

West Coast Marine Fishing Community Descriptions



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TABLE OF CONTENTS

Section	Page
I	Acknowledgements8
	Introduction.....9
	Purpose of Document.....9
	Definitions10
	What is a Community?.....10
	Sociocultural Indicators10
II	Methods13
	Introduction.....13
	Why Descriptions at the County Level?14
	Sources of Information.....14
	Data Management15
	U.S. Census Data15
	Geographic Information Systems (GIS) Analysis15
	Community Descriptions16
	PacFIN Landings Data17
	Dependency on the Fishing Industry18
III	Results19
	Geographic Information Systems (GIS) Demographics19
	Population21
	Per Capita Income22
	Unemployment.....23
	Poverty.....24
	Vacant Housing Units25
	Median Year House Built26
	Isolated Cities.....27
	Commercial and Recreational Fishing Ports.....30
	Community Descriptions34
	Washington State Counties35
	Oregon State Counties55
	California State Counties65

TABLE OF CONTENTS (cont.)

IV	Discussion and Recommendations	85
	What is a Fishing Community?	85
	Additional Communities	85
	Distant Water Fisheries	86
	Dependency and Engagement	86
	Interviews.....	87
	Census Data.....	87
	Geographic Information Systems (GIS)	88
	Geographic Isolation.....	88
	Upcoming Projects	89
	Summary	90
	References Cited	91
	Appendices.....	96
	Census Data.....	97
	PacFIN Commercial Landings Data	101
	Physical Description	124
	Miscellaneous Maps and Tables	133

LIST OF TABLES

Table		
1	West Coast Counties	13
2	Cities identified with three different variables.....	27
3	Social Indicators.....	86

LIST OF FIGURES

Figure		
1	List of Washington, Oregon and California Counties	20
2	Population	21
3	Per capita income	22
4	Unemployment.....	23
5	Poverty	24
6	Vacant housing units	25
7	Median year house built	26
8a	Isolated cities with a 35-mile buffer.....	28
8b	Isolated cities with a 30 and 40-mile buffer.....	29
9a	Commercial fishing ports.....	31
9b	Recreational fishing ports	32
9c	Commercial fishing ports based on PacFIN data	33

APPENDICES

Census Data

Table

4a	Washington.....	97
4b	Washington cont	98
4a	Oregon.....	98
4b	Oregon cont.....	99
4a	California.....	99
4b	California cont	100

PacFIN Commercial Landings Data

Table

5a	Washington County Landings	102
5a	Washington County Landings cont	103
5a	Washington County Landings cont	104
5b	Oregon County Landings	105
5b	Oregon County Landings cont	106
5c	California County Landings	107
5c	California County Landings cont	108
5c	California County Landings cont	109
5c	California County Landings cont	110
5c	California County Landings cont	111
6a	Percent of gear based on revenue	112
6b	Percent of species based on revenue	113
7a	Permit owner's place of boat registration in Washington.....	114
7a	Permit owner's place of boat registration in Washington cont	115
7b	Permit owner's place of boat registration in Oregon.....	116
7b	Permit owner's place of boat registration in Oregon cont	117
7c	Permit owner's place of boat registration in California	118
7c	Permit owner's place of boat registration in California cont	119
7c	Permit owner's place of boat registration in California cont	120
7c	Permit owner's place of boat registration in California cont	121
7c	Permit owner's place of boat registration in California cont	122
7c	Permit owner's place of boat registration in California cont	123

Physical Description

Table

8a	Physical description of Washington.....	125
8b	Physical description of Washington cont.....	126

Figure

10	Fishing organizations and events in Washington.....	127
----	---	-----

Table

8c	Physical description of Oregon.....	128
8d	Physical description of Oregon cont	128

Figure

11	Fishing organizations and events in Oregon.....	129
----	---	-----

Table

8e	Physical description of California	130
8f	Physical description of California cont	131

Figure		
12	Fishing organizations and events in California.....	132

Miscellaneous Maps and Tables

Figure		
13	Frequency of processors in Washington.....	133
Table		
9a	Processor and product information by county in Washington.....	134
9a	Processor and product information by county in Washington cont	135
9a	Processor and product information by county in Washington cont	136
Figure		
14	Frequency of processors in Oregon	137
Table		
9b	Processor and product information by county in Oregon.....	138
9b	Processor and product information by county in Oregon cont	139
Figure		
15	Frequency of processors in California	140
Table		
9c	Processor and product information by county in California	141
9c	Processor and product information by county in California cont	142
9c	Processor and product information by county in California cont	143
9c	Processor and product information by county in California cont	144
9c	Processor and product information by county in California cont	145
10a	Hierarchical listing of Species/Market Categories.....	146
10b	Hierarchical listing of Gear.....	154

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SECTION I

Introduction

This report is in response to a request made by the Pacific Fisheries Management Council (Council) to complete, update and expand the “West Coast Marine Fisheries Community Descriptions” document prepared by the Council, in September 1999. This report describes fishing communities on the West Coast of the United States and is intended to provide baseline community information for communities engaged in Council-managed fisheries, and other state-managed fisheries in Washington, Oregon and California. The report is a combination of Pacific Fisheries Information Network (PacFIN) and U.S. Bureau of Census data and County Descriptions. Analysis was extended beyond the Council document to include central and southern California counties. The county descriptions contain information on county location, reservations and trust lands (where applicable), historic and current industry (agriculture, manufacturing, logging, etc.) and fishing industry information. Additionally, descriptive geographic information systems (GIS) maps were developed using U.S. Census information including population, per capita income, educational attainment, unemployment and poverty levels, the median year houses were built, percent of vacant homes, recreational and commercial fishing ports and isolated cities. The Council initially produced this document in response to mandates from the Sustainable Fisheries Act of 1996. The Council manages salmon, groundfish, coastal pelagic species fisheries and highly migratory species and cooperates in the development of Pacific halibut allocations.

Purpose of Document

The purpose of having a document that outlines fishing communities in Washington, Oregon and California is to provide the Council with a resource to better examine the social and economic importance of fisheries and communities potentially affected by management measures. To do so, the Council must first have identified fishing communities and assessed their differing levels of dependence on and engagement in the fishery being regulated. If a community is presented in this document that does not mean the community is dependent on fishing. Rather, this information will serve as a tool for analysts to determine dependence on fishing for future management action(s).

This document is divided into four sections. The first section provides a brief discussion of definitions and sociocultural indicators. The second section details the methods used in this report. Section III includes the results (GIS maps and county descriptions), while the last section provides a discussion on limitations of the current project and recommendations for future research of west coast fishing communities. Finally, you will find 2000 census tables for Washington, Oregon and California, 2001 PacFIN landings data, physical descriptions of coastal fishing ports and processor information in the appendices.

Definitions

What is a community?

The problem of determining how a community should be defined has been one of the dilemmas anthropologists and sociologists have attempted to resolve for decades. Today, this predicament still exists, while several definitions are in use. The following defines a community within the confines of the current project.

A community can be viewed from two different positions. The first position, as defined in the literature (Ecopolicy Center, 1998; Ogden, 1998; Smith, 1996; and Ward, 2002), is a group of people who share common social, economic, and political interests. This concept of a community is not bound to a geographic area, but defines a community as a group of people who contain a unique social makeup, or a group of common interests. An example of this definition would be all trawlers regardless of where they fish (for a reference explaining this example further, please see Ecopolicy Center, 1998).

The second position views communities as a group of people living in a common geographic area. An example of this would be the community of Fort Bragg, CA. The Magnuson-Stevens Fisheries Conservation and Management Act (1996) places a fishing community in a geographic area and defines it as:

“...a community which is substantially dependent on or substantially engaged in the harvest/processing of fishery resources 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”.

The present project follows the Magnuson-Stevens Act’s definition of a community, which concurs, with the advice of the Pacific Fisheries Management Council (Council) and National Marine Fisheries Service (NMFS) staff and fishing community members. Throughout this report, a fishing community is defined as a place; however, the data is presented in a larger context. For reasons described below, all data regarding West Coast marine-fishing communities is aggregated at the county level.

Sociocultural Indicators

Examining sociocultural indicators of a community is key to effective fisheries management. The Magnuson-Stevens Fishery Conservation and Management Act requires conservation and management measures to “...take into account the importance of fishery resources to fishing communities 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” (M-SFCMA, 16 U.S.C. 1851).

In the past, economic analyses have been the focus of community profiles because other social and cultural data were unattainable. It is possible that limiting analysis to economic data could be not only inadequate, but harmful as well (Hall-Arber et al., no date). Creating a more holistic analysis of a community involves the inclusion of social and cultural factors. The importance of social analysis lies in the dynamic that social ties ultimately influence and organize economic behavior. It is these behaviors, which are ultimately reflected in the results of economic analyses. It is also the case that not all fisheries-relevant behavior at the individual and community levels is economic behavior. Non-economic values, preferences and cultural models can have a significant influence on fishermen's behavior and fishing communities' reactions to management actions. This is an additional reason for conducting social analyses.

SECTION II

Methods

Introduction

This document includes descriptions of fishing communities aggregated at the county level. A total of 48 counties located in Washington, Oregon and California are described below. Each county is situated on or near the west coast, and contains fishing communities. A fishing community is defined in this project as a group of people living in a common geographic area who participate in the fishing industry (*i.e.* Newport, OR). This definition was chosen for two reasons. First, it was Pacific States Marine Fisheries Commission's (PSMFC) goal to provide the Council with a "snapshot" of each county, rather than detailed descriptions of each fishing community, which would result in an encyclopedia of information. Second, even though this definition fails to identify that fishing communities can extend beyond the geographic boundary, it allows resource managers to begin thinking about communities in a cultural context (*i.e.* communities of interest). Table 1 contains a list of west coast counties included in this report.

Table 1. West Coast Counties.

Washington	Oregon	California
Clallam	Clatsop	Alameda
Clark	Columbia	Contra Costa
Cowlitz	Coos	Del Norte
Grays Harbor	Curry	Humboldt
Island	Douglas	Los Angeles
Jefferson	Hood River	Marin
King	Lane	Mendocino
Kitsap	Lincoln	Monterey
Lewis	Multnomah	Orange
Mason	Tillamook	San Diego
Pacific		San Francisco
Pierce		San Joaquin
San Juan		San Luis Obispo
Skagit		San Mateo
Skamania		Santa Barbara
Snohomish		Santa Cruz
Thurston		Solano
Wahkiakum		Sonoma
Whatcom		Ventura

To avoid an exhaustive list of communities along the west coast, certain thresholds were developed to determine which communities would be included in this report. As an initial cut, PSMFC used PacFIN port communities, which had greater than or equal to ten percent of their annual revenues in commercial fish landings. Communities with recreational landings were not selected based on annual revenues because what that

annual revenue or threshold might be for recreational landings is unclear. Recreational communities are included in this report because of information provided by interviewees. If interviewees stated that recreational boats occupy more than 95% of his/her slips in the port, then it is recorded as a recreational fishing community.

Why Descriptions at the County Level?

Fishing community descriptions were chosen at the county level for several reasons. First, U.S. Census Bureau data is most easily accessible and consistent at the county level. Because some census information is missing at the city level, PSMFC decided to report county information *only* for standardization purposes. Second, county descriptions were provided to reduce the amount of information the Council had to review.

PSMFC, however, acknowledges the drawbacks to presenting community information at the county level. For example, most of Lane County's economic activity does not take place on the coast. However, by presenting economic information at the county level, Lane's coastal fishing communities are somewhat distorted (please see recommendations in section IV). Because fishing community information is described in the current document at the county level, this does not mean that a fishing community is a county. As previously stated, PSMFC is following NMFS, and the Magnuson-Stevens Act's guidelines to defining a fishing community as a place.

Sources of Information

The information provided in this report comes from several sources including: PacFIN, the U.S. Census Bureau, chambers of commerce, historical societies, books/articles, Internet sources and interviewees. Interviewees were acquired through random and snowball sampling methods.

Statistics Definitions:

- Random sampling: "is the purest form of probability sampling. Each member of the population has an equal and known chance of being selected. When there are very large populations, it is often difficult or impossible to identify every member of the population, so the pool of available subjects becomes biased" (StatPac, 2003).
- Snowball sampling: "is a special nonprobability method used when the desired sample characteristic is rare. It may be extremely difficult or cost prohibitive to locate respondents in these situations. Snowball sampling relies on referrals from initial subjects to generate additional subjects. While this technique can dramatically lower search costs, it comes at the expense of introducing bias because the technique itself reduces the likelihood that the sample will represent a good cross section from the population" (StatPac, 2003).

Data Management

PSMFC worked with five types of data management analyses, including: U.S. Census data, geographic information systems (GIS) analysis, community descriptions, PacFIN landings data and dependence on the fishing industry.

U.S. Census Data

During the first analysis of data development, PSMFC obtained the most recent available (2000) U.S. Census Bureau information. Census information was examined at the county level.

U.S. Census Definitions:

- Total Population of residents on Reservations and Trust Lands: this is the total population of residents on the reservation, not tribal enrollment (U.S. Census Bureau, 2002).
- Per Capita Income: the average income for every man, woman, and child in the nation if it is distributed equally (Pass et al., 1991).
- The median year a house was built: this is the average year all houses were built in a given county (U.S. Census Bureau, 2002).

One point to make clear is that census data of the fishing sector alone is unattainable from the U.S. Census Bureau. The bureau groups census information of the fishing sector with forestry and mining. Therefore, employment, and income data of the fishing sector is not included in this report (please see section IV for further discussion).

Geographic Information Systems (GIS) Analysis

The second analysis of data development involved mapping the census data in a GIS database. Information “queried” was at the state and county level. This data was then analyzed in a GIS environment in terms of the three states’ population, per capita income, median year house built, vacant housing units, unemployment, and poverty levels.

Within the GIS database, the geographic isolation of each community was examined. Geographic isolation (explained below) may help determine which communities have fewer economic resources available to them. It is assumed that smaller and more remote communities have fewer economic choices, influencing the ways in which they depend on the local industry (Interior Columbia Basin Ecosystem Management Project [ICBEMP], 1998).

The ICBEMP project attempted to identify isolated communities by establishing some basic parameters. These parameters identified a community as isolated if it had less than 1,900 people, was not near a major highway, and was 35 miles away from a city with a population greater than 20,000 people. In the current project, ICBEMP parameters and parameters created by PSMFC, were used. For this analysis, a buffer function, which allows users to create a zone of equal width around a point, was used in GIS. A 35-mile circle was drawn around communities with a population greater than 20,000, highlighting communities outside the 35-mile buffer.

One of the problems using ICBEMP’s parameters is that they are applied to road mileage rather than travel by boat. For example, it is unclear what the average distance a fishing vessel might travel to deliver fish to a processor, seek out repairs for his/her vessel, or go

for fuel and supplies. Because of this problem, PSMFC applied additional buffers (30 and 40 miles) around cities with a population greater than 25,000 to examine if larger or smaller buffers around cities with a higher population identified a significant amount of isolated cities when compared to the 35-mile buffer around cities with a population of 20,000. Applying these different parameters identified a slight variation in the results of isolated communities in Oregon and Washington (for more information, please see pages 27-29). Future exploration might shed light on what a reasonable commuting distance by boat may be.

Community Descriptions

Researching the characteristics of counties in Washington, Oregon and California encompasses the third analysis of this project. Various resources were utilized to obtain information at the county level. The descriptions contain information on each county including: location, reservations and trust lands (where applicable), historic industry, current industry and fishing industry. The questions listed below were used as a guide to generate discussion with harbormasters and other knowledgeable community members regarding the fishing industry in a given port or area.

1. What percentage of boats in your harbor/port are recreational and commercial?
2. How long have people been fishing in your community, what have they been fishing for, and what gear was historically utilized?
3. When people think about your fishing community, what is it known for or what is the first thing that comes to mind?
4. What species and gear are typically represented in your harbor/port?
5. Are there any fishing community groups or clubs?
6. Does the fishing community host any events related to the fishing industry?
7. Do you see any competition among fishermen in your harbor/port?
8. How are family members involved in the fishing industry, can you explain a little about Women's roles in the fishing community?
9. Are there any processors, suppliers, icehouses, fuel docks, bait and tackle shops, etc. in your community? Do people sell fish off their boat?
10. How many berths are in your harbor/port, and what size range of boat/vessel can you accommodate?
11. Do you have any additional comments about your community?

The purpose of discussing the above topics was to generate industry information as well as opinions' regarding what a fishing community is, and which socioeconomic factors are most valid in including in a community description. The resulting 63 interviews were conducted from March to June through telephone conversations lasting anywhere from five to 60 minutes each. Due to a lack of time and budgetary restraints, telephone interviews were utilized as a primary source for information instead of physically visiting the communities (please see section IV for future recommendations). The reservation and trust lands section of each community description simply describes the location and resident population on the reservations. A discussion of subsistence or tribal commercial fishing is not included in the present analysis. Including this information in great detail is PSMFC's hope in the future.

PacFIN Landings Data

The fourth analysis involved obtaining 2001 landings data from PacFIN. PacFIN's "...central database includes fish-ticket and vessel registration data provided by the Washington, Oregon, and California (W-O-C) state fishery agencies. In addition the W-O-C data sources supply species-composition and catch-by-area proportions developed from their port sampling and trawl logbook data systems" (<http://www.psmfc.org/pacfin/overview.html>).

The 2001 landings results are located in the appendices section of this report (starting on page 102). The following PacFIN tables from the database were utilized: Vessel Summary by Year (pacfin.vsy), State Vessels (pacfin.sv), US Coast Guard Vessels (pacfin.cg), Species (pacfin.sp) and Gear (pacfin.gr). In addition to these PacFIN tables, one EFIN table was also used, efin.county. This table contains port code (pcid), state (agid) and county information. The aforementioned tables were used to aggregate the 2001 revenue, landed pounds, processor and vessel count by state, county and species.

The species groupings in this report follow PacFIN's species management categories. These categories are: crab, coastal pelagic, highly migratory, groundfish, salmon, shellfish, shrimp and other. In addition to these eight management groups, this document also reports pacific whiting landings separate from groundfish landings where possible given confidentiality constraints. For more detailed information about which individual species comprises PacFIN's management categories, please see Table 10a located in the appendices section. Additionally, a hierarchical table describing gear categories is also provided in the appendices section as Table 10b.

Before the data was reported, tests for confidentiality were applied. If species landings by county were confidential, the species were rolled into the species category of "other". For example, a confidential landing of groundfish in Mendocino County, CA was added to "other" in Mendocino County, CA. The confidential species are rolled into the species category "other" if:

- Fewer than three fish processors processed the landings,
- Fewer than three vessels made the landings (Some vessels are reported as unidentified in the PacFIN database. Because of this, these unidentified vessels were not counted in this test for confidentiality. However, the unidentified vessels revenue and landed pounds are reported in the PacFIN landings tables.),
- Greater than or equal to 75 % of the market was dominated by a single processor,
- Greater than or equal to 75 % of the market was dominated by a single vessel.

The resulting tests for confidentiality helped to ensure that no one processor or vessel would be revealed in the landings section of this report. In one case (Thurston County), simply adding the confidential species to the "other" species group in Thurston County still resulted in confidential data. To solve this issue, Thurston county's species landings were added to the species landings in the county: "Other or Unknown Washington Counties".

Counties grouped in this document are in some cases reported differently from the PacFIN database. In one instance, PacFIN reports Madera County, CA as having

landings in 2001. However, the revenue and catch information for this county are not reported in the appendices because the county was not included in this coastal county analysis (this county is not included in the community descriptions section of this document). In another case, some counties are reported as having no landings in 2001. This might be due to either one of two reasons: 1) the county did not have any landings in 2001, or 2) PacFIN attributed the counties landings to a different county. For example, PacFIN reports that landings were not made in Multnomah County, OR in 2001 (please see Oregon County Landings Table in the appendices). The reason for this may be because PacFIN coded Multnomah County's landings as a "Columbia River Ports" landing instead.

Prior to running the above four confidentiality tests, however, a revenue threshold was applied to all landings in 2001. A species group was rolled into the "other" species category if the revenue accounted for less than ten percent of the total revenue for that county. For example, if the groundfish landings in Mendocino County, CA were nine percent of its total revenue in groundfish, the groundfish landings were added to the "other" category in Mendocino County, CA. This arbitrary ten percent rule was created to decrease the amount of species groups that needed to be rolled into the "other" category due to confidentiality reasons. The tables in the PacFIN landings appendices section identifies which species or counties are confidential.

Dependence on the Fishing Industry

During the last phase of the project, dependency and engagement in the fishing industry were examined. Initially it was hypothesized that an index could be created from various attributes of fishing communities that would indicate how dependent or substantially engaged a community was in the fishing industry. Data elements thought to provide information on the dependence and engagement in fishing included: population, poverty, unemployment, per capita income, the year a house was built, the percent of vacant houses in a given location, number of industries outside of fishing, number of berths in a marina, the percent a harbor or port is filled with commercial and/or recreational boats/vessels, landings data and the number of suppliers, processors, community fishing organizations and community fishing events in a community. Upon collecting this data, it was determined that creating a dependency index was impractical given the available information. Because PSMFC could not produce a sufficient index, the information is simply presented in the Appendix as "Physical Description".

The following pages contain results from the U.S. Census GIS analysis and community descriptions by county for Washington, Oregon and California. The Appendices include tables with PacFIN landings data and demographic information as well as tables and maps describing attributes of dependence.

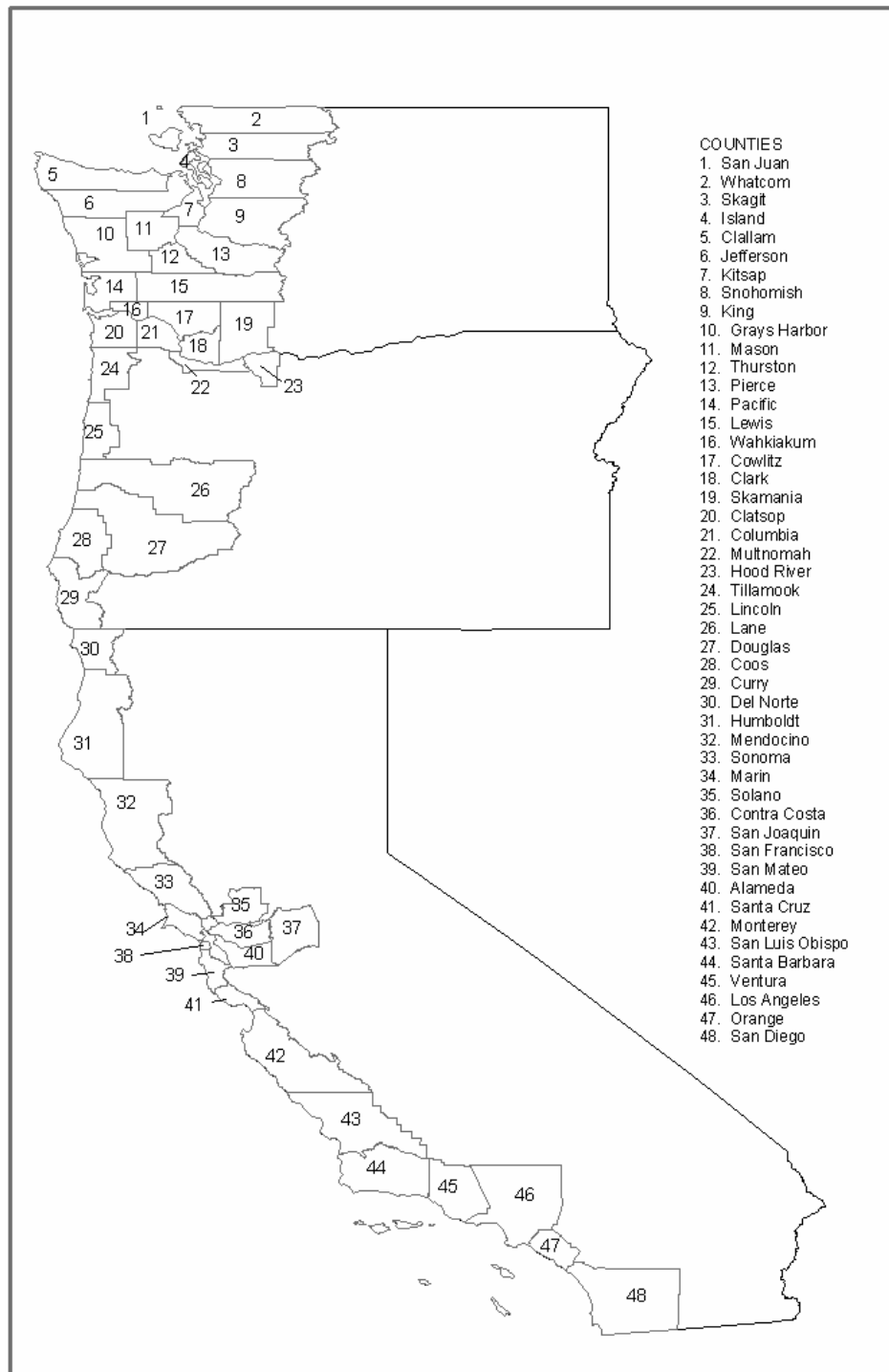
SECTION III

Results

Geographic Information Systems (GIS) Demographics

Results of demographic mapping of each county are discussed below. Maps that describe population, per capita income, percent of unemployment, percent of poverty, percent of vacant housing units, median year a house was built, isolated cities, recreational fishing ports and commercial ports are displayed below for Washington, Oregon and California. For a complete list of Washington, Oregon and California counties included in this report, please see Figure 1.

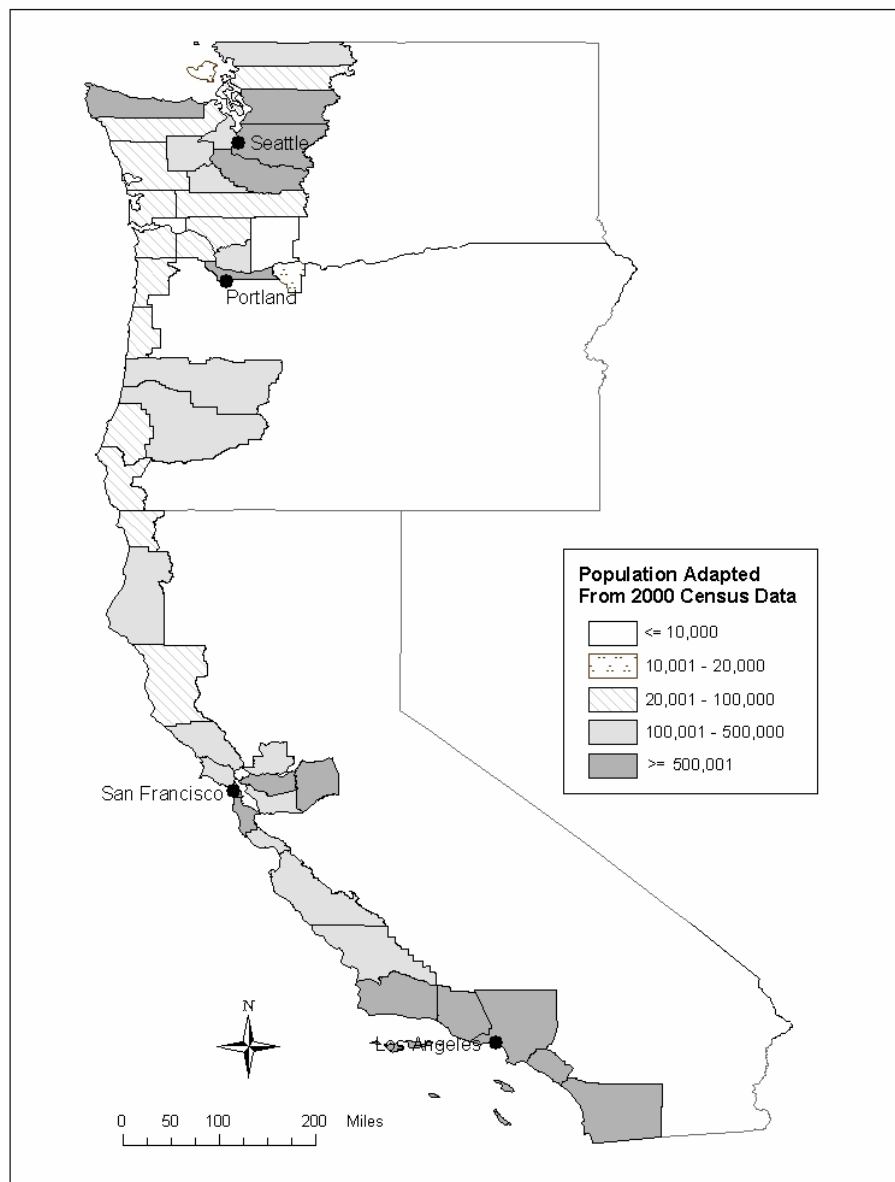
Figure 1. List of Washington, Oregon and California counties.



Population

The GIS map in Figure 2 displays population information from 2000. The mean population among the counties is 2,085,544, with the minimum being 3,824 and the maximum at 9,519,338. Median populations by county in Washington, Oregon and California fall in the range from 20,000 to 500,000 people. The highest population is concentrated in Clallam, King, Pierce and Snohomish counties in Washington, in Multnomah County in Oregon, and in Los Angeles, Orange, San Diego, Santa Barbara and Ventura counties in California. The county with the smallest population is Whakiakum, in Washington.

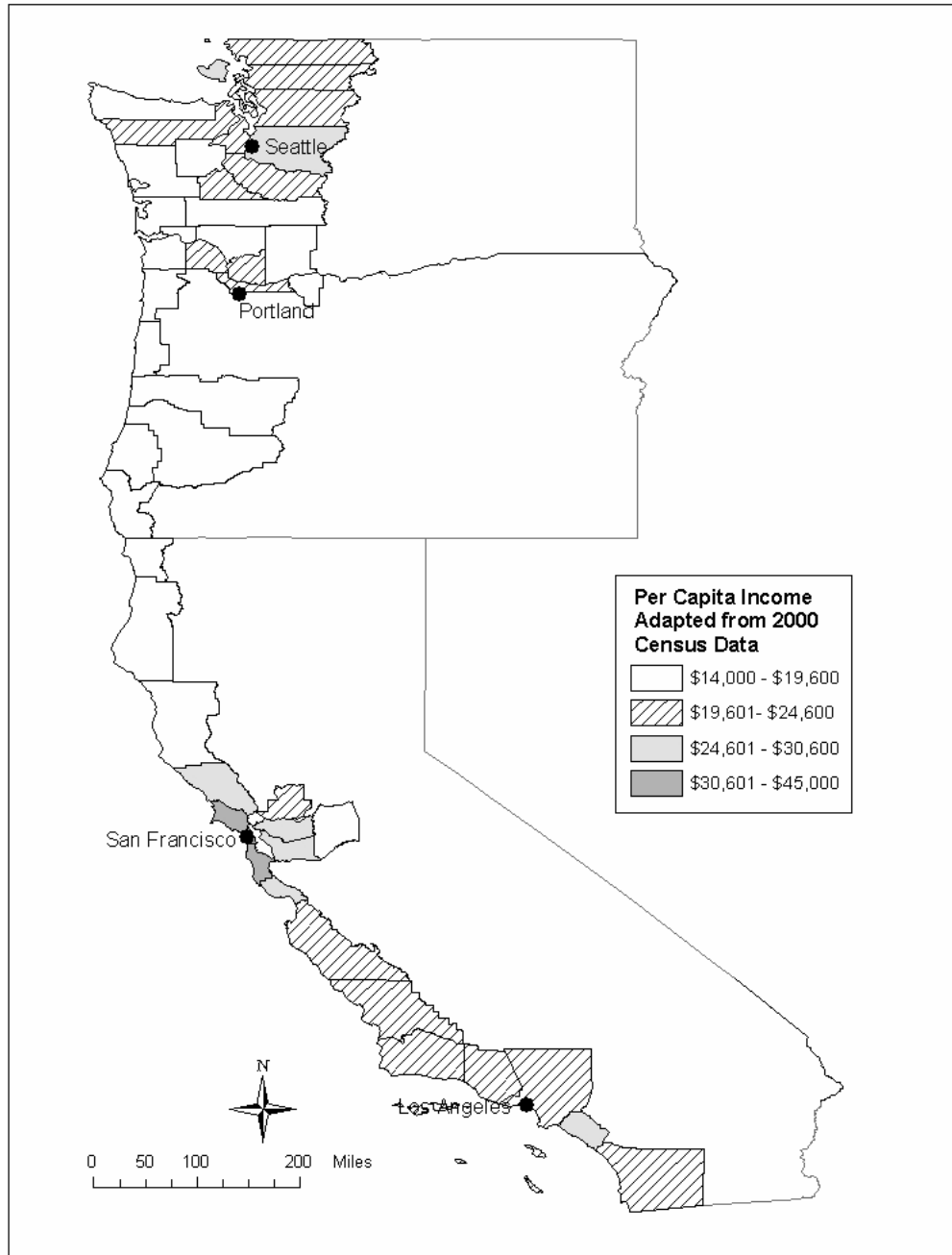
Figure 2. Population.



Per Capita Income

In Figure 3 below, per capita income is represented in Washington, Oregon and California from 2000 Census data. The mean income is \$19,004 with the minimum at \$14,573, and the maximum at \$44,962. A total of 18 counties fall in the per capita income category of \$19,601 to \$24,600.

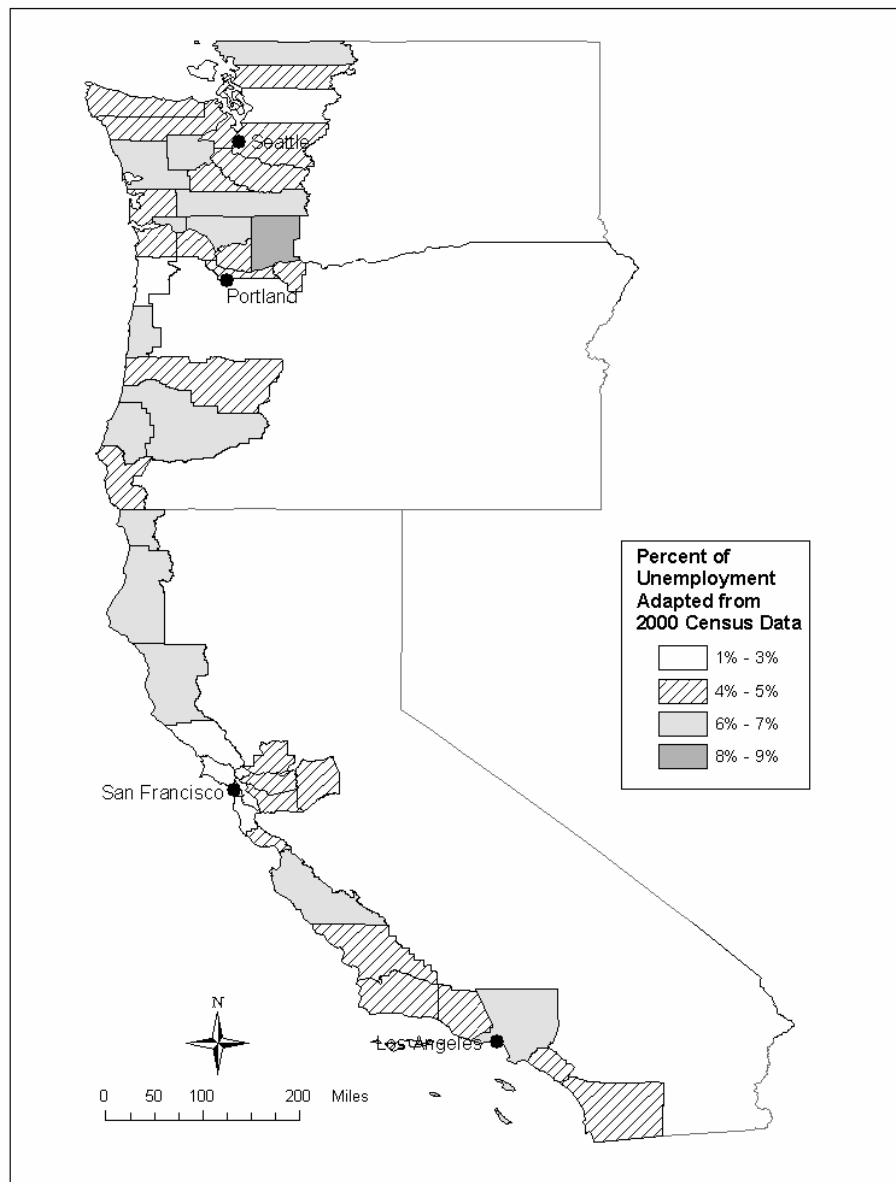
Figure 3. Per capita income.



Unemployment

Unemployment rates in 2000 ranged from two to nine percent, with a mean of four percent. With the lowest unemployment rate at two percent, one county in Washington and Oregon and four counties in California fell into the lowest range of unemployment. These counties included: Snohomish, Tillamook, Sonoma, Marin, San Francisco and San Mateo. Additionally, Washington contained one county that had a nine percent unemployment rate (Skamania) (Figure 4). Overall, more counties fall within the four to five percent unemployment range than any other (WA=52%, OR=50%, CA=53%).

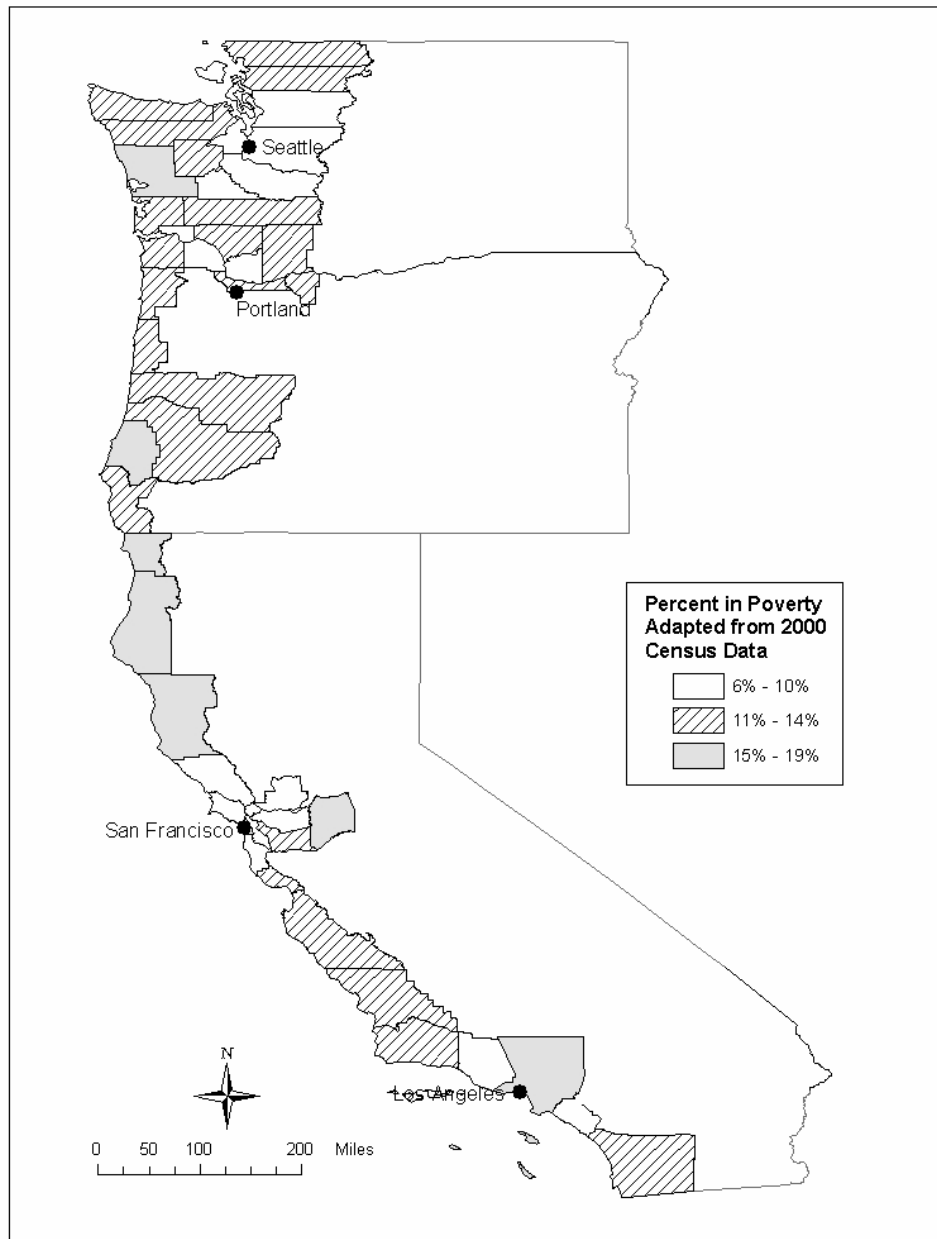
Figure 4. Unemployment.



Poverty

Percent below poverty for Washington, Oregon and California counties are presented in Figure 5 below. The mean percent was ten while the minimum was six and the maximum percent below poverty was 19. California had five counties with the highest percent below poverty; these were Del Norte, Humboldt, Los Angeles, Mendocino and San Joaquin. Both Washington and Oregon had only one county each that fell in the highest range of poverty; these counties are Grays Harbor and Coos.

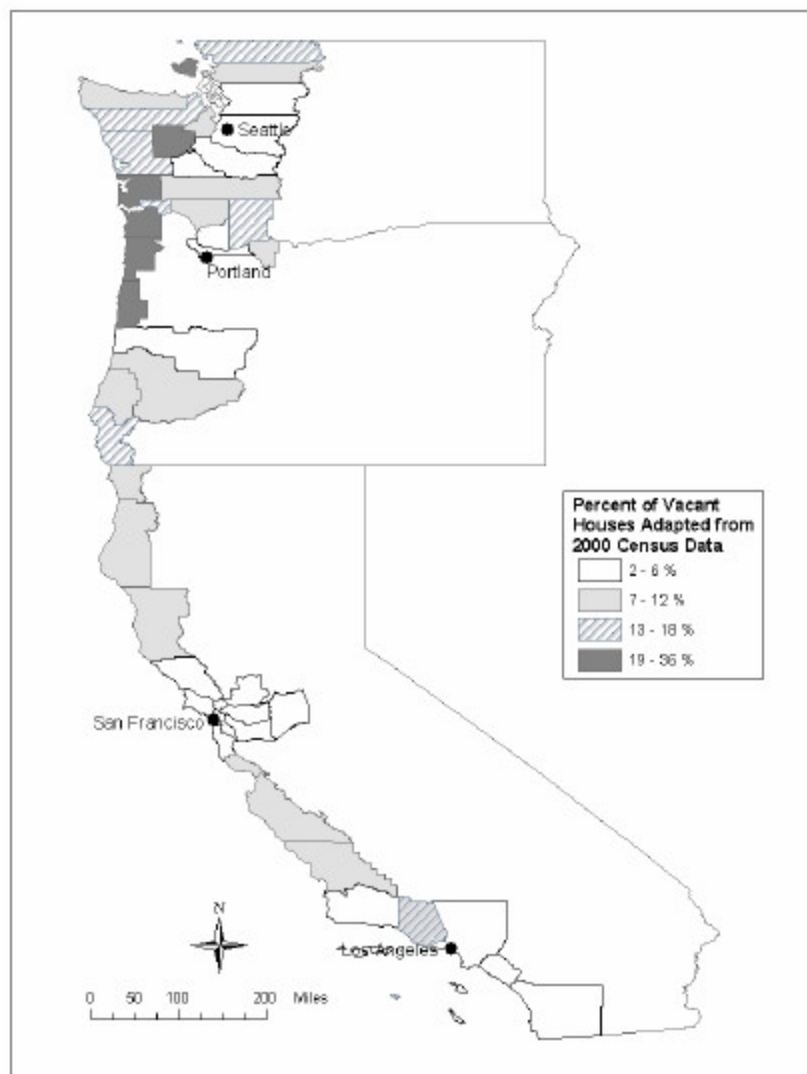
Figure 5. Poverty.



Vacant Housing Units

The percent of vacant housing units ranged from 11 to 29 percent, with a mean of five percent. Washington contained three counties that fell within the largest range of vacant housing units (Jefferson, Skamania and Whakiakum), Oregon contained only two (Clatsop and Tillamook), while California had none. An interesting observation to note is that over half of Washington, Oregon and California's counties fall within the lowest range of vacancy rates in 2000, while only 20 percent of Oregon's counties and 16 percent of Washington's counties fall within the highest range of vacancy (Figure 6). Locating counties with high vacancy rates may lead to a greater understanding of fishing seasons and work availability. For example, if fishermen and crewmembers reside/work in a port during the summer fishing season, this might explain why houses are empty during non-fishing seasons.

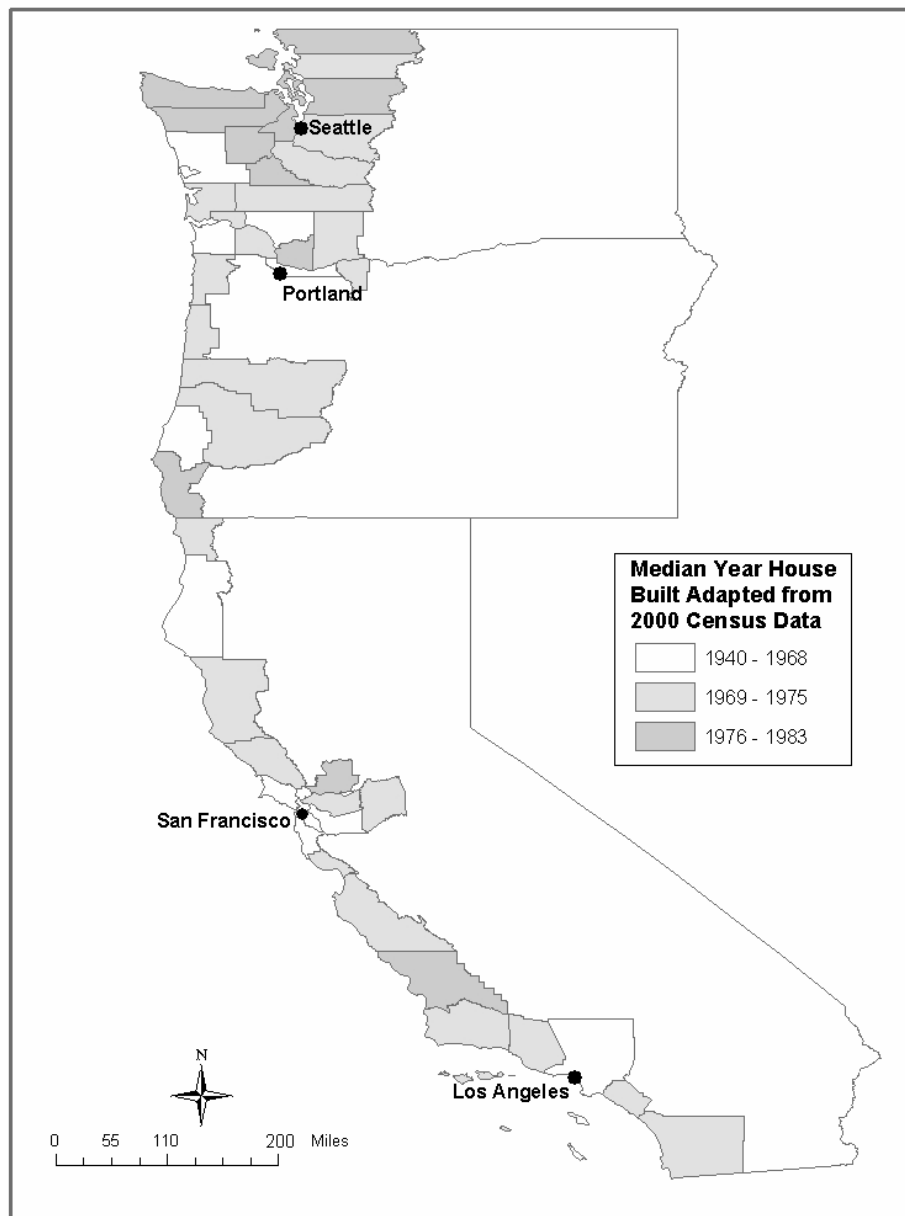
Figure 6. Vacant housing units.



Median Year House Built

For the most part, Washington, Oregon and California contained counties with the bulk of homes built between 1969 and 1975. Washington and Oregon had only two counties each with homes built between 1940 and 1968, while California had seven counties fall within this category. Conversely, Washington contained the most counties with homes built most recently (between 1976 and 1983) (Figure 7). Understanding the median age of houses by county might shed light on the economic state of a community.

Figure 7. Median year house built.



Isolated Cities

A total of 17 cities were identified as geographically isolated using ICBEMP's parameters (Figure 8a). These cities had a population of 1,900 or less, were not located on a major highway and fell outside of the 35-mile buffer of cities over 20,000. The isolated cities in Washington include: Neah Bay (population 794), La Push (population 364), Tahola (population 824), Moclips (population 598), Copalis Beach (population 448), Ocean City (population 179), Markham (population 73), Junction City (population 95), Cohasset Beach (population 621), Grayland (population 992), Tokeland (population 275), Ocean Park (population 1,459), and Naselle (population 361). In Oregon four isolated cities were identified: Oceanside (population 351), Cape Mears (population 49), Netarts (population 705) and Powers (population 737). California did not have any geographically isolated cities.

PSMFC took ICBEMP's analysis one-step further to explore the concept of commuting via roads, compared to commuting by boat. To do this, two different buffers (30 and 40-miles) were placed around cities with a population greater than 25,000. Results did not change significantly in the number of geographically isolated communities in Washington with the 30 and 40-mile buffers; however, Oregon cities became more sensitive with the change in buffer size (Figure 8b). In Washington, Naselle was the only identified isolated city to fall outside of the 40-mile buffer, while Oregon resulted in three isolated cities (Oceanside, Cape Mears and Netarts) (Table 2).

Table 2. Cities identified with three different variables.

Note: this table compared the isolated cities identified by the three buffers.

Isolated City	30-Mile Buffer and Population $\geq 25,000$	35-Mile Buffer and Population $\geq 20,000$	40-Mile Buffer and Population $\geq 25,000$
Neah Bay, WA	Yes	Yes	Yes
La Push, WA	Yes	Yes	Yes
Tahola, WA	Yes	Yes	Yes
Moclips, WA	Yes	Yes	Yes
Copalis Beach, WA	Yes	Yes	Yes
Ocean City, WA	Yes	Yes	Yes
Markham, WA	Yes	Yes	Yes
Junction City, WA	Yes	Yes	Yes
Cohasset Beach, WA	Yes	Yes	Yes
Grayland, WA	Yes	Yes	Yes
Ocean Park, WA	Yes	Yes	Yes
Tokeland, WA	Yes	Yes	Yes
Naselle, WA	Yes	Yes	No
Oceanside, OR	Yes	Yes	No
Cape Mears, OR	Yes	Yes	No
Netarts, OR	Yes	Yes	No
Powers, OR	Yes	Yes	Yes

Other reasons why a city might be geographically isolated may include a windy, narrow road, a mountain range, frequent mudslides on roads, etc.

Figure 8a. Isolated cities identified with a 35-mile buffer around cities with a population greater than 20,000 people.

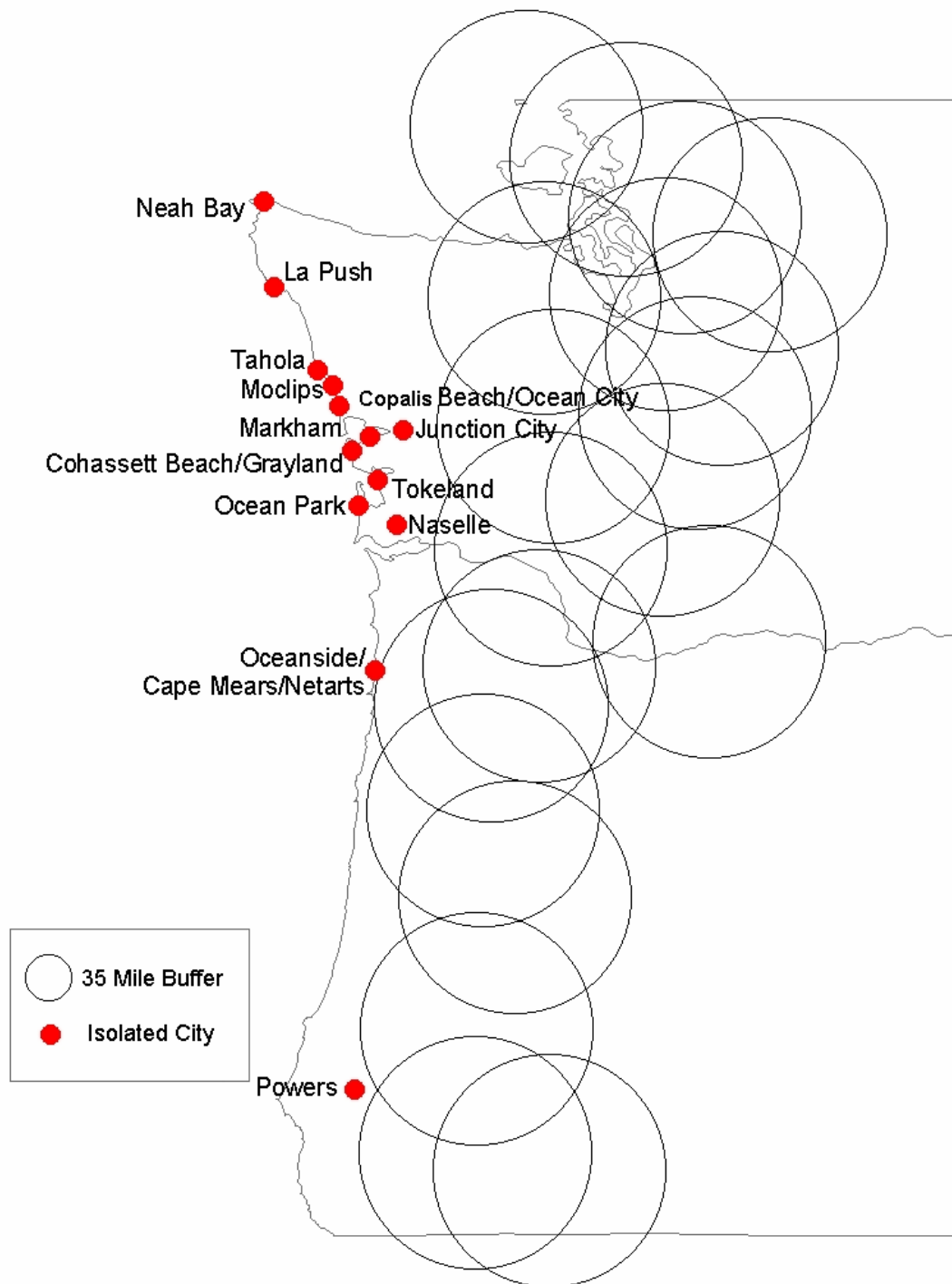
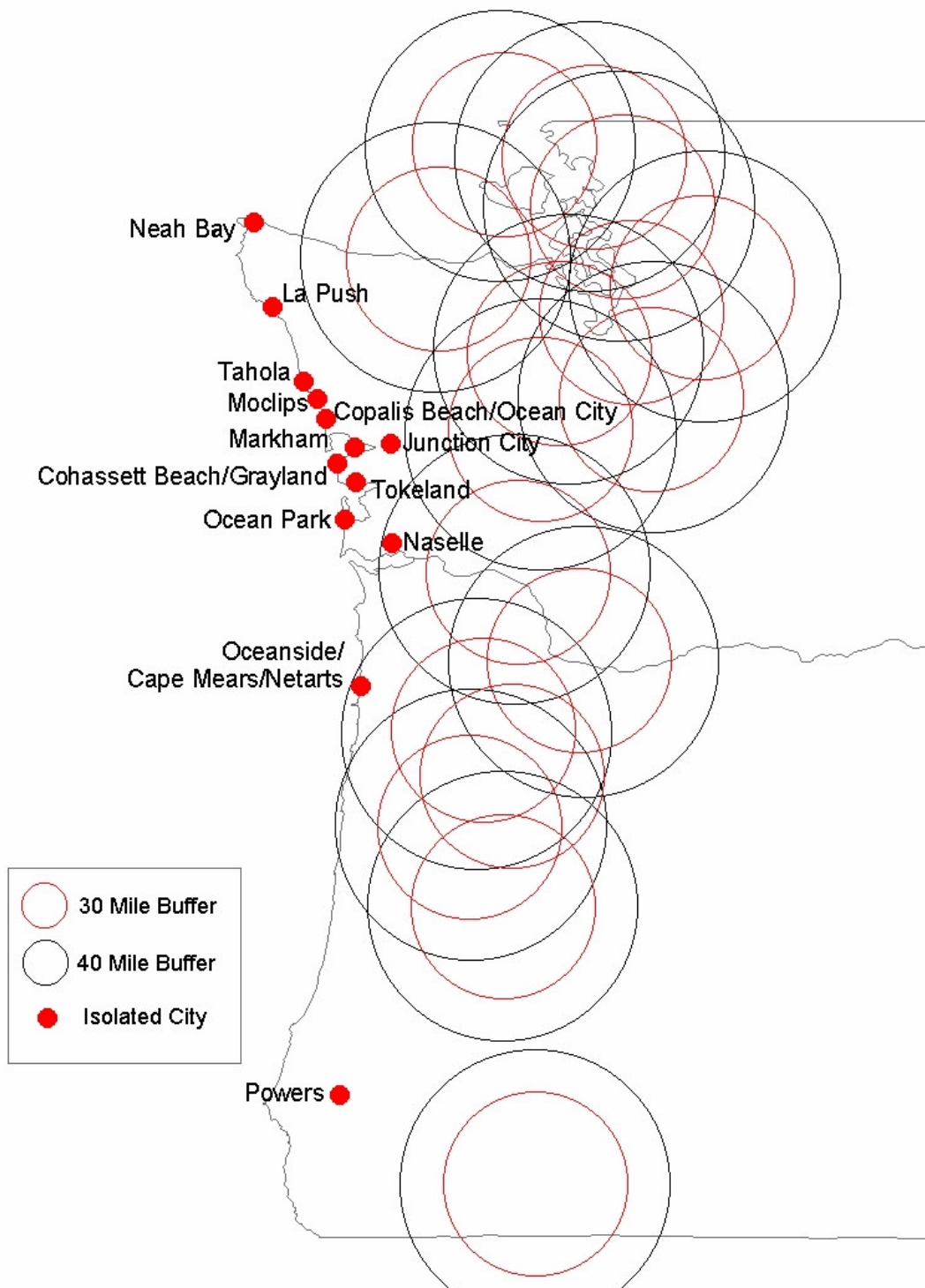


Figure 8b. Isolated cities identified with a 30 and 40-mile buffer around cities with a population greater than 25,000 people.



Commercial and Recreational Fishing Ports

The following two maps (Figure 9a and 9b) report the location of commercial and recreational fishing harbors/ports based on interviewee responses. The interviewees themselves will not be revealed due to confidentiality. The results are founded on the answers given by participants from the question: what percent of boats in your harbor/port are recreational and commercial? If a harbor/port was made up of more than five percent of commercial fishing vessels, it is reported in Figure 9a. If a harbor/port was made up of less than five percent of commercial fishing vessels, it is reported in Figure 9b. There are a total 46 recreational fishing ports and 19 commercial ports reported by interviewees. The last map in this section (Figure 9c) reports the location of commercial ports based on 2001 PacFIN data.

One issue to acknowledge, however, is the example of Ilwaco, WA. In Figure 9b Ilwaco is listed as a recreational fishing port. This is because the interviewee's response to the above question resulted in the port containing less than five percent of commercial fishing vessels. This response, however, does not imply that Ilwaco is not also a commercial fishing port. In fact, the fish processing plant located there is one of the largest employers in the county. Ilwaco is simply listed in Figure 9b because the port contains more recreational boats than commercial.

Figure 9a. Commercial fishing ports based on interviewee response (more than five percent of the vessels at these harbors/ports are commercial). Please note if a port is not listed in Figure 9a, it is because an interview did not take place there, not because the port is recreational. For a more complete map of commercial fishing ports based on 2001 PacFIN landings data, please see Figure 9c.

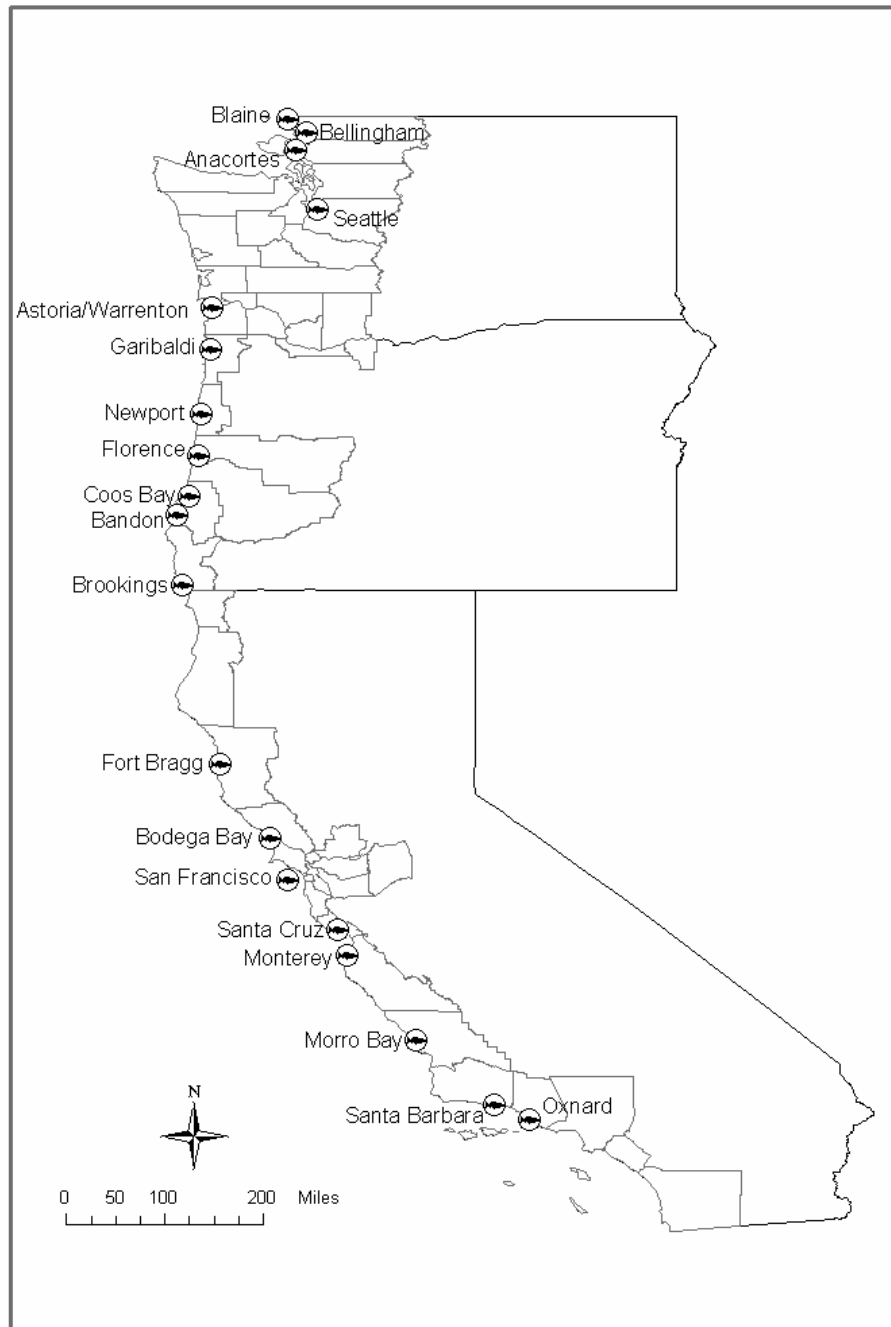


Figure 9b. Recreational fishing ports based on interviewee response (more than 95 percent of the vessels at these harbors/ports are recreational). Please note if a port is not listed on the map, it is because an interview did not take place there.

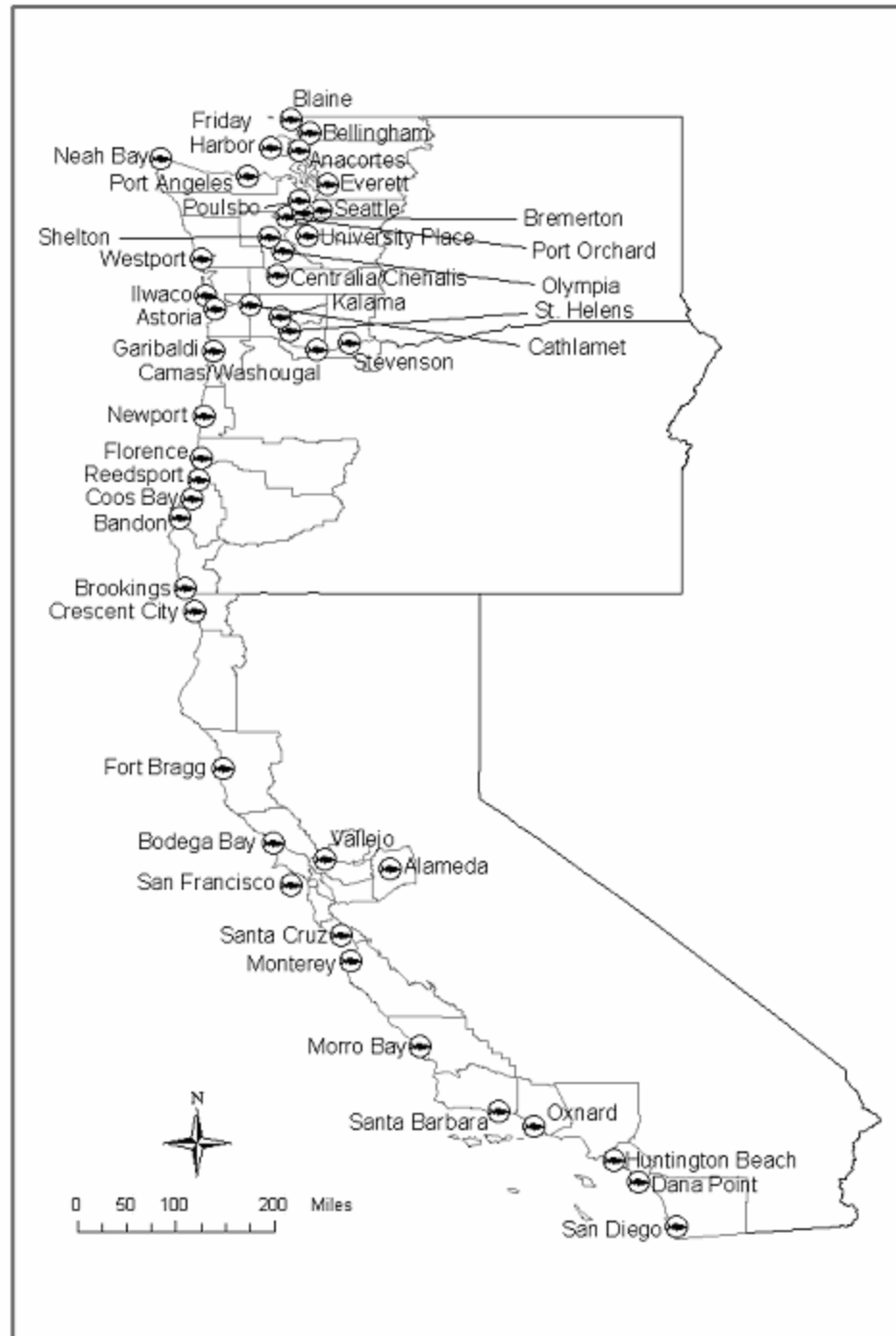
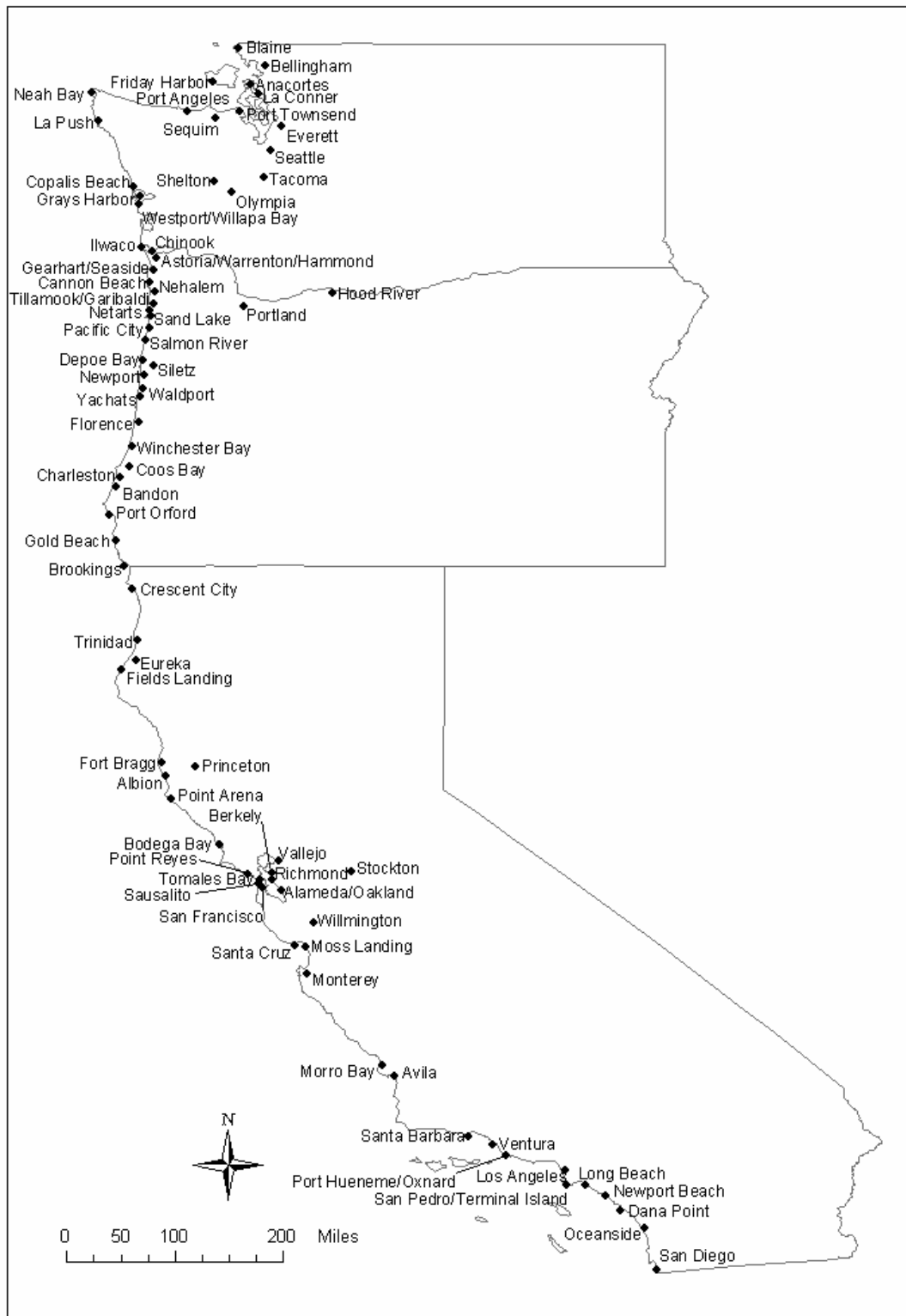


Figure 9c. Commercial fishing ports based on 2001 PacFIN data.



Community Descriptions

The following section contains community descriptions of each coastal county located in Washington, Oregon and California. Each county description contains information on location in relation to surrounding counties, the location and 2000 population of American Indian reservations and trust lands (where applicable), a brief outline of industries the county was historically and is currently based on economically, and a discussion of a few fishing ports within each county (selected from random and snowball sampling methods). Each county also contains a list of recreational and commercial ports based on interviewee responses and 2001 PacFIN landings data. Please remember that the recreational designation is based on interviewee information. If a port is solely listed as commercial and in fact does contain recreational boaters as well, the designation is based on PacFIN data alone. The reason for this designation is because interviewees were not contacted at that particular location.

Washington State Counties

Clallam

Location

Clallam County is situated on the northern extension of the Olympic Peninsula in western Washington. It has a total landmass of 1,745.2 square miles and shares a border with Jefferson County. The county's other borders are the Strait of Juan de Fuca and the Pacific Ocean. Approximately half of the county, including most of its Pacific shoreline, is designated as part of the Olympic National Forest, and ranks 20th in landmass among Washington counties (Payne, 2001).

Reservations and Trust Lands

Out of Clallam County's five American Indian reservations, two are located on the western shoreline. The largest is the Makah tribe situated in the northwest corner at Neah Bay on the county's central shoreline. Three additional tribes include the: Quileute tribe near La Push, the Lower Elwha tribe close to Port Angeles, and the Jamestown S'klallam Tribe by Sequim Bay (Payne, 2001).

History

The major founding industries of the county include fishing and timber products. In 1880, a salmon canning facility became a major provider of jobs to county residents. Though initially focused on salmon, the cannery expanded its product line to include clams and clam nectar. Later in 1889, the California Tanning Company set up the only west coast distilling plant (Payne, 2001). Leather tanning extract from hemlock bark was created by hundreds of workers in Clallam Bay (<http://www.sekiu.com/history.tpl>).

Current Industry

The majority of Clallam County's jobs come from industries developed around lumber products, the Clallam Bay Corrections Center, and agricultural services (Payne, 2001 and <http://www.sekiu.com/history.tpl>). However tourism is also an important industry.

Fishing Industry

Ports: Port Angeles (commercial/recreational), Sequim (commercial), Neah Bay (commercial/recreational)

The fishing industry in the city of Port Angeles began about 60 years ago. Commercial salmon fishermen utilized troll gear in the area until it was closed in the 1950s. Today, the community is primarily comprised of sport fishermen, and a few commercial fleets that fish in Alaska. Currently, however, a Native group fish for salmon locally.

Primarily, the fishing community of Port Angeles switched from a commercial fleet to a recreational fleet. This switch occurred around 1975 when the "Boldt Decision", U.S. versus Washington took place. The Boldt Decision was decided by George Boldt, which gave local Indians the right to fish 'in common with' commercial and sport fisherman. The decision gave the Indians the right to half of all the fish caught. (Personal Interview, 2002 and <http://www.ccrh.org/comm/river/legal/boldt.htm>).

Clark

Location

Clark County is one of the smallest counties in Washington State, with a total landmass of 628 square miles. The county is part of the geologic depression stretching from the Willamette Valley to Puget Sound. It is bounded in the north by the Lewis River, south and west by the Columbia River, and east by Skamania County (Froyalde, 2001).

History

Clark County's economic base was built on agriculture, logging, and railroad development. In the late 1870's, the agricultural sector grew rapidly until the 1920's when the industry was unable to recover after a sharp economic downturn. Due to high demand for clearing land for farming in the 1870's, large-scale logging occurred. In 1885, the Columbia River Paper Company (now owned by Georgia Pacific) opened in Camas. This industry eventually led to the formation of the Vancouver, Klickitat, and Yakima Railroad. By 1908, Vancouver was a terminal for trains operating on the North Bank Road connecting Spokane, Portland, and Seattle. During the 1920s, when the agricultural industry was on its way out, the logging industry took over as one of the county's largest industries producing paper and pulp products (Froyalde, 2001). Another important industry to the residents of Clark County was aluminum smelting and ship building. In 1940, the Aluminum Company of America (Alcoa) began an aluminum smelting operation near Vancouver. Alcoa's arrival marked the beginning of a 50-year presence in the county (Froyalde, 2001). Kaiser Shipbuilding was also a prominent industry that boosted employment during World War II. By 1943, 38,000 employees were working in the Vancouver facility (Froyalde, 2001).

Current Industry

The manufacturing industry in Clark County continued to grow through the mid-1990s, due to diversification into more advanced technologies. More traditional industries such as pulp and paper continue to be major employers. Additionally, residential and commercial construction, retail trade, and service jobs, have been strong for several years (Froyalde, 2001).

Fishing Industry

Ports: Vancouver (recreational), Camas (recreational), Washougal (recreational)

The current fishing industry at the Port of Camas and Washougal is 99 percent recreational, and one percent commercial. The primary species landed by the recreational division include sturgeon, salmon, pikeminnow and walleye. The port is made up of 350 berths ranging in size from 20 to 40 ft. The largest vessel that can be accommodated in the port is 60 feet (Personal Interview, 2002).

Cowlitz

Location

Cowlitz County is located in southwest Washington. It is bordered on the north by Lewis County, on the east by Skamania County, on the south by Clark County, and on the west by Wahkiakum County. The county ranks 28th in size among Washington counties. The county's major rivers include: the Cowlitz, Toutle, Cowlitz, Kalama, and Lewis, with the chief of these rivers being the Lewis River (Barrier, 1998).

History

The lumber industry has been the foundation of Cowlitz County's local economy since the 1880's. It is estimated that at the turn of the century, approximately 1,000 workers were employed in the logging industry. At that time, the largest companies were Hammond Lumber, Inman Paulsen, Western, and Wisconsin. The wood processing industry increased in prominence during the latter half of the 1920s when the Long-Bell and Weyerhaeuser Companies' processing facilities were established. Logging continued to be an important industry well into the 1970's and 1980's. Additional industries of importance included: fishing, food processing, agriculture, dairying, and aluminum reduction (Barrier, 1998).

Current Industry

Today Kalama's chemical plant, steel mill, and sawmill provide the bulk of the jobs in Cowlitz County. In 1997, however, the construction sector contained 2,880 workers, while the manufacturing sector employed more than two-thirds of its workers in lumber and wood products. Additionally, the manufacturing sector encompasses industries such as trucking, warehousing, communications (Barrier, 1998).

Fishing Industry

Port: Kalama (recreational)

During the late 1800s, growth in the booming salmon fishing industry spurred growth in local salmon canning operations. These operations catered to the heavy demand of salmon on the East Coast and Western Europe. The first cannery located near Longview, was established in 1866. In addition to being the first cannery in the Northwest, it was the world's second largest. Today, the fishing industry is primarily focused on recreational fishing. Typical landings include salmon, steelhead and sturgeon. Currently, Kalama's economy is based on the local chemical plant, steel mill, and sawmill, making fishing of minor importance to the local economy. Kalama's port is currently made up of 222 berths, which accommodate boats from 24 to 50 feet (Personal Interview, 2002).

Grays Harbor

Location

Grays Harbor County is located along the Pacific coast of Western Washington. It is bounded by Jefferson County in the north, Mason and Thurston Counties in the east, and Pacific County in the south. The county ranks 15th in size with an area of 1,918 square miles. Grays Harbor Bay dominates the coastal characteristics of the county (Barrier and Froyalde, 1998).

Reservations and Trust Lands

Two American Indian Reservations are situated within Grays Harbor County. The Quinault Reservation is located in the northwest corner of the county, with a population of 1,370. The Chehalis Indian Reservation with a population of 661 is located in the southeast corner of the county (U.S. Census, 2000).

History

Three primary industries, commercial fishing, agriculture and logging, provided Grays Harbor County with a strong economic base. The area's first sawmill was established in 1853 in the southeastern part of the county. During the next 30 to 40 years, additional sawmills were built in Aberdeen, Cosmopolis, Hoquiam, Ilwaco, Willapa, Raymond, and South Bend. The lumber industry eventually became the "backbone" of the regional economy by the late 1880's, while fishing became secondary (Barrier and Froyalde, 1998).

Current Industry

Even though Grays Harbor County is dependent on timber, fish, shellfish, and boat building, lumber and wood processing dominate the manufacturing industry. However, with a recent downturn in the timber industry, the county is seeing an increase in retiree residents and tourism (Barrier and Froyalde, 1998).

Fishing Industry

Ports: Westport (commercial/recreational), La Push (commercial/recreational), Copalis Beach (commercial), Grays Harbor (commercial)

Fishing has a long history in Grays Harbor County. By the turn of the century, the fishing industry employed about 300 gill net fishermen and managed an annual payroll of \$75,000. A processing and canning plant was established in Chinook in 1864 to attend to the growing East Coast demand for salmon. Later in the 1890s, the plant began processing and canning razor clams in addition to salmon. Like the salmon industry, cultivated oysters became an important resource. The fishing industry during the 19th and 20th centuries continued to grow, and began harvesting crab from the deeper waters of the Columbia River, Willapa Bay, and Grays Harbor (Barrier and Froyalde, 1998). Today, however, the fishing industry is more focused on recreational fishing. Recreational fishermen typically land salmon, bottomfish, tuna, and crab. There are currently five large processors in Westport, and the marina is comprised of 550 berths that range in size from five to 150 feet in length. Fishermen are encouraged by the marina to sell their catch off their boat, where dock space has been specifically set-aside for that purpose (Personal Interview, 2002).

Island

Location

Island County is the second smallest county in Washington, with a total landmass of 212 square miles. It is only one of two Washington counties completely surrounded by water. Ben Ure, Camano, Smith, Strawberry, and Whidbey are the five islands that make up the county. Whidbey and Camano Islands are the largest out of the five, with a combined area of 206 square miles. The county shares its eastern border with Skagit and Snohomish counties and its western border with the Strait of Rosario, Strait of Juan de Fuca, and Admiralty Inlet (Barrier and Froyalde, 2000).

History

Island County's economic base was originally established from the logging industry, agriculture, and the military. By the 1880s Puget Sound Pulp and Timber Company (later named Pope and Talbot) purchased much of the uncut timberland from homesteaders on south Whidbey Island. Over time the counties' once prominent logging eventually gave way to agriculture and construction (Barrier and Froyalde, 2000).

Current Industry

Today agriculture, forestry and fishing are relatively small industries in comparison to dairy farming and veterinarian services. Agriculture, forestry and fishing contribute about two percent of the counties' workers, compared with dairy farming which makes up the largest industries in the county. An additional contributor to the economy is the military base located on Whidby Island and tourism (Barrier and Froyalde, 2000).

Fishing Industry

Port: Deception Pass (recreational)

The Deception Pass Marina is comprised of 85 slips ranging in size from 20 to 40 feet long. The marina primarily caters to recreational fishing, which has been an important sport for the last ten years. Typical landings include: salmon, crab, shrimp, smelt, halibut, and lingcod. The recreational industry is important to the local economy, while there is little or no commercial fishing. Local businesses such as bait and tackle shops, and grocery stores depend on the recreational fishing industry for economic support (Personal Interview, 2002).

Jefferson

Location

Jefferson County is situated in the upper half of the Olympic Peninsula in northwest Washington. It has a total landmass of 1,808 square miles and shares its borders with three counties. The county's northern boundary is Clallam County, while its southern borders are shared by Grays Harbor and Mason counties. The Olympic National Forest comprises approximately three-quarters of the county's landmass, with the Olympic Mountains running through the middle of the county (Dillingham, and Froyalde, 2000).

Reservations and Trust Lands

Two American Indian reservations are located in Jefferson County. The Hoh Reservation situated on the western shore has an estimated population of 100. Most of the Quinalt Reservation is located in Grays Harbor County, however, it overlaps Jefferson County slightly. Its population was estimated at 1,370 (U.S. Census, 2000).

History

Jefferson County's economic base was established from the logging and agricultural industries. The paper and pulp industry arrived with the National Paper Products Company, a subsidiary of the San Francisco-based Zellerbach Corporation. In addition to the agriculture and logging industries, the military also had a substantial role in the development of the local economy. Fort Warden located at Point Wilson, and Fort Flagler at Point Marrowstone, were manned during the first and second World Wars and the Korean War (Dillingham, and Froyalde, 2000).

Current Industry

Today, Jefferson County relies on several different industries for economic stability. Local government, food services, paper products, recreation, health and legal services provide most of the jobs (Dillingham, and Froyalde, 2000). Tourism is also an important factor economically throughout the county. Specifically, Port Townsend is recognized as the only west coast Victorian Seaport attracting over one million tourists to the seaport annually (<http://www.nwmaritime.org/history.htm>).

Fishing Industry

Ports: Port Townsend (commercial)

Commercial fishing, historically, was an important contributor to Jefferson County's economic base. Specifically, the town of Brinnon was originally founded on commercial fishing and logging. Commercial fishermen used to fish for salmon using purse seines. However, today tribal, non-tribal and recreational fishermen target crab, clams and oysters. There are currently six major marinas located throughout the county. These marinas include: Point Hadlock, Pleasant Harbor, Point Hudson, Port Ludlow, Quilacene, and Port Townsend (Personal Interview, 2002).

King

Location

King County is the 11th largest county in Washington State, with a total landmass of 2,128 square miles. It is bounded on the north by Snohomish County, on the east by Chelan and Kittitas Counties, on the south by Pierce County, and on the west by Kitsap County. A large portion of eastern King County is located in the Mount Baker-Snoqualmie National Forest (Payne, 2001).

Reservations and Trust Lands

The Muckleshoot reservation is located on the southwestern border of the county. It had an estimated population of 3,605 (U.S. Census, 2000).

History

King County's economic base was established from the lumber industry as early as 1852. The close proximity to both timber and deep water harbors made it possible to ship products from ports on Puget Sound to markets in San Francisco and elsewhere on the West Coast. Agriculture, coal mining, and the railroad also contributed to the county's growing economy (Payne, 2001). During the early 1900s manufacturing came to the forefront, creating more jobs in the production of naval ships and airplanes. In 1911, the Port of Seattle was established, later making it the fourth largest container port in the nation (Payne, 2001).

Current Industry

King County has developed from an economy based primarily in forest products and manufacturing, into a diversified export base focused on the high tech industry and trade services (Payne, 2001). Additionally, King County has more commercial fishermen than in all other Washington counties combined. The Port of Seattle is also one of the largest container ports in the world, served by 26 regularly scheduled steamship lines.

Fishing Industry

Port: Seattle (commercial)

Fishing has been an important part of King County's economy for 120 years. One factor contributing to Seattle's important fishing industry is its strong tie to the Alaska fishery. Historically, salmon and halibut were landed with gillnets and long line gear. Today, salmon are caught with more diversified gear such as troll and purse seines. During the 1960s, Dungeness crab became part of the fishery, while groundfish took off with the availability of hydraulic power. Seattle's fishing fleet located at Fisherman's Terminal is primarily commercial, with few recreational boats. The commercial fishing communities located in Queen Anne, Magnolia, and Ballard, contributes to tying these three neighborhoods together. The Salmon Bay Marina has a total of 400 berths and can accommodate a vessel as small as 30 feet and as large as 307 feet (Personal Interview, 2002).

Kitsap

Location

Kitsap County is located along the western shore of the central Puget Sound region. Because of the county's proximity to water, it is connected to Mason County by a land bridge located in the southwest corner. North of the county is Island County, while east are the ports of King, Pierce and Snohomish counties. Kitsap County also shares its southern border with Pierce County (Payne and Froyalde, 2001).

Reservations and Trust Lands

Two American Indian reservations are located in the northwest corner of the county. The more northern of the two is the Port Gamble Reservation. The population of this reservation was estimated to be 698. The second reservation with a population of 6,537 is the Port Madison Reservation (U.S. Census, 2000).

History

Kitsap County, originally named Slaughter County, was established in 1857 with the county's first logging mill. The logging industry gave way to a prominent ship building industry and presence of the military. Fewer sectors had as great an impact on the economy and employment as the U.S. Navy (Payne and Froyalde, 2001). One exception, however, was the fishing industry in the cities of Poulsbo and Bremerton. Poulsbo housed one of the largest codfish processing plants in the Northwest (<http://www.poulsbo.net/heritage/>).

Current Industry

Today, the military continues to provide a great number of jobs to almost 13,000 civilians. Much of the non-military industry sectors are indirectly related to military activity. Revenues from fishing, hunting, and trapping are almost double the state average. Additionally, the Port of Bremerton contributes to the economic base by attracting tourists, which supply approximately \$1.5 million dollars to the local economy (Payne and Froyalde, 2001).

Fishing Industry

Ports: Port Orchard (recreational), Bremerton (recreational), Poulsbo (recreational)
Recreational boaters and fishermen currently dominate the fishing communities in Poulsbo and Bremerton, which were originally commercial fishing communities. Recreational fishing draws tourists to both cities, contributing to the communities' overall economic base. Liberty Bay Harbor, located in Poulsbo, has 300 berths that range in size from 35 to 40 feet dedicated to recreational boaters. The Port of Brownsville, situated in Bremerton, has 320 berths ranging in size from 20 to 50 feet. Bremerton has been involved in fishing since 1922, where it was centered on salmon fishing. Salmon fishing remains an important resource to the community (Personal Interview, 2002).

Lewis

Location

Lewis County is located in the southwestern portion of Washington State. It shares boundaries with Grays Harbor, Thurston, Pierce, Yakama, Cowlitz, Skamania, Pacific and Wahkiakum counties. The county is the largest in the state with a land area of 2,452 square miles. Portions of the county contain the Snoqualmie and Gifford Pinchot National Forests, as well as Mt. Rainier National Park (Payne, 2001).

Reservations and Trust Lands

Two American Indian reservations contain small portions of land that overlap Lewis County. The first is the Chehalis Reservation located in the northwestern corner of the county. The U.S. Census Bureau estimated its population at 661. The second reservation, the Yakama, is located in the southeastern corner of the county with a population of 31,731.

History

Lewis County's economic base was established from several natural resource-based industries including fishing, agriculture, logging, and mining. (<http://www.wa.gov/esd/lmea/labrmrkt/eco/lewieco.html> and <http://access.wa.gov>).

Current Industry

Presently, Lewis County continues to be supported by the forestry, agriculture and mining industries. While much of the county is dominated by agriculture and forestry, the timber industry is declining. This decline has created an impetus to make the transition from a resource-based economy to one with an emphasis on manufacturing, wholesale distribution and commerce. One factor that is making this transition easier is that the manufacturing industry holds a large share of the county's private employment, with the second largest divisions being food processing (frozen fruits and vegetables), and transportation equipment (Payne, 2001).

Fishing Industry

Ports: Centralia (recreational), Chehalis (recreational)

The fishing industry throughout Lewis County is recreational in nature. Most anglers that fish in Centralia and Chehalis do so in Riff and Mayfield Lakes (Personal Interview, 2002). However, the main headquarters of a fish producer is located in Winlock. The company not only produces fish, but it also processes, wholesales, distributes and exports salmon to both a local and international sales territory (Urner Barry, 2002-2003).

Mason

Location

Mason County is located in western Washington, with a total area of 961 square miles. It shares its borders with Jefferson County in the north, Grays Harbor County in the west, Thurston County in the south and Kitsap and Pierce counties in the east. The county's topography is diverse containing the Olympic National Forest, nearly 100 lakes, two islands, and the Skokomish River (Cichello, 1997).

Reservations and Trust Lands

Mason County contains two American Indian reservations, which are home to the Skokomish and Squaxin Island tribes. The Skokomish reservation, with a population of 704, is located on the southern end of Hood Canal's Annas Bay at the mouth of the Skokomish River. The Squaxin reservation is located near Kamilche with a population of 445 (Cichello, 1997 and U.S. Census, 2000).

History

Mason County was established in 1854, as the local commercial center for timber interests (Cichello, 1997). As the forest industry began to develop, so did the logging camps and sawmills. By the end of the 1850s several mills were operating throughout the County. Farming, fishing and the oyster industries were also beginning in other areas of the county during the late 1800s. The Skookum and Olympia oyster companies eventually moved into the county producing more than 25,000 sacks of oysters each year by 1902 (Cichello, 1997).

Current Industry

Currently, agricultural services such as crop and livestock production, the manufacturing of forest products, trade, and government are the largest sectors of employment in the county (Cichello, 1997).

Fishing Industry

Ports: Shelton (commercial/recreational), Harstine Island (recreational)

Presently the only commercial fishing existing in Mason County is the tribal fishery. The Squaxin tribe fish for salmon, and operate a salmon pen between Harstine and Squaxin Islands. The tribe is also involved in the large geoduck and sea cucumber industry. The rest of the fishing community is dedicated to recreational salmon fishing. The oyster industry, however, has a long-standing history, and continues to be supported by the Harstine Oyster and Graser Oyster Companies (<http://www.ci.shelton.wa.us/history.htm#Oyster>, and Personal Interview, 2002). One company in particular, Taylor Shellfish Farms, owns shellfish beds throughout several locations in Puget Sound, and has been processing shellfish for over 100 years. It is known today as the largest Manila clam producer in the United States (<http://www.taylorshellfish.com/aboutus.html>).

Pacific

Location

Pacific County is located in the southwestern corner of Washington state with a landmass of 908 square miles. The Pacific Ocean and Willapa Bay dominates the coastal characteristics of the county, and contains over 90 percent of classified forestland (Barrier and Froyalde, 1998).

Reservations and Trust Lands

One American Indian reservation, the Shoalwater Bay reservation, is located in the northwestern portion of the county with an estimated population of 63 (U.S. Census, 2000).

History

The fishing industry drew many residents to Pacific County in the 1800s. By 1870 several firms were engaged in processing and canning razor clams as well as cultivating oysters. The fishing industry continued to grow through the 19th and 20th centuries, and by 1930, approximately 800 people were employed in the canning industry. Crab was also an important resource to the fishing community, causing fishermen to harvest it from deeper waters at the mouth of the Columbia River, Willapa Bay, and Grays Harbor. Aside from the fishing industry, additional industries such as agriculture and logging contributed to the county's economic base. Sawmills built in South Bend, Raymond, and Ilwaco eventually replaced the fishing industry as the backbone of the regional economy (Barrier and Froyalde, 1998).

Current Industry

Today, employment in Pacific County is concentrated in agriculture, manufacturing, government, tourism and fishing. The manufacturing sector consists almost entirely of logging, sawmills, and food processing, which account for about 92 percent of all manufacturing in the county. The fishing industry employs over 70 percent of the county's population, with the average wage in 1996 being \$18,449, almost \$4,000 more than the statewide average (Barrier and Froyalde, 1998). Employment throughout the county is also centered around the Public School System and tourism. Tourism is by far the number one industry countywide. This industry began to flourish in the 1980's and continues to be a contributing factor to the local economy (Personal Interview, 2002).

Fishing Industry

Ports: Ilwaco (commercial/recreational), Chinook (commercial/recreational), Willapa Bay (commercial/recreational)

Fishing has been an important resource to Pacific County residents since the 1800s. Today, the commercial fleet in Chinook comprises 25 % of the fishing population (in terms of numbers of vessels/boats), while recreational fishing make up the remainder. The Chinook marina, located south of Ilwaco, has 380 berths that accommodate both commercial and recreational fishing boats. The port of Ilwaco contains 800 slips, two fuel docks and a boat hoist, charter boats and canneries. Residents there also depend upon the local fishing industry in terms of tourism, commercial and recreational fishing and fish processing (Personal Interview, 2002 and <http://www.pacifedc.org>).

Pierce

Location

A total of 1,675 square miles situated in southwest Washington make up Pierce County. The county shares a border with King County in the north, Yakima County in the east, Lewis County in the south, and Thurston and Mason Counties in the west. Virtually all of Mt. Rainier, and parts of the Gifford Pinchot National Forest, are located in the eastern portion of the county. Two prominent salt-water features include a deep-water harbor at Commencement Bay and a strait that separates the county between its main body of water and parts of the Kitsap Peninsula (Payne, and Froyalde, 2001).

Reservations and Trust Lands

Three American Indian reservations are located on the borders of Pierce County. These reservations include: the Nisqually Reservation located on the western border of the county, with an estimated population of 591, the Puyallup Reservation situated along the northern border with a population of 41,402, and the Muckleshoot Reservation located on the borders of Pierce and King Counties, with a population of 3,605 (U.S. Census, 2000).

History

Pierce County's economic base was largely founded on agriculture, logging, fishing, salting, packing, aluminum smelting and the military. One of the most notable events in the lumber industry was the establishment of the Weyerhaeuser Timber Company in 1900. The American Smelting and Refining Company (ASARCO) became the largest aluminum producer in the 1960s. Today, ASARCO is closed but, aluminum continues to arrive by tanker for delivery to local smelters. The military has also had a large impact on the county. Fort Lewis began in 1917 when county citizens deeded 70,000 acres of land to the U.S. Government (Payne, and Froyalde, 2001).

Current Industry

Pierce County's economy is primarily made up of agriculture, manufacturing, wholesale and retail trade, international shipping, personal and business services, national defense, forest products, and governmental services (<http://www.co.pierce.wa.us/pc/abtus/profile.htm#history>).

Fishing Industry

Ports: Tacoma (commercial), University Place (recreational)

The county's fishing industry has changed over time from a commercial fleet to a recreational fleet. The few commercial vessels that remain today fish in Alaska rather than in county waters. However, recreational fishing draws visitors to the county, contributing to local tourism dollars. Typical landings consist of Chinook, Coho, cod, and rockfish. Several marinas are located throughout the county including the Narrows marina with 400 slips, Point Defiance with 315, and Day Island marina with 250. There are a total of 20 marinas just within the city of Tacoma (Personal Interview, 2002).

San Juan

Location

San Juan County has a total landmass of 179 square miles, and is one of two Washington counties surrounded by water. The county is made up of a cluster of 200 Islands, of which only 172 are named. The four largest islands are: San Juan, Orcas, Lopez, and Shaw Islands. Whatcom and Skagit counties share the county's eastern border, and Vancouver Island share its western borders. The Strait of Rosario and the Strait of Juan de Fuca separate San Juan County from its southern border, Island County (Barrier and Froyalde, 1999).

Reservations and Trust Lands

One American Indian Reservation is located in San Juan County. The Samish reservation has an estimated population of 33,083 and covers about 90 percent of the county's land area (U.S.Census 2000).

History

Historically, San Juan County's economic base was built on agriculture, mining, and fishing. Primarily known for its fishing industry, small sailing vessels have been reported fishing the waters south of the San Juan Islands as early as 1850. Ships would sail their catch to Griffin Harbor (or Griffin Bay) while their crews salted and packed their catch. As the local fishing industry grew, so did the fishing technology. The technology evolved in Griffin Bay from early hand-seines and reef-nets to power seiners, fish traps and fish wheels. Friday Harbor established the first fish saltery in the county, which was later replaced by the county's first cannery. Later however, technological advances in the canning industry caused the operations to be moved to the mainland. Due to this shift, the economy was negatively impacted until tourism and recreational services worked their way into the county (Barrier and Froyalde, 1999).

Current Industry

The growth of San Juan County cannot be attributed to any one specific industry. A small percentage of workers derive their living from agriculture and fishing, which amounts to 2.5 percent of all covered employment. The county has a handful of fishermen harvesting finfish and shellfish, and a small number of farmers, few of which are involved in livestock (Barrier and Froyalde, 1999). San Juan County is also a draw for tourists; specifically, tourists who own vacation homes in the county (Personal Interview, 2003).

Fishing Industry

Port: Friday Harbor (commercial/recreational)

Fishing in Friday Harbor has been a way of life "as long as there has been a history" (Personal Interview, 2002). Today Friday Harbor is primarily made up of recreational fishermen and a few commercial vessels. Currently, two remaining purse seine fishermen that moor in Friday Harbor fish in Alaska. The recreational fishing industry is important to the community in that "we fish for tourists". The Friday Harbor marina contains 464 berths that range in size from 16 to 300 feet (Personal Interview, 2002).

Skagit

Location

Skagit County is located in the northwest portion of the state between Snohomish and Whatcom Counties. San Juan and Island counties border it on the east and it is bordered by Chelan County on the west. Comprising a geographic area of 1,735.3 square miles, the county ranks 21st in size among Washington's 39 counties (Froyalde, 2002).

Reservations and Trust Lands

Two American Indian reservations are located in Skagit County. The largest of the three is the Swinomish Reservation, situated in the western portion of the county with a population of 2,664. The second reservation is situated into two parts in the northwestern corner of the county. This reservation is the Upper Skagit Reservation with a population of 234 (U.S. Census, 2000).

History

Skagit County traditionally relied upon agriculture, food processing, fishing and timber for its economic base. During the 1870s, the commercial salmon and cod fishing industries were concentrated around Anacortes and La Conner. Complimentary industries, such as canning and packing, were quickly established to provide on-shore processing (Personal Interview, 2002). Even though the timber industry fluctuated through time, it remains a significant contributor to the economy. During the mid-1950s, Shell Oil Company built an oil refinery on Fidalgo Island near Anacortes, followed by Texaco in 1958. Both refineries continue to provide a substantial boost to the local economy (Froyalde, 2002).

Current Industry

Agriculture, fishing, boat building, oil refining, wood products, tourism, international trade, and specialized manufacturing make up the current economy of the Skagit Valley. In 2000, commercial fishing generated a payroll larger than either agriculture or forestry. On average, commercial fishermen earned \$57,801 in annual wages, which was almost \$2,000, more than the fishing industry statewide. Manufacturing, however, makes up 22 percent of the total employment population with most jobs focused on food processing, petroleum and transportation equipment (Froyalde, 2002).

Fishing Industry

Ports: Anacortes (commercial), La Conner (commercial)

People have been fishing in Anacortes since the turn of the century for salmon, cod and halibut. Schooners brought their catch of halibut and cod to the Port of Anacortes to be processed at the dozen or so canneries that existed. Today, one processor remains, processing frozen fish products. The port of Anacortes, Cap Sante Marina, is made up of both commercial and recreational fishermen that occupy the 1,050 berths in the marina. The berths range in size from 25 to 85 feet. The Ports of Anacortes and Skagit are homeports for the county's commercial fleet, which is estimated at 200 vessels. Many of these vessels home ported in Anacortes fish in Alaska (Personal Interview, 2002).

Skamania

Location

Skamania County is located in southwestern Washington along the Columbia River. It has a total landmass of 1,672 square miles, ranking it 24th out of Washington's 39 counties. It is bounded by Lewis County in the north, Cowlitz and Clark counties in the west, Yakima and Klickitat counties in the east, and the Columbia River and Oregon State in the south. Approximately 80 percent of the county falls within the Gifford Pinchot National Forest. Located in the county's northwest corner is Mount St. Helens.

History

For a time, commercial salmon fishing was a major source of income for Skamania County residents as well as local area tribes to meet and fish. Fish wheels dotted both sides of the Columbia River from Upper Cascade Village, just west of Stevenson, to Beacon Rock. When the fish wheels were outlawed in 1934, the county began to see other industries contributing to the economy. These additional industries included logging, construction and hydroelectric projects. Logging and lumber mills were the mainstay of the economy until the early 1990's. The earliest saw mills date back to the mid-1850s ([http:// www.skamania.org/history.html#anchor_salmon](http://www.skamania.org/history.html#anchor_salmon)). Later, construction and hydroelectric projects became the main source of income for county residents. Construction of the Lewis and Clark Highway not only created many jobs, but also bridged the gap between Western and Eastern Washington. During the 1930s to 1980s, construction of Bonneville Dam also influenced the county's growth in many ways. After Congress's designation of the Columbia River Gorge as a National Scenic Area, tourism began playing an important role in the county's economy (Barrier and Froyalde, 1998).

Current Industry

Today, Skamania County's economy is based largely on government employment, especially as it relates to the management of national forests, fish and wildlife, logging and lumber; tourism, recreation, and light manufacturing. For example, the government owns approximately 85 percent of the county's land (Personal Interview, 2003). Additionally, the service and tourist industries contribute to the overall economy. The Skamania Lodge, is a popular resort destination (Barrier and Froyalde, 1998).

Fishing Industry

Port: Stevenson (recreational)

The fishing industry in Skamania County is primarily recreational. One moorage dock exists at Beacon Rock State Park. The park has an "L" shaped dock that can hold 15 to 50 vessels depending on size. The dock is most frequently visited by local recreational fishermen fishing for salmon, sturgeon, small mouth bass and walleye (Personal Interview, 2002). The only commercial fishing existing in the county today is the Indian net fishing in the Bonneville Pool ([http://www.skamania.org/history.html# anchor_salmon](http://www.skamania.org/history.html#anchor_salmon)).

Snohomish

Location

Snohomish County is located in northwestern Washington. It shares a border with Skagit County in the north, Chelan County in the east, King County in the south, and the waters of Puget Sound in the west (Payne, 2001).

Reservations and Trust Lands

Two American Indian reservations are located north of the city of Everett. The first reservation is home to the Tulalip tribe, who had a population of 9,246. The second reservation is the Stillaguamish with a population of 101 (Payne, 2001).

History

Like most other counties in western Washington, Snohomish was largely built from the timber and agricultural industries. Much of the logging activity was concentrated in the southwestern portion of the county, where the Snoqualmie, Snohomish, and Pilchuck rivers are located. During the early 1900s, Everett was referred to as the “Lumber Capital of the World,” due to the Weyerhaeuser mill that employed from 1,500 to 2,000 workers. Aside from the Weyerhaeuser mill, the city of Snohomish alone had approximately 100 shingle mills, 35 sawmills, and several sash, door, and broom handle factories, employing more than 700 workers (Payne, 2001). Located in the northern portion of the county, agriculture formed a major base for the economy. Dairies were established in 1895 in Snohomish and Monroe, producing milk, cream, butter and cheese for distribution across the Puget Sound. In 1917, local farmers formed the Snohomish County Dairymen’s Association, an organization that would eventually become the Darigold Company. Darigold expanded and prospered over the years, however, consolidated its plants in the 1960s causing the Snohomish facility to close (Payne, 2001). Perhaps most important to the economy, was the development of the Paine Field airport near Everett. Throughout the 1960s, Snohomish County’s farmlands were slowly converted from farmlands to residential and commercial use. “The 1960s also witnessed the end of much of the county’s logging and lumber activity” (Payne, 2001). During the 1970s and 1980s, high-tech manufacturing moved into south Snohomish County (Payne, 2001).

Current Industry

The manufacturing division is one of the most significant industries impacting Snohomish County’s economy. Approximately 28 percent of total employment is attributed to the manufacturing industry. Boeing is a large employer in Everett, which accounts for about 54 percent of employment (Payne, 2001).

Fishing Industry

Port: Everett (commercial/recreational)

Within the port of Everett, salmon, bottomfish and crab fishing date to the early 1900s. Salmon were landed using purse seines and gillnets, and bottomfish were landed with draggers and long liners. Today, salmon is still an important resource. The Port of Everett is primarily made up of recreational boaters and a small percentage of commercial vessels. Economically, the commercial fishing industry is not as important as it was in the past. The Port has a total of 2,050 berths that range in size from 20 to 65 feet (Personal Interview, 2002).

Thurston

Location

Thurston County is located in western Washington at the southernmost end of Puget Sound. It has a landmass of 727 square miles, and ranks 32nd in size among Washington's 39 counties. Bordering the county in the south and west are Lewis and Grays Harbor Counties, and in the east is Pierce County. Several major rivers are located within the county including the Nisqually, Deschutes, Black, and Skookumchuck Rivers (Barrier and Froyalde, 1999).

Reservations and Trust Lands

One American Indian reservation shares its county borders with Thurston County. This reservation is home to the Nisqually tribe with a population of 591 (U.S. Census 2000).

History

Thurston County's establishment dates back to the 1840's where the fishing and lumber industries contributed to the county's economic foundation. These two industries, especially, logging, created most of the early jobs for county residents. The lumber industry also became increasingly more important after Weyerhaeuser moved their plant to the county. It was not until the last quarter of the 19th Century that additional industries such as coal mining, stone quarrying and beer manufacturing began contributing to the economic base (Barrier and Froyalde, 1999).

Current Industry

Today the agriculture, forestry, mining and fishing sectors are relatively small, claiming approximately 4.5 percent of overall employment. The county experienced a shift from a natural resource based industry to manufacturing, government, services, and trade industries. Though it remains important to the economy, the manufacturing sector is experiencing a decline in its contribution to the local economy (Barrier and Froyalde, 1999).

Fishing Industry

Port: Olympia (commercial/recreational)

The county's present fishing industry is mostly made up of recreational fishermen. The Fiddlehead Marina in Olympia contains 78 slips that accommodate 20 to 40 foot recreational boats. Like all other Puget Sound Marinas, the fish that are primarily sought after are salmon (Personal Interview, 2002).

Wahkiakum

Location

Wahkiakum County is located in southwest Washington State on the Columbia River. Located south of Pacific and Lewis counties, it shares its eastern border with Cowlitz County. Major tributaries located in Wahkiakum County include Grays and Elochoman Rivers, which both flow directly into the Columbia River (Barrier and Froyalde, 1998).

History

The first commercial logging and lumber processing in the Wahkiakum region was developed in the late 1840s to provide wood for homes and other buildings. The two largest logging companies were Olsen Brothers Logging Company and Deep River Logging Company. Other industries have also played significant historic roles in the economic development of Wahkiakum County. These industries include: fishing, food processing, agriculture, dairying, and aluminum reduction. The region's location on the Columbia River also provided a strong incentive to establish a salmon fishing industry (Barrier and Froyalde, 1998). Though most county residents turned to the logging industry for employment, a good number of them remained fishermen. Increases in the booming fishing industry spurred growth in salmon canning operations. These firms catered to both the East Coast and Western European demand for packed salmon (Barrier and Froyalde, 1998).

Current Industry

In Wahkiakum County, less than two-thirds of the working residents are employed locally, while the rest commute to jobs outside the county. Three industries employ the bulk of Wahkiakum County residents: government, manufacturing and services. The manufacturing industry is the second largest sector behind government, while the service industry accounts for 27 percent of employment (Barrier and Froyalde, 1998).

Fishing Industry

Port: Cathlamet (recreational)

The city of Cathlamet has had a lucrative fishing industry since 1846. The city, however, has watched their community evolve from a commercial fishing industry into a more recreational one. For example, historically, the first cannery in the area, called the Hume Cannery, was located on the Columbia River approximately 12 miles east of Cathlamet at Eagle Creek, Washington. Today, however, the nearest processors/suppliers are situated in Longview and Astoria. With most of the fishermen leaving the commercial industry behind, recreational fishermen represent almost 100% of the fishing activity today (Personal Interview, 2002).

Whatcom

Location

Whatcom County is located in the far northwest corner of the state with a total landmass of 2,120 square miles. It is bounded by land in the north, south and east, and water in the west. To the south and east of Whatcom County are Skagit and Okanogan Counties, to the north is Canada and to the west are the straits of Georgia and Rosario. Portions of Mt. Baker National Forest and North Cascades National Park are situated in the eastern two-thirds of the county. The principal river is the Nooksack, which flows westerly before emptying into Bellingham Bay (Payne, 2001).

Reservations and Trust Lands

Two American Indian reservations are located in Whatcom County. These reservations are the Nooksack Reservation with a population of 562 and the Lummi Reservation with a population of 4,193 (U.S. Census, 2000).

History

Whatcom County's economic base is attributed to the timber, agriculture, fishing, and construction industries. The timber industry was a strong economic mainstay starting in the 1850s, and growing to over 70 sawmills, over 100 shingle mills, and a number of logging camps. By 1907, the Bellingham Bay Lumber Company was one of the world's largest sawmills. Agriculture also grew alongside the timber industry, producing one-third of all dairy products consumed in the Puget Sound area. Additionally, fish processing was a major industry following the growth of the first cannery built on Lummi Island in 1886. By the turn of the century, 12 canneries were operating throughout the county and employing more than 5,500 people. Hydroelectric power also played a role in Whatcom County during the 1900s, building three dams on the Skagit River (Payne, 2001).

Current Industry

Currently, Whatcom County's economy is somewhat removed from its traditional industries. Although still important industries, agriculture, fishing, and forest products represent a substantially smaller division of the local economy than before. Today, government and education have replaced traditional industries. Over the years, the manufacturing sector has diversified due to the addition of the paper, chemicals, oil refining, aluminum, and food processing industries. The most recent employment gains, however, have come in the retail trade and service divisions (Payne, 2001).

Fishing Industry

Ports: Bellingham (commercial), Blaine (commercial)

Salmon, halibut and crab have been important resources to Whatcom County fishermen since the turn of the century. Today, salmon fishing have diversified into other fisheries, largely due to the declining local salmon industry. To compensate for this decline, some remaining commercial fishermen currently fish in Alaska and use Bellingham and Blaine as their winter homeports. "Bellingham is the home of a major cold storage facility which processes a majority of the local and a portion of the Alaskan landings" (Personal Interview, 2002). Blaine Harbor contains 629 slips, with 113 dedicated to the commercial fleet, while Squaticum Harbor has 1,417 berths, with 170 dedicated to the

commercial fleet. Both harbors can accommodate vessels up to 100 feet (Personal Interview, 2001).

Oregon State Counties

Clatsop

Location

Clatsop County is located in the northwest corner of Oregon. It shares a border with the Pacific Ocean, the Columbia River in the north, Columbia County in the east, and Tillamook County in the south. The areas of Astoria and Warrenton are nationally known as significant historic regions located at the terminal end of the Lewis & Clark Trail.

History

Traditional industries such as logging, agriculture and fishing, contributed to the economic growth of Clatsop County. Astoria, one of the largest and oldest fishing communities on the Oregon coast, was also dominated by the agricultural industry (Bradbury, 2001).

Current Industry

Today, the principle industries driving the economy are fishing, tourism and forest products (Bradbury, 2001). The Port of Astoria, created in 1914, is one of Oregon's 23 port districts, which support the trade and commerce of Oregon. Major employers are the U.S. Coast Guard, James River Corporation and Willamette Industries (<http://www.oldoregon.com/Pages/Quickfacts.htm>).

Fishing Industry

Ports: Astoria/Warrenton (commercial/recreational), Gearhart/Seaside (commercial/recreational), Cannon Beach (commercial/recreational)

Fishing continues to be Astoria's number one industry. Like a lot of west coast fishing communities, Astoria's primary historic catch was salmon and was home of drag fishing, which developed in the 1950s. Today, additional species such as groundfish, sardines, tuna, shrimp and crab contribute to Astoria's overall landings. Gear strategies applied by Astoria fishermen have also evolved due to recent conservation efforts. Technological changes in fishing gear include the use of tangle nets in the place of gillnets, in the hopes of reducing by-catch. Fishing has been an important industry to Astoria's community throughout its history, and continues to be "essential to the backbone" of Astoria's growth. The importance of the industry to local community members is reflected in its many commercial fishing organizations such as Salmon for All, the Columbia River Fisherman's Proactive Union, the Fishermen's Wives Association and the Pacific Marine Conservation Council. Astoria's fishing infrastructure is also well-developed containing eight processors and six bait and tackle shops. Six harbors exist in Astoria and Warrenton; one has 335 slips, while the other has 85. The Port of Astoria also accommodates about 12 large vessels that fish in Alaska (Personal Interview, 2002).

Columbia

Location

Columbia County has an area of 657 square miles and shares its borders with three counties and the Columbia River. The counties borders are Multnomah and Washington Counties in the south, and Clatsop County in the west. Columbia County is situated on the longest stretch of the Columbia River in Oregon. The river is a major route of ocean-going vessels and is popular for fishing, boating and windsurfing (<http://www.co.columbia.or.us/>).

History

Columbia County was established January 16, 1854, and was economically based on commercial fishing, water transportation and lumber (<http://www.co.columbia.or.us/>). Being originally settled by New England loggers, the county was dominated by the lumber industry. Later, however, an Italian community developed in the uptown area of the county and did not participate in the logging industry. Instead, they brought construction trades signaling a new direction for the areas manufacturing industry (<http://www.ci.st-helens.or.us/>).

Current Industry

Today, the county's principle industries include manufacturing, agriculture, lumber, fishing, and tourism (<http://www.co.columbia.or.us/>). Manufacturing has been the principal source of income, however, the timber industry still provides a strong economic base for the county (<http://www.ci.st-helens.or.us/>).

Fishing Industry

Port: St. Helens (recreational)

St. Helens fishing community is made up entirely of recreational fishermen. The closest non-tribal commercial fleet to the city is 30 miles away. County residents, who fish in St. Helens, do so for salmon and sturgeon. The city has a long history of recreational fishing, exhibited in a group of local 80 year olds who have moored their boats at the St. Helens marina for 40 to 50 years. The marina has 220 slips and can accommodate boats that fall in the range from 16 to 50 feet long, with the largest being 60 feet long (Personal Interview, 2002).

Coos

Location

Coos County is located just north of Curry County in the southeast corner of the state. It is bounded by Douglas County on the north and east, and the Pacific Ocean on the west. The county has an area of 1,629 square miles after various boundary adjustments during the 1800s (<http://arcweb.sos.state.or.us/county/cpcooshome.html>). The principal rivers are the Coos and Coquille Rivers (<http://www.rootsweb.com/~orcoos/history.htm>).

Reservations and Trust Lands

One American Indian Reservation is located in two main clusters throughout the county. This reservation is home to the Coquille tribe, population of 193 in 2000 (U.S. Census, 2000).

History

Coos County was created on December 22, 1853, from parts of Umpqua and Jackson Counties. Port Orford, now in Curry County, was the first settlement. Until recent lumber shortages, Coos County had the largest timber shipping port in the world. Gold mining was another magnet that drew people to explore and exploit the mineral resources of the county during the nineteenth century (<http://www.rootsweb.com/~orcoos/history.htm>). Another important contributor to the county's economic base was fishing.

Current Industry

The county's primary industries consist of forest products, fishing, agriculture, shipping, tourism and recreation (Bradbury, 2001). Additional products that play an important role in the economy include: boating, dairy farming, cranberries, and myrtle wood manufacturing. There are several port districts that also contribute to the county's growth: Port of Coos Bay founded in 1909, Port of Coquille River founded in 1912, and Port of Bandon founded in 1913. Coos Bay is considered the best natural harbor between San Francisco Bay and the Puget Sound. The Port of Coos Bay is the largest forest products shipper in the world (<http://arcweb.sos.state.or.us/county/cpcooshome.html>).

Fishing Industry

Ports: Coos Bay (commercial/recreational), Bandon (commercial), Charleston (commercial/recreational)

Coos Bay is the largest deep-draft coastal harbor between San Francisco Bay and Puget Sound, and is Oregon's second busiest maritime commerce center. (<http://www.portofcoosbay.com/>). Charleston, nine miles west on Cape Arago Highway, is an old waterfront fishing village, with a busy commercial fishing fleet. It contains more than 150 boats that during various seasons of the year land Dungeness crab, halibut, shrimp, salmon, tuna, and a variety of ground and rockfish including sole, cod, flounder, mackerel and snapper (<http://www.charlestonmarina.com>).

Curry

Location

Curry County is located in the southwest corner of the state. It is bounded on the south by California, on the west by the Pacific Ocean, on the north by Coos County, and on the east by Josephine County. The county originally contained about 1,500 square miles, however, boundary adjustments with Coos County in 1872 and 1951 and Josephine County in 1880 and 1927 increased the area to 1,648 square miles (<http://arcweb.sos.state.or.us/county/cpcurryhome.html>).

Reservations and Trust Lands

Located in the uppermost corner of the county is an American Indian Reservation representing the Coos, Lower Umpqua and Siuslaw tribes. In 2000, all three tribes made up a total of 11 residents (U.S. Census, 2000).

History

Curry County's growth is attributed to the county's commercial fishing industry. As early as 1876, a cannery was built at the mouth of the Rogue River, processing salmon. A year later, the county's first salmon hatchery was built, success and experienced in replenishing salmon to the Rogue River (<http://radicalacademy.com/currycountyalmanc1.htm>).

Current Industry

The principal industries of Curry County include forest products, agriculture, commercial and sport fishing, mining, recreation, and tourism (Bradbury, 2001). Additional products of importance include sheep and cattle, cranberries, blueberries, easter lilies, myrtle wood, and horticultural nursery stock. While there is still some mining of cobalt, nickel, and chromium in the Gasquet Mountain area, the economy is more focused on agriculture and timber. Vacation and recreational possibilities also draw tourists to the area and provide additional economic growth (<http://arcweb.sos.state.or.us/county/cpcurryhome.html>).

Fishing Industry

Ports: Brookings (commercial/recreational), Port Orford (commercial), Gold Beach (commercial)

Curry County's coastal scenery and standing timber attract visitors to participate in recreational clamming, crabbing, and fishing in both freshwater and saltwater. The Port of Brookings is considered one of the safest harbors, as well as one of the largest fishing communities on the Oregon coast (Bradbury, 2001). Today, shrimp, crab, ground fish and salmon make up most of the ports landings. The Port of Brookings Harbor's mooring facilities include 750 berths and 485 linear feet of transit dock for the non-home porting vessels. The port is a "Harbor of Refuge" for all vessels in the 100 to 150 foot class needing shelter from inclement weather. The port also accommodates vessels that range from 24 to 110 feet. Another fact about the Port is that it functions in four areas: property management, tourism, commercial and recreational fishing. The Port manages a business loan program, is involved in telecommunications, assists in the development of medical infrastructure, and advocates and secures funding for community improvement projects. This port district covers over four hundred square miles and represents over 75% of the entire population of Curry County (Personal Interview, 2002).

Douglas

Location

Douglas County extends from sea level at the Pacific Ocean to the 9,182-foot Mt. Thielsen in the Cascade Mountains. It is located just north of Coos County, south of Lane County, and west of the Pacific Ocean. The county contains the entire Umpqua River watershed within its boundaries, and nearly 2.8 million acres of commercial forestlands. Additionally, the Federal Government owns over 50% of the county's land (<http://www.co.douglas.or.us/overview.htm>).

Reservations and Trust Lands

The Cow Creek Reservation had a population of zero residents in 2000 as reported by the U.S. Census Bureau (perhaps they did not receive completed census forms). As one of the smallest reservations in the state, it is located in the south central portion of the county (U.S. Census, 2000).

History

Like most northwest counties in Oregon, one of the most important industries in Douglas County was the lumber industry. In 1990, the county's direct income came from approximately a billion board feet of timber harvest (Jackson and Kimberling, 1993).

Current Industry

Douglas County's economy is primarily based on logging, agriculture, and recreation (County Parks Department). Approximately 25 to 30 percent of the labor force is employed in the forest products industry which includes numerous sawmills, veneer plants, one pulp and particle board plant, and numerous shingle, shake, pole and other wood plants. Agriculture is another important industry, encompassing field crops, orchards, and livestock. The County Parks Department, has over 50 parks in the system, which range from large facilities with overnight camping to small boat launching access points (<http://www.co.douglas.or.us/overview.htm>). Additionally, the tribal casinos contribute to the local economy.

Fishing Industry

Port: Winchester Bay (commercial/recreational)

Winchester Bay Marina is made up of both commercial and recreational fishing boats. The commercial vessels comprise about 20 percent of the marina while the remaining 80 percent represent recreational users. Even though the fishery at Winchester Bay is primarily recreational, it remains an important industry to the local economy. Salmon Harbor Marina is also focused on recreational fishing, with immediate access to the Umpqua River and Pacific Ocean. The Harbor contains 750 moorage slips for short-term or long-term occupancy. Recreational fishermen that moor in both the Winchester Bay and Salmon Harbor marinas, typically land Chinook salmon, striped bass, steelhead, sturgeon, chad, pink fin perch, small mouth bass and Dungeness crab (<http://www.marinarvresort.com/shframes.htm>).

Hood River

Location

Hood River County is bordered by Wasco County on the east, by Clackamas and Multnomah Counties on the west, and by the Columbia River on the north. Hood River County is the second smallest county in terms of size in the state, outranking Multnomah County, with a total area of 533 square miles (<http://arcweb.sos.state.or.us/county/cphoodriverhome.html>).

Reservations and Trust Lands

Hood River County is home to one of the largest American Indian reservations on Oregon's West Coast. A small part of the Warm Spring Reservation, located in Hood River County, had a population of 3,282 in 2000 (U.S. Census, 2000).

History

The Columbia River Highway was completed in 1922 from Portland to The Dalles, making the towns of Hood River County more accessible to people and commerce from throughout the Columbia River Gorge and the state (<http://arcweb.sos.state.or.us/county/cphoodriverhome.html>). Prior to hydroelectric dam construction, Celilo Falls was an important location for tribal salmon fishermen.

Current Industry

The principal industries of Hood River include agriculture, timber, hydroelectric production, and recreation. The fertile Hood River Valley has an ideal climate for the production of apples, cherries, peaches, and pears. It also offers recreational activities such as snow skiing, yachting, and fishing which bring both people and capital to compensate for the declining logging and hydroelectric industries. The Columbia River near Hood River is a premier windsurfing area and attracts windsurfers from throughout the United States and around the world (<http://arcweb.sos.state.or.us/county/cphoodriverhome.html>).

Fishing Industry

Port: Hood River (recreational)

Hood River County has two ports and two boat basins. One port serves local barge traffic, a steel boat manufacturing firm and Mid-Columbia yachting interests (Bradbury, 2001). In general, Hood River County's fishing industry is primarily recreational, with the Columbia River being a major draw for salmon and tribal fishing.

Lane

Location

Lane County is located on the central coastline of Oregon. It is bordered on the north by Lincoln County, on the east by Deschutes and Klamath County, on the south by Douglas County, and on the west by the Pacific Ocean. The county's 4,620 square miles are more than double the geographical extent of the State of Delaware (http://www.co.lane.or.us/about_lane/More_facts.htm), while most of the county is far from the coast.

History

Lane County was established on January 28, 1851 and is one of only two Oregon counties (Douglas County being the other) to expand from the Pacific Ocean to the Cascade mountain range (http://www.co.lane.or.us/about_lane/). Both manufacturing and dairying represent most of the county's historic economic growth. Major companies that had a tremendous impact include: Nike, Dow Corning, Stretch & Sew Inc., Sony, Weyerhaeuser, the University of Oregon and Dutch Girl. These corporations starting their companies in Lane County made tremendous contributions to the county's economic foundation (http://www.co.lane.or.us/about_lane/More_facts.htm).

Current Industry

The principal industries of Lane County include: agriculture, higher education, technology, recreation, RV manufacturing and tourism (http://www.co.lane.or.us/about_lane/). Moviemaking is also a small but growing part of the economy. However, most of these economies do not have much of an impact on coastal communities. The few economies that do influence coastal residents are timber, tourism, agriculture, and an influx in retirees moving to the area.

Fishing Industry

Port: Florence (commercial/recreational)

Lane County has a long history of commercial fishing. Today, both commercial and recreational fishermen moor at the Port of Siuslaw. The port provides 51 slips for commercial vessels and 49 for recreational customers. Most commercial fishermen that homeport at the Port of Siuslaw typically target sablefish, salmon, crab and tuna. Two fish buying stations also operate from the Port of Siuslaw Old Town Wharf (Personal Interview, 2003). The Oregon Department of Fish and Wildlife reported in 2000 that some 4,280 salmon were caught by recreational fishermen in the Siuslaw River (ODFW, 2000). "The Port of Siuslaw boundaries enclose over 720 square miles of Siuslaw River drainage. Over 20,000 people live within those boundaries, including the populations of Florence, Dunes City, Mapleton, Swisshome, Deadwood, Blachly, Walton and Lorane (Personal Interview, 2003)".

Aside from being "good business for the town," fishing is a big part of the community socially and environmentally. Local community members got involved in Oregon Department of Fish and Wildlife's (ODFW) Salmon Trout Enhancement Program (STEP) in 1981. The program was initially created by the Oregon Legislature to focus on habitat restoration in streams and rivers (<http://www.dfw.state.or.us/ODFW.html/VolunteerProg/STEP.html#overview>). STEP has been successful for the last five years, with a couple dozen community members and students from local middle and high schools actively involved in the project (Personal Interview, 2002).

Lincoln

Location

Lincoln County is located in the central portion of the Oregon Coast. It is surrounded by five counties from north to south that include: Tillamook, Yamhill, Polk, Benton, and Lane.

Reservation and Trust Lands

The Siletz American Indian Reservation is situated in the central portion of the county. In 2000 the reservation had a population of 274 (U.S. Census, 2000).

History

Agriculture, tourism and the timber and fishing industries were important to Lincoln County's economic foundation. After the discovery of Yaquina Bay oyster beds in 1862, the industry began exporting products to San Francisco and elsewhere (www.newportchamber.org). Later in 1896, John H. Kern operated a salmon cannery not far from the mouth of the Siletz River in Kernville. A sawmill was also erected in the same area during the late 1800s. Large development of Newport's fishing industry, however, did not thrive until 1908 with the discovery of refrigeration (www.newportnet.com).

Current Industry

Current industries in Lincoln County include: fishing, government, and forestry, and it is one of the most popular tourist destinations on the Oregon Coast. Newport has one of the largest fishing fleets and working bay fronts in Oregon as well as the Oregon Coast Aquarium, Hatfield Marine Science Center and interpretive centers (Bradbury, 2001). Retirees are also an increasing demographic group moving to the area.

Fishing Industry

Ports: Depoe Bay (commercial), Siletz Bay (commercial), Newport (commercial/recreational), Waldport (commercial), Yachats (commercial)

Both Depoe Bay and Newport play an important role in Lincoln County's commercial and recreational fishing industries. Two marinas, the Depoe Bay Marina and the Waldport Marina, contain the largest charter fleet on the Oregon Coast. The Depoe Bay Marina, comprised of about 5% of commercial vessels and 95% of recreational boats, can accommodate a total of 137 boats. The Waldport Marina, located in Alsea Bay, has only 20 slips. About 50 years ago, the commercial fleet in the Bay shifted to a recreational fleet, leaving the Bay as it is today.

In contrast to Depoe Bay's sport fishery, Newport could be called one of the largest commercial fishing ports in Oregon. Like Depoe Bay, Newport was founded on salmon fishing, which remains an important industry. Commercial fishermen commonly land Dungeness crab, blackcod, halibut, albacore tuna, pink shrimp, Pacific whiting and a variety of groundfish. In 1998 Newport was ranked 11th among all ports in the United States in seafood landings with 118 million pounds of landed fish. (Personal Interview, 2002).

Multnomah

Location

Multnomah County is the smallest (462 square miles) Oregon county geographically and yet contains approximately 20% of the state's population due to the city of Portland and its surrounding areas (<http://bluebook.state.or.us/local/counties/counties26.htm>).

History

The Territorial Legislature created Multnomah County from parts of Washington and Clackamas Counties in 1854, five years before Oregon became a state (<http://arcweb.sos.state.or.us/county/cpmultnomahhome.html>). Multnomah's economic base was founded on trade, agriculture and lumber products. Aside from these industries, fishing has always been an integral part of the community. As early as the 1880s, canneries were in operation along the Lower Columbia River (<http://arweb.sos.state.or.us>).

Current Industry

Today, the principle industries of the county are manufacturing, transportation, wholesale, retail trade, and tourism. The Port of Portland, established in 1891, ranks third in total waterborne commerce on the West Coast. Portland is one of the five largest auto import ports in the nation and is the West Coast's leading exporter of grain and lumber (<http://arcweb.sos.state.or.us/county/cpmultnomahhome.html>).

Fishing Industry

Port: Portland (commercial/recreational)

Fishing has always contributed to the overall economy of the county. Many of the species that were caught historically continue to be a target. These species include: salmon, steelhead, bass, shad, sturgeon, walleye and trout. Specifically, walleye is fast becoming a valuable sport fish. Over the past eight to ten years, it has gained the interest of sports anglers. Typical gear strategies for these species include salmon and trout poles, down riggers and gillnets (Personal Interview, 2002). The Pacific Fishery Management Council, who manages fish stocks along the west coast, is also located in Portland (for a list of processors please see appendix).

Tillamook

Location

Tillamook County is comprised of 1,125 square miles situated on the east shore of Tillamook Bay. The county shares borders with five counties and the Pacific Ocean. The borders from north to south are Clatsop, Washington, Yamhill, Polk and Lincoln (<http://arcweb.sos.state.or.us./county/cptillamookhome.html>).

History

The county's early occupations were in the shipping, lumbering, fishing and dairying industries. Unlike most west coast counties, logging did not dominate Tillamook's economy. The forests of the area were seen as stumbling blocks to the development of land for agriculture. The first lumber mills were built in Idaville, and after 1890, became more important to the economy. Once land was cleared for agriculture, dairying became an important industry to county residents. Because the rich grasslands and mild climate were ideal for dairy herds, pioneers produced the finest butter in the country. However, with transportation so uncertain, it became necessary to find a dairy product that could be stored long periods of time without losing its quality. In 1894, Peter McIntosh arrived from Canada, with knowledge of the art of cheese-making. The dairymen banded together and built small cheese factories around the county. Through the years the name Tillamook Cheese has become world famous because of the high standards of quality set by these early pioneers. (<http://www.tillamoo.com/history.html>).

Current Industry

The current industry of the county includes agriculture, lumber, fishing, and recreation. Dairy farming dominates the agricultural industry, with 165 dairy farms and 25,000 cows. The lumber industry in the recent past is becoming a more significant economic force due to reforestation. Other industries of importance are the fishing, oyster, holly and tourism industries (<http://www.tillamoo.com/tour.html>).

Fishing Industry

Ports: Tillamook/Garibaldi (commercial), Nehalem Bay (commercial), Netarts (commercial), Sand Lake (commercial), Pacific City (commercial), Salmon River (commercial)

In the early days of Tillamook County's history, the only source of cash was the sale of fish caught in the many bays and rivers. Numerous canneries sprang up from Uppertown in the north to Oretown in the south. Peddlers bought fish and made the trek to the Willamette valley to sell it for cash or trade. The cash received from the fishing industry helped develop other businesses and enabled the settlers to build a stable economy (<http://www.tillamook.com/history.html>).

California State Counties

Alameda

Location

Alameda County is located on California's central coast with a total landmass of 737.5 square miles. It is bordered on the north by Contra Costa County, on the east by San Joaquin County, and on the south and west by the Pacific Ocean. Situated on the east side of San Francisco Bay, the county extends from Berkeley in the north to Fremont in the south (Alameda County Planning Department, 1996).

History

Alameda County's primary industry was based largely on agriculture. Grain fields over time turned into orchards and vineyards, which later gave way to dairies and apricot orchards. Salt production was also a major industry located in the city of Newark. Salt production companies operating during the 1850s led to the current company, Cargil Salt (<http://www.ci.fremont.ca.us/livinginfremont/history1.html>).

Current Industry

The top five employers of Alameda County in 1994 included: the University of California at Berkeley with 13,500 employees, the U.S. Navy with 11,900 employees, Alameda County with 10,260 employees, Lawrence Livermore National Laboratories with 8,000 employees, and Oakland Public Schools with 6,990 employees (Alameda County Planning Department, 1996). In general, education, government and high-tech product are the three major industries contributing to the economy.

Fishing Industry

Ports: Alameda (commercial/recreational), Oakland (commercial), Richmond (commercial), Berkeley (commercial)

Even though agriculture is a major contributor to Alameda County's economy, the fishing industry is also important. Commercial fishermen land salmon, rockfish, halibut, shark, crab and herring with a variety of troll, and live drift gear. Recreational fishermen, however, make up the majority of fishermen in the county. Residents of Alameda County feel the recreational fishing industry is an important to the county's heritage and economy (Personal Interview, 2002).

Contra Costa

Location

Located in the north central coast of California is Contra Costa County. It is one of the nine counties in the San Francisco-Oakland Bay Area, with a land area of 720 square miles. It is bordered on the north by Solano County, on the east by San Joaquin County, on the south by Alameda County, and on the west by the Pacific Ocean.

History

Contra Costa County was incorporated in 1850 as one of the original 27 counties of California (<http://www.co.contra-costa.ca.us/>). The economic base was initially founded on the gold rush; however, agriculture later became a major industry. After the railroad and ferry boats arrived to the county, the transportation of agricultural products was easier. Later in 1915, petroleum became an important industry with the presence of the Shell Oil Company (<http://www.cityofmartinez.org/>).

Current Industry

Due to recent population increases, Contra Costa County has one of the fastest growing work forces among Bay Area counties. The services and retail trade industries are the largest contributors to the current economic base, with services accounting for 33 percent of total employment. Both the services and retail trade sectors are expected to increase in importance in the future (<http://www.co.contra-costa.ca.us/>).

Fishing Industry

Port: Richmond (recreational)

Similar to other West Coast fishing communities, Contra Costa County ports used to be dominated by commercial fishing compared to the more popular sport and recreational fishing today. Currently, ports are primarily made up of recreational pleasure boats and a few small charter boats. The Brickyard Cove Marina located in Richmond, CA is entirely made up of sail boats, while the Point San Pablo Yacht Harbor and Richmond Municipal Marina have few charters and many pleasure craft. The Richmond Municipal Marina contains 750 slips, but can accommodate up to 850 boats 26 to 100 feet in length (Personal Interview, 2002).

Del Norte

Location

Del Norte County is situated in the far northwest corner of the state with a total landmass of 1,008 square miles. Two counties border it; Siskiyou County in the east, and Humboldt County in the south. The county shares another border with Oregon in the north and the Pacific Ocean.

Reservations and Trust lands

Four American Indian reservations reside within Del Norte County. These reservations include: Smith River Rancheria (population 104), Elk Valley Rancheria (population 75), Yurok Reservation (population 1,121), and Resighini Rancheria (population 24). The Yurok reservation boundaries are situated in both Del Norte and Humboldt counties, just south of Del Norte County (U.S. Census, 2000).

History

After the Gold Rush, the timber industry took over as the main contributor to Del Norte County's economic base. The first timber mill was brought by ship to Crescent City in 1853. It produced lumber for local buildings and planks used to construct the county's first wagon roads. For the next 100 years, the mills produced a seemingly endless supply of redwood lumber. In 1967, the county reported having 68 timber mills in operation (Salitore and Salitore, 1967).

Current Industry

Del Norte County's economic base is primarily supported by industries involved in agriculture, retail, and federal, state and local government (<http://www.delnorte.org/profile.html>).

Fishing Industry

Port: Crescent City (commercial/recreational)

The fishing communities located throughout the county are made up of both recreational and commercial fishermen. Primarily, fishing occurs in the Smith and Klamath Rivers, and Crescent City Harbor. The Smith River and its main tributaries contain almost 200 miles of salmon, steelhead and native trout, while the Klamath River has a wild anadromous fish population that offers some of the best sport fishing opportunities.

Operating along both rivers are numerous guide services and a small commercial fishing fleet (<http://www.delnorte.org/fishing.html>).

Crescent City Harbor has a commercial fleet, comprised of approximately 90 boats. The harbor has 207 slips that range in size from 30 to 70 feet long. Crescent City Harbor was designated as a harbor of refuge because of the ease of entering the harbor during severe weather conditions. During the winter months, the commercial fleet targets Dungeness crab, while during the spring and summer months they target pink shrimp and albacore tuna. Groundfish are landed on a year round basis. Crescent City historically, has been one of the top crab and shrimp ports in the state. Crescent City Harbor also has a smaller recreational fishing fleet. Approximately 150 slips are dedicated to recreational boats that primarily target salmon and groundfish (Personal Interview, 2003).

Humboldt

Location

Humboldt County, located in northwest California, is the southern gateway to the Pacific Northwest. It is bound on the north by Del Norte County; on the east by Siskiyou and Trinity counties and on the south by Mendocino County. The county encompasses 2.3 million acres, 80 percent of which is forestland, protected redwoods and recreation areas (<http://www.co.humboldt.ca.us/profile.htm>).

Reservations and Trust lands

Humboldt County has eight reservations scattered throughout the western region. These reservations contain the: Karuk (population 296), Yurok (population 1,121), Hoopa Valley (population 2,633), Big Lagoon Rancheria (population 29), Trinidad Rancheria (population 52), Blue Lake Rancheria (population 92), Table Bluff Rancheria (population 76) and Rhonerville Rancheria (population 111) tribes (U.S. Census, 2000).

History

The county's economic base was founded on the timber and fishing industries. By the late 1960s Humboldt County had 260 timber operators (Salitore and Salitore, 1967) and continued to be a leading producer in board feet well into the 1970s (Beck and Haase, 1974). During the past 20 years, however, Humboldt County has experienced a large number of job losses in the timber industry due to numerous factors. During that same period of time, the county saw an increase in the number of tourists and an expansion of tourist-related businesses and services (<http://www.co.humboldt.ca.us/profile.htm#Economy>).

Current Industry

Humboldt County attributes much of its economic base from tourism and timber. It is home to ten state parks and some of the most diverse natural resources on the west coast. The county also contains national and state parks, that have been designated as United Nations Biosphere Regions and World Heritage Sites. The World Wildlife Fund has identified the county as part of one of the most diverse eco-regions left on the planet (Salitore and Salitore, 1967).

Fishing Industry

Ports: Eureka (commercial), Trinidad (commercial)

The commercial fishing industry has experienced a downsizing due to tougher environmental regulations (<http://www.co.humboldt.ca.us/profile.htm#Economy>). During the 1970s, Humboldt County was among three other counties, which had 9,000 licensed commercial fishermen in California. The county is known for landing crab, salmon, sole, shrimp and oysters (Salitore and Salitore, 1967).

Los Angeles

Location

Los Angeles County includes the islands of San Clemente and Santa Catalina with a total land area of 4,081 miles. Orange and San Bernardino Counties border Los Angeles County on the east, with Kern County in the north, and Ventura County in the west ([http:// www.co.la.ca.us/overview.htm](http://www.co.la.ca.us/overview.htm)).

History

Los Angeles County, one of California's original 27 counties, was established in 1850. Originally the county occupied a comparatively small area along the coast between Santa Barbara and San Diego, but within a year its boundaries were enlarged from 4,340 square miles to 34,520 square miles resulting in 81 miles of coastline. About 45 years ago, the agricultural industry was heavily relied upon economically. Crops depended upon the most were orange groves, and other fruit trees (www.calmis.ca.gov).

Current Industry

The largest employer, with 95,544 employees, is the county of Los Angeles. Of these, 27,197 positions are in law and justice; 26,574 are in health services; and 22,192 are in social services. The spectrum of job listings illustrates the county's economic diversity ([http:// www.co.la.ca.us/overview.htm](http://www.co.la.ca.us/overview.htm)).

Fishing Industry

Ports: Los Angeles (commercial), Terminal Island (commercial), San Pedro (commercial), Long Beach (commercial)

The city of Los Angeles contained one of the first fishing communities to develop commercial sardine fishing. In 1893, the first sardine processing plant was established in San Pedro. Many commercial boats mooring in Los Angeles fished for sardines as far south as Peru. On Terminal Island, what was known as "Fish Harbor" was home to many canneries and processing plants. The sardine industry began to decline in the early twentieth century and almost disappeared after the largest recorded tonnage from 1934 to 1947 (Beck and Haase, 1974). Los Angeles continues to have a moderate commercial fishing population.

Marin

Location

The Richmond-San Rafael Bridge links one of the nine Bay Area counties, Marin County, to San Francisco. The county shares its borders with Sonoma County in the north and the Pacific Ocean. The 521 square miles of the county contains a wide variety of topography, climate, and vegetation, from the tidal flats of the coastline to the slopes of Mt. Tamalpais (http://www.marin.org/html/about_marin.cfm).

History

As settlement accelerated in Marin County after 1850, the huge cattle-raising ranchos gradually gave way to smaller ranches, many of which still flourish today. Trains, steamships and ferries were introduced to the county in the 1880s and 1890s, allowing the transport of agricultural goods to San Francisco. In 1937, when the bridge spanned the Golden Gate, the pressure for development increased. During World War II people came from all across the country to work in the Sausalito shipyards and at Hamilton Air Force Base in Novato. From 1850 to 1950 the population of Marin increased by 85,000 people. Twenty years later, there were an additional 123,000 residents. Population growth has slowed since then and is now around 245,000 (http://www.marin.org/html/about_marin.cfm).

Current Industry

Although Marin County is usually thought of as a suburban residential and recreation area, ranching and dairying are prominent in the rural areas. Additionally, other industries include movie and video production, computer software, communications equipment, printing, and the manufacture of plastics, ceramics, candles, and cheese (http://www.marin.org/html/about_marin.cfm).

Fishing Industry

Ports: Point Reyes (commercial), Tomales Bay (commercial), Sausalito (commercial/recreational)

Clipper Yacht Harbor is known for its recreational and charter fishing, as well as being well known as a full service harbor. The port has always been a recreational fishing center with little emphasis, if any on commercial fishing. The sport fishery is important to the local community, for many are dependant upon the success of the charter fishing industry. Clipper Yacht harbor can accommodate boats that range in size from 20 to 50 feet with 750 water slips, and 100 dry storage facilities. The harbor additionally offers Charters, transient slips and Bait and Tackle (Personal Interview, 2002).

Mendocino

Location

Mendocino County encompasses an area of over 2 million acres or approximately 3,500 square miles (<http://www.co.mendocino.ca.us/history.htm>). The county is bordered in the north by Humboldt County, in the east by Glenn and Lake Counties and in the south by Sonoma County.

Reservations and Trust Lands

Mendocino County contains eight American Indian reservations: Guideville Rancheria (population 0), Coyote Valley (population 88), Hopland Rancheria (population 9), Manchester-Point (population 219), Laytonville Rancheria (population 211), Redwood Valley (population 305), Pinoleville (population 135) and Sherwood Valley Rancheria (population 173) (U.S. Census, 2000).

History

The county has a long history of producing agricultural crops such as hops, and grapevines, as well as being a leader in organic farming. During the 1970s, additional industries branched off from agriculture into coffee, mustard, and herb blends. Many families have also relied on the commercial fishing industries for many generations. During the Depression, canned salmon from Mendocino's fisheries, selling at five cents a can, were shipped all over the nation (www.gomendo.com).

Current Industry

Today, the county's economy is based on agricultural products, as well as other contributing industries. These industries (in order of importance) include: forest products, fruits and nuts, livestock production, milk, wool and eggs, vegetable crops, commercial fishing, and vineyards (<http://www.mendonet.com/demogrpx.htm>). During the fiscal year 1994 to 1995 the county experienced tremendous growth in the tourism industry. For the first time in history, tourism revenues outperformed the timber industry (<http://www.mendocinocoast.com/Services/media.htm>).

Fishing Industry

Ports: Fields Landing (commercial), Fort Bragg (commercial/recreational), Albion (commercial)

Today, Noyo Harbor in Fort Bragg is still the largest and deepest harbor between Eureka and San Francisco (www.gomendo.com). Within the last 15 years, however, the fishing community in Fort Bragg has become more of a service-oriented community. Today, the marina holds more recreational boats than commercial. Currently, one processor is still operating compared to multiple processors in the past. Even though Fort Bragg's commercial fleet has slowed in recent years, many people are drawn to Fort Bragg's waterfront and dock. The fishing industry is important to the local community both economically in terms of tourism, and socially in terms of Fort Bragg's heritage (Personal Interview, 2002).

Monterey

Location

Located on the central coast of California is Monterey County, with a landmass of 3,322. The county shares its borders with five surrounding counties: Santa Cruz in the north, San Benito, Fresno, and King counties in the east, and San Luis Obispo in the south.

History

During the years from 1959 to 1966, the county was listed as the leading agricultural county, ranking number nine in 1959 and eight in 1966. Lumber was also an important industry, operating about 12 lumber mills throughout the region (Salitore and Salitore, 1967).

Current Industry

Agriculture is one of the largest industries within Monterey County today. Most of the agricultural crops include: cauliflower, spinach, broccoli, brussel sprouts, strawberries, artichokes and squash. This produce is grown, packed and shipped by a local company, Frank Capurro & Sons. The Moon Glow Dairy Company produces milk used primarily for making local cheese. Tourism is also an important industry in Monterey. Visitors are drawn to one of the busiest harbors on the central coast at Moss Landing, which is dominated by commercial fishing boats. Additional industries of importance include power services and electricity, and the production of firebricks, magnesia chemicals and other refractory products (<http://www.monterey-bay.net/ml/>).

Fishing Industry

Ports: Monterey (commercial), Moss Landing (commercial)

Monterey County has a long history of fishing; nearly 400 years ago, the first boats landed in the area of what would become fishermen's wharf in Monterey (Akeman, 1999). The area's fishing history centered around whaling, abalone diving, and sardine fishing. Later, squid became an important commercial product. Throughout the county in the late 1960s, Moss Landing and Monterey made up the county's commercial fishing fleet with 694 commercial boats, and two canning and reduction plants (Salitore and Salitore, 1967). Today, the commercial fishery has expanded from sardines and squid to salmon, albacore, Dungeness crab, anchovy, bottom fish, and White Sea bass.

Recreationally, fishermen fish for salmon, which is the most common, bottom fish, albacore, White Sea bass, and halibut. Several companies support industries located throughout the county include: Monterey Fish, U.S. Freezer, Aliotti Fish Company and Golden Mountain Trading Company. Monterey Harbor has a total of 650 boats, of which 150 are commercial. Out of the 150 commercial boats, a large percentage of them are full-time commercial fishermen. The harbor also has 17 party boats, and 250 to 300 recreational powerboats. Out of the 250 to 300 recreational powerboats, about 90% of them are used for recreational fishing. The rest of the fleet is made up of sailboats of various sizes. Commercial fishing is directly related to the local community, in that it is economically important to the tourism industry in Monterey (Akeman, 1999 and Personal Interview, 2002).

Orange

Location

Orange County is situated in southern California just south of Los Angeles County. Its total land mass is 789 square miles. San Bernardino, and Riverside Counties are its eastern borders, while San Diego is situated in the south.

History

A year-round harvest of Valencia oranges, lemons, avocados, and walnuts made agriculture the single most important industry in the county. With the proliferating number of orange groves in the area (150,000 orange trees), the county was named for the fruit: "Orange County." Cattle were also introduced in 1834, resulting in a prosperous hide and tallow industry. Later, a severe drought brought an end to the cattle industry. A pioneer, James Irvine, capitalized on the economic downfall of the ranchos, and established an 110,000-acre sheep ranch that is one of the most valuable pieces of real estate in America today. Orange County witnessed the discovery of oil in Huntington Beach, the birth of the aerospace industry on the Irvine Ranch, and the filming of several Hollywood classics in the Newport area. In 1955, Walt Disney opened his Magic Kingdom in Anaheim (Lavender, 1972 and Salitore and Salitore, 1967).

Current Industry

Today Orange County is home to a vast number of major industries and organizations. The economic base is dominated by the services, trade and manufacturing industries. The largest industry, accounting for 32 percent of overall employment, is services, followed by the trade industry accounting for 25 percent of employment. Manufacturing is expected to increase over the next few years (www.calmis.ca.gov).

Fishing Industry

Ports: Dana Point (commercial/recreational), Newport Beach (commercial), Huntington Beach (recreational)

Orange County's fishing industry is predominantly recreational in nature. Huntington Beach Marina rents slips to pleasure boaters, but not to recreational fishermen. The marina, however, does have a large sport fishing industry—approximately 18 to 20 boats that fish during the spring and summer months. The closest commercial fishing ports to Orange County are the Los Angeles and Long Beach areas, which have about 10 to 15 commercial vessels moored at the Dana Point marina. The marina also relies on its recreational users as it attracts 100,000 visitors a year that participate in whale watching and recreational fishing. The Dana Point marina has about 3,000 berths that can accommodate boats 32 to 95 feet in length (Personal Interview, 2002).

San Diego

Location

San Diego County has a total landmass of 4,255 square miles. It is 65 miles from north to south and 86 miles from east to west. Government owned land accounts for 54%, or approximately 1.45 million acres, of the land in San Diego County. Of those 1.45 million acres, 51% is federally owned, 40% is state owned, and 9% is owned by various local public agencies (www.calmis.ca.gov).

Reservations and Trust Lands

San Diego County has 18 reservations situated linearly in the central region of the county. The first 12 reservations include: Rincón (population 1,514), Pala (population 1,578), Barona (population 546), San Pasqual (population 791), Viejas (population 416), Los Coyotes (population 72), Campo (population 372), Santa Ysabel (population 245), La Jolla (population 425), Pauma and Yuíma (population 128), Manzanita (population 51), Sycuan (population 52), La Posta (population 35) and Mesa Grande (population 73). The remaining four reservations: Capitán Grande, Cuyapaipe, Inaja-Cosmit and Jamul Village, did not have a population (U.S. Census, 2000).

History

The State Legislature established the county of San Diego on February 18, 1850, as one of the original 27 counties of California. At the time of its organization, the county had an estimated population of 3,490. According to historians, this estimate included 798 settlers, as well as approximately 2,692 American Indians. The newly created county covered nearly 40,000 square miles. Included in the original boundary were the present counties of San Diego, Imperial, Riverside, San Bernardino, and the eastern portion of Inyo County (www.calmis.ca.gov).

Current Industry

San Diego County's economic base is supported by services, government, wholesale and retail trade. The largest industry is services, accounting for about 33 percent of total employment, while trade accounts for 22 percent. The county also contains "industry clusters" which contribute to economic growth. These industry clusters are: biotechnology, software, electronics, communications and medical services (www.calmis.ca.gov).

Fishing Industry

Ports: San Diego (commercial/recreational), Oceanside (commercial)

San Diego County's fishing community is primarily made up of recreational users. Sport boats target game fish in both the Point Loma area and off the coast of San Diego California. The recreational fishing industry is important to both the county's economic base and local fishermen. Fishing has always been an important resource to county residents; however, the industry was more commercially oriented than it is today. Particularly during the 1960s, San Diego County ranked second in the number of fishermen as well as in volume of landings in California (Salitore and Salitore, 1967).

San Francisco

Location

San Francisco County is located on California's central coast. It is the smallest county in California and shares its boundaries with San Mateo County in the south, the Pacific Ocean and San Francisco Bay. Being the smallest county, it has a total land mass of less than 47 square miles (www.calmis.ca.gov).

History

The county's economic base was founded in the oil, mining, agriculture and fishing industries. "From 1848 to 1910, the gold and silver mining industry was by far the dominant factor in establishing San Francisco's economic base" (Personal Interview, 2002). In 1878, a number of oil agencies owned by Standard Oil Company established their headquarters in the county. Agriculture also played an important role in economic development (White, 1962).

Current Industry

Services, retail and wholesale trade and government jobs sustain San Francisco County's diverse economic base. The largest employer in the county is the services industry, which accounts for nearly 41 percent of employment. Tourism is also an important industry, providing jobs in hotels, gift shops, restaurants and tourist related attractions. Aside from being a major tourist attraction, San Francisco County has also been chosen as the location for the national headquarters of the Pacific Stock Exchange, Bank of America and Wells Fargo Bank (www.calmis.ca.gov).

Fishing Industry

Port: San Francisco (commercial/recreational)

Fishermen's Wharf in San Francisco is the hub of commercial fishing in San Francisco County. The marina is made up of 170 berths containing approximately ten sport boats and 160 commercial vessels. The fishing community at Fishermen's Wharf has been in operation for over 100 years, and attracts a diverse group of fishermen. Although San Francisco is known for its crab, king salmon, rockfish, rockcod, flatfish, and herring (which has the biggest biomass today) also contribute to the ports overall landings. Hook and line, trawlers, and seiners are just a few gear types represented at Fishermen's Wharf. One important facet about San Francisco's fishing industry is that it contributes to the community economically and socially. The "working waterfront" of Fishermen's Wharf attracts about 18 million visitors a year. Of those 18 million, over 80 percent of them visit Fishermen's Wharf/Pier 39. This interest in the fishing community continues to result in many jobs in the services and fishing industries (Personal Interview, 2002).

San Joaquin

Location

Situated in central California is San Joaquin County with a total landmass of 1,399 square miles. It shares its borders with four California counties, which are Sacramento, Amador, Contra Costa, and Alameda Counties.

History

The county's economic foundation was based on agriculture, mining and fishing. "Some of the historic towns are little changed from the Gold Rush era when paddlewheel steamboats..." were the mode of transportation (www.californiadelta.org). San Joaquin County is also rich in Chinese history, due to their presence in the agricultural industry.

Current Industry

Today, agriculture and fishing remain important industries. Tourism is also a major contributor, offering fishing, and site seeing opportunities. Because the San Joaquin and Sacramento River systems are located in San Joaquin County, a lot of towns throughout the county are centered on boating activities. Services, government and trade are the three largest industries, responsible for 58 percent of total employment (www.calmis.ca.gov).

Fishing Industry

Port: Stockton (recreational)

The Stockton area, located on the San Joaquin River system is known for its recreational fishery. More marinas are located in Stockton than in any other part of the river system in the county. Typical species sought after include: striped bass, sturgeon, catfish, black bass, salmon, American shad, and crawdads. The commercial fishing fleet that existed in the California Delta from 1860 to 1954 is not in operation today. Throughout the California Delta (San Joaquin and Sacramento River Systems), there are over 100 marinas and waterside resorts. Recreational fishing is crucial to the economy of many towns and cities throughout San Joaquin County (Personal Interview, 2002).

San Luis Obispo

Location

San Luis Obispo is located on California's central coast, with a total landmass of 3,326 square miles. The county has a wide range of topography including the Southern Coast Ranges that run northwest to southwest, the Santa Lucía Range located in the west, and the Temblor Range in the east. Three counties share the county's border: Monterey, Kern, and Santa Barbara (www.calmis.ca.gov).

History

San Luis Obispo contained numerous industries contributing to its economic base. Agriculture, fishing and fish processing and manufacturing created the bulk of jobs throughout the county's history. During the late 1800s in the Rancho era, sheep and cattle ranches numbered in the thousands (Beck and Haase, 1974).

Current Industry

The county's economy is currently based on tourism, education, services, government, and retail sales. Services, the largest industry, accounts for 27 percent of total employment, while government accounts for 23 percent, and retail trade accounts for 21 percent (www.calmis.ca.gov).

Fishing Industry

Ports: Morro Bay (commercial/recreational), Avila (commercial), San Simeon (commercial)

The Morro Bay Harbor Marina was originally built as an emergency base around WWII. Fishing, however, has always been the focus of the port, both commercially and recreationally. Morro Bay has a rich history in abalone harvesting, oyster mariculture, and shark fishing. During the 1950s and 1960s, four processors and a cannery provided many jobs to county residents. Today, as one small processor remains, the port is more focused in recreational fishing. The port also draws tourists to the area, making tourism a vital industry to the county. The harbor has 150 off-shore moorings, and 400 berths, which can accommodate boats up to 100 feet in length (Personal Interview, 2002).

San Mateo

Location

San Mateo County is situated on a peninsula surrounded by water with a landmass of 531 square miles. The county has over 50 miles of Pacific Coastline, which is divided by the Santa Cruz Mountains. This natural divider leaves the western side of the county for more rural uses such as agriculture, game preserves, watersheds and parks, and the eastern side with a highly populated urban center (www.calmis.ca.gov).

History

San Mateo's economic base was founded in the timber industry. By 1967, approximately 14 timber mills were in operation (Salitore and Salitore, 1967). Over the past fifty years, the county witnessed consistent growth in population, a decrease in agriculture and an increase in light industry and transportation. These factors all contributed to the rise of the "Silicon Valley" and the computer industry we know today (www.calmis.ca.gov).

Current Industry

San Mateo County is one of nine counties in California that contributes to the economy of San Francisco Bay. The service industry is the largest sector, providing jobs for nearly 37 percent of employment. An additional industry of importance is retail trade, which accounts for 16 percent of employment (www.calmis/ca.gov).

Fishing Industry

Port: Princeton (commercial/recreational)

Commercial fishing in San Mateo County, especially in Princeton has always been a valuable industry to the local community. Historically, fishermen landed salmon, rockcod, Dungeness crab, albacore tuna, and bottomfish. Fishing strategies have not changed much through time, except in terms of gear and species due to management regulations. Today Half Moon Bay is known as a crab and salmon port. About 90 families that reside in the Princeton community depend on the fishing industry.

Currently, the marina houses three fish buyers within their facilities, while Princeton contains about two or three. The marina itself has 369 berths, which range in size from 22 to 65 feet in length (Personal Interview, 2002).

Santa Barbara

Location

Santa Barbara County, located on California's coastline, is 300 miles south of San Francisco and 100 miles north of Los Angeles. It has a total landmass of 2,737 square miles, and is bordered on the north by San Luis Obispo, on the east by Kern and Ventura Counties, and on the south and west by 107 miles of Pacific Ocean coastline (www.calmis.ca.gov).

Reservations and Trust Lands

Santa Barbara County contains one American Indian Reservation, the Santa Ynez tribe. Situated in the south central region of the county, it has a population of 132 (U.S. Census, 2000).

History

Historically, several different industries contributed to Santa Barbara County's economic foundation. The first industry of economic importance occurred during the oil boom in the late 1800s to early 1900s. Three oil booms existed in California's oil industry. The first oil boom dates from the mid 1800s, the second between 1890 and 1900, and the third from 1919 to 1925. Santa Barbara County, along with Ventura, Los Angeles, and Orange Counties lead California in the number of oil barrels produced during the second oil boom. Another influential industry was agriculture, ranking 19th in 1959, and 17th in 1966 statewide (Salitore and Salitore, 1967).

Current Industry

Santa Barbara County is home to a number of industries. These industries include: services, retail trade, and government. The services industry employed the highest amount of workers in 2000 with 52,400 jobs. The second largest industry is retail trade, where 19 percent of the total employment, is represented by this sector. Government, accounting for 18 percent of employment is the third highest sector in the county. Although manufacturing has declined recently due to the downsizing of the aerospace industry, "...smaller high-tech manufacturing and service firms have proven to be valuable sources of high-skilled and high-paying jobs" (www.calmis.ca.gov).

Fishing Industry

Port: Santa Barbara (commercial/recreational)

Fishing has been an important industry in Santa Barbara County for many years. Historically, crab, lobster, swordfish, White Sea bass, sea cucumbers, shrimp, barracuda, bonito, rockfish, shark, albacore, halibut, and sea urchins were caught with hook and line gear, gill and trawl nets and harpoons. Today, the fishery is more concentrated on urchins, lobster, crab, sea bass, halibut, sea cucumbers, and shrimp. In general, the importance of the fishing industry to the local community can be described as being a "cultural legacy" (Personal Interview, 2002). Several entities continue to provide support to the fishing industry such as the Commercial Fishermen of Santa Barbara, Inc., Southern California Fishermen's Association, Santa Barbara Fishermen's Marketing Association, and the Sea Urchin Harvesters Association (Personal Interview, 2002).

Santa Cruz

Location

Santa Cruz County is the second smallest county in the state with a total landmass of 440 square miles. It is located along California's central coast, and encompasses a wide array of landscapes including the Santa Cruz Mountain Range, and the Pajaro River. The county is situated on the north side of Monterey County and bordered by San Mateo County in the north and Santa Clara County in the east (www.calmis.ca.gov).

History

Santa Cruz County's economic base was founded on several industries; however, the timber industry was one of the most important. In 1967, 29 timber mills were recorded as being in full operation (Salitore and Salitore, 1967).

Current Industry

The major industries in the county are tourism, recreation, services, government and retail trade. The services industry accounts for 28 percent of employment with trade following behind at 20 percent and government at 18 percent (www.calmis.ca.gov).

Fishing Industry

Port: Santa Cruz (commercial/recreational)

Santa Cruz County has a rich history in the commercial fishing industry. The first wharf was built in 1853 for the purpose of shipping potatoes to San Francisco during the Gold Rush. Other uses of the wharf included salmon and sardine fishing. Traditional salmon fishing involved the use of a "Marcella", rigged with hoists and davits, hook and line gear, outrigger poles and fishing lures (www.santacruzwharf.com). Currently commercial boats land salmon, albacore and rockfish. The wharf is made up of about 75 commercial vessels and 300 recreational boats. Recreational fishing is increasing in importance because of its contributions to the local economy. The wharf has 1,200 berths accommodating boats as small as 24 feet in length and as large as 70 feet (Personal Interview, 2002).

Solano

Location

San Francisco Bay, the Carquinez Straits, Suisun Bay and the Sacramento River all share their borders with Solano County. The county has a total landmass of 872 square miles offering a wide range of landscapes such as agricultural land in the north and rolling hills in the south (www.calmis.ca.gov).

History

Solano County's economic base, like many other California counties, was founded on the agricultural industry. Early pioneers planted many crops including wheat, and were also proficient cattle and sheep farmers. Later, wheat fields gave way to the fruit tree industry, making Solano County known as the "Vacaville Early Fruit Belt". Apples, peaches, apricots and dates were packaged and shipped to San Francisco. Dry date seeds were the first crop of dates to be harvested for commercial use in the United States (www.thereporter.com).

Current Industry

Solano County has a diverse economic base in services, retail trade and government. Services comprise the largest industry, accounting for 26 percent of the county's total employment, with trade and government following closely behind (www.calmis.ca.gov).

Fishing Industry

Port: Vallejo (recreational)

Vallejo's fishing community is primarily made up of recreational and pleasure boats. Commercial fishing does not exist today, and was not an important industry in the past. Recreational fishermen commonly land sturgeon, bass, salmon, sierra, and flounder. The Glen Cove Marina has a total of 189 slips, which accommodate boats 24 to 44 feet in length (Personal Interview, 2002). The Vallejo Municipal Marina, contains 809 slips, most of which are designed for recreational use, however, a few commercial fishing vessel operators use the marina for off-season berthing (<http://www.vallejofiredepartment.com/marina/mbp/htm>).

Sonoma

Location

Also located in the northern part of the San Francisco Bay area is Sonoma County. Located on the Pacific coastline, it shares a northern border with Mendocino County, an eastern border with Lake and Napa Counties, and a southern border with Marin County.

Reservations and Trust Lands

Two American Indian Reservations are located within the county. The first reservation, the Stewarts Point Rancheria, is situated in the western region of the county, with a population of 83. The second reservation, the Dry Creek Rancheria, located in the eastern portion of the county had a population of 54 (U.S. Census, 2000).

History

The county's economic base is founded on agriculture, petroleum and timber products. Agricultural crops have been primarily focused on wineries since the 1970s (Lavender, 1972). The city of Petaluma was also once known as the world's egg basket. The county was a leading agricultural producer in 1959 and 1966, where the county ranked 18th in California. In 1967, the timber industry employed 80 timber operators (Salitore and Salitore, 1967).

Current Industry

Sonoma County's economic structure is supported by services, retail trade, manufacturing and agricultural industries. The largest of the four industries is services, which account for 28 percent of the county's total employment. Retail trade is estimated to account for 18 percent, while the agricultural sector has grown to 21 percent. The county is known as a key producer in wine and farm products (www.calmis.ca.gov).

Fishing Industry

Port: Bodega Bay (commercial/recreational)

Bodega Bay has always been known for its commercial fishing industry. Only recently has the recreational sector been growing. Today the marina is comprised of about 25 to 35 percent of recreational boats and 65 to 75 percent of commercial vessels. Because Bodega Bay has always been a fishing community, there are fishing families that have fished in Sonoma County all their lives. Only recently has the town seen more restaurants and vacation rentals move in. The marina has 120 berths that accommodate boats 30 to 40 feet long, with the largest being 50 feet (Personal Interview, 2002).

Ventura

Location

Ventura County is located along the Southern California coast. Santa Barbara County borders it in the west, Kern County in the north, and Los Angeles County in the east and south.

History

Ventura County's economic structure was founded on two main industries, petroleum and agriculture. The county's petroleum industry was most prosperous between 1917 and 1929. Petroleum fields were located in the county, as well as in the San Joaquin Valley, and Los Angeles Basin (Lavender, 1972). Additionally, the county had a prosperous agricultural industry, ranking 14th statewide as a leading agricultural center in 1959 (Salitore and Salitore, 1967).

Current Industry

The county's diverse economic base is supported by tourism, agriculture, pharmaceuticals, software, retail, real estate and two military bases (Point Magu and Port Hueneme). In 2000, the dominating industries included services, retail, trade, government and manufacturing. The county's Port Hueneme is both the fourth largest port in the state as well as the only deepwater port between San Francisco and Los Angeles. "As a result, Ventura County companies are able to develop international – as well as state and national level – trade relationships, especially with Pacific Rim markets (www.calmis.ca.gov).

Fishing Industry

Ports: Point Hueneme (commercial), Oxnard (commercial/recreational), Ventura (commercial/recreational)

Two cities in Ventura County, Ventura and Oxnard, contain two different fishing communities. Although both focus much of their fishing on squid, Ventura is heavily commercial, while Oxnard is heavily recreational. Fishing has always been a part of both of this county's history and culture. Squid also has a long history that began in Monterey, and is currently the most popular resource in Ventura County. The local community depends on the fishing industry both economically and socially. For example, the Port of Ventura gets most of its dredging dollars from offloading fish from commercial fishermen (Personal Interview, 2002).

SECTION IV

Discussion and Recommendations

The following discussion provides limitations of the current project and recommendations for future research of West Coast fishing communities. The topics below include the definition of a fishing community, additional communities to add to future projects, the limitations of dependency indices, the limitations of telephone interviews, current Census data and how GIS can be utilized in future fishing community projects.

What is a Fishing Community?

For the current report, Pacific States Marine Fisheries Commission (PSMFC) chose to define a fishing community as a group of people living in a common geographic area. One future consideration is how to define a fishing community on a more regional level. In reality, fishing communities include more attributes than a geographic location. These additional attributes include: gear type, fishery, common history and practices and shared knowledge and values. Additional examples of communities follow:

- An occupational community is a group of people involved in the same occupation, like the coast wide community of trawlers who engage in similar activities.
- A community of interest is made up of people who share similar interests - for example, people who are concerned about making the fishing industry safer (www.pcouncil.org).

These definitions address communities beyond a geographic location. Although these additional sociological or anthropological definitions are more difficult to conceptualize, applying these views to fishing communities would result in a greater understanding of socioeconomic indicators.

Additional Communities

Several other communities should be included in future fishing community projects. These communities are located in California, Oregon and Idaho. In California, two counties (San Bernardino and Santa Clara) are absent from this report due to a lack of information regarding the recreational and commercial fishing industries. Even though information on the counties' history of industry, current industry and location were easily attainable, information on the fishing industry itself was not available. Additionally, interviewees were not located in these two counties, therefore current and historic fishing industry data was not collected. PSMFC recommends that San Bernardino and Santa Clara Counties be integrated into future west coast community analyses upon closer examination.

Aside from the two California Counties mentioned above, additional counties situated along the Columbia and Snake Rivers should be included in future analyses (counties east of Hood River County, OR). These two rivers are significant contributors to the

commercial and recreational fishing industry. In order to paint a more complete picture of fishing communities in the Pacific Northwest and West Coast, the counties located on these rivers need to be included.

Distant Water Fisheries

One aspect of importance that should be examined further in future community descriptions, are distant water fisheries. Including revenue, number of landed pounds, income, etc. generated from distant water fisheries will contribute to a more complete fishing community profile. One reference (*Sector and Regional Profiles* prepared by the Northern Economics Inc., and Edaw Inc., <http://www.fakr.noaa.gov/npfmc/NorthernEconomics/NorthernEconomics.htm>) that attempts to do this, however, focuses its study on the groundfish fishery.

Dependency and Engagement

The terms "...substantially dependent on and substantially engaged in..." as described in the Magnuson Stevens Act, are currently not operationally defined. Once working definitions exist, a dependency index might be created with better precision. Included in the dependency index, one might examine indicators such as the number of crew members and processor employees residing in a fishing community, commercially/recreationally landed pounds and revenue and adaptation strategies, to name a few. Table 3 below is a list of social indicators that could supplement economic analyses in the future.

Table 3. Social indicators.

• Marine education programs	• Number of vessel owners that reside in the community
• Numbers of crew members and processor employees residing in a fishing community	• Number of vessel owners that land fish but do not reside in the community
• Reliance on other natural resources	• Adaptation strategies
• Changes in ownership over time	• Industry structure
• Descriptions of support industries	• Training institutions
• Commercially landed pounds and revenue	• Perceptions and descriptions of tourism
• Recreationally landed pounds and revenue	• Women's role in the fishing industries
• Fishing related social groups and organizations	• Processors and fishery support industries
• Subsistence fisheries	• History of fishing industries

Interviews

Below is a discussion of future recommendations when collecting socioeconomic information through an interview process. The three suggestions mentioned below, focus on expanding the interview population, conducting in-person (visiting communities) instead of telephone interviews and adding questions that would provide more meaningful information on the recreational and sport industries in the examined communities.

A total of 63 interviews were completed for this project. Approximately one individual per county provided information about the historic and current state of the commercial and recreational fishing industries in their area. The interviews were a reflection on the amount of time and budgetary restraints laid upon the current project. In the future, a more exhaustive survey of fishing industry participants is suggested. Interviewing about 20 to 30 interviewees per county would be a more representative approach to obtaining information on the fishing industry. This approach would broaden the scale of information and points of view, thus painting a more complete community profile.

During this project interviews were conducted over the telephone. Again, time and budgetary restraints dictated the research design for this project. More significant information would have been obtained through in-person interviews. In-person interviews are beneficial in several ways. First, a higher response rate will be obtained compared to telephone conversations and mail-out surveys; second, due to the existing lack of trust on the part of industry, in-person interviews may contribute to the resolution of this issue and other problems; and third, involving industry with current projects face-to-face might increase industries' willingness to participate in both discussing fishing industry topics in the future and involving themselves in the management process (Conway and Gilden, 2002).

The questions asked of the interviewees in this project were centered on the commercial fishing industry. After several telephone discussions, it was realized that more specific questions regarding the recreational and sport fisheries might have influenced where discussions went during the interviews and the resulting answers to some of the questions. Two specific questions that did not directly pertain to the recreational and sport industries include:

- Do you see any competition among fishermen in your marina?
- How are family members involved in the fishing industry and can you explain a little about women's roles in the fishing community?

In the future, the above two questions should be modified or dropped during discussion with recreational fishermen.

Census Data

Although census data is useful for creating a more holistic community profile, it does contain some limitations. One limitation is the lack of separation between fishery and forestry employment data. Being able to report the percent of fishery employment in a given area in addition to other types of employment would be beneficial. A second

limitation to the census data is that many fishing community members fish part time, or hold other jobs while they fish. The existing census data does not allow analysis for this kind of situation. This factor furthers the difficulties of obtaining a representative sample of part time employment in a given county. A third limitation is that many fishing communities are located in unincorporated areas. These unincorporated areas are not included in the census information; therefore they are not included in current analyses.

These limitations do not allow the complete picture of fishing communities to be made. It is suggested for future community profiles, that other sources of fishery sector employment and income information be utilized.

Geographic Information Systems (GIS)

Geographic Information Systems (GIS) maps included in the current report are purely descriptive in nature. Direct Census data was imported into GIS to create the maps presented in this document. It is recommended that further steps beyond descriptive map-making be included in future studies. For example, GIS has the ability to display patterns in mapped features, observe relationships and concentrations of features and determine what is occurring within a given distance of several features. GIS also has the capability to see how features change over time, anticipate or model future needs, and examine the impacts before and after an event. For example, GIS might be a good modeling tool when applied to examining the effect(s) a regulation may have on a fishing community. The key advantage of GIS is the ability to link existing databases of Census, PacFIN, and Dependency Indices to probabilistic models. This may result in the means to predict the impacts from fisheries management decisions and regulations.

Geographic Isolation

The geographic isolation of fishing communities should be examined more closely in the future. Specifically, changing the parameters to identify isolated communities resulted in significant outcomes for Oregon. After the buffer was moved from 30 miles to 35 and 40 mile buffers around large cities with a population equal to or greater than 25,000 people, cities previously identified were not included in these results. This change suggests that setting different parameters in Oregon is relatively sensitive, compared to changing the parameters for Washington and California (which resulted in no change). More formal analysis might be beneficial for establishing parameters to identify isolated communities in Oregon. Additionally, future research in understanding the difference between commuting by boat or car would help establish more significant parameters that identify geographically isolated communities.

An additional matter to address with geographically isolated communities involves how cities are geographically grouped. For example, in Oregon, three cities: Nehalem, Manzanita, and Wheeler are located in a cluster along the North Coast. Because of their distance to one another, the question arises: should these cities be treated as a group or individually? It is recommended that future analyses of geographically isolated communities should be subjected to a parameter that addresses those cities that fall within

a certain distance from each other. For instance, three cities that are located within a five-mile radius could be treated as one city. This parameter might contribute to the clarification of whether a city is geographically isolated or not.

The last issue that needs to be dealt with in this discussion presents itself in Figure 8a. This figure contains all geographically isolated communities in Washington and Oregon regardless of whether they are fishing communities. Based on Pacific Fisheries Information Network (PacFIN) landings data, the cities of Tahola, WA, Barview, OR and Powers, OR, do not contain registered commercial fishermen. Because this exercise simply focused on identifying geographically isolated communities, future analyses might consider reporting only those cities containing registered commercial and recreational fishermen.

Upcoming Projects

In the near future, a second appendix containing landings of vessels home ported on the west coast, but landing fish in Alaska will follow the appendices section of this document. It is important to include these landings information because they might help to shed light on a greater socioeconomic understanding of west coast marine fishing communities.

In addition to the Alaska landings data, PCMFC's Economic Fisheries Information Network (EFIN) program will be conducting a study exploring the best way to collect socioeconomic data from fishing community members. This pilot project will consist of informal interviews of community members in Astoria and Newport, OR. The conversations will be focused on seeking community member's guidance on how best to collect socioeconomic data. Results of the project will be in the form of a white paper based on the projects findings.

Summary

The current report is an attempt to complete, update and expand the "West Coast Marine Fisheries Community Descriptions" document prepared by the Council. The definition of a fishing community was examined and approached in this case as a geographic location. Future attempts at applying this definition to a community were recommended to reach beyond the geographic definition to a more regional one.

A total of eleven maps were produced utilizing both Census Data information and GIS in a descriptive format. These maps display frequencies and patterns in county population, per capita income, unemployment, poverty, housing and educational characteristics, geographic isolation and commercial and recreational fishing ports. Additionally, county "snapshots" are provided to present general information about each counties current industry, how that industry has changed over time, and a brief description of a port's commercial and recreational fishing industry. These county descriptions were included to supply the Council with a baseline of community information rather than an encyclopedia of fishing ports.

Finally, a discussion centered on current limitations and future recommendations of fishing community profiles is provided. These limitations and recommendations examined the definition of a community, additional communities to add to future projects, the issues of dependency indices, the limitations of telephone interviews and current census data and how GIS can be utilized in future fishing community projects.

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Appendices

The appendices that follow include:

- 2000 census tables for Washington, Oregon and California
- 2001 PacFIN landings data
- Physical descriptions of coastal fishing ports
- Processor information
- Hierarchical listing of Species/Market Categories, Complexes, Management Groups (SP table)

Census Data

Note for Tables 4a, 4b and 4c:

The values in the “INDUSTRY” column represent the number of industries in a given county. The results were collected through personal interviews and literature research.

The recorded value “5+” means the port had greater than or equal to five industries.

Table 4a. Washington.

COUNTY	POPULATION	PER CAPITA INCOME	UNEMPLOYMENT	POVERTY	YEAR HOUSE BUILT	VACANT HOUSES	INDUSTRY	NOT COMPLETED	0-11 TH GRADE*	GRADE 0-12 TH W/OUT DIPLOMA	GRADE 0-12 TH W/ DIPLOMA
Clallam	64,525	19,517	5%	12%	1976	14%	2	0.40%	9.62%	3.50%	28.00%
Clark	345,238	21,448	5%	9%	1980	15%	5+	0.60%	2.24%	3.12%	27.00%
Cowlitz	92,948	18,583	6%	14%	1968	16%	5+	0.60%	9.08%	4.12%	33.00%
Grays Harbor	67,194	16,799	6%	16%	1966	16%	3	1.00%	10.65%	3.42%	34.33%
Island	71,558	21,472	4%	7%	1979	15%	2	0.30%	3.29%	3.00%	24.31%
Jefferson	25,953	22,211	5%	11%	1980	25%	5+	0.02%	5.21%	2.30%	27.15%
King	1,737,034	29,521	4%	8%	1971	14%	5+	0.90%	6.32%	2.56%	19.17%
Kitsap	231,959	22,317	4%	8%	1978	15%	2	0.40%	4.68%	3.00%	25.42%
Lewis	68,600	17,082	7%	14%	1971	21%	5+	0.70%	13.57%	4.11%	33.00%
Mason	49,405	18,056	6%	12%	1979	18%	3	0.40%	10.86%	4.10%	32.50%
Pacific	20,984	17,322	5%	14%	1972	20%	3	0.80%	14.03%	5.00%	32.00%
Pierce	700,820	20,948	5%	10%	1975	14%	5+	0.80%	6.60%	4.00%	30.00%
San Juan	14,077	30,603	2%	9%	1983	14%	2	0.08%	3.10%	2.20%	18.70%
Skagit	102,979	21,256	5%	11%	1975	16%	5+	1.10%	9.06%	3.50%	26.34%
Skamania	9,872	18,002	9%	12%	1975	26%	4	0.02%	7.93%	4.00%	33.45%
Snohomish	606,024	23,417	2%	7%	1980	14%	4	0.50%	5.87%	3.00%	26.00%
Thurston	207,355	22,415	5%	9%	1979	14%	3	0.70%	5.65%	3.00%	24.00%
Wahkiakum	3,824	19,063	6%	8%	1969	29%	1	0.22%	9.72%	4.50%	32.15%
Whatcom	166,814	20,025	6%	14%	1977	15%	5+	0.80%	7.84%	3.00%	28.00%

* This category is made up of 11 levels of educational attainment. These levels are: nursery to fourth grade, fifth to sixth grade, seventh to eighth grade, ninth grade, 10th grade and 11th grade. The sum of the 11 levels equals the percent shown in the tables.

Table 4a. Washington cont.

COUNTY	< ONE YEAR OF COLLEGE	> ONE YEAR OF COLLEGE, NO DEGREE	ASSOCIATES DEGREE	BACHELORS DEGREE	MASTERS DEGREE	PROFESSIONAL DEGREE	PhD	TOTAL
Clallam	11.11%	18.00%	8.14%	13.00%	5.00%	2.00%	1.23%	100.00%
Clark	11.00%	20.00%	8.34%	15.00%	6.00%	1.40%	5.30%	100.00%
Cowlitz	11.45%	17.40%	8.32%	8.40%	3.30%	1.33%	3.00%	100.00%
Grays Harbor	10.00%	17.00%	8.00%	8.00%	3.40%	1.10%	3.10%	100.00%
Island	11.00%	20.10%	10.00%	19.00%	6.00%	2.00%	1.00%	100.00%
Jefferson	8.22%	21.00%	7.10%	18.00%	7.00%	2.00%	2.00%	100.00%
King	6.93%	16.68%	7.51%	26.62%	8.88%	2.87%	1.56%	100.00%
Kitsap	10.40%	21.00%	9.10%	17.00%	6.00%	2.00%	1.00%	100.00%
Lewis	10.00%	17.00%	8.00%	8.00%	4.00%	1.40%	0.22%	100.00%
Mason	10.12%	18.50%	7.10%	11.00%	4.00%	1.00%	0.42%	100.00%
Pacific	9.50%	17.00%	6.00%	9.12%	5.00%	1.05%	0.50%	100.00%
Pierce	10.00%	18.50%	8.10%	14.00%	5.00%	2.00%	1.00%	100.00%
San Juan	6.20%	23.05%	6.32%	25.00%	10.23%	3.00%	2.12%	100.00%
Skagit	10.00%	19.00%	9.00%	14.00%	5.00%	2.00%	1.00%	100.00%
Skamania	10.00%	19.50%	7.00%	12.00%	4.00%	1.10%	1.00%	100.00%
Snohomish	10.03%	20.00%	9.10%	18.00%	5.00%	1.50%	1.00%	100.00%
Thurston	10.00%	18.40%	8.00%	19.00%	8.00%	2.23%	1.02%	100.00%
Wahkiakum	11.00%	21.00%	6.11%	10.00%	3.50%	1.30%	0.50%	100.00%
Whatcom	8.43%	17.10%	7.20%	18.31%	6.00%	2.00%	1.32%	100.00%

Table 4b. Oregon.

COUNTY	POPULATION	PER CAPITA INCOME	UNEMPLMENT	POVERTY	YEAR HOUSE BUILT	VACANT HOUSES	INDUSTRY	NOT COMPLETED	0-11 TH GRADE	GRADE 0-12 TH W/OUT DIPLOMA	GRADE 0-12 TH W/ DIPLOMA
Clatsop	35,630	19,515	5%	13%	1973	27%	3	0.40%	9.65%	4.00%	29.04%
Columbia	45,560	20,078	5%	9%	1968	24%	5+	0.30%	10.66%	3.16%	35.16%
Coos	62,779	17,547	6%	15%	1978	14%	5+	0.70%	12.59%	4.17%	30.73%
Curry	21,137	18,138	3%	12%	1972	18%	5+	0.30%	10.29%	7.00%	32.11%
Douglas	100,399	16,581	6%	13%	1971	15%	2	0.40%	13.43%	4.24%	35.00%
Hood River	20,411	17,877	5%	14%	1972	12%	2	2.00%	15.28%	3.31%	27.00%
Lane	322,959	19,681	5%	14%	1975	11%	5+	0.40%	7.73%	3.00%	26.00%
Lincoln	44,479	18,692	6%	14%	1958	18%	4	0.30%	9.46%	4.00%	29.00%
Multnomah	660,486	22,606	5%	12%	1973	14%	5+	1.20%	18.95%	3.34%	23.04%
Tillamook	24,262	19,052	3%	11%	1973	29%	4	0.20%	10.63%	4.03%	37.00%

Table 4b. Oregon cont.

COUNTY	< ONE YEAR OF COLLEGE	> ONE YEAR OF COLLEGE, NO DEGREE	ASSOCIATES DEGREE	BACHELORS DEGREE	MASTERS DEGREE	PROFESSIONAL DEGREE	PhD	TOTAL
Clatsop	10.00%	20.21%	7.30%	13.00%	5.00%	1.00%	0.40%	100.00%
Columbia	11.50%	17.72%	7.17%	10.00%	3.00%	1.00%	0.33%	100.00%
Coos	12.00%	17.50%	7.00%	9.31%	4.00%	1.50%	0.50%	100.00%
Curry	9.10%	17.50%	6.50%	10.00%	5.00%	1.20%	1.00%	100.00%
Douglas	10.00%	17.00%	6.60%	8.40%	3.31%	1.20%	0.42%	100.00%
Hood River	8.50%	15.36%	5.00%	15.25%	5.10%	2.20%	1.00%	100.00%
Lane	9.07%	20.00%	7.30%	16.00%	7.00%	2.00%	1.50%	100.00%
Lincoln	10.00%	20.00%	6.00%	12.40%	5.34%	2.00%	1.50%	100.00%
Multnomah	8.10%	18.00%	6.14%	10.10%	7.00%	3.00%	1.13%	100.00%
Tillamook	10.00%	14.30%	5.34%	11.50%	4.00%	2.00%	1.00%	100.00%

Table 4c. California.

COUNTY	POPULATION	PER CAPITA INCOME	UNEMPLMENT	POVERTY	YEAR HOUSE BUILT	VACANT HOUSES	INDUSTRY	NOT COMPLETED	0-11 TH GRADE	GRADE 0-12 TH W/OUT DIPLOMA	GRADE 0-12 TH W/ DIPLOMA
Alameda	1,443,741	26,680	4%	11%	1963	12%	4	3.00%	9.62%	4.34%	19.05%
Contra Costa	948,816	30,615	4%	8%	1972	14%	4	1.00%	7.15%	3.40%	20.00%
Del Norte	27,507	14,573	6%	17%	1975	14%	5+	15.00%	4.90%	8.00%	27.50%
Humboldt	126,518	17,203	6%	19%	1966	23%	3	0.50%	9.65%	4.00%	26.00%
Los Angeles	9,519,338	20,683	6%	18%	1961	13%	5+	5.00%	23.64%	6.00%	19.00%
Marin	247,289	44,962	2%	6%	1964	18%	5+	0.80%	19.29%	2.23%	12.44%
Mendocino	86,265	19,443	6%	16%	1972	19%	3	2.00%	11.92%	5.00%	26.03%
Monterey	401,762	20,165	6%	13%	1970	15%	5+	6.00%	20.54%	4.30%	19.00%
Orange	2,846,289	25,826	4%	10%	1973	14%	4	3.00%	11.75%	4.22%	17.50%
San Diego	2,813,833	22,926	4%	12%	1975	14%	4	2.00%	13.21%	0.40%	20.00%
San Francisco	776,733	34,556	2%	11%	1940	11%	5+	4.00%	8.70%	4.00%	14.00%
San Joaquin	563,598	17,365	4%	17%	1973	14%	4	4.00%	17.97%	6.00%	25.23%
San Luis Obispo	246,681	21,864	4%	12%	1977	12%	5+	1.00%	9.51%	3.34%	21.81%
San Mateo	707,161	36,045	3%	6%	1962	13%	3	2.00%	8.54%	4.00%	17.50%
Santa Barbara	399,347	23,059	5%	14%	1969	16%	3	3.00%	12.93%	4.00%	19.03%
Santa Cruz	255,602	26,396	5%	11%	1970	14%	5+	3.00%	9.06%	3.00%	17.00%
Solano	394,542	21,731	5%	8%	1977	16%	3	2.00%	8.98%	4.20%	24.50%
Sonoma	458,614	25,724	4%	8%	1974	20%	4	2.00%	9.53%	3.59%	20.40%
Ventura	753,197	24,600	4%	9%	1973	14%	5+	3.00%	9.34%	7.00%	19.70%

Table 4c. California cont.

COUNTY	< ONE YEAR OF COLLEGE	> ONE YEAR OF COLLEGE, NO DEGREE	ASSOCIATES DEGREE	BACHELORS DEGREE	MASTERS DEGREE	PROFESSIONAL DEGREE	PhD	TOTAL
Alameda	6.40%	15.24%	7.00%	21.24%	9.00%	3.00%	2.11%	100.00%
Contra Costa	7.30%	17.15%	8.00%	23.00%	8.00%	3.00%	2.00%	100.00%
Del Norte	10.00%	16.50%	7.00%	8.00%	2.00%	0.60%	0.50%	100.00%
Humboldt	9.11%	19.00%	8.15%	16.00%	4.44%	2.00%	1.15%	100.00%
Los Angeles	6.00%	14.04%	6.24%	16.10%	0.53%	2.45%	1.00%	100.00%
Marin	5.00%	2.53%	6.20%	31.00%	12.18%	6.12%	2.21%	100.00%
Mendocino	9.11%	18.06%	7.45%	12.30%	4.83%	2.30%	1.00%	100.00%
Monterey	6.50%	14.41%	6.50%	14.00%	5.52%	2.13%	1.10%	100.00%
Orange	7.00%	17.00%	8.00%	20.43%	7.00%	3.00%	1.10%	100.00%
San Diego	8.00%	18.05%	8.00%	19.00%	7.00%	3.00%	1.34%	100.00%
San Francisco	4.10%	13.00%	6.00%	29.00%	10.20%	5.00%	2.00%	100.00%
San Joaquin	8.43%	15.43%	8.00%	10.20%	3.00%	1.30%	0.44%	100.00%
San Luis Obispo	9.00%	19.24%	9.10%	17.40%	6.00%	2.30%	1.30%	100.00%
San Mateo	6.00%	15.66%	7.30%	24.45%	9.31%	3.14%	2.10%	100.00%
Santa Barbara	7.00%	16.40%	8.00%	18.02%	7.22%	2.40%	2.00%	100.00%
Santa Cruz	7.00%	18.50%	7.34%	22.00%	8.10%	3.00%	2.00%	100.00%
Solano	9.40%	20.00%	9.00%	15.10%	4.32%	2.00%	0.50%	100.00%
Sonoma	8.33%	18.73%	8.90%	18.82%	6.09%	2.51%	1.10%	100.00%
Ventura	8.00%	18.00%	8.00%	17.42%	6.11%	2.30%	1.13%	100.00%

Pacific Fisheries Information Network (PacFIN) Landings Data

The following tables summarize west coast commercial landing based on 2001 PacFIN data. Tables 5a to 5c report the revenue and pounds landed by species and county as well as the number of processors and vessels by county. Due to confidentiality reasons some landings are not reported and are noted as so. Table 6a and 6b report the percent of total gear used and species landed by county. The last tables, Table 7a to 7c, describe the permit owner's place of boat registration versus landed port/city along the west coast.

Table 5a. Washington County Landings.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
Entire Coast	2235	7569			
			Crab	\$61,732,909	30,600,941
			Coastal Pelagic	\$28,800,910	372,731,404
			Highly Migratory	\$24,204,523	22,765,229
			Groundfish	\$448,699,668	153,136,713
			Pacific Whiting	\$2,459,507	69,160,733
			Salmon	\$14,532,414	24,767,292
			Shellfish	*	*
			Shrimp	\$8,049,833	23,336,189
			Other	\$92,629,499	140,243,441
WA	408	2070			
			Crab	\$3,4013,893	17,286,930
			Coastal Pelagic	*	*
			Highly Migratory	\$5,338,425	6,064,285
			Groundfish	\$11,248,480	53,567,972
			Pacific Whiting	*	*
			Salmon	\$6,938,736	19,190,144
			Shellfish	*	*
			Shrimp	\$45,138	15643
			Other	\$46,316,407	63,553,563
Clallam	45	129	*	*	
			Coastal Pelagic	**	**
			Highly Migratory	*	*
			Groundfish	\$3,125,747	2,819,076
			Pacific Whiting	*	*
			Salmon	\$1,049,479	1,441,539
			Shellfish	*	*
			Shrimp	*	*
			Other	\$3,940,480	1,355,169
Clark	**	**	**	**	**
Cowlitz	**	**	**	**	**
Grays Harbor	49	361	Crab	\$13,863,846	7,009,128
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	\$2,803,704	37,830,752
			Pacific Whiting	***	***
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$5,116,609	10,744,078
Island	**	**	**	**	**
Jefferson	14	57	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$2,822,472	2,128,187

*Species included in "Other".

** PacFIN did not report landings.

***Pacific Whiting landings included in Groundfish landings.

Table 5a. Washington County Landings cont.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
King	43	207	Crab	\$1,436,030	632,919
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	\$1,147,112	4,195,382
			Shellfish	*	*
			Shrimp	*	*
			Other	\$5,643,175	2,220,281
Kitsap	**	**	**	**	**
Lewis	**	**	**	**	**
Mason	12	6	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	**	**
			Groundfish	**	**
			Pacific Whiting	**	**
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$4,328,525	4,658,906
Pacific	39	319	Crab	\$6,022,465	3,180,406
			Coastal Pelagic	*	*
			Highly Migratory	\$5,338,425	6,064,285
			Groundfish	*	*
			Pacific Whiting	*	*
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$2,878,208	29,661,523
Pierce	27	46	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	*	*
			Shellfish	*	**
			Shrimp	**	**
			Other	\$4,272,730	2,880,680
Thurston	**	**	**	**	**
San Juan	8	13	Crab	\$110,283	49,310
			Coastal Pelagic	**	**
			Highly Migratory	**	**
			Groundfish	**	**
			Pacific Whiting	**	**
			Salmon	*	*
			Shellfish	**	**
			Shrimp	\$45,138	15,643
			Other	\$7,256	7,830

*Species included in "Other".

** PacFIN did not report landings.

Table 5a. Washington County Landings cont.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
Skagit	28	176	Crab	\$4,195,511	2,154,730
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$884,579	1,912,170
Skamania	**	**	**	**	**
Snohomish	11	90	Crab	*	*
			Coastal Pelagic	**	**
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	\$1,023,630	3,191,213
			Shellfish	*	*
			Shrimp	*	*
			Other	\$737,624	275,003
Wahkiakum	**	**	**	**	**
Whatcom	52	478	Crab	\$8,385,758	4,260,437
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	\$5,319,029	12,918,144
			Pacific Whiting	***	***
			Salmon	\$2,340,255	6,933,664
			Shellfish	*	*
			Shrimp	*	*
			Other	\$6,015,840	4,540,430
Puget Sound Counties	24	23	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	**	**
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$3,901,397	904,880

*Species included in "Other".

** PacFIN did not report landings.

***Pacific Whiting landings included in Groundfish landings.

Table 5b. Oregon County landings.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
Entire Coast	2235	7569	Crab	\$61,732,909	30,600,941
			Coastal Pelagic	\$28,800,910	372,731,404
			Highly Migratory	\$24,204,523	22,765,229
			Groundfish	\$448,699,668	153,136,713
			Pacific Whiting	\$2,459,507	69,160,733
			Salmon	\$14,532,414	24,767,292
			Shellfish	*	*
			Shrimp	\$8,049,833	23,336,189
			Other	\$92,629,499	140,243,441
OR	319	123	Crab	\$18,916,873	9566644
			Coastal Pelagic	*	*
			Highly Migratory	\$5,538,101	682355
			Groundfish	\$21,788,267	79083198
			Pacific Whiting	\$2,459,507	69160733
			Salmon	\$4,411,885	3969860
			Shellfish	*	*
			Shrimp	\$5,823,891	199991786
			Other	\$10,140,439	43679490
Clatsop	27	282	Crab	\$8,168,021	4,256,014
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	\$9,166,790	55,687,333
			Pacific Whiting	***	***
			Salmon	*	*
			Shellfish	*	*
			Shrimp	\$338,307	11,306,263
			Other	\$3,623,764	31,169,664
Columbia	**	**	**	**	**
Coos	59	311	Crab	\$2,492,854	1,251,763
			Coastal Pelagic	*	*
			Highly Migratory	\$1,661,298	2,131,653
			Groundfish	\$4,975,972	13,709,135
			Pacific Whiting	*	*
			Salmon	*	*
			Shellfish	*	*
			Shrimp	\$2,440,820	8,685,523
			Other	\$1,085,624	798,936
Curry	32	200	Crab	\$1,633,717	727,999
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	\$2,603,183	2,717,096
			Pacific Whiting	*	*
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$1,111,266	1,772,262

*Species included in "Other".

** PacFIN did not report landings.

***Pacific Whiting landings included in Groundfish landings.

Table 5b. Oregon County landings cont.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
Douglas	21	56	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	\$95,158	93,412
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	\$112,777	68,592
			Shellfish	*	*
			Shrimp	*	*
			Other	\$496,912	223,522
Hood River	**	**	**	**	**
Lane	23	65	Crab	\$352,484	145,802
			Coastal Pelagic	**	**
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	*	*
			Salmon	\$245,021	142,142
			Shellfish	**	**
			Shrimp	*	*
			Other	\$327,463	235,030
Lincoln	82	449	Crab	\$5,403,246	2,770,955
			Coastal Pelagic	*	*
			Highly Migratory	\$3,781,646	4,607,290
			Groundfish	\$4,788,753	6,639,331
			Pacific Whiting	\$2,459,507	69,160,733
			Salmon	\$2,590,605	1,680,297
			Shellfish	*	*
			Shrimp	*	*
			Other	\$2,681,837	8,386,707
Multnomah	**	**	**	**	**
Tillamook	46	123	Crab	\$866,551	414,111
			Coastal Pelagic	**	**
			Highly Migratory	*	*
			Groundfish	\$253,568	330,303
			Pacific Whiting	**	**
			Salmon	\$338,110	223,229
			Shellfish	*	*
			Shrimp	*	*
			Other	\$363,301	723,815
Columbia River Ports	54	285	Crab	**	**
			Coastal Pelagic	**	**
			Highly Migratory	**	**
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	\$1,125,372	1,855,600
			Shellfish	**	**
			Shrimp	**	**
			Other	\$450,273	369,554

*Species included in "Other".

** PacFIN did not report landings.

Table 5c. California County Landings.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
Entire Coast	2235	7569	Crab	\$61,732,909	30,600,941
			Coastal Pelagic	\$28,800,910	372,731,404
			Highly Migratory	\$24,204,523	22,765,229
			Groundfish	\$448,699,668	153,136,713
			Pacific Whiting	\$2,459,507	69,160,733
			Salmon	\$14,532,414	24,767,292
			Shellfish	*	*
			Shrimp	\$8,049,833	23,336,189
			Other	\$92,629,499	140,243,441
CA	1508	3818	Crab	\$8,802,143	3747367
			Coastal Pelagic	\$28,800,910	372731404
			Highly Migratory	\$13,327,997	9868589
			Groundfish	\$11,832,921	20485543
			Pacific Whiting	*	*
			Salmon	\$3,181,793	1607288
			Shellfish	*	*
			Shrimp	\$2,180,803	3328760
			Other	\$36,172,653	33010388
Alameda	54	72	Crab	\$79,226	26,316
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	\$39,541	45,376
			Pacific Whiting	**	**
			Salmon	\$39,775	14,384
			Shellfish	**	**
			Shrimp	*	*
			Other	\$205,374	50,159
Contra Costa	**	**	**	**	**
Del Norte	55	171	Crab	\$2,630,014	1,143,576
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	\$2,248,689	7,436,989
			Pacific Whiting	***	***
			Salmon	*	*
			Shellfish	*	*
			Shrimp	\$827,446	2,012,741
			Other	\$484,758	627,114
Humboldt	89	203	Crab	\$1,419,297	564,664
			Coastal Pelagic	*	*
			Highly Migratory	\$760,461	900,080
			Groundfish	*	*
			Pacific Whiting	*	*
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$3,319,714	6,261,659

*Species included in "Other".

** PacFIN did not report landings.

***Pacific Whiting landings included in Groundfish landings.

Table 5c. California County Landings cont.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
Los Angeles	196	440	Crab	*	*
			Coastal Pelagic	\$14,890,596	207,000,000
			Highly Migratory	\$8,437,086	5,591,006
			Groundfish	*	*
			Pacific Whiting	*	*
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$6,778,363	5,779,265
Marin	22	128	Crab	*	*
			Coastal Pelagic	\$1,257,317	2,040,339
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	\$384,045	180,795
			Shellfish	**	**
			Shrimp	**	**
			Other	\$1,368,39.8	70,448
Mendocino	96	280	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	\$3,479,059	5,675,036
			Pacific Whiting	***	***
			Salmon	*	*
			Shellfish	**	**
			Shrimp	*	*
			Other	\$4,848,896	4,757,969
Monterey	92	375	Crab	*	*
			Coastal Pelagic	\$3,789,985	58,805,692
			Highly Migratory	*	*
			Groundfish	\$2,083,553	279,114
			Pacific Whiting	***	***
			Salmon	*	*
			Shellfish	**	**
			Shrimp	*	*
			Other	\$2,336,928	1,853,083
Orange	57	86	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	\$169,043	32,919
			Groundfish	\$201,494	107,295
			Pacific Whiting	***	***
			Salmon	**	**
			Shellfish	*	*
			Shrimp	\$297,867	32,875
			Other	\$888,721	327,850

*Species included in "Other".

** PacFIN did not report landings.

***Pacific Whiting landings included in Groundfish landings.

Table 5c. California County Landings cont.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
San Diego	89	186	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	\$1,936,067	1,118,210
			Groundfish		
			Pacific Whiting	**	**
			Salmon	**	**
			Shellfish	**	**
			Shrimp	*	*
			Other	\$3,724,253	1,719,724
San Francisco	88	313	Crab	\$1,514,748	594,058
			Coastal Pelagic	\$1,552,958	3,311,450
			Highly Migratory	**	**
			Groundfish	\$1,333,547	1,971,400
			Pacific Whiting	**	**
			Salmon	\$749,071	385,678
			Shellfish	*	*
			Shrimp	*	*
			Other	\$853,281	304,696
San Joaquin	**	**	**	**	**
San Luis Obispo	102	313	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	\$1,948,165	2,153,805
			Groundfish	\$1,569,220	1,084,981
			Pacific Whiting	***	***
			Salmon	*	*
			Shellfish	**	**
			Shrimp	\$755,189	325,435
			Other	\$564,606	471,362
San Mateo	110	273	Crab	\$1,328,555	488,276
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	\$800,351	1,294,807
			Pacific Whiting	***	***
			Salmon	\$538,877	264,116
			Shellfish	*	*
			Shrimp	*	*
			Other	\$477,308	861,216
Santa Barbara	107	215	Crab	\$672,652	520,417
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$4,718,230	4,747,593

*Species included in "Other". ** PacFIN did not report landings.

***Pacific Whiting landings included in Groundfish landings.

Table 5c. California County Landings cont.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
Santa Cruz	47	145	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	\$77,165	72,569
			Groundfish	\$77,464	78,519
			Pacific Whiting	***	***
			Salmon	\$221,677	107,372
			Shellfish	**	**
			Shrimp	*	*
			Other	\$161,526	111,559
Solano	**	**	**	**	**
Sonoma	88	302	Crab	\$1,064,980	378,667
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	*	*
			Salmon	\$1,120,014	597,545
			Shellfish	**	**
			Shrimp	*	*
			Other	\$952,839	1,154,844
Ventura	147	216	Crab	*	*
			Coastal Pelagic	\$7,310,053	101,875,864
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	*	*
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$514,560	2,895,517
Other Central CA Counties (Sonoma- Monterey)	68	122	Crab	\$92,671	31,393
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	\$128,333	57,398
			Shellfish	**	**
			Shrimp	\$300,300	957,709
			Other	\$374,466	726,570
Other Santa Barbara and Ventura Ports	4	5	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	**	**
			Shellfish	**	**
			Shrimp	*	*
			Other	\$1,947	2,119

*Species included in "Other". ** PacFIN did not report landings.

***Pacific Whiting landings included in Groundfish landings.

Table 5c. California County Landings cont.

AREA	PROCESSOR COUNT	VESSEL COUNT	SPECIES	REVENUE	LANDED POUNDS
Other or Unknown CA Ports	7	7	Crab	*	*
			Coastal Pelagic	*	*
			Highly Migratory	*	*
			Groundfish	*	*
			Pacific Whiting	**	**
			Salmon	*	*
			Shellfish	*	*
			Shrimp	*	*
			Other	\$198,957	287,641

*Species included in “Other”.

** PacFIN did not report landings.

Table 6a. Percent of gear based on revenue. **Note:** all rows sum to 100%

	Drag	Hook & Line	Miscellaneous	Net	Pot	Shrimp Trawl	Trawl	Troll
Entire Coast (W-O-C)	6.72	10.92	5.63	18.68	28.50	10.58	13.83	5.13
<i>California</i>	0.00	14.72	12.46	32.71	18.11	3.35	11.00	7.66
Alameda	0.00	17.30	0.00	0.00	21.90	43.10	6.50	11.30
Del Norte	0.00	7.13	0.11	2.20	50.38	7.83	28.20	4.14
Humboldt	0.00	18.16	0.05	1.86	25.91	5.96	39.50	8.56
Los Angeles	0.00	24.17	14.82	55.71	4.20	0.68	0.03	0.39
Marin	0.00	0.83	19.56	51.30	6.12	0.00	0.34	21.85
Mendocino	0.00	7.03	36.91	0.07	13.20	1.97	30.36	10.45
Monterey	0.00	14.05	0.00	47.84	5.39	0.98	12.80	18.93
Orange	0.00	15.37	19.08	0.39	65.11	0.05	0.00	0.00
Other CA Ports	0.00	23.28	3.93	38.05	6.59	0.00	27.56	0.58
Other Central CA Counties	0.00	10.18	0.10	30.22	10.63	0.00	34.53	14.34
Other Santa Barbara & Ventura Ports	0.00	37.51	44.31	18.18	0.00	0.00	0.00	0.00
San Diego	0.00	19.31	16.13	23.42	40.94	0.00	0.04	0.17
San Francisco	0.00	12.44	0.77	25.50	25.25	3.22	20.25	12.56
San Luis Obispo	0.00	19.04	0.22	15.89	10.28	15.48	12.40	26.70
San Mateo	0.00	6.13	0.31	2.48	42.68	1.29	28.81	18.31
Santa Barbara	0.00	6.56	37.10	5.71	35.82	8.60	6.12	0.00
Santa Cruz	0.00	12.91	0.00	9.45	8.20	0.10	14.76	54.59
Sonoma	0.00	8.69	10.26	0.02	33.95	2.65	5.95	38.49
Ventura	0.00	6.35	11.96	62.94	12.15	4.38	2.04	0.17
<i>Oregon</i>	0.00	5.41	1.46	4.49	30.80	11.94	28.04	17.86
Clatsop	0.00	3.43	0.01	6.55	34.58	14.25	33.62	7.56
Coos	0.00	3.36	0.33	0.00	24.79	19.44	31.40	20.68
Curry	0.00	27.25	6.32	0.00	31.09	5.55	21.74	8.04
Douglas	0.00	2.29	0.49	0.77	66.74	0.00	0.00	29.71
Lane	0.00	3.49	0.85	0.00	58.92	0.11	1.70	34.93
Lincoln	0.00	3.91	2.28	0.05	28.19	8.92	27.06	29.58
Other Columbia River Ports	0.00	2.79	2.40	94.81	0.00	0.00	0.00	0.00
Tillamook	0.00	4.06	4.63	0.00	50.58	4.88	8.57	27.28
<i>Washington</i>	17.93	10.77	1.55	14.04	37.42	2.39	7.22	8.68
Clallam	30.41	34.36	0.06	5.87	9.60	0.00	11.58	8.12
Grays Harbor	0.02	2.98	0.05	3.54	65.21	8.22	9.71	10.28
Jefferson	48.65	0.00	6.36	10.76	29.88	0.00	4.32	0.03
King	48.66	7.57	0.00	17.01	18.82	1.12	0.44	6.36
Mason	38.71	0.01	15.00	45.01	1.28	0.00	0.00	0.00
Other Columbia River Ports	12.43	1.87	0.00	73.40	12.25	0.00	0.05	0.00
Pacific	0.00	1.05	0.58	11.16	42.40	4.26	2.65	37.90
Pierce	50.46	0.02	2.85	42.33	0.62	0.00	0.00	3.72
Puget Sound Counties	82.72	0.06	2.67	2.85	11.68	0.00	0.02	0.00
San Juan	0.00	0.15	0.00	4.31	95.54	0.00	0.00	0.00
Skagit	0.00	0.04	0.89	12.02	84.69	0.00	2.37	0.00
Snohomish	0.00	9.70	3.79	57.29	28.39	0.00	0.00	0.83
Unknown WA Ports	50.71	17.09	0.33	11.89	19.56	0.00	0.00	0.43
Whatcom	2.65	26.18	1.48	13.21	39.27	0.00	17.20	0.00

Notes: Adapted from 2001 PacFIN landings Data. The category "Misc." includes miscellaneous gear types.

Table 6b. Percent of species based on revenue. **Note:** all rows sum to 100%

	Crab	Coastal Pelagic	Highly Migratory	Groundfish	Pacific Whiting	Salmon	Shellfish	Shrimp	Other
Entire Coast (W-O-C)	24.06	11.22	9.43	9.43	0.96	5.66	-	3.14	36.10
<i>California</i>	8.44	27.61	12.78	11.35	-	3.05	-	2.09	34.68
Alameda	21.77	-	-	10.87	-	10.93	-	-	56.43
Del Norte	42.48	-	-	36.32	-	-	-	13.37	7.83
Humboldt	25.81	-	13.83	-	-	-	-	-	60.36
Los Angeles	-	49.46	28.02	-	-	21.60	-	-	22.51
Marin	-	70.71	-	-	-	-	-	-	7.70
Mendocino	-	-	-	41.78	-	-	-	-	58.22
Monterey	-	46.16	-	25.38	-	-	-	-	28.46
Orange	-	-	10.86	12.94	-	-	-	19.13	57.07
Other CA Ports	-	-	-	-	-	-	-	-	100.00
Other Central CA Counties	10.35	-	-	-	-	14.33	-	33.52	41.80
Other Santa Barbara & Ventura Ports	-	-	-	-	-	-	-	-	100.00
San Diego	-	-	34.20	-	-	-	-	-	65.80
San Francisco	25.23	25.87	-	22.21	-	12.48	-	-	14.21
San Luis Obispo	-	-	40.27	32.44	-	-	-	15.61	11.67
San Mateo	42.24	-	25.45	-	-	17.13	-	-	15.18
Santa Barbara	12.48	-	-	-	-	-	-	-	87.52
Santa Cruz	-	-	14.35	14.40	-	41.22	-	-	30.03
Sonoma	33.94	-	-	-	-	35.69	-	-	30.37
Ventura	-	58.69	-	-	-	-	-	-	41.31
<i>Oregon</i>	27.38	-	8.02	31.54	3.56	6.39	-	8.43	14.68
Clatsop	33.56	-	-	37.66	-	-	-	13.90	14.89
Coos	19.70	-	13.13	39.32	-	-	-	19.29	8.58
Curry	30.55	-	-	48.67	-	-	-	-	20.78
Douglas	-	-	13.50	-	-	16.00	-	-	70.50
Lane	38.11	-	-	-	-	26.49	-	-	35.40
Lincoln	24.89	-	17.42	22.06	11.33	11.94	-	-	12.36
Other Columbia River Ports	-	-	-	-	-	71.42	-	-	28.58
Tillamook	47.57	-	-	13.92	-	18.56	-	-	19.94
<i>Washington</i>	32.74	-	5.14	10.83	-	6.68	-	0.04	44.58
Clallam	-	-	-	38.51	-	12.93	-	-	48.55
Grays Harbor	63.64	-	-	12.87	-	-	-	-	23.49
Jefferson	-	-	-	-	-	-	-	-	100.00
King	17.46	-	-	-	-	13.94	-	-	68.60
Mason	-	-	-	-	-	-	-	-	100.00
Other Columbia River Ports	-	-	-	-	-	55.84	-	-	44.16
Pacific	42.30	-	37.49	-	-	-	-	-	20.21
Pierce	-	-	-	-	-	-	-	-	100.00
Puget Sound Counties	-	-	-	-	-	-	-	-	100.00
San Juan	67.79	-	-	-	-	-	-	27.75	4.46
Skagit	82.59	-	-	-	-	-	-	-	17.41
Snohomish	-	-	-	-	-	58.12	-	-	41.88
Unknown WA Ports	-	-	-	-	-	11.33	-	-	88.67
Whatcom	38.01	-	-	24.11	-	10.61	-	-	27.27

Notes: Adapted from 2001 PacFIN landings Data. Contains same masking of confidential species as in tables 7a-7c.

Table 7a. Permit owner's place of boat registration versus landed city in Washington.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
Neah Bay	9	Yes	Blaine, Ferndale, Fir Crest, Mount Vernon, Neah Bay, Port Angeles, Port Townsend, Seattle, Sequim
Port Angeles	32	Yes	Bellingham, Blaine, Brinnon, Carlsborg, Chehalis, Curtis, Edmonds, Elma, Ferndale, Forks, Friday Harbor, Gig Harbor, Greenbank, Inchelium, Issaquah, Ketchikan, Kirkland, La Push, Lopez, Lynnwood, Neah Bay, Olympia, Port Angeles, Poulsbo, Puyallup, Quilcene, Redmond, Renton, Seattle, Sequim, Suquamish, Westport
Sequim	5	No	Anacortes, Bellingham, Lynden, Port Angeles, Seattle
Copalis Beach	10	No	Blaine, Everett, Fox Island, Gig Harbor, Ketchikan, Kirkland, Ocean Shores, Port Orchard, Seattle, Tacoma
Grays Harbor	13	No	Aberdeen, Astoria, Blaine, Englewood, Eureka, Fort Bragg, Grayland, Hoquiam, Shelton, South Beach, Westport, Woodinville, Yakima
La Push	9	Yes	Anacortes, Bellingham, Chehalis, Forks, Hoquiam, Ketchikan, La Push, Olympia, Port Angeles,
Westport	87	Yes	Aberdeen, Anacortes, Arlington, Arroyo Grande, Astoria, Bakersfield, Bay Center, Bellingham, Bend, Blaine, Bothell, Brookings, Camano Island, Camarillo, Cathlamet, Chandler, Charleston, Chehalis, Chinook, Cordova, Curtis, Dallas, Des Moines, Edmonds, El Cajón, Elma, Englewood, Eureka, Everett, Ferndale, Fort Bragg, Friday Harbor, Gig Harbor, Grayland, Harbor, Homer, Hoquiam, Ilwaco, Jamul, Kirkland, La Push, Langley, Long Beach, Longview, Marina, Mercer Island, Morro Bay, Mount Vernon, Nahcotta, Naselle, National, Ocean Park, Ocean Shores, Olympia, Orting, Oysterville, Oxnard, Pebble Beach, Port Townsend, Poulsbo, Quilcene, Raymond, Reno, Renton, Salton City, San Diego, Santa Barbara, Santee, Seattle, Seaview, Sequim, Shelton, Siletz, Snohomish, South Beach, Staten Island, Tacoma, Tahola, Tokeland, Tualatin, Warrenton, Westport, Woodburn, Woodinville, Yakima
Port Townsend	17	Yes	Anacortes, Beaver, Bellingham, Cathlamet, Chimacum, Chinook, Friday Harbor, Olympia, Port Angeles, Port Hadlock, Port Orchard, Port Townsend, Poulsbo, Seattle, Sequim, Tacoma, Woodway
Seattle	60	Yes	Aberdeen, Anacortes, Anchorage, Bainbridge, Beaver, Bellingham, Blaine, Brinnon, Carlsborg, Chandler, Conconully, Concrete, Cordova, Curtis, Edmonds, Eureka, Ferndale, Friday Harbor, Gig Harbor, Gold Beach, Grayland, Greenbank, Haleiwa, Homer, Hoquiam, Kenmore, Ketchikan, Kingston, Kirkland, Lakewood, Long Beach, Lopez, Lummi Island, Lynnwood, Marysville, Mount Vernon, Ocean Shores, Olympia, Port Angeles, Port Hadlock, Redmond, Reno, Renton, Seattle, Sedro Wolley, Shoreline, Sitka, Snohomish, South Beach, Stuart Island, Suquamish, Tacoma, The Dalles, Tokeland, Toledo, Vail, Vashon, Westport, Woodinville
Shelton	0	No	No city recorded

Table 7a. Permit owner's place of boat registration versus Landed city in WA cont.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF	PLACE OF BOAT REGISTRATION
Ilwaco/ Chinook	101	Yes	Aberdeen, Anacortes, Anchorage, Aptos, Astoria, Atascadero, Bainbridge, Bandon, Bay Center, Bayside, Bellingham, Bodega Bay, Boring, Cambria, Campbell, Castlero, Castro Valley, Cathlamet, Charleston, Chinook, Crescent, Curtis, Dallas, Durango, Edmonds, Enumclaw, Eureka, Ferndale, Flagstaff, Fort Bragg, Garibaldi, Gearheart, Gig Harbor, Girdwood, Grants Pass, Grayland, Haines, Halibut, Harbor, Honolulu, Ilwaco, Incline, Juneau, Kenmore, La Center, Logsden, Loleta, Long Beach, Longview, Los Angeles, Los Osos, Lummi Island, Lynnwood, Marina, Mckinleyville, Moss Landing, Nahcotta, Naselle, Nehalem, Newport, Ocean Park, Olympia, Oysterville, Otter Rock, Pebble Beach, Petaluma, Port Townsend, Portland, Poulsbo, Quilcene, Raymond, Redding, Reedsport, Roseburg, Roy, Salinas, San Diego, San Pedro, Santa Maria, Seattle, Seaview, Sedro Wolley, Sequim, Shelter, Shelton, Shoreline, Siletz, Sitka, Skamokawa, Snohomish, Sublimity, Tacoma, Tarzana, Toledo, Tualatin, Vancouver, Warrenton, Westport
Willapa Bay	24	No	Aberdeen, Bay Center, Bellingham, Cathlamet, Chinook, Cordova, Cosmopolis, Des Moines, Forks, Gearhart, Grayland, Hoquiam, Long Beach, Nahcotta, Naselle, Newport, Ocean Park, Raymond, Salem, Seattle, Seaview, South Beach, Tokeland, Westport
Tacoma	16	Yes	Anacortes, Beaver, Bellingham, Blaine, Brinnon, Conconully, Fox Island, Gig Harbor, Port Angeles, Port Hadlock, Port Orchard, San Diego, Seattle, Tacoma, The Dalles, Westport
Friday Harbor	3	Yes	Brinnon, Fox Island, Friday Harbor
Anacortes	28	Yes	Anacortes, Bellingham, Blaine, Bonney Lake, Brinnon, Burlington, Camano Island, Chimacum, Chinook, Clinton, Everett, Freeland, Friday Harbor, Haleiwa, Juneau, Ketchikan, Langley, Longview, Lopez Island, Lynden, Maple Falls, Mount Vernon, Olympia, San Diego, Seattle, Stanwood, Tacoma, Woodway
La Conner	17	No	Anacortes, Astoria, Bellingham, Blaine, Burlington, Camano Island, Chinook, Curtis, Edmonds, Everett, Ilwaco, Langley, Mount Vernon, Oak Harbor, Ocean Park, Seattle, Snohomish
Everett	27	Yes	Aberdeen, Anacortes, Arlington, Bainbridge, Bellingham, Blaine, Camano, Clinton, Edmonds, Everett, Ferndale, Gig Harbor, Homer, Hoquiam, Langley, Marysville, Mercer Island, Port Angeles, Renton, Seattle, Shelton, Shoreline, Snohomish, Tokeland, Westport, Winthrop, Woodinville
Olympia	1	No	Westport
Blaine	42	Yes	Aberdeen, Anacortes, Arlington, Beaver, Bellevue, Bellingham, Blaine, Bonney Lake, Brinnon, Burlington, Camano Island, Cathlamet, Clinton, Custer, Everett, Ferndale, Fir Crest, Freeland, Haleiwa, Homer, Hoquiam, Ketchikan, Kirkland, Langley, Lopez, Lynden, Maple, Marysville, Mount Vernon, Neah Bay, Olympia, Port Angeles, Port Hadlock, Port Orchard, Port Townsend, San Diego, Seattle, Snohomish, Sumlimity, Tokeland, Westport, Woodway
Bellingham	58	Yes	Aberdeen, Anacortes, Anchorage, Astoria, Bainbridge, Belfair, Bellingham, Blaine, Brookings, Burlington, Chandler, Chehalis, Chimacum, Clinton, Cordova, Custer, Dallas, Edmonds, Ellensburg, Elma, Eureka, Everett, Fall City, Ferndale, Fir Crest, Fort Bragg, Fox Island, Friday Harbor, Gig Harbor, Harbor, Hoquiam, Juneau, Kenmore, Ketchikan, Kirkland, Kodiak, Lake Forest, Langley, Longview, Lopez, Lummi Island, Lynden, Lynnwood, Marysville, Mill Creek, Mount Vernon, Neah Bay, North Beach, Oak Harbor, Ocean Shores, Olympia, Port Angeles, Port Townsend, Poulsbo, Pt. Robe, Reedsport, Reno, Samish Island, San Diego, Seattle, Sequim, Snohomish, Sublimity, Suquamish, Tacoma, The Dalles, Tokeland, Vail, Vashon, Warrenton, Wauna, Westport, Woodinville, Woodway

Table 7b. Permit owner's place of boat registration versus landed city in Oregon.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
Astoria	74	Yes	Allegany, Anacortes, Astoria, Atascadero, Bay City, Bellingham, Bend, Blaine, Boring, Brookings, Cathlamet, Charleston, Chehalis, Chinook, Coos Bay, Crescent City, Dallas, Edmonds, Ephrata, Eureka, Everson, Fort Bragg, Garibaldi, Gearhart, Gig Harbor, Gleneden Beach, Gold Beach, Grayland, Hammond, Homer, Ilwaco, Juneau, Kent, Kodiak, La Center, La Honda, Lake Oswego, Long Beach, Lummi Island, Mapleton, Marysville, Mount Vernon, Myrtle Point, Nahcotta, Newport, Ocean Park, Prunedale, Rancho Palos Verdes, Raymond, Salem, San Francisco, San Martin, Seaside, Seaview, Seattle, Sebastopol, Sequim, Shawnigan Lake BC, Shoreline, Siletz, South Beach, South Bend, Sublimity, Toledo, Vancouver, Vashon Island, Ventura, Warrenton, West Linn, Westport, Woodburn, Woodinville
Cannon Beach	0	No	No City Recorded
Gearhart/Seaside	0	No	No City Recorded
Bandon	7		Bandon, Coos Bay, Gold Beach, Lopez, Port Orford, Rio Dell
Coos Bay	90		Atascadero, Auburn, Bandon, Birkenfeld, Bodega Bay, Brookings, Capitola, Cathlamet, Cave Junction, Charleston, Chula Vista, Coos Bay, Coquella, Cottage Grove, Crescent City, Cylinder, Dallas, Dillon Beach, Edmonds, El Segundo, Eugene, Eureka, Florence, Fort Bragg, Fortuna, Fremont, Gold Beach, Gold Hill, Goldendale, Grants Pass, Grayland, Harbor, Hibbing, Ilwaco, Kirkland, Kneeland, Kuna, Lake Oswego, Lakeside, Logsdan, Lopez, Mapleton, McKinleyville, Medford, Monroe, Morro Bay, Moss Landing, Myrtle Creek, Myrtle Point, Newport, North Bend, Otter Rock, Oxnard, Philomath, Pismo Beach, Pistol River, Port Orford, Portland, Prunedale, Rathdrum, Redwood City, Reedsport, Rio Dell, Roseburg, San Diego, San Francisco, San Rafael, Santa Rosa, Scotts Valley, Scottsburg, Seattle, Sequim, Shawnigan Lake BC, Sitka, South Beach, Springfield, Toledo, Vancouver, Watsonville, Westlake, Westport, Winchester Bay, Woodinville, Yachats
Brookings	18		Arnold, Atascadero, Bandon, Brookings, Cave Junction, Crescent City, Fort Bragg, Gold Beach, Gold Hill, Harbor, Klamath Falls, Manchester, Newport, Ophir, Portland, Prospect, Roseburg, San Francisco
Gold Beach	9		Arnold, Brookings, Crescent City, Gold Beach, Harbor, Lopez, Millbrae, Ophir, Pistol River
Port Orford	14		Bandon, Brookings, Charleston, Coos Bay, Gold Beach, Langlois, Lopez, Mendocino, Millbrae, Port Orford, Roseburg, Round Mountain, Shady Cove
Winchester	20	Yes	Bandon, Brookings, Coos Bay, Cottage Grove, Cylinder, Drain, Elkton, Eugene, Glide, Goldendale, Lakeside, Leaburg, North Bend, Philomath, Rathdrum, Reedsport, Springfield, Westlake, Winchester Bay, Yoncalla
Florence	30	Yes	Albany, Auburn, Brookings, Chinook, Coos Bay, Cottage Grove, Eugene, Florence, Hailey, Harbor, La Honda, Leaburg, Mapleton, Monroe, Newport, North Bend, Petaluma, Philomath, Port Orford, Port Townsend, Sixes, Springfield, Tacoma, Toledo, Umatilla, Veneta, Westlake, Westport, Winchester Bay, Yoncalla
Depoe Bay	8	Yes	Arnold, Clatskanie, Depoe Bay, Mendocino, Redwood City, Roseburg, South Beach, Tillamook

Table 7b. Permit owner's place of boat registration versus landed city in OR cont.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
Newport	151	Yes	Aberdeen, Albany, Anacortes, Aptos, Arcata, Arnold, Arroyo Grande, Astoria, Atascadero, Bandon, Bay City, Bend, Blaine, Blodgett, Bodega Bay, Brookings, Camano Island, Canyon Country, Capitola, Carnation, Carpinteria, Cathlamet, Cave Junction, Charleston, Chinook, Chula Vista, Clinton, Cloverdale, Coos Bay, Coquille, Corvallis, Cosmopolis, Cottage Grove, Crescent City, Dallas, Depoe Bay, Drain, Edmonds, El Segundo, Eugene, Eureka, Federal Way, Florence, Fort Bragg, Fortuna, Fremont, Garibaldi, Gig Harbor, Goleta, Grants Pass, Grayland, Grays River, Harbor, Ilwaco, Incline Village, Junction City, La Honda, La Mesa, Lakewood, Lincoln City, Logsdon, Long Beach, Lummi Island, Mapleton, Marysville, Mendocino, Monroe, Morro Bay, Moss Landing, Nehalem, Newberg, Newport, North Bend, Norwalk, Oak Harbor, Ocean Park, Olympia, Ophir, Otter Rock, Oxnard, Pacific City, Pebble Beach, Philomath, Pistol River, Port Angeles, Port Hadlock, Port Orchard, Port Orford, Port Townsend, Portland, Poulsbo, Princeton, Prunedale, Quilcene, Raymond, Redcrest, Redwood City, Reedsport, Reno, Rockaway, Roseburg, Rufus, Salem, Salinas, San Diego, San Francisco, San Rafael, Santa Barbara, Santa Cruz, Santa Rosa, Scotts Valley, Seal Rock, Seaside, Seattle, Sequim, Shelton, Sheridan, Shoreline, Siletz, Sitka, Sixes, Snohomish, South Beach, Springfield, Tacoma, Tillamook, Toledo, Tualatin, Turner, Valley Ford, Vancouver, Ventura, Waldport, Westlake, Winchester Bay, Yachats, Yakima
Siletz	0	No	No City Recorded
Waldport	30	No	Albany, Auburn, Brookings, Chinook, Coos Bay, Cottage Grove, Eugene, Florence, Hailey, Harbor, La Honda, Leaburg, Mapleton, Monroe, Newport, North Bend, Petaluma, Philomath, Port Orford, Port Townsend, Sixes, Springfield, Tacoma, Toledo, Umatilla, Veneta, Westlake, Westport, Winchester Bay, Yoncalla
Nehalem	1	No	Rockaway
Netarts	0	No	No City Recorded
Tillamook/Garibaldi	29	Yes	Arnold, Bay City, Beaver, Brookings, Corvallis, Everson, Garibaldi, Grayland, Gresham, Hammond, Hoquiam, Ilwaco, La Center, Lakewood, Long Beach, Nahcotta, Nehalem, Oceanside, Quilcene, Raymond, Rockaway, Salem, Santa Cruz, Seaside, Seattle, Tillamook, Tualatin, Westport
Pacific City	0	No	No City Recorded

Table 7c. Permit owner's place of boat registration versus landed city in California.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
Alameda	12	Yes	Alameda, Arroyo Grande, Bodega Bay, Charleston, Los Osos, Napa, Oakland, Petaluma, Rodeo, San Francisco, Santa Rosa, Woodland
Berkeley	24	Yes	Berkeley, Bodega Bay, Capitola, Crescent City, El Cerrito, El Granada, El Sobrante, Fairfield, Fremont, Half Moon Bay, Mount Shasta, Pacifica, Paso Robles, Richmond, Sacramento, San Francisco, San Jose, San Leandro, San Mateo, San Pablo, Scotts Valley, Union City, Whitethorn, Yamhill
Oakland	3	Yes	Arroyo Grande, Oakland
Richmond	9	Yes	Albany, Bolinas, El Cerrito, Novato, Pinole, Point Richmond, Rodeo, San Francisco, Yamhill
Crescent City	43	Yes	Arcata, Arroyo Grande, Astoria, Atascadero, Bandon, Bodega Bay, Brookings, Carson City, Cave Junction, Chico, Coos Bay, Crescent City, Eureka, Fields Landing, Folsom, Fort Bragg, Fort Dick, Fortuna, Gasquet, Gold Beach, Hammond, Harbor, Klamath, Kneeland, Kuna, McKinleyville, Medford, Milford, Morro Bay, Newport, Princeton, Prunedale, Reno, Roseburg, San Francisco, Santa Cruz, Shawnigan Lake BC, Shoreline, Warrenton, Westport, Wheatland, Whittier
Eureka	53	Yes	Arcata, Arroyo Grande, Astoria, Atascadero, Bakersfield, Bayside, Brookings, Carlotta, Castro Balley, Coos Bay, Crescent City, Dillon Beach, El Granada, Eureka, Fairhaven, Ferndale, Fieldbrook, Fields Landing, Fort Bragg, Fortuna, Garberville, Gasquet, Gold Hill, Grants Pass, Greenbrae, Harbor, Kneeland, Lodi, Los Osos, McKinleyville, Mendocino, Newport, Ocean Park, Oxnard, Point Arena, Port Townsend, Portland, Redcrest, Redway, Rio De Il, Salton City, Samoa, San Diego, San Francisco, Santa Barbara, Santa Rosa, Siletz, Trinidad, Warrenton, Watsonville, Westport, Whitethorn, Willow Creek
Trinidad	9	Yes	Arcata, Eureka, Fort Bragg, Fortuna, McKinleyville, Redwood Valley, Trinidad, Willow Creek
Long Beach	28	Yes	Bakersfield, Balboa, Canyon Country Park, Downey, Gardena, Honolulu, Huntington Beach, Joshua Tree, La Habra, Lakewood, Long Beach, Los Alamitos, Marina, Norwalk, Oxnard, Pearl City, Rancho Palos Verdes, San Jose, San Pedro, Santa Ana, Santa Barbara, South Gate, Vista, Waipahu, Westminster, Whittier, Wilmington

Table 7c. Permit owner's place of boat registration versus landed city in CA cont.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
San Pedro	75	Yes	Alpine, Anaheim, Arroyo Grande, Atascadero, Avalon, Bakersfield, Balboa, Bodega Bay, Buena Park, Campbell, Canyon Country Park, Carmel, Chula Vista, Clearwater, Costa Mesa, El Segundo, Everett, Forestville, Fountain Valley, Garden Grove, Gardena, Gig Harbor, Goleta, Harbor City, Honolulu, Huntington Beach, Irvine, Joshua Tree, Ketchum, Kingston, La Mesa, La Mirada, Laguna Niguel, Lake Forest, Lakewood, Lomita, Lompoc, Long Beach, Los Alamitos, Malibu, Manhattan Beach, Marina Del Rey, Monterey, Hollywood, New Orleans, Newport, Nipomo, Norwalk, Ojai, Oxnard, Perris, Port Hueneme, Rancho Cucamonga, Rancho Dominguez, Rancho Palos Verdes, Redding, Redondo Beach, San Clemente, San Diego, San Pedro, Santa Ana, Santa Barbara, Santa Monica, Santa Ynez, Seal Beach, South Gate, Spring Valley, Stanwood, Templeton, Torrance, Tustin, Ventura, Warrenton, Westminster, Wilmington
Terminal Island	77	Yes	Anaheim, Arroyo Grande, Avalon, Bellflower, Bodega Bay, Bradley, Canyon Country Park, Chula Vista, Costa Mesa, Dana Point, Downey, El Cajon, Fountain Valley, Garden Grove, Gardena, Geyserville, Gig Harbor, Goleta, Harbor, City, Hawthorne, Hermosa Beach, Honolulu, Huntington Beach, Ione, Irvine, Jamul, Joshua Tree, Ketchikan, La Mesa, La Mirada, Laguna Beach, Laguna Niguel, Lakeside, Long Beach, Los Alamitos, Los Angeles, Los Osos, Malibu, Manhattan Beach, Marina, National City, New Orleans, Newberry Park, Norwal, Ojai, Oxnard, Paramount, Pearl City, Pensacola, Perris, Port Hueneme, Portland, Rancho Cucamonga, Rancho Palos Verdes, Redondo Beach, Salinas, San Bernardino, San Diego, San Jose, San Pedro, Santa Barbara, Santa Monica, Santa Ynez, Seal Beach, Seattle, Signal Hill, Siletz, Tarzana, Templeton, Terminal Island, Torrance, Ventura, Vista, Waipahu, Westminster, Whittier, Wilmington
Willmington	4	Yes	Anaheim, Long Beach, Santa Barbara, Wilmington
Point Reyes	13	Yes	Bodega Bay, Dixon, Monterey, Morro Bay, Paso Robles, Petaluma, Point Reyes, Rancho Santa Fe, San Francisco, San Leandro, San Rafael, Santa Cruz, Sonoma
Sausalito	49	Yes	Albion, Bay Point, Bellingham, Berkeley, Bodega Bay, Bolinas, Brookings, Charleston, Corte Madera, Crescent City, El Sobrante, Eureka, Fairfax, Ferndale, Fieldbrook, Florence, Fort Bragg, Fremont, Grass Valley, Hollister, Jenner, Lodi, Logsden, McKinleyville, Mendocino, Middletown, Monterey, Moss Landing, Mount Vernon, Pebble Beach, Petaluma, Port Townsend, Redcrest, Redway, Richmond, San Francisco, San Jose, San Pedro, San Rafael, Santa Clara, Santa Rosa, Sausalito, Sebastopol, Sedro Woolley, Tiburon, Vallejo, Watsonville, Willits, Winchester Bay, Woodland
Tomales Bay	2	No	Chino, San Francisco
Albion	11	Yes	Albion, Boonville, Caspar, Clear Lake, Elk, Eureka, Fallbrook, Forest Ranch, Fort Bragg, McKinleyville, Mendocino, Point Arena
Point Arena	18	Yes	Albion, Annapolis, Chico, Elk, Forest Ranch, Fort Bragg, Garberville, Gualala, Jenner, Manchester, McKinleyville, Mendocino, North Hollywood, Point Arena, Redwood City, Santa Barbara, Sebastopol, Whitethorn

Table 7c. Permit owner's place of boat registration versus landed city in CA cont.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
Fort Bragg	65	Yes	Albion, Annapolis, Arcata, Atascadero, Bodega Bay, Boonville, Brookings, Carlotta, Caspar, Castro Valley, Cathlamet, Cave Junction, Chico, Citrus Heights, Concord, Crescent City, Descanso, Dillon Beach, Dublin, Eureka, Fallbrook, Fort Bragg, Garberville, Gold Hill, Greenbrae, Grover Beach, Harbor, Kelseyville, Lincoln, Lodi, Loleta, McKinleyville, Mendocino, Monterey, Morro Bay, Moss Landing, North Hollywood, Oxnard, Petaluma, Philo, Piercy, Point Arena, Portland, Redway, Redwood City, Redwood Valley, Rescue, Rio Dell, Sacramento, San Diego, San Francisco, San Rafael, Santa Barbara, Santa Cruz, Sebastopol, Sonoma, Soquel, Trinidad, Westport, Wheatland, Whitethorn, Willits
Fields Landing	13	Yes	Albion, Arcata, Bayside, Crescent City, Eureka, Fields Landing, Fort Bragg, Fortuna, Kneeland, Lake Oswego, McKinleyville, Point Arena, Trinidad
Monterey	28	Yes	Anacortes, Aromas, Ben Lomond, Big Sur, Carmel, Del Rey Oaks, Fresno, Grover Beach, Hollister, Kingston, Marina, Montara, Monterey, Morro Bay, Moss Landing, Ojai, Oxnard, Pacific Grove, Paso Robles, Pebble Beach, Prunedale, Salinas, San Miguel, Santa Barbara, Santa Maria, Seaside, Seattle, Soledad
Moss Landing	99	Yes	Alameda, Albion, Anacortes, Aptos, Aromas, Arroyo Grande, Astoria, Atascadero, Auberry, Bakersfield, Ben Lomond, Big Sur, Bodega Bay, Brookings, Campbell, Carmel, Castro Valley, Cave Junction, Charleston, Chehalis, Chula Vista, Concord, Corning, Crescent City, Del Rey Oaks, Dublin, El Granada, Elkhorn, Eureka, Felton, Foresthill, Fort Bragg, Fresno, Gilroy, Grants Pass, Grass Valley, Greenbrae, Grover Beach, Gualala, Half Moon Bay, Hollister, Honolulu, Kingston, La Selva Beach, Livermore, Lodi, Long Beach, Los Angeles, Los Osos, Marina, McKinleyville, Modesto, Monterey, Morgan Hill, Morro Bay, Moss Landing, National City, Newport, Nipomo, Novato, Oakhurst, Ojai, Olympia, Oxnard, Pacific Grove, Paso Robles, Pebble Beach, Pittsburgh, Pleasanton, Princeton, Rackerby, Rancho Cucamonga, Red Bluff, Rescue, Roy, Sacramento, Salinas, San Diego, San Francisco, San Jose, San Pedro, San Rafael, Santa Barbara, Santa Cruz, Santa Maria, Santee, Scotts Valley, Seaside, Sebastopol, Shoreline, Soledad, Soquel, South Beach, Sunnyvale, Toledo, Watsonville, West Covina
Dana Point	22	Yes	Avalon, Bakersfield, Balboa, Capistrano Beach, Carpenteria, Costa Mesa, Dana Point, Fountain Valley, Goleta, Laguna Beach, Laguna Niguel, Lake Forest, Marina Del Rey, Paramount, Phelan, Redondo Beach, Romoland, San Clemente, San Juan Capistrano, San Marcos, Santa Barbara, Vista
Newport Beach	17	Yes	Arroyo Grande, Bakersfield, Balboa, Costa Mesa, Fountain Valley, Huntington Beach, Laguna Beach, Laguna Niguel, Long Beach, Los Angeles, Newport Beach, San Diego, San Pedro, Santa Rosa, Tustin, Vista, Westminster
Oceanside	24	Yes	Bakersfield, Carlsbad, Carpenteria, Chula Vista, Costa Mesa, Imperial Beach, Incline Village, La Mesa, Lake Forest, Leucadia, Long Beach, National City, Oceanside, Oxnard, Salton City, San Clemente, San Diego, San Marcos, San Pedro, Santa Barbara, Santee, Seattle, Spring Valley, Vista

Table 7c. Permit owner's city place of boat registration versus landed city in CA cont.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
San Diego	38	Yes	Atascadero, Avalon, Bakersfield, Bellflower, Campbell, Carlsbad, Carpinteria, Chula Vista, Costa Mesa, Dana Point, El Cajon, Escondido, Goleta, Imperial Beach, Incline Village, La Jolla, La Mesa, Laguna Beach, Lakeside, Marina, Monterey, Morro Bay, National City, Oceanside, Paradise, Pebble Beach, Phoenix, Poway, Redondo Beach, San Bernardino, San Diego, Santa Barbara, Santee, Solano Beach, Spring Valley, Tarzana, Ventura, Vista
San Francisco	120	Yes	Alameda, Albion, Antioch, Arroyo Grande, Astoria, Auburn, Bellingham, Belmont, Benicia, Berkeley, Bodega Bay, Bolinas, Boulder Creek, Brentwood, Brookings, Burlington, Castro Valley, Cave Junction, Charleston, Chehalis, Concord, Coos Bay, Corning, Corte Madera, Crescent City, Daly City, Dogtown, Dublin, Edmonds, El Cerrito, El Granada, El Sobrante, Eureka, Fairhaven, Ferndale, Forest Knolls, Fort Bragg, Fremont, Goleta, Grayland, Greenbrae, Gualala, Hollister, La Jolla, La Mesa, Lafayette, Lathrop, Lodi, Los Gatos, Marina, Martinez, McKinleyville, Mendocino, Millbrae, Modesto, Montara, Monterey, Morro Bay, Moss Beach, Myrtle Point, Napa, Newport, Novato, Oakhurst, Oakland, Ocean Park, Paso Robles, Pebble Beach, Pescadero, Petaluma, Pittsburgh, Pleasant Hill, Port Townsend, Portland, Princeton, Prunedale, Rackerby, Rancho Palos Verdes, Redding, Rescue, Richmond, Rio Vista, Roy, San Francisco, Sacramento, Salinas, San Bruno, San Carlos, San Leandro, San Lorenzo, San Mateo, San Pedro, San Rafael, Santa Barbara, Santa Cruz, Santa Maria, Santa Rosa, Sausalito, Seattle, Sebastopol, Sedro Woolley, Soquel, South Beach, Squaw Valley, Stockton, Sunnyvale, Tiburon, Toledo, Union City, Valley Ford, Westport, Willits, Wilton, Windsor, Woodland, Yakima
Avila Beach	41	Yes	Arroyo Grande, Atascadero, Avila Beach, Bakersfield, Bandon, Bellflower, Buena Park, Cambria, Carmel, Grover Beach, Grover City, Hanford, Huntington Beach, Los Osos, Malibu, Monterey, Morro Bay, Nipomo, Oceano, Orcutt, Oxnard, Pacific Grove, Paso Robles, Pine Mountain, Pismo Beach, Port Hueneme, Porterville, Rancho Cucamonga, San Diego, San Francisco, San Luis Obispo, San Pedro, Santa Barbara, Santa Margarita, Santa Maria, Santee, Seal Beach, Taft, Templeton, Ventura, Watsonville
Morro Bay	66	Yes	Albion, Aptos, Arroyo Grande, Astoria, Atascadero, Avalon, Avila Beach, Bakersfield, Bandon, Big Sur, Brookings, Camarillo, Cambria, Campbell, Carmel, Carpinteria, Cayucos, Chula Vista, Coos Bay, Crescent City, El Granada, Fort Bragg, Fresno, Goleta, Grover Beach, Incline Village, Kingston, La Mirada, Lewiston, Livermore, Long Beach, Los Osos, Manhattan Beach, Marina, Monterey, Morro Bay, Newport, Nipomo, Norwalk, Ocean Park, Oxnard, Paso Robles, Pismo Beach, Prunedale, Rancho Cucamonga, San Clemente, San Diego, San Francisco, San Luis Obispo, San Miguel, San Pedro, Santa Barbara, Santa Cruz, Santa Margarita, Santa Maria, Seal Beach, Siletz, Spring Valley, Strathmore, Tarzana, Templeton, Toledo, Ventura, West Sacramento, Westport

Table 7c. Permit owner's city place of boat registration versus landed city in CA cont.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
Princeton	114	No	Albion, Anacortes, Antioch, Arcata, Arroyo Grande, Bakersfield, Belmont, Bend, Berkeley, Bodega Bay, Brookings, Brownsville, Burlingame, Capitola, Carlotta, Cathlamet, Ceres, Charleston, Citrus Heights, Clear Lake, Concord, Coos Bay, Corte Madera, Crescent City, Cupertino, Descanso, Dillon Beach, El Branada, El Cerrito, El Granada, El Sobrante, Elverta, Eureka, Fir Oaks, Fairfield, Fairhaven, Florence, Forestville, Fort Bragg, Fortuna, Freedom, Fremont, Grants Pass, Grayland, Greenwood, Gualala, Guerneville, Half Moon Bay, Harbor, Hayward, Hollister, Jenner, La Honda, Livermore, Los Altos, Los Osos, Manteca, Marina, McKinleyville, Mendocino, Menlo Park, Montara, Monterey, Morro Bay, Moss Beach, Moss Landing, Norwalk, Novato, Oakhurst, Ophir, Oxnard, Pacifica, Paso Robles, Pebble Beach, Pescadero, Petaluma, Pinole, Pleasant Hill, Rancho Cordova, Redcrest, Redding, Redwood City, Richmond, Rocklin, Roy, San Francisco, Sacramento, Salinas, San Bruno, San Jose, San Leandro, San Lorenzo, San Mateo, San Rafael, Santa Cruz, Santa Rosa, Sausalito, Scotts Valley, Seaside, Sebastopol, Shingle Springs, Soquel, Spring Valley, Tiburon, Trinidad, Union City, Valley Ford, Walnut Creek, Waterford, Westport, Winchester Bay, Woodland, Yakima, Yuba City
Santa Barbara			Albion, Atascadero, Avalon, Bandon, Big Sur, Bodega Bay, Buellton, Camarillo, Cambria, Canyon Country, Carpinteria, Caspar, Cayucos, Everett, Garden Grove, Goleta, Grover Beach, Joshua Tree, Kingston, Laguna Niguel, Long Beach, Los Osos, Marina, McKittrick, Montecito, Monterey, Morro Bay, Moss Landing, Newbury Park, Oak View, Oceano, Ojai, Oxnard, Pebble Beach, Port Hueneme, Reseda, San Diego, San Jose, San Luis Obispo, San Pedro, Santa Barbara, Santa Cruz, Santa Maria, Santa Yenz, Simi Valley, Summerland, Tarzana, Templeton, Ventura
Santa Cruz	61	Yes	Alameda, Anacortes, Aptos, Ben Lomond, Berkeley, Bodega Bay, Brookings, Burlingame, Campbell, Capitola, Carlotta, Carmel, Concord, Corning, Corralitos, Crescent City, Descanso, Dublin, El Granada, Eureka, Fort Bragg, Fresno, Gilroy, Gold Hill, Grants Pass, Grass Valley, Half Moon Bay, Harbor, Hollister, La Selva Beach, Lafayette, Lodi, Los Osos, Marina, McKinleyville, Modesto, Monterey, Moss Landing, Nipomo, Oxnard, Paso Robles, Placerville, Pomona, Prunedale, Rancho Mirage, Roy, Sacramento, Salinas, San Francisco, San Jose, Santa Barbara, Santa Cruz, Santa Maria, Scotts Valley, Seaside, Sebastopol, Soquel, Tiburon, Trinidad, Watsonville, Yachats

Table 7c. Permit owner's city place of boat registration versus landed city in CA cont.

LANDED CITY/PORT	TOTAL # OF CITIES	INCLUDES PORT OF LANDING	PLACE OF BOAT REGISTRATION
Bodega Bay	125	Yes	Alameda, Albion, Arroyo Grande, Astoria, Auburn, Bakersfield, Bandon, Bayside, Berkeley, Berry Creek, Bodega Bay, Bolinas, Brookings, Carmichael, Cathlamet, Cazadero, Charleston, Citrus Heights, Clear Lake, Concord, Corning, Crescent City, Davis, Dillon Beach, Douglas City, Dublin, El Cerrito, Elverta, Eureka, Fair Oaks, Fairfield, Fairhaven, Federal Way, Forestville, Fort Bragg, Fortuna, Fremont, Fiant, Geyserville, Grass Valley, Grayland, Greenbrae, Greenwood, Grover Beach, Gualala, Guerneville, Half Moon Bay, Healdsburg, Hercules, Jenner, Kuna, La Selva Beach, Lafayette, Lodi, Los Molinos, Los Osos, McKinleyville, Mendocino, Millbrae, Modesto, Montara, Monterey, Morro Bay, Moss Landing, Mount Shasta, Napa, Nipomo, Novato, Oakhurst, Oakland, Orangevale, Oroville, Oxnard, Pacific Grove, Pacifica, Paso Robles, Penngrove, Petaluma, Philo, Pittsburgh, Placerville, Pleasant Grove, Pleasant Hill, Point Arena, Point Reyes, Prunedale, Rackerby, Redcrest, Redding, Redway, Redwood City, Reno, Rescue, Richmond, Rocklin, Rodeo, Roy, Sacramento, Salinas, San Diego, San Francisco, San Jose, San Leandro, San Luis Obispo, San Rafael, Santa Barbara, Santa Cruz, Santa Rosa, Sausalito, Sebastopol, Shingle Springs, Sonoma, Soquel, Stockton, Sunnyvale, Tiburon, Ukiah, Verde, Wallace, Walnut Creek, Watsonville, Westport, Wilton, Woodland, Yountville
Port Hueneme	31	Yes	Anacortes, Bellingham, Camarillo, Del Rey Oaks, Edmonds, Ferndale, Gig Harbor, Ketchikan, Kirkland, Malibu, Maple Falls, Monterey, Mount Vernon, Ojai, Olympia, Oxnard, Port Hueneme, Portland, Rancho Palos Verdes, Reno, Salinas, San Diego, San Pedro, Santa Barbara, Seattle, Siletz, Stanwood, Ventura, Wauconda, Wilmington, Woodway
Oxnard	42	Yes	Atascadero, Bradley, Buena Park, Camarillo, Carpinteria, Channel Islands, Clearwater, Covina, Edmonds, El Cajon, Goleta, Huntington Beach, La Mirada, Lake Forest, Lake Havasu City, Los Osos, Malibu, Monrovia, Morro Bay, Newberry Park, Newhall, Newport, Oakview, Oceano, Ojai, Oxnard, Pacific Grove, Pebble Beach, Pine Mountain, Port Hueneme, Redondo Beach, San Clemente, San Jose, San Luis Obispo, San Pedro, Santa Barbara, Santa Ynez, Simi Valley, Tarzana, Thousand Oaks, Ventura, Wauconda, Wilmington
Ventura	45	Yes	Calabasas, Camarillo, Carpinteria, Castroville, Coos Bay, Everett, Garden Grove, Gig Harbor, Goleta, Grover Beach, Honolulu, Ketchikan, Kingston, Kirkland, La Mirada, Long Beach, Maple Falls, Marina, Monterey, Montesano, Morro Bay, Mount Vernon, Newbury Park, Hewhall, Oakview, Ojai, Oxnard, Pebble Beach, Rancho Palos Verdes, Redwood City, San Clemente, San Diego, San Jose, San Pedro, Santa Barbara, Santa Paula, Seaside, Simi Valley, Sitka, Stanwood, Summerland, Taft, Tarzana, Ventura, Wauconda, Westlake Village, Woodland Hills

Physical Description

Information in the tables below was obtained from interviewees. If an “x” occurs in a column or row, data was not collected for that item. The column heading definitions are as follows:

- SUPPLY = number of suppliers located in a port/harbor
- PROC = number of processors located in a port/harbor
- ORGS = number of fishing organizations located in a port/harbor
- EVENTS = number of fishing related events the commercial fishing industry provides for the community in a year
- % COMM = percent of commercial fishing boats/vessels in a port/harbor based on interview responses
- % REC = percent of recreational fishing boats/vessels in a port/harbor based on interview responses

Table 8a. Physical description of Washington.

PORT	# BERTHS	MIN SIZE ft	MAX SIZE ft	SUPPLY	PROC	ORGS	EVENTS	% COMM	% REC
Port of Port Angeles	x	x	x	x	x	0	1	0	100
Camas/ Washougal	350	20	60	x	0	1	0	1	99
Kalama	222	24	75	2	0	0	0	0	100
Westport	550	5	150	x	5	1	2	x	x
Deception Pass Marina	80	24	50	4	0	0	0	0	100
Brinnon	312	25	70	0	0	0	2	x	x
Quilcene Boat Haven	50	0	50	1	0	0	1	70	30
Seattle/ Fishermens Wharf	400	30	307	yes	5	1	4	100	0
Port of Port Orchard	347	28	52	0	0	0	0	0	100
Poulsbo/Liberty Bay Marina	300	35	100		0	0	0	2	98
Bremerton/Port of Brownsville	320	20	50	0	0	1	1	0	100
Centralia/ Chehalis	x	x	x	x	x	x	x	0	100
Shelton Yacht Club	65	22	100	2	2	yes	0	1	99
Chinook	380	16	88	5+	packing house	1	0	25	75
Narrows Tackle and Marina Store	400	x	x	1	x	4	3	1	99
Point Defiance	315	x	x	x	x	x	x	x	x
Day Island	250	x	x	x	x	x	x	x	x
Friday Harbor	464	16	300	x	x	2	0	1	99
Port of Anacortes	150	25	120	yes	2	3	0	20	80
Skamania/Beacon Rock St. Park	25	0	120	0	0	0	0	0	100
Port of Everett	2050	20	70	3	a few buyers	1	0	10	90
Olympia/Fiddlehead Marina	78	25	40	x	x	x	x	0	100
Cathlamet	120	10	50	1	0	3	0	0	100
Bellingham	1000	0	100	2	1	2	0	x	x
Squilacum Harbor/ Bellingham	618	26	100	x	2	2	0	25	75

Table 8b. Physical description of Washington cont.

Note: Information reported in tables 8b, 8d and 8f are based on two GIS parameters: 35-mile buffer zone and a population greater than 20,000.

COUNTY	<u>NO. ISOLATED CITIES</u>	<u>NO. COMMERCIAL FISHING PORTS</u>	<u>NO. RECREATIONAL FISHING PORTS</u>
Clallam	1		2
Clark			2
Cowlitz			1
Grays Harbor	8		1
Island			1
Jefferson	1		1
King		1	1
Kitsap			3
Lewis			2
Mason			1
Pacific	3		1
Pierce			1
San Juan			1
Skagit		1	1
Skamania			1
Snohomish			1
Thurston			1
Wahkiakum			1
Whatcom		2	2

Figure 10. Reported community fishing organizations and events in Washington.

Note for Figures 10, 11 and 12: The boats represent the number of fishing organizations in each city, while the fish represent the number of fishing events in each city. These data were obtained through personal interviews.

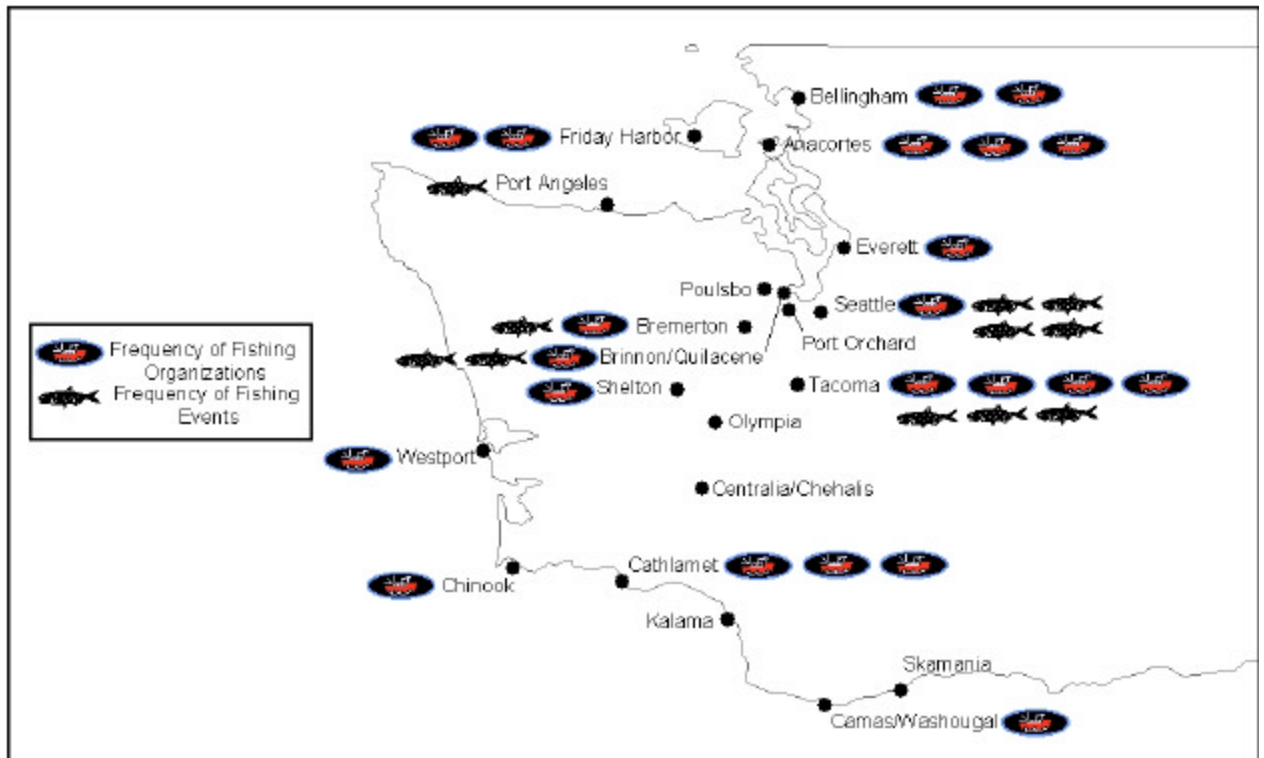


Table 8c. Physical description of Oregon.

PORT	# BERTHS	MIN SIZE ft	MAX SIZE ft	SUPPLY	PROC	ORGS	EVENTS	% COMM	% REC
Port of Astoria	335	0	70	8	5+	7	2	x	x
	85	0	70						
	12	0	130						
St. Helens Marina	220	16	60	1	0	0	2	0	100
Port of Bandon Charleston Marina	100	16	70	2	1	0	1	x	x
Port of Brookings	560	12	120	5+	1	3	5+	50	50
Winchester Bay	750	24	100	5+	0	5	x	1	99
Hood River	800	18	85	1	0	0	1	20	80
Florence Marina	x	x	x	x	x	x	x	x	x
Depoe Bay, Dockside Charters	122	20	75	x	1 buyer	1	1	50	50
Waldport Marina	137	0	57	x	1 can-nery	0	0	5	95
Newport	20	12	24	yes	0	0	0	0	100
Portland	250 comm vessels	x	x	yes	2	1	x	99	1
Pacific City/Pacific Boat Launch	10	x	x	x	x	3	yes	x	x
Garibaldi Marina	1 boat launch	N/A	N/A	1	0	1	1	5	95
	300	16	100	5	2	0	1	20	80

Table 8d. Physical description of Oregon cont.

COUNTY	NO. ISOLATED CITIES	NO. COMMERCIAL FISHING PORTS	NO. RECREATIONAL FISHING PORTS
Clatsop		2	2
Columbia			1
Coos	1	2	2
Curry		1	1
Douglas			1
Hood River			1
Lane		1	1
Lincoln		1	1
Multnomah			1
Tillamook	1	1	1

Figure 11. Reported community fishing organizations and events in Oregon.

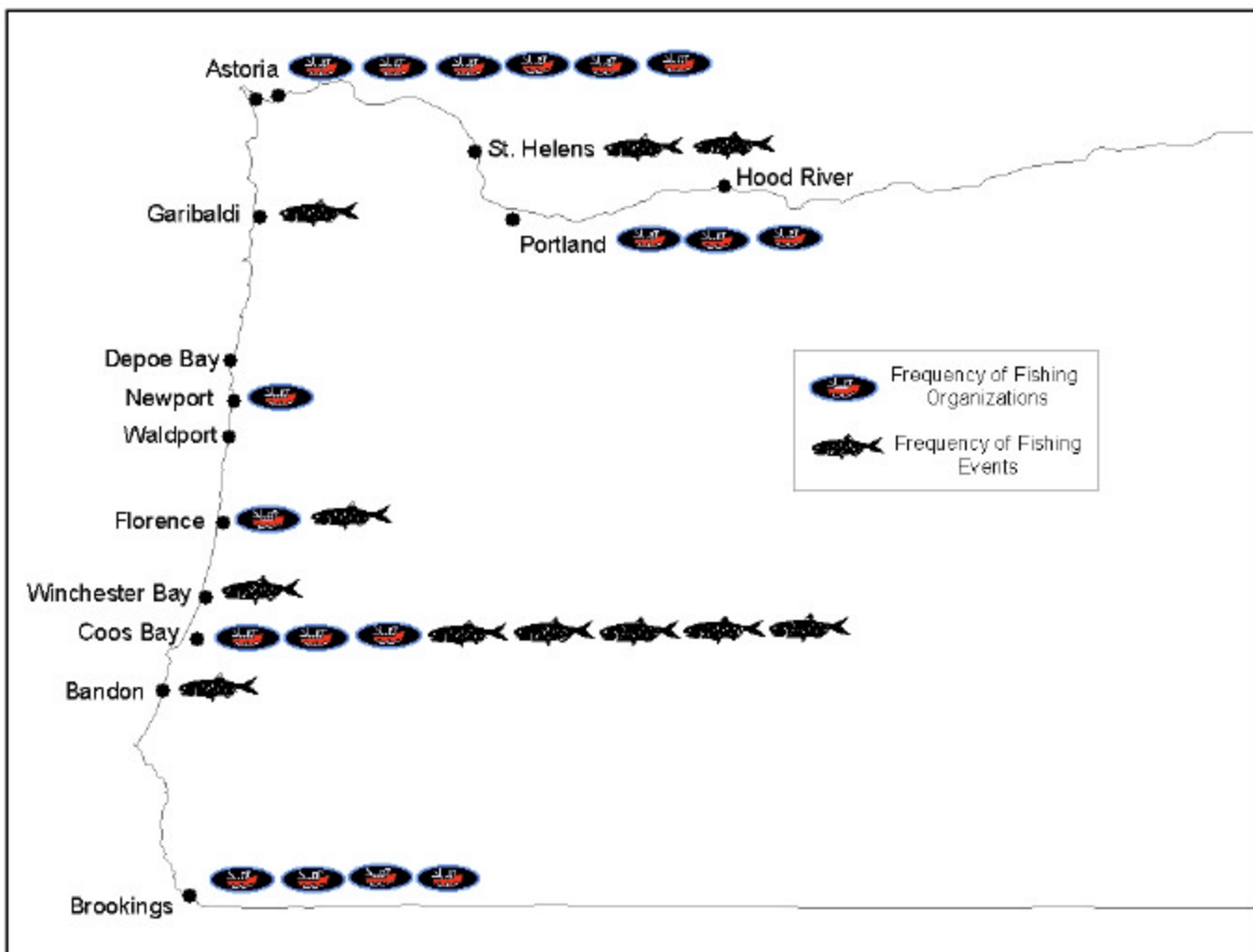


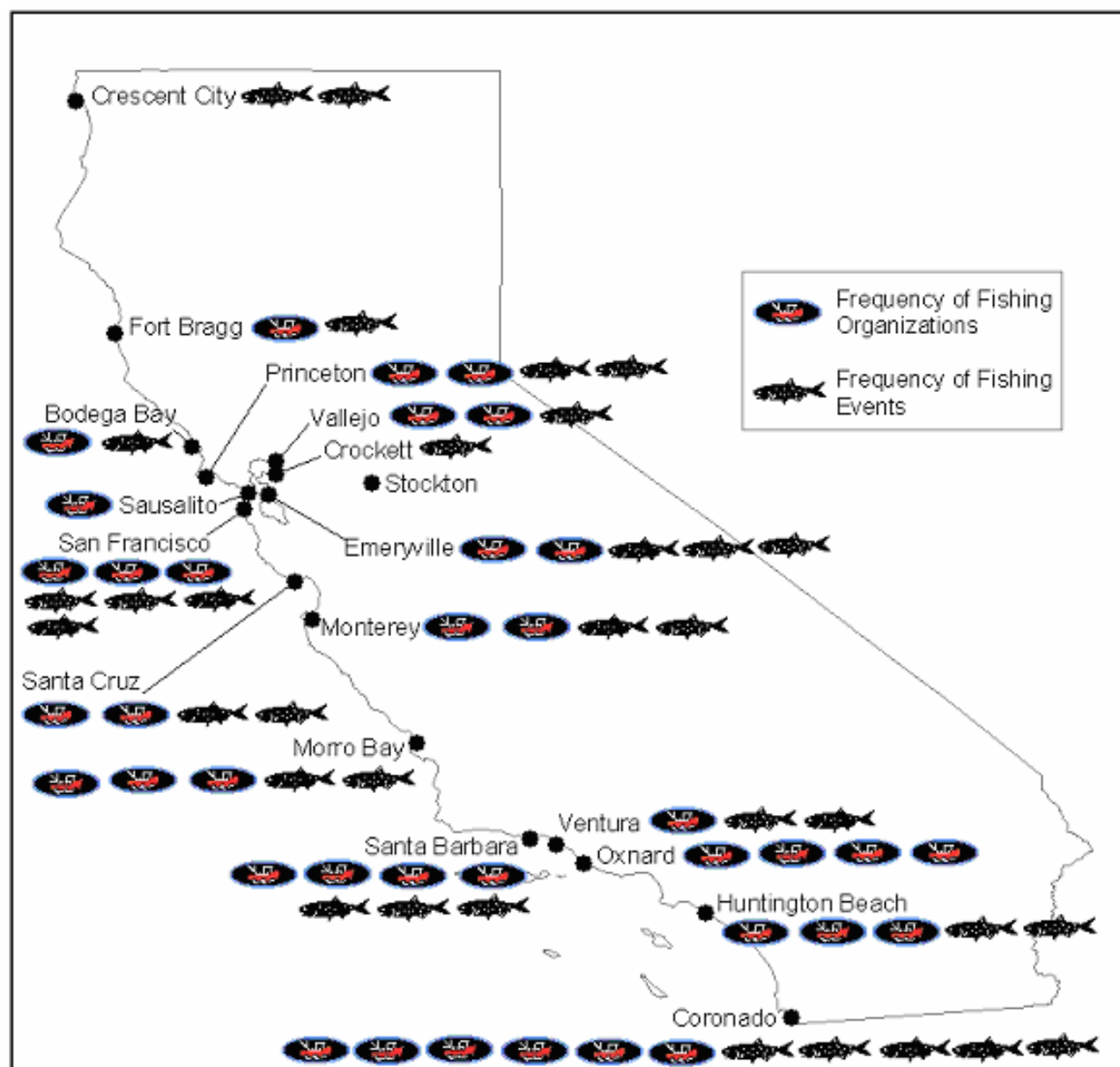
Table 8e. Physical description of California.

PORT	# BERTHS	MIN SIZE ft	MAX SIZE ft	SUPPLY	PROC	ORGS	EVENTS	% COMM	% REC
Emeryville/Sports Fishing	N/A	N/A	N/A	1	0	2	3	x	x
Crockett/Sports Fishing	750	26	100	2	0	0	1	1	99
Crescent Bar	x	18	80	x	x	x	2	x	x
Sausalito/Clipper Yacht Harbor	750	20	50	5	0	1	0	0	100
Fort Bragg	265	16	73	6	1	1	1	40	60
Monterey	650	x	x	yes	5+	2	2	10	90
Huntington Beach/Dana Wharf Sport Fishing	3000	32	95	3	0	3	2	1	99
Coronado/Boat Rental	x	x	x	3	0	yes	3	x	x
H & M Landing	30	0	100	yes	0	5+	2	x	x
Fishermen's Wharf	170	25	80	yes	5+	3	4	100	0
Stockton/Paradise Point Marina	x	x	x	x	x	x	x	0	100
Morro Bay	550	0	100	5+	1	3	2	50	50
Princeton	396	22	65	5+	0	2	2	75	25
Santa Barbara	1,133	20	60	x	x	4	3	x	x
Santa Cruz Municipal Wharf	1200	24	70	x	0	2	2	75	30
Vallejo	209	24	50	x	x	2	1	0	100
Bodega Bay	120	30	50	yes	0	1	1	35	65
Oxnard Channel Island Marina	500	25	90	x	yes	4	0	1	99
Ventura Harbor Village	x	x	x	x	0	1	2	60	40

Table 8f. Physical description of California cont.

COUNTY	<u>NO. ISOLATED</u> <u>CITIES</u>	<u>NO. COMMERCIAL</u> <u>FISHING PORTS</u>	<u>NO. RECREATIONAL</u> <u>FISHING PORTS</u>
Alameda			1
Contra Costa			1
Del Norte			1
Humbolt			1
Los Angeles			
Marin			1
Mendocino		1	1
Monterey		1	1
Orange			2
San Diego			1
San Francisco		1	1
San Joaquin			1
San Luis Obispo		1	1
San Mateo		1	1
Santa Barbara		1	1
Santa Cruz		1	1
Solano			1
Sonoma		1	1
Ventura		1	1

Figure 12. Reported community fishing organizations and events in California.



Miscellaneous Maps and Tables

Figure 13. Frequency of processors in Washington (Urner Barry, 2002-2003 and Pacific Fishing, 2003).

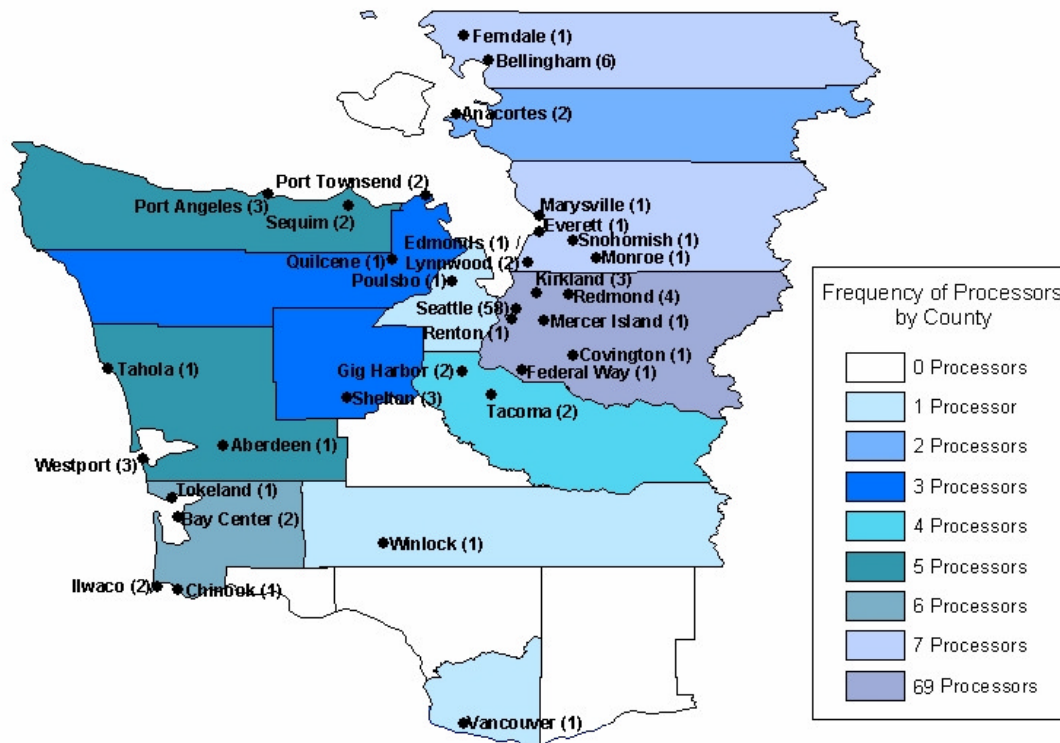


Table 9a. Processor and product information by county in Washington (Uerner Barry, 2002-2003 and Pacific Fishing, 2003).

COUNTY/SALES	# PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
Clallam/ <i>4 to 11 million</i>	5	Clams, Tuna, Salmon, Dungeness Crab, Halibut, Black Cod, Scallops, Oysters	Local, Intrastate, Interstate, Multi-State, International	Pacific Northwest, Alaska	Fresh, Frozen, Fillets, Whole, I.Q.F., Canned, Aquaculture, Salted/Smoked
Clark/ <i>2 to 5 million</i>	1	Halibut, Salmon, Snapper, Black Cod, Crawfish, Scallops	Local, Interstate	Unknown	Frozen, I.Q.F., Tray/Vacuum Packed, Fillets,
Grays Harbor/ <i>21 to 47 million</i>	5	Oysters, Salmon, Dungeness Crab, Scallops, Tuna, Whiting, Fresh Water, Catfish, Pollock	Local, Interstate, Multi-State	Pacific Northwest, Alaska, West Coast	Fresh, Frozen, Canned, Whole, Cooked, Fillets, Salted/Smoked, I.Q.F., Breaded & Prepared, Live, Tray, Packed, Portion Controlled, Meat (Shelled), Vacuum Packed
Jefferson/ <i>2 to 5 million</i>	3	Black Cod, Tuna, Clams, Turbot, Dungeness Crab, Fresh Water Catfish, Fresh Water Trout, Cod, Halibut, King Crab, Lobster (American), Mahi Mahi, Mussels, Ocean Perch, Octopus, Oysters, Salmon, Scallops, Sea Bass, Shark, Shrimp, Snapper, Squid, Surimi Based, Swordfish	Local, Multi-state, International	Hawaii, Pacific Northwest	Fresh
King/ <i>1,925 to 5,253 million</i>	69	Abalone, Cod, Snapper, Black Cod, Hake, Dogfish, Whiting, Dungeness Crab, Flounder/Sole, Herring, Halibut, King Crab, Tuna, Lobster Tail, Mackerel, Snow Crab, Shrimp, Octopus, Pollock, Squid, Rockfish, Sea Bass, Salmon, Turbot, Sardines, Scallops, Razor Clams	Local, Intrastate, Interstate, Multi-State, International	West Coast, Alaska, Peru, Argentina, Chile, Russia, Norway, Peru	Fresh, Frozen, Blocks, Cello Packs, Fillets, Whole, I.Q.F., Fish Meal/Oil, Roe, Further Processed, Aquaculture, Meat (Shelled)

Table 9a. Processor and product information by county in Washington (Urner Barry, 2002-2003 and Pacific Fishing, 2003) cont.

COUNTY/SALES	# PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
Kitsap/ 5 to 10 million	1	Black Cod, Mahi Mahi, Clams, Dungeness Crab, Flounder/ Sole, Halibut, Herring, King Crab, Lobster Tail, Mussels	Multi-State, International	Pacific Northwest, Chile, West Coast, Hawaii, Canada, Pacific Coast, Bahamas, Brazil, Honduras, Hong Kong, Argentina, Iceland, India, Norway, Japan, Indonesia, Philippines, Republic of Korea, Taiwan, New Zealand, Thailand, Australia, Pacific Islands	Frozen, Cooked, Salted/Smoked, Fillets, Whole, I.Q.F, Further Processed, Meat (Shelled), Breaded & Prepared, Portion Controlled, Tray Packed, Vacuum Packed
Lewis/ 1 to 2 million	1	Salmon	Local, International	Unknown	Fresh, Live, Aquaculture
Mason/ .5 to 1 million	3	Clams, Oysters	Local, Intrastate, Interstate, Multi-State	Pacific Northwest	Fresh, Frozen, Breaded & Prepared, Whole, Portion Controlled
Pacific/ 24 to 55 million	6	Oysters, Clams, Black Cod, Dungeness Crab, Fresh Water Trout, Cod, Dogfish, Hake, Squid, Whiting, Founder/Sole, Halibut, Shark, Perch, Tuna, Mackerel, Octopus, Salmon, Scallops, Sea Bass, Shrimp, Snapper, Turbot, Swordfish, Razor Clams, Sturgeon	Local, Intrastate, Interstate, Multi-State, International	Pacific Northwest	Fresh, Frozen, Canned, Live, Cooked, Whole, Salted/Smoked, Aquaculture, Pasteurized, Tray Packed, Vacuum Packed
Pierce/ 4 to 10 million	4	Black Cod, Clams, Cod, Dogfish, Dungeness Crab, Halibut, Herring, King Crab, Salmon, Shrimp, Snow Crab, Squid, Mussels, Oysters	Local, Intrastate, Interstate, Multi-State, International	West Coast, Alaska, Canada, Pacific Coast	Fresh, Frozen, Salted/Smoked, Blocks, Live, Canned, Whole, Tray/Vacuum Packed, Roe, I.Q.F., Whole, Fillets, Meat (Shelled), Aquaculture,
Skagit/ 5 to 10 million	2	Hake, Pollock, Oysters, Salmon	Interstate, Multi-State, International	Pacific Northwest, Alaska	Blocks, Roe, Salted/ Smoked, Fillets, Further Processed, Tray/ Vacuum Packed

Table 9a. Processor and product information by county in Washington (Urner Barry, 2002-2003 and Pacific Fishing 2003 cont).

COUNTY/SALES	# PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
Snohomish/ 25 to 60 million	7	Black Cod, Cod, King Crab, Snow Oysters, Salmon, King Crab, Sea Bass, Dungeness Crab, Pollock, Flounder/Sole, Halibut, Crab, Herring, Ocean Perch, Pollock	Multi-State, International	Pacific Northwest, West Coast, Alaska, Russia	Frozen, Canned, I.Q.F., Salted/ Smoked, Blocks, Fillets, Whole, Further Processed, Meat (Shelled) Aquaculture
Whatcom/ 62 to 130 million	7	Black Cod, Cod, Dungeness Crab, Halibut, King Crab, Pollock, Salmon, Surimi Based, Snapper, Snow Crab, Flounder/Sole	Local, Intrastate, Interstate, Multi-State, International	Pacific Northwest, Alaska, Canada, Pacific Coast, West Coast	Fresh, Frozen, Whole, I.Q.F, Tray/Vacuum Packed, Live, Roe, Canned, Fillets, Cooked, Portion Controlled, Salted/Smoked

Figure 14. Frequency of processors in Oregon (Urner Barry, 2002-2003 and Pacific Fishing, 2003).

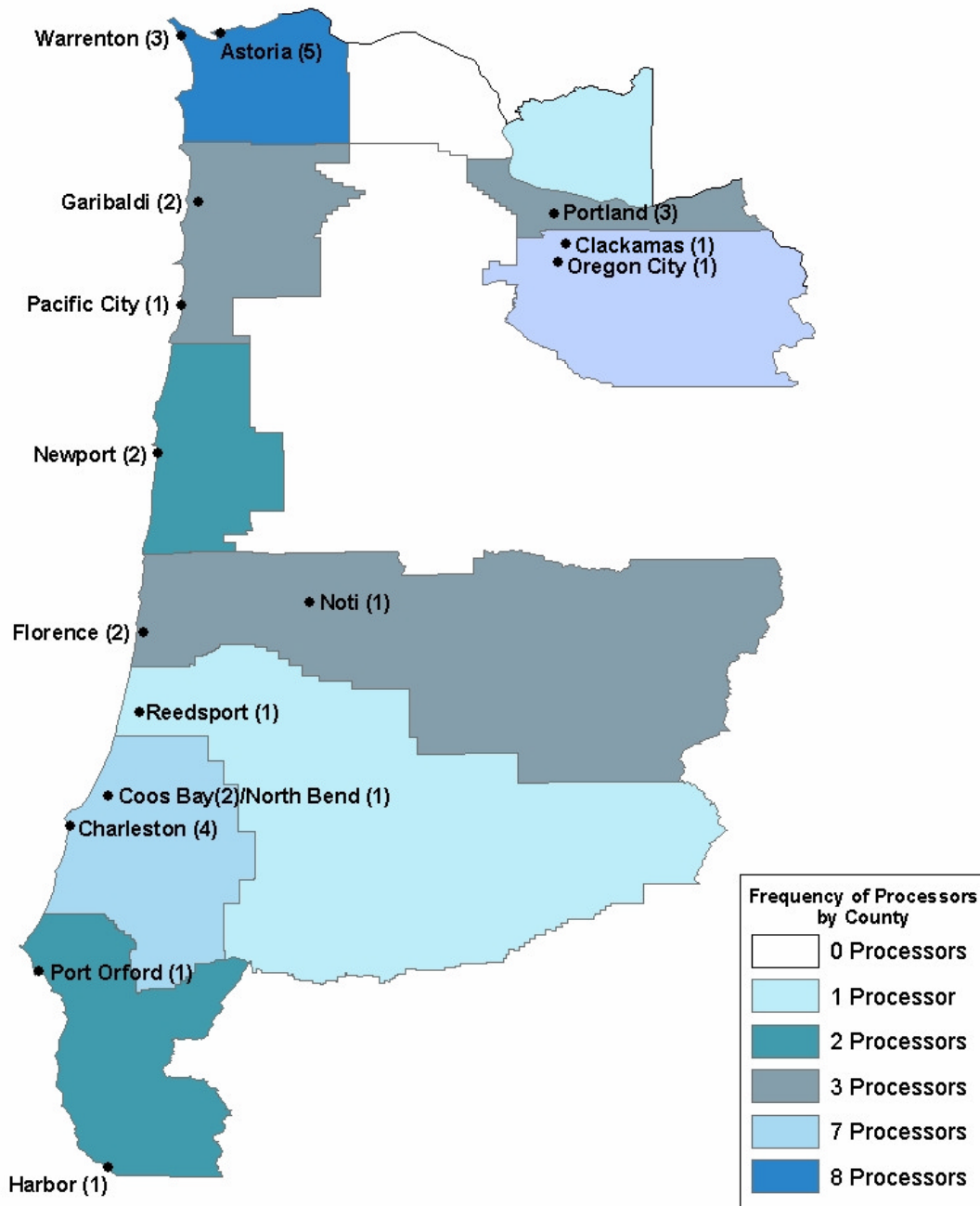


Table 9b. Processor and product information by county in Oregon (Urner Barry, 2002-2003 and Pacific Fishing, 2003).

COUNTY/SALES # PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM	
Clackamas/ <i>1 to 2 million</i>	2	Black Cod, Clams, Cod, Crawfish, Dungeness Crab, Eel, Flounder/Sole, Fresh Water Catfish, Fresh Water Trout, Hake, Halibut, King Crab, Lobster Tail (cold and warm water), Mahi Mahi, Mussels, Ocean Perch, Octopus, Oysters, Pollock, Salmon, Sea Bass, Shark, Scallops, Shrimp, Snapper, Snow Crab, Squid, Swordfish, Tuna, Turbot, Whiting	Local, Intrastate, Interstate, Multi-State, International	New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, Pacific Northwest, West Coast, Alaska, Hawaii, Canada, Pacific Coast, Costa Rica, Brazil, Chile, Ecuador, Venezuela, China	Fresh, Frozen, Canned, Cooked, Salted/Smoked, Blocks, Cello Packs, Fillets, Whole, I.Q.F., Live, Aquaculture, Pasteurized, Roe, Meat (shelled), Breaded & Prepared, Portion Controlled, Tray/Vacuum Packed
Clatsop/ <i>12.7 to 32 million</i>	8	Salmon, Whiting, Black Cod, Surimi Based, Dungeness Crab, Hake, Flounder/Sole, Halibut, Cod, Mackerel, Scallops, Ocean Perch, Shark, Shrimp, Snapper, Tuna, Turbot, Oysters	Local, Interstate, Intrastate, Multi-State, International	Pacific Northwest, West Coast, Alaska, Canada, Japan, Thailand	Fresh, Frozen, Canned, Salted/Smoked, Fillets, Whole, Roe, I.Q.F., Tray Packed, Vacuum Packed
Columbia/ <i>0 million</i>	0				
Coos/ <i>20.7 to 52 million</i>	7	Black Cod, Squid , Dungeness Crab, Salmon, Tuna, Cod, Flounder/Sole, Hake, Halibut, Ocean Perch, Oysters, Shrimp, Snapper, Mackerel	Local, Intrastate, Interstate, Multi-State, International	West Coast, Pacific Northwest, Canada, Pacific Coast	Fresh, Frozen, Live, Canned, Cooked, Blocks, Fillets, Whole, I.Q.F., Meat (Shelled), Salted/Smoked, Vacuum Packed
Curry/ <i>100,000 to 500,000</i>	2	Dungeness Crab, Tuna Shrimp, Halibut, Snapper, Flounder/Sole, Salmon, Scallops	Local, Intrastate, Interstate, International	Pacific Northwest West Coast, Japan	Fresh, Frozen, Canned, Cooked, Salted/Smoked, Fillets, Whole, I.Q.F., Vacuum Packed
Douglas/ <i>100,000 to 500,000</i>	1	Dungeness Crab, Mussels, Oysters	Local, Intrastate, Interstate, Multi-State, International	Pacific Northwest	Fresh, Further Processed, Live, Aquaculture, Meat (Shelled)

Table 9b. Processor and product information by county in Oregon (Urner Barry, 2002-2003 and Pacific Fishing, 2003) cont.

COUNTY/SLAES	# PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
Hood River/0 million	0				
Lane/10 to 25 million	3	Black Cod, Snapper, Sole, Dungeness Crab, Salmon, Swordfish, Tuna, Clams, Water Catfish, Flounder/Hake, Halibut, Mackerel, Mahi Mahi, Mussels, Oysters, Scallops, Shark, Shrimp	Local, Intrastate Interstate Multi-State International	Pacific Northwest, West Coast, Canada, Asia	Fresh, Frozen, Canned, Cooked, Blocks, Whole, I.Q.F., Live, Meat (Shelled), Fillets, Further Processed
Lincoln/10 to 25 million	2	Black Cod, Dungeness Crab, Salmon, Tuna, Shrimp	Intrastate, Multi-State, International	West Coast	Fresh, Frozen, Live, Canned, Cooked, Blocks, Whole, I.Q.F., Meat (Shelled)
Multnomah/26 to 52 million	3	Black Cod, Clams, Cod, Crawfish, Dungeness Crab, Flounder/Sole, Fresh Water Catfish, Grouper, Halibut, King Crab, Herring, Lobster, Mackerel, Mahi Mahi, Monkfish, Mussels, Ocean Perch, Octopus, Orange Roughy, Oysters, Pollock, Salmon, Scallops, Sea Bass, Shark, Shrimp, Snapper, Snow Crab, Squid, Surimi Based, Swordfish, Tuna, Turbot, Whiting	Local, Intrastate, Interstate, Multi-State	New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, Pacific Northwest, West Coast, Alaska, Hawaii, Canada, Atlantic Coast, Pacific Coast, Bahamas, Norway, Honduras, Mexico, Chile, Ecuador, Peru, Iceland, Bangladesh, Burma, China, Hong Kong, India, Indonesia, Israel, Japan, Philippines, Republic of Korea, Singapore, Taiwan, Thailand, Australia, New Zealand, Pacific Islands	Fresh, Frozen, Canned, Cooked, I.Q. F., Salted/Smoked, Blocks, Cello Packs, Fillets, Whole, Further Processed, Live, Aquaculture, Meat (Shelled), Roe, Pasteurized, Breaded & Prepared, Portion Controlled, Tray/Vacuum Packed
Tillamook/1 to 2 million	3	Shrimp, Tuna	Local, Interstate, International	North America	Fresh, Frozen, Canned, Salted/Smoked, I.Q.F., Meat (Shelled), Vacuum Packed

Figure 15. Frequency of processors in California (Urner Barry, 2002-2003 and Pacific Fishing, 2003).

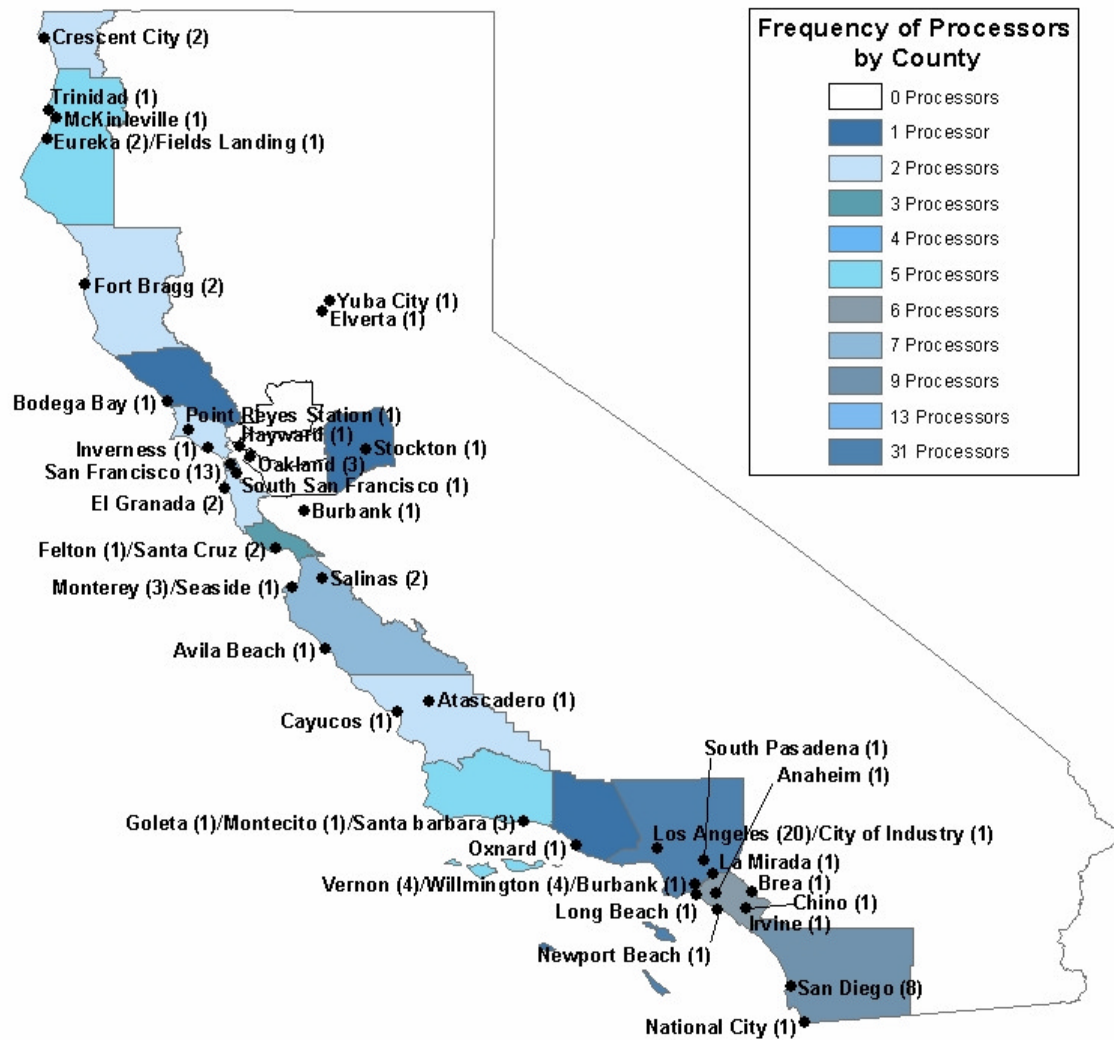


Table 9c. Processor and product information by county in California (Urner Barry, 2002-2003 and Pacific Fishing, 2003).

COUNTY/SALES	#PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
Alameda/0 million	0				
Contra Costa/0 million	0				
Del Norte/10 to 25 million	2	Black Cod, Whiting, Tuna, Shrimp, Salmon, Dungeness Crab, Snapper	Intrastate, Multi-State, International	West Coast	Fresh, Frozen, Blocks, Meat (Shelled), I.Q.F., Canned, Cooked, Live, Whole, Fillets
Humboldt/50 to 125 million	5	Blue Crab, Tuna, Black Cod, Flounder/ Sole, Dungeness Crab, Salmon, Hake, Ocean Perch, Herring, Octopus, Shark, Shrimp, Squid, Snapper, Turbot, Whiting	Intrastate, Multi-State, International	West Coast	Fresh, Frozen, Meat, (Shelled), Canned, Cooked, Whole, I.Q.F., Live, Blocks, Breaded & Prepared, Portion Controlled, Tray Packed, Salted/ Smoked, Vacuum Packed
Los Angeles/528.5 to 1085 million	31	Cod, Flounder/Sole, Hake, Grouper, Haddock, Halibut, King Crab, Mackerel, Mahi Mahi, Ocean Perch, Orange Roughy, Sea Bass, Pollock, Salmon, Shark, Snapper, Tuna, Swordfish, Turbot, Whiting, Black Cod, Snow Crab, Dungeness Crab, Lobster, Octopus, Scallops, Shrimp, Squid, Surimi Based, Mussels	Local, Intrastate, Interstate, Multi-State, International	South Atlantic, South Africa, China, Pacific Northwest, Chile, New Zealand, India, Alaska, Canada, Hong Kong, Taiwan, West Coast, Pacific Coast, Russia, Japan, Argentina, Singapore, Panama, Indonesia, Malaysia, Bahamas, Bangladesh, Thailand, Ecuador, Philippines	Frozen, Blocks, Cello Pack, Fillets, Whole, I.Q.F., Tray /Vacuum Packed, Fresh, Salted/ Smoked, Meat (Shelled), Further Processed, Portion Controlled
Marin/Under 100,000	2	Oysters, Clams, Mussels	Local, Intrastate, Interstate, Multi-State	West Coast, Pacific Northwest	Fresh, Meat (Shelled)
Mendocino/7 to 15 million	2	Cod, Dungeness Crab, Sole, Black Cod, Eel, Flounder/ Ocean Perch, Salmon, Tuna, Snapper, Shrimp, Lobster, Mussels, Octopus, Swordfish	Local, Intrastate, Interstate, Multi-State, International	Pacific Coast, Chile, Pacific Northwest, Canada, Peru, Norway, West Coast, Taiwan	Fresh, Frozen, I.Q.F., Canned, Cooked, Blocks, Cello Packs, Fillets, Whole, Tray Packed, Vacuum Packed, Live, Roe

Table 9c. Processor and product information by county in California (Urner Barry, 2002-2003 and Pacific Fishing, 2003) cont.

COUNTY/SALES	# PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
Monterey/ 50.6 to 101.5 million	7	Halibut, Herring, Salmon, Octopus, Mackerel, Surimi Based, Black Cod, Cod, Tuna, Hake, Pollock, Dungeness Crab, Flounder/ Sole, Shark, Shrimp, Swordfish, Whiting, Clam, Dungeness Crab, Ocean Perch, Squid, Turbot	Local, Intrastate, Interstate, Multi-State, International	Mexico, Italy, Spain, France, Greece, New Zealand, West Coast, China, Japan, Portugal, Colombia, Hong Kong, India, United Kingdom, Malaysia, Atlantic Coast, Alaska, Panama, Venezuela, Morocco, South Africa, Denmark, Germany, Israel, Netherlands, Taiwan, Australia, Philippines	Fresh, Frozen, Fillets, Blocks, Whole, Roe, I.Q.F., Cooked, Live, Further Processed, Meat (Shelled), Tray Packed, Vacuum Packed, Canned, Fish Meal/Oil,
Orange/2.5 to 6 million	6	Black Cod, Flounder/ Sole, Cod, Dungeness Crab, Fresh Water Catfish and Trout, Grouper, Haddock, Ocean Perch, Hake, Herring, King Crab, Lobster, Tuna, Squid, Mackerel, Turbot, Mahi Mahi, Whiting, Monkfish, Mussels, Octopus, Oysters, Pollock, Salmon, Scallops, Sea Bass, Sea Trout, Shark, Shrimp, Snow Crab, Snapper, Surimi Based, Swordfish	Local, Multi-State, International	India, Thailand, Indonesia, Malaysia, Philippines	Fresh, Frozen, Live, Cooked, Salted/ Smoked, Blocks, Cello Pack, Fillets, Whole, Further Processed, Breaded & Prepared, Meat (Shelled), Portion Controlled, Tray Packed, Aquaculture, Roe, I.Q.F., Vacuum Packed
San Diego/ 239.1 to 595.5 million	9	Blue Crab, Clams, Mussels, Dungeness Crab, Flounder/ Sole, Fresh Water Trout, Salmon, Grouper, Halibut, Lobster, Mahi Mahi, Orange Roughy, Monkfish, Oysters, Scallops, Sea Bass, Shark, Shrimp, Squid, Snapper, Snow Crab, Surimi Based, Tuna, Turbot, Hake, Eel, Whiting, Ocean Perch,	Local, Intrastate, Interstate, Multi-State, International	New England, Mid-Atlantic, China, Gulf of Mexico, South Atlantic, Japan, New Zealand, Pacific Northwest, West Coast, Alaska, Hong Kong, Hawaii, Italy, Canada, Costa Rica, Pacific Coast, Brazil, Honduras,	Fresh, Frozen, Cello Pack, Fillets, Whole, Further Processed, Live, Aquaculture, Roe, Meat (Shelled), Breaded & Prepared, Portion Controlled, Tray Packed, Vacuum Packed, Blocks, Canned, Cooked, I.Q.F., Further Processed,

Table 9c. Processor and product information by county in California (Urner Barry, 2002-2003 and Pacific Fishing, 2003) cont.

COUNTY/SALES	# PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
San Diego/ cont.		King Crab, Pollock, Bluefish, Conch/Snails, Fresh Water Catfish, Haddock, Mackerel, Swordfish, Octopus		Mexico, Panama, Argentina, Ecuador, Guyana, Seychelles, Denmark, Iceland, Norway, Portugal, Bangladesh, Indonesia, Republic of Korea, Philippines, China, Singapore, Taiwan, Thailand, Pacific Islands, Atlantic Coast, Russia, Chile	
San Francisco/ 133 to 275 million	13	Clams, Cod, Oysters, Squid, Dungeness Crab, Mussels, Swordfish, Salmon, Black Cod, Scallops, Shrimp, Tuna, Flounder/Sole, Hake, Halibut, Octopus, Pollock, Shark, Snapper, Turbot, Whiting, Mahi Mahi, Orange Roughy, Bluefish, Grouper, Blue Crab, Clams, Conch/Snails, Crawfish, Dogfish, Eel, Fresh Water Catfish and Trout, Grouper, Herring, Mackerel, Ocean Perch, Monkfish, Mussels, Sea Bass, Sea Trout, Snow Crab, Surimi Based	Local, Intrastate, Interstate, Multi-State, International	New England, Peru, Pacific Northwest, West Coast, Alaska, New Zealand, India, Hawaii, Peru, France, Costa Rica, Atlantic Coast, Chile, Faroe Islands, Colombia, Canada, Gulf of Mexico, Ecuador, Morocco, Denmark, Norway, Taiwan, Mid Atlantic, Japan, Canada, Honduras, Mexico, Panama, Argentina, Brazil, Hong Kong, Burma, Venezuela, Australia, Indonesia, Thailand	Fresh, Frozen, Cooked, I.Q.F., Live, Meat (Shelled), Canned, Salted/Smoked, Fillets, Whole, Tray Packed, Vacuum Packed, Blocks, Aquaculture, Further Processed, Breaded & Prepared, Portion Controlled
San Joaquin/ 10 to 25 million	1	Black Cod, Whiting, Hake, Halibut, Shrimp, Cod, Squid, Snapper	International	Pacific Northwest, West Coast	Further Processed, Aquaculture, Pasteurized
San Luis Obispo/6 to 12 million	2	Black Cod, Whiting, Clams, Dungeness Crab, Flounder/ Sole, Fresh Water Catfish & Trout, Grouper, Halibut, Cod, Herring, Lobster, Mahi Mahi, Mackerel, Shark, Shrimp, Tuna, Snapper, Snow Crab, Swordfish, Turbot, Squid	Local, Intrastate, Interstate, Multi-State, International	Norway, Gulf of Mexico, New Zealand, Chile, Alaska, Mexico, West Coast, Ecuador, Australia	Fresh, Frozen, Canned, Cooked, Fillets, Whole, I.Q.F. Meat (Shelled), Breaded & Prepared, Portion Controlled, Live, Aquaculture, Vacuum Packed

Table 9c. Processor and product information by county in California (Urner Barry, 2002-2003 and Pacific Fishing, 2003) cont.

COUNTY/SALES	# PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
San Mateo/ 2 to 5 million	2	Black Cod, Dungeness Crab, Flounder/Sole, Halibut, Salmon, Shrimp	Local, Intrastate, Multi-State, International	West Coast, Philippines, Taiwan	Fresh, Frozen, Cooked, Fillets, Whole, I.Q.F., Live, Salted/Smoked, Cello Pack
Santa Barbara/ 1 to 2 million	5	Black Cod, Blue Crab, Clams, Cod, Bluefish, Conch/Snails, Turbot, Crawfish, Dungeness Crab, Eel, Whiting, Fresh Water Catfish & Trout, Mahi Mahi, Flounder/Sole, Grouper, Haddock, Hake, King Crab, Halibut, Herring, Lobster, Sea Trout, Tuna, Shrimp, Scallops, Mackerel, Monkfish, Mussels, Ocean Perch, Octopus, Orange Snow Crab, Roughy, Oysters, Sea Bass, Pollock, Salmon, Shark, Snapper, Squid, Surimi Based, Swordfish	Local, Intrastate, International	West Coast, Mexico, Australia	Fresh, Frozen, Cooked, Salted/Smoked, I.Q.F., Blocks, Cello Pack, Fillets, Whole, Live, Roe, Meat (Shelled), Breaded & Prepared, Canned, Portion Controlled, Tray/Vacuum Packed
Santa Cruz/ 2 to 4 million	3	Salmon, Flounder/Sole, Tuna, Dungeness Crab, Grouper, Haddock, Sea Bass, King Crab, Mahi Mahi, Lobster, Ocean Perch, Orange Roughy, Snow Crab, Squid, Pollock, Salmon, Scallops, Swordfish, Halibut, Shark, Shrimp, Snapper, Cod	Local, Intrastate, Interstate, Multi-State, International	Canada, Gulf of Mexico, Pacific Coast, Philippines, Alaska, Japan, Ecuador, Indonesia, West Coast, Pacific Northwest, Hong Kong, Republic of Korea, Taiwan, Australia	Fresh, Frozen, Canned, Salted/Smoked, Further Processed, Tray & Vacuum Packed, Cello Pack, Blocks, Whole, I.Q.F., Meat (Shelled)
Solano/ 0 million	0				
Sonoma/ Unknown	1	Black Cod, Clams, Cod, Dungeness Crab, Flounder/Sole, Fresh Water Catfish & Trout, Grouper, Turbot, Hake, Shark, Halibut, Mahi Mahi, Monkfish, Mussels, Ocean Perch, Oysters, Pollock, Swordfish, Salmon, Sea Bass, Scallops, Shrimp, Snapper, Tuna, Whiting	Local, Multi-State	Unknown	Fresh, Frozen, Cooked, Salted/Smoked, Fillets, Whole, I.Q.F., Live, Roe, Meat (Shelled), Tray & Vacuum Packed

Table 9c. Processor and product information by county in California (Uerner Barry, 2002-2003 and Pacific Fishing, 2003) cont.

COUNTY/SALES	# PROCESSORS	PRODUCT	DISTRIBUTION	PRODUCT ORIGIN	PRODUCT FORM
Ventura/5 to 10 million	1	Mackerel, Squid	Local, Interstate, International	West Coast	Fresh, Frozen

Table 10a. Hierarchical listing of Species/Market Categories, Complexes, Management Groups (SP table)

SPECIES HIERARCHY MGRP [CPLX1,2] SPID	COMMON NAME	SCIENTIFIC NAME

CPEL	__COASTAL PELAGIC	N/A
CPEL PHRG	PACIFIC HERRING	CLUPEA HARENGUS PALLASI
CPEL RHRG	ROUND HERRING	ETRUMEUS TERES
CPEL WETF	__ALL WET FISH	N/A
CPEL WETF CMCK	CHUB MACKEREL	SCOMBER JAPONICUS
CPEL WETF JMCK	JACK MACKEREL	TRACHURUS SYMMETRICUS
CPEL WETF MSQD	MARKET SQUID	LOLIGO OPALESCENS
CPEL WETF NANC	NORTHERN ANCHOVY	ENGRAULIS MORDAX
CPEL WETF PBNT	PACIFIC BONITO	SARDA CHILIENSIS
CPEL WETF PSDN	PACIFIC SARDINE	SARDINOPS SAGAX
CPEL WETF UMCK	UNSP. MACKEREL	N/A
CRAB	__ALL CRAB	N/A
CRAB DCRB	DUNGENESS CRAB	CANCER MAGISTER
CRAB KCRB BKCR	BLUE KING CRAB	PARALITHODES PLATYPUS
CRAB KCRB GKCR	GOLDEN KING CRAB	LITHODES AEQUISPINA
CRAB KCRB KCRB	__ALL KING CRAB	N/A
CRAB KCRB RKCR	RED KING CRAB	PARALITHODES CAMTSCHATICA
CRAB KCRB SKCR	SCARLET KING CRAB	LITHODES COUESI
CRAB KCRB UKCR	UNSP. KING CRAB	N/A
CRAB OCRB	OTHER CRAB	N/A
CRAB RCRB	ROCK CRAB	CANCER PRODUCTUS
CRAB TCRB BTCT	BAIRDI TANNER CRAB	CHIONOECETES BAIRDI
CRAB TCRB OTCR	OPILIO TANNER CRAB	CHIONOECETES OPILIO
CRAB TCRB TCRB	__ALL TANNER CRAB	N/A
CRAB TCRB UTCR	UNSP. TANNER CRAB	N/A
CRAB UCRB	UNSPECIFIED CRAB	N/A
GRND	__ALL GROUND FISH	N/A
GRND FLAT APLC	ALASKA PLAICE	PLEURONECTUS QUADRITUBERCULATUS
GRND FLAT BSOL	BUTTER SOLE	ISOPSETTA ISOLEPIS
GRND FLAT CSOL	CURLFIN SOLE	PLEURONICHTHYS DECURRENS
GRND FLAT CTRB	C-O SOLE	PLEURONICHTHYS COENOSUS
GRND FLAT DEEP	__DEEP-91 FLOUNDERS	N/A
GRND FLAT DFLT	UNSP. DEEP FLOUNDERS	N/A
GRND FLAT DOVR	DOVER SOLE	MICROSTOMUS PACIFICUS
GRND FLAT DTRB	DIAMOND TURBOT	HYPSPSETTA GUTTULATA
GRND FLAT EGLS	ENGLISH SOLE	PAROPHRYS VETULUS
GRND FLAT FLAT	__ALL FLATFISH	N/A
GRND FLAT FSOL	FLATHEAD SOLE	HIPPOGLOSSOIDES ELASSODON
GRND FLAT GTRB	GREENLAND TURBOT	REINHARDTIUS HIPPOGLOSSOIDES
GRND FLAT HTRB	HORNHEAD TURBOT	PLEURONICHTHYS VERTICALIS
GRND FLAT OFLT	OTHER FLATFISH	N/A
GRND FLAT PTRL	PETRALE SOLE	EOPSETTA JORDANI
GRND FLAT REX	REX SOLE	GLYPTOCEPHALUS ZACHIRUS
GRND FLAT RFLT	REMAINING FLATFISH	N/A
GRND FLAT RSOL	ROCK SOLE	LEPIDOPSETTA BILINEATA
GRND FLAT SDAB	__SANDDABS	CITHARICHTHYS SPP.
GRND FLAT SDAB LDAB	LONGFIN SANDDAB	CITHARICHTHYS XANTHOSTIGMA
GRND FLAT SDAB LDB1	NOM. LONGFIN SANDDAB	CITHARICHTHYS SPP.
GRND FLAT SDAB PDAB	PACIFIC SANDDAB	CITHARICHTHYS SORDIDUS
GRND FLAT SDAB PDB1	NOM. PACIFIC SANDDAB	CITHARICHTHYS SPP.
GRND FLAT SDAB SDB1	NOM. SPECKLED SANDDAB	CITHARICHTHYS SPP.
GRND FLAT SDAB SSDB	SPECKLED SANDDAB	CITHARICHTHYS STIGMAEUS
GRND FLAT SDAB UDAB	UNSP. SANDDABS	CITHARICHTHYS SPP.
GRND FLAT SFLT	UNSP. SHALLOW FLOUNDERS	N/A
GRND FLAT SHAL	__SHALLOW-91 FLOUNDERS	N/A
GRND FLAT SSOL	SAND SOLE	PSETTICHTHYS MELANOSTICTUS
GRND FLAT STRY	STARRY FLOUNDER	PLATICHTHYS STELLATUS
GRND FLAT TRBT	__TURBOTS	N/A
GRND FLAT TRBT ARTH	ARROWTOOTH FLOUNDER	ATHERESTHES STOMIAS
GRND FLAT TRBT KMKA	KAMCHATKA FLOUNDER	ATHERESTHES EVERMANNI
GRND FLAT TRBT UTRB	UNSP. TURBOTS	N/A
GRND FLAT UDF1	UNSP. DEEP-91 FLOUNDERS	N/A
GRND FLAT UDF2	UNSP. DEEP-95 FLOUNDERS	N/A
GRND FLAT UFL1	FLOUNDERS (NO FSOL)	N/A

SPECIES HIERARCHY		COMMON NAME	SCIENTIFIC NAME
MGRP [CPLX1,2]	SPID		
GRND FLAT UFLT		UNSP. FLATFISH	N/A
GRND FLAT USF1		UNSP. SHALLOW-91 FLOUNDER	N/A
GRND FLAT YSOL		YELLOWFIN SOLE	LIMANDA ASPERA
GRND MGRN GRDR		UNSP. GRENADIERS	N/A
GRND MGRN MGRN		___MISC. GROUND FISH	N/A
GRND MGRN OGRN		OTHER GROUND FISH	N/A
GRND MGRN RATF		SPOTTED RATFISH	HYDROLAGUS COLLIEI
GRND MGRN RGRN		REMAINING GROUND FISH	N/A
GRND MGRN SHRK DSRK		SPINY DOGFISH	SQUALUS ACANTHIAS
GRND MGRN SHRK LSRK		LEOPARD SHARK	TRIAKIS SEMIFASCIATA
GRND MGRN SHRK SSRK		SOUPFIN SHARK	GALEORHINUS ZYOPTERUS
GRND MGRN SKAT BSKT		BIG SKATE	RAJA BINOCULATA
GRND MGRN SKAT CSKT		CALIFORNIA SKATE	RAJA INORNATA
GRND MGRN SKAT LSKT		LONGNOSE SKATE	RAJA RHINA
GRND MGRN SKAT USKT		UNSP. SKATE	UNSPECIFIED RAJIDAE
GRND MGRN UGRN		UNSP. GROUND FISH	N/A
GRND ROCK BLK1		NOM. BLACK ROCKFISH	N/A
GRND ROCK CNR1		NOM. CANARY ROCKFISH	N/A
GRND ROCK DBR1		NOM. DARKBLOTCHED ROCKFIS	N/A
GRND ROCK DRCK		___DEMERSAL-91 RKFSH	N/A
GRND ROCK NSHR		NORTHERN NEAR-SHORE ROCKF	N/A
GRND ROCK NSHR SSRD BLU1		NOM. BLUE ROCKFISH	N/A
GRND ROCK NSHR SSRD BRW1		NOM. BROWN ROCKFISH	N/A
GRND ROCK NSHR SSRD CHN1		NOM. CHINA ROCKFISH	N/A
GRND ROCK NSHR SSRD CLC1		NOM. CALICO ROCKFISH	N/A
GRND ROCK NSHR SSRD COP1		NOM. COPPER ROCKFISH	N/A
GRND ROCK NSHR SSRD OLV1		NOM. OLIVE ROCKFISH	N/A
GRND ROCK NSHR SSRD QLB1		NOM. QUILLBACK ROCKFISH	N/A
GRND ROCK NSHR SSRD RCK2		UNSP. BOLINA RCKFSH	N/A
GRND ROCK NSHR SSRD RCK9		BLACK+BLUE ROCKFISH	N/A
GRND ROCK NSHR SSRD TRE1		NOM. TREEFISH	N/A
GRND ROCK NSHR SSRS BYL1		NOM. BLACK-AND-YELLOW ROC	N/A
GRND ROCK NSHR SSRS GPH1		NOM. GOPHER ROCKFISH	N/A
GRND ROCK NSHR SSRS GRS1		NOM. GRASS ROCKFISH	N/A
GRND ROCK NSHR SSRS KLP1		NOM. KELP ROCKFISH	N/A
GRND ROCK NSHR SSRS RCK7		UNSP. GOPHER RCKFSH	N/A
GRND ROCK NSLF		NORTHERN SHELF ROCKFISH	N/A
GRND ROCK NSLF BCC1		NOM. BOCACCIO	N/A
GRND ROCK NSLF CLP1		NOM. CHILIPEPPER	N/A
GRND ROCK NSLF CWC1		NOM. COWCOD ROCKFISH	N/A
GRND ROCK NSLF RCK1		BOCACCIO+CHILIPEPPER RCKF	N/A
GRND ROCK NSLF RCK8		CANARY+VERMILION RCKFSH	N/A
GRND ROCK NSLF SSLF BRZ1		NOM. BRONZESPOTTED ROCKFI	N/A
GRND ROCK NSLF SSLF CML1		NOM. CHAMELEON ROCKFISH	N/A
GRND ROCK NSLF SSLF GBL1		NOM. GREENBLOTCHED ROCKFI	N/A
GRND ROCK NSLF SSLF GSP1		NOM. GREENSPOTTED ROCKFIS	N/A
GRND ROCK NSLF SSLF GSR1		NOM. GREENSTRIPED ROCKFIS	N/A
GRND ROCK NSLF SSLF HNY1		NOM. HONEYCOMB ROCKFISH	N/A
GRND ROCK NSLF SSLF MXR1		NOM. MEXICAN ROCKFISH	N/A
GRND ROCK NSLF SSLF PNK1		NOM. PINK ROCKFISH	N/A
GRND ROCK NSLF SSLF PRR1		NOM. PINKROSE ROCKFISH	N/A
GRND ROCK NSLF SSLF RCK3		UNSP. DPWTR REDS RCKFSH	N/A
GRND ROCK NSLF SSLF RCK4		UNSP. REDS RCKFSH	N/A
GRND ROCK NSLF SSLF ROS1		NOM. ROSY ROCKFISH	N/A
GRND ROCK NSLF SSLF RST1		NOM. ROSETHORN ROCKFISH	N/A
GRND ROCK NSLF SSLF SPK1		NOM. SPECKLED ROCKFISH	N/A
GRND ROCK NSLF SSLF SQR1		NOM. SQUARESPOT	N/A
GRND ROCK NSLF SSLF STL1		NOM. STRIPETAIL ROCKFISH	N/A
GRND ROCK NSLF SSLF STR1		NOM. STARRY ROCKFISH	N/A
GRND ROCK NSLF SSLF SWS1		NOM. SWORDSPINE ROCKFISH	N/A
GRND ROCK NSLF SSLF VRM1		NOM. VERMILLION ROCKFISH	N/A
GRND ROCK NSLP		NORTHERN SLOPE ROCKFISH	N/A
GRND ROCK NSLP RCK5		UNSP. SMALL REDS RCKFSH	N/A
GRND ROCK NSLP RCK6		UNSP. ROSEFISH RCKFSH	N/A
GRND ROCK NSLP SNS1		NOM. SPLITNOSE ROCKFISH	N/A
GRND ROCK NSLP SSLP ARR1		NOM. AURORA ROCKFISH	N/A
GRND ROCK NSLP SSLP BGL1		NOM. BLACKGILL ROCKFISH	N/A
GRND ROCK NSLP SSLP BNK1		NOM. BANK ROCKFISH	N/A

SPECIES HIERARCHY				COMMON NAME	SCIENTIFIC NAME
MGRP	[CPLX1,2]	SPID			
GRND	ROCK	NSLP	SSLP	POP1	GEN. SHELF/SLOPE RF
GRND	ROCK	NSLP	SSLP	RDB1	NOM. REDBANDED ROCKFISH
GRND	ROCK	OBRK			___OTHER BSA RKFSH
GRND	ROCK	ODSR			OTHER DEMERSAL RKFSH
GRND	ROCK	OPLG			OTHER PELAGIC RKFSH
GRND	ROCK	OSLR			OTHER SLOPE RKFSH
GRND	ROCK	POPG			___POP GROUP
GRND	ROCK	PRCK			___PELAGIC ROCKFISH
GRND	ROCK	ROCK			___ALL ROCKFISH
GRND	ROCK	RRCK			REMAINING ROCKFISH
GRND	ROCK	SBLL			NOM. SHORTBELLY ROCKFISH
GRND	ROCK	SBLY			SHORTBELLY ROCKFISH
GRND	ROCK	SBTS	BLCK		SEBASTES JORDANI
GRND	ROCK	SBTS	CNRY		SEBASTES MELANOPS
GRND	ROCK	SBTS	DBRK		SEBASTES PINNIGER
GRND	ROCK	SBTS	DUSK		SEBASTES CRAMERI
GRND	ROCK	SBTS	HLQN		SEBASTES CILIATUS
GRND	ROCK	SBTS	NRCK		SEBASTES VARIEGATUS
GRND	ROCK	SBTS	NSHR	NUSR	SEBASTES POLYSPINIS
GRND	ROCK	SBTS	NSHR	SSRD	NOR. UNSP. NEAR-SHORE ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRD	BLUR
GRND	ROCK	SBTS	NSHR	SSRD	BLU ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRD	SEBASTES MYSTINUS
GRND	ROCK	SBTS	NSHR	SSRD	BRWN
GRND	ROCK	SBTS	NSHR	SSRD	CHNA
GRND	ROCK	SBTS	NSHR	SSRD	CHINA ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRD	CLCO
GRND	ROCK	SBTS	NSHR	SSRD	CALICO ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRD	COPP
GRND	ROCK	SBTS	NSHR	SSRD	COPPER ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRD	OLVE
GRND	ROCK	SBTS	NSHR	SSRD	OLIVE ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRD	QLBK
GRND	ROCK	SBTS	NSHR	SSRD	QUILLBACK ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRD	TREE
GRND	ROCK	SBTS	NSHR	SSRD	TREEFISH
GRND	ROCK	SBTS	NSHR	SSRD	UDNR
GRND	ROCK	SBTS	NSHR	SSRS	UNSP. DEEP NEAR-SHORE RF
GRND	ROCK	SBTS	NSHR	SSRS	BYEL
GRND	ROCK	SBTS	NSHR	SSRS	BLACK-AND-YELLOW ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRS	GPHR
GRND	ROCK	SBTS	NSHR	SSRS	GOPHER ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRS	GRAS
GRND	ROCK	SBTS	NSHR	SSRS	GRASS ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRS	KLPR
GRND	ROCK	SBTS	NSHR	SSRS	KELP ROCKFISH
GRND	ROCK	SBTS	NSHR	SSRS	UNSP. NEAR-SHORE ROCKFISH
GRND	ROCK	SBTS	NSLF	BCAC	N/A
GRND	ROCK	SBTS	NSLF	CLPR	BOCACCIO
GRND	ROCK	SBTS	NSLF	CWCD	SEBASTES PAUCISPINIS
GRND	ROCK	SBTS	NSLF	NUSF	CHILIPEPPER
GRND	ROCK	SBTS	NSLF	SSLF	SEBASTES GOODEI
GRND	ROCK	SBTS	NSLF	SSLF	COWCOD ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	SEBASTES LEVIS
GRND	ROCK	SBTS	NSLF	SSLF	NOR. UNSP. SHELF ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	BRNZ
GRND	ROCK	SBTS	NSLF	SSLF	BRONZESPOTTED ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	CMEL
GRND	ROCK	SBTS	NSLF	SSLF	CHAMELEON ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	DWRF
GRND	ROCK	SBTS	NSLF	SSLF	DWARF-RED ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	FRCK
GRND	ROCK	SBTS	NSLF	SSLF	FRECKLED ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	GBLC
GRND	ROCK	SBTS	NSLF	SSLF	GREENBLOTCHED ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	GSPT
GRND	ROCK	SBTS	NSLF	SSLF	GREENSPOTTED ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	GSRK
GRND	ROCK	SBTS	NSLF	SSLF	GREENSTRIPED ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	HBRK
GRND	ROCK	SBTS	NSLF	SSLF	HALFBANDED ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	HNYC
GRND	ROCK	SBTS	NSLF	SSLF	HONEYCOMB ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	MXRF
GRND	ROCK	SBTS	NSLF	SSLF	MEXICAN ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	PGMY
GRND	ROCK	SBTS	NSLF	SSLF	PYGMY ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	PNKR
GRND	ROCK	SBTS	NSLF	SSLF	PINK ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	PRRK
GRND	ROCK	SBTS	NSLF	SSLF	PINKROSE ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	REDS
GRND	ROCK	SBTS	NSLF	SSLF	REDSTRIPE ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	ROSY
GRND	ROCK	SBTS	NSLF	SSLF	ROSY ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	RSTN
GRND	ROCK	SBTS	NSLF	SSLF	ROSETHORN ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	SLGR
GRND	ROCK	SBTS	NSLF	SSLF	SILVERGREY ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	SPKL
GRND	ROCK	SBTS	NSLF	SSLF	SPECKLED ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	SQRS
GRND	ROCK	SBTS	NSLF	SSLF	SQUARESPOT ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	STAR
GRND	ROCK	SBTS	NSLF	SSLF	STARRY ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	STRK
GRND	ROCK	SBTS	NSLF	SSLF	STRIPETAIL ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	SWSP
GRND	ROCK	SBTS	NSLF	SSLF	SWORDSPINE ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	TGR1
GRND	ROCK	SBTS	NSLF	SSLF	NOM. TIGER ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	TIGR
GRND	ROCK	SBTS	NSLF	SSLF	TIGER ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	UNSP. SHELF ROCKFISH
GRND	ROCK	SBTS	NSLF	SSLF	USLF
GRND	ROCK	SBTS	NSLF	SSLF	VERMILION ROCKFISH
GRND	ROCK	SBTS	NSLP	NUSP	SEBASTES MINIATUS
GRND	ROCK	SBTS	NSLP	SNOS	NOR. UNSP. SLOPE ROCKFISH
GRND	ROCK	SBTS	NSLP	SSLP	ARRA
GRND	ROCK	SBTS	NSLP	SSLP	SPLITNOSE ROCKFISH
GRND	ROCK	SBTS	NSLP	SSLP	BANK
GRND	ROCK	SBTS	NSLP	SSLP	AURORA ROCKFISH
GRND	ROCK	SBTS	NSLP	SSLP	BANK ROCKFISH
GRND	ROCK	SBTS	NSLP	SSLP	BLGL
GRND	ROCK	SBTS	NSLP	SSLP	BLACKGILL ROCKFISH
GRND	ROCK	SBTS	NSLP	SSLP	SEBASTES MELANOSTOMUS

SPECIES HIERARCHY						COMMON NAME	SCIENTIFIC NAME
MGRP [CPLX1,2] SPID							
GRND	ROCK	SBTS	NSLP	SSLP	RDBD	REDBANDED ROCKFISH	SEBASTES BABCOCKI
GRND	ROCK	SBTS	NSLP	SSLP	REYE	ROUGHEYE ROCKFISH	SEBASTES ALEUTIANUS
GRND	ROCK	SBTS	NSLP	SSLP	SHRP	SHARPCHIN ROCKFISH	SEBASTES ZACENTRUS
GRND	ROCK	SBTS	NSLP	SSLP	SRKR	SHORTRAKER ROCKFISH	SEBASTES BOREALIS
GRND	ROCK	SBTS	NSLP	SSLP	USLP	UNSP. SLOPE ROCKFISH	N/A
GRND	ROCK	SBTS	NSLP	SSLP	YMTN	YELLOWMOUTH ROCKFISH	SEBASTES REEDI
GRND	ROCK	SBTS	ORCK			OTHER ROCKFISH	N/A
GRND	ROCK	SBTS	PUGT			PUGET SOUND ROCKFISH	SEBASTES EMPHAEUS
GRND	ROCK	SBTS	SSLF	FLAG		FLAG ROCKFISH	SEBASTES RUBRIVINCTUS
GRND	ROCK	SBTS	SSLF	SUSF		SOU. UNSP. SHELF ROCKFISH	N/A
GRND	ROCK	SBTS	SSLF	YTRK		YELLOWTAIL ROCKFISH	SEBASTES FLAVIDUS
GRND	ROCK	SBTS	SSLP	SUSP		SOU. UNSP. SLOPE ROCKFISH	N/A
GRND	ROCK	SBTS	SUSR			SOU. UNSP. NEAR-SHORE ROC	N/A
GRND	ROCK	SBTS	YEYE			YELLOWWEYE ROCKFISH	SEBASTES RUBERRIMUS
GRND	ROCK	SCOR				CALIFORNIA SCORPIONFISH	SCORPAENA GUTATTA
GRND	ROCK	SCR1				NOM. CALIF. SCORPIONFISH	N/A
GRND	ROCK	SRCK				__SLOPE-91 ROCKFISH	N/A
GRND	ROCK	SRKG				__SHORTRAKER GROUP	N/A
GRND	ROCK	SSHR				SOUTHERN NEAR-SHORE ROCKF	N/A
GRND	ROCK	SSLF				SOUTHERN SHELF ROCKFISH	N/A
GRND	ROCK	SSLF	FLG1			NOM. FLAG ROCKFISH	N/A
GRND	ROCK	SSLF	YTR1			NOM. YELLOWTAIL ROCKFISH	N/A
GRND	ROCK	SSLP				SOUTHERN SLOPE ROCKFISH	N/A
GRND	ROCK	SSLP	POP			PACIFIC OCEAN PERCH	SEBASTES ALUTUS
GRND	ROCK	SSLP	POP2			NOMINAL POP	N/A
GRND	ROCK	SSLP	UPOP			UNSP. POP GROUP	N/A
GRND	ROCK	SSRD				Deep So. Near-shore RF	N/A
GRND	ROCK	SSRS				Shallow So. Near-shore RF	N/A
GRND	ROCK	TRNY				__THORNYHEADS COMPLEX	SEBASTOLOBUS SPP.
GRND	ROCK	TRNY	LSP1			NOM. LONGSPINE THORNYHEAD	N/A
GRND	ROCK	TRNY	LSPN			LONGSPINE THORNYHEAD	SEBASTOLOBUS ALTIVELIS
GRND	ROCK	TRNY	SSP1			NOM. SHORTSPINE THORNYHEA	N/A
GRND	ROCK	TRNY	SSPN			SHORTSPINE THORNYHEAD	SEBASTOLOBUS ALASCANUS
GRND	ROCK	TRNY	THD1			NOM. THORNYHEADS	N/A
GRND	ROCK	TRNY	THDS			THORNYHEADS (MIXED)	SEBASTOLOBUS SPP.
GRND	ROCK	UDM1				UNSP. DEMERSAL-91	N/A
GRND	ROCK	UDSR				UNSP. DEMERSAL RKFSH	N/A
GRND	ROCK	UDW1				SHORTRAKER+ROUGHEYE	N/A
GRND	ROCK	UPLG				UNSP. PELAGIC RKFSH	N/A
GRND	ROCK	URCK				UNSP. ROCKFISH	N/A
GRND	ROCK	URK1				SRKR+REYE+NRCK+SHRP	N/A
GRND	ROCK	USLR				UNSP. SLOPE RKFSH	N/A
GRND	ROCK	USR1				UNSP. SLOPE-91	N/A
GRND	ROCK	USR2				UNSP. SLOPE-93	N/A
GRND	ROCK	WDOW				WIDOW ROCKFISH	SEBASTES ENTOMELAS
GRND	ROCK	WDW1				NOM. WIDOW ROCKFISH	N/A
GRND	ROCK	YFY1				NOM. YELLOWWEYE ROCKFISH	N/A
GRND	ROND	AMCK				ATKA MACKEREL	PLEUROGRAMMUS MONOPTERYGIUS
GRND	ROND	CBZ1				NOM. CABEZON	N/A
GRND	ROND	CBZN				CABEZON	SCORPAENICHTHYS MARMORATUS
GRND	ROND	CPLN				CAPELIN	MALLOTUS VILLOSUS
GRND	ROND	KGL1				NOM. KELP GREENLING	N/A
GRND	ROND	KLPG				KELP GREENLING	HEXAGRAMMUS DECAGRAMMUS
GRND	ROND	LCOD				LINGCOD	OPHIODON ELONGATUS
GRND	ROND	ORND				OTHER ROUND FISH	N/A
GRND	ROND	PCOD				PACIFIC COD	GADUS MACROCEPHALUS
GRND	ROND	PLCK				WALLEYE POLLOCK	THERAGRA CHALCOGRAMMA
GRND	ROND	PWHT				PACIFIC WHITING	MERLUCCIIUS PRODUCTUS
GRND	ROND	ROND				__ALL ROUND FISH	N/A
GRND	ROND	RRND				REMAINING ROUND FISH	N/A
GRND	ROND	SABL				SABLEFISH	ANOPILOPOMA FIMBRIA
GRND	ROND	URND				UNSP. ROUND FISH	N/A
HMSP						__HIGHLY MIGRATORY	N/A
HMSP	DRDO					DORADO	CORYPHAENA HIPPIRUS
HMSP	MRLN					STRIPED MARLIN	TETRAPTERUS AUDAX
HMSP	SHRK	BSRK				BLUE SHARK	PRIONACE GLAUCA
HMSP	SHRK	ISRK				BIGEYE THRESHER SHARK	ALOPIAS SUPERCILIOUS
HMSP	SHRK	MAKO				SHORTFIN MAKO	ISURUS OXYRINCHUS

SPECIES HIERARCHY			COMMON NAME	SCIENTIFIC NAME
MGRP [CPLX1,2] SPID				
HMSP	SHRK	PSRK	PELAGIC THRESHER SHARK	ALOPIAS PELAGICUS
HMSP	SHRK	TSRK	COMMON THRESHER SHARK	ALOPIAS VULPINUS
HMSP	SWRD		SWORDFISH	XIPHIAS GLADIUS
HMSP	TUNA	ALBC	ALBACORE	THUNNUS ALALUNGA
HMSP	TUNA	BTNA	BLUEFIN TUNA	THUNNUS THYNNUS
HMSP	TUNA	ETNA	BIGEYE TUNA	THUNNUS OBESUS
HMSP	TUNA	STNA	SKIPJACK TUNA	EUTHYNNUS PELAMIS
HMSP	TUNA	UTNA	UNSPECIFIED TUNA	N/A
HMSP	TUNA	YTNA	YELLOWFIN TUNA	THUNNUS ALBACARES
OTHR			__OTHER SPECIES (NO M-GRO	N/A
OTHR	BASS		__ALL BASS	N/A
OTHR	BASS	GBAS	GIANT SEA BASS	STEREOLEPIS GIGAS
OTHR	BASS	OBAS	OTHER BASS	N/A
OTHR	BASS	WBAS	WHITE SEABASS	TRACTOSCION NOBILIS
OTHR	BMCK		BULLET MACKEREL	AUXIS ROCHEI
OTHR	BMRL		BLUE MARLIN	MAKAIRA MIGRICANS
OTHR	CEEL		SPOTTED CUSK-EEL	CHILARA TAYLORI
OTHR	CHLB		CALIFORNIA HALIBUT	PARALICHTHYS CALIFORNICUS
OTHR	CUDA		PACIFIC BARRACUDA	SPHYRAENA ARGENTEA
OTHR	ECHN		__ALL ECHINODERMS	N/A
OTHR	ECHN	OECH	OTHER ECHINODERM	N/A
OTHR	ECHN	OURC	OTHER SEA URCHINS	N/A
OTHR	ECHN	RURC	RED SEA URCHIN	STRONGYLOCENTROTUS FRANCISCANUS
OTHR	ECHN	UECH	UNSPECIFIED ECHINODERM	N/A
OTHR	ECHN	USCU	UNSP. SEA CUCUMBERS	N/A
OTHR	ECHN	UURC	UNSP. SEA URCHINS	N/A
OTHR	EELS		UNSPECIFIED EELS	N/A
OTHR	EULC		EULACHON	THALEICHTHYS PACIFICUS
OTHR	KFSH		GIANT KELPFISH	HETEROSTICHUS ROSTRATUS
OTHR	LOBS		CALIF. SPINY LOBSTER	PANULIRUS INTERRUPTUS
OTHR	MEEL		MONKEYFACE EEL	CEBIDICHTHYS VIOLACEUS
OTHR	MISC		MISC. FISH/ANIMALS	N/A
OTHR	MLSK		__ALL MOLLUSKS	N/A
OTHR	MLSK	OMSK	OTHER MOLLUSKS	N/A
OTHR	MLSK	UMSK	UNSPECIFIED MOLLUSKS	N/A
OTHR	MSC2		MISCELLANEOUS FISH	N/A
OTHR	MSHP		PLAINFIN MIDSHIPMAN	PORICHTHYS NOTATUS
OTHR	OANC		OTHER ANCHOVY	N/A
OTHR	OCRK		OTHER CROAKER	N/A
OTHR	OCTP		UNSP. OCTOPUS	N/A
OTHR	OTHR	LUVR	LOUVAR	LUVANUS IMPERIALIS
OTHR	OTHR	MOLA	COMMON MOLA	MOLA MOLA
OTHR	OTHR	POMF	PACIFIC POMFRET	BRAMA JAPONICA
OTHR	OTHR	SARY	PACIFIC SAURY	COLOLABIS SAIRA
OTHR	OWFS		OCEAN WHITEFISH	CAULOLATILUS PRINCEPS
OTHR	PBTR		PACIFIC BUTTERFISH	PEPRILUS SIMILLIMUS
OTHR	PHLB		PACIFIC HALIBUT	HIPPOGLOSSUS STENOLEPIS
OTHR	PROW		PROWFISH	ZAPRORA SILENUS
OTHR	QFSH		QUEENFISH	SERIPHUS POLITUS
OTHR	RCKG		ROCK GREENLING	HEXAGRAMMOS LAGOCEPHALUS
OTHR	RGL1		NOM. ROCK GREENLING	N/A
OTHR	SAIL		SAILFISH	ISTIPHORUS PLATYPTERUS
OTHR	SCLP		UNSP. SCULPIN	COTTIDAE SPP.
OTHR	SHAD		UNSPECIFIED SHAD	N/A
OTHR	SHPD		CALIFORNIA SHEEPHEAD	SEMICOSSYPHUS PULCHER
OTHR	SHRK	ASRK	PACIFIC ANGEL SHARK	SQUATINA CALIFORNICA
OTHR	SHRK	OSRK	OTHER SHARK	N/A
OTHR	SHRK	USRK	UNSP. SHARK	N/A
OTHR	SKAT		__ALL SKATES & RAYS	N/A
OTHR	SKAT	BTRY	BAT RAY	MYLIOBATIS CALIFORNICA
OTHR	SKAT	OSKT	OTHER SKATES	OTHER RAJIDAE
OTHR	SMLT		UNSP. SMELT	N/A
OTHR	SQID		UNSP. SQUID	DECAPODA
OTHR	SRFP		SURFPERCH SPP.	SURFPERCH SPP.
OTHR	SSCL		SHARPNOSE SCULPIN	CLINOCOTTUS ACUTICEPS
OTHR	STRG		__ALL STURGEON	N/A
OTHR	STRG	GSTG	GREEN STURGEON	ACIPENSER MEDIROSTRIS
OTHR	STRG	USTG	UNSP. STURGEON	N/A

SPECIES HIERARCHY MGRP [CPLX1,2] SPID	COMMON NAME	SCIENTIFIC NAME
OTHR STRG WSTG	WHITE STURGEON	ACIPENSER TRANSMONTANUS
OTHR TCOD	PACIFIC TOMCOD	MICROGADUS PROXIMUS
OTHR TUNA BSJK	BLACK SKIPJACK	EUTHYNNUS LINEATUS
OTHR TUNA OTNA	OTHER TUNA	N/A
OTHR UHAG	UNSPECIFIED HAGFISH	EPTATRETUS SP.
OTHR UHLB	UNSPECIFIED HALIBUT	N/A
OTHR WCRK	WHITE CROAKER	GENYONEMUS LINEATUS
OTHR WEEL	WOLF EEL	ANARRICHTHYS OCELLATUS
OTHR WHOO	WAHOO	ACATHOCYBIUM SOLANDRI
OTHR YLTL	YELLOWTAIL	SERIOLA LALANDEI
SAMN	__ALL SALMON	N/A
SAMN CHNK	CHINOOK SALMON	ONCORHYNCHUS TSHAWYTSCHA
SAMN CHUM	CHUM SALMON	ONCORHYNCHUS KETA
SAMN COHO	COHO SALMON	ONCORHYNCHUS KISUTCH
SAMN PINK	PINK SALMON	ONCORHYNCHUS GORBUSCHA
SAMN SOCK	SOCKEYE SALMON	ONCORHYNCHUS NERKA
SAMN STLH	STEELHEAD	ONCORHYNCHUS MYKISS
SAMN USMN	UNSP. SALMON	N/A
SHLL	__ALL SHELLFISH	N/A
SHLL ABLN	__ALL ABALONE	N/A
SHLL ABLN BABL	BLACK ABALONE	HALIOTIS CRACHERODII
SHLL ABLN GABL	GREEN ABALONE	HALIOTIS FULGENS
SHLL ABLN OABL	OTHER ABALONE	N/A
SHLL ABLN PABL	PINK ABALONE	HALIOTIS CORRUGATA
SHLL ABLN RABL	RED ABALONE	HALIOTIS RUFESCENS
SHLL ABLN UABL	UNSPECIFIED ABALONE	N/A
SHLL ABLN WABL	WHITE ABALONE	HALIOTIS SORENSENI
SHLL CLAM	__ALL CLAMS	N/A
SHLL CLAM BCLM	BUTTER CLAM	SAXIDOMUS GIGANTEUS
SHLL CLAM BMSL	BLUE OR BAY MUSSEL	MYTILUS EDULUS
SHLL CLAM CKLE	BASKET COCKLE	CLINOCARDIUM NUTTALLII
SHLL CLAM CMSL	CALIFORNIA MUSSEL	MYTILUS CALIFORNIANUS
SHLL CLAM GCLM	GAPER CLAM	TRESUS CAPAX
SHLL CLAM GDUK	GEODUCK	PANOPE ABRUPTA
SHLL CLAM HCLM	HORSE CLAMS	TRESUS SPP.
SHLL CLAM JCLM	CALIFORNIA JACKKNIFE CLAM	TAGELUS CALIFORNIANUS
SHLL CLAM LCLM	NATIVE LITTLENECK	PROTOTHACA STAMINEA
SHLL CLAM MACL	MUD CLAMS	MACOMA SPP.
SHLL CLAM MCLM	MANILA CLAM	TAPES PHILIPPINARUM
SHLL CLAM OCLM	OTHER CLAM	N/A
SHLL CLAM PCLM	PISMO CLAM	TIVELA STULTORUM
SHLL CLAM PRCL	PURPLE CLAM	MUTTALLIA NUTTALLI
SHLL CLAM QCLM	NORTHERN QUAHOG CLAM	MERCENARIA MERCENARIA
SHLL CLAM RCLM	RAZOR CLAM	SILIQUA PATULA
SHLL CLAM RZCL	ROSY RAZOR CLAM	SOLENI SICARIUS
SHLL CLAM SCLM	SOFT-SHELLED CLAM	MYA ARENARIA
SHLL CLAM UCLM	UNSPECIFIED CLAM	N/A
SHLL CLAM WCLM	WASHINGTON CLAM	SAXIDOMUS NUTTALLI
SHLL OYST	__ALL OYSTERS	N/A
SHLL OYST ESTR	EASTERN OYSTER	CRASSOSTREA VIRGINICA
SHLL OYST EURO	EUROPEAN OYSTER	OSTREA EDULIS
SHLL OYST KSTR	KUMAMOTO OYSTER	CRASSOSTREA GIGAS
SHLL OYST LSTR	OLYMPIA OYSTER	OSTREA LURIDA
SHLL OYST OSTR	OTHER OYSTER	N/A
SHLL OYST PSTR	PACIFIC OYSTER	CRASSOSTREA GIGAS
SHLL OYST USTR	UNSPECIFIED OYSTER	N/A
SHLL SCAL	__ALL SCALLOPS	N/A
SHLL SCAL OSCL	OTHER SCALLOP	N/A
SHLL SCAL USCL	UNSPECIFIED SCALLOP	N/A
SRMP	__ALL SHRIMP & PRAWNS	N/A
SRMP BSRM	UNSP. BAIT SHRIMP	N/A
SRMP GPRW	GOLDEN PRAWN	PENAEUS CALIFORNIENSIS
SRMP GSRM	GHOST SHRIMP	CALLIANASSA CALIFORNIENSIS
SRMP MSRM	MUD SHRIMP	UPOGEBIA PUGETTENSIS
SRMP OSRM	OTHER SHRIMP	N/A
SRMP PSHP	PINK SHRIMP	PANDALUS JORDANI
SRMP RPRW	RIDGEBACK PRAWN	EUSICYONIA INGENTUS
SRMP SPRW	SPOTTED PRAWN	PANDALUS PLATYCEROS

SPECIES HIERARCHY		
MGRP [CPLX1,2] SPID	COMMON NAME	SCIENTIFIC NAME

SRMP USRM	UNSP. OCEAN SHRIMP	N/A
XXXX XXXX	UNKNOWN SPECIES	

*PacFIN Source: http://www.psmfc.org/pacfin/sp_tree.lst

Table 10b. Hierarchical listing of Gear Types (GR table)

GEAR GROUP, GRID	DESCRIPTION
ALL	ALL GEARS
\NET	ALL NET GEAR EXCEPT TRAWL
\TML	TRAMMEL
\GLN	GILL NET
\STN	SET NET
\DPN	DIP NET
\SEN	SEINE
\ONT	OTHER NET GEAR
\SGN	SUNKEN GILLNET
\DGN	DRIFT GILL NET
\TWL	ALL TRAWLS EXCEPT SHRIMP TRAWLS
\MDT	MIDWATER TRAWL
\FFT	FLATFISH TRAWL
\BTW	BOTTOM TRAWL
\GFT	GROUND FISH TRAWL (OTTER)
\BMT	BEAM TRAWL
\OTW	OTHER TRAWL GEAR
\CBF	BOTTOM TRAWL, CATCHER BOAT, FOREIGN
\CBJ	BOTTOM TRAWL, CATCHER BOAT, JV
\SFZ	BOTTOM TRAWL, SMALL FREEZER TRAWLER
\LFZ	BOTTOM TRAWL, LARGE FREEZER TRAWLER
\SRM	BOTTOM TRAWL, SURIMI TRAWLER
\MPT	MIDWATER TRAWL - CATCHER/PROCESSOR
\RLT	ROLLER TRAWL
\PRT	PAIR TRAWL
\GFS	GROUND FISH TRAWL, FOOTROPE < 8 in.
\GFL	GROUND FISH TRAWL, FOOTROPE > 8 in.
\DNT	DANISH/SCOTTISH SEINE (TRAWL)
\POT	ALL POT AND TRAP GEAR
\CPT	CRAB POT
\LPT	LOBSTER POT
\PRW	PRAWN TRAP
\SPT	SNAIL POT
\FPT	FISH POT
\CLP	CRAB AND LOBSTER POT
\OPT	OTHER POT GEAR
\HKL	ALL HOOK AND LINE GEAR EXCEPT TROLL
\HLR	HOOK AND LINE (RECREATIONAL)
\LGL	LOGLINE OR SETLINE
\STL	SETLINE
\JIG	JIG
\HDL	HAND LINE
\DRL	DROP LINE
\POL	POLE (COMMERCIAL)
\OHL	OTHER HOOK AND LINE GEAR
\VHL	VERTICAL HOOK AND LINE GEAR
\DRG	ALL DREDGE GEAR
\SCD	SCALLOP DREDGE
\ODG	OTHER DREDGE GEAR
\TWS	ALL SHRIMP TRAWLS
\PWT	PRAWN TRAWL
\SST	SHRIMP TRAWL, SINGLE RIGGED
\DST	SHRIMP TRAWL, DOUBLE RIGGED
\SHT	SHRIMP TRAWL, SINGLE OR DOUBLE RIG
\TLS	ALL TROLL GEAR
\TRL	TROLL
\HTR	HAND TROLL
\PTR	POWER GURDY TROLL
\BTR	BOTTOM FISH TROLL
\MSC	ALL OTHER MISCELLANEOUS GEAR
\RVT	RIVER TRAWL
\OTH	OTHER KNOWN GEAR
\USP	UNKNOWN OR UNSPECIFIED GEAR
\DVG	DIVING GEAR

*PacFIN Source: http://www.psmfc.org/pacfin/gr_tree.lst