

3 Introduction to Regional Profiles

The following section contains socioeconomic profiles of six geographic areas with ties to the Alaskan groundfish fishery. The regions were defined based on logical socioeconomic and geographic units. Internal consistency with respect to the type of engagement or type of dependence upon the groundfish fishery was more important in the definitional process than attempting to make the regions comparable for non-groundfish related criteria. Four of these regions are in Alaska, and two are in the Pacific Northwest with one each in Washington and Oregon. The regions and their constituent jurisdictions or geographies are listed in Table 3.0-1 and shown in Figure 3.0-1 and 3.0-2. Adjacent FMP areas are shown in Figure 3.0-3.

Table 3-1. Study Regions and their Acronyms

AKAPAI	Alaska Peninsula and Aleutian Islands Region. Includes the Aleutians East Borough and the Aleutians West Census Area.
AKKO	Kodiak Region. Includes the Kodiak Island Borough and other parts of the Kodiak archipelago.
AKSC	Southcentral Alaska Region. Includes Valdez-Cordova Census Area, Kenai Peninsula Borough, Matanuska-Susitna Borough, and Municipality of Anchorage.
AKSE	Southeast Alaska Region. Includes Yakutat Borough, Skagway-Hoonah-Angoon Borough, Haines Borough, City and Borough of Juneau, City and Borough of Sitka, Wrangell-Petersburg Census Area, Prince of Wales-Outer Ketchikan Census Area, and Ketchikan Gateway Borough.
WAIW	Washington Inland Waters Region. All counties bordering Puget Sound and the Strait of Juan de Fuca, including Clallum, Island, Jefferson, King, Kitsap, Mason, Pierce, San Juan, Skagit, Snohomish, Thurston, and Whatcom.
ORCO	Oregon Coast Region. Counties bordering the northern Oregon coast including Lincoln, Tillamook, and Clatsop.

Figure 3-1. Alaska Regions



Source: ESRI, ProximityOne



300 0 300 Miles

Scale: 1" = 300 Miles

Alaska Regions

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Figure 3-2. Pacific Northwest Regions



Source: ESRI, ProximityOne



40 0 40 Miles

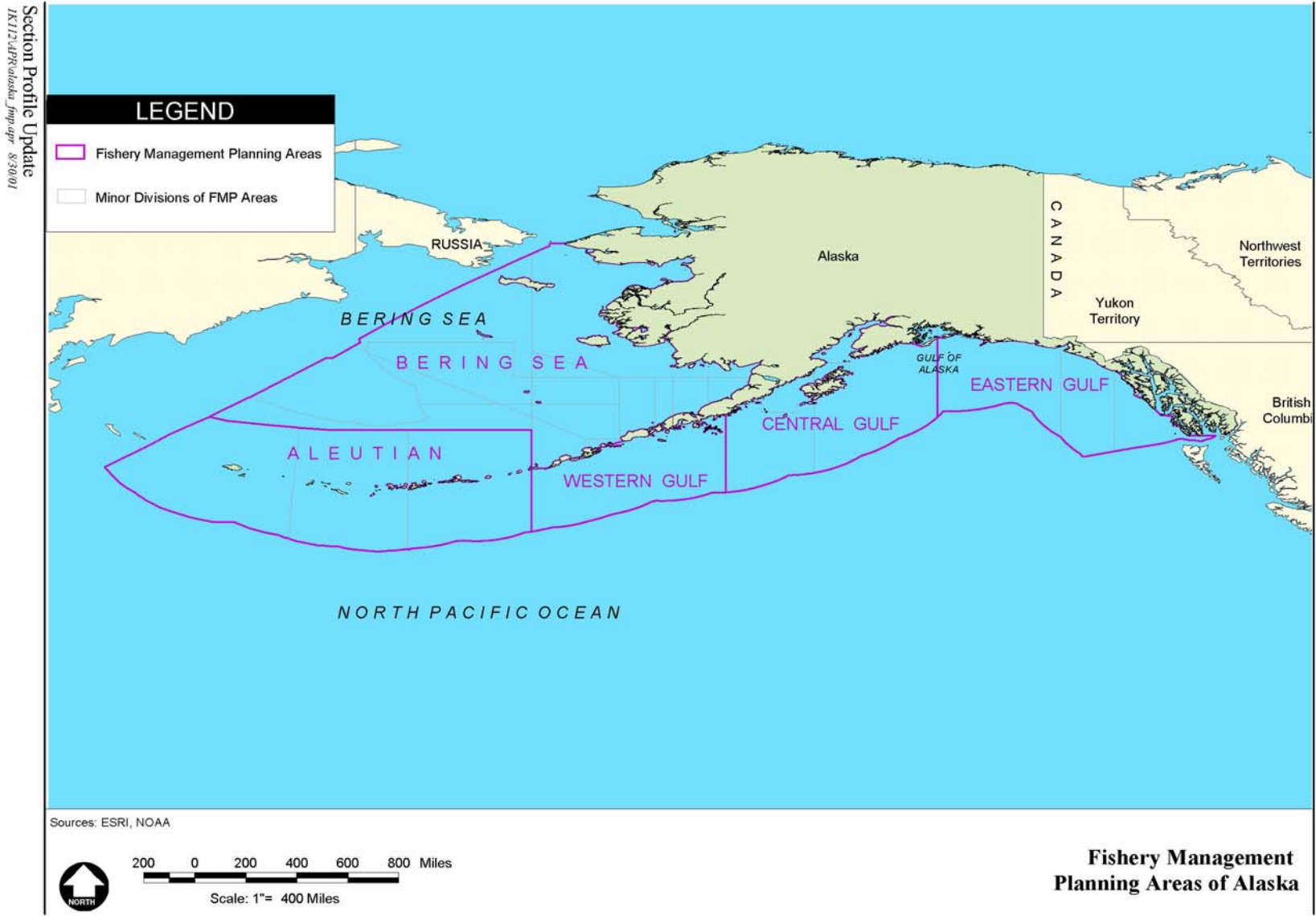
Scale: 1" = 80 Miles

Pacific Northwest Regions

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Figure 3-3. Fishery Management Planning Areas of Alaska



These regional profiles examine the engagement with, and dependence upon, the fishery from a human geography perspective. The regional profiles are designed to be used in combination with the sector profiles presented in Section 2 to provide a rounded perspective on the socioeconomic aspects of the fishery. The sector profiles provide descriptions of the groups engaged in the fishery and their activities; the regional profiles describe how those groups and activities fit into a regional socioeconomic context.

The regional profiles focus to a large degree on the regional, rather than community, level of analysis. The geographic reach of the areas of Alaska, Washington, and Oregon potentially related to the Alaskan groundfish fishery is enormous. This area also encompasses many communities with few or no direct ties to the fishery itself. Specific community level information is provided in the form of profiles of regionally important groundfish communities where strong ties to the groundfish fishery are known to exist and where such information is considered important to understand the specific community context of the fishery.

This introduction provides a brief overview of the type of information contained in each of the regional profiles. The topics introduced in this section are presented in the same order as in the profiles themselves. The four Alaskan regional profiles closely parallel each other in presentation. The two Pacific Northwest regional presentations vary due to different emphases based on the quite different types of engagement with the Alaskan groundfish fishery.

The population of the regions varies considerably. Within Alaska, the Alaska Peninsula and Aleutian Islands region had a 1999 population of approximately 6,000; the Kodiak region had approximately 14,000 residents; and the South Central and Southeast Alaska regions had populations of about 375,000 and 73,000 respectively. In the Pacific Northwest, the Washington Inland Waters region had about 3.9 million residents and the Oregon Coast region had a population of about 105,000. Beyond overall population, the types of communities within the regions also vary considerably. The Alaska regions contain the largest community in the state, Anchorage, that along with its surrounding area, contains nearly half of the state's population, as well as very small relatively isolated traditional communities. Within the Pacific Northwest, the regions include the greater Seattle metropolitan area as well as relatively small coastal fishing communities.

The population structure of the regions varies considerably. As shown in the regional profiles, the fishery has an impact on the male-female population balance for some of the Alaskan communities that are the focus of intensive groundfish processing. This is due to the fact that processing workers come to these communities for various lengths of time, and there are many more males than females in this workforce. This type of direct impact on population structure attributable to groundfish is seen in few communities, but these tend to be the communities with the highest level of groundfish-related processing activities. Within Alaska, particularly in the Aleutian and Kodiak regions, there is also a relationship between percent of Alaska Native population and commercial fisheries development, with communities that have developed as large commercial fishing communities becoming less Native in composition over time compared to other communities in the region. There are many variables involved, but for a few of the communities noted, the relationship is quite straightforward. These differences in the male/female and Native/non-Native population segments are, to a degree, indicative of the type of articulation of the directly fishery related population with the rest of the community. Again, this varies considerably from place to place and is not apparent in the Alaska South Central and Southeast regions in the same way it is in the more western regions.

Employment and income information presented for each of the regions provides a look at the type and level of economic engagement with the groundfish fishery. Information on employment within the processing sector provides a look at the level of employment within the communities that is directly attributable to groundfish fishery activity. Interpretation of these data in terms of engagement with the community is less straightforward for some regions than for others. For some, processing plants tend

to be industrial enclaves somewhat separate from the rest of the community, while for others there is no apparent differentiation between the processing workforce and the rest of the regional or local labor pool. In all cases, however, processing employment tends to be seasonal in nature. A further complication for attribution of socioeconomic impacts to a regional base is the fact that for many workers in many of the sectors, groundfish-related work is performed in a region or community other than where they have a number of other socioeconomic ties. It is not uncommon for fishery related workers to spend relatively little in their work region and to send pay 'home' to another community or region. In this sense, regional employment is indicative of a volume of economic activity if not a specific level of labor activity directly comparable to other industries. The importance of this flow varies from region to region and from sector to sector, but is most apparent for the communities that are most heavily engaged in the processing aspect of the groundfish fishery.

Infrastructure and service provision information is provided for each of the relevant communities in the Alaska regions. This information is intended to convey a sense of the level of available services in the communities.

Tax and revenue information is presented for each of the Alaska regions to provide a perspective on the role of the groundfish fishery with respect to the underpinning of the local economy. Information on the local tax structure of each relevant community is provided, and the communities and regions vary in the way that direct revenue is collected on fishery related transactions that occur in the regions. For communities (and boroughs) in the western Alaska regions, a local fish tax is often a significant source of local revenue. For the other regions, direct revenue benefits are more closely tied to the state fish tax. Information is provided for each of the regions on shared taxes and the role of state shared fish tax in relation to these other taxes. Again, there is considerable variability from region to region. Also apparent is the regional differentiation in the importance of the relatively new fishery resource landing tax. This source of revenue comes from the offshore sectors of the fishery, is designed to capture some of the economic benefits of offshore activity for adjacent coastal Alaska regions, and is far more important to the revenue structure of the Aleutian region than for any other region.

Inshore groundfish processing information is also presented for each region. This information allows a look at the volume and value of the groundfish that are landed in a region. The information is broken out by species, and further information is provided on utilization rate, product value, and value per ton. When examined on a region-by-region basis, these data point out that the groundfish fishery is a very different fishery in different regions. For example, for the Alaska Peninsula and Aleutian Islands region, the local groundfish processing activity is relatively focused on pollock, while in Southeast Alaska, the fishery is much more focused on ARSO species (that is, the complex of Atka mackerel, all rockfish species, sablefish, and other groundfish species). This, in turn, means that there are sharp differences in value per ton (greater in Southeast) versus the large differences seen in volume (greater in the Alaska Peninsula and Aleutian Islands). This corresponds to differences in a number of other factors, including the extent to which a local labor force is used in processing, and the degree to which it is a local fleet doing the harvesting of the resource, among others. Overall, this information is also useful in looking at where fishery resources come ashore, and they can be seen as a rough indicator of the economic activity generated in processing communities. The relative amount of economic benefit to the regions and specific communities varies considerably from place to place, as processing entities are articulated with communities in different ways in different places, and patterns of ownership also influence the flow of economic benefits.

In part to address the issue of the flow of economic benefits and to help characterize them on a regional basis, information is presented on the ownership of processing entities by region. This information includes all processing sectors, both the fixed processors in communities as well as mobile at-sea processors (motherships and various catcher processor sectors). This information is presented by region by sector, as well as by groundfish species. The data contained in this section

facilitates a consideration of how resource utilization is linked to ownership patterns and how those play out between regions. For example, the Alaska Peninsula and Aleutian Islands region has the greatest shore processing capacity of all of the regions, but ownership of shore processing facilities within this region is largely comprised of individuals and firms located in the Washington Inland Waters Region. The large mobile processors that work the Bering Sea have varying catch and processing locations and at least some ties to adjacent Alaska regions, but ownership again clearly shows predominant ties to the Pacific Northwest.

Information is also presented on catcher vessel ownership patterns. This information is presented to allow a consideration of the links between resource harvesting and specific regions. Data are presented on the number and types of vessels in the regionally owned fleet and the employment and payments to labor that result from catcher vessel resource activities. It is not the case that resources adjacent to individual regions are uniformly harvested by catcher vessels from those regions. Different regions have different combinations of local harvesting activity, local processing activity, and ownership of both harvesting and processing entities, and all of these have implications for the role of the groundfish fishery in the local socioeconomic context. For example, in terms of groundfish harvest value and volume, the Alaska Peninsula and Aleutian Islands Region features mostly a non-residential fleet, except for some of the smaller vessel classes. While the highest volume and value of groundfish resources harvest occur near this region, the catcher vessels accounting for most of this activity are from elsewhere. As discussed in the individual region profiles, the higher the catcher vessel harvest volume in a given area, the ‘less local’ the fleet tends to be. Put another way, the paradox is that the more important the region is to the overall groundfish fishery, the less likely a local fleet is to significantly participate in harvesting the resources of that region, although recent CDQ partnership arrangements may serve to ameliorate this historic disjunction.

Information on harvest by FMP area for each region is provided to allow a consideration of the distribution of effort by the fleet of the individual regions in different groundfish management areas. In other words, the intent in presenting this information is to be able to gauge the relative importance of groundfish from each management area to the catcher vessel fleets based in each of the regions. Regions vary widely in ‘how local’ the catch effort is by the local fleet. For example, catcher vessels in Southeast Alaska have a very high concentration of effort in the Eastern Gulf of Alaska FMP area, while catcher vessels based in Kodiak are more wide ranging. This information is also broken out by species, so relative dependency on species by area can be assessed.

The following six tables (Tables 3.0-2 through 3.0-7) provide summary information from 2000 across all regions. These tables allow an at-a-glance comparison between regions for some of the major fishery socioeconomic indicators. Information in subsequent sections is provided on an individual region basis.

Table 3-2. Selected North Pacific Groundfish Participation Measures by Region, 2000

	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	Total
Processor Employment and Payments to Labor							
Employment (Est. FTEs)	3,157	730	148	125	3,949	0	8,109
Payments to Labor (\$Millions)	131.3	32.1	14.5	15.7	292.9	0.0	486.5
Groundfish Processing by Regional Inshore Plants							
Reported MT (Thousands)	590.6	106.0	10.01	5.84	NA	NA	712.45
Product MT (Thousands)	217.1	29.9	5.23	4.16	NA	NA	256.39
Utilization Rate (Percent)	0.37	0.28	0.52	0.71	NA	NA	1.88
Product Value (\$Millions)	437.2	89.6	32.21	32.08	NA	NA	591.09
Value per Ton (\$)	740	845	3,218	5,493	NA	NA	10,296
Processors Owned by Regional Residents							
No. of Processors Owned	4	7	16	10	118	0	155
Reported Tons (Thousands)	0.74	33.1	23.13	14.37	1,714	0.0	1,785.34
Wholesale Value (\$Millions)	0.83	25.5	35.43	24.91	1,284	0.0	1,370.67
Catcher Vessels Owned by Regional Residents							
No. of Catcher Vessels	70	192	198	228	271	42	1,001
Retained Tons (Thousands)	20.3	62.7	15.5	6.5	609.7	72.6	787.3
Ex-vessel Value (\$Millions)	9.86	30.0	13.75	23.51	188.0	24.07	298.19
Employment (Persons)	318	920	933	1,238	1,311	198	4,918
Payments to Labor (\$Millions)	3.94	12.0	5.5	9.40	75.18	9.63	115.65

1) Includes all employment at all shoreplants located in the region and all employment of at-sea processors (including floaters) owned by residents. In addition the estimate includes administrative employment of all processors owned by residents.

2) All payments to labor from at-sea processors (including floaters) are assigned to the owners region. On-site payments to labor from shore plants are assigned to the region in which the plant is located.

Source: For processing information, NMFS Blend Data and WPR Data, June 2001 and Northern Economics internally derived tables. For harvest information, ADF&G Fish Tickets and NMFS Observer Data, June 2001. Count information does not include "ghost" entities, while weight information includes "ghost" entities in order to minimize instances where data cannot be reported due to NMFS confidentiality provisions. In all cases the values for Ghost Vessels are negligible.

Table 3-3. Groundfish Harvests Delivered to Inshore Plants by Species Group, 2000

Region	Total Reported Harvest by Species									
	Thousands of Tons					Millions of \$				
	ARSO	Flatfish	P Cod	Pollock	Total	ARSO	Flatfish	P Cod	Pollock	Total
AKAPAI	5.95	5.87	56.73	522.08	590.63	6.88	1.61	80.48	348.28	590.63
AKKO	14.13	14.2	26.82	50.82	105.97	13.33	8.97	40.06	27.21	89.57
AKSC	5.44	0.4	2.25	1.92	10.01	26.01	0.21	3.85	2.13	32.21
AKSE	5.47	0.31	0.06	0.00	5.84	31.94	0.00	0.14	0.00	32.08
WAIW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORCO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	30.99	20.78	85.86	574.82	712.45	78.16	10.79	124.53	377.62	744.49

Source: NMFS Blend Data and WPR Data, June 2001.

Table 3-4. Groundfish Wholesale Value (\$Millions) of Regionally Owned Processors by Processor Class, 2000

Processor Class	Region						Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	
Catcher-Processors	0.60	22.65	2.13	13.58	637.79	0.00	676.75
Motherships	0.00	0.00	0.00	0.00	81.25	0.00	81.25
Shoreplants	0.23	2.82	33.30	11.33	564.61	0.00	612.29

Source: Derived tables, Northern Economics (based on NMFS Blend Data and WPR Data, June 2001).

Table 3-5. Groundfish Retained Harvest by Catcher Vessels Owned by Residents of Various Regions by FMP Subarea, 2000

	AI	BS	WG	CG	EG	Total
Total Ex-Vessel Value (\$Millions)						
AKAPAI	0	0.65	9.09	0.08	*	9.86
AKKO	0.30	4.25	1.12	23.32	1.08	30.07
AKSC	0.77	0.61	1.83	9.72	0.83	13.75
AKSE	0.40	0.56	0.56	5.08	16.91	23.51
WAIW	7.19	151.81	7.71	11.66	9.59	187.96
ORCO	0	14.37	0.50	8.86	0.33	24.07
Total	8.66	172.25	20.81	58.72	28.74	289.22

^a Due to the confidentiality of the data presented, this value has been suppressed.

Source: ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3-6. Number of Boats and Retained Catch by Weight and Value by Species Group by Catcher Vessel Ownership by Region, 2000

Data	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO
ARSO						
No. of Catcher Vessels	19	99	141	224	204	35
Retained Tons (Thousands)	0.0	5.9	1.8	4.7	5.7	2.4
Ex-vessel Value (\$Millions)	0.05	6.47	5.28	22.27	21.57	1.68
Flatfish						
No. of Catcher Vessels	15	34	11	11	123	27
Retained Tons (Thousands)	0.0	5.6	1.0	0.0	4.8	2.2
Ex-vessel Value (\$Millions)	0.0	01.06	0.20	0.02	0.77	0.39
Pacific Cod						
No. of Catcher Vessels	70	190	174	95	206	35
Retained Tons (Thousands)	11.5	18.9	9.1	1.6	47.4	12.7
Ex-vessel Value (\$Millions)	7.60	14.79	7.34	1.18	30.56	8.35
Pollock						
No. of Catcher Vessels	19	64	40	7	129	26
Retained Tons (Thousands)	8.7	32.2	3.6	0.2	551.7	55.4
Ex-vessel Value (\$Millions)	2.21	7.75	0.92	0.04	135.06	13.65
All Groundfish Species						
Total No. of Catcher Vessels	70	192	198	228	271	42
Total Retained Tons (Thousands)	20.3	62.7	15.5	6.5	609.7	72.6
Total Ex-vessel Value (\$Millions)	9.86	30.07	13.75	23.51	187.96	24.07

Source: ADF&G Fish Tickets and NMFS Observer Data, June 2001. Count information does not include "ghost" entities, while weight information includes "ghost" entities in order to minimize instances where data cannot be reported due to NMFS confidentiality provisions. In all cases the values for Ghost Vessels are negligible.

Table 3-7. Retained Harvests by FMP Area and Species of Regional Catcher Vessels, 2000

Region of CV Owner	FMP Area										Total
	Aleutian Islands		Bering Sea		Western Gulf		Central Gulf		Eastern Gulf		
	Pacific cod	Pollock	Pacific cod	Pollock	Pacific cod	Pollock	Pacific cod	Pollock	Pacific cod	Pollock	
Volume (Thousands of Tons)											
APAI	0.22	0.00	0.44	1.49	8.19	5.38	2.46	1.85	0.02	0.13	20.20
AKKO	1.87	0.00	6.30	11.95	3.41	3.02	10.34	13.45	0.10	0.68	51.12
AKSC	0.57	0.00	2.10	0.57	1.27	0.33	5.87	1.83	0.07	0.09	12.70
AKSE	0.08	0.00	0.11	0.06	0.41	0.17	0.95	0.02	0.02	0.00	1.79
WAIW	5.34	0.00	24.32	536.78	5.48	4.42	8.26	14.01	0.04	0.47	599.11
ORCO	1.53	0.00	5.52	44.18	0.62	2.34	2.51	11.10	0.01	0.29	68.10
Value (\$Millions)											
APAI	0.15	0.00	0.28	0.37	5.33	1.34	1.84	0.45	0.02	0.03	9.80
KO	1.20	0.00	4.05	2.84	2.21	0.74	8.00	3.24	0.08	0.17	22.55
AKSC	0.36	0.00	1.39	0.14	0.84	0.08	4.91	0.46	0.06	0.02	8.26
AKSE	0.04	0.00	0.07	0.01	0.26	0.04	0.78	0.00	0.01	0.00	1.22
WAIW	3.47	0.00	15.15	132.22	3.63	1.11	6.44	3.45	0.03	0.12	165.62
ORCO	1.07	0.00	3.78	11.28	0.43	0.62	1.85	2.90	0.01	0.08	22.00

Source: Spreadsheet from Northern Economics based on ADF&G Fish Tickets and NMFS Observer Data, June 2001

For each of the regions a section on community rankings by catcher vessel ownership is provided. While most of the rest of the data are regional in nature, the top communities (to the 95th percentile) for vessel ownership are listed to provide a sense of subregional distribution of engagement with the groundfish fishery from the harvest perspective. (Analogous volume information for processing cannot be shown due to confidentiality restrictions, but the top three communities for processing volume/value for each region are identified but not ranked).

Each regional discussion also contains a treatment of diversity within the catcher vessel fleet. This includes a brief treatment of the annual cycle for groundfish catcher vessels and information on how groundfish fit in to that cycle both in terms of timing and value. Information is also presented on how groundfish has fit in to overall catcher vessel effort for groundfish catcher vessels over the last several years so the relative role of groundfish can be seen over time. This relative importance also shows marked differences between regions. Similar diversity information is also presented for processors for each of the regions to allow at least a general level consideration of the relative importance of groundfish to overall processing operations.

Each of the Alaska region profiles contains a brief summary of subsistence resource use for selected communities with known ties to the groundfish fishery. The management of the consumptive use of subsistence resources in Alaska is quite complex, and will not be discussed in detail here, but some contextual overview is necessary. The State of Alaska manages subsistence uses on state and private lands, while the federal government manages subsistence uses on federal lands, under the provisions of the Alaska National Interest Lands Conservation Act (ANILCA). However, it has been determined that ANILCA does not apply to federal offshore waters, where the NMFS regulated groundfish fishery takes place. Thus, the special priority given to subsistence uses does not apply in general in federal offshore waters. However, some commercial groundfish fishing may occur within subsistence fisheries areas as described in the most recent Federal Subsistence Management Regulations (website <http://www.r7.fws.gov/asm/fshreg99/regs99.html>, federal subsistence homepage: <http://www.r7.fws.gov/asm/home.html>).

For the State of Alaska, all Alaskan residents are qualified subsistence users, whereas under federal law only rural Alaskan residents are qualified subsistence users. In general, groundfish are considered subsistence resources and can be taken by a variety of means for both programs. Some state fisheries may be defined as “personal use” rather than “subsistence,” but in practical terms would operate in the same way as subsistence fisheries except that such fisheries would not have the consumptive priority of subsistence fisheries.

Available information on the consumptive use of subsistence resources derives from surveys conducted by ADF&G, using a standard methodology. One feature of this methodology is that ADF&G surveys only year-round households, so that for communities such as Akutan their “effective population” of interest excludes most if not all of the fish processing employees, who are considered transient for ADF&G purposes. To allow the reader to interpret the ADF&G information in the context of the other information about these communities, we have included the year of the ADF&G subsistence community survey and the population figures that ADF&G established for those communities for those years.

Three of the regions, the South Central Alaska Region, the Southeast Alaska region, and the Oregon Coast Region, have been treated primarily in regional terms, with some emphasis on specific communities as appropriate. For three of the regions, the Alaska Peninsula and Aleutian Islands Region, the Kodiak Region, and the Washington Inland Waters Region, more extended information is presented on regionally important groundfish communities. In these cases, because of the level of involvement of particular communities with the groundfish fishery, a regional level treatment of engagement with and dependence upon the groundfish fishery was not considered sufficient. The specific content of these extended community treatments varies from community to community, based upon the particular aspects of the community that are relevant to the consideration of the socioeconomic context of the groundfish fishery.

Several “big picture” questions are addressed in the individual regional profiles. These include the following questions:

How have fishing communities in Alaska been affected by the growth of the domestic groundfish fishery?

- On a regional basis, the primary regions that have been effected are the Alaska Peninsula and Aleutian Islands Region and the Kodiak Island Region.
- Within the Alaska Peninsula and Aleutian Islands region, the growth of the domestic groundfish fishery has caused profound changes in the communities of Unalaska and Akutan. In Unalaska, in recent years it has provided the mainstay of the fisheries based portion of the economy and generally reversed the local economic decline that followed crash of the King crab fishery. Both inshore and offshore sectors have contributed to the local tax base and the economic climate that has fostered the development of a significant support services sector. In Akutan, the groundfish fishery, primarily in the form of a large groundfish oriented shore plant, has transformed the community from a small primarily Native community to a much larger community predominately non-Native community. The implications of this change should be interpreted with caution, however, as the processor (through an enclave type of development) and the rest of the community remain separate in a number of different ways. Lesser changes have been seen in Sand Point and King Cove, although both have experienced a significant growth in local groundfish processing in recent years. Sand Point’s residential catcher vessel fleet has benefited disproportionately from the development of the groundfish fishery in comparison to other communities in the region. Communities within the Aleutians East Borough with no direct involvement in the groundfish fishery have also benefited from the borough’s fish tax. Other CDQ communities in the region have benefited in yet other ways.

- Within the Kodiak Region, the City of Kodiak has been the prime beneficiary of the development of the groundfish fishery. It has served as an important buffer for variation in other fisheries, especially after the decline of the locally important shrimp and crab fisheries, as well as the Bering Sea crab fisheries.
- The Alaska South Central and Southeast regions have not seen the level of changes experienced by communities in the Alaska Peninsula and Aleutian Islands Region and the Kodiak Island Region. The fishing communities in these regions tend to be quite diversified, although groundfish is an important component of this mix for some communities.
- It should also be noted that the development of the domestic groundfish fishery has also been important for regions and communities outside of Alaska, particularly for the Oregon (primarily Newport) catcher vessel sector, and the Washington (primarily Seattle) distant water fleet (catcher vessels, motherships, and catcher processors) and regionally based processing and support entities active in the Alaskan groundfish fishery.

How have historic changes in fisheries management affected fishing communities?

- Beyond the overall development of the domestic fishery, a number of fisheries management changes have had significant impacts on the regions and communities.
- With the Joint Venture era, expertise in the groundfish fishery was gained, and the foundation was laid for more complete domestic development of the fishery.
- Concerns over overcapitalization of the fishery and growth of the offshore sector in the late 1980s led to management actions based on avoiding preclusion of different sectors. This, in turn, had a number of impacts in both Alaskan and Pacific Northwest regions. Inshore/Offshore allocative splits changed the fishery in both the Gulf of Alaska and Bering Sea.
- Implementation of IFQ based management for sablefish profoundly changed that part of the groundfish fishery.
- License limitation served to cap entries into the fishery, but did not stabilize ownership patterns.
- The evolution of the CDQ program has served to involve entire regions in the groundfish fishery that were not directly involved in the groundfish fishery prior to the implementation of the program.
- The American Fisheries Act (AFA) changed the nature of quota allocations between and among sectors. Co-ops were recently formed both offshore (1999) and onshore (2000), and fishery participants are still adapting to the new context. Significant capital was removed (i.e., vessels retired) from the offshore fleet, the race for fish was essentially eliminated, and new types of operational relationships were formed between processors and their harvesting fleets. Ownership structures changed, with increased American ownership overall, and a specific trend of note has been increased investments in the fishery by CDQ groups. In terms of regional or community based impacts, the beneficial economic impacts of the reduction of the race for fish have accrued to most participants, but perhaps especially to the Washington Inland Waters Region, due to the ownership patterns and basic operational structure of the sector. Some adverse support sector impacts have been felt in Unalaska due to lessening of seasonal peak demands. In general, not enough time has passed since the full implementation of the provisions of AFA for all likely impacts to have become manifest.
- Management measures directed toward Steller sea lion protection have made a significant impact on the fishery. Some of the more restrictive measures were imposed in 2000, and a current suite of management alternatives for longer term approaches is under study by NMFS. Impacts are expected to vary significantly from community to community and region to region.

3.1 Alaska Peninsula/Aleutian Islands Region

3.1.1 Overview

The Alaska Peninsula/Aleutian Islands region (for the sake of simplicity also referred to as the Aleutians region) is the center of the Alaska groundfish fishery in terms of location of by far the greatest concentration of shore processing and in terms of proximity to the greatest concentration of harvest. For the purposes of this analysis, the Aleutian region is defined as including the communities of the Aleutians East Borough (AEB), which encompasses a portion of the Alaska Peninsula and the eastern Aleutian Islands, and the Aleutians West Census Area, which includes the communities to the west of the AEB along the Aleutian Chain as well as those in the Pribilof Islands. This region is shown in Figure 3.1-1.

Figure 3.1-1. Alaska Peninsula/ Aleutian Islands Study Region



Compared to other regions within Alaska, the Aleutian region is by far the dominant region for groundfish inshore processing. Over the period 1991-1999, this region accounted for 81 percent of all groundfish processed inshore in the state. This includes 89 percent of the pollock, 68 percent of the

Pacific cod, 53 percent of the flatfish, and 20 percent of the Atka mackerel, rockfish, sablefish, and other unspecified groundfish processed over this time period.

In terms of contrasting with other regions, the local economies of other Alaska regions discussed in this report in general tend to be more diversified than the Aleutian communities. For example, Akutan, King Cove, Sand Point, and Unalaska are each much more important groundfish ports in terms of volume and value than any of the ports in the South Central region. It is also the case that the economies of the Aleutian communities named are nearly exclusively fisheries based, unlike any of the larger communities in South Central (with, perhaps, the exception of Cordova). In other words, the groundfish fishery is economically more important in the Aleutian region both in absolute and relative terms than in any other region.

The relative level of dependence on the commercial fishing in general, and the groundfish fishery in particular, varies widely by community within this region. The AEB communities of Akutan, Cold Bay, False Pass, King Cove, Nelson Lagoon, and Sand Point have a widely divergent history of involvement with the groundfish fishery. Three of the top five Alaska groundfish ports are within the AEB. They are, in alphabetical order, Akutan, King Cove, and Sand Point. Cold Bay, False Pass, and Nelson Lagoon, on the other hand, cannot be characterized as groundfishing communities.

Moving west from the AEB along the Aleutian Chain, the region includes Unalaska/Dutch Harbor, the community that has for a number of years been the number one port in the nation in terms of both value (since 1988) and volume (since 1992) of catch landed. In contrast, the next community to the west, Nikolski, is not directly involved in the commercial fishery in terms of locally based harvest or processing capacity. It should be noted however, that the CDQ program has served to involve previously uninvolved regional communities in a number of different ways, as illustrated in CDQ group discussion.

To the far west, in recent years the community of Atka has developed a relatively small scale commercial fishery with a focus on halibut. Adak, in transition from a military to a civilian community, has seen the development of a commercial fishery in recent years. No groundfish was reported landed in Adak prior to 1998, but more recently there has been a focused effort to develop a local fishery, and by 2001 the processing operations at Adak had become one of the major purchasers of cod in the region. (The Coast Guard and military stations at Attu and Shemya are not considered in this analysis.) To the north, in the Pribilof Islands, St. Paul has been host to processing operations, while neighboring St. George has not. After some focused effort in the early 1990s, no significant amount of groundfish has been landed in St. Paul in recent years.

In the sector profiles section of this document, a distinction is drawn between the major pollock plants in Unalaska/Dutch Harbor and Akutan (the Bering Sea pollock plant sector) and the groundfish plants in the balance of the Alaska Peninsula/Aleutian Islands region. For the purposes of fishery catch and processing analysis (but not population or other socioeconomic issues), Chignik is included in the Alaska Peninsula/Aleutian Islands region. Outside of the Bering Sea pollock plants, almost all of the groundfish in the larger Aleutian Islands region are landed in (in alphabetical order) Chignik, King Cove, and Sand Point.

This region, then, is one of strong contrasts with respect to involvement with commercial fisheries in general, and the groundfish fishery in particular. In terms of the structural links to the groundfish fishery, for the purposes of socioeconomic characterization, there are four main categories of communities within the region that have links to harvesting or shore and offshore processing sectors of the Bering Sea groundfish fishery. These are characterized as follows:

Communities with well developed socioeconomic ties to both onshore and offshore sectors. This category consists of one community: Unalaska/Dutch Harbor. This community is the number one fishing port in the United States both in terms of dollar value of catch landed and volume of catch

landed, and groundfish (especially pollock) is a central part of the community's fishery based economy. The community has also seen the development of a significant support service sector in recent years, and this support service sector provides services for a number of sectors engaged in the Bering Sea pollock fishery, including shoreplants, floating processors, catcher vessels, and catcher processors. It is also the shipping hub of the Bering Sea. In line with National Standard 8 under the Magnuson-Stevens Act Provisions; National Standard Guidelines, Unalaska is both highly 'dependent' upon and 'engaged' in the fishery. This is particularly true when a sense of scale is applied, and considering the importance of the fishery in relation to the overall size of the community, both in economic and social terms.

Communities with large shoreplants that are also CDQ communities. This category consists of one community: Akutan. Akutan is quite different from Unalaska in that it is the host community to a single rather than multiple shoreplants, and the 'geo-social' relationship between the plant and the community is of quite a different nature than those found in Unalaska.

Communities that are not CDQ communities, have shoreplants that process groundfish, but that have no direct ties to the offshore sector. These are the communities of King Cove and Sand Point. These communities as a pair also differ from Unalaska and Akutan in that they have historically had a resident fishing fleet that provides more than a negligible amount of product to the local plant. Sand Point differs from Unalaska, Akutan, and King Cove in that they did not qualify as a site for an AFA catcher vessel co-op. Like each of the other communities listed, Sand Point does have an AFA qualified plant.

Communities that are CDQ communities without a large shore groundfish processing presence. This includes Atka, Nikolski, St. George, St. Paul, Nelson Lagoon, and False Pass. These communities are not discussed in this section, as CDQ issues are presented in a separate discussion within this document.

3.1.2 Population

Table 3.1-1 presents population information for the Aleutian region. As with population data from other regions, these data are sometimes problematic to interpret, but there are several trends of note. Adak, for example, shows no population in 1950 or 1960, although there was a large military base present during that period. The plummet in population between 1990 and 2000 in that community reflects the closure of that Navy installation and the ongoing transition from one of the larger (albeit military based) rural communities in the state to a relatively small civilian community (although it is still larger than all of the communities in the region without significant commercial fisheries development, except St. Paul). The growth of Unalaska over the period 1970 to 2000 can be directly attributed to the commercial fishery and the economic opportunities created by the fishery. As noted in the community specific discussion, however, because Unalaska (and other communities involved with the fishery) experiences a large influx of seasonal employees, total population counts are in some ways not directly comparable to counts for communities that do not experience such fluctuations.

Table 3.1-1. 1880-2000 Total Population Selected Communities, Alaska Peninsula/Aleutian Islands Region

Community	Incorporation Type	2000	1990	1980	1970	1960	1950	1940	1930	1920	1910	1900	1890	1880
Adak	Unincorporated	316	4,633	3,315	2,249	0	0	0	0	0	0	0	0	0
Akutan	2 nd Class City	713	589	169	101	107	86	80	71	66	0	60	80	65
Atka	2 nd Class City	92	73	93	88	119	85	89	103	56	0	128	132	132
Cold Bay	2 nd Class City	88	148	192	256	86	0	0	0	0	0	0	0	0
False Pass	2 nd Class City	64	68	70	62	41	42	88	59	0	0	0	0	0
King Cove	1 st Class City	792	451	460	283	290	162	135	0	0	0	0	0	0
Nelson Lagoon	Unincorporated	83	83	59	43	0	0	0	0	0	0	0	0	0
Nikolski	Unincorporated	39	35	50	57	92	64	97	109	83	0	0	0	127
Saint George	2 nd Class City	152	138	158	163	264	0	183	153	138	90	92	93	92
Saint Paul	2 nd Class City	532	763	551	450	378	359	299	247	212	201	214	244	298
Sand Point	1 st Class City	952	878	625	360	254	107	99	69	60	0	16	0	0
Unalaska	1 st Class City	4,283	3,089	1,322	178	218	173	298	226	299	281	428	317	0

Source: Historic data from Alaska Department of Community and Economic Development. 2000 data from U.S. Bureau of the Census, accessed through www.census.gov/prod/cen2000/index.

As shown in Table 3.1-2, there are sharp differences in the regional communities in their population composition. Setting aside the particular military transition situation at Adak, the male/female imbalance seen the larger regional communities -- Akutan, King Cove, Saint Paul, Sand Point, and Unalaska -- can be accounted for primarily by the presence of seafood processing facilities in these communities (plus some Coast Guard personnel in Saint Paul). The workforce at the seafood processing facilities in these communities, which tend to feature “worksites enclave” type of housing and support facilities, are predominantly male and are comprised primarily of workers who do not settle in the community for the long term. The percent Native figure is also related to fisheries development, with the communities that are less Native in overall population tending to be the communities with a significant shoreplant processing workforce presence. The exception to this generalization is Cold Bay, which (along with Adak) was not historically a Native community.

Table 3.1-2. 2000 Regional Population Composition Selected Communities, Alaska Peninsula/Aleutian Islands Region

Community	Male	Female	Native	Percent Native	White	Black	Asian	Native Hawaiian & Other Pacific Islander	Some Other Race	Two or More Races	Hispanic
Adak	205	111	111	35.1%	157	4	31	6	0	7	16
Akutan	549	164	112	15.7%	168	15	275	2	130	11	148
Atka	46	46	74	80.4%	6	0	1	1	0	10	1
Cold Bay	57	31	15	17.0%	63	3	4	2	0	1	2
False Pass	32	32	40	62.5%	17	0	0	0	1	6	1
King Cove	472	320	370	46.7%	119	13	212	1	47	30	59
Nelson Lagoon	43	40	65	78.3%	11	0	2	0	0	5	0
Nikolski	20	19	27	69.2%	12	0	0	0	0	0	0
Saint George	73	79	140	92.1%	12	0	0	0	0	0	0
Saint Paul	294	238	457	85.9%	69	0	0	3	0	3	0
Sand Point	593	359	403	42.5%	264	14	221	3	21	36	129
Unalaska	2,830	1,453	330	7.7%	1,893	157	1,312	24	399	168	551

Source: U.S. Bureau of the Census, accessed through www.census.gov/prod/cen2000/index.

The information on housing and household income for the region is presented in Tables 3.1-3a and 3.1-3b. Though 1990 U.S. Census data for household income are now dated, they provide the best comparative data available. As discussed in earlier reports, 1990 data show a wide variation in median family household income in the region. Nikolski, a community that has virtually no commercial economy and no direct involvement with the commercial fishery, is at the bottom of median income in the region. Unalaska and King Cove, with strong fishery ties, are at the top. There is not a direct correlation with fisheries in general, or the groundfish fishery in particular, however, for all communities. It is also important to recall that significant developments have taken place in the groundfish fishery since 1990 (for example, King Cove and Sand Point have substantially increased their involvement with the fishery in both relative and absolute terms), but these data provide a good comparative point of reference.

Table 3.1-3a. 1990 Housing and Household Information Selected Communities, Alaska Peninsula/Aleutian Islands Region

Community	Housing Units	Occupied HU	Vacant HU	Total Households	Average Persons Per HH	Median HH Income	Family Households	Median Family Income
Adak	1,051	1,019	32	1,019	3	29,250	954	28,684
Akutan	34	31	3	31	3	27,813	19	31,875
Atka	26	20	6	20	4	40,625	15	24,583
Cold Bay	73	54	19	54	3	45,625	38	51,539
False Pass	36	23	13	23	3	21,667	16	21,667
King Cove	195	144	51	144	3	53,631	118	63,419
Nelson Lagoon	35	31	4	31	3	44,583	24	51,254
Nikolski	26	19	7	19	2	13,750	9	17,250
Saint George	67	45	22	45	3	25,250	35	26,000
Saint Paul	177	154	23	154	4	39,922	118	48,000
Sand Point	272	242	30	242	3	42,083	159	43,125
Unalaska	682	575	107	575	3	56,215	299	61,927

Source: U.S. Bureau of the Census

Table 3.1-3b. 2000 Housing and Household Information Selected Communities, Alaska Peninsula/Aleutian Islands Region

Community	Housing Units	Occupied HU	Vacant HU	Total Households	Average HH Size	Median HH Income	Family Households	Median Family Income
Adak	884	159	725	159	1.99	a	61	a
Akutan	38	34	4	34	2.21	a	18	a
Atka	41	32	9	32	2.69	a	21	a
Cold Bay	98	36	62	36	2.28	a	18	a
False Pass	40	22	18	22	2.91	a	14	a
King Cove	207	170	37	170	2.90	a	117	a
Nelson Lagoon	33	31	2	31	2.68	a	20	a
Nikolski	28	15	13	15	2.60	a	12	a
Saint George	67	51	16	51	2.98	a	42	a
Saint Paul	214	177	37	177	2.88	a	123	a
Sand Point	282	229	53	229	2.67	a	156	a
Unalaska	988	834	154	834	2.51	a	476	a

a 2000 census data are not yet available for household income – this table will be updated as soon as they are available.

Source: U.S. Bureau of the Census, accessed through www.census.gov/prod/cen2000/index.

3.1.3 Employment and Income

Information on employment and poverty within the region also point out contrasts between communities that, in turn, are often related to the commercial fisheries.¹ For example, as shown in Table 3.1-4, Atka shows a very high rate of unemployment and percent of adults not working, yet there is a smaller percentage of persons in poverty than in Akutan, a community with an

¹ Relevant data from the 2000 census are not yet available, so this section still relies on 1990 data – it will be updated as soon as the information becomes available.

unemployment rate of less than one percent. This is attributable, in part, to the fundamentally different natures of the communities, with Atka being a small village and Akutan being a community with a large processing facility adjacent to the traditional village site. False Pass, Nelson Lagoon, Nikolski, and St. George, none of which have fish processing facilities, all have over 50 percent of the adults in the community not working. The contrast between these and the other communities is reflective of both lack of economic development in these communities and the nature of the workforce population in communities with shore plants, where large numbers of processing workers are present, tend not to have non-working adult family members present with them, and tend to be in the community exclusively for employment purposes.

Table 3.1-4. 1990 Employment and Poverty Information Selected Communities, Alaska Peninsula/Aleutian Islands Region

Community	Total Persons Employed	Unemployed	Percent Unemployment	Percent Adults Not Working	Not Seeking Employment	Percent Poverty
Adak	3,130	51	5.3%	8.4%	237	2.0%
Akutan	527	2	0.4%	7.4%	40	16.6%
Atka	26	9	25.7%	44.7%	12	16.2%
Cold Bay	95	0	0.0%	15.9%	18	0.0%
False Pass	23	0	0.0%	53.1%	26	17.9%
King Cove	276	5	1.8%	24.0%	82	10.0%
Nelson Lagoon	14	0	0.0%	80.8%	59	26.0%
Nikolski	14	0	0.0%	53.3%	16	0.0%
Saint George	40	7	14.9%	52.9%	38	41.9%
Saint Paul	388	40	10.8%	32.6%	148	7.1%
Sand Point	438	13	2.9%	32.1%	194	12.5%
Unalaska	2,518	26	1.0%	7.8%	186	15.3%

Source: U.S. Bureau of the Census

Total employment on a regional basis is provided by sector for the region for the years 1975 - 1999 in Table 3.1-5. Manufacturing sector jobs for this region are for the most part associated with fish processing, including all species (e.g., groundfish, crab, halibut, and salmon). The nature of dependence on employment in processing is readily apparent. Discounting the military employment, which had a dramatic downward trend over the period as a result of the scaling back and closure of Navy facilities at Adak as does federal civilian employment, manufacturing is far and away the dominant sector for employment in the region. Looking at the most recent year shown, 1999, manufacturing accounts for more regional employment than all other sectors (for which data are disclosed) combined.

It should be noted that official employment data for fish harvesting are generally incorrect, and the problem comes from that fact that permit holders and crewmembers are considered to be “self-employed.” In both State and Federal regulations employers are required to report the number of persons in their companies who earn wages and salaries on a monthly basis. Self-employed persons including people employed in fish harvesting are not required to supply this information. Since nearly everyone working on-board fishing vessels are paid on a share basis they are considered self-employed and therefore there is little if any employment and income from fishing reported in the regular labor statistic data collection process. The data in Tables 3.1-5, 3.1-6, and 3.1-7 (as well as the analogous tables for the other regions) reflect the official data on employment. The number of persons employed in the row labeled “Agriculture, Forestry and Fishing” understate the actual numbers of person employed in the industry. Because realistic official data on fish harvesting do not

exist, estimates of estimate employment in fish harvesting are made using other means—typically by estimating the number of crewmembers on a typical vessel and making an assumption that all persons employed come from the same region as the vessel owner. It should also be noted that official data on fish processing employment estimates in Alaska are believed to be generally more accurate because of the fact that employees at shore based processing facilities are regular wage earning employees. It is also believed that most crewmembers on board at-sea processors are also reported as employees in the official employment information. In contrast to shore plants, at-sea processors will generally be reported as being employed in the county in which the home office is located. Since almost all at-sea processors operating in Alaska are owned by residents of Washington, it is likely that most of the at-sea employment on processors are reported as employment in Washington state.

Table 3.1-5. Total Employment for Alaska Peninsula/Aleutian Islands Region, 1975-1999

Sector	No. of Persons Employed by Year					
	1975	1980	1985	1990	1995	1999
Agricultural Services, Forestry, Fishing, and Other	392	497	545	325a	63a	a
Construction	250	125	182	200	119a	a
Federal, Civilian	535	667	685	772	223	53
Finance, Insurance, and Real Estate	a	a	176	157	202	305
Manufacturing	754	1,816	928	1,499a	3,566	2,958
Military	3,330	2,410	2,505	2,897	1,073	68
Mining	35	0	a	a	a	a
Retail Trade	a	130	161	483	533	72a
Service	77	236	408	358	90a	635a
State and Local	263	376	590	690	691	640
Transportation and Public Utilities	a	134	250	576	463	334
Wholesale Trade	a	a	a	72a	47a	84a

Note: Where “a” appears in the table, the data is suppressed due to confidentiality reasons, or because there were fewer than ten jobs in that sector during the year indicated. Where an “a” follows a numerical value, one or more of the underlying statistical areas faced disclosure or other limitations. Although the data do not appear in the table, the totals shown in the summary table reflect all available information, which might include estimates of employment and income for unusually small sectors.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (REIS), 1969-1999. Personal income and employment estimates for all counties and metropolitan areas in the United States.

Table 3.1-6 breaks out personal income and earnings on a regional level over the period 1975-1999. A pattern similar to that seen in employment is evident where manufacturing, nearly exclusively seafood processing, dominates. As an example of this level of dependence, the income and earnings for manufacturing in 1999 exceed that of all other disclosed sectors combined. Setting aside for the moment the question of ‘true residency’ for seasonal or temporary workers, this is indicative of an enormous amount of economic activity, both in absolute and relative terms, for the Aleutians region. No other region represents this type of dominance by manufacturing.

Table 3.1-6. Personal Income and Earnings for Alaska Peninsula/Aleutian Islands Region, 1975-1999

Sector	Earnings by Year (\$Millions)					
	1975	1980	1985	1990	1995	1999
Agricultural Services, Forestry, Fishing, and Other	4.0	5.5	8.4	5.8a	0.4a	a
Construction	8.8	6.8	11.8	15.3	6.2a	a
Federal, Civilian	6.3	14.2	15.2	21.7	9.4	3.1
Finance, Insurance, and Real Estate	a	a	3.1	3.2	3.8	4.8
Manufacturing	9.4	35.8	22.9	48.9a	108.4	114.2
Military	43.7	44.0	70.6	91.2	40.3	1.9
Mining	1.2	a	a	0.1	0.0	0.0
Retail Trade	a	2.1	3.1	10.9	12.4	1.6a
Service	0.2	2.8	5.6	5.8	2.2a	22.0a
State and Local	4.1	9.3	19.2	22.9	27.8	26.7
Transportation and Public Utilities	a	2.5	9.0	15.8	13.0	12.1
Wholesale Trade	a	a	a	4.4a	2.6a	4.0

Note: Where "a" appears in the table, the data is suppressed due to confidentiality reasons, or because there were fewer than ten jobs in that sector during the year indicated. Where an "a" follows a numerical value, one or more of the underlying statistical areas faced disclosure or other limitations. Although the data do not appear in the table, the totals shown in the summary table reflect all available information, which might include estimates of employment and income for unusually small sectors.

Source: REIS, 1969-1999. Personal income and employment estimates for all counties and metropolitan areas in the United States.

Table 3.1-7 displays personal income, population, per capita personal income, and total employment changes on a regional basis over the period 1975-1999. Although changes at Adak, by far the largest community in the region at the start of the period and one of the smallest at the end of the period, somewhat confound the regional data, these data provide a good comparative benchmark.

Table 3.1-7. Personal Income, Population, Per Capita Income, and Total Employment for Alaska Peninsula/Aleutian Islands Region, 1975-1999

Indicator	Indicator Data by Year					
	1975	1980	1985	1990	1995	1999
Personal Income (\$Millions)	77.5	110.7	155.4	246.3	215.4	187.6
Population (No. of Persons)	8,523	7,813	9,734	11,974	7,195	6,092
Per Capita Personal Income (\$)	\$9,089	\$14,170	\$15,968	\$20,568	\$29,943	\$30,802
Total Full- and Part-Time Employment (No. of Persons)	6,035	6,572	6,494	9,202	8,313	6,378

Personal income includes nonfarm and farm income (adjusted for social insurance and residence) plus dividends, interest, rent, and transfer payments.

Source: REIS, 1969-1999. Personal income and employment estimates for all counties and metropolitan areas in the United States.

Table 3.1-8 breaks out food and kindred products employment for the region from other manufacturing data. This distinction is less important for the Aleutians region than for at least some of the other Alaska regions, as there is virtually no non-seafood related manufacturing activity in this area. These data do, however, provide a benchmark for comparison with other regions. Figure 3.1-2

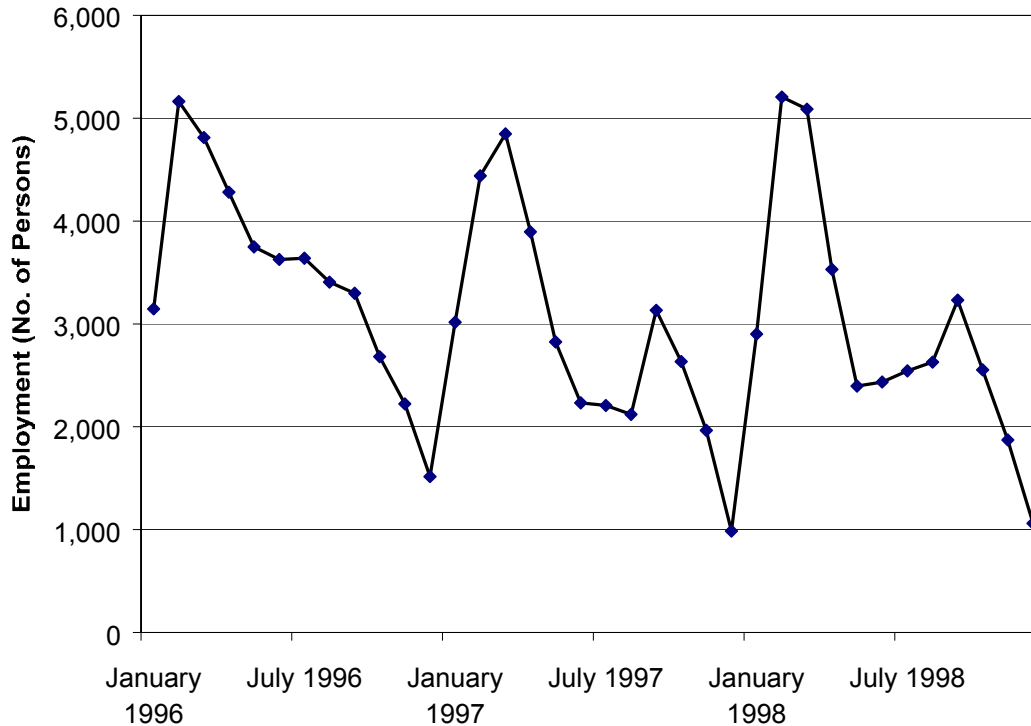
graphically illustrates the fluctuation of employment in this sector on an annual basis, with distinct peaks and valleys that correspond to the major fishing seasons.

Table 3.1-8. Employment and Earnings in the Alaska Peninsula/Aleutian Islands Region Food and Kindred Products Manufacturing Sector, 1996–1998

Indicator	Year		
	1996	1997	1998
Annual Average Monthly Employment (No. of Persons)	3,462	2,859	2,954
Total Annual Earnings (\$Millions)	89.8	74.5	78.9

Source: DOLWD, Employment and Earnings Summary Report for Alaska and all boroughs and census areas, 1996, 1997, and 1998 reports.

Figure 3.1-2. Monthly Employment in the Alaska Peninsula/Aleutian Islands Region Food and Kindred Products Manufacturing Sector, 1996–1998



Source: DOLWD, Employment and Earnings Summary Report for Alaska and all boroughs and census areas, 1996, 1997, and 1998 reports.

3.1.4 Infrastructure

Table 3.1-9 presents information on community infrastructure and service providers.

Table 3.1-9. Community Infrastructure and Service Providers Selected Communities, Alaska Peninsula/Aleutian Islands Region

Community	Water Operator	Sewer Operator	Landfill Operator	Electric Utility	Clinic/Hospital	Law Enforcement	Fire/Rescue
Adak	Aleut Corp.	Aleut Corp.	Aleut Corp.	Aleut Corporation	Adak Medical Clinic	State VPSO	Adak Volunteer Fire/EMS
Akutan	City	City	City	Akutan Electric Utility	Anesia Kudrin Memorial Clinic	City/State VPSO	City/State VPSO/Volunteer Fire
Atka	City	City	City	Andreas of Electric Corporation	Atka Health Clinic	State VPSO	State VPSO/City Volunteer Fire/EMS
Cold Bay	City	City	City	G & K, Inc	Anna Livingstone Memorial Clinic (532-2000); Peter Pan Seafoods' Port Moller Medical Clinic (seasonal 987-2207)	None; State Troopers Post (532-2652)	City EMS/Ambulance; State DOT Fire & Rescue
False Pass	City	Individuals; Private	City	False Pass Electric	False Pass Health Clinic	State VPSO; City Public Safety Office	State VPSO & City Volunteer Fire
King Cove	City	City	City	City of King Cove	King Cove Medical Clinic	City Police & State VPSO	State VPSO/City Volunteer Fire, EMS & Rescue Dept.
Nelson Lagoon	Village Council	Individuals	Village Council	Nelson Lagoon Electric Cooperative	Nelson Lagoon Health Clinic	State VPSO	State VPSO
Nikolski	Village Council	Individuals; Village Council	Not available	Umnak Power Company	Nikolski Health Clinic	None	n/a
Saint George	City; Clinic	City	City	St. George Municipal Electric Utility	St. George Health Clinic	State/City VPSO	City Volunteer Fire/EMS/Ambulance; City Fire Station
Saint Paul	City	City	City	St. Paul Municipal Electric Utility	St. Paul Health Center	City Dept. of Public Safety	City Volunteer Fire Dept. & Rescue; City Ambulance
Sand Point	City	City	City	Sand Point Electric, Inc	Sand Point Community Health Facility	City Police Dept.; City Jail	City Volunteer Fire Dept./EMS
Unalaska	City	City	City	Unalaska Electric Utility	Iliuliuk Family & Health Services, Inc. (581-1202); Oonalaska Wellness Center (A/PIA)	City Dept. of Public Safety; State Troopers Post (581-1432)	City Dept. of Public Safety & Volunteer Fire/EMS/Rescue; Amaknak Island Fire Station

Source: DCED Alaska Community Database Online. www.dced.state.ak.us\MRA\CF_COMDB.htm

3.1.5 Tax and Revenue

Community taxes are summarized in Table 3.1-10. Of special note is the fact that all of the communities that are landing ports for groundfish also have a community and/or borough fish tax. The communities without a borough or local fish tax have either historically not landed groundfish (Adak and Nikolski) or did so in the past but have not reported landings in recent years (St. Paul).

Table 3.1-10. Community Taxes Selected Communities, Alaska Peninsula/Aleutian Islands Region

Community	Property Tax	Sales Tax	Special Taxes
Adak	N/A	No taxing	N/A
Akutan	None	None	1% Raw Fish Tax (City); 2% Raw Fish Tax (Borough)
Atka	None	None	2% Raw Fish Tax; 10% Accommodations Tax
Cold Bay	None	None	Fuel Transfer.; 2% Raw Fish Tax (Borough)
False Pass	None	2%	2% Raw Fish Tax (City); 2% Raw Fish Tax (Borough)
King Cove	None	3%	2% Raw Fish Tax (City); 2% Raw Fish Tax (Borough)
Nelson Lagoon	None	None	2% Raw Fish Tax (Borough)
Nikolski	N/A	No taxing	N/A
Saint George	None	None	3% Fish & Marine Products; \$.03/Gal. Fuel Transfer Tax
Saint Paul	None	3%	None
Sand Point	None	3%	2% Raw Fish Tax (City); 2% Raw Fish Tax (Borough)
Unalaska	11.78 mils	3%	5% Accommodations Tax; 2% Raw Fish Tax

Source: DCED Alaska Community Database Online. www.dced.state.ak.us/MRAICF_COMDB.htm

Table 3.1-11 serves to highlight the differences in the community economies in the region as seen through different types of revenues. The information presented in the table also provides a sense of relative scale between communities. For example, when total operating revenues are examined, the dominance of the fishery based economy of Unalaska is apparent. On the other hand, for some communities other types of revenue are more important. For example, in terms of revenue per capita, both St. George and St. Paul have higher figures than Unalaska, and neither has ties to the fisheries on anywhere near the scale of Unalaska.

Table 3.1-11. Community Revenues (1998) Selected Communities, Alaska Peninsula/Aleutian Islands Region

Community	Local Tax Revenues	Subtotal Local Revenues	Subtotal Outside Revenues	Total Operating Revenues	Revenue Per Capita	Capital Project Revenues
Adak	n/a	n/a	n/a	n/a	n/a	n/a
Akutan	500,116	923,676	689,887	1,613,563	3,955	11,492
Atka	203,599	264,949	37,838	302,787	2,633	1,968,561
Cold Bay	29,596	259,532	70,164	329,696	3,201	0
False Pass	56,559	229,339	104,107	333,446	5,749	344,675
King Cove	710,636	1,940,706	432,097	2,372,803	3,375	4,154,091
Nelson Lagoon	n/a	n/a	n/a	n/a	n/a	n/a
Nikolski	n/a	n/a	n/a	n/a	n/a	n/a
Saint George	285,520	1,387,236	291,987	1,679,223	9,126	700,477
Saint Paul	1,812,795	5,614,025	938,912	6,552,937	8,611	0
Sand Point	499,583	1,533,425	279,740	1,813,165	2,185	70,829
Unalaska	12,198,556	27,300,848	9,086,660	36,387,508	8,492	273,569

Source: DCED Alaska Community Database Online. www.dced.state.ak.us/MRA/CF_COMDB.htm

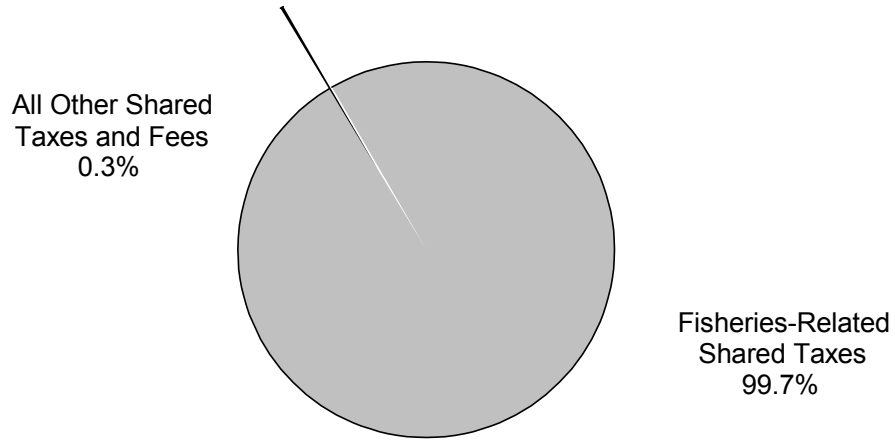
Table 3.1-12 depicts the revenue generated for the Alaska Peninsula and Aleutian Islands region for each of the shared fisheries taxes. In terms of relative dependence on fish taxes specifically, as illustrated in Figure 3.1-3, virtually all (99.7 percent) of the region's shared taxes and fees were fisheries-related in fiscal year 1999. The region's share of the fisheries business tax and fishery resource landing tax amounted to \$7,169,297 in that year. In absolute terms, as shown in Figure 3.1-3, the shared tax revenue is down 14 percent from 1993, when it represented \$8,382,442 of the region's tax revenue. Also clearly illustrated in Figure 3.1-4 is the relative importance of the fishery resource landing tax. Resulting from at-sea processing activity, this tax is much more important to the Aleutian region, both in absolute and relative terms, than to any other region.

Table 3.1-12. Fisheries-related Shared Taxes in the Alaska Peninsula/Aleutian Islands Region, Fiscal Years 1993-1999

	1993	1994	1995	1996	1997	1998	1999
Shared Fisheries Business Tax Revenue (\$)	8,382,442	7,539,751	7,032,057	7,339,342	4,620,563	4,863,195	4,957,544
Shared Fishery Resource Landing Tax Revenue (\$)			2,744,488	3,178,965	2,647,236	3,013,292	2,211,753
Total Fisheries-Related Shared Tax Revenue (\$)	8,382,442	7,539,751	9,776,545	10,518,307	7,267,799	7,876,487	7,169,297

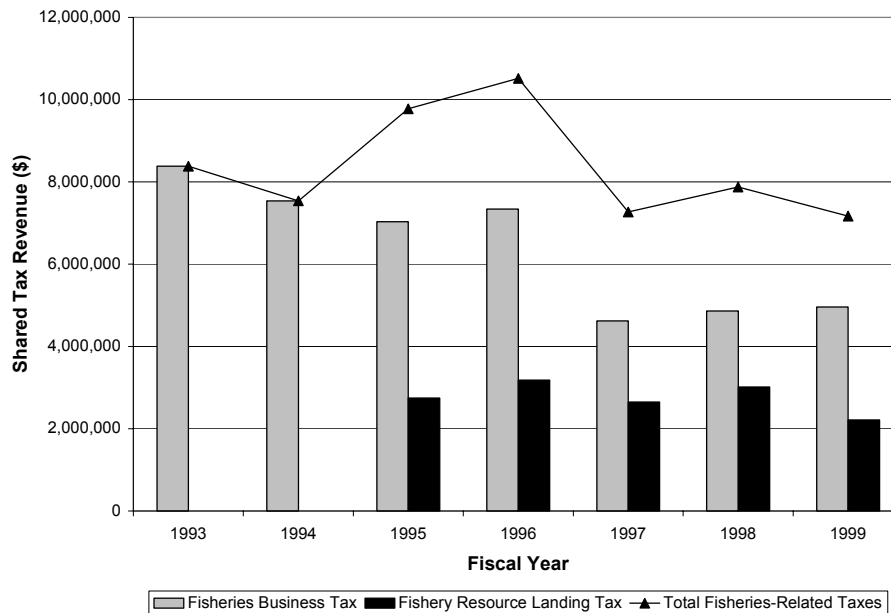
Source: ADOR, 2000.

Figure 3.1-3. Percentage of Fisheries-related Shared Taxes and Fees in the Alaska Peninsula/Aleutian Islands Region, Fiscal Year 1999.



Source: ADOR, 2000.

Figure 3.1-4. Fisheries-related Shared Taxes in the Alaska Peninsula/Aleutian Islands Region, Fiscal Years 1993-1999.



Source: ADOR, 2000.

3.1.6 Inshore Groundfish Processing

Table 3.1-13 provides information on the number of tons of groundfish processed at shoreplants physically located within the region, reflecting the volume of fish coming ashore. Table 3.1-14 shows the number of entities processing this volume. Table 3.1-15 provides information, by species, of the processed product value at shoreplants within the region.

For the Aleutians region, the plants are divided into two subsectors: the Bering Sea pollock shoreplants, and the Alaska Peninsula/Aleutian inshore plants, based on distinctive operational profiles as described in the sector profile section of this document. The Bering Sea pollock shoreplants include three large shore processors in Unalaska, one large shore processor in Akutan, one floating processor currently (2001) in Beaver Inlet on Unalaska Island, and one floating processor in Akutan Bay. These same plants have operated every year during the 1992-2000 period (although one of the floaters has moved from Beaver Inlet to Akutan Bay during this time). The Alaska Peninsula/Aleutian inshore plants are all other groundfish plants in the region (Aleutians East Borough and the Aleutians West Census Area) exclusive of the six Bering Sea plants (and including the plants in Sand Point and King Cove, among others). As shown, the Bering Sea plants dominate processing in the region (and, indeed, the state) in terms of volume of groundfish processed. The number of smaller plants in the region has varied from 5 to 8 per year from 1992 to 2000. In 2000, eight Alaska Peninsula/Aleutian inshore plants (i.e., the regional non-Bering Sea pollock sector plants) reported processing groundfish in Adak (1), Chignik (1), Unalaska/Dutch Harbor (3), King Cove (1), Sand Point (1), and St. Paul (1).

Table 3.1-13. Round Weight Tons of Groundfish Processed by Shoreplants in the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	Thousands of Tons		
	BSPSP	APASP	Total
1992	474.27	42.19	516.46
1993	476.96	57.11	534.08
1994	493.32	58.25	551.57
1995	493.99	72.99	566.98
1996	474.45	73.73	548.18
1997	462.04	70.45	532.49
1998	417.92	68.47	486.39
1999	477.44	66.48	543.91
2000	544.23	46.40	590.63

Source: NMFS Blend and Weekly Production Report Data, June 2001.

Table 3.1-14. Number of Shoreplants in the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	Number of Shoreplants		
	BSPSP	APASP	Total
1992	6	5	11
1993	6	6	12
1994	6	6	12
1995	6	6	12
1996	6	5	11
1997	6	6	12
1998	6	6	12
1999	6	8	14
2000	6	8	14

Source: NMFS Blend Data, 2001

Table 3.1-15. Value of Groundfish Processed Product by Shoreplants in the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	\$Millions		
	BSPSP	APASP	Total
1992	337.41	36.54	373.96
1993	185.29	32.57	217.86
1994	259.82	31.47	291.30
1995	340.36	46.22	386.58
1996	286.47	45.16	331.63
1997	283.94	46.55	330.50
1998	239.72	43.41	283.14
1999	315.16	61.15	376.31
2000	390.53	46.71	437.23

Source: NMFS Blend and Weekly Production Report Data, June 2001.

Table 3.1-16 provides summary information for processing occurring onshore within the region. Both volume and value are tracked.

As shown, the Aleutians region has a very large volume of total tons processed, and a relatively low value per ton. This is consistent with high engagement in the pollock fishery, a high volume/low value per unit fishery.

Table 3.1-16. Processing Summary of Bering Sea Pollock and Alaska Peninsula/Aleutian Inshore Plants, 1992-1999

Year	1992	1993	1994	1995	1996	1997	1998	1999
Total Tons ^a (1,000 mt)	518.3	534.2	551.7	567.2	548.2	532.5	486.5	544.1
Total Product ^b (1,000 mt)	153.1	152.6	172.8	183.2	177.6	176.2	165.2	191.0
Utilization Rate ^c (percent)	29.5	28.6	31.3	32.3	32.4	33.1	34.0	35.1
Product Value ^d (\$ millions)	374.0	217.9	291.4	386.6	331.6	330.5	304.4	325.2
Value per Ton ^e (\$ per mt)	721.5	407.8	528.2	681.6	605.0	620.7	625.6	597.7

Notes:

^aTotal groundfish reported tons retained and discarded (1,000 mt) from NMFS Blend Data.

^bTotal groundfish final product (1,000 mt) from NMFS Weekly Production Reports.

^cTotal final product as a percent of total groundfish reported tons (row 2 divided by row 1).

^dTotal final product value (\$ millions) from NMFS Weekly Production Reports with product prices from ADF&G Commercial Operator Annual Reports.

^eTotal value of final product per round weight ton reported (row 4 divided by row 1).

Table 3.1-17 shows employment specifically attributable to the various sectors that process groundfish in the region or, for the mobile processing sectors, are owned by residents of the region. Table 3.1-18 provide parallel information on payments to labor for the same sectors.

As shown, there is virtually no employment in any processing sectors in the Aleutians region except for shore plants. The information in the table also clearly illustrates the predominance of the large, pollock-oriented Unalaska/Akutan plants processing employment relative to other plants and communities in the region. For any given year, the largest plants located in Unalaska/Akutan (the Bering Sea pollock shore plants [BSP-SP]) provided roughly four to eight times the amount of employment than at all other plants in all other communities (the Alaska Peninsula/Aleutians shore plants [APA-SP]) combined. Payments to labor show this same type of split between plant types, again showing the relative dominance of Unalaska and Akutan as centers of employment for the region as a whole.

Table 3.1-17. Groundfish Processing FTE Employment on At-Sea Processors Owned by Residents or Shore-Based Processors in the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	Processing FTE Employment in the Region													Total
	ST-CP	FT-CP	HT-CP	P-CP	L-CP	BSP-SP	APA-SP	K-SP	SC-SP	SE-SP	MS	FLT	OTHER	
1992b	0.00	0.00	0.00	0.00	13.05	1,772.14	267.35	0.00	0.00	0.00	0.00	0.00	0.00	2,052.54
1993	0.00	0.00	0.00	a	0.00	1,641.64	305.42	0.00	0.00	0.00	0.00	0.00	a	1,947.05
1994b	0.00	0.00	0.00	0.00	11.57	1,987.29	274.62	0.00	0.00	0.00	0.00	0.00	0.00	2,273.48
1995	0.00	0.00	0.00	0.00	1.35	2,197.40	301.64	0.00	0.00	0.00	0.00	1.00	0.00	2,501.38
1996	0.00	0.00	0.00	0.00	1.12	2,225.64	379.95	0.00	0.00	0.00	0.00	1.01	0.00	2,607.72
1997	0.00	0.00	0.00	0.00	1.23	2,098.81	406.41	0.00	0.00	0.00	0.00	0.78	a	2,507.23
1998	0.00	0.00	0.00	0.00	0.90	1,898.40	384.27	0.00	0.00	0.00	0.00	0.22	a	2,283.78
1999	0.00	0.00	0.00	0.00	0.53	2,146.46	461.11	0.00	0.00	0.00	0.00	0.42	0.00	2,608.53
2000	0.00	0.00	0.00	0.00	1.03	2,764.95	351.23	0.00	0.00	0.00	0.00	0.78	a	3,117.99

Note: All employment on at-sea processors (including floaters) and administrative employment at all processors are assigned to the owners region. On-site employment at shore plants are assigned to the region in which the plant is located.

For all sectors, additional payments to labor for administrative and office personnel are assigned to the owners region.

a Added to Floaters to ensure confidentiality.

b In order to protect confidentiality, all at-sea and administrative payments to labor for this year reflect averages for the sectors are not adjusted to reflect regional differences.

Source: Estimated by Northern Economics

Table 3.1-18. Adjusted Groundfish Processing Payments to Labor for Shoreside Processors in the Region and for At-sea Processors Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	\$Millions													Total
	ST-CP	FT-CP	HT-CP	P-CP	L-CP	BSP-SP	APA-SP	K-SP	SC-SP	SE-SP	MS	FLT	OTHER	
1992b	0.00	0.00	0.00	0.00	0.69	101.22	10.96	0.00	0.00	0.00	0.00	0.00	0.00	112.88
1993	0.00	0.00	0.00	a	0.00	55.59	9.77	0.00	0.00	0.00	0.00	0.00	a	65.36
1994b	0.00	0.00	0.00	0.00	0.63	77.95	9.97	0.00	0.00	0.00	0.00	0.00	0.00	88.54
1995	0.00	0.00	0.00	0.00	0.06	102.11	13.99	0.00	0.00	0.00	0.00	0.04	0.00	116.20
1996	0.00	0.00	0.00	0.00	0.06	85.94	13.67	0.00	0.00	0.00	0.00	0.03	0.00	99.69
1997	0.00	0.00	0.00	0.00	0.06	85.18	14.06	0.00	0.00	0.00	0.00	0.03	a	99.33
1998	0.00	0.00	0.00	0.00	0.05	71.92	13.09	0.00	0.00	0.00	0.00	0.01	a	85.06
1999	0.00	0.00	0.00	0.00	0.04	94.55	18.39	0.00	0.00	0.00	0.00	0.01	0.00	112.98
2000	0.00	0.00	0.00	0.00	0.07	117.16	14.07	0.00	0.00	0.00	0.00	0.03	a	131.33

Note: All payments to labor from at-sea processors (including floating inshore plants) are assigned to the owners region. On-site payments to labor from shore plants are assigned to the region in which the plant is located.

For all sectors, additional payments to labor for administrative and office personnel are assigned to the owners region.

a Added to Floating Inshore Plants due to confidentiality restrictions.

b Due to confidentiality restrictions, all values for this year reflect averages for the processor classes and are not adjusted to reflect regional differences.

Source: Estimated by Northern Economics

3.1.7 Processing Ownership and Activity

Table 3.1-19 provides information on processors owned by residents of the region. This information is broken out by sector for both shore based and mobile processors.

While the Aleutians region is the center of groundfish processing in the state of Alaska, both in terms of volume and value, the region is not a leader in terms of ownership of processing entities. Only three processing sectors have had any entities whose owners are residents of the region over the period 1992-2000. No more than two entities in any sector were owned by regional residents in any year. For the most recent years, only one L-CP and one FLT processor were regionally owned, and only two shoreplants (and none of the larger Bering Sea pollock shoreplants). This fact has a number of implications for the relationship of the communities to the shore plants in the region, both in economic and social terms. To the extent that economic benefits flow to the location of ownership, these benefits flow out of the region. In social terms, this is another way in which shoreplants in some communities are less fully integrated into the fabric of the community than some other businesses. Of course, this varies from community to community.

Table 3.1-19. Number of Processors Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	Number of Processors														Total
	ST-CP	FT-CP	HT-CP	P-CP	L-CP	BSP-SP	APA-SP	K-SP	SC-SP	SE-SP	MS	FLT	OTHE R		
1992	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1994	0	0	0	0	1	0	1	0	0	0	0	0	0	2	
1995	0	0	0	0	1	0	2	0	0	0	0	2	1	6	
1996	0	0	0	0	1	0	2	0	0	0	0	2	0	5	
1997	0	0	0	0	1	0	2	0	0	0	0	1	0	4	
1998	0	0	0	0	1	0	2	0	0	0	0	1	0	4	
1999	0	0	0	0	1	0	2	0	0	0	0	1	0	4	
2000	0	0	0	0	1	0	2	0	0	0	0	1	0	4	

Source: NMFS Blend Data, June 2001.

The following group of four tables provides more detailed information on a species break-out basis for regionally owned processors. Table 3.1-20 provides information on the number of regionally owned processors by species by year (as processors may participate in more than one fishery, the subtotals exceed the total number of regionally owned processors). Table 3.1-21 provides information on the volume of fish, by species, processed at these plants. Table 3.1-22 displays information on the wholesale production value by species at these plants. Table 3.1-23 provides information on adjusted processing revenues, by sector, for regionally owned processors.

These tables show that within the relatively small group of Aleutians region owned processors, there is a marked emphasis on Pacific cod among the various groundfish species. This emphasis is apparent both in terms of volume and value.

Table 3.1-20. Number of Processors Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, by Groundfish Species, 1992-2000

Year	Number of Processors				Total
	ARSO	FLAT	PCOD	PLCK	
1992	1	1	1	1	1
1993	0	0	0	0	0
1994	1	1	2	1	2
1995	5	5	6	5	6
1996	5	5	5	5	5
1997	4	4	4	4	4
1998	4	4	4	4	4
1999	4	4	4	2	4
2000	4	4	4	4	4

Source: NMFS Blend Data, 2001

Table 3.1-21. Round Weight Tons Processed at Processors Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, by Groundfish Species, 1992-2000

Year	Thousands of Tons				Total
	ARSO	FLAT	PCOD	PLCK	
1992	a	a	a	a	a
1993	0.00	0.00	0.00	0.00	0.00
1994	a	a	a	a	a
1995	0.06	0.07	1.74	0.02	1.89
1996	0.07	0.15	1.72	0.04	1.98
1997	0.10	0.17	1.08	0.07	1.42
1998	0.03	0.04	0.82	0.01	0.90
1999	0.01	0.04	0.49	b	0.54
2000	0.07	0.02	0.65	0.00	0.74

Note: Values include "Ghost" processors.

Source: NMFS Blend and Weekly Production Report Data, June 2001

a Data omitted for confidentiality.

b Data for PLCK added to FLAT for confidentiality.

Table 3.1-22. Wholesale Production Value for Processors Owned by Residents of the Alaska Peninsula/Aleutian Islands Region by Species, 1992-2000

Year	\$Millions					Total
	ARSO	FLAT	PCOD	PLCK		
1992	a	a	a	a		a
1993	0.00	0.00	0.00	0.00		0.00
1994	a	a	a	a		a
1995	0.07	0.09	1.36	0.00		1.52
1996	0.00	0.05	1.35	0.00		1.40
1997	0.21	0.12	0.85	0.00		1.18
1998	0.00	0.00	0.81	0.00		0.81
1999	0.00	0.00	0.53	b		0.53
2000	0.00	0.00	0.83	0.00		0.83

Source: NMFS Weekly Production Reports, June 2001

Note: Values include "Ghost" processors.

a Data omitted for confidentiality.

b Data for PLCK added to FLAT for confidentiality.

Table 3.1-23. Adjusted Groundfish Processing Revenues at Processors Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	\$Millions													Total
	ST-CP	FT-CP	HT-CP	P-CP	L-CP	BSP-SP	APA-SP	K-SP	SC-SP	SE-SP	MS	FLT	OTHE R	
1992b	0.00	0.00	0.00	0.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
1993	0.00	0.00	0.00	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	a	0.00
1994b	0.00	0.00	0.00	0.00	1.57	0.00	5.25	0.00	0.00	0.00	0.00	0.00	0.00	6.81
1995	0.00	0.00	0.00	0.00	0.16	0.00	1.26	0.00	0.00	0.00	0.00	0.10	0.00	1.52
1996	0.00	0.00	0.00	0.00	0.14	0.00	1.18	0.00	0.00	0.00	0.00	0.08	0.00	1.40
1997	0.00	0.00	0.00	0.00	0.14	0.00	0.97	0.00	0.00	0.00	0.00	0.07	a	1.18
1998	0.00	0.00	0.00	0.00	0.12	0.00	0.66	0.00	0.00	0.00	0.00	0.03	a	0.81
1999	0.00	0.00	0.00	0.00	0.09	0.00	0.42	0.00	0.00	0.00	0.00	0.02	0.00	0.53
2000	0.00	0.00	0.00	0.00	0.17	0.00	0.57	0.00	0.00	0.00	0.00	0.09	a	0.83

a Added to Floating Inshore Plants due to confidentiality restrictions.

b Due to confidentiality restrictions, all values for this year reflect averages for the processor classes and are not adjusted to reflect regional differences.

Source: Estimated by Northern Economics

3.1.8 Vessel Ownership and Activity

Tables 3.1-24 through 3.1-26 provide general descriptive information on regionally owned catcher vessels. Table 3.1-24 shows the number of vessels within the length and gear based sector classes as defined in the sector profiles section (Section 2) of this document. Table 3.1-25 contains information the number of catcher vessels by species group (as an individual vessel typically participates in more than one fishery, the subtotals exceed the total number of regionally owned vessels). Table 3.1-26

provides information on the number of vessels owned within the region based strictly on vessel size (irrespective of gear type).

As shown in these tables, ownership within the Aleutians region is concentrated within the smallest class of trawl catcher vessels (less than 60 feet) and the 33-59' fixed gear class. Among the various groundfish species fished, there is a pronounced emphasis on Pacific cod among regionally owned vessels. When examined strictly on a vessel length basis, there is an apparent shift during the 1990s from smaller to larger vessels, with a cluster shift from the 45-49' class to the 55-59' class. It is also apparent that catcher vessel ownership within the region does not follow the same pattern as the distribution of processing facilities within the region. While AFA plants dominate the processing in the region, in recent years none of the AFA trawler catcher vessels were owned by residents of the region. These are the vessels that supply a very large proportion of the groundfish processed in the region. Few large non-AFA trawler vessels are owned by regional residents either. In other words, the large boats that tend to work the groundfish fisheries on the open Bering Sea are not present. The smaller vessels that are present in the region are primarily owned by residents in the eastern portion of the region, particularly Sand Point, with secondary clusters in Unalaska and King Cove. For the western portion of the region, groundfish are harvested primarily by a non-resident fleet, although there are a number of small local vessels that take limited amounts of groundfish, including jig cod.

Table 3.1-24. Number of Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	Number of Vessels										
	TCV BSP ≥ 125	TCV BSP 60-124	TCV Div. AFA	TCV Non- AFA	TCV < 60	PCV	LCV	FGCV 33-59	FGCV ≤ 32	GHOST	Total
1992	0	0	0	5	28	1	0	23	4	24	85
1993	0	1	0	3	32	0	0	8	1	6	51
1994	0	1	0	2	30	0	2	18	7	20	80
1995	0	0	0	4	31	3	1	27	5	20	91
1996	0	0	0	3	31	5	1	23	7	20	90
1997	0	0	0	3	30	1	1	27	12	27	101
1998	0	0	0	3	30	2	2	30	9	13	89
1999	0	0	0	3	29	3	1	23	8	10	77
2000	0	0	0	3	29	4	0	31	3	10	80

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

Table 3.1-25. Number of Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region by Species, 1992-2000

Year	Number of Vessels				
	ARSO	FLAT	PCOD	PLCK	Total
1992	17	2	83	12	85
1993	8	3	50	8	51
1994	11	7	78	10	80
1995	10	6	90	12	91
1996	29	12	79	13	90
1997	26	24	99	29	101
1998	17	15	86	23	89
1999	22	15	75	19	77
2000	24	15	77	19	80

Source: CFEC/ADF&G/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.1-26. Number of Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, by Vessel Length, 1992-2000

Year	Number of Vessels													Total
	≤20'	21'-24'	25'-28'	29'-32'	33'-39'	40'-44'	45'-49'	50'-54'	55'-59'	60'-79'	80'-94'	95'-109'	140'-154'	
1992	5	0	3	4	10	14	29	8	6	4	2	0	0	85
1993	1	0	0	1	1	4	26	7	6	3	2	0	0	51
1994	5	0	3	4	9	9	27	7	8	5	2	0	1	80
1995	7	1	3	4	9	11	20	13	15	5	3	0	0	91
1996	3	2	1	9	12	7	11	11	25	4	3	1	1	90
1997	8	3	2	10	12	10	9	13	26	2	2	3	1	101
1998	5	2	1	6	11	11	7	14	25	3	2	2	0	89
1999	4	2	0	6	6	7	6	13	26	3	1	3	0	77
2000	3	1	0	3	10	9	5	12	30	1	2	4	0	80

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.1-27 displays information on employment on catcher vessels owned by regional residents, by gear/length class. Table 3.1-28 provides payment to labor information broken out by gear/length class, and Table 3.1-29 provides data on payments to labor on vessels broken out by species group.

As shown, the distribution of employment positions for the Aleutians region reflects the general distribution pattern of vessel ownership (with divergences accounted for by different crew sizes in the different classes). There are much larger differences in payments to labor than would be expected simply from the number of employment positions. As shown, payments to labor on the small trawl vessels are several fold larger (e.g., over 3 fold in 2000) than those to labor on the 33-59' fixed gear vessels, despite the total number of employees being relatively similar. Pacific cod accounted for more than three-quarters of payments to labor on these vessels in the last several years. It should be noted that the number of employment positions and the total payments to labor associated with catcher vessels is small compared to similar data from processors within the region. From the perspective of a social impact analysis, it is important to remember that these jobs and payments to labor essentially accrue to two different, if co-located, populations. Catcher vessel positions on

regionally owned vessels tend to be associated with long term residents of the region, where processing positions tend to be associated with individuals recruited from outside the region.

Table 3.1-27. Number of Crewmembers on Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	Number of Crewmembers									
	TCV BSP ≥ 125	TCV BSP 60-124	TCV Div. AFA	TCV Non-AFA	TCV < 60	PCV	LCV	FGCV 33-59	FGCV ≤ 32	Total
1992	0	0	0	18	112	6	0	96	16	248
1993	0	5	0	14	128	0	0	36	4	186
1994	0	5	0	9	120	0	11	72	28	245
1995	0	0	0	18	124	17	6	108	20	292
1996	0	0	0	14	124	28	6	92	28	291
1997	0	0	0	14	120	6	6	108	48	301
1998	0	0	0	14	120	11	11	120	36	312
1999	0	0	0	14	116	17	6	92	32	276
2000	0	0	0	14	116	22	0	124	12	288

Source: Estimates developed by Northern Economics based on vessel counts from CFEC/ADF&G Fish-Ticket and NMFS Observer Data.

Table 3.1-28. Groundfish Payments to Labor on Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, by Sector, 1992-2000

Year	\$Millions										
	TCV BSP ≥ 125	TCV BSP 60-124	TCV Div. AFA	TCV Non- AFA	TCV < 60	PCV	LCV	FGCV 33-59	FGCV ≤ 32	GHOST	Total
1992	0.00	0.00	0.00	0.46	1.45	0.03	0.00	0.35	0.02	0.00	2.30
1993	0.00	0.24	0.00	0.18	0.87	0.00	0.00	0.10	0.00	0.00	1.39
1994	0.00	0.29	0.00	0.14	1.00	0.00	0.05	0.25	0.02	0.00	1.75
1995	0.00	0.00	0.00	0.31	1.03	0.08	0.07	0.49	0.01	0.00	1.99
1996	0.00	0.00	0.00	0.36	1.95	0.21	0.09	0.56	0.04	0.00	3.21
1997	0.00	0.00	0.00	0.61	2.37	0.06	0.14	0.71	0.05	0.01	3.95
1998	0.00	0.00	0.00	0.29	1.90	0.08	0.12	0.54	0.03	0.00	2.96
1999	0.00	0.00	0.00	0.47	2.73	0.14	0.07	0.59	0.04	0.00	4.05
2000	0.00	0.00	0.00	0.40	2.59	0.16	0.00	0.77	0.02	0.00	3.94

Note: Estimated by multiplying the number of vessels associated with the region by the regionally weighted average payments to labor--using actual value for each region would compromise confidentiality.

Source: Estimated by Northern Economics.

Table 3.1-29. Payments to Labor for Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region by Species, 1992-2000

Year	\$Millions					Total
	ARSO	FLAT	PCOD	PLCK		
1992	0.12	a	2.09	0.09	2.30	
1993	0.07	a	1.14	0.18	1.39	
1994	0.10	0.01	1.34	0.30	1.75	
1995	0.28	0.01	1.35	0.35	1.99	
1996	0.32	0.37	1.94	0.58	3.21	
1997	0.23	0.01	2.61	1.09	3.95	
1998	0.13	0.00	2.21	0.62	2.96	
1999	0.17	0.00	3.02	0.86	4.05	
2000	0.02	0.00	3.04	0.88	3.94	

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Note: Values for Ghost Vessels have been included in the data set in order to minimize instances where data can not be reported due to NMFS confidentiality provisions. In all cases the values for Ghost Vessels are negligible.

^a Combined with value of ARSO to protect the confidentiality of the small number of CVs from this region that reported catching these species during the year.

Table 3.1-30 provides a break-out of the geographic distribution of vessel effort, in terms of FMP subarea, for regionally owned catcher vessels. Table 3.1-31 provides vessel information specifically for pollock and Pacific cod by FMP area. As an individual vessel typically participates in more than one fishery, the subtotals exceed the total number of regionally owned vessels.

As shown, most Aleutian region owned catcher vessels direct their effort toward the Western GOA area, with a secondary focus on the Bering Sea and Central GOA area (with a rough balance between the two for several recent years, although there is a good deal of variability seen from year-to-year). Few regionally owned vessels participate in either the Aleutian Island or Eastern GOA groundfish fisheries. Vessels that participate in the pollock fishery are a subset of the vessels that fish for Pacific cod, as for each year shown the total number of vessels fishing for Pacific cod match the total for the entire fleet.

Table 3.1-30. Number of Catcher Vessels Owned by Residents of Alaska Peninsula/Aleutian Islands Region, by FMP Subarea, 1992-2000

Year	Number of Vessels					Total
	AI	BS	WG	CG	EG	
1992	1	19	72	29	0	85
1993	0	10	43	29	1	51
1994	2	22	71	29	0	80
1995	4	42	68	26	1	91
1996	1	34	69	35	2	90
1997	2	31	88	34	3	101
1998	0	20	78	30	1	89
1999	3	18	67	19	1	77
2000	4	21	68	5	1	80

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.1-31. Number of Catcher Vessels Owned by Residents of Alaska Peninsula/Aleutian Islands Region with Pacific Cod and Pollock Landings by FMP Subarea, 1992-2000

Year	Number of Vessels												PCOD & PLCK Total
	PCOD						PLCK						
	AI	BS	WG	CG	EG	PCOD Total	AI	BS	WG	CG	EG	PLCK Total	
1992	1	18	71	27	0	83	0	2	10	3	0	12	83
1993	0	10	41	28	1	50	0	2	7	0	0	8	50
1994	0	22	69	28	0	78	0	1	8	8	0	10	78
1995	3	41	66	24	0	90	0	4	10	7	0	12	90
1996	0	34	58	31	1	79	0	3	13	9	0	13	79
1997	0	30	86	32	2	99	0	11	24	16	0	29	99
1998	0	17	75	29	0	86	0	1	22	16	0	23	86
1999	3	15	64	19	0	75	0	6	18	13	0	19	75
2000	4	19	65	5	1	77	0	12	18	0	0	19	77

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.1-32 provides information on the resident catcher vessel fleet in terms of the value of the retained harvest by FMP subarea. Table 3.1-33 details this information of pollock and Pacific cod specifically.

Similar to the volume data, the value data highlight the importance of the Western GOA area to the Aleutian region resident fleet in the years since 1992. This relative importance has become more pronounced in the most recent years. These figures also provide a sense of scale of the value of the harvest of the resident fleet versus the value of fish processed in the region, with local harvest accounting for only a small proportion of the fish processed in the region.

Table 3.1-32. Ex-Vessel Value of Harvest by Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region by FMP Subarea, 1992-2000

Year	\$Millions					
	AI	BS	WG	CG	EG	Total
1992	a	0.48	3.94	1.32	0.00	5.74
1993	0.00	0.30	2.52	0.65	b	3.47
1994	a	0.52	2.77	1.09	0.00	4.38
1995	0.03	0.97	2.82	1.15	b	4.98
1996	a	1.32	4.77	1.93	b	8.02
1997	a	0.92	6.56	2.39	b	9.86
1998	0.00	0.36	5.44	1.59	b	7.39
1999	a	0.61	8.65	0.86	b	10.12
2000	0.05	0.65	9.09	0.08	b	9.86

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

^a Combined with value from BS to protect the confidentiality of the small number of CVs from this region that reported catching these species during the year.

^b Combined with value from CG to protect the confidentiality of the small number of CVs from this region that reported catching these species during the year.

Table 3.1-33. Ex-Vessel Value of Pacific Cod and Pollock Landings by Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region by FMP Subarea, 1992-2000

Year	\$Millions												PCOD & PLCK Total
	PCOD						PLCK						
	AI	BS	WG	CG	EG	PCOD Total	AI	BS	WG	CG	EG	PLCK Total	
1992	a	4.03	3.72	1.18	0.00	5.21	0.00	c	0.22	c	0.00	0.22	5.43
1993	0.00	0.18	2.09	0.58	b	2.85	0.00	c	0.45	0.00	0.00	0.45	3.29
1994	0.00	0.43	2.05	0.87	0.00	3.35	0.00	b	0.54	0.20	0.00	0.74	4.09
1995	a	2.60	1.88	0.78	0.00	3.38	0.00	0.05	0.73	0.11	0.00	0.88	4.26
1996	0.00	0.45	3.18	1.23	b	4.85	0.00	b	1.22	0.23	0.00	1.45	6.30
1997	0.00	0.56	5.02	0.95	b	6.52	0.00	0.16	1.29	1.28	0.00	2.73	9.25
1998	0.00	0.27	4.62	0.64	0.00	5.53	0.00	b	0.73	0.82	0.00	1.55	7.07
1999	a	7.00	6.88	0.33	0.00	7.54	0.00	0.11	1.62	0.42	0.00	2.15	9.69
2000	0.05	0.09	7.38	0.08	b	7.60	0.00	0.53	1.68	0.00	0.00	2.21	9.80

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

^a Combined with value of BS to protect the confidentiality of the small number of CVs in the region that reported catching these species in this subarea during the year.

^b Combined with value of CG to protect the confidentiality of the small number of CVs in the region that reported catching these species in this subarea during the year.

^c Combined with value of WG to protect the confidentiality of the small number of CVs in the region that reported catching these species in this subarea during the year.

Table 3.1-34 provides information on value of harvest broken out by gear and length vessel class. Table 3.1-35 provides information on retained catch by regionally owned catcher vessels, by groundfish species. Table 3.1-36 provides parallel value information for these vessels.

Several features of the Aleutian region owned fleet are apparent from these tables. Flatfish and the ARSO complex are of very little value, and each has had a zero harvest total in at least one recent year. Pacific cod is the dominant species for harvest volume, although there has been a large increase in pollock harvest since the early 1990s. While pollock has more closely approached Pacific cod harvest levels in recent years, the value of Pacific cod far outdistances the value of pollock to this fleet. When value is examined on fleet sector basis, trawl catcher vessels under 60' dominate, followed by the 33-59' fixed gear vessel class.

Table 3.1-34. Ex-Vessel Value of Catcher Vessels by Sector from the Catcher Vessels from the Alaska Peninsula and Aleutian Islands Region, 1992-2000

Year	\$Millions										
	TCV BSP ≥ 125	TCV BSP 60-124	TCV Div. AFA	TCV Non- AFA	TCV < 60	PCV	LCV	FGCV 33-59	FGCV ≤ 32	GHOST	Total
1992	0.00	0.00	0.00	1.14	3.62	0.07	0.00	0.86	0.04	0.01	5.74
1993	0.00	0.59	0.00	0.45	2.18	0.00	0.00	0.24	0.01	0.00	3.47
1994	0.00	0.73	0.00	0.35	2.50	0.00	0.11	0.62	0.06	0.01	4.38
1995	0.00	0.00	0.00	0.77	2.58	0.20	0.17	1.22	0.03	0.01	4.98
1996	0.00	0.00	0.00	0.90	4.87	0.51	0.22	1.39	0.10	0.01	8.02
1997	0.00	0.00	0.00	1.53	5.92	0.14	0.36	1.76	0.13	0.01	9.86
1998	0.00	0.00	0.00	0.72	4.74	0.19	0.31	1.34	0.09	0.01	7.39
1999	0.00	0.00	0.00	1.17	6.82	0.36	0.18	1.47	0.09	0.01	10.12
2000	0.00	0.00	0.00	0.99	6.48	0.41	0.00	1.93	0.04	0.01	9.86

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

Note: Ex-vessel values shown reflect the adjusted average earned by each class multiplied by the number of vessels owned by residents of the region. Regional adjustment factors were employed to account for relative productivity differences among regions.

Table 3.1-35. Retained Tons of Groundfish by Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region by Species, 1992-2000

Year	Thousands of Tons				
	ARSO	FLAT	PCOD	PLCK	Total
1992	0.1	a	12.3	1.6	14.1
1993	0.1	a	8.5	3.4	12.0
1994	0.1	0.1	10.0	4.6	14.8
1995	0.2	0.0	8.3	4.9	13.4
1996	0.4	1.7	13.9	7.8	23.7
1997	0.1	0.1	17.0	11.6	28.9
1998	0.2	0.0	16.3	11.2	27.8
1999	0.1	0.0	14.5	9.8	24.5
2000	0.0	0.1	11.5	8.7	20.3

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Note: Values for Ghost Vessels have been included in the data set in order to minimize instances where data can not be reported due to NMFS confidentiality provisions. In all cases the values for Ghost Vessels are negligible.

^a Combined with tons of ARSO to protect the confidentiality of the small number of CVs from this region that reported catching these species during the year.

Table 3.1-36. Ex-Vessel Value of Harvest by Catcher Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, 1992-2000

Year	\$Millions				
	ARSO	FLAT	PCOD	PLCK	Total
1992	0.31	a	5.21	0.22	5.74
1993	0.18	a	2.85	0.45	3.47
1994	0.26	0.04	3.35	0.74	4.38
1995	0.70	0.01	3.38	0.88	4.98
1996	0.79	0.92	4.85	1.45	8.02
1997	0.59	0.02	6.52	2.73	9.86
1998	0.32	0.00	5.53	1.55	7.39
1999	0.42	0.00	7.54	2.15	10.12
2000	0.05	0.00	7.60	2.21	9.86

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Note: Values for Ghost Vessels have been included in the data set in order to minimize instances where data can not be reported due to NMFS confidentiality provisions. In all cases the values for Ghost Vessels are negligible.

^a Combined with value of ARSO to protect the confidentiality of the small number of CVs from this region that reported catching these species during the year.

Table 3.1-37 provides information on the specific location of the regionally owned fleet. This, in turn, provides an indication of the subregional distribution of catcher vessel-related harvest volume and value as well as employment.

As shown for the Aleutians region, Sand Point vessels make up one-half of the resident fleet in the entire region and account for about 60 percent of the total value of harvest taken by vessels owned by residents of the region. King Cove has the second largest number of vessels, accounting for roughly one-quarter of the regional fleet. Unalaska/Dutch Harbor, the third regional fleet center has only 14 percent of the regionally owned vessels, but accounts for almost as much of the regional harvest value (21 percent) as does King Cove (23 percent). Given that Unalaska/Dutch Harbor is the number one port in the nation in terms of volume and value of catch landed, this again points up the relatively small contribution of the locally owned fleet to the overall groundfish fishery in the region as a whole, and for Unalaska/Dutch Harbor in particular. No other community accounts for more than 1 percent of the regional fleet, or 3 percent of the regional harvest value.

Table 3.1-37. Community Rankings by Alaska Groundfish Catcher Vessels Owned by Residents of the Alaska Peninsula and Aleutian Islands Region, 1992-2000

City	Total Value ^a	No. of Vessels
	Percent of Region Total	
Sand Point	59.1	49.0
King Cove	23.8	23.2
Unalaska/Dutch Harbor	14.1	21.2
False Pass	1.2	2.0
Akutan	1.1	3.3
Saint Paul Island	0.4	0.7
Adak	0.4	0.7

Note: Communities are ranked based on each community's percent of the historical total value for the region.

^a Total value percentage for each community is based on average revenue of each catcher vessel by type and adjusted using regional-adjustment factor.

Source: Calculated by Northern Economics using CFEC/ADF&G Fish Ticket Data, July 2001

3.1.9 Harvest Diversity

Table 3.1-38 provides information on the relative value of groundfish and non-groundfish species (salmon, crab, halibut, other) to regionally owned catcher vessels for the years 1999 and 2000. In addition to showing annual totals, this information is presented on a monthly basis to show the 'annual round' of the fisheries, and to allow a consideration of the changing relative importance of the different species complexes during different times of the year. Table 3.1-39 provides a summary break-out of the relative value of non-groundfish species on an annual basis for the period 1992-2000. Figures 3.1-5 and 3.1-6 depicted the same information. This provides an easy comparison of the relative worth to owners of these species. Table 3.1-40 provides a count of regionally owned groundfish vessels participating in the non-groundfish fisheries by species for 1992-2000, which is illustrated in Figure 3.1-7. As individual vessels typically participate in more than one fishery, the subtotals exceed the total number of regionally owned vessels.

For the Aleutian region in 1999, as shown, groundfish accounted for 44 percent of total value, and salmon accounted for 37 percent of total value for these vessels. Crab comprised 11 percent, halibut 6 percent, and "other" 1 percent of total value respectively. (2000 total data are problematic because halibut figures are missing from the available data set.) Among non-groundfish species, salmon is the most valuable species in all years shown, but relative value is variable with salmon being clearly predominant in most years and only marginally ahead of crab for a few years. In terms of vessel participation, in 1999, 78 percent of groundfish vessels also participated in the salmon fishery, 45 percent in the halibut fishery, 8 percent in the crab fishery, and 12 percent in other non-groundfish fisheries.

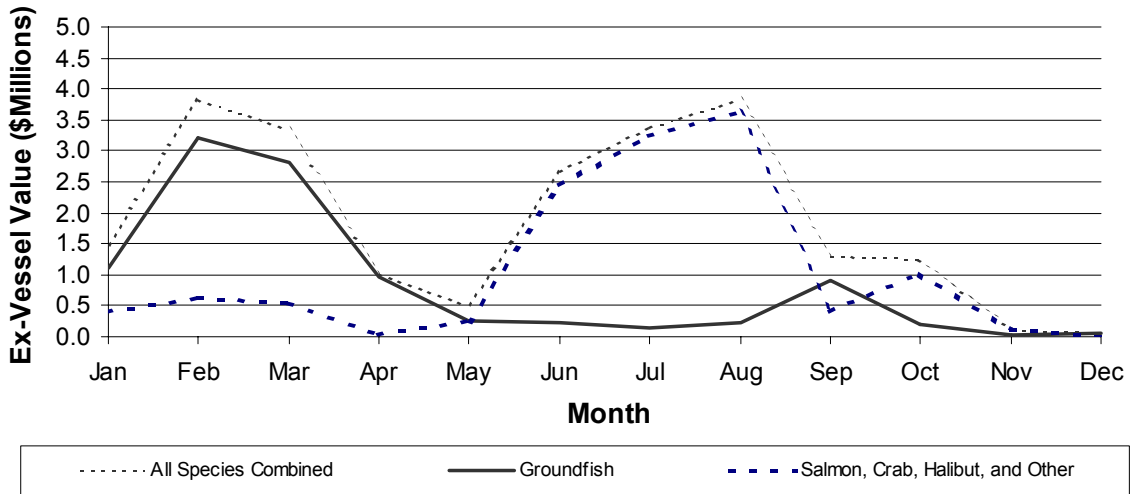
Table 3.1-38. Ex-Vessel Harvest Value of Groundfish, Salmon, Crab, Halibut, and Other Species by Residents of the Alaska Peninsula and Aleutian Islands Region, by Month, 1999-2000

Year	Species	\$Millions												Total
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
1999	Salmon	0.00	0.00	0.00	0.00	0.00	2.13	2.91	3.23	0.14	0.00	0.00	0.00	8.41
	Crab	0.39	0.64	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	2.49
	Halibut	0.00	0.00	0.00	0.04	0.17	0.32	0.10	0.40	0.24	0.10	0.10	0.00	1.47
	Other	0.00	0.00	0.00	0.00	0.07	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.31
	Groundfish	1.10	3.20	2.82	0.97	0.26	0.22	0.13	0.21	0.92	0.21	0.02	0.04	10.12
2000	Salmon	0.00	0.00	0.00	0.00	0.00	1.74	1.37	0.84	0.14	0.00	0.00	0.00	4.09
	Crab	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00	1.45
	Halibut	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.05	0.00	0.09	0.00	0.00	0.02	0.00	0.00	0.17
	Groundfish	1.52	3.03	2.98	1.41	0.07	0.02	0.00	0.41	0.02	0.33	0.03	0.05	9.86

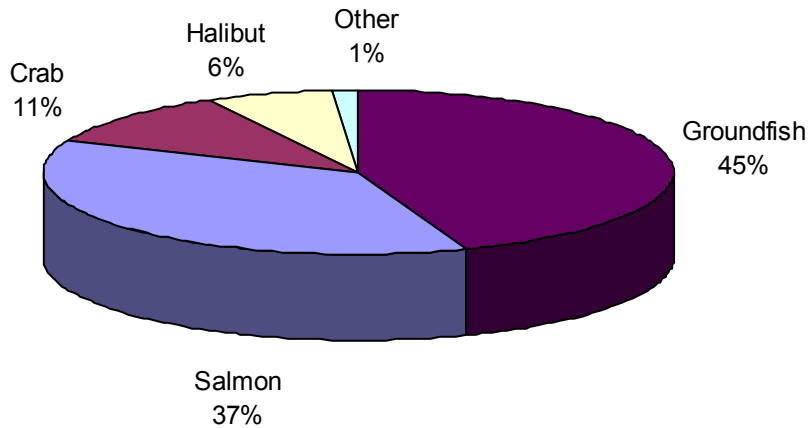
Source: CFEC/ADF&G Fish Tickets from NPFMC, June 2001

Note: Halibut data are missing for 2000.

Figure 3.1-5. Ex-Vessel Harvest Value of Groundfish, Salmon, Crab, Halibut, and Other Species by Residents of the Alaska Peninsula and Aleutian Islands Region, 1999



Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

Figure 3.1-6. Percent of Total Ex-Vessel Harvest Value by Residents of the Alaska Peninsula and Aleutian Islands Region, 1999

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

Table 3.1-39. Ex-Vessel Value of Non-Groundfish Harvested by Groundfish Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region, by Species, 1992-2000

Year	\$Millions				Total
	Salmon	Crab	Halibut	Other	
1992	14.66	0.44	1.39	0.38	16.86
1993	6.62	1.19	0.92	0.46	9.20
1994	6.14	4.77	2.23	0.09	13.24
1995	10.00	3.23	0.67	0.11	14.00
1996	2.77	2.64	0.71	0.35	6.46
1997	3.79	3.11	1.24	0.28	8.41
1998	6.75	1.59	0.77	0.35	9.46
1999	8.41	2.49	1.47	0.31	12.69
2000	4.09	1.45	0.00	0.17	5.71

Source: CFEC/ADF&G Fish Tickets from NPFMC, June 2001

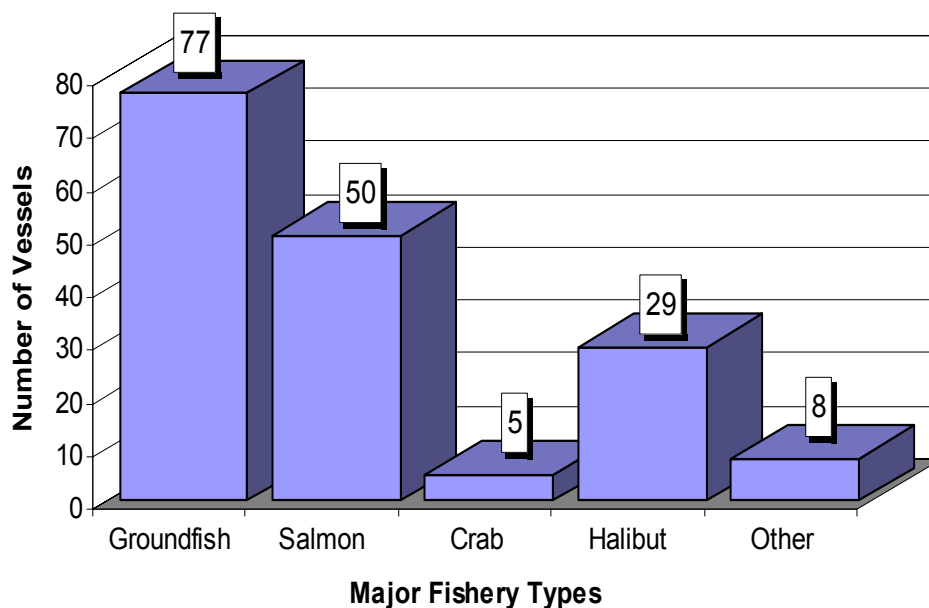
Note: Halibut data are missing for 2000.

Table 3.1-40. Number of Groundfish Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region Participating in Non-Groundfish Fisheries, by Species, 1992-2000

Year	Number of Vessels				Total
	Salmon	Crab	Halibut	Other	
1992	61	5	73	13	82
1993	39	10	34	9	49
1994	49	14	63	6	73
1995	57	23	30	9	72
1996	55	18	32	16	75
1997	59	13	37	13	79
1998	61	7	30	14	74
1999	50	5	29	8	64
2000	57	8	0	10	63

Source: CFEC/ADF&G Fish Tickets from NPFMC, June 2001

Note: Halibut data are missing for 2000.

Figure 3.1-7. Number of Groundfish Vessels Owned by Residents of the Alaska Peninsula/Aleutian Islands Region Participating in Non-Groundfish Fisheries, by Species, 1999

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

3.1.10 Processing Diversity

Table 3.1-41 provides information on processor diversity across groundfish, salmon, crab, halibut, and other non-groundfish fisheries by enumerating processors present in the region. Table 3.1-42 displays information on ex-vessel value paid by all shorebased processors in the region, using the same species grouping as in the previous table. Figures 3.1-8 and 3.1-9 illustrate these same data.

For the Aleutians region, in 1999 more processors processed groundfish (79 percent) than any other species complex (2000 data are problematic for analysis because halibut is missing from the data set). Crab and halibut were each processed at 63 percent of the plants. Salmon were processed at 37 percent of the plants, and other non-groundfish were processed at 16 percent of the plants located in the region. Examining the relative value of these species, crab accounted for 41 percent of ex-vessel value paid by all processors in the region in 1999. Groundfish, in turn, accounted for 39 percent of total value. Salmon was responsible for 14 percent of total value, while halibut and other non-groundfish accounted for 5 percent at the processors within this region.

Table 3.1-41. Total Number of Groundfish and Non-Groundfish Shorebased Processors in the Alaska Peninsula/Aleutian Islands Region by Species, 1992-2000

Year	Number of Processors					Total
	Groundfish	Salmon	Crab	Halibut	Other	
1992	13	6	11	11	8	17
1993	12	8	10	12	9	17
1994	13	9	10	14	13	19
1995	13	5	10	13	11	18
1996	12	5	9	10	9	15
1997	12	7	10	10	6	16
1998	13	7	12	8	4	18
1999	15	7	12	12	3	19
2000	17	7	10	0	4	20

Notes: Includes all shore based facilities in the region including facilities that did not process groundfish. Data for halibut in 2000 were not available in time for inclusion.

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.1-42. Ex-Vessel Value Paid by All Processors in the Alaska Peninsula/Aleutian Islands Region by Species, 1992-2000

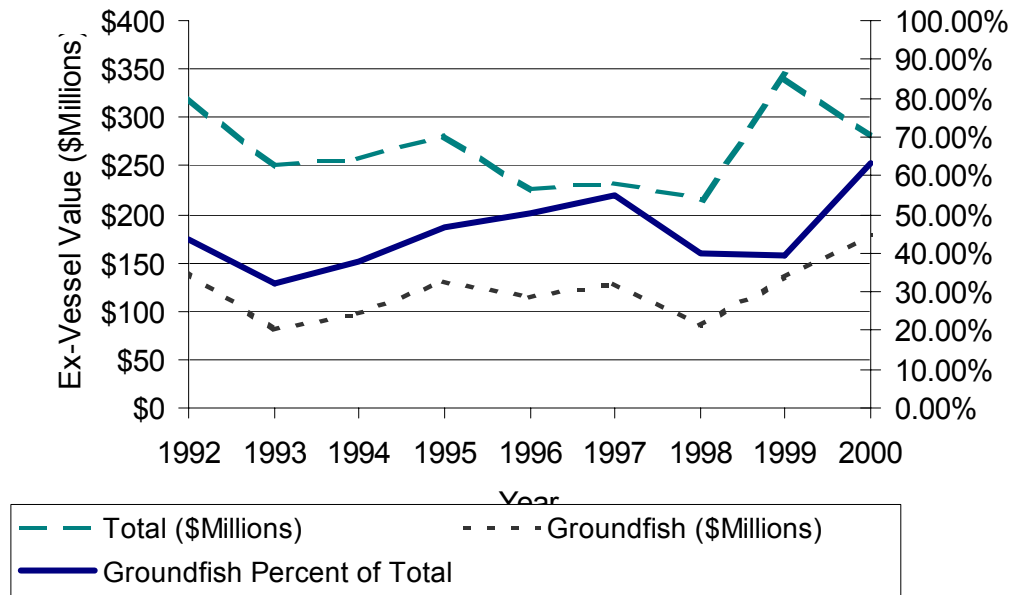
Year	\$Millions					Total
	Groundfish	Salmon	Crab	Halibut	Other	
1992	140.2	58.8	113.0	6.9	2.0	320.9
1993	80.3	46.4	114.9	8.1	1.7	251.3
1994	97.6	34.4	112.7	10.5	1.7	256.8
1995	130.6	42.1	99.1	8.2	1.1	281.1
1996	113.3	24.4	80.6	6.1	1.7	226.1
1997	127.9	18.1	72.3	13.3	1.1	232.8
1998	86.0	28.5	96.1	4.1	0.9	215.7
1999	134.9	48.9	142.0	16.7	a	342.5
2000	178.5	30.3	72.8	0.0	0.7	282.3

Notes: Includes all shore based facilities in the region including facilities that did not process groundfish. Data for halibut in 2000 were not available in time for inclusion.

a Data for Other added to Halibut for confidentiality.

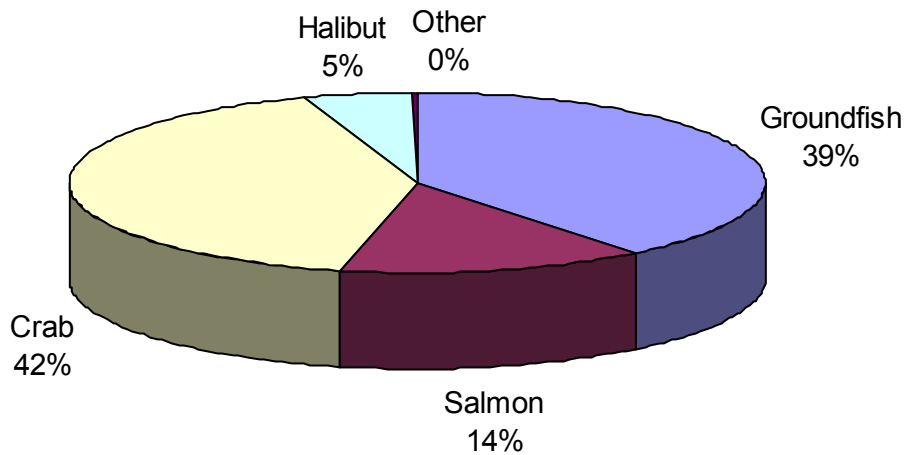
Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Figure 3.1-8. Ex-Vessel Value Paid by All Processors in Alaska Peninsula/Aleutian Islands Region, by Species, 1999



Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

Figure 3.1-9. Percent Total of Ex-Vessel Value Paid by All Processors in Alaska Peninsula/Aleutian Islands Region, by Species, 1999



Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

3.1.11 Subsistence in the Alaska Peninsula and Aleutian Islands Region

Subsistence resource utilization for residents of the regionally important groundfish communities of Unalaska, Akutan, Sand Point, and King Cove are presented in this section. All of these communities feature subsistence activity, with consumption per capita ranging from about 200 pounds per capita to over 450 pounds per capita. Of this total, groundfish specifically ranges from four to nine percent of the total.

Residents of Unalaska are reported to harvest and consume about 195 pounds of subsistence resource per capita, based on a 1994 survey of an estimated 700 year round households for a total ADF&G effective population of 1,825 individuals (ADF&G 2000). Of this total, 28 percent was salmon, 42 percent was non-salmon fish, 5 percent was land mammals, 5 percent was marine mammals, 1 percent was birds and eggs, 14 percent was marine invertebrates, and 6 percent was vegetation. Various groundfish are a component of the non-salmon fish, and average about 7 percent of the total (14 pounds per capita). The major contributors to this component are cod (8 pounds) and rockfish (5 pounds).

Residents of Akutan are reported to harvest and consume about 466 pounds of subsistence resource per capita, based on a 1990 survey of an estimated 31 year round households for a total ADF&G effective population of 102 individuals (ADF&G 2000). Of this total, 26 percent was salmon, 31 percent was non-salmon fish, 6 percent was land mammals, 23 percent was marine mammals, 6 percent was birds and eggs, 6 percent was marine invertebrates, and 2 percent was vegetation. Various groundfish are a component of the non-salmon fish, and average about 9 percent of the total (43 pounds per capita). The major contributors to this component are cod (29 pounds) and rockfish (11 pounds).

Residents of Sand Point are reported to harvest and consume about 256 pounds of subsistence resource per capita, based on a 1992 survey of an estimated 204 year round households for a total ADF&G effective population of 606 individuals (ADF&G 2000). Of this total, 54 percent was salmon, 21 percent was non-salmon fish, 11 percent was land mammals, 2 percent was marine mammals, 2 percent was birds and eggs, 7 percent was marine invertebrates, and 3 percent was vegetation. Various groundfish are a component of the non-salmon fish, and average about 9 percent of the total (22 pounds per capita). The major contributors to this component are cod (12 pounds) and rockfish (8 pounds).

Residents of King Cove are reported to harvest and consume about 256 pounds of subsistence resource per capita, based on a 1992 survey of an estimated 158 year round households for a total ADF&G effective population of 560 individuals (ADF&G 2000). Of this total, 53 percent was salmon, 17 percent was non-salmon fish, 15 percent was land mammals, 1 percent was marine mammals, 4 percent was birds and eggs, 7 percent was marine invertebrates, and 3 percent was vegetation. Various groundfish are a component of the non-salmon fish, and average about 4 percent of the total (10 pounds per capita). The major contributors to this component are cod (6 pounds) and rockfish (2.5 pounds).

3.1.12 Regionally Important Groundfish Communities: Unalaska, Akutan, Sand Point, and King Cove

In this section, Alaska Peninsula/Aleutian Island region communities with the strongest direct links to the North Pacific groundfish fishery are profiled in detail. These are Unalaska, Akutan, Sand Point, and King Cove. While these four primary ports are dominant in the region, there have been recent additions of list of regional communities directly engaged in the groundfish fishery. No groundfish data are yet available for False Pass, but it is known that substantial processing investment has been made in the community, and groundfish is being locally processed during 2001. Groundfish has not

been a major focus of processing in St. Paul in recent years, but groundfish do appear in the processing reports for 2000. (It is worth noting that Chignik - although not geographically in the region, it is lumped analytically in regional totals for the fishery - does run some groundfish as well, but like St. Paul this is clearly not the main focus of local processing.) Additionally Adak, a former military community, has become a significant regional processor of groundfish in the recent past. Although production figures are confidential, it is common knowledge that although no groundfish were landed in the community prior to 1998, it has since become a significant and growing purchaser of groundfish, particularly cod, within the region. This community is quite different in sociocultural terms from the other communities of the region, given its recent development as an industrial site on a converted military base rather than within or adjacent to a traditional community. Because of lack of data in the case of False Pass, confidentiality concerns and the relative lack of dependency in St. Paul and Chignik, and confidentiality concerns with respect to data from Adak, the discussion in this section focuses on the four major groundfish communities in the region.

Unalaska and Akutan are located on the Bering Sea side of the Alaska Peninsula/Aleutian Island chain, while Sand Point and King Cove are on the Gulf of Alaska side. Nonetheless, a substantial portion of the groundfish processed in Sand Point and King Cove has typically been harvested in the Bering Sea (although the American Fisheries Act [AFA] substantially changed this balance for Sand Point, as detailed in the following sections). Historically, relatively small amounts of groundfish harvested in the GOA have been delivered for processing in Dutch Harbor/Unalaska and Akutan.

At present, pollock and Pacific cod are the primary groundfish species landed and/or processed in the four primary regional ports. Alaska Department of Fish and Game fish ticket data indicate that in Dutch Harbor/Unalaska and Akutan, pollock represented 83 percent and 76 percent, respectively, of the 1997 total groundfish landings in these ports, with Pacific cod making up virtually all of the balance. In the case of Sand Point, pollock and Pacific cod, respectively, accounted for 69 percent and 29 percent of the total, with fractional percentages of other groundfish species accounting for the rest. In King Cove, this relationship was reversed, with pollock catch-share at 31 percent and Pacific cod at 69 percent of the groundfish total.

In the case of pollock, surimi is the principal product, and fillets are a distant second, although product mix has been changing recently, with at least part of the change attributed to changing conditions brought about by the AFA. Several ancillary product forms (e.g., roe), as well as byproducts (e.g., white fish meal) are derived from pollock landings. Fillets are the primary product form produced from Pacific cod landings in these ports, although several lesser product forms (e.g., H&G) and byproducts (e.g., white fish meal) are also produced. The majority of the output from the processing operations in these landings ports is exported, principally to Asian markets, although some enters the domestic market for secondary processing and/or sale.

While changes in any groundfish TAC or changes in the pattern of distribution, in either the GOA or BSAI management areas, could have indirect economic consequences for any or all of the principal ports, the impacts would be most severe and direct if pollock, and to only a lesser extent Pacific cod, TACs were in effect substantially reduced for whatever reason. Furthermore, these impacts would not be uniform in distribution across the four key Aleutian region groundfish landings ports, owing to geographic location, proximity to fishing grounds, plant capacity and capability difference, availability and variety of support facilities offered, and intermediate and final markets served.

Historically, the processors in each of these ports competed directly with the mothership and catcher/processor fleets which participate in many of these same fisheries. However, due to the inshore/offshore allocations of pollock in the BSAI, and the subsequent AFA provisions and associated co-ops, the competition for pollock occurs in seafood markets, not on the fishing grounds. Each sector has different capabilities and limitations. And, while each supplies some amount of

product into common markets, each also has developed the potential to focus a portion of its operation on specific markets.

One of the major differences between the community of Unalaska/Dutch Harbor and the other regional communities profiled (Akutan, King Cove, and Sand Point) is that the City of Unalaska is a municipality outside of any organized borough, while Akutan, King Cove, and Sand Point are all communities within the Aleutians East Borough (AEB). The fact that the latter three communities are within a borough has a direct impact on the way that fishery associated tax revenues are distributed among and between communities. While the fishery associated municipal revenues are discussed in detail in the Unalaska community profile, a summary of groundfish related tax revenues for the multiple AEB communities is presented here in this regional overview section rather than in the individual community profiles that follow, as this discussion applies to multiple communities. Further, it gives a sense of the order of magnitude of the importance of the fisheries as a revenue source for the borough and its constituent communities.

It is estimated that the AEB and the communities of Akutan, Sand Point, King Cove, and False Pass collectively will receive approximately \$5.4 million in state and local fish taxes from groundfish for 2000. In addition, approximately \$4.0 million will be received by the AEB and its communities from crab, salmon, other non-groundfish, and shellfish processing. The methodology used to develop this estimate is as follows:

- According to the AEB Manager (Juettner, personal communication, 2001), the AEB will receive a total of \$1.4 million as its share of the Fishery Business Tax (FBT) for the 2000 fishery from all species including groundfish, crab, salmon, and other fisheries processed in the AEB. The State of Alaska shares the FBT (calculated generally as 3 percent of ex-vessel value) as follows:
 - ⇒ 1.5 percent goes to the state
 - ⇒ 1.5 percent goes to the local governments in whose jurisdiction the processing occurs, which in turn is split 50 percent to the city and 50 percent to the borough. If processing occurs outside of any local government jurisdiction (such as with the floating processor operating in Beaver Inlet on Unalaska Island), the state shares the taxes with all communities in the 'unorganized borough' (i.e., all communities in the state outside of organized boroughs, such as Unalaska and may other communities throughout the state).
- All of the processing in the AEB takes place within cities in the Borough, and therefore the Borough shares all of the FBT 50-50 with the city in which the processing occurs. Therefore, the AEB's \$1.4 million FBT revenue represents 0.75 percent of the total ex-vessel value processed in the AEB (with the other 0.75 percent [i.e., the other half of the 1.5 percent the state shares with local governments] going directly to the cities). Dividing \$1.4 million by 0.0075 yields an estimated \$187.7 million total ex-vessel value of processing in the AEB. Unfortunately for the purposes of further analysis, information from the AEB indicating species specific ex-vessel values are confidential and cannot be released. Therefore, the species breakdown needs to be derived from other sources, and the updated sector profiles from Appendix I of the Groundfish SEIS provides information that allows an estimate to be made. According to this source, in 2000, groundfish accounted for approximately 58 percent of the total ex-vessel value of the processing sectors contributing to AEB taxes (Bering Sea pollock shore plants, Alaska Peninsula/Aleutian Island shore plants, and floating processors), and therefore it is assumed that 58 percent of the AEB FBT is from groundfish. Utilizing this assumption, a total figure of \$108.7 million of ex-vessel value can be estimated to have been generated in the AEB from groundfish in 2000.
- In addition to the State FBT, the AEB and each community within the AEB collect local fish taxes of 2 percent, except for Akutan, which taxes at a 1 percent rate. Thus, all processors in the AEB with the exception of Akutan pay 5.5 percent of ex-vessel value in taxes, and for Akutan the

analogous figure is 4.5 percent. Assuming that roughly 50 percent of the total tax revenue was generated in Akutan and 50 percent in other communities within the AEB, the average fish tax collected in AEB communities is 5 percent of the total ex-vessel value. Multiplying the estimate of total groundfish ex-vessel value (\$108.7 million) by 5 percent yields an estimated fish tax revenue of \$5.4 million from groundfish for all local governments in the AEB for 2000.

It should also be noted that population figures for this region the subject of chronic debate. The technical classification of residency has been a contentious issue in recent years specifically with respect to the fishing industry related workforce. In terms of U.S. Bureau of the Census methodology, the first U.S. decennial census in 1790 established the concept of “usual residence” as the main principle in determining where people were to be counted. This concept has been followed in all subsequent censuses. Usual residence has been defined as the place where the person lives and sleeps most of the time, and is not necessarily the same as the person’s voting or legal residence. Also, noncitizens who are living in the United States are included, regardless of their immigration status. The State of Alaska uses a specific set of criteria for determining residents of the state (i.e., those who qualify for Permanent Fund dividends). According to the state publication *Nonresidents Working in Alaska* (Alaska Department of Labor, 2001), using these criteria, the highest concentration of non-Alaska resident workers are found in the southwest region of Alaska and were primarily engaged in seafood processing. According to this document, 70.9 percent of the workers in this sector in Alaska were not state residents. Of the top private sector employers of non-state resident workers within the ‘manufacturing’ sector, all five were seafood processing firms with ties to the Alaska Peninsula/Aleutian Islands region. These firms (in alphabetical order) were: Icicle Seafoods, Peter Pan Seafoods, Inc., Trident Seafoods Corporation, Unisea, Inc., and Wards Cove Packing Company, Inc. Of the combined total of 11,006 workers reported for these firms, 8,669 individuals or 78.77 percent of the total number of workers were not classified as Alaska residents. The workforce at the individual firms ranged between 71 and 86 percent non-Alaska resident. Table 3.1-43 provides a worker residency breakout by subregion for state and local government and the private sector for 1999. As shown, the private sector is (not surprisingly) heavily non-Alaska state resident compared to the governmental sectors. The relative importance of state resident classification has been the subject of heated debate during recent NPFMC management decision making processes (for example, during the series of Inshore/Offshore decisions), but in practical terms for the purposes of a social impact assessment, the nature of interaction and relationship between of these workers their worksite community appears to depend more on living quarters configuration (i.e., industrial enclave style or more integrated with the rest of the community), work schedules, and individual decisions regarding the allocation of personal time, among other factors, than it does on formal state residency status for originally non-local workers - whether they be from elsewhere in Alaska or from another state.

Table 3.1-43. Resident and Nonresident Workers and Earnings by Place of Work and Alaska Place of Residence for Private Sector, State and Local Government Alaska 1999

Area	Ownership	Resident Workers		Nonresident Workers		Resident Wages		Nonresident Wages	
		Local Resident	Other Alaska Resident	Number	Pct. Nonresident	Local Resident	Other Alaska Resident	Total Amount	Pct. Nonresident
Aleutians East	Private Sector	439	379	2,819	77.5	8,702,912	8,254,680	30,126,891	64
Aleutians East	Local Govt.	210	28	32	11.9	436,163	507,366	272,881	5.3
Aleutians East	State Govt.	7	14	6	22.2	124,581	349,558	57,295	10.8
Aleutians West	Private Sector	1,392	799	3,624	62.3	39,969,541	23,140,121	39,556,650	38.5
Aleutians West	Local Govt.	371	43	33	7.4	13,396,443	1,126,848	431,996	2.9
Aleutians West	State Govt.	33	9	4	8.7	1,344,474	339,019	23,349	1.5
Total	--	2,452	1,272	6,518	--	63,974,114	33,717,592	70,469,062	--

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section.

The following subsections examine the communities of Unalaska/Dutch Harbor, Akutan, Sand Point, and King Cove. Each of these communities vary widely in their structure, history of engagement with the fishery, and contemporary engagement with the fishery, and the level of detail presented for any particular community varies roughly by the degree of complexity of the community's ties to the fishery.

UNALASKA/DUTCH HARBOR

Unalaska is located approximately 800 miles southwest of Anchorage and 1,700 miles northwest of Seattle. Unalaska is the 11th largest city in Alaska, with a reported year-round population of just over 4,000. Dutch Harbor is the official name of the city's port, and is also often applied to the portion of the City of Unalaska located on Amaknak Island, which is connected by bridge to the rest of the community on Unalaska Island. The geographic feature of Dutch Harbor itself, along with Amaknak Island, is fully contained within the municipal boundaries of the City of Unalaska, which encompasses 115.8 square miles of land and 98.6 square miles of water.

Unalaska is in a unique position with respect to the Bering Sea groundfish fishery. It is the site of both the most intense onshore and offshore sector activity. Unalaska is a community whose economy is strongly tied to Bering Sea commercial fisheries in general, and the groundfish fishery in particular. Among groundfish species, pollock plays a particularly important role in local operations.

Unalaska has been variously described as a growing, developing, and maturing community. Whatever descriptor is chosen, during the span of years since the development of the groundfish fishery, Unalaska has seen an impressive amount of community development. The changes that have accompanied this development are both obvious and subtle.

3.1.13 Population

It has always been difficult to ascertain total population figures for Unalaska or, to state it more accurately, it is difficult to interpret and compare the figures given for the population of Unalaska over the years. Over the years, Unalaska has been a 'less than permanent' home to many individuals

whose length of stay in the community has varied. Some individuals may stay in Unalaska only a fishing season or two; others may stay for many years before moving on. These individuals have been counted in different ways, or not counted at all, in a number of censuses. Caution must therefore be used in interpreting total population figures from various sources.

Even though the total population of Unalaska has grown, the contemporary community maintains a relatively high transient population. This transient population includes workers at shore processing plants, although this particular population segment is notably less transient as the nature of the business of the shore plants has changed. Once characterized by rapid turnover during the King crab processing boom in the late 1970s, though more-or-less year-round processing during the early years of full-scale pollock processing, the current pattern is marked with peaks and valleys coinciding primarily with the pollock and, to a lesser extent, crab seasons, by maintenance of a ‘core crew’ of year round individuals who process lower volume species that are harvested at other times of the year and maintain the plant. (This topic is more fully addressed in the shore plant sector description in this document.)

In addition to the shore-resident (some of whom are short-term residents) population, there are also a number of individuals who may be thought of as a “floating population” associated with the community. These individuals are from fishing fleets, floating processors, catcher/ processors, and freighters that stop at the port of Unalaska for resupply. There are no current estimates of the “floating population,” though such a figure was assembled for the year 1990 and is presented in Table 3.1-44 below. Although not true residents of the community of Unalaska, this “floating population” does have an impact on the community of Unalaska. They are associated with business and revenue generated in and for the city, and with services required of the City. Unalaska is, at least briefly or occasionally, where they live and work.

Table 3.1-44. Estimates of Floating Population Community of Unalaska, 1990

Vessel Type	Estimated Vessels	Average Crew Size	Floating Population
Trawlers			
Catcher Vessels	110	5	550
Catcher/Processors	60	75	4,500
Floating Processors Only	2	160	320
Longline			
Catcher Vessels	100	6	600
Catcher/Processors	20	25	500
Floating Processors Only	16	25	400
Crab			
Catcher Vessels	225	5.5	1,238
Catcher/Processors	25	22	550
Floating Processors Only	13	70	910
Cargo Vessels	350	25	8,750
Total Floating Population			18,318

Source: American Trawlers Assoc.; Alaska Crab Coalition; State of Alaska Dept. of Fish and Game; *Resource Inventory and Analysis, Volume II*, Aleutians West Coastal Resource Service Area, March 1990; *The In-shore/Offshore Dispute; Impact of Factory Trawlers on Fisheries in the North Pacific and Proposals to Regulate the Fleet*, The North Pacific Seafood Coalition, March 1990; and subsequent consultation with on-site resource Sinclair Wilt, Supervisor, Alyeska Seafoods, Unalaska. (Cited from Professional Growth Systems, Inc. 1990:12).

It should not be assumed that the characterization of Unalaska's "non-transient" population is without its own difficulties, as the nature of the community has changed over the years. Discussion and analytical categorization of the less transient portions of the Unalaska population differ in various publications on the community. "Permanent" residents of the community have been described as those individuals for whom Unalaska is their community of orientation, independent of their employment status. "Semi-permanent" or "long-term transient" residents are those individuals for whom Unalaska is now their community of residence, but for whom residency decisions are based virtually exclusively on employment criteria. In other words, a "permanent resident," as that term is used in this document, is an individual who considers Unalaska "home" and is highly unlikely to move from the community due to termination of a particular job. These individuals tend to remain in the community and seek other employment if a specific job ends, and they also typically remain in the community after their retirement from the labor force. A "semi-permanent" or "long-term transient" resident, on the other hand, is an individual who typically has moved to Unalaska for a particular employment opportunity and is highly likely to leave the community if that specific employment opportunity is terminated for any reason. These individuals may indeed remain in the community for a number of years, but their residency decision-making process is predicated on Unalaska being first and foremost a work site. Obviously, the categories "permanent" and "semi-permanent" or "long-term transient" resident are not precise terms, nor do they necessarily correspond to administrative/regulatory decisions about 'official' residency (e.g., whether or not one is classified as an "Alaska resident" for employment statistical reporting or taxation purposes) or U.S. census methodology, but they are analytically useful where they conform to specific orientations toward the community that serve to shape community politics, development objectives, community perception, etc.

Ethnicity

Unalaska may be described as a plural or complex community in terms of the ethnic composition of its population. Although Unalaska was traditionally an Aleut community, the ethnic composition has changed with people moving into the community on both a short-term and long-term basis. Not surprisingly, in the latter half of this century, population fluctuations have coincided with periods of resource exploitation and scarcity.² For example, the economic and demographic expansion associated with the King crab boom in the late 1970s and early 1980s brought many non-Aleuts to Unalaska, including Euro-North Americans, Filipinos, Vietnamese, Koreans, and Hispanics. The Euro-American population shows a distinct change over the years, comprising around 30 percent of the population in 1970, over 60 percent in 1980 and 1990, and then back to 44 percent in 2000. The growth of Asian/Pacific Islander population (over 30 percent by 2000) is closely associated with the increasingly residential nature of the seafood processing sector workforce. The ethnic composition of Unalaska's population for the census years 1970, 1980, 1990, and 2000 appears in Table 3.1-45.

² The most dramatic population shift of this century, however, was brought about by World War II. The story of the War, and the implications for the Aleut population of Unalaska and the other Aleut communities of Unalaska Island, is too complex and profound for treatment in this limited community profile. It may be fairly stated, however, that the events associated with World War II, including the Aleut evacuation and the consolidation of the outlying villages, forever changed the community and Aleut sociocultural structure.

Table 3.1-45. Ethnic Composition of Population Unalaska; 1970, 1980, 1990 & 2000

Race/Ethnicity	1970		1980		1990		2000	
	N	%	N	%	N	%	N	%
White	56	31.0%	848	64.1%	1,917	62.1%	1,893	44.2%
African American	0	0.0%	19	1.5%	63	2.0%	157	3.7%
Native Amer/ Alaskan	113	63.4%	200	15.1%	259	8.4%	330	7.7%
Aleut	107	60.1%	-	-	223	7.2%	-	-
Eskimo	5	2.8%	-	-	5	0.2%	-	-
American Indian	1	0.5%	-	-	31	1.0%	-	-
Asian/Pacific Islands*	-	-	-	-	593	19.2%	1,336	31.2%
Other**	9	5.6%	255	19.3%	257	8.3%	567	13.2%
Total	178	100%	1,322	100%	3,089	100%	4,283	100%
Hispanic***	NA	NA	NA	NA	394	12.7%	551	12.9%

* In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 24) and Asian (pop 1,312)

** In the 2000 census, this category was Some Other Race (pop 399) and Two or more races (pop 168).

*** 'Hispanic' is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).

Source: 1970 data, University of Alaska, 1973; 1980, 1990, and 2000 data, U.S. Bureau of Census.

Table 3.1-46 provides information on group housing and ethnicity for Unalaska. Group housing in the community is largely associated with the processing workforce. As shown, 52 percent of the population lived in group housing in 1990 (2000 data are not yet available). Also as shown, the total minority population proportion was substantially higher in group quarters (49 percent) than in non-group quarters (31 percent).

Table 3.1-46. Ethnicity and Group Quarters Housing Information, Unalaska, 1990

Unalaska City	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	1917	62.06	870	53.90	1047	70.98
Black	63	2.04	55	3.41	8	0.54
American Indian, Eskimo, Aleut	259	8.38	20	1.24	239	16.20
Asian or Pacific Islander	593	19.20	434	26.89	159	10.78
Other race	257	8.32	235	14.56	22	1.49
Total Population	3089	100.00	1614	100.00	1475	100.00
Hispanic origin, any race	394	12.75	337	20.88	57	3.86
Total Minority Pop	1252	40.53	795	49.26	457	30.98
Total Non-Minority Pop (White Non-Hispanic)	1837	59.47	819	50.74	1018	69.02

Source: Census 1990 Summary Tape File 2

Apart from the War years, prior to the growth of the current commercial-fisheries-based economy that traces its present configuration back to 1970s, Unalaska was traditionally an Aleut community. With the growth of the non-Aleut population, Aleut representation in the political and other public social arenas declined significantly. For example, in the early 1970s, Aleut individuals were in the majority

on the city council; by the early 1980s, only one city council person was Aleut (IAI 1987:65). If one looks at Aleuts (or Alaska Natives) as a percentage of the total population, the change over the period of 1970 - 1990 is striking. In 1970, Aleut individuals made up slightly over 60 percent of the total community population (and Alaska Natives accounted for a total of 63 percent of the population). In 1980, Alaska Natives, including Aleuts, accounted for 15 percent of the population; by 1990, Aleuts comprised only 7 percent of the total community population (with Alaska Natives as a whole accounting for 8 percent of the population). Overall representation was similar in 2000. This population shift is largely attributable to fisheries and fisheries-related economic development and associated immigration. The fact that there is a “core” Aleut population of the community with a historical continuity to the past also has implications for contemporary fishery management issues. These include the activities of the Unalaska Native Fisherman’s Association and active local involvement in the regional CDQ program. While neither of these undertakings exclude non-Aleuts, Aleut individuals are disproportionately actively involved (relative to their overall representation in the community population).

During field interviews for this project, a number of individuals, including local governmental officials and individuals from various private sector enterprises, commented that it appeared to them that there were less people overall in the community in the 2000-2001 period than in the recent past, although there are no hard data available to verify this. Speculation included that with the apparent slow-down in the local support service economy with the AFA-related cessation of the race for fish within the pollock fishery, there has been some population loss among the permanent population, but again, there is no quantitative information available to check this speculation. Anecdotal evidence cited by interviewees included less participation in city-sponsored recreational sports (e.g., the basketball league has seen a drop in the number of teams), and an easing of the shortage of housing (discussed below).

Age and Sex

In the recent past, and particularly with the population growth seen in association with the development of the commercial fishing industry, Unalaska’s population has had more men than women. Historically, this has been attributed to the importance of the fishing industry in bringing in transient laborers, most of whom were young males. Table 3.1-47 portrays the changes in proportion of males and females in the population for the years 1970, 1980, 1990, and 2000.

Table 3.1-47. Population Composition: Age and Sex Unalaska; 1970, 1980, 1990, and 2000

	1970		1980		1990		2000	
	N	%	N	%	N	%	N	%
Male	98	55%	858	65%	2,194	71%	2,830	66%
Female	80	45%	464	35%	895	29%	1,453	34%
Total	178	100%	1,322	100%	3,089	100%	4,283	100%
Median Age	26.3 years		26.8 years		30.3 years		36.5 years	

Source: 1970 data, University of Alaska, 1973; 1980, 1990, and 2000 data, U.S. Bureau of Census.

Census data from the period 1970-1990 showed a climb in median age from 26.3 years to 30.3 years, and then a further jump to 36.5 years in 2000. This is commonly attributed to the relative size of the workforce in comparison to resident families. That is, there is quite a large proportion of adult residents included in the census counts who are not raising children in the community, thereby raising the median age. On the other hand, what the median age information does not portray is that older age bracket residents (i.e., those individuals typically past their ‘working years’) tend to be under-

represented in Unalaska compared to the general population, as few non-lifetime residents of the community chose to stay in Unalaska in their retirement years.

School district enrollment figures are presented in Table 3.1-48. This is another indicator of the changing nature of Unalaska’s population over the time period portrayed. One can see in the enrollment figures, for example, the enrollment decline that followed the economic decline of the fishing industry in the early 1980s, following the crash of locally important King crab stocks. Enrollments have increased from the late 1980s onward, reflecting two trends, according to school staff. One is the overall growth of the community, and the other is the increase in the number of people who are making Unalaska home for their families. As shown, however, the growth has leveled off recently. The City is in the process of expanding the school, but the issue of whether or not to proceed with the expansion during a time of overall population decline and a leveling off of student population in particular was the subject of debate and a highly contested ballot measure in the community, with the decision to proceed with the expansion passing by a handful of votes.

Table 3.1-48. Unalaska City School District Enrollment, Fiscal Years 1978-2001

Fiscal Year	School Enrollment
FY 78	133
FY 79	140
FY 80	200
FY 81	186
FY 82	191
FY 83	151
FY 84	140
FY 85	140
FY 86	137
FY 87	159
FY 88	159
FY 89	159
FY 90	225
FY 91	256
FY 92	290
FY 93	330
FY 94	359
FY 95	356
FY 96	353
FY 97	373
FY 98	380
FY 99	353
FY 00	352
FY 01	352

Source: Unalaska City School District, 2001

The link between the fisheries and school population can in part be seen through a categorization of the employment, by sector, of parents of Unalaska school children as ascertained by the Unalaska School District as of January, 2000 and shown in Table 3.1-49. As shown, the largest single sector was government/public, but fish processing and fishing support accounted for 36 percent of the total. According to school staff, the assignment of individual employers/entities to these categories

(especially the “fishing support” category) is inexact, but they do give an indication of the relative strength of ties of the different sectors to the school population. One trend that senior staff did note during interviews was an increase in students for whom English is a second language. According to senior school staff, 47 percent of the 2000-2001 kindergarten class were ESL (English as a second language) students. Also, according to school staff the Unalaska City School District was recently named in a poll as one of the top 100 school districts in the country, and placed first in the state in exit exam scores, which has spurred an increase in enrollment of students from smaller villages in the region. For the most part, these are individuals who have chosen to stay with relatives in Unalaska to take advantage of the local educational opportunities, but there is now more opportunity for families to relocate to Unalaska from other regional communities with easing of the local housing shortage.

Table 3.1-49. Parent Employment by Sector, Unalaska City School District Fiscal Year 2000

Parent Employment Sector	Percentage
Government/Public	28%
Fish Processing	18%
Fishing Support	18%
Retail/Restaurant/Services	17%
Transportation/Freight	16%
Self Employed/Unemployed	3%
Total	100%

Source: Unalaska City School District, 2001

Housing Types and Population Segments

Household types in Unalaska vary by population segment, although this has changed in recent years. In the early 1990s, it was a truism that virtually all permanent residents lived in single-family dwellings, whereas short-term workers lived in group housing at work sites. This pattern has changed somewhat over the years with the construction of a number of multi-unit complexes not associated with particular employers. It is still the case, however, that processing workers for the seafood plants tend to live in housing at the worksite and longer-term workers at the shoreplants tend to live in company housing adjacent to worksites. One seafood processor, however, owns multi-family dwellings in what is otherwise primarily a single-family residential area, so its workforce tends to be differently distributed geographically than other workforces. Some residents of the community have drawn the distinction, with respect to processing firms, that one is not ‘fully’ a resident of the community unless one has a private residence in the community (i.e., that the ‘test’ of ‘real’ residency is tied to whether or not one lives in company-provided housing). This distinction breaks down, however, when one examines the issue on a detailed level, as a number of companies (and not just seafood firms) provide or subsidize housing for employees in Unalaska both adjacent to and separate from their worksite locations; also, the persons living in such residences may, in fact, stay in the community for considerable lengths of time (outstaying many in ‘private’ residences) and become centrally involved in community life.

The housing market has also changed during the period 1998-2001. Through the mid-1980s and the 1990s, housing was at a premium in the community, with virtually zero vacancy rates and waiting lists for rental opportunities. According to city staff, as of 2000, housing and rental prices had not appreciably dropped, but demand has slackened considerably such that there are no longer waiting lists maintained by some of the larger housing owners. According to the city appraiser and planning staff, home sales are slower than in the past, and there is some concern about declines in value, but those concerns have not been realized yet. This was still the case during 2001 fieldwork. Also according to the City, although rental demand is off, rents have not yet begun to drop in response to

decrease in demand. This “softening” of the housing market is directly attributed by most to recent changes in the local fishery, including the slowing of the “race for fish” in the pollock fishery that was made possible by the AFA and the formation of co-ops, among other fishery related factors.

The most recent housing market survey conducted by the City (November, 2000) noted that there has been “some curiosity expressed” about how 31 new units in the community will effect the rental market. These units include 16 apartments and 15 single-family dwellings for low-income residents (with the single-family dwellings further restricted to Alaska Native/Native American residents). Until very recently, the impact of the addition of new units to the community housing stock on rental rates would not have arisen as an issue. This same survey found that “while only one participant [in the survey] acknowledged lowering rental rates, several of the others acknowledged changing some of their rental policies, e.g., no last month deposit or renting to the general public if units are not required for employees.” According to interview data, some landlords are now including fuel or utilities costs in the rental price, with the owner of the largest stock in the community including utilities. The housing survey also found that the upper range for housing costs had decreased slightly between 1997 and 2000 for apartments, whereas the costs for single-family dwellings increased slightly over this same period.

Another recent change in housing mentioned in interviews is that companies (other than the major seafood processors) are less likely to supply housing for workers than was the case in the past. This is reportedly due to their being more housing available on the market now, such that companies do not feel forced to tie up housing units for the entire year to be able to meet employee housing needs during peak demand periods. While there are no systematic data available to document this common assertion, the City of Unalaska has discontinued the practice of holding long-term housing leases, which until very recently was a common practice due to the local housing shortage. According to City staff, as of early 2001, the City retained just one lease for housing, and this was on a month-to-month basis. As of fieldwork in early 2001, there were rental vacancies in the community. One long term resident noted that the local access television channel now commonly runs postings for rental opportunities whereas in the recent past virtually all rental opportunities were communicated by word of mouth and openings never had a chance to hit the open market.

Links to the Groundfish Fishery

In the late 1970s and early 1980s the community prospered significantly from the King crab fishery. The crab boom resulted in a dramatic increase in both fishing boats and processors in town. In the mid-seventies there were from 90 to 100 commercial vessels regularly fishing the Bering Sea. By 1979 the number had jumped to between 250 and 280, an increase so dramatic that it was difficult for skippers to find crew members. The King crab fishery subsequently declined precipitously and fishermen and processors alike have had to diversify their businesses in order to survive. One of the avenues of diversification was the pollock fishery, and this fishery has provided an economic mainstay for the community in subsequent years.

Table 3.1-50 shows the volume and value of fish landed at Unalaska over the period 1977-2000. This span encompasses the high year of the King crab fishery, and shows the decline of the fishery thereafter, and the growth of the pollock fishery. Average value per pound is an artificial figure in that it combines a number of different variables, but it is useful for an overall look at how volume and value have varied over the years (particularly as pollock, a relatively high volume, low value per unit species grew in importance as a component of the community processing base). As shown, Unalaska has ranked as the number one U.S. port in volume of landings since 1992, and ranked first in value of

landings from 1988 to 1999.³ In 2000, Unalaska dropped to second in value of landings behind New Bedford, Massachusetts (where the value of landings totaled \$146.3 million on a much lower volume [89.0 million pounds] than landed in Unalaska).

Table 3.1-50. Volume and Value of Fish Landed at Unalaska, 1977-2000

Year	Volume		Value		Average Value (\$/lb)
	(millions of pounds)	US Ranking	(millions of dollars)	US Ranking	
1977	100.5	-	61.4	-	0.61
1978	125.8	-	99.7	-	0.79
1979	136.8	-	92.7	-	0.68
1980	136.5	3	91.3	10	0.67
1981	73.0	5	57.6	11	0.79
1982	47.0	6	47.8	14	1.02
1983	48.9	9	36.4	15	0.74
1984	46.9	20	20.3	13	0.43
1985	106.3	18	21.3	8	0.20
1986	88.3	9	37.2	10	0.42
1987	128.2	4	62.7	8	0.49
1988	337.3	3	100.9	1	0.30
1989	504.3	2	107.4	1	0.21
1990	509.9	2	126.2	1	0.25
1991	731.7	2	130.6	1	0.18
1992	736.0	1	194.0	1	0.26
1993	793.9	1	161.2	1	0.20
1994	699.6	1	224.1	1	0.32
1995	684.6	1	146.2	1	0.21
1996	579.0	1	118.7	1	0.20
1997	587.8	1	122.6	1	0.21
1998	597.1	1	110.0	1	0.18
1999	678.3	1	140.8	1	0.21
2000	699.8	1	124.9	2	0.18

Source: 1977-1979 data from NMFS data as cited in IAI 1991. 1980-1996 data from National Marine Fisheries Service data cited in City of Unalaska FY 97 Annual Report (December, 1997). 1997-2000 data from personal communication from the National Marine Fisheries Service, Fisheries Statistics and Economics Division, Silver Spring, MD (accessed through NMFS Website). Average value derived from volume and value data.

Tables 3.1-51 through 3.1-55 provide detailed break-out of processed weight and value of processed fish by species group by year for Unalaska. Given that these data are from a different source as the data in Table 3.1-50, the totals do not match, but the intent of tables is to give a sense of overall effort and value of commercial fish landed in the community and changes through time.

Table 3.1-51 provides information on total processed weight by species group by year for 1993-2000, and Table 3.1-52 provides the same information by percentage for each year. Important information for recent years to note is the overall dominance of pollock and the second tier domination of other

³ If ports in U.S. territories are included, Unalaska/Dutch Harbor ranks second behind Pago Pago in American Samoa for at least some of these years. As the center of the U.S. flag tuna fishery, value of landings at that port in 1998 (approximately \$232 million) more than doubled Unalaska/Dutch Harbor's total for that same year, the last full year for which data are available (NMFS, 2001).

groundfish and crab in landing volumes. Second, the precipitous decline in crab landings from 1998 (easily the highest volume year over the 1993-2000 span) to 1999 (still the second highest year over this period) to 2000 (far and away the lowest volume year of this period) is readily apparent. Pollock landings, on the other hand, increased from 1998 to 1999, and then again in 2000, reaching its highest level for the 1993-2000 in 2000. Clearly, the recent increase in pollock landings in the community is related to AFA reallocation of quota to onshore processing entities (which increased the inshore component from 35 percent to 50 percent of the BSAI pollock TAC⁴) as well as increases in the overall TAC itself.

Table 3.1-51. Total Processed Weight Contributed by Various Species Groups, by Year Unalaska/Dutch Harbor

Species	1993	1994	1995	1996	1997	1998	1999	2000
Salmon	9,815,693	8,219,894	9,760,479	8,492,280	5,102,131	10,040,698	14,451,050	5,419,183
Halibut	3,530,379	2,738,901	3,048,416	1,792,292	4,244,464	2,549,776	5,152,770	See Note
Crab	57,026,545	34,058,757	28,391,316	28,436,954	39,828,000	80,217,780	56,606,628	15,507,892
Herring	2,475,156	6,504,076	5,620,267	6,333,310	1,725,481	1,489,656	1,964,630	1,386,097
Other Non-GF	448,085	605,852	126,844	812,487	700	1,950	0	0
Pollock	662,921,232	680,883,305	643,364,726	541,758,182	523,462,456	531,184,102	612,370,740	693,429,290
Other GF	29,128,471	80,987,733	105,701,161	102,457,948	109,325,165	47,665,233	42,787,186	61,501,748
Total	765,345,561	813,998,518	796,013,209	690,083,453	683,688,397	673,149,195	733,333,004	777,244,210

Note: Halibut is missing from the 2000 database

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

Table 3.1-52. Percentage of Total Processed Weight Contributed by Various Species Groups, by Year, Unalaska/Dutch Harbor

Species	1993	1994	1995	1996	1997	1998	1999	2000
Salmon	1%	1%	1%	1%	1%	1%	2%	1%
Halibut	0%	0%	0%	0%	1%	0%	1%	See Note
Crab	7%	4%	4%	4%	6%	12%	8%	2%
Herring	0%	1%	1%	1%	0%	0%	0%	0%
Other Non-GF	0%	0%	0%	0%	0%	0%	0%	0%
Pollock	87%	84%	81%	79%	77%	79%	84%	89%
Other GF	4%	10%	13%	15%	16%	7%	6%	8%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Note: Halibut is missing from the 2000 database

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

Table 3.1-53 presents information on the value of processed fish by species group by year for the period 1993-2000 for Unalaska. Table 3.1-54 provides the same information on a percentage basis.

⁴ Inshore/Offshore-3, passed by the NPFMC in 1998, was scheduled to take the inshore component from 35 percent to 39 percent of the BSAI pollock TAC by reallocating 4 percent away from the offshore sector (and leaving the CDQ preallocation set aside at 7.5 percent). This planned shift never took place, however, as it was superseded later that same year (before implementation) by AFA. After accounting for CDQ and incidental take set-asides, AFA allocated 50 percent of the remaining TAC to onshore sector, 40 percent to the offshore catcher processor sector, and 10 percent to newly created the mothership sector (which had previously been a part of the offshore sector along with catcher processors). AFA also increased CDQ set aside to 10 percent of the overall TAC.

As shown, from 1993-1999, pollock fluctuated between 31 percent and 41 percent of total commercial fish value, and then jumped to 57 percent of the total in 2000. This sharp increase is due in large part to what happened to local crab value in 2000, going from \$86 million to \$43 million in processed value between 1999 and 2000 (and halibut not appearing in the data also accounts for at least a small portion of the jump). Crab declined from 51 percent of value in 1999 to 31 percent of value in 2000 (and this decrease will be greater when the halibut data are added). Pollock is easily at its highest point of total value (\$80 million) of the 1993-2000 span during 2000; crab at \$43 million is at its lowest point of the span in that same year. During the period 1993-2000, crab value was higher than pollock value except for 1997 (when the value of pollock surpassed crab by approximately \$4 million) and 2000 (when the value of pollock was approximately \$37 million greater than crab). As can be seen, the increase in value of landings in the community resulting from AFA related pollock landings increases were more than offset by the decline in crab landings in 2000.

Table 3.1-53. Value of Processed Fish by Species Group and Year for Unalaska/Dutch Harbor, 1993-2000

Species	1993	1994	1995	1996	1997	1998	1999	2000
Salmon	6,615,324	7,877,088	7,598,230	6,657,590	3,108,353	4,083,910	6,344,180	3,428,065
Halibut	4,497,715	5,271,277	5,714,417	3,528,928	8,561,085	2,307,552	9,320,086	See Note
Crab	73,104,099	69,363,848	69,248,632	55,334,010	49,420,889	64,092,959	85,615,553	42,908,899
Herring	371,273	754,995	1,188,539	2,111,846	329,564	311,338	479,371	235,637
Other Non-GF	744,782	459,663	39,239	244,984	4,885	421	0	0
Pollock	45,788,471	52,089,951	62,896,575	43,283,714	53,181,109	36,032,380	55,806,016	79,742,642
Other GF	5,570,305	11,554,074	20,320,242	17,428,653	15,569,770	8,194,740	10,715,151	12,545,008
Total	136,691,969	147,370,896	167,005,874	128,589,725	130,175,655	115,023,300	168,280,357	138,860,251

Note: Halibut is missing from the 2000 database

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

Table 3.1-54. Percentage of Total Processed Value Contributed by Various Species Groups, by Year, Unalaska/Dutch Harbor

Species	1993	1994	1995	1996	1997	1998	1999	2000
Salmon	5%	5%	5%	5%	2%	4%	4%	2%
Halibut	3%	4%	3%	3%	7%	2%	6%	See Note
Crab	53%	47%	41%	43%	38%	56%	51%	31%
Herring	0%	1%	1%	2%	0%	0%	0%	0%
Other Non-GF	1%	0%	0%	0%	0%	0%	0%	0%
Pollock	33%	35%	38%	34%	41%	31%	33%	57%
Other GF	4%	8%	12%	14%	12%	7%	6%	9%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Note: Halibut is missing from the 2000 database

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

The commercial fishery provides very large component of the employment base in Unalaska. According to the City of Unalaska Comprehensive Annual Financial Report for the fiscal year ending June 30, 2000, "The Unalaska economy is driven by the seafood industry. About half of the Unalaska labor force is employed by the seafood industry, and 90 percent of the workers consider themselves dependent on the seafood industry." In a telephone survey conducted by the City and included in that same report, the top four employers in the community are seafood industry businesses (Table 3.1-55).

The City is the fifth largest employer, and the next two are shipping firms that rely virtually exclusively on the seafood industry. These firms are followed by the school district, which is followed by a fuel and vessel supply firm that relies very heavily on the fishing industry. It is only at the number 10 position on the list that one comes to an employer that is not a seafood company, a direct/exclusive support firm for commercial fishing sector firms, or a government entity.

Table 3.1-55. City of Unalaska, Ten Principal Employers, June 30, 2000.

Employer	Type of Business
Unisea, Inc.	Seafood, Hotel
Westward Seafoods, Inc.	Seafood
Alyeska Seafood, Inc.	Seafood
Royal Aleutian Seafoods, Inc.	Seafood
City of Unalaska	Local Government, Utilities, Port
Sealand Services, Inc.	Transportation
American President Lines, Ltd.	Transportation
Unalaska City School	Primary, Secondary Education
Western Pioneer, Inc.	Fuel, Vessel Support
Alaska Commercial Company	Grocery, Retail

Source: City of Unalaska Spreadsheet, 2001.

The following discussion of the fishing industry is divided into the harvesting and processing sectors, as each has significance for the Unalaska economy and community. A third section provides information on fishing industry support services.

Harvesting

The catcher vessel sector description of the Inshore/Offshore-3 document (NPFMC 1998) as well as the sector profile discussion in this document details patterns of geographic distribution of vessels and vessel operations. As noted in those discussions, one of the trends in recent years has been the dramatic increase in ownership and/or control (through third party entities with some type of business relationship to the processors) of harvest vessels by the shoreplants in Unalaska. Prior to this pattern of acquisition, it was accurate to say that no permanent residents of Unalaska were involved in the pollock fishery as vessel owners, nor were any vessels 'home ported' out of Unalaska in the sense of being the community of residence for the skipper and crew. With the changes in ownership patterns have come complexities for the description of the relationship of the harvest fleet to the community. While it is still true to say that no independent fishermen who are permanent residents of the community own pollock harvesting vessels, some pollock harvesting vessels are now owned (partially or wholly) by economic entities based in the community (or, given the complex nature of corporate relationships and/or restrictions on foreign ownership of the fleet, by entities with close relationships with entities based in the community). This change in ownership pattern, while it may have shifted where vessels are home ported or, perhaps more importantly from an economic perspective, spend more of the year, it is still the case that very few, if any, permanent residents of the community work on pollock harvesting vessels.

With the AFA, there have been some recent changes in ownership of catcher vessels, and the details of this shift are analyzed the Council's AFA Report to Congress (NPFMC 2001). There have been examples in Unalaska of a vessel being purchased by other vessels within a co-op and the redistribution of the purchased vessel's quota share being distributed among other vessels in the co-op, and of vessels changing ownership and moving between co-ops that are based in different communities. Further, quota has been rented to other co-op members as well. None of these changes

involved local residents, and none of the shifts of quota resulting from these actions are considered of a magnitude to have created community level impacts.

There are also indications that there are fundamental changes in relations between vessel crew and owners with the conversion of one or more vessel crew compensation structures from a share to a wage basis on vessels controlled by processing entities. This is perhaps consistent with an assigned quota system where vessel revenues are more-or-less predictable. Crew share systems are, of course, well suited for a fishing environment where the crew shares in the economic risk and benefits in the rewards of uncertain outcomes, but with what is essentially corporate ownership of a stable quota share, there are those who feel that results can be obtained from vessels without needed to utilize an share incentive system. This is consistent with the observation of one locally based skipper that with the AFA co-op quota assignment system, operating a vessel has become more like “running a combine” than hunting, as “everything is in fences now.” Different AFA processors in Unalaska have very different vessel ownership/control patterns, with one processor having virtually no ownership interest (having decreased from a minor ownership share previously) while others have quite strong interests. While these specific changes may or may not be AFA influenced in their timing, clearly the trends of processor control of catch capacity leading to these logical consequences were operating in the pre-AFA environment. Further, there has been considerable speculation related to the differential economics of various price points when it comes to what plants pay for fish, given different catcher vessel ownership relations. Where plants control a large portion of the delivery fleet (and can thus decide where to take their profits in that transaction), the price paid to non-directly controlled vessels becomes a marginal cost, with different rules about what makes economic sense in comparison to a fleet not controlled by a processor. While there were numerous opinions about the logical outcome of these circumstances under an AFA driven management regime, clearly these potential changes have not yet fully played themselves out in the relatively brief time since the implementation of onshore co-ops in Unalaska.

According to interviews conducted for an AFA social impact assessment in 2001, while there has been leasing of quota between vessels that resulted in greater overall economic efficiency, there have been some cases where there has been a reluctance of vessel owners to trade the resource due to concerns or lack of trust in what NMFS or NPFMC may do in the long run. That is, despite incentives to lease quota, some owners are still protective of maintaining an ongoing history of direct participation in the pollock fishery as a hedge against possible future changes in fishery management.

Another change among catcher vessels participating in co-ops is the level of information sharing between vessels, such that vessels can coordinate catch timing and location so as to be able to optimize timing at the processing plant. In some ways, the co-ops have resulted in “absolute flexibility” from the perspective of coordination and running a processing plant. From the perspective of the catcher vessel owner, although most agree wholeheartedly that co-ops are a better management system that complete open access, the current system in some ways represents a loss of flexibility in terms of the strength of ties to a particular processor. Of course, the change with co-ops is to some degree more apparent than real, given the existing ownership/control patterns of a good proportion of the fleet and the limited number of delivery options available to vessels without a commitment to any particular plant.

Yet another change in the 1999-2001 era is the differential importance of small harvest vessels for some operations in the face Steller sea lion related harvest area restrictions. Catch and delivery by co-op member vessels that are small enough to fish inside areas closed to the larger vessel classes can be coordinated to optimize the overall delivery schedule. This has been recognized as an important strategic approach by at least one processor to date, but clearly the utility of such an approach is enhanced or limited by the scale of the individual processing operation.

Another type of relationship change between catcher vessels and shore processors in Unalaska resulting from the implementation of co-ops is the degree of management coordination between the vessel co-op and the plant, as realized in the creation of co-op manager positions. These individuals represent the co-op in dealing with plant management and are privy to a level of detail about plant operations and economics that simply was not communicated to the catcher fleet prior to the formation of co-ops.

In terms of the role of the community of Unalaska in relation to the overall pollock harvest in the Bering Sea, Table 3.1-56 shows the relative distribution of Bering Sea pollock catch between sectors in the initial allocation for 2000. Table 3.1-57 displays information on the links between the inshore allocation and specific communities as measured by base of operations for the individual cooperatives. This, of course, is not an exact measure because there is the flexibility of delivering some catch outside the cooperative, the ability of open access quota to be delivered anywhere, and the fact that some entities have locations in more than one community, among other factors. These factors show, in at least rough terms, the relative importance of Unalaska as a base of operations for the Bering Sea inshore pollock catcher vessel activity as well as for the shore processing sector. As shown, over half of the inshore pollock co-op allocations are associated with Unalaska based entities. This likely understates the relative percentage of Unalaska as a support community for CV operations, as some logistical and other support activity for Akutan and Beaver Inlet operations takes place in Unalaska as well.

Table 3.1-56. Initial Bering Sea Pollock Allocations, 2000

Quota/Allocation	Percent of TAC	Metric Tons
TAC	100%	1,139,000
CDQ	10%	113,900
Incidental Catch Amount	5%	51,255
Offshore	40%*	389,538
Mothership	10%*	97,385
Inshore	50%*	486,923

Amounts calculated from remaining TAC after deductions for CDQ and Incidental Catch Amounts.

Source: Ettefagh, 2001.

Table 3.1-57. Allocations to Inshore Cooperatives by Community Base of Operations, 2000

Cooperative	Percentage of Inshore Allocation
Unalaska Based	
Unisea Fleet Cooperative	24.087%
Westward Fleet Cooperative	16.824%
Unalaska Fleet Cooperative	11.655%
Subtotal, Unalaska Based Cooperatives	52.566%
Other Communities	
Akutan Catcher Vessel Association	28.257%
Arctic Enterprise Association (currently operating in Akutan)	5.466%
Northern Victor Fleet Cooperative (currently operating in Beaver Inlet [outside of organized borough boundaries])	6.837%
Peter Pan Cooperative (King Cove)	0.720%
Subtotal, Other Communities	41.280%
Non-Location Specific	
Open Access	6.154%

Source: Based on data from 2000 Final Report of Unalaska Fleet Cooperative to the NPFMC (Ettefagh, 2001)

While there is no direct participation in the pollock fishery by vessels owned or crewed by local residents, there is a local commercial catcher vessel fleet that interacts to some degree with the larger as well as the smaller processors. A portion of the fleet is represented by the Unalaska Native Fisherman Association, and according to interview data, in 1998 there are 24 boats in the association, ranging in size from 18 foot skiffs up to a 68 foot commercial vessel. This association is open to Natives and non-Natives alike, but there is a requirement that members must live in the community eight months per year. Local vessels do not participate in the pollock fishery, but do participate in the local cod, halibut, and crab fisheries on a small scale. A frequently noted problem in developing markets and long-term relationships with the larger processing entities, however, is that the locally based fleet are small vessels by Bering Sea standards. In practical terms this means that they are more weather dependent than larger vessels and have a smaller delivery capacity per trip, which makes it difficult for larger plants to accommodate what are by necessity small and sporadic deliveries. There are two smaller processing entities in the community that in addition to doing custom processing for the larger processors and serving the local charter sportfishing sector, also serve as an important market for the local small boat commercial fleet.

Between 1992 and 2000, as shown in Table 3.1-58, between 3 and 21 Unalaska resident owned vessels less than 60' have had landings in targeted groundfish fisheries in any given year. Also as shown in this same table, the total value of groundfish ex-vessel revenues for the community based fleet ranged between \$40,000 to \$250,000 per year during this same time period, for the years that can be disclosed. A couple of trends are apparent in this table. The number of vessels during this era peaked at 21 in 1996, and has declined every year since, with the 7 vessels fishing in 2000 representing a 67 percent reduction from the 1996 fleet size. Total Unalaska owned vessel groundfish ex-vessel revenues have declined over this same 1996-2000 period, but not quickly as the number of vessels themselves, resulting in a 50 reduction of annual revenues between 1996 and 2000. This has had the effect of raising the average revenue per vessel within the reduced fleet by 201 percent between 1996 and 2000. Among the groundfish species, Pacific cod plays a dominant role for these vessels. Between 1992 and 2000, Pacific cod accounted for between 71 and 100 percent of value of catch for this fleet in any given year, with an average of 92 percent per year over this span. Over the

most recent four years, 1997 through 2000, Pacific cod accounted for 89 percent of total value of catch for the Unalaska-owned under 60' fleet. There is no state water groundfish fishery in the Bering Sea near the community, so these data all refer exclusively to federal water fisheries. Two to four Unalaska resident owned vessels 60' or greater participated in the targeted groundfish fishery each year for the years 1992-1999, but none did so in 2000.

Table 3.1-58. Vessels <60' Owned by Unalaska Residents with Landings in Groundfish Target Fisheries and Groundfish Ex-vessel Revenue of Unalaska/Dutch Harbor Resident Owned Vessels, 1992-2000

Year	Number of Unalaska Owned Vessels	Unalaska Owned Vessels, Groundfish Ex-Vessel Revenue	
		Total (thousands of dollars)	Average per Vessel (dollars)
1992	6	40	\$6,700
1993	3	suppressed	suppressed
1994	16	110	\$6,900
1995	13	250	\$19,200
1996	21	150	\$7,100
1997	16	120	\$7,500
1998	9	110	\$12,200
1999	9	110	\$12,200
2000	7	100	\$14,300

Note: Includes "ghost vessels"

Source: CFEC/ADFG Fish Tickets, June 2001

Table 3.1-59 provides information on the gear types of the community under 60' groundfish target vessels in 2000. As shown, the 7 vessels participated in the 2000 fishery and all were fixed gear vessels. Two were in the 33-59' FGCV class, and three were in the less than or equal to 32' FGCV class, while the remaining two did not make enough landings to be classified into any specific gear class (i.e., they were categorized as "ghost vessels").

Table 3.1-59. Vessels <60' Owned by Unalaska/Dutch Harbor Residents with Landings in Groundfish Target Fisheries by Vessel Class, 2000

CV Sector	Number of Unalaska/Dutch Harbor Vessels
TCV Non-AFA	0
TCV <60	0
PCV	0
FGCV 33-59	2
FGCV#32	3
Ghost	2
Total	7

Note: Includes "ghost vessels"

Source: CFEC/ADFG Fish Tickets, June 2001

Reportedly, the activities of this local fleet are effectively constrained to the west of Unalaska Bay on the north side of Unalaska Island, due to environmental as well as potential gear conflict factors. According to one local longline fisherman, if fishing is attempted to the east, currents in the major passes, especially when combined with rough weather, make for untenable conditions for small boats. Further, frequent transits of this area by the larger scale fishing fleet as well as the numerous shipping vessels that call on the Port of Dutch Harbor make gear loss to great of a risk to be conducive to fishing in the area. In contrast, the waters to the west feature less current and more sheltered or protected areas for small boats to ride out rough weather.

For the local small boat jig fleet, the most recent data available suggest that none or very few of jig boat owners derive their income exclusively from commercial fishing, and that commercial fishing for small boat owners is generally one part of a (variable) multiple income source strategy of “piecing together a living.” In terms of the number of participants, this fleet has seen growth and decline in recent years. According to CFEC/ADF&G fish ticket data, three Unalaska/Dutch Harbor jig vessels fished groundfish in 1992, two fished in 1993, and then there was an upsurge in participation with between 13 and 18 vessels reporting per year from 1994 to 1997, inclusive. A decline quickly followed, however, as in 1998, 1999, and 2000, there were 9, 8, and 7 vessels participating each year, respectively.

According to one local long-term local fisherman, while there has been more local groundfish activity utilizing jig gear since the development of the contemporary small boat groundfish fleet, there has been movement in recent years into longline gear by some local residents. In addition to these individuals, there are also individuals who, while not long term residents, fish the area on a more-or-less regular basis using small vessels and longline gear. According to this fisherman, at present (2001), there are about three small boat longline fishermen who ‘live in houses’ in the community, another three or so who live on their boats, and about three others who seasonally come to the area to fish, with some turnover being common in the latter group. Characterizing the level of effort of the ‘local’ component is problematic with currently available data. Most deliveries by these vessels has been characterized as being made at two local small processors rather than the large volume ‘industrial’ plants due to a typically better price structure, but a relatively small portion is reported to also be made at the largest plants in the community for a variety of reasons, including the ability to obtain different types of operational support at the larger facilities that are unavailable at the small processing operations.

It is also important to note that there are a number of vessels that are not owned by community residents in the under 60’ class that deliver to Unalaska (and Beaver Inlet) processors. Table 3.1-60 provides information on ex-vessel revenues for all under-60’ vessels that make local deliveries, and includes all groundfish species, including Pacific cod, sablefish, and so on. Examining the figure for the fixed gear vessel class 33-59’ for 2000, it can be seen that the value for this sector alone (\$1.23 million) is about 12 times higher than the total ex-vessel revenues for all Unalaska/Dutch Harbor resident owned under-60’ vessel classes combined for the same year (\$0.10 million, as shown in Table 3.1-58).

Table 3.1-60. Groundfish Ex-Vessel Revenue of Vessels <60' Delivering to Processors on Unalaska Island, 1992-2000

Year	Ex-Vessel Revenue by Gear Type (millions of dollars)				
	TCV < 60'	FGCV 33-59'	FGCV # 32'	Ghost	Total
1992	0.14	1.75	0.11	0.01	2.01
1993	0.05	0.78	0.02	0.01	0.86
1994	0.01	0.64	0.17	0.01	0.83
1995	0.05	1.62	0.12	0.07	1.86
1996	0.02	0.93	0.10	0.03	1.08
1997	0.00	0.65	0.09	0.03	0.77
1998	0.02	0.31	0.10	0.02	0.45
1999	0.08	0.70	0.04	0.12	0.94
2000	0.03	1.23	0.02	0.03	1.31

Note: Includes landings to the Northern Victor, which operates in Beaver Inlet outside of any municipal (or borough) boundary, but not landings to the Arctic Enterprise, which operated in Beaver inlet for part of this period, but more recently has been operating in Akutan Bay. Other than the Northern Victor, all landings were made within the municipal boundaries of Unalaska.

Source: CFEC/ADFG Fish Tickets, June 2001

Unalaska did not qualify as a CDQ community, but it is an ex-officio member of the Aleutian Pribilof Island Community Development Association (APICDA). This CDQ group is partners with both an onshore and offshore entity, and offers training programs in Unalaska. Though Unalaska is not formally a CDQ community, according to interview data it is in fact where more of APICDA training and other programs are run because of the size of the population it services in the community. Although theoretically the recent increase in CDQ quota under AFA hurt the community as a non-CDQ participant, the simultaneously occurring increase in onshore quota, again in theory, more than made up the difference. The precise impacts of this shift on the community are not possible to ascertain with available data, but it is known that given CDQ partnerships with onshore and offshore sector participants that directly or indirectly benefit the community through either local economic activity or payment of taxes in one form or another, the consequences of the change are likely to be minor indeed. When queried about the impact of CDQ allocation change, a number of respondents offered the opinion that it was simply a “cost of doing business.”

Processing

The shoreplant operations themselves, and the range of variation of operations in the community, have been summarized in earlier documents (most recently in the Inshore/Offshore-3 SIA) and are described in the Sector Profile section of this document, and are not recapitulated here. Rather, this section focuses on recent changes in the sector and its relationship to the community.

In terms of links to the community, it is important to note that shoreplants have long been a part of the community. That is not to say that relationships between the plants and the community itself have been without strain at times over the years, but Unalaska is perhaps unique with respect to the AKAPAI communities included in this analysis for the degree of articulation of the plants with the local community. A number of the longer-term residents working at the plants, especially management level personnel, are actively involved in the community and serve in various elected, appointed, and volunteer capacities with the City of Unalaska and numerous community organizations.

Paradoxically, it has been the case in Unalaska that length of local residency of the workforce employed in seafood processing is inversely related to the vitality of the local industry in general. When the workforce was largest, there were virtually no local hires, particularly of long-term residents. For example, in 1982, at the height of processing capacity for King crab, there were no individuals identified as local residents working in the processing plants. There were a number of reasons cited for that fact at the time, including working conditions, pay rate, and work hours at the seafood plants that were attractive only to temporary transient workers. At that time, workers were hired out of the Pacific Northwest, typically Seattle, and were flown to Unalaska to work on a six-month contract basis. With the downturn in the crab fisheries, companies are no longer able to afford the expenses of a six-month contract system. Some have done away with such contracts and hire workers for an indefinite period of time with incentives for longevity; others hire more out of the Alaska labor pool than in the past.

Several other factors influencing local hires in periods of fluctuation should be noted. First, under “boom” conditions there is a range of available employment options for local residents outside of the less appealing processing jobs. Second, when there is a downturn in hires at the local processing plants, virtually all of the workforce at the individual plants consists of returning workers, obviating the need for new hires. Even when six-month contracts were most common, there was always a core of returning workers. Third, setting the lack of long-term resident hires aside, Unalaska is seldom the “point of hire” for processing workers for individuals who are newly arrived to the community. That is to say, people do not come to Unalaska for processing work unless they have already secured a position. It is far too expensive to fly out to the community on the off chance they might gain employment, particularly at relatively low-paying jobs, especially given the fact that there is seldom housing available in the community and that which does come available is relatively expensive. Fourth, it should be noted that a lack of local hire does not apply to all positions with the seafood companies. Management positions at nearly all of the seafood companies (as well as with the major fisheries support sector companies) are occupied by individuals who, if not originally from the community, are at least long-time residents of the community or the region. In a number of ways, the processing industry is a “small circle” in terms of managers, and individuals who have worked for more than one company and have gained ten to twenty years experience in the community and the region are not uncommon. Individual owners and, in the case of “permanently” moored floating processors, even the plants themselves may come and go, but individuals in upper level management positions tend to remain in the business and in the area.

Very few, if any, lifetime residents of the community work at the shoreplants at any one time. There are a number of reasons commonly cited for this, but the most common dynamic involves the high cost of living in the community. Costs are such that it is nearly impossible for a local resident to take an entry-level job at one of the plants, and better paying jobs at the plant are typically filled by individuals who have ‘worked their way up’ within the company. Further, according to interview data, local residents who have tried working at the plants have found that entry-level position work schedules are not typically compatible with an active involvement in community and family life outside of the plant.

Interviews with processing plant personnel suggest that a major operational impact experienced by the community of Unalaska since the passage of AFA and the formation of the co-op system has been the slowing down of spreading out of pollock processing activity. While some plants reported minor changes in numbers of personnel associated with pollock processing operations, for the most part levels have stayed almost the same, given the need for a full complement of staff to run the plants. What has changed is that, according to senior plant personnel, workers are working less hours per day and working for longer periods than was the case at the end of the open access era. Workers are reportedly earning perhaps slightly more than in past seasons, but it is taking them longer to do so, given the shorter workdays. This has had some impact on recruiting personnel, as there are some

processing workers who want to come to the community for a relatively brief period of time and maximize the number of hours worked during the time they are in the community so that they can return to their home communities with more money in a shorter period of time. Plant personnel also note that recruiting for processing workers has been more difficult during the time that there is a strong economy in the Lower 48.

Plant personnel also note that despite co-op formation, there is still a “race” interval during pollock processing in the roe season. Roe is at optimal quality for only a relatively short period, so there is a premium placed on maximizing return within that relatively short window. Further, non-roe pollock are also harvested to target maximum returns based on quality of fish, but those windows are much larger than the roe window.

One change within shoreplants as a result of co-op/AFA related conditions has been the addition of additional pollock products to the processing mix. During open access when highest throughput was the goal, the returns on a number of specialty products were not worth the time (and opportunity costs) that such production would take. Some plants that concentrated heavily on surimi are now producing pollock fillets. Fillets are more labor intensive to produce than surimi, so theoretically would result in more employment at the plants, but in practice plant operations typically split their labor forces between a “surimi side” and a “seafood side” of operations. Producing pollock fillets means a diversion of some pollock to the “seafood side” of the operation and this has happened at the same time that the seafood side of local operations has been in decline with the shrinking of crab quotas. At least two of the major AFA plants have reported that they are not using dedicated crews for crab processing because of the sharp decline in volume in this past year, such that pollock seafood side products have picked up some of the slack, with workers switching to processing other species as they become available. In general, it is the case at all plants that “less pollock is going to fish meal” as other products are being developed and recovery rates for existing products are increased given the ability to optimize for return per unit rather than return based on volume. With the slowing of the pace of processing, at least one shoreside operation has closed a relatively inefficient but significant portion of their plant in favor of maximizing use of other portions of the plant. One operation reports more workers on site than in the recent past, but another reports labor force is down somewhat from the peak years when the crab quota was larger. The combination of balancing seafood with surimi production, and adding fillet and other product capacity makes comparing workforces between circumstances like ‘comparing apples and oranges’ in the words of one plant manager.

There have been disruptions to plant operations associated with recently imposed Steller sea lion protection measures. According to senior staff at the local pollock plants, there were times during the C/D season of 2000 when the individual plants ran out of fish during what would otherwise have been continuous operation periods. When plants shut down during production, there are disproportionate inefficiencies created not just by the downtime, but by required cleaning as well. Plant managers were of a common opinion that the 2000 A/B seasons were a marked success under initial co-op and AFA quota allocation conditions, but that in the C/D season, the Steller sea lion protection measures “took away” at least some of the gains realized under the new management system. On the other hand, the opinion was universally held among plant managers that the co-op structure mitigated, at least to a degree, the negative impacts to the Steller sea lion protection measures (i.e., without the co-ops, the negative impacts of the protection measures would have been much worse). In concrete terms, in addition to timing and effort inefficiencies, the sea lion protection measures hurt shoreplants in terms of fish quality and age, something that the co-op system had allowed the plants to make gains on compared to the derby system context pre-AFA.

There has been some shift in inshore pollock away from Unalaska Island with the move of the Arctic Enterprise floating processor from Beaver Inlet to Akutan (coincident with its purchase by a new owner), but this shift has not had direct consequences on the community of Unalaska. Local revenues were not effected, as Beaver Inlet is outside of the municipal boundaries of Unalaska, nor is Beaver

Inlet part of an organized borough, so there were no local taxes that derived from that operation. The operation was supported logistically out of Unalaska as the closest transportation hub, but that is still the case to some degree even with the vessel operating out of Akutan.

Support Services

Unalaska is unique among Alaska coastal communities in the degree to which it provides support services for the Bering Sea groundfish fishery. As described in detail in the Inshore/Offshore-1 community profile (NPFMC 1991), Unalaska serves as an important port for several different aspects of pollock fishery. Support services include a wide range of companies, including such diverse services as accounting and bookkeeping, banking, construction and engineering, diesel sales and service, electrical and electronics services, freight forwarding, hydraulic services, logistical support, marine pilots/tugs, maritime agencies, net replacement and repair, vessel repair, stevedoring, vehicle rentals, warehousing, and welding, among others. There is no other community in the region with this type of development and capacity to support the various fishery sectors in the Bering Sea.

In general, in the way of support services, there is little direct supply of the main shoreplants in the community. This is especially true of the large pollock oriented shoreplants, by far the largest plants in the community. These are large enough entities that it is more efficient to supply most on-site needs directly from outside of the community. These plants all feature an “industrial enclave” style development to some degree, but this varies from operation to operation. Plants may purchase some regular items such as rain gear and boots for processors locally that they do not want to keep in inventory, but major purchases may be limited to fuel sales. Commonly large volume supplies, such as packaging materials and food are purchased “down south” and shipped direct. Individual processing plant workers do patronize local businesses to some extent, but this is limited by the fact that they are supplied furnished housing and meals by the processors. The smaller operations in Unalaska have proportionally more local purchases of goods and services in the community. The major non-pollock crab processor in the community noted that because of the scale of their operation they did buy most services in town, but that with the overall decline in the support service sector of the economy they have seen “about a half dozen” of their vendors leave the community.

There are a number of businesses in Unalaska that are oriented toward supporting catcher vessels for a significant amount of their business. With a decrease in the race for fish during the locally important pollock fishery (and the coincident decline of quota in the area crab fishery), there has been a drop-off in peak demand for services. The amount of this drop-off depends on a number of different factors, including the relative reliance on crab and trawl fleet support. According to one service supply business manager who is quite heavily dependent upon trawl vessels, the co-op system in theory should help his business out in the long run, because even if overall there are less vessels with quota reassignments within co-ops, it will be the less efficient vessels that drop out, leaving more predictability and more secure players. In practice, a good portion of the support business in Unalaska has been built on inefficiencies, as according to this manager “this was Unalaska business.” Like many of the support service businesses contacted, the common pattern for his business was to have a limited staff of year-round personnel and to ramp up capacity during peak periods by bringing in temporary or seasonal staff from Outside. This is true both for vessel oriented service firms that are parts of larger regional or national entities as well as for more locally based firms (and of the latter there are very few). With the conditions created by AFA (in conjunction with the fall in crab quotas), there have been employment cut backs at all of the businesses contacted in this subsector, either in the form of having fewer year-round personnel or in cutting back on the number of seasonal hires for peak demand, and in all cases a cutting back of overtime hours for staff. One electronics firm contacted is at half the level of employment that was typical in pre-co-op circumstances, and this was not an unusual case. One local business manager captured a common sentiment regarding the cutbacks and the quality of the jobs remaining in the community, however, with the observation that with the cutback “we have been trading money for sanity.” In the words of another business owner,

during the days of the race for fish “I didn’t know I was crisis oriented” and in the time passing since crisis mode he has had to find other ways of making the business work. In this particular case of a locally owned vessel support business, survival has meant diversifying away from relying on the fishing industry nearly exclusively by performing similar services for land-based businesses (and adding new marine-oriented services) and away from relying on Unalaska as a nearly exclusive geographic base of revenue by taking his services to the region and beyond.

Another common problem with these businesses is inventory, and this has changed somewhat under co-op conditions (again, depending on how relatively dependent a business is on trawl-specific trade). Under race for fish conditions, carrying a larger than normal relative to overall volume of sales inventory was necessary due to the need to have virtually everything possible on hand instantly in case of need during the fishing season, as downtime for vessels off of the fishing grounds meant unacceptable opportunity losses, and vessels were willing to pay whatever it took to get them back on the grounds as quickly as possible - time was worth more than the cost of urgent repairs. As the race for fish went away, it was much more efficient to be able to order specialty parts expressed shipped in from the Lower 48 (typically Seattle) if needed than to try and stock everything in Unalaska.

Depending on the composition of the business base of these firms, they have been hit more or less hard by the decline in the crab quota. According to one business manager, with the loss of income to crab vessels, he has seen his crab vessel support business drop off 50 percent as owners are not spending money on preventative maintenance, and among those who are performing work, they are slower to pay their bills.

With the trawl fleet, the slowing down of the race for fish has also meant that the trawlers are spreading their business differently in the community, according to support business owners. Not only is less money being spent overall because of the relative lack of urgency, “now money managers are involved” in looking at relative value between providers and shopping work around. For a number of the support businesses that service the catcher fleet, the loss of a large portion of the catcher processor fleet was a large blow. While these large vessels did not employ the full range of services that some of the smaller catcher vessels might have employed in the community (simply due to their not being facilities able to handle all of the work), they did need specialty service work from a number of the suppliers.

Another common observation of the support sector within the community is that while the relatively longer pollock seasons are good for the community as a whole, a number of entrepreneurial businesses have folded, and the redundancy among (or the range of choices among) service providers has been reduced. The flip side of this means that, according to one fishing business manager, they can be more selective in their purchasing of services and “everything no longer needs to be at a premium price in Dutch Harbor.”

The catcher vessel support business is also changing somewhat in Unalaska in terms of the direct involvement of shoreplants in support roles. For some of the plants, the way service is performed is tied to changes in catcher vessel ownership patterns. At least some of the plants are taking a more proactive role in boat maintenance and work rather than having the work done by third party providers, as the plants are taking a more direct ownership or control interest in the boats. This is somewhat of a reversal of the trend away from Unalaska shoreplants doing this type of work, which is common in smaller communities. As the local support service sector developed, Unalaska shoreplants were more than willing to get out of the fleet support business for independent delivering boats, to the extent feasible while still maintaining optimum delivery schedules.

Fuel sales are another type of locally provided support for the catcher vessel fleet. The Steller sea lion restrictions that went into place in the C/D seasons in 2000 have meant an increase in fuel sales due to longer vessel trips to the open fishing grounds. This, coupled with co-occurring high fuel prices has meant higher costs to the catcher vessel (and the catcher-processor) fleet. While the fuel sales

businesses have benefited (as has the municipality of Unalaska through tax on the fuel sales), the vessels and shoreplants (because of the higher cost of fuel they are purchasing) have been hurt.

There is a significant amount of support business in the community that is directly related to the offshore fleet. Catcher processors use warehousing services, and refuel and resupply when they are in the community to do a full or partial offload of product. (During the race for fish days, depending on the pace of the fishing, length of the season, capacity of the vessel, and a number of other variables, catcher processors may make a partial offload during the season [to free up capacity for finishing the season], and then do a full offload in Unalaska at the end of the season, or they may make a full offload during the season.) Additionally, catcher processors typically need a range of expediting, freight management, and logistical support services through Unalaska to keep operating in the Bering Sea. While this basic pattern has not changed in the post-AFA era, the volume of local work is down significantly due to both the reduction in the catcher processor fleet and the slackening of the pace of fishing during the 1999-2001 era.

This loss of catcher processor related business has not been evenly distributed throughout the support sector businesses in the community. For example, the OSI facilities in Captain's Bay were disproportionately dependent on the portion of the fleet that was excluded from the fishery compared to most other large businesses in the community. As a result, demand for dockage and warehousing at the facility is down, as are associated sales of other goods and services at the facility. Loss in local support demand can also be gauged by the fact that American Seafoods itself has a much reduced direct presence in the community, going from three year-round and four seasonal employees pre-AFA, to one year-round and two employees each hired for two months under the present circumstances.

For the catcher processor business activity that remains in the community, there has also been a shift by one of the main companies away from utilizing private facilities in favor of doing a higher portion of their business across one of the municipal docks. Clearly a rational business decision in the new environment, this has served to move some support income from the private to public sector.

Shipping seafood products is also a major business sector in the community. In addition to the two main shipping lines that serve the community, another type of support service provided in the community for both the inshore and offshore fleet is stevedoring services. While some shoreplants typically do not use stevedores in loading operations across their docks, or the demand is lower for stevedoring because of containerized product, hatch gangs are used for loading product 'over the side' to trampers for shipment from Unalaska. Stevedoring jobs are relatively high paying, and much valued in the community, though the work is not steady for the bulk of persons engaged in it. What does make this labor opportunity particularly valued is the fact that long-term locals, including lifetime residents, may qualify for, and provide a viable labor pool for, these positions without having to go through minimum-wage type of entry positions first. There are also union and non-union laborers alike who come to the community during the busy seasons to take advantage of the opportunities available in the community.

With the recent changing of the pace and structure of the fishery with co-ops, shipping business patterns have changed in the community. The largest difference is attributed to the fact that processors can now much more closely time their operations and shipping needs, and can thus optimize their range of shipping choices. This opens up a range of options not readily available under race for fish conditions. For example, processing entities can more easily arrange for scheduled transfers direct to trampers rather than having to use always available locally established shipping firms to transfer product. Of course, shipping choices ultimately depend on product mix, destination, and cost efficiencies, but clearly local shipping-related entities have felt impacts directly as a result of fishery structure changes. There are also indications that shoreside plants have shifted to a greater

emphasis on tramper shipments relative to containerized shipments, but no quantitative information is available to verify this assertion.

One change seen in the community in the post-race for pollock era is the addition of two more private dock/shipping facilities in the community, one at the old East Point plant location and another in Captain's Bay. There would also appear to be proportionately more offshore related volume going across municipal docks than was the case in the past, and city revenue from dockage and wharfage in general is up. These two factors reinforce the general observation that shipping related business is becoming less concentrated among the formerly dominant local entities and more spread out among various entities.

In the 1999-2001 era, there has been a reported shift in product destination from Unalaska, with less product going to Asia and more going to domestic and European markets, due primarily to change in product mix. One of the large shipping firms in the community reports that here has been almost a 100 percent fall-off in business to his company from the offshore sector since AFA, and increases from the shoreside have not made up this differential. This is attributed to the fact that without the Olympic system, seafood companies can schedule and plan offloads, meaning that they can make their own arrangements rather than having to go through a shipping company that is always available. Similarly, the onshore sector can more easily schedule tramper loads. The situation is not straightforward, however, for the two primary shipping companies with a local presence in Unalaska. There has been some movement of market share between the two firms that, according to some, were as closely associated with ownership and corporate changes at the two firms as much as any local market forces. According to one firm, union longshoring hours were down approximately 22 percent between 1998 and 2000. The community has seen a higher proportion of work going to non-union longshoremen recently, although the non-union entities tend to have smaller workforces (because, in part, of being able to schedule work rather than needing a large on-call labor pool). Co-op conditions have pushed inventories up because of increased recovery rates and diversification of product mix, meaning that there has been some increase in demand for cold storage, berthing, dockside services, and so on. While one senior shipping manager has reported that movement of product will become more of an issue with this trend, he also reports that there has been a tradeoff with the slowing of the peak periods post-AFA; even during the busy season, now staff are able to work more normal schedules and can be home with their families by 7:00 p.m.

There are also support service providers in Unalaska who support inshore processing entities that are operating far outside of the community. For example, the firm (Icicle Seafoods) that owns the floating processor in Beaver Inlet (Northern Victor) has a local Unalaska representative who supports that operation. (When a second floater was operating in Beaver Inlet, this entity had an office in Unalaska that, among other functions, supported that operation.) Similarly, the company that owns and operates the large shoreplant in Akutan (Trident) has a support office in Unalaska because of the logistical support needs of that plant that cannot be managed directly from Akutan.

In general, the recent changes experienced by support service sector businesses in Unalaska have gone to the heart of the paradox of the Unalaska support service economy. This portion of the local economy was historically dependent to a large degree of the economic inefficiency of the commercial fishing industry. To the extent that the co-op quota allocation system has made pollock fishing more economically efficient, it has also served to allow vessel and facility owners to not have to purchase inefficient support services. This has meant a drop in local support service activity, employment, and revenue. There are no data available to quantify the amount of the drop, but it has clearly been significant for many of the businesses in this sector. Overall, peak demand is lower, the pace of business is slower, money has become at least as important of a consideration as time, and businesses do not need the level of inventory and staff as in the past. There are, of course, exceptions to this generalization, but the pattern is apparently quite consistent over the sector as a whole.

The Municipality and Revenues

Table 3.1-61 presents a break-down of revenues by source for the City of Unalaska. This provides a sense of scale for the different revenue sources for the City's General Fund, and specifically for the importance of the local raw fish tax.

Table 3.1-61. City of Unalaska General Fund, Fiscal Years 1998-2001

Revenues	FY98 (actual)	FY99 (actual)	FY00 (actual)	FY01 (preliminary)
Real Property Tax	2,521,746	2,698,454	2,690,560	2,746,295
Personal Property Tax	1,164,363	1,120,957	1,202,265	1,116,263
Raw Fish Tax	2,641,124	2,513,500	3,410,717	2,958,360
Sales Tax	3,533,123	3,254,403	3,242,284	3,657,042
Other Taxes	439,735	516,863	509,434	524,195
State of Alaska	6,030,119	6,306,064	5,640,942	6,914,040
Charges for Services	278,703	282,778	279,159	298,409
Permits & Licenses	19,546	13,687	22,018	20,265
Miscellaneous	2,407,515	2,099,082	1,954,352	3,462,567
Other Financing Sources	386,895	273,416	461,817	19,346
Total General Revenue Funds	19,422,869	19,079,204	19,413,548	21,716,782

Source: City of Unalaska Finance Department spreadsheet, 2001.

Table 3.1-62 provides a break-out of selected fisheries-related General Fund revenue sources. These include the local raw fish sales tax, the intergovernmental fisheries business tax and the fisheries resource landing tax. There have been some changes in the fishery in recent years (since 1999) as a result of AFA, and these generally favored Unalaska, with a shift of resources onshore and better conditions under the co-op system. As shown, the local raw fish tax increased substantially from FY99 to FY00, with the latter encompassing the first half of the 2000 calendar year, the first year of AFA onshore co-ops. Of course, a number of factors influence the volume and value of fish landed in the community which, in turn, translates into taxes paid. (The City of Unalaska does not keep a break-out of revenue generated by species or species group so information is not readily available to calculate the relative revenue contribution of individual species or species groups, but a proxy for that information for the shore based operations may be found in Tables 3.1-53 and 3.1-54.) Preliminary information for FY 2001 shows a further increase in revenues. AFA also influenced City of Unalaska revenues due to the additional requirement that at-sea processors count landings outside of state waters as taxable events (under the fisheries resource landing tax). As shown in Table 3.1-62, the local revenue derived from the fisheries resource landing tax increased from FY 1998 to FY 1999 (with the latter year encompassing the first half [calendar] year of offshore co-ops). Revenue from this source, however, fell over half a million dollars between FY 1999 and FY 2000 (the period covering the second half the first year of offshore co-ops and the first half of the second year of offshore co-ops) but, according to preliminary figures, rebounded in FY 2001. Looking at the three revenue source total, although there was some variation in the individual sources, the combined amount was nearly flat at \$7.7 million for each year FY 1996 (the first year the fisheries resource landing tax came to the city) through FY 1999. FY 2000 combined three-source revenues rose to \$8.1 million, and preliminary data have this figure increasing to \$9.0 million in FY 2001.

Table 3.1-62. City of Unalaska Selected Fisheries Related General Fund Revenues, Fiscal Years 1991-2001

	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01P*
Raw Fish Sales Tax	2,851,008	3,681,908	3,131,661	2,641,802	3,340,512	2,212,833	2,641,645	2,641,124	2,513,500	3,410,717	2,958,360
Fisheries Business Tax	2,067,793	2,475,197	3,581,134	2,770,321	2,364,847	2,828,570	2,071,914	2,424,747	2,424,787	2,483,670	3,249,218
Fisheries Resource Landing Tax	na	na	na	na	na	2,637,708	3,015,804	2,604,706	2,739,821	2,224,903	2,813,250
Three Source Total	4,918,801	6,157,105	6,712,795	5,412,123	5,705,359	7,679,111	7,729,363	7,670,577	7,678,108	8,119,290	9,020,828

* FY2001 is preliminary; all other years are actual.

Source: City of Unalaska Finance Department spreadsheet, 2001.

Other Local Business Activity

Tourism continues to develop in the community, with new draws in the last few years associated with an increased local National Park Service presence, the opening of the Museum of the Aleutians, and the continued popularity of charter sport fishing. Sport charter fishing took off in the mid-1990s when world record sport halibut were caught locally in 1995 and 1996, with the latter fish, at 459 pounds, still representing the world record. Birding, hiking, kayaking, camping, and visiting the Holy Ascension Cathedral historic site are also tourism draws, but high cost and inconvenient transportation access make the development of this sector challenging for local businesses. With the slow down in the race for fish, direct fishery related passenger transportation demand also declined to some degree. Table 3.1-63 provides information on passenger counts at the community airport for the period 1995-2000, as well as for the first half of 2001. As shown, the total number of passengers for this span of years peaked in 1996, and counts for 1999 and 2000 are the two lowest annual counts during 1995-2000. While there is considerable variation between quarters within and between years, quarterly counts for the first two quarters of 2001 are lower than either 1999 or 2000.

Table 3.1-63. City of Unalaska, Port of Dutch Harbor Airport Passenger Count by Quarter, 1995-2001

Quarter	Calendar Year						
	1995	1996	1997	1998	1999	2000	2001
January-March	16,122	20,380	15,992	20,919	15,672	16,461	14,696
April-June	17,209	16,615	15,772	13,683	14,556	16,480	13,988
July-September	18,015	17,105	16,041	12,909	16,312	15,906	na
October-December	13,171	13,323	15,380	15,863	13,740	12,596	na
Total	64,517	67,423	63,185	63,374	60,280	61,443	na

Note: (1) Data from second half of 2001 not yet available. (2) Data in the table represent a total of enplaned and deplaned passengers, not "round trips" by single individuals (e.g., if 9,000 passengers got off planes in Unalaska during a particular quarter and 7,000 passengers boarded planes in Unalaska during that same quarter, the quarterly passenger count would be 16,000).

Source: Adapted from spreadsheet supplied by City of Unalaska Finance Department. Data were originally configured in fiscal year format. Data for April-June 2001 period supplied by telephone follow up.

Coupled with these conditions was a decrease in level service caused by the discontinuation of long-time air service provider Reeve Aleutian Airways and a further drop in demand related to the crab

quota decline. This resulted in a situation where as of early 2001 the community was served by only one jet per day. According to long-time community residents, this has had an impact on a range of services in the community (such as the price and availability of a variety of food at stores), as well as mail and freight.

Unalaska continues to support a much wider range of non-fisheries related businesses as well as fisheries support related businesses than any other community in the region. According to interviews conducted early in 2001, however, business conditions are changing with a general slow-down in the non-fisheries sectors of the economy, a trend at least partially related to recent structural changes in the groundfish fishery as well as the decline in the crab fishery. A number of businesses that serve the general public have gone out of business in the recent past, and examples of these businesses, including an office supply store, an auto parts store, a vehicle rental firm, and a bowling alley, were frequently cited during interviews. Also strongly marked was the reduction in number of more direct fishery support businesses that were needed for peak demand times. In this case, it is not that types of services are no longer available, it is more that there is less of a choice of providers of those services. One landlord reports having lost a net company, an electrical firm, a hydraulic firm, and a restaurant all out of a single building. While this is an unusual case, it does illustrate the range of businesses (and types of fleet support businesses) that have folded.

Another change in the local community context noted by multiple interviewees is an increased federal presence in the community. While having nowhere near the presence as in, for example, Kodiak, the United States Coast Guard now has a detachment in the community (after the community had lobbied for many years for an increased local presence given the importance of commercial fishing in the community and region). There are also now U.S. Customs and Immigration and Naturalization Service personnel and offices in the community.

Table 3.1-64 provides service demand information for the period 1994 through 2000 from the Unalaska Department of Public Safety. As shown, the number of incidents/calls for service during this period peaked in 1997 and has since decreased annually. The number of investigative files/cases, typically indicative of more substantive requests for service, show an overall decline over this span, but not in a straight-line fashion. Fire responses show no clear pattern, but relatively large fluctuations from year to year are not uncommon due to the low number of responses.

Table 3.1-64. Unalaska Department of Public Safety Level of Service Indicators, 1994-2000

Indicator	Year						
	1994	1995	1996	1997	1998	1999	2000
Total Incidents/Calls	3,795	4,085	4,627	4,981	4,039	3,666	3,450
Investigative Files/Cases	993	974	944	865	787	802	834
Fire Responses	25	34	37	23	24	29	32

Source: Notes provided by City of Unalaska Department of Public Safety, 2001.

One change in the community consistently mentioned during interviews with local business leaders (in an unrelated study) in early 2001 were the impacts associated with Steller sea lion protection measures that were in put in place during 2000. In the words of one community business leader, the issue is “hanging over the town” and people “can’t do any planning” because of it. There is a recognition, however, among at least some of the local residents that other communities in the region are even more vulnerable to community-level disruptions resulting from these measures due to a much higher reliance on a small boat fleet that cannot effectively fish outside of the protection zones. While the seasonality of the local economy has changed with AFA related co-op management/quota allocation conditions, such that peak periods are not as high or sharp, and an increased level of

activity lasts longer in the community, the interruptions of the seasons related to Steller sea lion protection measures does cause stoppages and inefficiencies at the major shoreplants in the community.

The housing market of Unalaska has changed significantly in the past few years. Although there was a lull in demand following the crash of local King crab activity in the early 1980s, housing demand has been strong in the community since the development of the contemporary fishery dating back to the 1970s. There are no longer lengthy waiting lists for rental properties, and home sales are sluggish. The community has not yet seen a dramatic dip in housing costs, but there is at least some concern in the community that either investments in housing will not be realized on the sale of the property or that homes will not be able to be sold in a timely fashion if individuals chose to leave the community, which is a very different set of circumstances than have been common for many years.

AKUTAN

Akutan is located on Akutan Island in the eastern Aleutian Islands, one of the Krenitzin Islands of the Fox Island group. The community is approximately 35 miles east of Unalaska and 766 air miles southwest of Anchorage. Akutan is surrounded by steep, rugged mountains reaching over 2,000 feet in height. The village sits on a narrow bench of flat, treeless terrain. The small harbor is ice-free year-round, but frequent storms occur in winter and fog occurs in summer. Akutan began in 1878 as a fur storage and trading port for the Western Fur & Trading Company. The company's agent established a commercial cod fishing and processing business that quickly attracted nearby Aleuts to the community. A church and school were built in 1878.

The community of Akutan was previously profiled in the 1991 SIA in the Unalaska Social Impact Assessment Addendum (IAI 1991), and the details of that profile will not be recapitulated here. Akutan is the site of one of the larger shoreplant facilities that process Bering Sea pollock, and that operation is grouped with (and described with) the Unalaska/Dutch Harbor shoreplants in the inshore profile in the Sector and Community Profiles appendix to the Steller Sea Lion EIS. The purpose of this brief section is to underscore the unique aspects of Akutan with respect to potential socioeconomic assessment issues that could arise out of the groundfish management process.

Akutan is a unique community in terms of its relationship to the Bering Sea groundfish fishery. It is the site of one of the largest of the shoreplants in the region, but it is also the site of a village that is geographically and socially distinct from the shoreplant. This 'duality' of structure has had marked consequences for the relationship of Akutan to the Bering Sea groundfish fishery.

One example of this may be found in Akutan's status as a CDQ community. Initially (in 1992), Akutan was (along with Unalaska) deemed not eligible for participation in the CDQ program based upon the fact that the community was home to "previously developed harvesting or processing capability sufficient to support substantial groundfish participation in the BSAI . . ." though they met all other qualifying criteria. The Akutan Traditional Council initiated action to show that the community of Akutan, per se, was separate and distinct from the seafood processing plant some distance away from the residential concentration of the community site, that interactions between the community and the plant were of a limited nature, and that the plant was not incorporated in the fabric of the community such that little opportunity existed for Akutan residents to participate meaningfully in the Bering Sea pollock fishery (i.e., it was argued that the plant was essentially an industrial enclave or worksite separate and distinct from the traditional community of Akutan and that few, if any, Akutan residents worked at the plant). With the support of the Aleutian Pribilof Island Community Development Association (APICDA) and others, Akutan was successful in a subsequent attempt to become a CDQ community and obtained that status in 1996.

This action highlights the fundamentally different nature of Akutan and Unalaska. Akutan, while deriving economic benefits from the presence of a large shoreplant near the community proper, has

not articulated large-scale commercial fishing activity with the daily life of the community. While US Census figures show Akutan had a population of 589 in 1990 and 713 in 2000, the Traditional Council considers the “local” resident population of the community to be around 80 persons, with the balance being considered “non-resident employees” of the seafood plant. This definition, obviously, differs from census, state, and electoral definitions of residency, but is reflective of the social reality of Akutan. The residents of the village of Akutan, proper, are almost all Aleut. As shown in Table 3.1-65, less than 16 percent of the population in 2000 was Native American/Native Alaskan.

Table 3.1-65. Ethnic Composition of Population Akutan; 1990 and 2000

Race/Ethnicity	1990		2000	
	N	%	N	%
White	227	38.5%	168	23.6%
African American	6	1.0%	15	2.2%
Native Amer/Alaskan	80	13.6%	112	15.7%
Asian/Pacific Islands*	247	41.9%	277	38.9%
Other**	29	4.9%	141	19.7%
Total	589	100%	713	100%
Hispanic***	45	7.6%	148	20.8%

Source: U.S. Bureau of Census.

* In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 2) and Asian (pop 275)

** In the 2000 census, this category was Some Other Race (pop 130) and Two or more races (pop11).

*** 'Hispanic' is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).

Table 3.1-66 provides information on group housing and ethnicity for Akutan. Group housing in the community is almost exclusively associated with the processing workforce. As shown, 85 percent of the population lived in group housing in 1990 (2000 data are not yet available). Also as shown, the ethnic composition of the group and non-group housing segments were markedly different, with the non-group housing population being predominately (83%) Alaska Native, and the group housing population having almost no (1%) Alaska Native representation.

Table 3.1-66. Ethnicity and Group Quarters Housing Information, Akutan, 1990

Akutan	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	227	37.52	212	42.32	15	17.05
Black	6	0.99	6	1.20	0	0.00
American Indian, Eskimo, Aleut	80	13.22	7	1.40	73	82.95
Asian or Pacific Islander	247	40.83	247	49.30	0	0.00
Other race	29	4.79	29	5.79	0	0.00
Total Population	589	100.00	501	100.00	88	100.00
Hispanic origin, any race	45	7.44	45	8.98	0	0.00
Total Minority Pop	342	56.53	298	59.48	44	50.00
Total Non-Minority Pop (White Non-Hispanic)	247	40.83	203	40.52	44	50.00

Source: Census 1990 Summary Tape File 2

Table 3.1-67 shows the population composition by sex in 1990 and 2000, and is clearly indicative of a male-dominated industrial site rather than a typical residential community. The age data in this table is also reflective of a large adult workforce relative to the number of families in the community.

Table 3.1-67. Population Composition by Age and Sex Akutan; 1990 and 2000

	1990		2000	
	N	%	N	%
Male	449	76%	549	77%
Female	140	24%	164	23%
Total	589	100%	713	100%
Median Age	NA		40.2 years	

Source: U.S. Bureau of the Census

Akutan also differs from Unalaska in terms of opportunity to provide a support base for the commercial fishery. There is no boat harbor in the community, nor is there an airport. While there is a 'local' commercial fishery, this is pursued out of open skiff-type vessels, and participation in this type of enterprise has reportedly declined in recent years. (Through the CDQ program, however, the community does participate in the commercial fishery in other ways, including partial ownership [by APICDA] of a BSAI catcher-processor.) The Akutan village corporation does derive economic benefits from the local shoreplant through land leasing arrangements and through sales of goods and services to local seafood plant employees, including check cashing services.

As a CDQ community, the community of Akutan enjoys access to the BSAI groundfish resource independently of direct participation in the fishery. Akutan, like the other CDQ communities, has benefited from the increase under AFA from 7.5 percent to 10 percent of each BSAI groundfish TAC (except for the fixed gear sablefish TACs, of which CDQ communities receive 20 percent for the eastern Bering Sea and the Aleutian Islands areas). The direct benefit/value of this increase, of course, depends upon the TAC itself as well the value of the resource (or value of the rent). Similarly, economic benefits the community derives from the local 1 percent raw fish tax from landings at the nearby plant are dependent on BSAI groundfish TACs and the resulting ex-vessel value of groundfish landings.

Although this conclusion pertains to the community of Akutan, implications for the groundfish landings port of Akutan are quite different. The Trident plant is the principal facility in the Akutan port and, historically, a number of smaller, mobile processing vessels have operated seasonally out of the port of Akutan. Akutan does not have a boat harbor or an airport in the community. Beyond the limited services provided by the plant, no opportunity exists in Akutan to provide a support base for other major commercial fisheries. Indeed, alternative economic opportunities of any kind are extremely limited.

While crab processing was a major source of income for the Akutan plant during the boom years of the late 1970s and early 1980s, with the economic collapse of this resource base in the early 1980s, groundfish processing became the primary source of economic activity. In 1997, for example, State of Alaska and NMFS catch records indicate that, while landings of herring and crab were reported for the Akutan plant, more than 98 percent of the total pounds landed were groundfish, and these made up more than 80 percent of the estimated total value.

With respect to groundfish fishery and related potential socioeconomic impacts to Akutan, the village is in a unique position. As a CDQ community, Akutan enjoys access to Bering Sea pollock independent of direct participation in the fishery. As home community to a shoreplant, Akutan

derives considerable fiscal benefits from inshore operations. As CDQ partners with both inshore and offshore entities, they derive economic benefits from both of those sectors. A change seen in the very recent past was the purchase of the Arctic Enterprise floating processor by Trident, and the move of the Arctic Enterprise from Beaver Inlet on Unalaska Island to Akutan bay. The move of the Arctic Enterprise, combined with the increase in CDQ quota, mean that both the industrial and village portions of the community appear to have captured more of the overall pollock quota post-AFA than was the case pre-AFA. In summary, the potential social impacts to Akutan as a result of groundfish management changes depends upon how one defines the community of Akutan. If the traditional village of Akutan is the unit of analysis, the fishery would appear to have little direct impact on the day-to-day lives of individuals in the community, as long as the structure of the sectors stays roughly the same. On the other hand, if the census/legal definition of Akutan is used, the Akutan is a community more than five times larger than its 'traditional/Aleut' population, and that large margin of difference in population is associated exclusively with the onshore processing operation.

SAND POINT AND KING COVE

Sand Point is located on Humboldt Harbor on Popof Island, off the Alaska Peninsula, 570 air miles from Anchorage. Sand Point was founded in 1898 by a San Francisco fishing company as a trading post and cod fishing station. Aleuts from surrounding villages and Scandinavian fishermen were the first residents of the community. Sand Point served as a repair and supply center for gold mining during the early 1900s, but fish processing became the dominant activity in the 1930s. Aleutian Cold Storage built a halibut plant in 1946. Trident operates the current processing plant, which primarily processes pollock, Pacific cod and other groundfish, salmon, and halibut. Peter Pan operates a buying station in Sand Point for their processing plant in King Cove. Sand Point is home port for the largest fishing fleet in the Aleutian Chain.

King Cove is located on the south side of the Alaska Peninsula, on a sand spit fronting Deer Passage and Deer Island. It is 18 miles southeast of Cold Bay and 625 miles southwest of Anchorage. King Cove was founded in 1911 when Pacific American Fisheries built a salmon cannery. Early settlers were Scandinavian, European, and Aleut fishermen. Of the first ten founding families, five consisted of a European father and an Aleut mother. The cannery operated continuously between 1911 and 1976, when it was partially destroyed by fire. The main processor in King Cove is now Peter Pan, and processes pollock, Pacific cod and other groundfish, salmon, crab, herring, and halibut. In addition, several small operators conducted operations in King Cove in 2000 - one for salmon only, and the other for salmon and groundfish (other than pollock).

Sand Point and King Cove, like Akutan, are a part of the Aleutians East Borough. Whereas Akutan is incorporated as a Second Class City, both Sand Point and King Cove are incorporated as First Class Cities. Like Akutan, both Sand Point and King Cove are home to one shoreplant each that processes Bering Sea pollock. Unlike Akutan, however, neither Sand Point nor King Cove are CDQ communities. Two further differences are key for understanding the link between the communities and the groundfish fishery: (a) both Sand Point and King Cove are historically commercial fishing communities that have had processing facilities as part of the community for decades; and (b) both Sand Point and King Cove have resident commercial fishing fleets that deliver to the local seafood processors. With respect to the latter point, Sand Point and King Cove are different from Unalaska. Whereas Unalaska does have vessels owned and operated by 'true' local residents, none of these vessels that would fall into this category deliver pollock to local plants, nor do they typically deliver cod on a regular basis in volumes comparable to other portions of the fleet. Sand Point and King Cove resident fleets are involved with pollock (Sand Point more than King Cove), though typically the Bering Sea pollock processed at those plants comes from deliveries from larger boats home ported outside of the community.

The two communities have similar histories with respect to fishing. Sand Point was founded as a trading point and cod fishing station by a San Francisco fishing company in 1898. King Cove was established in 1911 by cannery operators and commercial fishermen, many of whom were Scandinavian immigrants who married local Aleut women. King Cove is located on the south (i.e., Pacific Ocean) side of the Alaska Peninsula, while Sand Point is located on Popof Island in the Shumagin Islands group on the Pacific Ocean side of the Alaska Peninsula. Both communities then share a Gulf of Alaska orientation or GOA/BSAI orientation that the other Bering Sea pollock communities do not. Of the two, King Cove is more Bering Sea oriented, and Sand Point more Gulf of Alaska oriented.

Historically, both of these communities saw a large influx of non-resident fish tenders, seafood processing workers, fishers, and crew members each summer. For the last several decades, both communities were primarily involved in the commercial salmon fisheries of the area, but with the decline of the salmon fishery, plants in both communities have diversified into other species. The resulting ethnic diversity of population in both communities is evident in Tables 3.1-68 and 3.1-71.

Table 3.1-68. Ethnic Composition of Population King Cove; 1990 and 2000

Race/Ethnicity	1990		2000	
	N	%	N	%
White	127	28.2%	119	15%
African American	6	1.3%	13	1.6%
Native Amer/Alaskan	177	39.2%	370	46.7%
Asian/Pacific Islands*	125	27.7%	213	26.9%
Other**	16	3.5%	77	9.7%
Total	451	100%	792	100%
Hispanic***	53	11.8%	59	7.4%

Source: U.S. Bureau of Census.

* In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 1) and Asian (pop 212)

** In the 2000 census, this category was Some Other Race (pop 47) and Two or more races (pop30).

*** 'Hispanic' is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).

Table 3.1-69 provides information on group housing and ethnicity for King Cove. Group housing in the community is largely associated with the processing workforce. As shown, 42 percent of the population lived in group housing in 1990. Also as shown, ethnicity varied between the group and non-group housing, with the non-group housing population being 67 percent Alaska Native and the group housing population being 39 percent Alaska Native.

Table 3.1-69. Ethnicity and Group Quarters Housing Information, King Cove, 1990

King Cove	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	127	28.16	57	30.16	70	26.72
Black	6	1.33	6	3.17	0	0.00
American Indian, Eskimo, Aleut	177	39.25	1	0.53	176	67.18
Asian or Pacific Islander	125	27.72	109	57.67	16	6.11
Other race	16	3.55	16	8.47	0	0.00
Total Population	451	100.00	189	100.00	262	100.00
Hispanic origin, any race	53	11.75	53	28.04	0	0.00
Total Minority Pop	331	73.39	139	73.54	192	73.28
Total Non-Minority Pop (White Non-Hispanic)	120	26.61	50	26.46	70	26.72

Source: Census 1990 STF2

The predominance of males over females (Tables 3.1-70 and 3.1-73) is also an indicator of male-oriented processing employment, as well as possible differential female/male emigration from the communities.

Table 3.1-70. Population Composition: Age and Sex King Cove; 1990 and 2000

	1990		2000	
	N	%	N	%
Male	292	65%	472	60%
Female	159	35%	320	40%
Total	451	100%	792	100%
Median Age	NA		34.9 Years	

Source: U.S. Bureau of the Census

Table 3.1-71. Ethnic Composition of Population Sand Point; 1990 and 2000

Race/Ethnicity	1990		2000	
	N	%	N	%
White	284	32.3%	264	27.7%
African American	4	0.5%	14	1.5%
Native Amer/Alaskan	433	49.3%	403	42.3%
Asian/Pacific Islands*	87	9.9%	224	23.5%
Other**	70	8.0%	47	4.9%
Total	878	100%	952	100%
Hispanic***	78	8.9%	129	13.6%

Source: U.S. Bureau of Census.

* In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 3) and Asian (pop 221)

** In the 2000 census, this category was Some Other Race (pop 21) and Two or more races (pop 26).

*** 'Hispanic' is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).

Table 3.1-72 provides information on group housing and ethnicity for Sand Point. Group housing in the community is largely associated with the processing workforce. As shown, 21 percent of the population lived in group housing in 1990. The ethnic composition of the group and non-group housing segments were more similar than for the other communities profiled.

Table 3.1-72. Ethnicity and Group Quarters Housing Information, Sand Point, 1990

Sand Point	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	284	32.35	48	25.40	236	34.25
Black	4	0.46	4	2.12	0	0.00
American Indian, Eskimo, Aleut	433	49.32	3	1.59	430	62.41
Asian or Pacific Islander	87	9.91	80	42.33	7	1.02
Other race	70	7.97	54	28.57	16	2.32
Total Population	878	100.00	189	100.00	689	100.00
Hispanic origin, any race	78	8.88	58	30.69	20	2.90
Total Minority Pop	601	68.45	14	7.41	587	85.20
Total Non-Minority Pop (White Non-Hispanic)	277	31.55	175	92.59	102	14.80

Source: Census 1990 STF2

Table 3.1-73. Population Composition: Age and Sex Sand Point; 1990 and 2000

	1990		2000	
	N	%	N	%
Male	557	63%	593	62%
Female	321	37%	359	38%
Total	878	100%	952	100%
Median Age	NA		36.5 Years	

Source: U.S. Bureau of the Census

The King Cove plant processes a good amount of crab and has developed groundfish processing capability, with Pacific cod as the predominant species, and with significant amounts of cod being supplied from both the GOA and the BSAI regions. This plant also processes a large amount of salmon, and some herring and halibut. The Sand Point plant does not process crab and has not processed herring since 1996, and in its groundfish operation has emphasized pollock over Pacific cod. It processes significantly more pollock than does the King Cove plant, but less “other groundfish” and much less Pacific cod of BSAI origin. Salmon is also processed in Sand Point, but much less than in King Cove. Through time, the King Cove plant has maintained a diversity of processing, while the Sand Point plant has become somewhat less diversified. Both plants are currently seeking new species and product opportunities. These dynamics have changed the distribution and peak of employment effort at the seafood plants, which have been further influenced by the affects of the AFA. Detailed production figures cannot be disclosed for the plants because of confidentiality restrictions. King Cove is somewhat unique among the four key regional groundfish ports insofar as it is relatively more dependent upon Pacific cod than pollock, among the groundfish species landed. Sand Point follows the more typical pattern, processing more pollock than Pacific cod. The two plants vary in their pollock product mix, but both plants can now produce surimi as well as fillets. The relative dependence of the plants on different species has varied over time and with stock fluctuations. For instance, for both plants 1993 was clearly a very good year for salmon, while 1996 and 1997 were both poor salmon years. The pattern has been that the Sand Point plant depends more on pollock and groundfish in general, and the lesser (but significant) dependence of King Cove upon groundfish (most of which is not pollock) and its greater dependence on crab and salmon. While changes from 1999 to 2000 cannot be definitively stated to be other than statistical fluctuations, it is interesting to note that for King Cove the poundage processed and percentage of total plant dollars for crab decreased, while groundfish increased somewhat. For Sand Point, the pattern for 1999 and before had been for pollock to contribute more than non-pollock groundfish, both in terms of weight and value. This was reversed for 2000. These changes are made somewhat more tentative due to the lack of halibut data in the year 2000 data provided to us by NPFMC staff.

One of the plants obtains Bering Sea pollock in coordination with operations owned by the same company and located in one of the Bering Sea communities. This operation is unique among inshore operators for the degree of coordination across regions and for the way Bering Sea pollock processing is managed between regions. For the other plant, GOA pollock is obtained from the local small boat fleet as well as from a small number of outside boats, but BSAI pollock is obtained exclusively from larger capacity non-resident boats. Neither plant shows up in the 1991 BSAI pollock harvest data, but both appear in the 1994 data, and both increased in volume from 1994 to 1996. The trend since 1996 has been for a decline in the amount of BSAI pollock that these plants process, with a sharp decline between 1999 and 2000, which corresponds with the implementation of AFA for onshore plants.

In terms of employment, 87 percent of Sand Point’s workforce is employed full time in the commercial fishery; for King Cove this figure is more than 80 percent (USACE 1998, 1997). In both cases, fishing employment is followed by local government (borough and local) and then by private

businesses. Seafood processing ranks after each of these other employers, meaning that the vast majority of the workforce at the shoreplants are not counted as community residents.

In terms of articulation with the community at large, the plants in Sand Point and King Cove are quite different from those in Unalaska/Dutch Harbor or Akutan. As noted, compared to Sand Point and King Cove, the development of commercial seafood processing in Unalaska/Dutch Harbor and Akutan is a relatively recent development (at least in terms of continuity of operations at specific facilities). Both Sand Point and King Cove processors have longstanding relationships with the local catcher fleet which, in turn, is the source of most employment in the community (among permanent residents). This is a sharp contrast to Unalaska. Unalaska is the site of multiple shoreplants, and has a much more 'industrial' fishery than does either Sand Point or King Cove, but this is changing, particularly with respect to Bering Sea pollock, which is not fished by the local small boat fleet. As noted above, the boats delivering BSAI pollock to Sand Point and King Cove are 'Bering Sea' boats, of the same type delivering to the inshore sector elsewhere.

Another major difference between the fishing industry in Unalaska/Dutch Harbor and Sand Point and King Cove is the role of the support sector in the communities. Unalaska has a well developed support service sector, unlike either Sand Point or King Cove. In both Sand Point and King Cove, the lone processing plant has historically provided a variety of fleet support services that the plants in Unalaska no longer have to provide with the development of a support sector. In terms of relationships between inshore and offshore components of the groundfish fishery, Sand Point and King Cove are in quite different positions than Unalaska/Dutch Harbor or Akutan. Unlike Unalaska/Dutch Harbor, neither Sand Point nor King Cove have enterprises related to the offshore sector or derive direct revenues from the offshore sector (although the plant in Sand Point is part of a company which also owns catcher processors). Unlike Akutan, Sand Point and King Cove are not CDQ-qualified communities, and are thus unable to directly participate in CDQ fisheries.

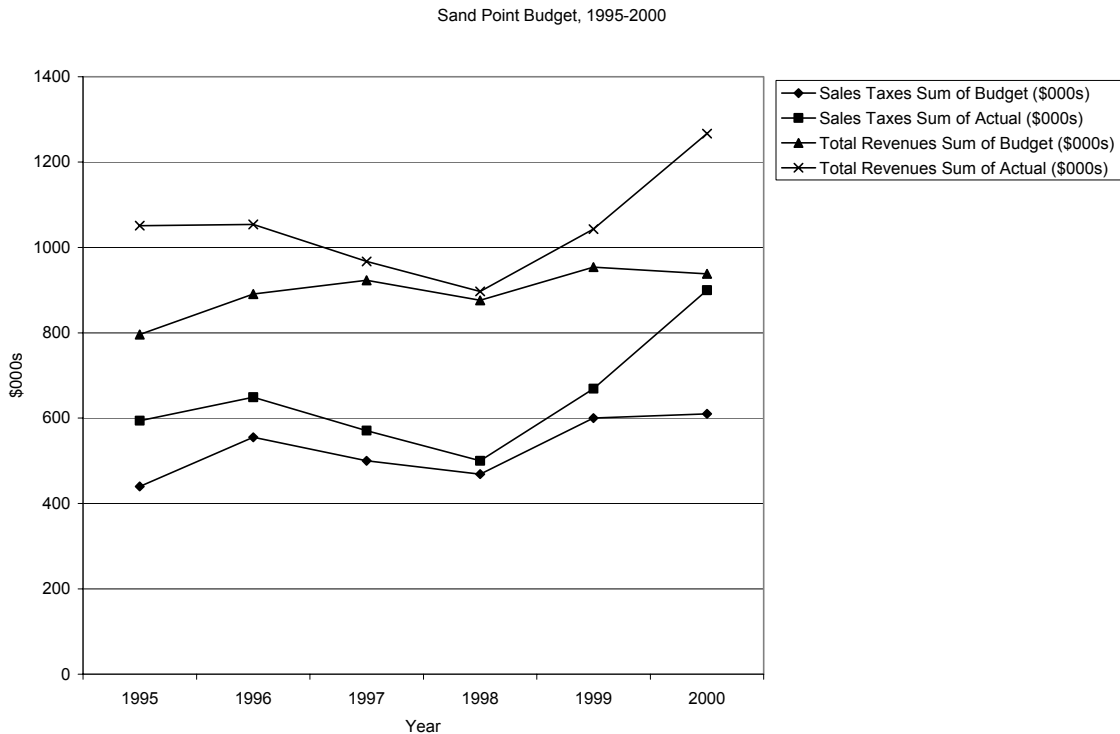
Changes associated with the recent restructuring of the groundfish fishery under AFA have been felt in both communities. The processors in both Sand Point and King Cove are qualified as AFA (BSAI pollock) processors. Of the two, however, only the King Cove plant also has a Co-op Processor Endorsement, as five CVs did deliver at least 80 percent of their inshore pollock to the King Cove plant during the AFA-qualifying period (while delivering most of their pollock offshore to a mothership owned by the same company as the shoreplant). The King Cove plant is relatively well located to process BSAI pollock, and is somewhat on the periphery of GOA pollock. The Sand Point processor does not have a Co-op Processor Endorsement, as every boat which delivered BSAI pollock to this plant delivered over 80 percent of its BSAI pollock to another plant owned by the same company in the Bering Sea. The operational pattern for the Sand Point plant was to serve as a "relief valve" for this Bering Sea plant during the open access race for fish. This maximized the amount of BSAI pollock that the parent company could process. With the implementation of the AFA and the end of the race for fish, the BSAI pollock season was lengthened and the rate of harvest (and processing) reduced. This much reduced the need to divert pollock to be processed at the Sand Point plant and seems to have confined this need to the "A" and "B" roe seasons. The reason given for this was that the need to harvest roe at its peak imposes a natural and inevitable "race for roe" that at times resulted in a harvest of more fish than could be processed by the Bering Sea plant alone. Sand Point and company managers saw little need to process "C" or "D" season BSAI pollock in the Sand Point plant. The imprecise processing figures we have for 2000, compared to 1999, seem to support this change, as the Sand Point plant processed significantly less BSAI pollock than in the year before, as well as significantly less pollock overall. Steller sea lion measures, and a shift of GOA pollock quota to the Kodiak Shelikof area, no doubt have a significant role in this change as well.

Although the King Cove plant processes significantly more BSAI cod than the Sand Point plant, its current production is less than in the past and has been declining. The Peter Pan Seafoods 2000 Co-op Report notes that the cod sideboard allocations of the five vessels delivering pollock to the King Cove

plant were allocated to the mothership sector, and they report a reduction in their tendering needs for Pacific cod. More information is available from the AFA Report to Congress (NPFMC 2001) on recent operation dynamics in Sand Point than in King Cove. Volume available to the plant has decreased, for a number of reasons, low local quotas and Steller sea lion measures among them. Prices are low, with the only real “money makers” being “by-products” such as pollock roe, cod milt, and cod stomachs. They have been forced to modify their operations accordingly, primarily to scale back and economize wherever they can. Their peak labor force used to be in the summer for salmon, but is now in January and February for groundfish. There will be a secondary peak in the summer, but earnings then will not be nearly as high. They have a much reduced labor force even at their peak (about 250+), and have closed some of their bunk house facilities. Their core processing group is now perhaps 40+ processors, maintenance, and professional people. They have fewer processor foremen positions, as well as fewer office staff. They have also reduced the inventory in their store and, perhaps more significantly, have reduced the inventory of boat supplies and repair materials that they keep in stock. According to one senior manager, “For so long the idea was to work people as many hours as possible. Now that the fish are not in the pipeline, the idea is to match the workforce to the fish throughput.”

There are few quantitative measures of economic activity in Sand Point which reflect the most recent dynamics. Available information on the overall budget for the City of Sand Point, and the receipt of sales taxes, indicates that these amounts have been steadily increasing (Figure 3.1-10). It should be noted that the reporting years end June 30, so that the most recent information is from June 30, 2000. The Sand Point Mayor reports that for this year (2001), sales tax receipts are significantly less than for last year, by somewhat over 20 percent. Sales taxes are composed primarily of the raw fish tax and taxes on general retail sales, and the increase in 2000 is due primarily to the collection of significantly more fish taxes than expected. Information available on the value of processing in Sand Point is not totally consistent with this fish tax information, but is subject to estimation problems, especially for products with pricing mechanisms like that of roe. It is likely that roe prices in 1999 and 2000 account for the higher than expected tax receipts. Volume of production at both the Sand Point and King Cove plants declined significantly in 2000, after hitting peaks in 1999 that were the highest since 1993.

Figure 3.1-10. Sand Point Budget, 1995-2000



Source: City of Sand Point

Retail and support activities in Sand Point are difficult to gauge, and company records are not available. Sales before June 30, 2000 are of course aggregated into the general sales tax information presented above. The Native Corporation started a retail grocery store, in order to provide some price competition for the long-time single grocer in the community (the processing plant also has a store, which is used mainly by its processing workers). This investment was made in 1997, when fishing conditions looked good, along with the purchase of a local NAPA store. The NAPA enterprise went out of business in 2000, but the store has been doing comparatively well. Corporation officers reported that even in these times of depressed economic activity that the store had gross sales of somewhat ahead of 2000 in the first quarter of 2001. They estimate that the more established store does approximately four times as much business as their store, and that store certainly stocks a much wider range of goods. The corporation has owned a local tavern since 1975, and it has consistently made a profit. The corporation's hotel is also successful, although it is busier in the winter than in the summer. A private bed and breakfast that was started recently has developed a strong business and tends to be full year-round. There are limited restaurants in the community, and one is currently up for sale.

Housing in Sand Point has always been in short supply, primarily because most housing is built through government agencies. There has not been any recent residential construction. Several families looking for permanent housing were staying at the corporation's hotel during the winter of 2000-2001. This is not only an indicator of a restricted housing supply, but also an indicator that the hotel has rooms available during the winter. Local residents did report that some houses are occupied only seasonally, in conjunction with the summer fisheries, but that such houses were generally not available for rent, except perhaps to family, friends, and other "known" people.

The Sand Point and King Cove economies are still very cyclical, and tied to fishing and fish processing. In early 2001, because of expected low salmon prices, most people were expecting severe local effects from a number of fisheries related downturns as well as non-fisheries related events. For example, the failure of Reeve Aleutian Airlines has meant less travel by local residents. Several families have moved out of Sand Point and the school enrollment is significantly lower in 2001 and in 2000. Mail service is said to have been decreased in frequency. Overall retail economic activity is said to be reduced, and the corporation did not operate the lounge (bar and simple food) associated with the hotel in the winter of 2000-2001, although the tavern still did a good business. Given that many of the factors cited for these effects are regional (low fish prices, Steller sea lion measures, competition from farmed fish, Area M changes, and other management and resource concerns), it is possible that King Cove and Sand Point may grow in size because of population movement from smaller regional communities in even worse economic shape. This is not likely to strengthen the local economy, however.

The dynamics of the “available labor force” were also noted to have recently changed. Local resident wage and salary jobs have in the past been fairly well differentiated by sex - men either fished or worked at some “outside” occupation in a “land” department such as construction, maintenance, or fire and police. Women tended to fill office and service positions. Employers have started to see a change in this pattern, as more men are applying for steady (even if relatively low paying) jobs on land rather than fishing. The most commonly cited factor for this was the projected low salmon price, with the expectation that salmon members crew shares would not amount to very much. Other families have considered moving. The common pattern in the past has been for locals to graduate from high school and either go fishing or move to another community. There has been relatively little turnover in local jobs, as these jobs tend to be highly valued by those who occupy them since there are relatively few of them (and there are of course jobs that are held by more transient non-locals). Local opportunities are seen as quite constrained, and the local Native Corporations are looking more for non-local investment opportunities rather than local ones. It was pointed out by several people that development opportunities in Sand Point are quite limited. Limited air service makes the shipment of fish products very difficult, and precludes a great number of “value added” enterprises. Reeves Aleutian Airlines flew relatively large planes into Sand Point, but has been replaced by PenAir, which flies smaller planes and is more focused on passenger and mail service than on cargo.

The annual fishing and processing cycles for King Cove and Sand Point processors and communities have changed in the very recent past, and this is in good part attributable to AFA. For King Cove, crab deliveries and processing were much reduced in 2000 from those in 1999, and BSAI Pacific cod may have been similarly affected by AFA sideboard measures. The Peter Pan Seafoods 2000 Co-op Report indicates that the King Cove plant took delivery of Bering Sea pollock on four days in February, five days in March, two days in April, ten days in September, and five days in October. For Sand Point, plant managers reported less Bering Sea pollock being delivered during the “A” and “B” seasons, and very much less, if any, during the “C” and “D” seasons. This reflects the historical pattern for King Cove BSAI pollock, but a reduction for Sand Point. Crab and Pacific cod reductions were much more significant for King Cove. While the BSAI pollock reductions were significant for the Sand Point plant, it is likely that they are only part of a much larger pattern also involving Steller sea lion protective measures and the availability (or lack of it) of pollock quota in the GOA. Similarly, community services are perceived to be in danger from decreased revenue flows resulting from reduced processing.