie
Palmer
Pedro Bay
Pelican
Perryville
Petersburg
Pilot Point
Pilot Station
Platinum

Point Baker
Port Alexander
Port Alsworth
Port Graham
Port Heiden
Port Lions
Port Moller
Port Protection
Portage Creek
Prudhoe Bay
Quinhagak
Saint George
Saint Marys
Saint Paul
Sand Point
Scammon Bay
Seldovia
Seward
Shaktoolik
Sitka
Skwentna
Soldotna
South Naknek
Sterling
Tenakee Springs
Thorne Bay
Togiak
Toksook Bay
Tuntutuliak
Tununak
Twin Hills
Ugashik
Unalakleet
Valdez
Ward Cove
Wasilla
Whale Pass
Whittier
Willow
Wrangell
Yakutat

Washington

Anacortes
Bellingham
Bothell
Cathlamet
Chinook
Edmonds
Everett
Lakewood
Seattle
Silvana
Woodinville

Oregon

Astoria
Newport
Sisters

New Jersey

Pleasantville

Virginia

Seaford

Geographic Characteristics

State land area (sq. mi): 571,951	% of U.S.: 16.2
Coastline (mi): 6,640	Shoreline (mi): 33,904
County equivalents: 27	Coastal: 23
	Marine: 23

2000 Sex by Age: State of Alaska and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
Alaska	626,932	51.7%	48.3%	7.6%	17.6%	14.4%	14.3%	18.2%	15.1%	7.2%	3.6%	1.7%	0.4%
Fishing Communities	36,199	57.7%	42.3%	6.2%	13.7%	12.6%	15.4%	21.8%	17.4%	7.8%	3.2%	1.5%	0.4%

2000 Race and Hispanic/Latino Ethnicity: Alaska and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity	
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)	
Alaska	626,932	69.3%	3.5%	15.6%	4.0%	0.5%	1.6%	5.4%	4.1%	
Fishing Communities	36,199	46.2%	1.2%	26.4%	16.6%	0.4%	4.4%	4.9%	7.7%	

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Alaska	626,932	\$51,571	6.7%	71.3%	Some college	14.3%
Akutan	713	\$33,750 ¹	0.0%	94.1%	HS graduate	65.9%
Dillingham	2,466	\$51,458	10.1%	73.0%	Some college	15.8%
Dutch Harbor / Unalaska ²	4,283	\$69,539	2.0%	83.2%	Some college	42.1%
Ketchikan	7,922	\$45,802	4.9%	70.9%	Some college	11.7%
King Cove	792	\$45,893 ¹	3.3%	73.2%	HS graduate	37.0%
Kodiak	6,334	\$55,142	3.7%	73.9%	Some college	41.6%
Naknek	678	\$53,393	3.1%	71.1%	Some college	4.2%
Petersburg	3,224	\$49,028	3.3%	70.8%	Some college	6.6%
Sand Point	952	\$55,417 ¹	10.3%	74.2%	HS graduate	35.5%
Sitka	8,835	\$51,901	4.2%	73.6%	Some college	9.6%

Indicators for Growth, Marine Health, and Population Well-being in Alaska

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ³	619,500	615,205	608,846	626,932	632,241	640,544	647,747	656,834	663,253	670,053
Building Permits	2,560	2,874	2,211	2,147	2,939	3,003	3,531	3,133	2,885	2,739
Unemployment Rate	7.1	6.1	6.2	6.2	6.2	7.1	7.7	7.4	6.9	6.5
Disaster Declarations	0	0	0	1	0	3	1	1	2	4
Emergency Declarations	0	0	0	0	0	0	0	0	0	0

¹Figures do not include residents living in group quarters: Akutan (638=90% of population), King Cove (299=38% of population, Sand Point (340=36% of population).

²Census data for Dutch Harbor/Unalaska was identified as Unalaska city.

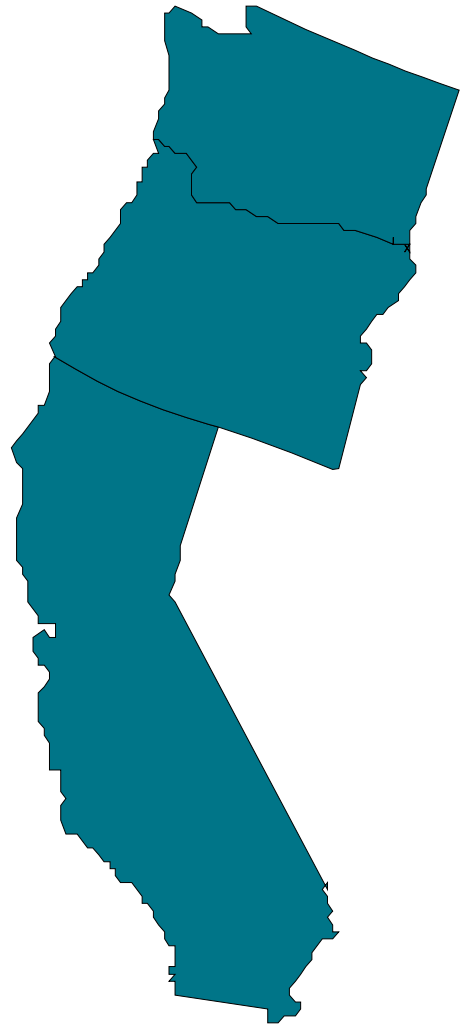
³Estimated population for all years except 2000; actual count was available for this year.



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Pacific

- California
- Oregon
- Washington



Pacific Summary

Regional Context

The Pacific region includes the states of California, Oregon, and Washington which share 1,293 miles of coastline extending from the Canadian border in the north to the Mexican border in the south. California has 840 miles (65%) of this coastline, followed by Oregon (296 miles) and Washington (157 miles). These states also share 7,863 miles of tidal shoreline: California has 3,427 miles; Washington, 3,026 miles; and Oregon, 1,410 miles. Communities involved in marine fishing and harvesting are found along both the coastline and the tidal shoreline that includes Washington's Puget Sound and the region's largest inland waterway, the Columbia River. The Columbia River forms the boundary between Washington and Oregon.

The region's coastal mountain ranges, strong Pacific currents, and more than 16 degrees difference between its north and south latitudes help create diverse coastal ecological and climatic conditions. These range from Washington's temperate rainforest on the Olympic Peninsula in the north through Oregon's forested coastlines and California's Mediterranean climate around Monterey Bay, to southern California's semi-arid coastal hills and coastlines. Important species sought by commercial fishermen include Dungeness crab, Pacific sardines, Pacific whiting, California market squid, Chinook salmon, albacore tuna, and numerous groundfish species including rockfish, sablefish and halibut.

The attributes of fishing communities have changed over the last century along with related changes in the industry and the fish stocks. Historically most of the Pacific region's fishing communities were relatively small and isolated. Over the last century, ecological (including the degradation of fish stocks), demographic, technological, and commercial-industrial trends have resulted in the consolidation of fishing activities. Today, centers of marine commercial and recreational fishing include large cities like San Diego, California and Seattle, Washington, as well as subareas of major metropolitan areas like San Pedro, California, an area within Los Angeles.

Four of California's top commercial fishing communities are located in urban areas of more than 75,000 people. There is only one such fishing community in Washington and none in Oregon. Two of these California fishing communities have populations of over 750,000: San Francisco (776,733) and San Diego (1,223,341). Centers for fishing activity also include smaller cities like Bellingham and Olympia, Washington and Coos Bay, Oregon, as well as very small fishing communities with fewer than a thousand people in rural areas like Point Arena, California (474), Pacific City, Oregon (1,027), and La Push, Washington (371). Five of Washington's top commercial fishing communities have populations of fewer



Tomich Bros. offloading and icing, San Pedro, Los Angeles California

than 1,000, compared to three in California and none in Oregon.

Native Americans have harvested the region's marine life for millennia. Contemporary archaeology indicates that Native Americans arrived in the coastal areas as early as 13,000 years ago. Native peoples reliant on marine and aquatic species for a major portion of their diet were living in coastal and shoreline settlements when the earliest Europeans arrived between the 16th and 18th centuries. Native fishermen continue to harvest fish and other marine resources today for consumption and ceremonial purposes, and as commercial and recreational fishermen. The right to harvest marine and other aquatic resources on traditional fishing grounds is guaranteed under government-to-government treaties made between tribal groups and the United States in the 19th century, and reaffirmed by the 1974 Boldt Decision. Some fishing communities, for example, Neah Bay and La Push, Washington, are primarily Native American communities with their own distinctive governing and socioeconomic structure.

Several salmon species, including Chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*), sockeye (*Oncorhynchus nerka*), and chum (*Oncorhynchus keta*), have been important commercial species and continue to have cultural significance to the region. Local festivals can be found in several communities that memorialize and celebrate the salmon. The issues surrounding the continued existence, harvest, and protection of the species are complex. This iconic species continues to draw broad attention throughout the region.

Recreational fishing is an important part of Pacific Coast recreational culture and contributes to the tourism economy in many locations. Opportunities for recreational fishing vary widely within the region. Washington's Puget Sound offers an array of inner coastal waters as well as opportunities to fish the Pacific Ocean. Oregon

and California both offer coastal fishing opportunities for marine species like salmon and tuna. Communities with a reputation for good fishing also tend to be linked to the tourism industry in general with more tourism infrastructure such as lodging, restaurants, and other amenities. Examples of fishing communities with important recreational fishing sectors include Westport, Washington, Monterey, California, and Gold Beach, Oregon. Puget Sound and the Straits of Juan De Fuca, Washington are home to an active whale watching tourism industry.

Fishing Communities Facts

- Many West Coast communities start their fishing seasons with spring time blessings of the fleet festivals and celebrations.
- In 2000, 1,004 communities in states across the country had some link to Pacific West Coast fisheries. These links included fishing permits, landings, and vessel ownership.
- Although they are thousands of miles away from some of Alaska's fisheries, West Coast communities like Seattle and Bellingham serve as hubs for North Pacific fishermen, crew, vessels, and companies.
- The community of Astoria, Oregon hosts a Fisher Poets Annual Gathering which features original poetry and songs written by participants in the fishing industry.

Fishing ports

- The port of Los Angeles is a major Pacific Coast port, landing 164.5 million pounds of fish in 2006.
- In 2000, Seattle was the homeport for 1,012 fishing vessels that were registered to participate in Alaskan state water fisheries.

Native Americans

- There are 50 federally-recognized Native American tribes in the Pacific region: 29 in Washington, 10 in Oregon, and 11 in California.
- Tribal rights to harvest marine resources are significant features of the fisheries in the Northwest. Twenty Native American tribes are included within the purview of U.S. treaties assuring these rights

Protected species

- Twenty-eight evolutionarily significant units (ESUs) of West Coast salmon and steelhead species have been listed under the Endangered Species Act (ESA). All of these are of traditional, recreational, and/or commercial value to the communities of the region.

Oceanographic conditions

- The 'California Current' along the length of the Pacific West Coast is linked to an upwelling of nutrients supporting abundant seabirds, marine mammals, and fisheries. Productive fisheries allowed for the development of marine-dependent communities including those of historical and literary note such as Monterey, California and its famed Cannery Row.

Fishing Communities

Overall, 125 fishing communities have been profiled by NMFS social scientists because of the nature of their links with commercial and/or recreational fishing in the Pacific region: 53 in California, 32 in Oregon, and 40 in Washington. In 2006, eleven of the U.S. top fifty ports by pounds landed were located on the West Coast. They are: Crescent City, Eureka, Los Angeles, Moss Landing, and Port Hueneme-Oxnard-Ventura, California; Astoria, Coos Bay-Charleston, and Newport, Oregon; and Bellingham, Ilwaco-Chinook, and Westport, Washington. On average, California, Oregon, and Washington accounted on average for 9.5% of U.S. landings from 1997-2006 and 10% of U.S. landings revenue during this period.¹

Neither Washington nor Oregon has major metropolitan cities located directly on their marine coastline. However, Seattle, Tacoma, and Olympia, Washington are located on Puget Sound. California, the U.S.'s most populous state based on the 2000 U.S. Census, has several coastal cities with links to marine fisheries including San Francisco, San Jose, Los Angeles, and San Diego.

Several of the Pacific region's fishing communities are home ports for fishing vessels that split their fishing year between Alaska's North Pacific regional waters and those off Washington, Oregon, and California. The owners and crew of these fishing vessels hold both Pacific and North Pacific region permits. Seattle and Bellingham, Washington are typical examples of these ports. Vessels also come from communities in Oregon such as Newport, and places in California, including communities like Eureka and San Francisco. Seattle is home to large seafood companies with very large fishing vessels that focus almost exclusively on Alaskan fishing, and some Alaskan fishing vessels also come south to the Pacific region to fish. These patterns create networks of fishing activity over a vast expanse of U.S. territorial waters off the Pacific Coast, the Gulf of Alaska, and the Bering Sea far to the north.

Community, Resiliency, Growth, Marine Health and Well Being

According to the 2000 U.S. Census, 9.2% of families in the U.S. live below the poverty line, the median income level is \$42,000, and 18% of residents over five years of age speak a language other than English at home. The poverty rates, median income levels, and residents older than five who speak a language other than English at home vary across the states of the Pacific region and their fishing communities. More information on these and other factors that may affect community resiliency are discussed in the following sections.

¹Landings and landings revenue from offshore processors are excluded from this estimate.

Pacific Summary

California

Based upon the 2000 Census, the percentage of family households below the poverty level was 10.6% in California. Crescent City (33.7%), Point Arena (24.1%), San Pedro (13.2%), Fort Bragg (11.9%), and San Diego (10.6%) had the highest poverty rates across California's top fishing communities. The poverty rate in the other five fishing communities was below the national rate. The percentage of residents over five years of age who spoke a language other than English was 39.5% for the state, more than twice the national rate. Four of the top fishing communities, including San Francisco (45.7%) and San Pedro (40.0%), had comparably high rates. Only Crescent City (13.9%), Point Reyes (14.9%), and Bodega Bay (18.4%) had rates at or lower than the national rate.

At the state level, indicators show that since 1997, population has grown 13.2%, annual building permit issuance increased 46.5%, and the unemployment rate fell 23.4%. Building permit issuance fell 21.7% from 2005-2006. There were 13 disaster declarations during the 1997-2006 time period and two emergency declarations.

Oregon

In 2000, the percentage of family households below the poverty level in Oregon was 7.9%. With the exception of Depoe Bay (5.5%) and Port Orford (16.1%), the family household poverty rates in Oregon's top fishing communities ranged from 8.4% to 12.7%. The median income levels in the fishing communities were markedly lower than the state median income level (\$41,000), averaging \$31,000. The percentage of residents speaking English at home was 12.1% at the state level but less than 10% in all of the top fishing communities.

The state population grew 14.1% between 1997 and 2006. In contrast, the number of building permits issued decreased 1.4% during this period, largely due to a 14.2% decline in building permits issued in 2006 from 2005 levels. The unemployment rate (5.3% in 2006) decreased 5.4% during this period. There were six disaster declarations and one emergency declaration from 1997-2006.

Washington

In Washington, the percentage of family households below the poverty line was 7.3%. Neah Bay (26.3%) and La Push (20.9%) had the highest poverty rates among Washington's top fishing communities. The median income level in Neah Bay was less than half the state median income level. In Washington's other top fishing communities, the family household poverty rate ranged from 6% to 13.2%, and median income levels in these communities ranged from

\$30,000 to \$42,000. The median education level was some college for all communities except La Push (high school graduate).

The state population grew 14.1% between 1997 and 2006. The unemployment rate (4.9% in 2006) ranged from 4.8% in 1998 and 1999, to 7.4% in 2003. The issuance of building permits increased 22% between 1997 and 2006. There were 10 disaster declarations and one emergency declaration during the 1997-2006 time period.

List of Fishing Communities & Ports

The following list contains fishing communities and ports that have been identified by NMFS social science staff as having ties to commercial and/or recreational fisheries in the Pacific region. Communities that also have strong involvement in Alaska fisheries are identified with an asterisk (*). Profiles of these fishing communities are available to the public in *Community Profiles for West Coast and North Pacific Fisheries - Washington, Oregon, California, and Other U.S. States* at <http://www.nwfsc.noaa.gov/publications/displayallinfo.cfm?docmetadataid=6718>.

Washington

Aberdeen
Anacortes*
Bay Center
Bellingham*
Blaine
Bothell*
Cathlamet*
Chinook*
Edmonds*
Everett*
Ferndale
Fox Island
Friday Harbor
Gig Harbor
Grayland
Ilwaco
La Conner
La Push
Lakewood*
Long Beach
Lopez
Mount Vernon
Naselle
Neah Bay
Olympia
Port Angeles
Port Townsend
Raymond
Seattle*
Seaview
Sedro-Woolley

Sequim
Shelton
Silvana*
South Bend
Stanwood
Tacoma
Tokeland
Westport
Woodinville*

Oregon

Astoria*
Bandon
Beaver
Brookings
Charleston
Clatskanie
Cloverdale
Coos Bay
Depoe Bay
Florence
Garibaldi
Gold Beach
Hammond
Harbor
Logsdon
Monument
Newport*
North Bend
Pacific City
Port Orford
Reedsport

Rockaway Beach
Roseburg
Seaside
Siletz
Sisters*
South Beach
Tillamook
Toledo
Warrenton
Winchester Bay

California

Albion
Arroyo Grande
Atascadero
Avila Beach
Bodega Bay
Corte Madera
Costa Mesa
Crescent City
Culver City
Dana Point
Dillon Beach
El Granada
El Sobrante
Eureka
Fields Landing
Fort Bragg
Half Moon Bay
Kneeland
Lafayette
Long Beach
Los Angeles
Los Osos
Marina
McKinleyville
Monterey
Moss Landing Morro Bay
Novato
Oxnard
Pebble Beach
Point Arena
Port Hueneme
Princeton
San Diego
San Francisco
San Jose
San Pedro
Santa Ana
Santa Barbara
Santa Cruz
Santa Rosa
Sausalito
Seaside
Sebastopol
Sunset Beach

Tarzana
Terminal Island
Torrance
Trinidad
Ukiah
Valley Ford
Ventura

New Jersey

Pleasantville*

Virginia

Seaford*

California Tables

Geographic Characteristics

State land area (sq. mi): 155,959	% of U.S.: 4.41
Coastline (mi): 840	Shoreline (mi): 3,427
County equivalents: 58	Coastal: 29
	Marine: 18

2000 Sex by Age: State of California and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
California	33,871,648	49.8%	50.2%	7.3%	15.6%	14.2%	15.4%	16.2%	12.8%	7.7%	5.6%	3.8%	1.3%
Fishing Communities	2,239,735	49.7%	50.3%	6.5%	14.0%	14.3%	15.2%	15.5%	13.9%	8.7%	5.9%	4.4%	1.6%

2000 Race and Hispanic/Latino Ethnicity: California and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity	
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)	
California	33,871,648	59.5%	6.7%	1.0%	10.9%	0.3%	16.8%	4.7%	32.4%	
Fishing Communities	2,239,735	72.3%	3.0%	2.0%	6.3%	0.2%	12.0%	4.2%	23.3%	

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
California	33,871,648	\$47,493	10.6%	62.4%	Some college	39.5%
Bodega Bay	474	\$56,818	2.0%	54.2%	Some college	18.4%
Crescent City	4,006	\$20,133	33.7%	49.9%	Some college	13.9%
Fort Bragg	7,026	\$28,539	11.9%	62.4%	Some college	21.4%
Point Arena	474	\$27,083	24.1%	80.8%	Some college	28.9%
Point Reyes	818	\$57,292	6.0%	72.3%	Some college	14.9%
Santa Barbara	92,325	\$47,498	7.7%	67.0%	Some college	36.0%
Santa Cruz	54,593	\$50,605	6.6%	68.7%	Some college	22.3%
San Diego	1,223,400	\$45,733	10.6%	65.7%	Some college	37.4%
San Francisco	776,733	\$55,221	7.8%	66.3%	Some college	45.7%
San Pedro ¹	79,886	\$43,941	13.2%	60.9%	Some college	40.0%

Indicators for Growth, Marine Health, and Population Well-being in California

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ²	32,217,708	32,682,794	33,145,121	33,871,648	34,550,466	35,024,517	35,466,365	35,841,254	36,154,147	36,457,549
Building Permits	109,589	124,035	138,039	145,575	146,739	159,573	191,948	207,390	205,020	160,502
Unemployment Rate	6.4	6.0	5.3	4.9	5.4	6.7	6.9	6.3	5.4	4.9
Disaster Declarations	1	1	1	1	0	0	1	4	2	2
Emergency Declarations	0	0	1	0	0	0	0	0	1	0

¹Census data for San Pedro was identified as zip code tabulation areas 90731 and 90732.

²Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 95,997	% of U.S.: 2.71
Coastline (mi): 296	Shoreline (mi): 1,410
County equivalents: 36	Coastal: 21 Marine: 7

2000 Sex by Age: State of Oregon and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Oregon	3,421,399	49.6%	6.5%	14.0%	13.8%	13.8%	15.4%	14.8%	8.9%	6.4%	4.7%	1.7%
Fishing Communities	58,580	48.1%	4.7%	11.5%	10.2%	9.3%	13.3%	15.3%	12.7%	12.0%	8.4%	2.6%
		51.9%										

2000 Race and Hispanic/Latino Ethnicity: Oregon and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity	
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)	
Oregon	3,421,399	86.6%	1.6%	1.3%	3.0%	0.2%	4.2%	3.1%	8.0%	
Fishing Communities	58,580	92.5%	0.3%	1.7%	1.0%	0.2%	1.7%	2.6%	4.5%	

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Oregon	3,421,399	\$40,916	7.9%	65.2%	Some college	12.1%
Astoria	9,813	\$33,011	11.6%	64.2%	Some college	8.2%
Brookings	5,447	\$31,656	9.1%	56.2%	Some college	6.1%
Coos Bay	15,374	\$31,212	12.7%	57.9%	Some college	5.5%
Depoe Bay	1,174	\$35,417	5.5%	53.1%	Some college	4.2%
Florence	7,263	\$30,505	10.0%	39.0%	Some college	4.6%
Gearheart/Seaside ¹	5,900	\$31,074	11.6%	61.8%	Some college	9.9%
Gold Beach	1,897	\$30,243	8.8%	58.7%	Some college	5.0%
Newport	9,532	\$31,996	12.2%	62.7%	Some college	9.7%
Pacific City	1,027	\$33,250	8.4%	54.7%	Some college	6.6%
Port Orford	1,153	\$23,289	16.1%	44.5%	Some college	4.0%

Indicators for Growth, Marine Health, and Population Well-being in Oregon

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ²	3,243,254	3,282,055	3,316,154	3,421,399	3,474,183	3,523,529	3,561,155	3,589,168	3,638,871	3,700,758
Building Permits	26,999	25,854	23,249	19,877	21,322	22,186	25,015	27,309	31,024	26,623
Unemployment Rate	5.6	5.7	5.5	5.1	6.4	7.6	8.1	7.3	6.2	5.3
Disaster Declarations	1	1	0	0	0	1	0	1	0	2
Emergency Declarations	0	0	0	0	0	0	0	0	1	0

¹Census data for Gearheart/Seaside was identified as Seaside city.²Estimated population for all years except 2000; actual count was available for this year.

Washington Tables

Geographic Characteristics

State land area (sq. mi): 66,544	% of U.S.: 1.88
Coastline (mi): 157	Shoreline (mi): 3,026
County equivalents: 39	Coastal: 19 Marine: 13

2000 Sex by Age: State of Washington and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Washington	5,894,121	49.8%	6.7%	14.6%	13.9%	14.3%	16.5%	14.4%	8.4%	5.7%	4.1%	1.4%
Fishing Communities	222,833	49.8%	6.0%	14.4%	14.4%	12.1%	14.3%	14.5%	9.8%	7.2%	5.3%	2.0%

2000 Race and Hispanic/Latino Ethnicity: Washington and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Washington	5,894,121	81.8%	3.2%	1.6%	5.5%	0.4%	3.9%	3.6%	7.5%
Fishing Communities	222,833	74.0%	1.0%	17.2%	2.4%	0.2%	1.7%	3.6%	4.8%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Washington	5,894,121	\$45,776	7.3%	66.5%	Some college	14.0%
Anacortes	14,557	\$41,930	6.0%	56.0%	Some college	4.8%
Bellingham Bay	67,171	\$32,530	9.4%	66.4%	Some college	9.8%
Blaine	3,770	\$36,900	10.2%	58.7%	Some college	10.7%
Chinook	457	\$30,417	13.2%	55.4%	Some college	7.8%
Everett	91,488	\$40,100	10.1%	68.8%	Some college	15.8%
Ilwaco	950	\$29,632	10.3%	60.3%	Some college	9.3%
La Conner	761	\$42,344	8.8%	66.9%	Some college	4.8%
La Push ¹	371	\$33,571	20.9%	64.3%	HS graduate	2.4%
Neah Bay	794	\$21,635	26.3%	66.9%	Some College	10.8%
Olympia	42,514	\$40,846	6.9%	67.5%	Some college	9.8%

Indicators for Growth, Marine Health, and Population Well-being in Washington

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ²	5,604,105	5,687,832	5,756,361	5,894,121	5,995,397	6,070,176	6,130,323	6,205,535	6,291,899	6,395,798
Building Permits	41,089	45,727	42,752	39,021	38,345	40,200	42,825	50,089	52,988	50,033
Unemployment Rate	4.9	4.8	4.8	5.0	6.2	7.3	7.4	6.2	5.5	4.9
Disaster Declarations	4	2	0	0	1	0	1	0	0	2
Emergency Declarations	0	0	0	0	0	0	0	0	1	0

¹Census data for La Push was identified as zip code tabulation area 98350.

²Estimated population for all years except 2000; actual count was available for this year.

Western Pacific

■ Hawaii



Western Pacific Summary

Regional Context

The state of Hawai`i, part of the Western Pacific region¹, is composed of the 1,500 mile-long Hawai`ian Island chain. It contains coral atolls and reefs, as well as volcanic islands located between latitudes 19° N and 29° N in the Pacific Ocean. The Hawai`ian Island archipelago is the most isolated grouping of islands on Earth; the nearest continent, North America, is over 2,000 miles away. Volcanic activity originating on the ocean floor continues to build new islands at the eastern end of the chain. Elevation above sea level creates many microclimates on the larger islands. For example, snow occurs above 13,000 ft. on the island of Hawai`i.

Seven of the main Hawai`ian Islands are inhabited. The island of Oahu where Honolulu is located has the largest population at 876,156, while Ni`ihau has the smallest at 160 persons. Important species sought by commercial fishermen include lobsters, mahimahi (dolphinfish), marlin, moonfish (opah), pomfret, scad, snappers, swordfish, tunas, and wahoo.

In 2007, the Papahānaumokuākea Marine National Monument was created encompassing the 1,200 mile-long western section of the island chain – an area the size of California – into a vast marine sanctuary that includes habitat for rare and endangered species like the Hawaiian monk seal.

Voyagers traveling by canoe from the Cook Islands, Tahiti-nui, or Hiva (Marquesas Islands) settled Hawai`i around 400 A.D. or earlier. The canoes were navigated without instruments by seafarers who depended on their observations of the ocean and sky and traditional knowledge of the patterns of nature. The connection between discovery and fishing is part of a pan-Polynesian tradition where, in a sense, islands were fished out of the sea. Fishermen were likely the most frequent discoverers of islands in ancient times while searching for new fishing grounds or chasing schools of pelagic fish.

Native Hawai`ians used a place-based, ecosystem approach to manage their environments and natural resources for thousands of years. Islands, called mokopuni, were divided into districts or moku which were further divided into ahupua`a, sections of land that extended through dispersed ecological zones from mountain summits out into the fishing grounds, or koas. The ahupua`a were social units containing nearly all of the resources required for survival. The ahupua`a system lasted until the early 1800s, when western concepts of property rights began to take root in Hawai`i.

¹The territories of American Samoa, Guam, and the Commonwealth of the Northern Marianas are also part of the Western Pacific Region, but are not included in this publication.



Weigh-in during an Ahi Fever tournament, Oahu Island, Hawaii

Europeans first contacted the Hawai`ian Islands in 1778 when the Englishman Captain Cook arrived. He was followed by whaling fleets from around the world throughout the 19th century. Hawai`i became a United States territory in 1900 and the 50th state in 1959.

The city of Honolulu, on Oahu, is the home port for the Hawai`i-based longline fishing fleet, responsible for the majority of commercial fish landed in Hawai`i. The longline fleet primarily targets bigeye tuna but also catches yellowfin, swordfish, other pelagic species, and numerous sharks – nearly all of which are released. Longline vessel ownership is divided along ethnic lines –75% are split about equally between Vietnamese-American operators and those of European descent, and 25% are operated by Korean-Americans. The three ethnic groups tend to have different operational practices, attitudes toward regulations, and social networks, although there are differences within ethnic groups.

Fishing comprises a relatively small component of the state of Hawai`i's total economy but is nevertheless economically important to some local communities. Small-scale commercial fishermen sell a portion of their catch, and then divide the remaining fish among family and friends, an important cultural and social obligation around which intimate social networks develop and are perpetuated through time. The vast majority of small-scale commercial fishing vessels are trailered (transported by a trailer), allowing fishermen to launch at diverse sites.

Recreational fishing is an important part of the Hawai`ian Islands recreational culture and contributes to the tourism economy in many locations. Hawai`i is known as the blue marlin trolling capital of the world. The annual Hawai`i International Billfish Tournament has been held for the past 45 years in Kona, Hawai`i, which is also a center for charter fishing in the state. Fishing clubs and tournaments are an important social aspect of recreational fishing, bringing

together people from several diverse social and economic groups who may otherwise not interact on a regular basis.

Fishing Communities Facts

- Fishing communities in Hawai`i correspond to a single island. Oahu and Hawai`i (the Big Island) are each also counties, while Kauai County consists of two islands and Maui County of three.
- Since 1992, Honolulu has frequently been among the top ten U.S. ports in economic value of landings.
- In 2006, Honolulu ranked only 38th in quantity of fish landed (20.9 million pounds) but 4th in value (\$54.6 million), reflecting strong market demand for fresh fish.

Role of subsistence fishing

- In Hawai`i, the distinction blurs between commercial, recreational, and subsistence fishing since it only costs \$50 for residents to buy a commercial marine fishing license allowing the sale of fish.

Seafood consumption

- Consumption of recreationally-caught fish is very important. Hawai`i has the lowest rate of catch and release of recreational fish in the nation.

Native Hawai`ians

- Ni`ihau is a private island inhabited primarily by Native Hawai`ians who strive to maintain traditional customs and fisheries management practices.
- Native Hawai`ians used a place-based, ecosystem approach to manage their environments and natural resources for thousands of years. Some see it as a model to adapt and include in some aspects of modern ecosystem-based management on islands in the Western Pacific today.

The Fishing Communities

Fishing communities in the State of Hawai`i are defined as the main inhabited islands which are Hawai`i, Kauai, Lana`i, Maui, Moloka`i, Ni`ihau, and Oahu. The three less populated islands (Lana`i, Moloka`i, and Ni`ihau) have fewer than 7,500 inhabitants each; Kauai, Maui, and Hawai`i have 58,000, 118,000, and 149,000 inhabitants, respectively. Oahu has 876,000 inhabitants.

Fishing activity including locations for landing fish, supplying fishing vessels, and location of fishermen's residences are often localized in sub-areas of each island. In 2006, Honolulu was ranked 4th on the list of U.S. top fifty ports based on landings revenue. On average, from 1997-2006, Hawai`i accounted for 2% of U.S. landings revenue.

Community Resiliency, Growth, Marine Health, and Well Being

According to the 2000 U.S. Census, 9.2% of families in the U.S. live below the poverty line, the median income level is \$42,000, and 18% of residents over five years of age

speak a language other than English at home. Relative to the U.S. as a whole, Hawai`i has a lower percentage of families living in poverty (7.6%), a higher median income level (\$50,000), and a higher number of residents older than five who speak a language other than English at home (26.6%). More information on these and other factors that may affect community resiliency are discussed below.

Family household poverty rates vary across Hawai`i. The islands of Moloka`i (15.8%) and Hawai`i (11%) have poverty rates exceeding the national rate. The poverty rates of the other islands vary from 0% to 8.5%. All of the islands have a relatively high percentage of residents who speak a language other than English at home, ranging from a low in Hawai`i of 18.4% (just above the national rate) to 93.1% in Ni`ihau.

The state population grew 8.1% between 1997 and 2006. The number of building permits issued grew 105% and the unemployment rate declined 57% for this period, falling from 5.8% in 1997 to 2.5% in 2006; the lowest unemployment rate among the coastal states. From 2005-2006, the number of building permits issued decreased 23.4%. There were four disaster declarations during the 1997-2006 time period and no emergency declarations.

List of Fishing Communities & Ports

The following list contains fishing communities and ports that have been identified by NMFS social science staff as having ties to commercial and/or recreational fisheries in the Western Pacific region. With the exceptions of Kaua`i and Maui which have multiple fishing communities, each Hawai`ian island is defined as a fishing community. Profiles of these communities will be available in late 2008 at the Pacific Islands Fisheries Science Center website: <http://www.pifsc.noaa.gov>.

Hawai`i

- Hawai`i*
- Kauai*
- Lana`i*
- Maui*
- Moloka`i*
- Ni`ihau*
- Oahu*

Geographic Characteristics

State land area (sq. mi): 6,423	% of U.S.: 0.18
Coastline (mi): 750	Shoreline (mi): 1,052
County equivalents: 5	Coastal: 5 Marine: 5

2000 Sex by Age: State of Hawai'i and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
Hawai'i	1,211,537	50.2%	49.8%	6.5%	13.9%	13.6%	14.1%	15.8%	14.1%	8.8%	7.0%	4.8%	1.4%
Fishing Communities	1,211,537	49.6%	50.4%	7.4%	16.6%	12.9%	12.6%	15.7%	14.0%	8.7%	6.2%	4.6%	1.4%

2000 Race and Hispanic/Latino Ethnicity: Hawai'i and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity % Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	
Hawai'i	1,211,537	24.3%	1.8%	0.3%	41.6%	9.4%	1.3%	21.4%	7.2%
Fishing Communities	1,211,537	21.0%	0.6%	0.3%	33.1%	21.2%	0.8%	23.1%	6.5%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities ¹	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Hawai'i	1,211,537	\$49,820	7.6%	64.5%	Some college	26.6%
Hawai'i ²	148,677	\$39,805	11.0%	61.7%	Some college	18.4%
Honolulu (Oahu) ³	876,156	\$51,914	7.0%	64.7%	Some college	28.9%
Kauai ⁴	58,303	\$45,057	8.4%	63.1%	Some college	19.4%
Lana'i ⁵	3,193	\$43,271	8.5%	65.9%	HS graduate	37.6%
Maui ⁶	117,644	\$50,546	7.1%	67.3%	Some college	23.8%
Moloka'i ⁷	7,404	\$32,906	15.8%	56.9%	HS graduate	23.2%
Ni'ihau ⁸	160	\$25,927	0.0%	80.9%	HS graduate	93.1%

Indicators for Growth, Marine Health, and Population Well-being in Hawaii

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁹	1,189,322	1,190,472	1,185,497	1,211,537	1,221,419	1,233,249	1,245,606	1,259,299	1,273,278	1,285,498
Building Permits	3,676	3,324	4,211	4,905	4,790	5,902	7,284	9,034	9,828	7,530
Unemployment Rate	5.8	5.7	5.0	4.0	4.2	4.0	3.9	3.2	2.7	2.5
Disaster Declarations	0	0	0	1	0	0	0	0	1	2
Emergency Declarations	0	0	0	0	0	0	0	0	0	0

¹Fishing communities in Hawai'i correspond to a single island and each island is usually a county. Kauai and Maui islands are exceptions; each has multiple fishing communities.

²Census data for Hawai'i was identified as Hawaii County.

³Census data for Honolulu (Oahu) was identified as Honolulu County.

⁴Census data for Kauai was identified as Kauai County minus Census Tract 410 (Kauai County).

⁵Census data for Lana'i was identified as Census Tract 316 in Maui County.

⁶Census data for Maui was identified as Maui County minus Census Tracts 316, 317, and 318 (Maui County).

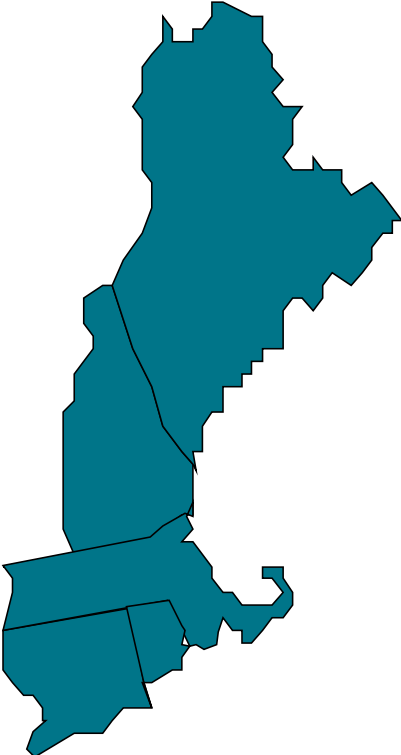
⁷Census data for Moloka'i was identified as Census Tracts 318 and 317 (Maui County) and Census Tract 319 (Kalawao County).

⁸Census data for Ni'ihau was identified as Census Tract 410 in Kauai County.

⁹Estimated population for all years except 2000; actual count was available for this year.

New England

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



New England Summary

Regional Context

The New England region includes Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island. These states combined share 473 miles of coastline: 13 miles to New Hampshire, 40 miles belongs to Rhode Island, 192 miles to Massachusetts, and 228 miles to Maine. Connecticut has no ocean coastline but does have 618 miles of the region's tidal shoreline on Long Island Sound and its inlets. Many sounds, bays, inlets, islands and related features characterize the coastal area of these states. Some examples are: Nantucket Sound; Cape Cod, Casco, and Penobscot Bays; and the Gulf of Maine with its historically rich fishing grounds including Georges Bank. Martha's Vineyard and Nantucket, Massachusetts, and Vinalhaven, Deer Isle, and Mt. Desert, Maine are some larger islands among the many that characterize this region, particularly along the Maine coast. The region's 6,130 miles of tidal shoreline is distributed as follows: New Hampshire (131 miles); Rhode Island (384 miles); Connecticut (618 miles); Massachusetts (1,519 miles); and Maine (3,478 miles).

As one of the areas of oldest European settlement in North America, the region's fisheries have been very important historically. The cod fisheries helped feed Europe's industrial revolution, and were an important part of the 17th through early 19th century's trade route between Africa, the Caribbean, North America, and Europe. New England's whalers – especially from New Bedford, Fairhaven, Provincetown, and Nantucket, Massachusetts – hunted their prey around the world to provide the primary source of oil used for domestic lighting, among other products, beginning in the Colonial era and extending into the early 19th century. Ethnic groups particularly associated with the region's commercial fishing include the Portuguese in New Bedford and Provincetown, the Sicilians in Gloucester, and the Norwegians in New Bedford – all Massachusetts fishing communities – and the “Yankees” (actually white Protestants of British descent), and to a small extent, the Acadians (French) in Maine.

Multiple factors have led to reduced commercial fishing in this region over the past twenty years including stock depletion, changes in fishing regulations, and pollution. Loss of commercial fishing infrastructure to alternative uses also increasingly constrains commercial fishing. All these factors are changing the nature of fishing communities. Gentrification and tourism are factors in communities such as Chatham, Marblehead, and Scituate, Massachusetts; Stonington, Connecticut; Little Compton, Rhode Island; and Vinalhaven, Maine. Many processors and fish houses have ceased operating in the last decade and most rely on imported rather than local product. A recent buyout of the last herring and sardine cannery left in Maine, a plant in Corea, (a village within the town of



A pier crowded with fishing gear, Beals Island, Maine

Gouldsboro) will likely mean a switch away from local to imported product.

Saltwater recreational fishing is found along the entire coast. In 2006, Massachusetts received the most saltwater recreational fishing trips, followed by Connecticut, Rhode Island, New Hampshire, and Maine. Among the top fishing communities that service saltwater anglers are New London, Connecticut, and Fall River and Marblehead, Massachusetts, offering a variety of shoreside support services. Sportfish tournaments are held in the top fishing communities of Groton, Connecticut and Scituate, Massachusetts, as well as in other communities such as Waterford, Connecticut; Bailey Island, and Swans Island, Maine; Barnstable, Danvers, and Marshfield, Massachusetts; and Block Island and Wakefield, Rhode Island.

A large number of the region's fishing communities host seafood festivals and fishing-related festivals such as blessings of the fleet in the warmer months, including the communities of Point Judith, Newport, and North Kingstown, Rhode Island; New Bedford, Gloucester, Marblehead, Sandwich, Provincetown, and Scituate, Massachusetts; New London, Connecticut; Hampton/Seabrook and Portsmouth, New Hampshire; and Winter Harbor, Bar Harbor, Portland, and Rockland, Maine.

The Fishing Communities

Overall, 11 fishing communities in Connecticut, 50 in Maine, 29 in Massachusetts, 7 in New Hampshire, and 12 in Rhode Island have been profiled by NMFS social scientists because of the nature of their links with commercial and/or recreational fishing. In 2006, five of the United States' top fifty ports by pounds landed were located in the New England region. They are: Gloucester and Provincetown-Chatham, Massachusetts; Point Judith,

Fishing Communities Facts

- Gloucester, Massachusetts has been a fishing community continuously since its founding in 1623.
- Boston’s Fish Pier, which opened in 1914, is the oldest continuously operating fish pier in the U.S.
- There is a lot of support for the fishing industry by state and local governments, as indicated by special loan programs and support for town docks in many communities.
- The “Man at the Wheel” statue of the Gloucester Fishermen’s Memorial is one of the most famous fishing monuments in the U.S.
- Marblehead, Massachusetts is known as the “Yachting Capital of America.”

Historical context

- John Cabot, in his 1497 voyage to the new world, discovered huge schools of cod which soon attracted European fishermen, including the Norwegians, the Portuguese, the British, and the French – ethnicities still represented in today’s fishing communities.
- In the late 1800s, a portion of income derived from fishing licenses in Plymouth, Massachusetts was set aside for public schools.
- In 1877 the states with the most ocean fishermen were Massachusetts with 17,106 men and Maine with 8,110.

Fishing activities

- New Bedford, Massachusetts had the highest landed value from commercial fishing among all ports in the entire United States from 2000 to 2006.
- In 2006, there were 4,187 vessels with a Northeast federal permit whose owners lived in New England, but 2,261 vessels which landed in New England.

Fishing-related activities

- There are a number of active fishermen’s and fishermen’s wives associations in the region. One of the oldest (founded in 1954) and largest (1,200 members in 2006) is the Maine Lobstermen’s Association.
- Provincetown, Massachusetts has the largest and safest harbor in New England.
- New England includes critical habitat for northern right whales and habitat for harbor porpoises, impacting fishermen in those areas.

Seascape

- Stellwagen Bank National Marine Sanctuary and four National Estuarine Research Reserves are found in New England waters.

top fishing communities that are located within urban areas with populations greater than 100,000 are: Providence, Rhode Island; and Bridgeport and New Haven, Connecticut. Exclusive of these large cities, the average population for the top fishing communities is 32,846 for Massachusetts, 31,456 for Connecticut, and 26,175 for Rhode Island. Maine averages 9,979, while New Hampshire averages 8,211. Both Maine and New Hampshire’s top fishing communities are predominantly smaller communities. Eight of Maine’s and four of New Hampshire’s top ten fishing communities have populations of less than 8,000. Only two of Massachusetts’s and one of Rhode Island’s top fishing communities have populations of less than 8,000, while Connecticut has none.

Community Resiliency, Growth, Marine Health, and Well Being

According to the 2000 U.S. Census, 9.2% of families in the U.S. live below the poverty line, the median income level is \$42,000, and 18% of residents over five years of age speak a language other than English at home. The New England region has a lower percentage of families living in poverty, a higher median income level, and a comparable percentage of residents older than five who speak a language other than English at home relative to the U.S. as a whole. Not all fishing communities follow to these trends, however. More information on these and other factors that may affect community resiliency are discussed below.

Connecticut

Based upon the 2000 Census, the percentage of family households below the poverty level was 5.6% in Connecticut. New London (13.4%), Bridgeport (16.2%), and New Haven (20.5%) had the highest poverty rates in the state and among the highest in the region. The poverty rate in the other fishing communities was 5% or less. These three communities and Norwalk had the highest percentage of residents who spoke a language other than English at home (24% to 44%).

At the state level, indicators show that population has grown 7.2% and annual building permit issuance has fallen 1% between 1997 and 2006. The average unemployment rate dropped 8%. From 2005–2006, the number of building permits fell 22%. There were two disaster declarations and five emergency declarations during the 1997-2006 time period.

Maine

The percentage of family households below the poverty rate in Maine in 2000 was 7.8%. The family household poverty rates in the fishing communities were generally lower. Portland, Rockland, and Stonington were exceptions,

Rhode Island; and Portland and Stonington, Maine. Perhaps somewhat surprisingly, the New England region accounted for only 7% of U.S. landings from 1997-2006, on average. In contrast, New England accounted for 20% of U.S. landings revenue during this period.

The largest metropolitan area in the New England region is Boston, a center for financial services and insurance for the fishing industry as well as the home of the Nation’s oldest continuously operating fish pier. The region’s other

New England Summary

all with poverty rates at 10%. The percentage of fishing community residents speaking English at home was generally lower than the state average, with Portland providing the lone exception (10%). In three of the nine selected fishing communities, the median education level was “high school.” The median education level for the state and the other fishing communities was “some college.”

The state population grew 6.1% between 1997 and 2006. In contrast, the number of building permits issued grew 55%. The unemployment rate fell 10%, averaging 4.4% for the period. From 2005-2006, the number of building permits issued fell 19%. There were ten disaster declarations and ten emergency declarations during the 1997-2006 time period.

Massachusetts

In Massachusetts, the percentage of family households below the poverty line was 6.7%. Across fishing communities, the household poverty rate ranged from 1% to 17%, with five fishing communities having poverty rates lower than the state poverty rate. The highest poverty rates were in New Bedford (17%), Boston (15%), and Fall River (14%). These fishing communities also had the highest percentage of residents over five years who spoke a language other than English at home: 38%, 33%, and 35%, respectively. The median education levels for the state and five fishing communities was “some college.” Marblehead had the highest median educational attainment (“Bachelor’s degree”) and Fairhaven, Fall River, and New Bedford had the lowest (“high school graduate”).

State population growth between 1997 and 2006 was 5.3% and averaged 6.3 million. The unemployment rate (4.8% in 2006) increased 17%, while the issuance of building permits increased 14% during this period. From 2005-2006, building permit issuance fell 20%. There were five disaster declarations and seven emergency declarations during the 1997-2006 time period.

New Hampshire

The percentage of family households below the poverty line in New Hampshire was the lowest in the region at 4.3%. The family household poverty rate across the selected fishing communities was also relatively low, ranging from 0% to 6%. The percentage of residents over five years of age who spoke a language other than English at home was 8.3% for the state but generally lower across the fishing communities. New Hampshire fishing communities had the highest median education level attained, with three communities having “bachelor’s degrees” as the median level attained by their residents.

At the state level, population grew 12% between 1997 and 2006. The average unemployment rate during this

period was low, averaging 3.5%. The number of building permits issued from 1997-2006 increased 5%, falling 25% from 2005-2006. There were six disaster declarations and seven emergency declarations during the 1997-2006 time period.

Rhode Island

The percentage of family households below the poverty line in Rhode Island was the highest in the region, 8.9%. The poverty rate was lower in fishing communities with the exceptions of Providence (24%, the highest in the region) and Newport (13%). The percentage of residents over five years of age who spoke a language other than English was 20% for the state, also a regional high. With the exceptions of Providence (43%) and Bristol (21%), most fishing communities had a lower rate than the state rate. The median educational attainment of the state and all fishing communities was “some college.”

Rhode Island’s population growth was 8% between 1997 and 2006. In contrast, building permit issuance fell 11% for the period. The unemployment rate fell 2%, averaging 4.9% for the period. From 2005-2006, the number of building permits issued fell 16%. There were no disaster declarations and three emergency declarations during the 1997-2006 time period.

List of Fishing Communities & Ports

The following list contains fishing communities and ports that have been identified by NMFS social science staff as having ties to commercial and/or recreational fisheries in the New England region. Profiles of most of these communities will be available in the summer of 2009 at http://www.nefsc.noaa.gov/read/socialsci/community_profiles/. Communities yet to be profiled are identified with an asterisk (*).

Maine

Addison
Bailey Island
Bar Harbor
Bath
Beals
Belfast
Boothbay Harbor
Bremen
Bucks Harbor
Cape Porpoise
Corea
Cundys Harbor
Cushing
Cutler
Deer Isle
Eastport

Falmouth
Frenchboro
Friendship
Gouldsboro Town*
Harpwell
Islesford
Jonesport
Kennebunkport
Kittery
Milbridge
New Harbor
North Haven
Ogunquit
Owls Head
Pemaquid
Port Clyde
Portland
Prospect Harbor

Rockland
Saint George Town*
Sebasco Estates/Phippsburg
Sorrento
South Bristol
South Thomaston
Southwest Harbor
Spruce Head
Stonington
Swans Island
Tenants Harbor
Tremont
Vinalhaven
Westport
Whiting
Winter Harbor

New Hampshire

Durham*
Hampton
New Castle*
Newington
Portsmouth
Rye
Seabrook

Massachusetts

Barnstable
Beverly
Boston
Chatham
Chilmark
Cohasset
Danvers
Fairhaven
Fall River
Gloucester
Harwich Port
Hull
Manchester
Marblehead
Marshfield
Nantucket
New Bedford
Newburyport
Orleans
Plymouth
Provincetown
Rockport
Salisbury
Sandwich
Saugus
Scituate
Wellfleet

Westport
Woods Hole

Rhode Island

Block Island
Bristol*
Little Compton
Newport
North Kingstown
Point Judith/Narragansett
Portsmouth
Providence*
South Kingstown*
Tiverton Wakefield
Warren
Warwick*

Connecticut

Branford*
Bridgeport*
Darien*
East Haven*
Groton
New Haven*
New London
Norwalk*
Portland*
Stonington
Waterford

Connecticut Tables

Geographic Characteristics

State land area (sq. mi): 4,845	% of U.S.: 0.14
Coastline (mi): 0	Shoreline (mi): 618
County equivalents: 8	Coastal: 8 Marine: 4

2000 Sex by Age: State of Connecticut and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Connecticut	3,405,565	48.4%	6.6%	14.3%	11.9%	13.3%	17.1%	14.1%	9.1%	6.8%	5.1%	1.9%
Fishing Communities	514,801	43.5%	6.3%	12.6%	11.0%	12.7%	15.0%	12.1%	7.6%	6.2%	4.7%	1.6%
		46.6%										

2000 Race and Hispanic/Latino Ethnicity: Connecticut and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Connecticut	3,405,565	81.6%	9.1%	0.3%	2.4%	0.0%	4.3%	2.2%	9.4%
Fishing Communities	514,801	70.2%	10.8%	0.3%	2.1%	0.1%	4.2%	2.4%	10.1%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Connecticut	3,405,565	\$53,935	5.6%	66.6%	Some college	18.3%
Branford ¹	28,683	\$58,009	3.3%	69.9%	Some college	9.0%
Bridgeport	139,529	\$34,658	16.2%	61.2%	HS graduate	43.5%
Darien	19,607	\$146,755	0.6%	61.6%	Bachelor's degree	11.4%
East Haven	28,189	\$47,930	3.5%	66.9%	HS graduate	12.1%
Groton ²	39,907	\$46,154	4.9%	70.9%	Some college	9.0%
New Haven	123,626	\$29,604	20.5%	60.0%	Some college	28.4%
New London	25,671	\$33,809	13.4%	65.8%	Some college	23.6%
Norwalk	82,951	\$59,839	5.0%	70.8%	Some college	26.8%
Portland ³	8,732	\$63,285	3.0%	71.9%	Some college	8.4%
Stonington ⁴	17,906	\$52,437	2.9%	65.0%	Some college	7.5%

Indicators for Growth, Marine Health, and Population Well-being in Connecticut

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁵	3,268,514	3,272,563	3,282,031	3,405,565	3,433,201	3,457,927	3,482,326	3,493,893	3,500,701	3,504,809
Building Permits	9,311	11,863	10,637	9,376	9,290	9,731	10,435	11,837	11,885	9,236
Unemployment Rate	4.8	3.2	2.7	2.3	3.1	4.4	5.5	4.9	4.9	4.4
Disaster Declarations	0	0	1	0	0	0	0	0	1	0
Emergency Declarations	0	0	0	0	0	0	1	1	2	1

¹Census data for Branford was identified as Branford town in the New Haven County subdivision.

²Census data for Groton was identified as Groton town in the New London County subdivision.

³Census data for Portland was identified as Portland town in the Middlesex County subdivision.

⁴Census data for Stonington was identified as Stonington town in the New London County subdivision.

⁵Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 30,862	% of U.S.: 0.87
Coastline (mi): 228	Shoreline (mi): 3,478
County equivalents: 16	Coastal: 14 Marine: 8

2000 Sex by Age: State of Maine and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
Maine	1,274,923	48.7%	51.3%	5.5%	13.7%	12.5%	12.4%	16.7%	15.1%	9.7%	7.5%	5.0%	1.8%
Fishing Communities	89,813	48.2%	51.8%	5.5%	12.4%	11.5%	12.7%	15.3%	14.8%	10.5%	9.2%	6.0%	2.1%

2000 Race and Hispanic/Latino Ethnicity: Maine and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Maine	1,274,923	96.9%	0.5%	0.6%	0.7%	0.0%	0.2%	1.0%	0.7%
Fishing Communities	89,813	96.1%	0.7%	0.4%	0.8%	0.0%	0.4%	1.7%	0.7%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Maine	1,274,923	\$37,240	7.8%	65.3%	Some college	7.8%
Bar Harbor	4,820	\$37,481	4.9%	66.9%	Some college	4.8%
Cundys Harbor ¹	5,239	\$40,611	3.3%	59.5%	Some college	6.9%
Port Clyde ²	2,580	\$41,211	3.8%	60.6%	Some college	2.5%
Portland	64,249	\$35,650	9.7%	69.1%	Some college	9.9%
Prospect Harbor ³	1,941	\$36,542	7.0%	60.5%	HS graduate	4.0%
Rockland	7,609	\$30,209	10.4%	63.0%	Some college	3.7%
Stonington ⁴	1,152	\$28,894	9.6%	52.4%	HS graduate	3.2%
Vinalhaven	1,235	\$34,087	5.7%	53.9%	HS graduate	4.0%
Winter Harbor ⁵	988	\$28,571	5.5%	67.7%	Some college	5.9%

Indicators for Growth, Marine Health, and Population Well-being in Maine

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁶	1,245,215	1,247,554	1,253,040	1,274,923	1,286,419	1,296,817	1,307,151	1,313,921	1,318,220	1,321,574
Building Permits	4,706	6,280	5,688	6,177	6,492	7,207	7,933	8,771	8,969	7,293
Unemployment Rate	5.1	4.5	4.0	3.3	3.8	4.4	5.0	4.6	4.8	4.6
Disaster Declarations	0	2	2	1	1	0	1	1	1	1
Emergency Declarations	0	0	0	0	1	0	1	2	5	1

¹Census data for Cundys Harbor was identified as Harpswell town in the Cumberland County subdivision. Harpswell town also includes Harpswell, South Harpswell, Bailey Island, and Orrs Island.

²Census data for Port Clyde was identified as St. George town in the Knox County subdivision. St. George town also includes Tenants Harbor.

³Census data for Prospect Harbor was identified as Gouldsboro town in the Hancock County subdivision. Gouldsboro town also includes Gouldsboro, Corea, and Birch.

⁴Census data for Stonington was identified as Stonington town in the Hancock County subdivision.

⁵Census data for Winter Harbor was identified as Winter Harbor town in the Hancock County subdivision.

⁶Estimated population for all years except 2000; actual count was available for this year.

Massachusetts Tables

Geographic Characteristics

State land area (sq. mi): 7,840	% of U.S.: 0.22
Coastline (mi): 192	Shoreline (mi): 1,519
County equivalents: 14	Coastal: 12 Marine: 8

2000 Sex by Age: State of Massachusetts and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Massachusetts	6,349,097	48.2%	6.3%	13.6%	12.9%	14.6%	16.7%	13.8%	8.6%	6.7%	5.0%	1.8%
Fishing Communities	884,753	48.2%	5.4%	12.3%	10.7%	12.5%	16.6%	15.1%	10.1%	8.6%	6.4%	2.5%
		51.8%										

2000 Race and Hispanic/Latino Ethnicity: Massachusetts and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Massachusetts	6,349,097	84.5%	5.4%	0.2%	3.8%	0.0%	3.7%	2.3%	6.8%
Fishing Communities	884,753	89.2%	4.4%	0.3%	1.4%	0.0%	2.5%	2.2%	0.3%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Massachusetts	6,349,097	\$50,502	6.7%	66.2%	Some college	18.7%
Boston	589,141	\$39,629	15.3%	63.6%	Some college	33.4%
Chatham	1,667	\$47,037	0.9%	51.6%	Some college	4.9%
Fairhaven ¹	16,159	\$41,696	6.5%	63.3%	HS graduate	10.6%
Fall River	91,938	\$29,014	14.0%	59.1%	HS graduate	34.6%
Gloucester	30,273	\$47,722	7.1%	66.1%	Some college	10.3%
Marblehead	20,377	\$73,968	3.2%	68.7%	Bachelor's degree	7.3%
New Bedford	93,768	\$27,569	17.3%	57.7%	HS graduate	37.8%
Provincetown ²	3,431	\$32,716	8.5%	64.2%	Some college	9.9%
Sandwich ³	20,136	\$61,250	2.2%	66.8%	Some college	4.6%
Scituate ⁴	17,863	\$70,868	1.4%	67.6%	Some college	5.5%

Indicators for Growth, Marine Health, and Population Well-being in Massachusetts

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁵	6,115,476	6,144,407	6,175,169	6,349,097	6,406,727	6,431,247	6,439,592	6,435,995	6,433,367	6,437,193
Building Permits	17,186	19,254	18,967	18,000	17,034	17,465	20,257	22,477	24,549	19,580
Unemployment Rate	4.1	3.4	3.3	2.8	3.7	5.3	5.8	5.2	4.9	4.8
Disaster Declarations	0	1	0	0	1	0	0	1	1	1
Emergency Declarations	0	0	1	0	1	0	1	1	3	0

¹Census data for Fairhaven was identified as Fairhaven town in the Bristol County subdivision.

²Census data for Provincetown was identified as Provincetown town in the Barnstable County subdivision.

³Census data for Sandwich was identified as Sandwich town in the Barnstable County subdivision.

⁴Census data for Scituate was identified as Scituate town in the Plymouth County subdivision.

⁵Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 8,969	% of U.S.: 0.25
Coastline (mi): 13	Shoreline (mi): 131
County equivalents: 10	Coastal: 6 Marine: 1

2000 Sex by Age: State of New Hampshire and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
New Hampshire	1,235,786	49.2%	50.8%	6.1%	14.7%	12.6%	13.0%	17.9%	14.9%	8.9%	6.3%	4.2%	1.5%
Fishing Communities	57,475	48.2%	51.8%	4.6%	11.7%	15.3%	10.7%	15.8%	15.2%	11.0%	8.8%	5.3%	1.2%

2000 Race and Hispanic/Latino Ethnicity: New Hampshire and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
New Hampshire	1,235,786	96.0%	0.7%	0.2%	1.3%	0.0%	0.6%	1.1%	1.7%
Fishing Communities	57,475	96.6%	0.8%	0.2%	1.3%	0.0%	0.2%	0.9%	0.4%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
New Hampshire	1,235,786	\$49,467	4.3%	70.5%	Some college	8.3%
Durham ¹	12,664	\$51,697	2.8%	61.0%	Bachelor's degree	8.4%
Hampton	9,126	\$57,356	1.9%	69.1%	Some college	6.7%
New Castle ²	1,010	\$83,708	0.0%	57.6%	Bachelor's degree	6.1%
Newington ³	775	\$59,464	5.0%	75.8%	Some college	7.7%
Portsmouth	20,784	\$45,195	6.4%	69.9%	Some college	6.6%
Rye ⁴	5,182	\$63,152	1.6%	59.9%	Bachelor's degree	5.3%
Seabrook ⁵	7,934	\$42,874	6.1%	69.3%	HS graduate	5.5%

Indicators for Growth, Marine Health, and Population Well-being in New Hampshire

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁶	1,173,239	1,185,823	1,201,134	1,235,786	1,258,408	1,273,970	1,285,918	1,297,961	1,306,819	1,314,895
Building Permits	5,404	5,771	6,326	6,680	6,624	8,708	8,641	8,653	7,586	5,677
Unemployment Rate	3.1	2.9	2.8	2.7	3.4	4.6	4.5	3.9	3.6	3.5
Disaster Declarations	0	2	1	0	0	0	1	0	1	1
Emergency Declarations	0	0	0	0	1	0	1	1	4	0

¹Census data for Durham was identified as Durham town in the Strafford County subdivision.

²Census data for New Castle was identified as New Castle town in the Rockingham County subdivision.

³Census data for Newington was identified as Newington town in the Rockingham County subdivision.

⁴Census data for Rye was identified as Rye town in the Rockingham County subdivision.

⁵Census data for Seabrook was identified as Seabrook town in the Rockingham County subdivision.

⁶Estimated population for all years except 2000; actual count was available for this year.

Rhode Island Tables

Geographic Characteristics

State land area (sq. mi): 1,045	% of U.S.: 0.03
Coastline (mi): 40	Shoreline (mi): 384
County equivalents: 5	Coastal: 5 Marine: 4

2000 Sex by Age: State of Rhode Island and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
Rhode Island	1,048,319	48.0%	52.0%	6.1%	13.7%	14.1%	13.4%	16.2%	13.5%	8.5%	7.0%	5.5%	2.0%
Fishing Communities	409,191	48.2%	51.8%	5.5%	12.7%	15.3%	12.3%	15.8%	14.3%	9.3%	7.4%	5.4%	1.9%

2000 Race and Hispanic/Latino Ethnicity: Rhode Island and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Rhode Island	1,048,319	85.0%	4.5%	0.5%	2.3%	0.1%	5.0%	2.7%	8.7%
Fishing Communities	409,191	90.7%	2.9%	0.6%	1.5%	0.1%	2.3%	1.9%	0.4%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Rhode Island	1,048,319	\$42,090	8.9%	64.6%	Some college	20.0%
Bristol	22,469	\$43,689	5.2%	63.6%	HS graduate	21.4%
Little Compton ¹	3,593	\$55,368	3.7%	65.4%	Some college	5.6%
Newport	26,475	\$40,669	12.9%	70.1%	Some college	9.6%
North Kingstown ²	26,326	\$60,027	5.8%	71.9%	Some college	6.4%
Point Judith ³	16,361	\$50,363	4.9%	67.0%	Some college	5.6%
Providence	173,618	\$26,867	23.9%	57.7%	HS graduate	43.0%
South Kingstown ⁴	27,921	\$56,325	3.1%	67.4%	Some college	10.2%
Tiverton ⁵	15,260	\$49,977	2.9%	66.9%	HS graduate	10.3%
Warren ⁶	11,360	\$41,285	5.2%	67.0%	HS graduate	13.3%
Warwick	85,808	\$46,483	4.2%	66.5%	Some college	7.9%

Indicators for Growth, Marine Health, and Population Well-being in Rhode Island

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁷	986,966	987,704	990,819	1,048,319	1,058,510	1,068,568	1,074,783	1,078,930	1,073,579	1,067,610
Building Permits	2,672	2,642	3,414	2,596	2,407	2,848	2,286	2,532	2,836	2,370
Unemployment Rate	5.2	4.6	4.2	4.2	4.5	5.1	5.4	5.2	5.1	5.1
Disaster Declarations	0	0	0	0	0	0	0	0	0	0
Emergency Declarations	0	0	0	0	0	0	1	0	2	0

¹Census data for Little Compton was identified as Little Compton town in the Newport County subdivision.

²Census data for North Kingstown was identified as North Kingstown in the Washington County subdivision.

³Census data for Point Judith was identified as Narragansett town in the Washington County subdivision.

⁴Census data for South Kingstown was identified as South Kingstown town in the Washington County subdivision.

⁵Census data for Tiverton was identified as Tiverton town in the Newport County subdivision.

⁶Census data for Warren was identified as Warren town in the Bristol County subdivision.

⁷Estimated population for all years except 2000; actual count was available for this year.

Mid-Atlantic

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



Mid-Atlantic Summary

Regional Context

The Mid-Atlantic region includes Delaware, Maryland, New Jersey, New York, and Virginia. These states combined share 428 miles of coastline: 130 miles in New Jersey, 127 miles in New York, 112 miles in Virginia, 31 miles in Maryland, and 28 miles in Delaware. Many sounds, bays, inlets, and related features characterize the coastal area of these states such as the Chesapeake Bay and Long Island Sound. Although the region's seacoast is not particularly lengthy, it shares 10,528 miles of tidal shoreline distributed among the states as follows: Virginia, 3,315 miles; Maryland, 3,190 miles; New York, 1,850 miles; New Jersey, 1,792 miles; and Delaware, 381 miles. The most commercially important species today in the Mid-Atlantic region are sea scallop, blue crab, surf clam, menhaden, quahog (inshore), summer flounder, striped bass, lobster, squid (loligo), and monkfish.

Historically, the Chesapeake Bay has had one of the Nation's and the region's more productive commercial fisheries dominated by blue crab and oysters, but also including finfish like striped bass. Many Maryland and some Virginia fishing communities are located on its tidal creeks and islands. Examples include: Smith Island, Solomons, and Deale, Maryland; and Reedville, Wachapreague, and Cheriton, Virginia. Today many of these areas provide recreational fishing opportunities and second homes for people from metropolitan Washington, D.C. and Baltimore, Maryland, and increasingly primary homes for others. This is another local example of the national trend of population movement to coastal zones. Both shores of the Chesapeake Bay and the whole Delaware/Maryland/Virginia or "Delmarva" Peninsula are undergoing transformation, impacting local fisheries and fishing communities. Commercial fisheries production in the Chesapeake Bay and its tributaries is in decline for complex reasons including pollution from agriculture and urban expansion throughout its vast watershed, and species-specific disease. The Chesapeake Bay area's experience is typical of the region as a whole.

Loss of commercial fishing infrastructure to alternate uses increasingly constrains commercial fishing and is changing the nature of fishing communities. Gentrification and tourism are factors in communities including: Barnegat Light/Long Beach, Belford, and Atlantic City, New Jersey; Greenport and Hampton Bays/Shinnecock, New York; Lewes, Delaware; Ocean City, Maryland; and Hampton, Virginia. Many processors and fish houses have ceased operating in the last decade. Some examples of fishing communities where this is happening include Chincoteague and Norfolk, Virginia and Ocean City, Maryland.

Saltwater recreational fishing is found along the entire coast and its importance is increasing. In 2006, New Jersey received the most saltwater recreational fishing trips,



Fresh fish and seafood at The New Fulton Fish Market, Bronx, New York

followed by New York, Virginia, Maryland, and Delaware. Among the top fishing communities that service saltwater anglers are Barnegat Light/Long Beach, Point Pleasant, and Belmar, New Jersey; Mattituck and Montauk, New York; Lewes and Indian River, Delaware; Ocean City, Maryland; and Hampton, Newport News, Wachapreague, and Chincoteague, Virginia. These offer a variety of shoreside support services as well as sportfish tournaments.

A large number of the region's fishing communities host seafood festivals and fishing-related festivals such as blessings of the fleet in the warmer months. Examples include the communities of Lewes, Delaware; Ocean City, Maryland; Atlantic City, Avalon, Barnegat Light/Long Beach, Belmar, Cape May, and Point Pleasant, New Jersey; Greenport, Oceanside, Point Lookout, Mattituck, and Montauk, New York; and Chincoteague, Hampton, Newport News, and Seaford, Virginia.

The Fishing Communities

Overall, 58 fishing communities have been profiled by NMFS social scientists because of the nature of their links with commercial and/or recreational fishing in the Mid-Atlantic region. These communities are distributed as follows: Delaware, five communities; Maryland, nine communities; New Jersey, 17 communities; New York, 13 communities; North Carolina, 24 communities; Pennsylvania, two communities; and Virginia, 12 communities.¹ In 2006, six of the United States' top fifty

¹Neither North Carolina nor Pennsylvania are included in this regional summary. North Carolina is described in the South Atlantic Regional Summary. Pennsylvania was omitted here due to its limited engagement in marine-related commercial harvest and recreational fishing sectors. Maryland's fishing communities were identified by non-NMFS regional specialists because fisheries landings are not tied to ports in that state.

Fishing Communities Facts

- The community of Belford, New Jersey is reported to be one of the oldest fishing ports on the East Coast.
- Smith Island, Maryland, with a population of under 400, is one of only three Mid-Atlantic islands to still have year-round residents.
- The landing site of Port Mahon, Delaware is located in a Nature Conservancy Preserve and can be accessed only by four-wheel drive vehicle. Fishermen do not reside here but in nearby Little Creek, Delaware.

Commercial fisheries

- In 2006, there were 1,382 vessels with a Northeast federal permit whose owners lived in the Mid-Atlantic, but 982 vessels which landed in the Mid-Atlantic.
- Traditionally many menhaden fishermen, though few captains, have been African American. The menhaden is a small fish caught in large quantity used to produce fish meal and other products.
- Delaware fishermen generally land their catch in Ocean City, Maryland as there have been no fish packing facilities in Delaware since 1986.
- North Carolina commercial fisheries are so intertwined with certain primarily Mid-Atlantic species that North Carolina has a seat on the Mid-Atlantic Fishery Management Council, in addition to its seat on the South Atlantic Fishery Management Council.

Recreational fishing

- The Cape May County Fishing Tournament in New Jersey is one of the longest continuously running fishing tournaments on the East Coast. Avalon, Cape May, Wildwood, and Sea Isle City, New Jersey are all within Cape May County.
- Freeport, New York (near Oceanside, New Jersey and Point Lookout, New York) hosts the largest annual shark tournament on the East Coast.

Seafood sales

- The Fulton Fish Market in New York City is the largest consortium of seafood wholesalers in the country.

Historical context & recognition

- In 1871, there was a whaling “lookout” station established on what is now known as Point Lookout, New York.
- In 1877, if oystermen were added to the total, the states with second and third most fishermen in the U.S. were Virginia and Maryland with 16,000 each.
- The village of Greenport and Mattituck Inlet in New York have been designated as historic maritime areas by the Town of Southold, within which they are located.
- Reedville, Virginia is home to Omega Protein Corp. The company can trace its roots back to a primitive fish processing facility begun by John Haynie in what is now Reedville in 1678.

Other fish facts

- According to some researchers, Slaughter Beach in Milford, Delaware is the most important horseshoe crab spawning ground in the world.
- Newport News, Hampton, and Virginia Beach, Virginia, as well as some other nearby communities, are sometimes referred to collectively as the Hampton Roads area.
- Dorchester County, Maryland (location of Cambridge, Maryland) is the origin of the skipjack, a type of sailboat developed on the Chesapeake Bay specifically for oyster dredging.

ports by pounds landed were located in the Mid-Atlantic region. They are: Reedville and Hampton Roads, Virginia; Cape May-Wildwood, Atlantic City, and Point Pleasant, New Jersey; and Montauk, New York.

Several major metropolitan areas are located in the Mid-Atlantic region, a center of population for the United States. The region’s top fishing communities located within larger urban areas are all located in Virginia. They include Virginia Beach, Richmond, Newport News, and Hampton. Another seven of the region’s top fishing communities are smaller cities between 10,000 and 41,000 population. Some examples include Atlantic City and Point Pleasant, New Jersey, and Oceanside and Hampton Bays, New York. The remaining top fishing communities have populations of 7,000 or less and are located as follows: Maryland has seven and New Jersey has eight fishing communities of this size; and Delaware, New York, and Virginia each have five fishing communities of this size. Six top fishing communities in the region have fewer than 1,000 inhabitants: Barnegat Light, New Jersey; Port Mahon/Little Creek and Bowers Beach, Delaware; Wachapreague and Cheriton, Virginia; and Smith Island, Maryland.

Community Resiliency, Growth, Marine Health, and Well Being

According to the 2000 U.S. Census, 9.2% of families in the U.S. live below the poverty line, the median income level is \$42,000, and 18% of residents over five years of age speak a language other than English at home. The Mid-Atlantic region and its fishing communities are fairly comparable to the national picture, with state-level poverty rates ranging from 6.1% to 11.5%, median income levels ranging from \$43,000-\$55,000, and the percentage of residents over five years of who speak a language other than English at home ranging from 9.5% to 28%. More information on these and other factors that may affect community resiliency are discussed below.

Delaware

The percentage of family households below the poverty level in Delaware was 6.5%. The poverty rates in fishing communities varied but were still comparable to the national rate. Indian River and Lewes had the lowest poverty rates at 1.7% and 3.4%, respectively. The poverty rates in the other top fishing communities ranged from 7.7% to 10.6%. The percentage of residents over five years of age who spoke a language other than English at home was 9.5% for the state (a regional low) but generally lower across the fishing communities.

At the state level, indicators show that population has grown 16.1% between 1997 and 2006 and the unemployment rate fell 10.3%. The number of annual

Mid-Atlantic Summary

building permits issued increased 37%, despite falling 21% from 2005–2006. There were six disaster declarations and two emergency declarations during the 1997-2006 time period.

Maryland

The percentage of family households below the poverty level in Maryland was 6.1% in 2000, the lowest in the region. The family household poverty rate in fishing communities varied. Four fishing communities (Ocean City, Deale, Shady Side, and Solomons) had poverty rates at 6% or less. Crisfield (30.5%), Cambridge (17.2%), and Smith Island (14.4%) had the highest poverty rates. The percentage of fishing community residents over five years of age who spoke a language other than English at home was 12.6% for the state but markedly lower across the fishing communities (7% or lower, less than half the national average). The median education level for the fishing communities was “high school” for six communities and “some college” for three. The median education level for the state was “some college.”

The state population grew 10.3% between 1997 and 2006 and the unemployment rate fell 19% during this period to 3.8% in 2006. The number of building permits issued declined 10.4% during this time, largely due to a 23% decline from 2005-2006. There were five disaster declarations and two emergency declarations during the 1997-2006 time period.

New Jersey

In New Jersey, the percentage of family households below the poverty line was 6.3%. Eight fishing communities had poverty rates less than the national rate and six were below the state poverty rate. Atlantic City (19.1%) and Wildwood (20.2%) had poverty rates twice the national average. These fishing communities also had the highest percentage of residents who spoke a language other than English at home, 38.4% and 20.6%, respectively. Among New Jersey's top fishing communities, Wildwood (\$24,000), Atlantic City (\$27,000), and Cape May (\$33,000) had the lowest median income levels.

Between 1997 and 2006, state population growth was 8.3% and the unemployment rate fell 11.3%. The issuance of building permits increased 22.5%, despite falling 11.1% from 2005-2006, the lowest decrease in the Mid-Atlantic region. There were eight disaster declarations and four emergency declarations during the 1997-2006 time period.

New York

The percentage of family households below the poverty line in New York was the highest in the region at 11.5%. With the exception of Greenport (21.1%), the family household poverty rate across the selected fishing communities was lower than the state and national rates. The percentage of residents over five years of age who spoke a language other than English at home was 28% for the state but generally lower across the fishing communities. Montauk (30.3%) had the highest percentage of residents who spoke a language other than English at home, while Mattituck (8.1%), Amagansett (9.5%), and Point Lookout (9.5%) had rates roughly half the national average. The New York fishing communities had the highest median education level attained in the region (“some college”).

At the state level, population grew 6.4% between 1997 and 2006 to 19.3 million residents. The unemployment rate dropped 29% during this time period to 4.6% in 2006. The number of building permits issued increased 65%, declining 12.2% from 2005-2006. There were 18 disaster declarations and 11 emergency declarations during the 1997-2006 time period.

Virginia

The percentage of family households below the poverty line in Virginia was 7%. The poverty rate was generally lower or comparable in Virginia's fishing communities, with the exception of Richmond (17.1%) and Newport News (11.3%). The percentage of residents over five years of age who spoke a language other than English was 11.1% for the state. The fishing communities all had lower rates, averaging 5.3%. Only three fishing communities (Seaford, Poquoson, and Virginia Beach) had median income levels higher than either the state or national median income levels.

Virginia's population growth rate was 13.5% between 1997 and 2006 and the unemployment rate fell 19% during this period to 3% in 2006. Building permit issuance, which peaked in 2004, fell 23% from 2005-2006. There were 16 disaster declarations and two emergency declarations during the 1997-2006 time period.

List of Fishing Communities & Ports

The following list contains fishing communities and ports that have been identified by NMFS social science staff as having ties to commercial and/or recreational fisheries in the Mid-Atlantic region. Profiles of most of these communities will be available in late 2008. Communities not yet profiled are identified with an asterisk (*). Though not mentioned in the regional summary for the Mid-Atlantic, both Pennsylvania and North Carolina

have communities have ties to fisheries in this region. North Carolina is described in the South Atlantic regional summary. Community profiles will be available in the summer of 2009 at http://www.nefsc.noaa.gov/read/socialsci/community_profiles/.

New York

*Amagansett**
Brooklyn
Captree Island
City Island
Freeport
Greenport
Hampton Bays/Shinnecock
*Islip**
Montauk
Mattituck
New York
Oceanside
Point Lookout

New Jersey

Atlantic City
Avalon
Barnegat Light/Long Beach
Belford/Middletown
Belmar
Brielle
Cape May
Cape May Court House
Highlands
Newark
Point Pleasant/Point Pleasant Beach
Port Norris
Sea Isle City
Toms River
Vineland
Waretown
Wildwood

Delaware

Indian River
Lewes
Milford

Maryland

Cambridge
Ocean City

Pennsylvania

Bloomsburg
*Philadelphia**

Virginia

Carrolton
Cheriton
Chincoteague
Hampton
Newport News
Norfolk
Poquoson
Seaford
Virginia Beach
Wachapreague

North Carolina

Atlantic
Atlantic Beach
Aurora
Avon
Ayden
Bayboro
Beaufort
Belhaven
Columbia
Engelhard
Hatteras
Kill Devil Hills
Lowland
Manteo
Morehead City
Nags Head
New Bern
*Ocracoke**
Oriental
Sneads Ferry
Swan Quarter
*Swansboro**
Vandemere
Wanchese

Delaware Tables

Geographic Characteristics

State land area (sq. mi): 1,954	% of U.S.: 0.06
Coastline (mi): 28	Shoreline (mi): 381
County equivalents: 3	Coastal: 3 Marine: 3

2000 Sex by Age: State of Delaware and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
Delaware	783,600	48.6%	51.4%	6.6%	14.2%	13.7%	13.9%	16.3%	13.3%	9.1%	7.2%	4.4%	1.3%
Fishing Communities	13,008	47.1%	52.9%	5.1%	12.2%	9.5%	11.5%	13.9%	13.1%	11.4%	11.9%	8.3%	3.1%

2000 Race and Hispanic/Latino Ethnicity: Delaware and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity	
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)	
Delaware	783,600	74.6%	19.2%	0.3%	2.1%	0.0%	2.0%	1.7%	4.8%	
Fishing Communities	13,008	86.9%	9.2%	0.2%	0.8%	0.0%	1.3%	1.5%	0.7%	

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥ 5 yrs Speak Language other than English at Home
Delaware	783,600	\$47,381	6.5%	65.7%	Some college	9.5%
Bowers Beach ¹	305	\$37,031	10.6%	63.4%	HS graduate	0.7%
Indian River ²	2,844	\$53,397	1.7%	53.7%	Some college	6.5%
Lewes	2,932	\$48,707	3.4%	48.5%	Some college	3.6%
Milford	6,732	\$32,525	10.4%	60.1%	Some college	13.4%
Port Mahon / Little Creek ³	195	\$39,375	7.7%	64.4%	HS graduate	3.5%

Indicators for Growth, Marine Health, and Population Well-being in Delaware

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁴	735,024	744,066	753,538	783,600	795,450	805,591	816,861	828,762	841,741	853,476
Building Permits	4,732	5,287	5,285	4,611	4,814	6,331	7,760	7,858	8,195	6,504
Unemployment Rate	3.9	3.5	3.3	3.3	3.5	4.0	4.2	4.0	4.0	3.5
Disaster Declarations	0	1	1	0	0	0	2	1	0	1
Emergency Declarations	0	0	0	0	0	0	1	0	1	0

¹Census data for Bowers Beach was identified as Bowers town.

²Census data for Indian River was identified as Census Tract 511 in Sussex County. Census Tract 511 also includes Dewey Beach and Rehoboth Beach.

³Census data for Port Mahon / Little Creek was identified as Little Creek town.

⁴Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 9,774	% of U.S.: 0.28
Coastline (mi): 31	Shoreline (mi): 3,190
County equivalents: 24	Coastal: 20 Marine: 14

2000 Sex by Age: State of Maryland and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Maryland	5,296,486	48.3%	6.7%	14.8%	12.6%	14.1%	17.3%	14.3%	8.9%	6.1%	4.0%	1.3%
Fishing Communities	38,556	47.3%	5.4%	12.3%	10.3%	10.9%	15.4%	13.9%	11.3%	9.6%	7.9%	3.0%
		52.7%										

2000 Race and Hispanic/Latino Ethnicity: Maryland and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Maryland	5,296,486	64.0%	27.9%	0.3%	4.0%	0.0%	1.8%	2.0%	4.3%
Fishing Communities	38,556	79.1%	18.5%	0.3%	0.4%	0.0%	0.3%	1.4%	0.3%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities ¹	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Maryland	5,296,486	\$52,868	6.1%	67.8%	Some college	12.6%
Cambridge	10,911	\$25,967	17.2%	59.4%	HS graduate	3.8%
Crisfield	2,723	\$17,979	30.5%	53.1%	HS graduate	4.1%
Deale	4,796	\$66,016	1.9%	75.2%	Some college	3.1%
Ocean City	7,173	\$35,772	6.0%	60.4%	HS graduate	7.0%
Pocomoke City	4,098	\$28,938	13.6%	60.3%	HS graduate	4.0%
Rock Hall	1,396	\$32,833	10.5%	64.9%	HS graduate	2.0%
Shady Side	5,559	\$68,406	3.9%	77.0%	Some college	4.8%
Smith Island	364	\$26,324	14.4%	50.8%	HS graduate	2.2%
Solomons	1,536	\$48,532	2.1%	43.6%	Some college	4.9%

Indicators for Growth, Marine Health, and Population Well-being in Maryland

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ²	5,092,914	5,130,072	5,171,634	5,296,486	5,379,795	5,441,349	5,506,684	5,553,249	5,589,599	5,615,727
Building Permits	25,966	30,863	29,757	30,358	29,059	29,293	29,914	27,382	30,180	23,262
Unemployment Rate	4.7	4.3	3.6	3.6	4.1	4.5	4.5	4.3	4.1	3.8
Disaster Declarations	0	0	1	1	0	1	1	0	0	1
Emergency Declarations	0	0	0	0	0	0	1	0	1	0

¹Maryland attributes fisheries landings to water bodies where fish are caught, not by port or community. Maryland fishing communities were identified by experts on the state's fishing communities rather than by commercial fisheries landings in 2006.

²Estimated population for all years except 2000; actual count was available for this year.

New Jersey Tables

Geographic Characteristics

State land area (sq. mi): 7,148	% of U.S.: 0.21
Coastline (mi): 130	Shoreline (mi): 1,792
County equivalents: 21	Coastal: 20 Marine: 7

2000 Sex by Age: State of New Jersey and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
New Jersey	8,414,350	48.5%	6.7%	14.2%	11.9%	14.1%	17.1%	13.8%	8.9%	6.8%	4.8%	1.6%
Fishing Communities	84,002	49.2%	5.3%	11.7%	10.2%	11.5%	14.8%	13.6%	12.1%	10.9%	7.6%	2.1%
		50.9%										

2000 Race and Hispanic/Latino Ethnicity: New Jersey and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
New Jersey	8,414,350	72.6%	13.6%	0.2%	5.7%	0.0%	5.4%	2.5%	13.3%
Fishing Communities	84,002	86.8%	7.1%	0.2%	1.5%	0.1%	2.8%	1.5%	1.5%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
New Jersey	8,414,350	\$55,146	6.3%	64.2%	Some college	25.5%
Atlantic City	40,517	\$26,969	19.1%	56.8%	HS graduate	38.4%
Avalon	2,143	\$59,196	2.2%	47.5%	Some college	3.3%
Barnegat Light	764	\$52,361	2.6%	46.9%	Some college	7.3%
Belford	1,340	\$66,964	1.3%	74.6%	Some college	10.0%
Belmar	6,045	\$44,896	4.5%	68.5%	Some college	11.0%
Cape May	4,034	\$33,462	7.7%	57.5%	Some college	8.9%
Point Pleasant ¹	19,306	\$51,105	5.0%	58.7%	Some college	9.5%
Sea Isle City	2,835	\$45,708	6.4%	56.6%	Some college	7.6%
Waretown	1,582	\$44,410	1.7%	59.6%	HS graduate	5.2%
Wildwood	5,436	\$23,981	20.2%	62.1%	HS graduate	20.6%

Indicators for Growth, Marine Health, and Population Well-being in New Jersey

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ²	8,054,178	8,095,542	8,143,412	8,414,350	8,506,516	8,577,514	8,632,553	8,675,879	8,703,150	8,724,560
Building Permits	28,018	31,345	31,976	34,585	28,267	30,441	32,984	35,936	38,588	34,323
Unemployment Rate	5.3	4.6	4.5	3.7	4.3	5.8	5.9	4.9	4.5	4.7
Disaster Declarations	1	1	1	1	0	0	0	2	1	1
Emergency Declarations	0	0	2	0	0	0	1	0	1	0

¹Census data for Point Pleasant was identified as Point Pleasant Beach borough.

²Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 47,214	% of U.S.: 1.33
Coastline (mi): 127	Shoreline (mi): 1,850
County equivalents: 62	Coastal: 39
	Marine: 8

2000 Sex by Age: State of New York and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
New York	18,976,457	48.2%	6.5%	14.1%	13.4%	14.5%	16.2%	13.5%	8.9%	6.7%	4.5%	1.6%
Fishing Communities	78,180	49.0%	5.9%	13.0%	9.8%	11.2%	16.6%	15.0%	11.0%	9.0%	6.0%	2.4%
		51.0%										

2000 Race and Hispanic/Latino Ethnicity: New York and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
New York	18,976,457	67.9%	15.9%	0.4%	5.5%	0.0%	7.1%	3.1%	15.1%
Fishing Communities	78,180	91.1%	3.1%	0.1%	0.9%	0.1%	3.1%	1.6%	1.3%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
New York	18,976,457	\$43,393	11.5%	61.1%	Some college	28.0%
Amagansett	1,067	\$56,406	2.4%	57.0%	Some college	9.5%
Greenport	2,048	\$31,675	21.1%	59.7%	Some college	18.0%
Hampton Bays	12,236	\$50,161	6.7%	60.6%	Some college	17.2%
Islip	20,575	\$65,657	2.6%	67.1%	Some college	14.8%
Mattituck	4,198	\$55,353	4.5%	60.2%	Some college	8.1%
Montauk	3,851	\$42,329	8.3%	61.5%	Some college	30.3%
Oceanside	32,733	\$75,719	2.8%	63.0%	Some college	15.4%
Point Lookout	1,472	\$69,821	4.6%	58.6%	Some college	9.5%

Indicators for Growth, Marine Health, and Population Well-being in New York

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ¹	18,143,184	18,159,175	18,196,601	18,976,457	19,095,604	19,167,600	19,238,252	19,291,526	19,315,721	19,306,183
Building Permits	32,881	38,420	42,593	44,105	45,542	49,149	49,708	53,497	61,949	54,382
Unemployment Rate	6.5	5.7	5.2	4.5	4.9	6.2	6.4	5.8	5.0	4.6
Disaster Declarations	0	4	1	1	1	2	2	3	1	3
Emergency Declarations	0	0	3	2	0	1	2	1	1	1

¹Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 39,594	% of U.S.: 1.12
Coastline (mi): 112	Shoreline (mi): 3,315
County equivalents: 95	Coastal: 61 Marine: 24

2000 Sex by Age: State of Virginia and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
Virginia	7,078,515	49.0%	51.0%	6.5%	14.0%	13.6%	14.6%	17.0%	14.1%	9.0%	6.1%	3.9%	1.2%
Fishing Communities	972,008	48.1%	51.9%	5.4%	12.3%	11.5%	11.7%	15.4%	14.1%	12.0%	9.7%	6.1%	1.8%

2000 Race and Hispanic/Latino Ethnicity: Virginia and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity	
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)	
Virginia	7,078,515	72.3%	19.6%	0.3%	3.7%	0.1%	2.0%	2.0%	4.7%	
Fishing Communities	972,008	74.5%	21.3%	0.3%	1.3%	0.0%	1.0%	1.5%	0.9%	

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Virginia	7,078,515	\$46,677	7.0%	66.8%	Some college	11.1%
Cheriton	499	\$26,429	7.8%	54.7%	HS graduate	1.9%
Chincoteague	4,317	\$28,514	9.7%	62.0%	HS graduate	4.0%
Hampton	146,437	\$39,532	8.8%	62.4%	Some college	6.7%
Newport News	180,150	\$36,597	11.3%	68.3%	Some college	8.3%
Poquoson	11,566	\$60,920	3.0%	66.8%	Some college	3.8%
Reedville ¹	2,315	\$39,310	4.4%	38.1%	HS graduate	3.2%
Richmond	197,790	\$31,121	17.1%	62.4%	Some college	6.7%
Seaford ²	3,441	\$64,392	1.1%	68.5%	Some college	6.0%
Virginia Beach	425,257	\$48,705	5.1%	72.9%	Some college	10.3%
Wachapreague	236	\$36,625	2.9%	59.8%	Some college	2.2%

Indicators for Growth, Marine Health, and Population Well-being in Virginia

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ³	6,732,878	6,789,225	6,872,912	7,078,515	7,192,701	7,285,707	7,375,863	7,472,448	7,564,327	7,642,884
Building Permits	45,523	50,204	53,151	48,402	52,860	59,445	55,936	63,220	61,518	47,704
Unemployment Rate	3.7	2.9	2.7	2.3	3.2	4.2	4.1	3.7	3.5	3.0
Disaster Declarations	0	1	2	1	2	2	3	3	0	2
Emergency Declarations	0	0	0	0	1	0	0	0	1	0

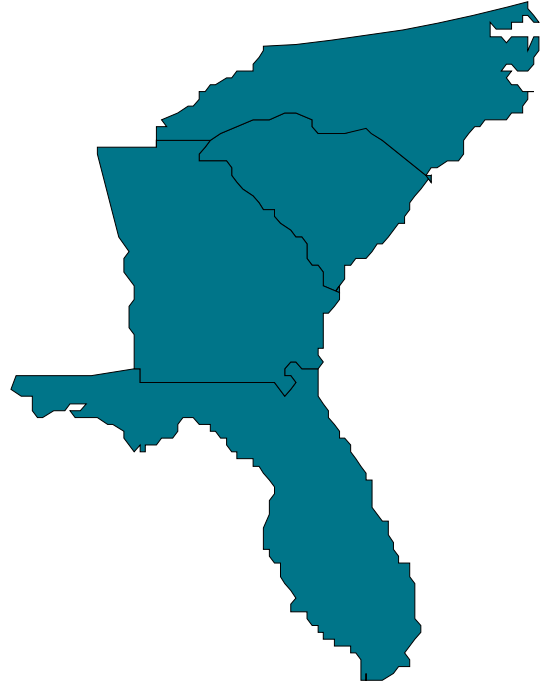
¹Census data for Reedville was identified as zip code tabulation area 22539.

²Census data for Seaford was identified as zip code tabulation area 23696.

³Estimated population for all years except 2000; actual count was available for this year.

South Atlantic

- East Florida
- Georgia
- North Carolina
- South Carolina



South Atlantic Summary

Regional Context

The South Atlantic region includes North Carolina, South Carolina, Georgia, and the Atlantic Coast of Florida. These states combined share 1,168 miles of coastline: 580 miles in Florida's Atlantic Coast, 301 miles in North Carolina, 187 miles in South Carolina, and 100 miles in Georgia. These states also share 11,926 miles of tidal shoreline: 3,375 miles in North Carolina, 3,331 miles in Florida's Atlantic Coast, 2,876 miles in South Carolina, and 2,344 miles in Georgia.

The coastal area of these states is characterized by large sounds, strips of salt marsh, networks of tidal creeks and rivers, barrier islands, and a coastal plain. Some of these barrier islands include those that constitute the Outer Banks of North Carolina; Hilton Head and Kiawah Islands, South Carolina; and Tybee and St. Simon's Islands in Georgia. The numerous estuaries are nurseries for diverse marine species including finfish and shrimp. The most commercially important marine species and species groups are: the grouper species (for example, gag and black), snapper species (for example, red, vermilion, and yellowtail), king and Spanish mackerel, flounder, shark, tuna, shrimp, lobster, and blue crab.

The South Atlantic region has the second highest potential for annual hurricane seasons that can disrupt commercial and recreational fishing, and life in its towns and cities. Fishing communities located along the region's low-lying coastlines are at risk from hurricanes' high winds, associated storm surges, and heavy rain. Since 1960, Florida has received more major disaster declarations for hurricanes and tropical storms combined than the region's other states, followed in descending order by North Carolina, South Carolina, and Georgia. North Carolina's barrier island chain protrudes far out into the Atlantic; Cape Hatteras is only about 40 miles from the continental shelf and the Gulf Stream. This contributes to that state's increased vulnerability to this kind of natural disaster.

Coastal areas in the South Atlantic region are undergoing intense gentrification pressure. This development is impacting commercial fishing communities as people from other areas buy or build second homes or relocate in these areas to work or to retire. Some areas including the Outer Banks in North Carolina, Charleston and Hilton Head Island in South Carolina, Savannah, Tybee Island, and nearby areas in Georgia, and Florida's Atlantic Coast have been tourist destinations for decades. Other areas, however, are in earlier stages of redevelopment. For example, housing developments in parts of coastal Georgia are a more recent phenomenon. Many seafood processors and fish houses have ceased operating in the last decade. In 2000, there were 695 seafood processors and wholesalers operating in these states. In 2006, the number dropped to 477 seafood processors and wholesalers, a decline of 31.4%. Loss



A North Carolina charter boat unloads yellowfin tuna and dolphinfish

of commercial fishing infrastructure reflects the general decline of commercial fishing in many locations throughout the region.

Saltwater recreational fishing is found along the entire coast and its importance is increasing. In 2006, Florida received the most saltwater recreational fishing trips, followed by North Carolina, South Carolina, and Georgia. Several of Florida's top commercial fishing communities service saltwater anglers, offering a variety of shoreside support services. Miami, Cape Canaveral, West Palm Beach, and St Augustine, Florida, are examples of these communities. Other fishing communities with strong state and federal saltwater recreational fisheries include Savannah, Georgia; Charleston, Murrell's Inlet, and Little River, South Carolina; and Morehead City/Beaufort/Atlantic Beach, Wilmington; and Manteo, North Carolina.

Blessings of the fleet can be found in some of the region's top commercial and recreational fishing communities including Morehead City, North Carolina, McClellanville, South Carolina, and Jacksonville, St. Augustine, and Pompano, Florida. Seafood festivals are also held in many of the region's top commercial and recreational fishing communities to celebrate the region's seafood, an important ingredient in the region's traditional low country cuisine. Some examples include: the South Atlantic Seafood Festival in Charleston, South Carolina; the North Carolina Seafood Festival held in Morehead City; and the Blue Crab Festival in Little River, South Carolina. Other seafood festivals are held on the South Carolina and Georgia coasts.

The Fishing Communities

Overall, 82 fishing communities in the South Atlantic region have been identified by NMFS social scientists because of the nature of their links with commercial and/or recreational fishing. They are distributed as follows: East Florida, 24 communities; Georgia, 13 communities;

North Carolina, 26 communities; and South Carolina, 19 communities. Historically, North Carolina has had the most productive and diverse commercial fisheries in the region. Today, it is the region's only state with a commercial fishing port, Wanchese-Stumpy Point, that had sufficient landings by volume to be included in the top fifty U.S. commercial fishing ports in 2006. Wanchese-Stumpy Point ranked 31st in the U.S. In contrast, Georgia's fisheries generated the lowest landings revenue of any state in the South Atlantic.

Fishing Communities Facts

- North Carolina's commercial fishing communities tend to be the smallest in the region, yet they service the region's historically most diverse and productive commercial fisheries.
- The number of commercial fish processors and wholesale dealers for North Carolina, South Carolina, Georgia, and Florida combined declined 31.4% between 2000 and 2006.
- Exceeded only by the Gulf of Mexico region, the South Atlantic region has the nation's second highest potential for annual hurricane seasons. Hurricanes can disrupt commercial and recreational fishing, as well as life in its towns and cities.

Recreational fishing

- In 2006, Florida had the highest number of saltwater recreational angler fishing trips in the U.S.
- The Big Rock Blue Marlin Fishing Tournament in Morehead City, North Carolina is an important tournament with a long history, drawing tourists and fishermen from the East Coast of the U.S. to compete for more than one million dollars in prize money.
- Fishing tournaments with big prize money throughout Florida inject significant income into local communities. Fishermen try to catch big game species like marlin, swordfish, kingfish, tuna, wahoo and dolphin.

Seafood festivals

- The North Carolina Seafood Festival is held in October in Morehead City each year. It is one of the largest of its kind in the South Atlantic.
- Awareness of the need to conserve the nation's seafood resources is recognized in a new kind of regional seafood festival first held in Charleston, South Carolina in 2003: the Sustainable Seafood Festival.

The region's top commercial fishing communities range in size from sub-areas of large cities like Jacksonville (pop. 735,617) and Miami (pop. 362,470), Florida, and Savannah, Georgia (pop. 131,510), to small villages like McClellanville, South Carolina (pop. 459) and Bath, North Carolina (pop. 275). East Florida's top commercial fishing communities tend to be the largest in the region – all have populations of more than 10,000. At the other extreme, North Carolina's top commercial fishing communities all have populations of less than 6,000, and six of these communities are smaller than 2,000. Georgia and South

Carolina's fishing community populations are more varied. Each state has a larger city such as Savannah, Georgia and Charleston, South Carolina (pop. 96,650), that are involved in commercial and saltwater recreational fishing, as well as smaller fishing villages such as Valona, Georgia (pop. 123) and McClellanville, South Carolina (pop. 459).

Community Resiliency, Growth, Marine Health, and Well Being

According to the 2000 U.S. Census, 9.2% of families in the U.S. live below the poverty line, the median income level is \$42,000, and 18% of residents over five years of age speak a language other than English at home. The South Atlantic region and its fishing communities are fairly comparable to the national picture with state-level poverty rates ranging from 9% to 10.7%; median income levels ranging from \$37,000 to \$42,000; and the percentage of individuals over five years of age who speak a language other than English at home ranging from 5.2% to 23.1%. The fishing communities showed more variability. More information on these and other factors that may affect community resiliency are discussed below.

East Florida

The percentage of family households below the poverty level in Florida was 9%. The highest poverty rates were in Fort Pierce (25.4%), Miami (23.5%), and Cocoa Beach (21.8%). Jacksonville and Titusville had poverty rates at about 9%, while the other top fishing communities had poverty rates of less than 6.4%. Miami (75%), Margate (25%), and Fort Pierce (25%) had the highest percentage of residents over 5 years of age who spoke a language other than English at home. All other fishing communities ranged from 6.6% to 9.5%. The median education level in Miami and Fort Pierce was "high school," while in the other top fishing communities and the state overall, the median education level was "some college."

At the state level, indicators show that population has grown 23.2%, the unemployment rate fell 32%, and the number of annual building permits issued increased 52% between 1997 and 2006. Disaster declarations averaged 2.3 per year during this period and there were six emergency declarations. From 2005–2006, the number of building permits issued fell 29%, the largest decrease in the South Atlantic region.

Georgia

The percentage of family households below the poverty rate in Georgia in 2000 was 9.9%, which is comparable to the national rate. The family household poverty rate in Georgia's top fishing communities was generally higher. Brunswick (25.2%), Darien (21.3%), Savannah (17.7%), Midway (15.2%), and Crescent (15.2%) had the highest

South Atlantic Summary

poverty rates. The median income levels in each of these communities was below \$30,000. The percentage of individuals over five years of age who spoke a language other than English at home was 9.9% for the state but generally lower across the fishing communities at 7% or lower.

From 1997-2006, the state population grew 25.1%, the unemployment rate rose 4.5% (4.6% in 2006), and the number of building permits issued increased 38.7%. There were six disaster declarations during the 1997-2006 time period and two emergency declarations.

North Carolina

In North Carolina, the percentage of family households below the poverty line was 9%, comparable to the national rate. Five fishing communities had poverty rates less than the national rate, four communities had poverty rates ranging from 9.5% to 13.3%, and one had a family household poverty rate of 27.9% (Columbia), three times the national rate. The median income level in Columbia (\$21,000) was almost half the median income level in the state and lower than the other fishing communities. The median education level in North Carolina's other top fishing communities and the rest of the state was a mix of "high school" and "some college." The percentage of residents over five years of age who spoke a language other than English at home was relatively low at both the state (8%) and fishing community level (1%-12%).

From 1997-2006, state population growth was 19.2%, the unemployment rate increased 20% (4.7% in 2006), and the issuance of building permits increased 37%. The number of building permits issued from 2005-2006 increased 2.1%, the only increase in the region.

South Carolina

The percentage of family households below the poverty line in South Carolina was the highest in the region (10.7%). Georgetown (19.9%) had the highest poverty rate among South Carolina's top fishing communities. The poverty in four fishing communities (Beaufort, Burton, Charleston, and Wadmalaw Island) ranged from 11.5% to 14.1%, while the poverty rate in the other communities was less than 9%. The percentage of residents over five years of age who spoke a language other than English at home ranged from 2.7% (Murrells Inlet) to 9.9% (Burton), averaging 5.2% at the state level.

At the state level, population grew 14% from 1997-2006 to 4.3 million residents. The unemployment rate increased 45%, increasing from 4.4% in 1997 to 6.4% in 2006. The number of building permits issued increased 69%, despite declining 6.2% from 2005-2006.

List of Fishing Communities & Ports

The following list contains fishing communities and ports that have been identified by NMFS social science staff as having ties to commercial and/or recreational fisheries in the South Atlantic region. Profiles of the fishing communities marked with an asterisk (*) are available to the public in *Potential Fishing Communities in the Carolinas, Georgia and Florida: An Effort in Baseline Profiling and Mapping*, at <http://sero.nmfs.noaa.gov/sf/sf/socialsci/pdfs/SA%20Fishing%20Community%20Report.pdf>.

North Carolina

Atlantic Beach*
Bath*
Beaufort*
Belhaven*
Carolina Beach*
Columbia
Elizabeth City*
Engelhard
Harker's Island*
Hatteras*
Kill Devil Hills
Manteo*
Morehead City*
Ocracoke*
Oriental*
Shiloh
Sneads Ferry*
Southport/Bald Head Island*
Surf City/Topsail Beach*
Swan Quarter
Swansboro*
Vandemere/Mesic*
Varnamtown*
Wanchese*
Wilmington*
Wrightsville Beach*

South Carolina

Beaufort/ Port Royal*
Bluffton
Burton
Charleston
Edisto Beach*
Georgetown*
Green Pond
Hilton Head Island*
Isle of Palms*
Little River*
McClellanville*
Mt. Pleasant*
Murrells Inlet*

North Charleston
Port Royal
Seabrook Island*
Saint Helena Island
Wadmalaw Island
Walterboro

Georgia

Brunswick*
Crescent
Darrien*
Midway
Richmond Hill
Savannah
Saint Mary's*
Saint Simons Island*
Thunderbolt*
Townsend
Tybee Island*
Waynesville
Valona

Florida, east coast only

Atlantic Beach*
Big Pine Key*
Boca Raton*
Cape Canaveral*
Cocoa Beach
Fernandina Beach*
Key West*
Fort Lauderdale
Fort Pierce*
Islamorada*
Jacksonville
Jupiter*
Key Largo*
Marathon*
Margate
Mayport
Merritt Island*
Miami
Palm Beach*

*Ponce Inlet**
Port Orange
*Saint Augustine**
*Sebastian**
Titusville
*Sebastian**
Titusville

Geographic Characteristics

State land area (sq. mi): 53,927	% of U.S.: 1.52
Coastline (mi): 580	Shoreline (mi): 3,331
County equivalents: 67	Coastal: 40
	Marine: 35

2000 Sex by Age: State of Florida and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Florida	15,982,378	48.8% 51.2%	5.9%	13.1%	12.1%	13.0%	15.5%	12.9%	9.7%	9.1%	6.4%	2.1%
Fishing Communities	1,331,618	48.3% 51.7%	5.3%	11.7%	11.8%	12.4%	15.3%	13.6%	10.4%	9.8%	7.3%	2.5%

2000 Race and Hispanic/Latino Ethnicity: Florida and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Florida	15,982,378	78.0%	14.6%	0.3%	1.7%	0.1%	3.0%	2.4%	16.8%
Fishing Communities	1,331,618	78.9%	15.5%	0.3%	1.3%	0.1%	1.9%	2.1%	2.2%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Florida	15,982,378	\$38,819	9.0%	58.6%	Some college	23.1%
Cocoa Beach	12,482	\$27,062	21.8%	60.4%	Some college	8.8%
Fernandina Beach	10,549	\$40,893	6.4%	58.9%	Some college	6.1%
Fort Pierce	37,516	\$25,121	25.4%	55.1%	HS graduate	24.8%
Jacksonville	735,617	\$40,316	9.4%	67.2%	Some college	9.5%
Margate	53,909	\$38,722	4.2%	58.7%	Some college	25.2%
Mayport ¹	20,990	\$46,922	5.5%	73.4%	Some college	6.9%
Miami	362,470	\$23,483	23.5%	50.3%	HS graduate	74.6%
Port Orange	45,823	\$38,783	5.0%	57.4%	Some college	7.4%
St. Augustine	11,592	\$52,090	2.3%	66.3%	Some college	6.8%
Titusville	40,670	\$35,607	9.3%	56.6%	Some college	6.6%

Indicators for Growth, Marine Health, and Population Well-being in Florida

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ²	14,683,350	14,908,230	15,111,244	15,982,378	16,354,728	16,682,250	16,981,800	17,366,593	17,768,191	18,089,888
Building Permits	133,990	148,603	164,722	155,269	167,035	185,431	213,567	255,893	287,250	203,238
Unemployment Rate	5.0	4.5	4.0	3.8	4.7	5.7	5.3	4.7	3.9	3.4
Disaster Declarations	0	6	2	2	3	0	2	5	3	0
Emergency Declarations	0	1	3	0	0	0	0	0	2	0

¹Census data for Mayport was identified as Jacksonville Beach city.

²Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 57,906	% of U.S.: 1.64
Coastline (mi): 100	Shoreline (mi): 2,344
County equivalents: 159	Coastal: 28 Marine: 7

2000 Sex by Age: State of Georgia and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Georgia	8,186,453	49.2% 50.8%	7.3%	14.9%	14.5%	15.9%	16.5%	13.2%	8.1%	5.3%	3.2%	1.1%
Fishing Communities	172,358	48.7% 51.3%	6.6%	14.9%	12.8%	12.5%	15.8%	14.4%	10.2%	6.5%	4.5%	1.8%

2000 Race and Hispanic/Latino Ethnicity: Georgia and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Georgia	8,186,453	65.1%	28.7%	0.3%	2.1%	0.1%	2.4%	1.4%	5.3%
Fishing Communities	172,358	68.8%	28.6%	0.3%	0.7%	0.1%	0.6%	1.0%	1.0%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Georgia	8,186,453	\$42,433	9.9%	66.1%	Some college	9.9%
Brunswick	15,600	\$22,272	25.2%	58.7%	HS graduate	3.5%
Crescent ¹	5,171	\$29,824	15.2%	59.9%	HS graduate	0.0%
Darien	1,719	\$24,135	21.3%	60.4%	HS graduate	5.1%
Midway	1,100	\$29,205	15.2%	45.6%	HS graduate	7.1%
Richmond Hill	6,959	\$47,061	9.8%	73.6%	Some college	6.7%
Savannah	131,510	\$29,038	17.7%	60.5%	Some college	4.8%
Townsend	3,538	\$33,531	14.6%	56.4%	HS graduate	4.0%
Tybee Island	3,392	\$49,741	5.3%	61.9%	Some college	4.2%
Valona ²	123	\$47,292	0.0%	62.7%	Some college	NA ³
Waynesville ⁴	3,246	\$30,929	12.6%	63.3%	HS graduate	7.1%

Indicators for Growth, Marine Health, and Population Well-being in Georgia

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁵	7,486,094	7,636,522	7,788,240	8,186,453	8,424,033	8,597,927	8,750,259	8,935,151	9,132,553	9,363,941
Building Permits	75,123	85,401	89,581	91,820	93,059	97,523	96,704	108,356	109,336	104,200
Unemployment Rate	4.4	4.2	3.8	3.5	4.0	4.8	4.8	4.7	5.2	4.6
Disaster Declarations	0	1	1	2	0	0	0	2	0	0
Emergency Declarations	0	0	1	0	0	0	0	0	1	0

¹Census data for Crescent was identified as zip code tabulation area 31305.

²Census data for Valona was identified as zip code tabulation area 31319.

³NA = data not available.

⁴Census data for Waynesville was identified as Block Group 1, Census Tract 9801 in Brantley County.

⁵Estimated population for all years except 2000; actual count was available for this year.

North Carolina Tables

Geographic Characteristics

State land area (sq. mi): 48,711	% of U.S.: 1.38
Coastline (mi): 301	Shoreline (mi): 3,375
County equivalents: 100	Coastal: 37 Marine: 16

2000 Sex by Age: State of North Carolina and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
North Carolina	8,049,313	49.0%	6.7%	13.8%	13.9%	15.1%	16.0%	13.5%	9.0%	6.6%	4.1%	1.3%
Fishing Communities	21,930	48.5%	5.2%	12.8%	11.1%	12.6%	15.5%	14.8%	11.0%	9.0%	5.6%	2.4%
		51.5%										

2000 Race and Hispanic/Latino Ethnicity: North Carolina and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
North Carolina	8,049,313	72.1%	21.6%	1.2%	1.4%	0.0%	2.3%	1.3%	4.7%
Fishing Communities	21,930	79.5%	17.3%	0.3%	0.6%	0.0%	1.3%	1.0%	2.2%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
North Carolina	8,049,313	\$39,184	9.0%	65.7%	Some college	8.0%
Bath	275	\$50,625	8.0%	56.1%	Some college	2.8%
Beaufort	3,771	\$28,763	13.3%	56.3%	Some college	7.6%
Columbia	819	\$20,588	27.9%	49.1%	HS graduate	8.0%
Engelhard ¹	1,852	\$22,452	8.7%	52.4%	HS graduate	4.2%
Hatteras ²	2,642	\$39,479	0.0%	64.8%	Some college	4.2%
Kill Devil Hills	5,897	\$39,713	5.2%	76.6%	Some college	5.3%
Shiloh ³	1,941	\$38,939	9.5%	58.9%	Some college	2.0%
Sneads Ferry	2,248	\$34,509	11.7%	59.0%	HS graduate	4.3%
Swan Quarter ⁴	958	\$31,136	11.0%	54.5%	HS graduate	12.0%
Wanchese	1,527	\$39,250	5.1%	66.6%	Some college	1.2%

Indicators for Growth, Marine Health, and Population Well-being in North Carolina

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁵	7,428,672	7,545,828	7,650,789	8,049,313	8,199,541	8,313,494	8,415,710	8,531,040	8,672,459	8,856,505
Building Permits	73,015	80,514	84,754	78,376	82,030	79,824	79,226	93,077	97,910	99,979
Unemployment Rate	3.9	3.5	3.3	3.7	5.6	6.6	6.5	5.6	5.3	4.7
Disaster Declarations	0	3	2	1	0	1	2	2	1	0
Emergency Declarations	0	0	2	0	0	0	0	0	2	0

¹Census data for Engelhard was identified as Lake Landing township in the Hyde County subdivision.

²Census data for Hatteras was identified as Hatteras township in the Dare County subdivision.

³Census data for Shiloh was identified as Shiloh township in the Camden County subdivision.

⁴Census data for Swan Quarter was identified as Swan Quarter township in the Hyde County subdivision.

⁵Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 30,109	% of U.S.: 0.85
Coastline (mi): 187	Shoreline (mi): 2,876
County equivalents: 46	Coastal: 22
	Marine: 6

2000 Sex by Age: State of South Carolina and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
South Carolina	4,012,012	48.6%	6.6%	14.3%	14.4%	14.0%	15.6%	13.7%	9.3%	6.7%	4.1%	1.3%
Fishing Communities	207,762	48.6%	5.9%	12.5%	13.6%	12.8%	14.4%	14.7%	10.9%	8.5%	5.3%	1.5%
		51.4%										

2000 Race and Hispanic/Latino Ethnicity: South Carolina and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
South Carolina	4,012,012	67.2%	29.5%	0.3%	0.9%	0.0%	1.0%	1.0%	2.4%
Fishing Communities	207,762	62.9%	30.6%	4.1%	0.6%	0.1%	0.7%	1.0%	1.8%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
South Carolina	4,012,012	\$37,082	10.7%	63.4%	Some college	5.2%
Beaufort	12,950	\$36,532	11.5%	67.7%	Some college	8.7%
Burton	7,180	\$39,753	12.3%	70.9%	Some college	9.9%
Charleston	96,650	\$35,295	13.3%	62.2%	Some college	6.8%
Georgetown	8,950	\$29,424	19.9%	56.3%	HS graduate	4.1%
Little River	7,027	\$40,427	4.7%	58.0%	Some college	3.7%
McClellanville	459	\$42,500	8.3%	56.7%	Some college	9.0%
Mt. Pleasant	47,609	\$61,054	3.2%	69.9%	Some college	6.2%
Murrells Inlet	5,519	\$39,877	5.4%	61.6%	Some college	2.7%
St. Helena ¹	18,807	\$45,060	8.5%	57.4%	Some college	5.4%
Wadmalaw Island ²	2,611	\$31,653	14.1%	51.6%	Some college	4.6%

Indicators for Growth, Marine Health, and Population Well-being in South Carolina

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ³	3,790,066	3,839,578	3,885,736	4,012,012	4,060,728	4,101,122	4,142,356	4,194,694	4,246,933	4,321,249
Building Permits	30,072	33,576	36,161	32,812	30,133	34,104	38,191	43,230	54,157	50,776
Unemployment Rate	4.4	3.6	4.1	3.6	5.2	5.9	6.7	6.8	6.8	6.4
Disaster Declarations	0	1	1	1	0	0	1	4	0	1
Emergency Declarations	0	0	1	0	0	0	0	0	1	0

¹Census data for St. Helena was identified as St. Helena CCD in the Beaufort County subdivision.

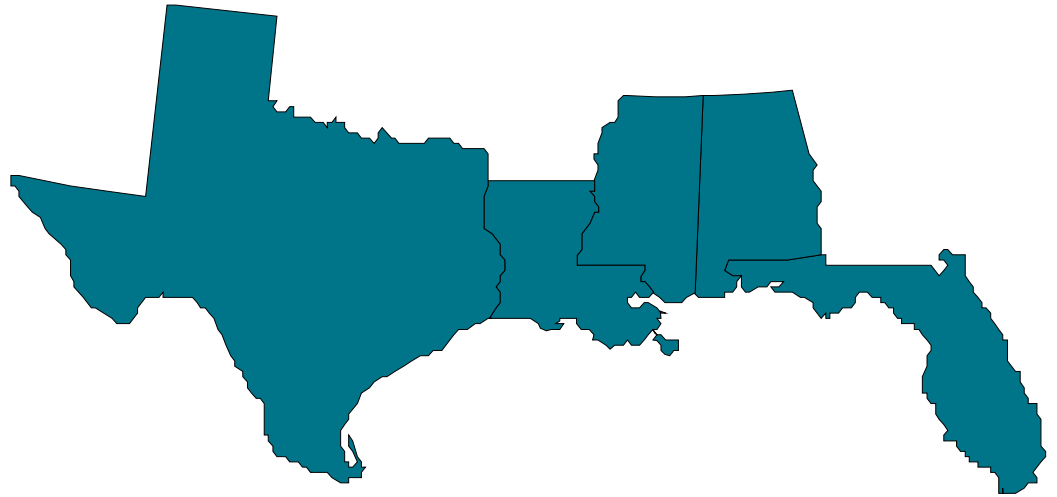
²Census data for Wadmalaw Island was identified as Wadmalaw Island CCD in the Charleston County subdivision.

³Estimated population for all years except 2000; actual count was available for this year.

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Gulf of Mexico

- Alabama
- West Florida
- Louisiana
- Mississippi
- Texas



Gulf of Mexico Summary

Regional Context

The Gulf of Mexico region includes Alabama, Louisiana, Mississippi, Texas, and the Gulf Coast of Florida. These states combined share 1,631 miles of coastline divided as follows: Alabama, 53 miles; Louisiana, 397 miles; Mississippi, 44 miles; Texas, 367 miles; and the Gulf Coast of Florida, 770 miles. The tidal shoreline is much longer at 17,141 miles encompassing complicated networks of bayous, inlets, tidal rivers, and islands in some areas. Louisiana (7,721 miles) has the most extensive tidal shoreline, followed by Florida's Gulf Coast (5,095 miles), together accounting for 75% of the region's tidal shoreline. The inshore habitat created by this extensive tidal shoreline combined with the Gulf of Mexico's relatively warm sub-tropical waters help to create an area second only to Alaska in fisheries productivity.

The Gulf of Mexico's warm waters also help to create the country's highest potential for annual hurricane seasons that can disrupt commercial and recreational fishing, and every other aspect of life in its towns and cities. Because most fishing communities are located in low-lying coastal zones they are always at risk from the effects of hurricanes' high winds, associated storm surges, and heavy rain. Hurricanes Katrina, Rita, and Wilma in 2005 provide recent examples of the devastating potential of these storms.¹ Katrina was particularly damaging to fishing communities in Florida, Alabama, Mississippi, and Louisiana; Rita also affected Louisiana as well as Texas; and Wilma affected Florida. Since 1960, Florida has received more major disaster declarations due to hurricanes and tropical storms than the region's other states, followed in descending order by Louisiana and Texas. Alabama and Mississippi have received the fewest major disaster declarations for this cause.

Coastal erosion is another threat in this region. It is particularly notable along Louisiana's coastline. Most of Louisiana's fishing communities are located in this vulnerable area, for example, Empire, Venice, and Grand Isle.

The Gulf Coast is the center of a large fish processing industry that handles both domestically caught and imported products for consumption and other uses. Biloxi and its surrounding areas in Mississippi, and Bayou La Batre in Alabama, have been centers of this industry. Hurricane Katrina damaged or destroyed many processing facilities in these states.

In the aftermath of the storm, Mississippi changed its laws to allow casinos to be built on land within 800 feet of the

¹The assessment of Hurricane Katrina's impact on Gulf fishing communities and their fishing infrastructure can be accessed at: <http://sero.nmfs.noaa.gov/sf/socialsci/socialsci.htm> (accessed 10 June 2008).



Houses near marshy waters, Grand Isle, Louisiana

shoreline, resulting in increased demand for the real estate in the areas adjacent to the casinos. This has dramatically increased the value of this property leading many land owners including processors to relocate their businesses. These areas are now being redeveloped for non-fisheries uses, while many former fisheries workers are finding work in other industries.

The Gulf Coast is a rapidly developing center for a diverse tourism industry and has long been a destination for those seeking milder climates and coastal waters in retirement. Biloxi, Mississippi offers a quickly growing gaming and entertainment industry, but is declining as a destination for recreational fishing. Texas offers Padre Island National Seashore and saltwater angler services in a variety of places like Corpus Christi.

Although saltwater recreational fishing is found along the entire coast, Florida and Louisiana are particularly notable destinations. Several of Florida's top fishing communities that service saltwater anglers, for example, Key West, Ft. Myers, and Panama City, offer a variety of shoreside support services. Louisiana fishing communities with notable recreational fishing activity include Grand Isle and Venice.

The importance of the Gulf's fishing industry is celebrated in many coastal communities with seafood festivals that are held across the Gulf Coast every year. Festivals include the Blessing of the Fleet in places like Brownsville, Texas, Grand Isle, Louisiana, and Bayou la Batre, Alabama. There are also numerous seafood festivals that are focused on one or more species of seafood that are important to a given area such as the Florida Seafood Festival in Apalachicola, Florida, the Shrimp Festival in Gulf Shores, Alabama, and the annual Shrimpporee in Aransas Pass, Texas.

Fishing Communities Facts

- Many communities in the Gulf of Mexico were originally founded to exploit the rich marine resources.
- Some communities in the Gulf of Mexico, for example, Empire and Venice in Louisiana, are below sea level and protected by levies.
- In many coastal communities, fishermen can no longer afford to live near the water because increasing development and redevelopment of these areas has raised the cost of living beyond their means.

Seafood processing and sales

- In 2006, there were 174 fish processing plants and 255 wholesale businesses located in the Gulf region that together employed 10,841 workers.
- Louisiana had the most wholesaler plants in 2006 (126) that together employed 661 workers, while Texas had the second highest number (77) that together employed 825 workers.

Shrimp fishery

- The combination of long term increases in expenses including marine diesel fuel, combined with the dramatic increase in the amount of relatively cheap imported farm raised shrimp, is making it very difficult for many Gulf fishermen to make a living in commercial fishing. Over 90% of the Nation's shrimp supply is now imported.
- Vietnamese fishermen are now an important part of the shrimp fishery in Mississippi and Louisiana.

Recreational fishing

- Florida had the most saltwater recreational fishermen in the United States in 2006: 3.7 million, and another 2.9 million saltwater anglers from other states reported saltwater fishing trips to Florida in that year. These recreational fishermen released just over 44% of their catch in 2006.

Historical context

- Coastal dwelling American Indians relied on the Gulf of Mexico's inshore marine resources for part of their subsistence for thousands of years before Europeans began arriving in the 16th century.
- Some of the first scientific studies of the Gulf's fishery resources were begun in 1884 by the U.S. Commission of Fish and Fisheries. They eventually included surveys of the oyster beds in areas near Apalachicola, Florida, and inshore waters of Alabama as well as other areas.

Some communities have memorials dedicated to fishing including parks and monuments that honor commercial fishing (for example, Cortez, Florida and Biloxi, Mississippi). Some have museums with exhibits that highlight commercial and recreational fishing in the Gulf of Mexico (for example, the Texas Maritime Museum in Rockport, Texas).

The Fishing Communities

Overall, 30 fishing communities in Alabama, 99 in Louisiana, 14 in Mississippi, 68 in Texas, and 119 in West Florida have been profiled by NMFS social scientists because of the nature of their links with commercial and/or recreational fishing. In 2006, 14 of the United States' top fifty ports by landings revenue were located in the Gulf region. They were: Bayou La Batre, Alabama; Dulac-Chauvin, Empire-Venice, Golden Meadow-Leeville, Intracoastal City, Laffitte-Barataria, Louisiana; Brownsville-Port Isabel, Port Arthur, Galveston, and Palacios, Texas; and Apalachicola, Fort Myers, Key West, Tampa Bay-St. Petersburg, Florida. On average, the Gulf of Mexico accounted for 21% of U.S. annual landings revenue from 1997-2006.

The Gulf's top fishing communities were typically smaller towns and villages with populations below 20,000 persons. However, one major metropolitan center approaching 2 million (Houston, Texas), and a few larger coastal cities also have significant fisheries involvement (Tampa and St. Petersburg, Florida; Mobile, Alabama; and Brownsville, Texas). Louisiana's and Alabama's top fishing communities are most likely to have populations below 5,000. Nine of Louisiana's top ten fishing communities and seven of Alabama's top ten fishing communities fall in this group.

Community Resiliency, Growth, Marine Health, and Well Being

According to the 2000 U.S. Census, 9.2% of families lived below the poverty line in the U.S., the median income level was \$42,000, and 18% of residents over five years of age spoke a language other than English at home. In comparison, the Gulf region has a higher percentage of families living in poverty, a lower median income level, and a higher percentage of residents older than five who spoke a language other than English at home. The differences between the demographics of most, though not all, of the Gulf region's fishing communities and the rest of the U.S. is quite striking. More information on these and other factors that may affect community resiliency are discussed below.

Alabama

The percentage of family households below the poverty level in Alabama in 2000 was 12.5%. The family household poverty rate in fishing communities was generally higher. Coden (24.3%), Bayou la Batre (22.9%), Irvington (18%) and Mobile (17.9%) had the highest poverty rates. The poverty rates in three of the top fishing communities (Dauphin Island, Grand Bay, and Foley) was lower than the national average.

Gulf of Mexico Summary

The percentage of residents over five years of age who spoke a language other than English was 3.9% for the state. With the exception of Bayou La Batre (29.1%), the other fishing communities for which information was available, had a much lower rate of residents who spoke a language other than English at home when compared to the national rate.

The state population grew 6.5% between 1997 and 2006. The number of building permits issued grew 81% and the unemployment rate declined 20% for this period. From 2005-2006, the number of building permits issued increased 4.6%. There were 16 disaster declarations and three emergency declarations during the 1997-2006 time period.

Louisiana

In Louisiana, the percentage of households below the poverty line was 15.8%. Across fishing communities, the household poverty rate ranged from 9.1% (Grand Isle) to 33% (Abbeville), with three fishing communities (Abbeville, 33%, St. Bernard, 30%, and Dulac, 27.8%) having poverty rates more than three times the national average.

The percentage of Louisiana residents over five years of age who spoke a language other than English was approximately half the national average. However, some fishing communities (Golden Meadow, 40%, Chauvin, 34%, and Dulac, 37.4%) had roughly double or more the national average. The median education level attained in Venice ("some high school") was lower than both the state ("some college") and other fishing communities' levels ("high school graduate").

State population declined 1.5% between 1997 and 2006, largely due to out-migration after Hurricanes Katrina and Rita (5% decline 2005-2006). In contrast, the issuance of building permits increased 89% during this period, with a 26% increase occurring from 2005-2006. There were 15 disaster declarations and seven emergency declarations from 1997 to 2006.

Mississippi

The percentage of family households below the poverty line in Mississippi was the highest in the region (16%), and the percentage of residents who spoke a language other than English at home was the lowest in the region (3.6%). With the exception of Pascagoula (18.1%), Mississippi's top fishing communities had poverty rates at or lower than the state rate. However, four of these communities had rates above the national poverty level. The percentage of residents in the top fishing communities over five years of age who spoke a language other than English was well below the national rate though generally higher than the state rate.

Mississippi's population growth was 6.5% between 1997 and 2006. The unemployment rate increased 11.5% during this period (6.8% in 2006, the highest in the region). The issuance of building permits increased 65% from 1997-2006, increasing 24% post Hurricane Katrina (2005-2006). There were 14 disaster declarations and two emergency declarations during the 1997-2006 time period.

Texas

In Texas, the percentage of family households below the poverty line was 12%. The poverty rates in the top fishing communities were substantially higher and five of the top Texas fishing communities were roughly twice the national average or more: Brownsville, 32.4%, Port Arthur, 22.9%, Freeport, 22.3%, Port Isabel, 21.7%, and Palacios, 19.8%.

Brownsville (87%), Port Isabel (71%), Palacios (50%), and Freeport (45%) also had the highest percentage of residents over five years of age who spoke a language other than English at home. With the exception of Nederland (\$45,000) and Port Neches (\$48,000), the median income level in the top fishing communities was lower than the national median income level.

Between 1997 and 2006, Texas' population increased 22%, the number of building permits issued increased 72%, and the unemployment rate fell 9.3%. The number of building permits issued increased 2.9% from 2005-2006. There were 16 disaster declarations and five emergency declarations during the 1997-2006 time period.

West Florida

The percentage of family households below the poverty line in Florida was 9%, with poverty rates in the fishing communities the lowest on average in the region. The western Florida fishing communities of Cortez (7.3%), Key West (5.8%), Madeira Beach (4.1%), and Fort Myers Beach (3%) all had poverty rates below the state and national rates. The poverty rate in Apalachicola (20%) was twice the national rate, while the poverty rates in the other fishing communities ranged from 9.2% to 14%. The percentage of residents over five years of age who spoke a language other than English was less than 8% for six communities, but between 23% and 25% in three other fishing communities.

At the state level, population grew 23% between 1997 and 2006. The number of building permits issued increased 52% despite falling 30% from 2005-2006. There were 23 disaster declarations – more than any other state in the region – and six emergency declarations during the 1997-2006 time period.

List of Fishing Communities & Ports

The following list contains fishing communities and ports that have been identified by NMFS social science staff as having ties to commercial and/or recreational fisheries in the Gulf of Mexico region. Profiles of these fishing communities are available to the public in the following publications:

Identifying Fishing Communities Associated with the Fishing Industry along the Florida Gulf Coast – Final Report.

- *Vol. 1, Escambia- Levy Counties - Final Report* http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/VolumeI_Escambia-LevyCos.pdf
- *Vol. 2, Alachua - Pinellas Counties - Final Report* http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/VolumeII_Alachua-PinellasCos.pdf
- *Vol. 3, Hillsborough - Collier Counties - Final Report* http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/VolumeIII_Hillsborough-CollierCos-Summary&Refs.pdf

Identifying Communities Associated with the Fishing Industry in Louisiana - Final Report.

- *Vol. 1, Ascension - Lafayette Parishes - Final Report* <http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/VolumeIAscension-LafayetteParishes.pdf>
- *Vol. 2, Lafourche - St. Landry Parishes - Final Report* <http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/VolumeIILafourche-StLandryParishes.pdf>
- *Vol. 3, St. Martin - Vermillion, Summary - Final Report* <http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/VolumeIIIStMartin-VermilionSummaryRefAppendix.pdf>

Identifying Communities Associated with the Fishing Industry in Texas Identifying Communities - Final Report.

- http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/Texas_collapsed-Feb06.pdf

Identifying Communities Associated with the Fishing Industry in Alabama and Mississippi - Final Report.

- http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/AlaMiss_PublicReleaseVersion_pdf_Feb06.pdf

Texas

Alvin
Anahuac
Aransas Pass
Bacliff
Baycity
Bayside
Baytown
Beaumont
Brazoria
Bridge City
Brownsville

Carrollton
Channelview
Clute
Corpus Christi
Crystal Beach
Dickinson
Freeport
Friendswood
Fulton
Galveston
Groves
Highlands
Houston

Indianola
Ingleside
Kemah
Kingsville
Laguna Vista
Lake Jackson
La Marque
League City
Liberty
Los Fresnos
Matagorda
Nederland
Oak Island
Orange
Palacios
Pasadena
Pearland
Port Acres
Port Aransas
Port Arthur
Port Bolivar
Port Isabel
Port Lavaca
Port Mansfield
Port Neches
Port O'Connor
Portland
Robstown
Rockport
Riviera/Riviera Beach
Sabine Pass
San Benito
San Leon
Sargent
Seabrook
Seadrift
Sinton
South Padre Island
Sweeny
Taft
Texas City
Tivoli
Victoria
Vidor

Louisiana

Abbeville
Akers/Port Manchac
Amelia
Arabi
Arnaudville
Avondale
Baldwin
Barataria
Belle Chasse
Belle Rose

Berwick
Boothville
Bourg
Braithwaite
Breaux Bridge
Bridge City
Buras
Cameron
Chalmette
Charenton
Chauvin
Cocodrie
Creole
Cut Off
Cypremort Point
Delacroix
Delcambre
Denham Springs
Des Allemands
Destrehan
Deville
Donaldsonville
Dulac
Empire
Erath
Franklin
Galliano
Gheens
Gibson
Golden Meadow
Gonzales
Grand Isle
Grand Chenier
Gray
Gretna
Grosse Tete
Gueydan
Gueydan
Harvey
Houma
Intracoastal City
Jeanerette
Jonesville
Kaplan
Krotz Springs
Lacombe
Lafitte
Lake Arthur
Lake Charles
La Place
Larose
Leeville
Lockport
Luling
Lydia
Madisonville
Mandeville

Gulf of Mexico Summary

Marerro
Maringouin
Meraux
Metairie
Montegut
New Orleans
Paradis
Patterson
Pearl River
Pecan Island
Pierre Part
Plaquemine
Pointe a la Hache
Ponchatoula
Port Fourchon
Raceland
Reserve
St. Bernard
St. Martinville
Simmesport
Slidell
Terrytown
Theriot
Thibodaux
Vacherie
Venice
Vinton
Violet
Westlake
Westwego
Youngsville
Yscloskey

Mississippi

Bay St. Louis
Biloxi
D'Iberville
Gautier
Gulfport
Kiln
Lakeshore
Long Beach
Moss Point
Ocean Springs
Pascagoula
Pass Christian
Pearlington
Waveland

Alabama

Atmore
Axis
Bay Minette
Bayou La Batre
Bon Secour

Coden
Daphne
Dauphin Island
Eight Mile
Elberta
Fairhope
Foley
Grand Bay
Gulf Shores
Irvington
Lillian
Loxley
Magnolia Springs
Mobile
Orange Beach
Perdido Beach
Robertsdale
Saraland
Semmes
Silverhill
Spanish Fort
St. Elmo
Stapleton
Summerdale
Theodore

Florida

Alva
Anclote
Anna Maria
Apollo Beach
Apalachicola
Archer
Aripeka
Bagdad
Bell
Belleair
Boca Grande
Bradenton
Bradenton Beach
Brandon
Brooksville
Cantonment
Cape Coral
Captiva Island
Carrabelle
Cedar Key
Chiefland
Chokoloskee
Clearwater
Copeland
Cortez
Crawfordville
Crystal River
DeFuniak Springs
Destin

Dover
Dunedin
East Point
El Jobean
Englewood
Esteros
Everglades City
Fort Myers
Fort Myers Beach
Fort Walton Beach
Freeport
Gibsonton
Goodland
Gulf Breeze
Gulf Hammock
Gulfport
Hernando
Holiday
Holmes Beach
Homosassa
Homosassa Springs
Hudson
Indian Rocks Beach
Inglis
Inverness
Jena
Keaton Beach
Lakeland
Lamont
Lanark Village
Largo
Lecanto
Longboat Key
Lutz
Lynn Haven
Madeira Beach
Marco Island
Mary Esther
Mexico Beach
Mexico Beach
Milton
Navarre
New Port Richey
Nokomis/Odessa
North Fort Myers
Old Town
Oldsmar
Osprey
Ozona
Pace
Palm Harbor
Palmetto
Panacea
Panama City
Panama City Beach
Pensacola
Pine Island Communities

(includes Pineland,
Matlacha, Bokeelia, St.
James City)
Placida
Port Charlotte
Port Richey
Port St. Joe
Punta Gorda
Redington Beach
Riverview
Royal Palm Hammock
Ruskin
Sanibel Island
Santa Rosa Beach
Sarasota
Seminole
Shalimar
Sopchoppy
Southport
Spring Hill
St. George
St Marks
St Petersburg
Steinhatchee
Suwannee
Tampa
Tarpon Springs
Terra Ceia
Tierra Verde
Treasure Island
Trenton
Valparaiso
Venice
White City
Yankeetown
Youngstown

Geographic Characteristics

State land area (sq. mi): 50,744	% of U.S.: 1.43
Coastline (mi): 53	Shoreline (mi): 607
County equivalents: 61	Coastal: 8
	Marine: 2

2000 Sex by Age: State of Alabama and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Alabama	4,447,100	48.3%	6.7%	14.3%	14.2%	13.6%	15.4%	13.5%	9.4%	7.1%	4.4%	1.5%
Fishing Communities	227,399	49.3%	6.8%	14.7%	13.7%	12.8%	15.1%	13.6%	10.0%	7.7%	4.6%	1.1%
		50.7%										

2000 Race and Hispanic/Latino Ethnicity: Alabama and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Alabama	4,447,100	71.1%	26.0%	0.5%	0.7%	0.0%	0.7%	1.0%	1.7%
Fishing Communities	227,399	75.1%	14.8%	0.6%	7.3%	0.1%	0.5%	1.5%	1.6%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Alabama	4,447,100	\$34,135	12.5%	59.7%	Some college	3.9%
Bayou La Batre	2,313	\$24,539	22.9%	53.7%	HS graduate	29.1%
Bon Secour ¹	1,803	\$39,120	11.3%	65.3%	Some college	NA ²
Coden ³	1,318	\$24,750	24.3%	50.0%	HS graduate	NA ²
Dauphin Island	1,371	\$44,219	6.0%	59.5%	Some college	4.7%
Foley	7,590	\$31,596	7.1%	57.0%	Some college	5.7%
Grand Bay	3,918	\$38,941	6.9%	57.9%	HS graduate	2.3%
Irvington ⁴	1,750	\$26,310	18.0%	60.6%	HS graduate	NA ²
Lillian ⁵	1,610	\$35,813	14.6%	59.8%	Some college	NA ²
Mobile	198,915	\$31,445	17.9%	58.7%	Some college	5.4%
Theodore	6,811	\$33,750	16.3%	58.6%	HS graduate	2.8%

Indicators for Growth, Marine Health, and Population Well-being in Alabama

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁶	4,320,281	4,351,037	4,369,862	4,447,100	4,466,618	4,477,571	4,495,089	4,517,442	4,548,327	4,599,030
Building Permits	17,732	20,533	19,029	17,406	17,706	18,403	22,256	27,411	30,612	32,034
Unemployment Rate	4.4	3.9	4.3	4.1	4.7	5.4	5.4	5.1	3.9	3.5
Disaster Declarations	1	3	1	3	2	2	1	1	2	0
Emergency Declarations	0	1	0	0	0	0	0	0	2	0

¹Census data for Bon Secour was identified as Block Group 4, Census Tract 114.01 in Baldwin County.²NA = data not available.³Census data for Coden was identified as Block Group 1, Census Tract 73 in Mobile County.⁴Census data for Irvington was identified as Block Group 1, Census Tract 67 in Mobile County.⁵Census data for Lillian was identified as Block Group 4, Census Tract 116 in Baldwin County.⁶Estimated population for all years except 2000; actual count was available for this year.

West Florida Tables

Geographic Characteristics

State land area (sq. mi): 53,927	% of U.S.: 1.52
Coastline (mi): 770	Shoreline (mi): 5,095
County equivalents: 67	Coastal: 40
	Marine: 35

2000 Sex by Age: State of Florida and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Florida	15,982,378	48.8%	5.9%	13.1%	12.1%	13.0%	15.5%	12.9%	9.7%	9.1%	6.4%	2.1%
Fishing Communities	645,370	49.7%	4.4%	9.9%	9.5%	11.4%	15.3%	15.3%	12.6%	11.7%	7.8%	2.4%
		50.3%										

2000 Race and Hispanic/Latino Ethnicity: Florida and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Florida	15,982,378	78.0%	14.6%	0.3%	1.7%	0.1%	3.0%	2.4%	16.8%
Fishing Communities	645,370	81.0%	14.9%	0.3%	1.0%	0.0%	1.2%	1.5%	7.3%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Florida	15,982,378	\$38,819	9.0%	58.6%	Some college	23.1%
Apalachicola	2,334	\$23,073	19.9%	50.5%	HS graduate	2.6%
Cortez	4,491	\$36,577	7.3%	34.3%	Some college	4.8%
Ft. Myers Beach	6,561	\$48,045	3.0%	41.5%	Some college	7.2%
Key West	25,478	\$43,021	5.8%	70.1%	Some college	24.8%
Madeira Beach	4,511	\$36,671	4.1%	61.5%	Some college	6.8%
Marathon	10,255	\$36,010	9.4%	63.7%	Some college	23.6%
Panama City	36,417	\$31,572	12.1%	56.4%	Some college	7.2%
Port St. Joe	3,644	\$33,800	11.2%	49.8%	HS graduate	4.7%
St. Petersburg	248,232	\$34,597	9.2%	62.4%	Some college	11.7%
Tampa	303,447	\$34,415	14.0%	64.0%	Some college	22.9%

Indicators for Growth, Marine Health, and Population Well-being in Florida

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ¹	14,683,350	14,908,230	15,111,244	15,982,378	16,354,728	16,682,250	16,981,800	17,366,593	17,768,191	18,089,888
Building Permits	133,990	148,603	164,722	155,269	167,035	185,431	213,567	255,893	287,250	203,238
Unemployment Rate	5.0	4.5	4.0	3.8	4.7	5.7	5.3	4.7	3.9	3.4
Disaster Declarations	0	6	2	2	3	0	2	5	3	0
Emergency Declarations	0	1	3	0	0	0	0	0	2	0

¹Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 43,562	% of U.S.: 1.23
Coastline (mi): 397	Shoreline (mi): 7,721
County equivalents: 64	Coastal: 38 Marine: 11

2000 Sex by Age: State of Louisiana and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Louisiana	4,468,976	48.4%	7.1%	15.3%	15.5%	13.5%	15.5%	13.1%	8.5%	6.3%	3.9%	1.3%
Fishing Communities	27,188	50.6%	7.1%	15.8%	14.7%	11.7%	15.0%	13.5%	10.0%	7.2%	3.8%	1.2%
		49.4%										

2000 Race and Hispanic/Latino Ethnicity: Louisiana and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Louisiana	4,468,976	63.9%	32.5%	0.6%	1.2%	0.0%	0.7%	1.1%	2.4%
Fishing Communities	27,188	80.4%	10.0%	6.0%	1.8%	0.0%	0.5%	1.3%	2.5%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Louisiana	4,468,976	\$32,566	15.8%	59.4%	Some college	9.2%
Abbeville	11,887	\$19,714	33.3%	50.9%	HS graduate	24.3%
Boothville ¹	291	\$49,375	11.9%	51.4%	HS graduate	10.0%
Chauvin	3,229	\$25,922	17.1%	44.7%	HS graduate	33.9%
Dulac	2,458	\$22,900	27.8%	44.9%	HS graduate	37.4%
Empire	2,211	\$27,208	24.1%	54.6%	HS graduate	9.7%
Golden Meadow	2,193	\$28,690	15.4%	50.1%	HS graduate	40.0%
Grand Isle	1,541	\$33,548	9.1%	57.8%	HS graduate	18.4%
Lafitte	1,576	\$33,872	14.4%	53.9%	HS graduate	7.6%
St. Bernard ²	1,342	\$23,566	30.0%	36.9%	HS graduate	NA ³
Venice ⁴	460	\$30,000	22.2%	42.7%	Some HS	9.5%

Indicators for Growth, Marine Health, and Population Well-being in Louisiana

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ⁵	4,351,390	4,362,758	4,372,035	4,468,976	4,463,421	4,470,543	4,480,925	4,495,706	4,507,331	4,287,768
Building Permits	15,144	16,483	17,836	14,720	15,653	18,425	22,220	22,989	22,811	28,671
Unemployment Rate	5.7	5.3	4.7	4.9	5.4	5.9	6.2	5.5	6.7	4.0
Disaster Declarations	1	1	2	1	2	2	0	2	3	1
Emergency Declarations	0	0	2	1	1	0	1	0	2	0

¹Census data for Boothville was identified as zip code tabulation area 70038.²Census data for St. Bernard was identified as Block Group 1, Census Tract 301.01 in St. Bernard Parish.³NA = data not available.⁴Census data for Venice was identified as zip code tabulation area 70091.⁵Estimated population for all years except 2000; actual count was available for this year.

Mississippi Tables

Geographic Characteristics

State land area (sq. mi): 46,907	% of U.S.: 1.33
Coastline (mi): 44	Shoreline (mi): 359
County equivalents: 82	Coastal: 12
	Marine: 3

2000 Sex by Age: State of Mississippi and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Mississippi	2,844,658	48.3%	7.2%	15.3%	15.7%	13.4%	15.0%	12.7%	8.6%	6.5%	4.0%	1.5%
Fishing Communities	120,074	49.4%	6.8%	14.3%	13.6%	13.2%	15.1%	13.7%	9.8%	7.4%	4.4%	1.5%
		50.6%										

2000 Race and Hispanic/Latino Ethnicity: Mississippi and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Mississippi	2,844,658	61.4%	36.3%	0.4%	0.7%	0.0%	0.5%	0.7%	1.4%
Fishing Communities	120,074	67.6%	27.3%	0.7%	2.4%	0.0%	0.7%	1.2%	1.3%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Mississippi	2,844,658	\$31,330	16.0%	59.4%	Some college	3.6%
Bay St. Louis	8,209	\$34,106	10.0%	60.7%	Some college	7.1%
Biloxi	50,644	\$34,106	11.2%	66.8%	Some college	10.1%
Gautier	11,681	\$41,244	15.1%	64.8%	Some college	5.8%
Lakeshore ¹	910	\$31,071	5.7%	57.3%	Some college	NA ²
Moss Point	15,851	\$32,075	15.8%	55.3%	HS graduate	2.3%
Pascagoula	26,200	\$32,042	18.1%	61.3%	Some college	6.8%
Pass Christian	6,579	\$40,743	8.2%	60.0%	Some college	7.8%

Indicators for Growth, Marine Health, and Population Well-being in Mississippi

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ³	2,731,826	2,751,335	2,768,619	2,844,658	2,856,108	2,863,091	2,874,171	2,892,668	2,908,496	2,910,540
Building Permits	10,079	12,879	12,871	11,270	9,908	11,276	12,010	14,532	13,396	16,618
Unemployment Rate	6.1	5.4	5.3	5.6	5.6	6.7	6.4	6.3	7.8	6.8
Disaster Declarations	1	1	1	0	4	2	2	1	2	0
Emergency Declarations	0	1	0	0	0	0	0	0	1	0

¹Census data for Lakeshore was identified as Block Group 5, Census Tract 302 in Hancock County.

²NA = data not available.

³Estimated population for all years except 2000; actual count was available for this year.

Geographic Characteristics

State land area (sq. mi): 261,797	% of U.S.: 7.4
Coastline (mi): 367	Shoreline (mi): 3,359
County equivalents: 254	Coastal: 41 Marine: 17

2000 Sex by Age: State of Texas and Average of Selected Fishing Communities

	Total	M	Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F										
Texas	20,851,820	49.6%	7.8%	15.7%	15.2%	15.2%	15.9%	12.5%	7.7%	5.5%	3.3%	1.1%
Fishing Communities	2,262,819	49.3%	7.9%	16.4%	14.8%	13.1%	14.9%	12.4%	8.3%	7.1%	4.1%	1.1%
		50.4%										
		50.7%										

2000 Race and Hispanic/Latino Ethnicity: Texas and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	% Hispanic or Latino (of any race)
Texas	20,851,820	71.0%	11.5%	0.6%	2.7%	0.1%	11.7%	2.5%	32.0%
Fishing Communities	2,262,819	70.1%	16.9%	0.5%	3.1%	0.0%	12.1%	2.5%	30.3%

2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
Texas	20,851,820	\$39,927	12.0%	63.6%	Some college	31.2%
Brownsville	139,722	\$24,468	32.4%	52.4%	HS graduate	87.2%
Freeport	12,708	\$30,245	22.3%	54.3%	HS graduate	45.3%
Galveston	57,247	\$28,895	17.8%	59.7%	Some college	26.5%
Houston	1,953,631	\$36,616	16.0%	63.2%	Some college	41.3%
Nederland	17,422	\$45,188	5.5%	62.0%	Some college	8.2%
Palacios	5,153	\$27,623	19.8%	50.7%	HS graduate	49.9%
Port Arthur	57,755	\$26,455	22.9%	52.8%	HS graduate	23.2%
Port Bolivar ¹	715	\$38,631	8.8%	53.5%	HS graduate	NA ²
Port Isabel	4,865	\$25,323	21.7%	57.2%	HS graduate	71.3%
Port Neches	13,601	\$47,523	4.4%	63.1%	Some college	8.6%

Indicators for Growth, Marine Health, and Population Well-being in Texas

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population ³	19,355,427	19,712,389	20,044,141	20,851,820	21,357,926	21,762,430	22,134,047	22,517,901	22,928,508	23,507,783
Building Permits	125,974	156,729	146,564	141,231	150,342	165,027	177,194	188,842	210,611	216,642
Unemployment Rate	5.4	4.9	4.7	4.4	5.0	6.4	6.7	6.0	5.4	4.9
Disaster Declarations	1	3	2	1	2	3	1	0	1	2
Emergency Declarations	0	1	1	0	0	0	1	0	2	0

¹Census data for Port Bolivar was identified as Block Group 3, Census Tract 7239 in Galveston County.

²NA = data not available.

³Estimated population for all years except 2000; actual count was available for this year.

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Appendix



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The Definition of Fishing Communities

The use of the term “fishing community” in this report is not the same as the legal use of the term in the Magnuson-Stevens Fishery Conservation and Management Act or MSA (P.L. 94-264, as amended by P.L. 109-479). The authors of this report use “fishing community” to refer to any place in which landings of commercially or recreationally caught fish are made or processed.

Section 3(17) of the MSA defines a fishing community as “a community which is substantially dependent on or substantially engaged in the harvest or processing of a fishery to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community.” National Standard 8 (section 301(a)(8)) of the MSA states that “[c]onservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2),¹ in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.”

Subsequent NMFS guidelines specified that the definition of “fishing community” referred only to a geographic location or place, including its residents and businesses, substantially dependent on or substantially engaged in the harvest or processing of fish to meet the social and economic needs of that community.² These guidelines have been in force since 1998. It must be noted that ports or places which do not meet these criteria for a “fishing community” and communities of interest – such as gear groups or groups targeting a particular species – are considered under the fishery impact assessment requirements of MSA section 303(a)(9). Minorities and/or low income populations are further considered under Executive Order 12898 on environmental justice.

The communities included in this report were selected by experts in each region primarily on the basis of pounds of fish reported landed in 2006, and are not necessarily Magnuson-Stevens Act “fishing communities.” Further analysis would be required to make this determination.

¹ “Paragraph (2)” refers to National Standard 2 (section 301(a)(3)) which states that “[c]onservation and management measures shall be based upon the best scientific information available.”

²For more information, please refer to the “Guidelines for Assessment of the Social Impact of Fishery Management Actions” available at: http://www.nmfs.noaa.gov/sfa/reg_svcs/social_impact_assess.htm.

Data Sources



Data Sources

Geographic Characteristics

State land area and miles of coastline:

“The World Factbook.” [Accessed 25 August 2008] Central Intelligence Agency. <https://www.cia.gov/library/publications/the-world-factbook/index.html>

“The Coastline of the United States.” [Accessed 25 August 2008] National Oceanic & Atmospheric Administration, U.S. Department of Commerce.

http://shoreline.noaa.gov/_pdf/Coastline_of_the_US_1975.pdf

Miles of shoreline and number of coastal counties or coastal county equivalents:

“WorldAtlas.com.” [Accessed 25 August 2008]
<http://worldatlas.com>

“The World Factbook.” [Accessed 25 August 2008] Central Intelligence Agency.
<https://www.cia.gov/library/publications/the-world-factbook/index.html>

Sex by Age Tables

Total population and sex by age information::

U.S. Census Bureau. [Accessed 9 October 2008].
Summary File 1: Tables P1 (Total Population) and P12 (Sex by Age (Total Population))
<http://www.census.gov/>

Race and Ethnicity Tables

Race and Hispanic/Latino ethnicity information:

U.S. Census Bureau. [Accessed 9 October 2008].
Summary File 1: Tables P1 (Total Population), P3 (Race), and P4 (Hispanic or Latino, and Not Hispanic or Latino by Race (Total Population))
<http://www.census.gov/>

Demographic Attributes for Selected Fishing Communities Tables

U.S. Census Bureau. [Accessed 7 October 2008].
Summary File 1: Table P1 (Total Population). Summary File 3: Tables P37 (Sex by Educational Attainment for the Population 25+ Years), P43 (Sex by Employment Status for the Population 16+ Years), P53 (Median Household Income in 1999 (Dollars)), P92 (Poverty Status in 1999 of Households by Household Type by Age of Householder), and PCT10 (Age by Language Spoken at Home for the Population 5+ Years)
<http://www.census.gov/>

Commercial fisheries landings by weight (used to select fishing communities):

Commercial Landings Database. [Obtained 20 May 2008] Office of Science & Technology, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries).
<http://www.st.nmfs.noaa.gov/st1/commercial/index.html>

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Alaska Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [Obtained 20 May 2008]
<http://www.afsc.noaa.gov/>

Southeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [Obtained 20 May 2008]
<http://www.sefsc.noaa.gov/>

Northeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [Obtained 20 May 2008]
<http://www.nefsc.noaa.gov/>

Pacific Islands Fisheries Science Center, National Marine Fisheries Service, National Oceanic & Atmospheric Administration (NOAA Fisheries). [Obtained 20 May 2008]
<http://www.pifsc.noaa.gov/>

Indicators for Growth, Marine Health, and Population Well-Being Tables

Annual population estimates:

U.S. Census Bureau. [Accessed 3 November 2008]:
For 2000-2006: http://factfinder.census.gov/home/saff/main.html?_lang=en
For 1997-1999: <http://www.census.gov/popest/archives/1990s/ST-99-03.txt>

Housing units authorized by building permits:

U.S. Census Bureau. [Accessed 3 November 2008]:
Table C40: <http://www.census.gov/const/www/C40/table2.html>

Unemployment rates:

U.S. Bureau of Labor Statistics (BLS). [Accessed 13 November 2008]. Average annual, seasonally-adjusted unemployment rates were calculated for each year, 1997-2006.
<http://www.bls.gov>

Major declared disasters and emergency declarations:

Federal Emergency Management Agency (FEMA). [Accessed 3 November 2008]:
Major declared disasters and emergency declarations by state: <http://www.fema.gov/hazard/index.shtm>

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Resources



Selected publications by NOAA Fisheries Economics & Social Sciences Program Staff

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Clay, P.M. and J. Olson. 2008. Defining “fishing communities”: vulnerability and the Magnuson-Stevens Fishery Conservation and Management Act. *Human Ecology Review*, 15(2): 143-160.

Abbott-Jamieson, S. 2007. Using oral history techniques in a NOAA Fisheries Service (NMFS) education and outreach project: pressing local fisheries knowledge, linking generations, and improving environmental literacy. *NAPA Bulletin*, 28(1): 136-147.

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Ingles, P. and J. Sepez. 2007. Anthropology’s contributions to fisheries management. *NAPA Bulletin*, 28(1): 1-12.

Sepez, J., Norman, K., and R. Felthoven. 2007. A quantitative model for ranking and selecting communities most involved in commercial fisheries. *NAPA Bulletin*, 28(1): 43-56.

Colburn, L.L., Abbott-Jamieson, S., and P.M. Clay. 2006. Anthropological applications in the management of federally managed fisheries: context, institutional history, and prospectus. *Human Organization*, 65(3): 231-239.

Pollnac, R.B., Abbott-Jamieson, S., Smith, C., Miller, M.L., Clay, P.M., and B. Oles. 2006. Toward a model for fisheries social impact assessment. *Marine Fisheries Review*, 68(1-4): 1-18.

Olson, J. 2005. Re-placing the space of community: a story of cultural politics, policies, and fisheries management. *Anthropological Quarterly*, 78(1): 233-254.

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Impact Assessment Inc. 2007. *Community Profiles and Socioeconomic Evaluations of Marine Conservation Districts: St. Thomas and St. John, U.S. Virgin Islands*. J.J. Agar and B. Stoffle, eds. NOAA Technical Memorandum NMFS-SEFSC-557, 123 p.

Miller, M.M., McClellan, D.B., Wiener, J.W., and B. Stoffle. 2007. Comment: apparent rapid fisheries escalation at a remote Caribbean island. *Environmental Conservation*, 34(2):1-3.

North Pacific

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Norman, K., Sepez, J., Lazrus, H., Milne, N., Package, C., Russell, S., Grant, K., Petersen, R., Primo, J., Styles, M., Tilt, B., and I. Vaccaro. 2007. Community Profiles for West Coast and North Pacific Fisheries - Washington, Oregon, California, and other U.S. States. NOAA Technical Memorandum, NMFS-NWFSC-85, 602p.

Sepez, J., Norman, K., and R. Felthoven. 2007. A quantitative model for ranking and selecting communities most involved in commercial fisheries. *NAPA Bulletin*, 28(1): 43-56.

Poole, A. and **J. Sepez.** 2006. Distribution and abundance of human populations in the Bering Sea and Aleutian Islands." Pp. 255-276 in 2005 North Pacific Groundfish Stock Assessment and Fishery Evaluation Reports for 2006, Economic Status of the Groundfish Fisheries Off Alaska, 2006, Terry Hiatt, ed. Alaska Fisheries Science Center: Seattle, Washington.

Poole, A. and **J. Sepez.** 2006. Historic and current human population trends in the Bering Sea and Aleutian Islands. Pp. 323-326 in 2005 North Pacific Groundfish Stock Assessment and Fishery Evaluation Reports for 2006, Appendix, Ecosystem Considerations for 2006, Jennifer Boldt, ed. Alaska Fisheries Science Center: Seattle, Washington.

Sepez, J., Norman, K., Poole, A., and B. Tilt. 2006. Fish scales: scale and method in social science research for North Pacific and West Coast fishing communities. *Human Organization*, 65(3): 280-293.

Lazrus, H. and **J. Sepez.** 2005. The NOAA Fisheries Alaska Native Traditional Knowledge Database. *Practicing Anthropology*, 27(1): 33-37.

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Western Pacific

Sociocultural Research

Allen, S. and A. Gough. 2007a. Hawaii Longline Fishermen's Experiences with the Observer Program. U.S. Dept. Commerce, NOAA Tech. Memo. NOAA-TM-NMFS-PIFSC-8, 39 p.

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New England

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Pinto da Silva, P. 2006. Fishermen at the frontlines of conservation. *The Common Property Resource Digest*. March 2006 Issue.

Pinto da Silva, P. and **A. Kitts.** 2006. Collaborative fisheries management in the Northeast US: emerging initiatives and future directions. *Marine Policy*, 30(6): 832-841.

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Mid-Atlantic

Sociocultural Research

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South Atlantic

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Gulf of Mexico

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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>

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>

*Groundfish Analysis Economics Team
Fishery Resource Analysis & Monitoring Division
Northwest Fisheries Science Center, NOAA Fisheries*
<http://www.nwfsc.noaa.gov/research/divisions/fram/economics.cfm>

Northwest Fisheries Science Center, NOAA Fisheries
<http://www.nwfsc.noaa.gov/>

Northwest Regional Office, NOAA Fisheries
<http://www.nwr.noaa.gov/>

*Socioeconomics Research
Southwest Fisheries Science Center, NOAA Fisheries*
<http://swfsc.noaa.gov/textblock.aspx?id=1038&ParentMenuId=109>

Southwest Fisheries Science Center
<http://swfsc.noaa.gov/>

Southwest Regional Office
<http://swr.nmfs.noaa.gov/>

Pacific Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/pacific/>

California & Nevada, U.S. Fish & Wildlife Service
<http://www.fws.gov/cno/>

District 13, U.S. Coast Guard
<http://www.uscg.mil/D13/>

*Office of Marine Conservation
U.S. Department of State*
<http://www.state.gov/g/oes/ocns/>

Western Pacific

*Fisheries Monitoring & Socioeconomics Division
Pacific Islands Fisheries Science Center, NOAA Fisheries*
<http://www.pifsc.noaa.gov/fmsd/>

Pacific Islands Fisheries Science Center, NOAA Fisheries
<http://www.pifsc.noaa.gov/index.php>

Pacific Islands Regional Office, NOAA Fisheries
<http://www.fpir.noaa.gov/>

Pacific Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/pacific/>

District 14, U.S. Coast Guard
<http://www.uscg.mil/d14/>

*Office of Marine Conservation
U.S. Department of State*
<http://www.state.gov/g/oes/ocns/>

New England

*Social Sciences Branch
Northeast Fisheries Science Center, NOAA Fisheries*
<http://www.nefsc.noaa.gov/read/socialsci/>

Resources

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/>

Northeast Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/northeast/>

District 5, U.S. Coast Guard
<http://www.uscg.mil/D5/>

*Office of Marine Conservation
U.S. Department of State*
<http://www.state.gov/g/oes/ocns/>

South Atlantic

*Social Science Research Group
Southeast Fisheries Science Center, NOAA Fisheries*
<http://www.sefsc.noaa.gov/socialscience.jsp>

Southeast Fisheries Science Center, NOAA Fisheries
<http://www.sefsc.noaa.gov/>

Southeast Regional Office, NOAA Fisheries
<http://sero.nmfs.noaa.gov/>

Southeast Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/southeast/>

Southwest Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/southwest/>

District 7, U.S. Coast Guard
<http://www.uscg.mil/D7/>

*Office of Marine Conservation
U.S. Department of State*
<http://www.state.gov/g/oes/ocns/>

Gulf of Mexico

*Social Science Research Group
Southeast Fisheries Science Center, NOAA Fisheries*
<http://www.sefsc.noaa.gov/socialscience.jsp>

Southeast Fisheries Science Center, NOAA Fisheries
<http://www.sefsc.noaa.gov/>

Southeast Regional Office, NOAA Fisheries
<http://sero.nmfs.noaa.gov/>

Southeast Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/southeast/>

Southwest Region, U.S. Fish & Wildlife Service
<http://www.fws.gov/southwest/>

District 8, U.S. Coast Guard
<http://www.uscg.mil/D8/>

*Office of Marine Conservation
U.S. Department of State*
<http://www.state.gov/g/oes/ocns/>

State Agencies

North Pacific

Alaska Department of Fish & Game
<http://www.adfg.state.ak.us/>

Pacific

Washington Department of Fish & Wildlife
<http://wdfw.wa.gov/>

Oregon Department of Fish & Wildlife
<http://www.dfw.state.or.us/>

California Department of Fish & Game
<http://www.dfg.ca.gov/>

Western Pacific

Hawaii Department of Land & Natural Resources
<http://www.hawaii.gov/dlnr/>

Guam Office of the Governor
<http://www.guamgovernor.net/>

Department of Marine & Wildlife Resources
American Samoa Office of the Governor
<http://www.asg-gov.net/MARINE%20&%20WILDLIFE%20RESOURCES.htm>

Division of Fish & Wildlife
Commonwealth of the Northern Mariana Islands
<http://www.dfw.gov.mp/>

New England

Maine Department of Marine Resources
<http://www.maine.gov/dmr/index.htm>

Rhode Island Department of Environmental Management
<http://www.dem.ri.gov/>

Massachusetts Division of Marine Fisheries
<http://www.mass.gov/dfwele/dmf/>

Connecticut Department of Environmental Protection
<http://www.ct.gov/dep/site/default.asp>

New Hampshire Fish & Game Department
<http://www.wildlife.state.nh.us/>

Mid-Atlantic

Bureau of Marine Resources
New York Department of Environmental Conservation
<http://www.dec.ny.gov/about/796.html>

New Jersey Division of Fish & Wildlife
<http://www.state.nj.us/dep/fgw/>

Pennsylvania Fish & Boat Commission
<http://www.dfg.ca.gov/>

Delaware Division of Fish & Wildlife
<http://www.fw.delaware.gov/>

Fisheries Service
Maryland Department of Natural Resources
<http://www.dnr.state.md.us/fisheries/>

Virginia Marine Resources Commission
<http://www.mrc.state.va.us/>

Division of Marine Fisheries
North Carolina Department of Environment & Natural Resources
<http://www.ncfisheries.net/>

South Atlantic

North Carolina Division of Marine Fisheries
<http://www.ncfisheries.net/>

Marine Resources Division
South Carolina Department of Natural Resources
<http://www.dnr.sc.gov/>

Coastal Resources Division
Georgia Department of Natural Resources
<http://crd.dnr.state.ga.us/>

Florida Fish & Wildlife Conservation Commission
<http://myfwc.com/>

Gulf of Mexico

Division of Marine Fisheries
Florida Fish & Wildlife Conservation Commission
<http://myfwc.com/marine/>

Marine Resources Division
Alabama Department of Conservation & Natural Resources
<http://www.outdooralabama.com/>

Mississippi Department of Marine Resources
<http://www.dmr.state.ms.us/>

Louisiana Department of Wildlife & Fisheries
<http://www.wlf.state.la.us/>

Texas Parks & Wildlife Department
<http://www.tpwd.state.tx.us/>

Councils and Commissions

North Pacific

North Pacific Fishery Management Council
<http://www.fakr.noaa.gov/npfmc/>

Pacific States Marine Fisheries Commission
<http://www.psmfc.org/index.php>

Fisheries Economics Data Program
Pacific States Marine Fisheries Commission
<http://www.psmfc.org/efin/>

International Pacific Halibut Commission
<http://www.iphc.washington.edu/halcom/default.htm>

Resources

Pacific

Pacific Fishery Management Council
<http://www.pcouncil.org/>

Pacific States Marine Fisheries Commission
<http://www.psmfc.org/index.php>

Fisheries Economics Data Program
Pacific States Marine Fisheries Commission
<http://www.psmfc.org/efin/>

International Pacific Halibut Commission
<http://www.iphc.washington.edu/halcom/default.htm>

Western Pacific

Western Pacific Fishery Management Council
<http://www.wpcouncil.org/>

New England

New England Fishery Management Council
<http://www.nefmc.org/>

Atlantic States Marine Fisheries Commission
<http://www.asafc.org/>

Mid-Atlantic

Mid-Atlantic Fishery Management Council
<http://www.mafmc.org/mid-atlantic/mafmc.htm>

Atlantic States Marine Fisheries Commission
<http://www.asafc.org/>

South Atlantic

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

Atlantic States Marine Fisheries Commission
<http://www.asafc.org/>

Gulf of Mexico

Gulf of Mexico Fishery Management Council
<http://www.gulfcouncil.org/>

Gulf States Marine Fisheries Commission
<http://www.gsmfc.org/>

International Organizations

Pacific Salmon Commission
<http://www.psc.org>

North Atlantic Salmon Conservation Organization
<http://www.nasco.int/>

International Pacific Halibut Commission
<http://www.iphc.washington.edu/halcom/default.htm>

InterAmerican Tropical Tuna Commission
<http://www.iattc.org/HomeENG.htm>

Western & Central Pacific Fisheries Commission
<http://www.wcpfc.int/>

International Commission for the Conservation of Atlantic Tunas
<http://www.iccat.es/>

Commission for the Conservation of Antarctic Marine Living Resources
<http://www.ccamlr.org/>

International Maritime Organization
<http://www.imo.org/>

International Pacific Halibut Commission
<http://www.iphc.washington.edu/halcom/default.htm>

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

Professional Organizations

The Society for Applied Anthropology
<http://www.sfaa.net/>

International Association for Society and Natural Resources
<http://www.iasnr.org/>

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/>

FishWatch – U.S. Seafood Facts
<http://www.nmfs.noaa.gov/fishwatch/>

Glossary



GOOD FOOD
MINNOW
GOOD DRINK
CAFE

TAKE FROM MARKET

TRANS-PACIFIC MARKET

MINN
GOOD FOOD
SUNUP TO
FISH TACOS • SANDWICHES
GARDEN BURRITOS
OMELETS
BEER & WINE • COFFEE

*Coastal County*¹

A coastal county meets one of the following criteria: 1) at least 15% 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% of a coastal cataloging unit. Any U.S. county that meets these criteria is classified as coastal.

*Coastline*²

The coastline is the line that forms the boundary between the coast and the shore. This is the line where terrestrial processes give way to marine processes such as tidal currents and wind waves.

County Equivalent

States use alternative terminology to designate the geographic area that is larger than a municipality but smaller than a state. The most commonly used term for this entity is "county." Louisiana calls these entities "parishes," while Alaska calls them "boroughs" and "census areas." Parishes, boroughs, and census areas are considered county equivalents.

*Disaster Declaration*³

A Disaster Declaration is made by a U.S. President, upon request of a governor in the face of a major event like a hurricane, tornado, or a severe and disrupting winter storm that overwhelms local and state resource and response capabilities. The authority to declare disasters and emergencies resides in the Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 100-707, November 23, 1988) as amended by the Disaster Relief Act of 1974 (PL 93-288). The Federal Emergency Management Agency (FEMA) oversees this process.

*Emergency Declaration*³

An Emergency Declaration is more limited in scope and without the long-term federal recovery programs of a Major Disaster Declaration. It is made by a U.S. President, upon the request of a governor. Generally, federal assistance and funding are provided to meet a specific emergency need or to help prevent a major disaster from occurring. The authority to declare emergencies resides in the Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 100-707, November 23, 1988) as amended by the Disaster Relief Act of 1974 (PL 93-288). The Federal Emergency Management Agency (FEMA) oversees this process.

*Ethnicity or Ethnic Group*⁴

This discussion of ethnic groups applies to both Census 2000 and the American Community Survey 2004 and later years, unless otherwise stated. For detailed information about race and ethnic groups, see the technical documentation for each survey or census available at the U.S. Census Bureau website.

There are two minimum categories for ethnicity: "Hispanic or Latino" and "Not Hispanic or Latino." The federal government considers race and Hispanic origin to be two separate and distinct concepts. Hispanics and Latinos may be of any race.

The responses in the 1990 census showed that the placement of the question on Hispanic origin may have contributed to some confusion about the federal government's distinction between race and ethnicity. In the 1990 census the question on race appeared before the question on Hispanic origin, with two intervening questions, and about 40% of the respondents who selected "Other Race" wrote in a Hispanic or Latino ethnicity. To highlight the distinction between race and Hispanic origin beginning with Census 2000, the question on race was placed after the question on Hispanic origin. Also, there was a note to respondents instructing them to answer both questions.

*Exclusive Economic Zone or EEZ*⁵

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 to this 200 nautical mile boundary.

Federally-recognized Native American (American Indian) Tribes or Nations

The list of current federally-recognized tribes can be found on the Bureau of Indian Affairs website, accessible from <http://www.doi.gov/bia/docs/TLD-Final.pdf>. A government-to-government relationship pertains between these Native American Tribal entities and the U.S. Government.

*Fish Stock*⁵

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.

*Fishery*⁵

1. Generally, a fishery is an activity leading to harvesting of fish. It may involve capture of wild fish or raising of fish through aquaculture; 2. A unit determined by an authority or other entity that is engaged in raising or harvesting fish. Typically, the unit is defined in terms of some or all of the following: people involved, species or type of fish, area of water or seabed, method of fishing, class of boats, and purpose of the activities; 3. The combination of fish and fishermen in a region, the latter fishing for similar or the same species with similar or the same gear types.

Fishery Management Council or Regional Fishery Management Council or FMC⁵

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 FMP⁵

1. A document prepared under supervision of the appropriate fishery management council (FMC) for management of stocks of fish judged to be in need of management. The plan must generally be formally approved. An FMP includes data, analyses, and management measures; 2. A plan containing conservation and management measures for fishery resources, and other provisions required by the Magnuson-Stevens Act, developed by fishery management councils or the Secretary of Commerce.

Fishing Community

For this report, a selected fishing community refers to a community that was selected by an expert in a region primarily based on 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(16)).

Group Quarters⁴

The U.S. Census Bureau classifies all people not living in households as living in group quarters. There are two types of group quarters: institutional (for example, correctional facilities, nursing homes, and mental hospitals) and non-institutional (for example, college dormitories, military barracks, group homes, missions, and shelters). In Alaskan fishing communities, group quarters are dormitories occupied by fishing industry seasonal workers who come from elsewhere.

Hispanic or Latino origin⁴

People who identify with the terms “Hispanic” or “Latino” are those who classify themselves in one of the specific Hispanic or Latino categories listed on the Census 2000 or American Community Survey questionnaire: “Mexican,” “Puerto Rican,” or “Cuban,” as well as those who indicate that they are “other Spanish, Hispanic, or Latino.” Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person’s parents or ancestors before their arrival in the United States. People who identify their origin as Spanish, Hispanic, or Latino may be of any race.

Household⁴

A household includes all the people who occupy a housing unit as their usual place of residence.

Magnuson-Stevens Fishery Conservation and Management Act or Magnuson-Stevens Act or MSA⁵

Federal legislation responsible for establishing the fishery management councils (FMCs) and the mandatory and dis-

cretionary 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.

Marine Coastal County

For this report, a marine coastal county is a coastal county that is adjacent to an ocean coastline.

Permit⁵

Also known as a license, a permit is a document giving a producer the right to operate in a fishery according to the terms established by the regulating authority.

Protected Species⁵

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.

Race⁴

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

Species⁵

A group of animals or plants having common characteristics that are able to breed together to produce fertile (capable of reproducing) offspring, and maintain their separateness from other groups of animals or plants.

Species Group⁵

A group of species considered together 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).

Territorial Sea⁵

Extends 12 nautical miles offshore of the United States. Individual states exercise authority over marine fisheries in water from the coastline to 3 nautical miles offshore, and out to 9 nautical miles for Texas, Puerto Rico, and the Gulf coast of Florida.

Tidal Shoreline⁶

The tidal shoreline is the line of contact between the land and waters that change their elevation with the rise and fall of the tides. Because the water elevation changes with tidal fluctuations, the practice is to calculate the mean high water line. This value is then used to draw the lines representing the tidal shoreline.

Glossary Source Materials

- ¹"Coastal Counties" (accessed 16 July 2008). U.S. Census Bureau, U.S. Department of Commerce. Available at: http://www.census.gov/geo/landview/lv6help/coastal_cty.html
- ²"Glossary of Coastal Terminology" (accessed 16 July 2008). B. Voigt. Washington State Department of Ecology, Olympia, WA, March 1998. Publication No. 98-105. Available at: <http://www.csc.noaa.gov/text/glossary.html>
- ³"The Disaster Process and Disaster Aid Programs" (accessed 10 September 2008). Federal Emergency Management Agency, U.S. Department of Homeland Security. Available at: <http://www.fema.gov/hazard/dproc.shtm>
- ⁴"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
- ⁵NOAA 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
- ⁶"Glossary" (accessed 16 July 2008). NOAA's Coral Reef Information System. National Oceanic & Atmospheric Administration, U.S. Department of Commerce. Available at: <http://www.coris.noaa.gov/glossary/welcome.html>

