

Baseline Commercial Fishing Community Profile Updates: Akutan and Unalaska, Alaska

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Abstract: The fishing community profiles of Akutan and Unalaska presented here are built upon series of profiles and other community characterizations compiled over the last 30 years for the North Pacific Fishery Management Council. This update grew out of fieldwork undertaken in 2019 to support social impact assessments of proposed amendments to the BSAI groundfish fishery management plan. Information from that fieldwork, while now somewhat dated, provides a pre-Covid-19 pandemic point-in-time snapshot of these communities that may prove useful as contrastive baseline for post-pandemic conditions analyses. The “present” for these profiles is the year 2019, as supplemented by a limited amount of data from the 2020 decennial census and a few footnotes marking known substantial or potentially substantial changes relevant to fishery engagement and dependency in the communities that have occurred in the 2020-2022 period.

¹ In addition to providing input to the text, tables, and figures in the document, all photos in this document were taken by Anna Henry.

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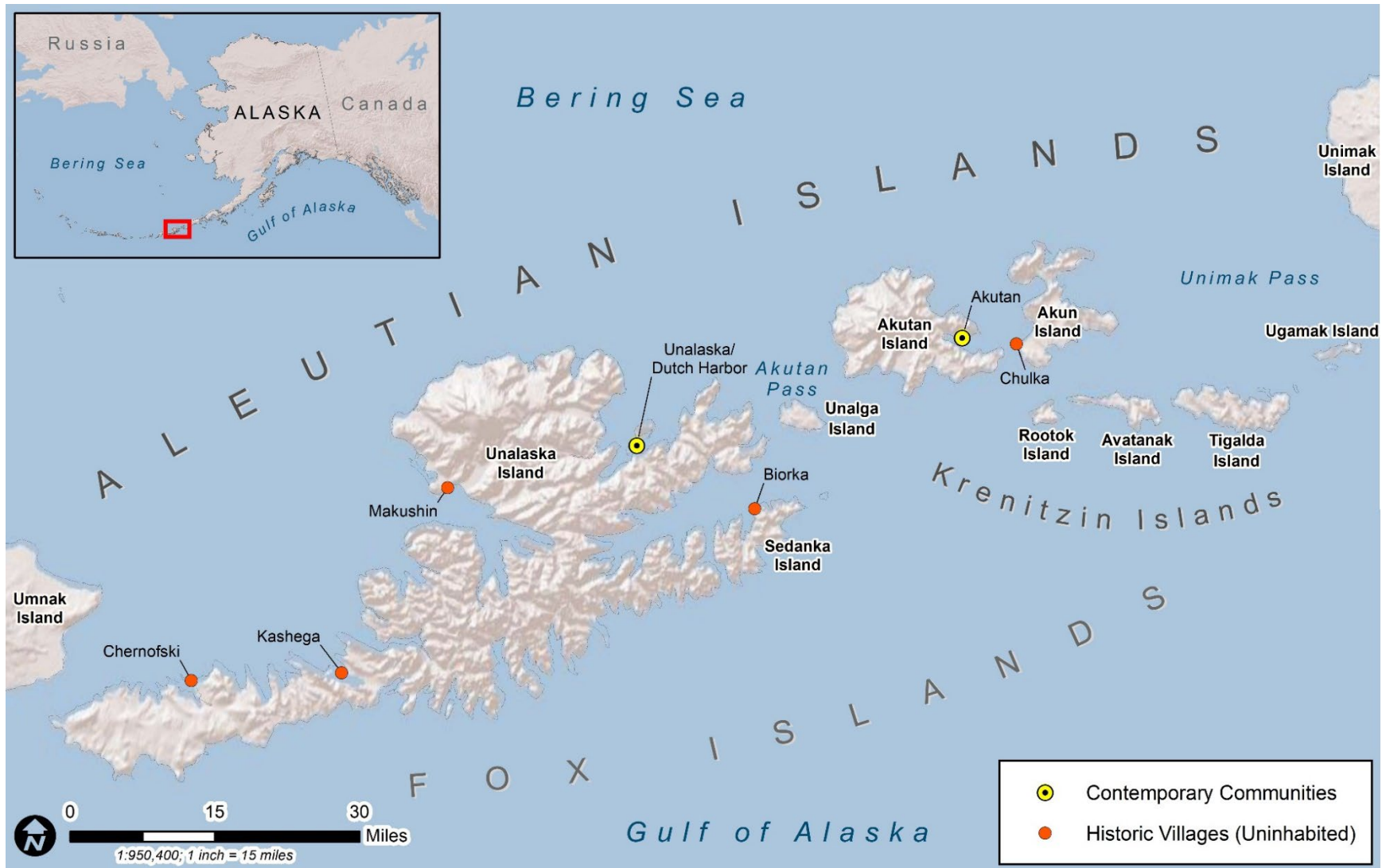
1.0 Introduction

The fishing communities of Akutan and Unalaska Alaska are substantially engaged in and substantially dependent on multiple federally managed fisheries in the Bering Sea and Aleutian Islands (BSAI) management areas of the United States Exclusive Economic Zone off Alaska. While only roughly 35 miles apart (Figure 1) and sharing sociocultural traditions dating back thousands of years, the specific nature of this engagement and dependency varies markedly between the two communities, as does their more recent history.

The fishing community profiles of Akutan and Unalaska presented here are built upon series of profiles and other community characterizations compiled over the last 30 years for the North Pacific Fishery Management Council to support the analysis of a series of proposed management actions and program reviews across multiple fisheries. This update of the Akutan and Unalaska profiles grew out of fieldwork undertaken in 2019 to support social impact assessments of proposed amendments to the BSAI groundfish fishery management plan.

The information from the 2019 fieldwork, which took place shortly before the outbreak of the Covid-19 pandemic, is now somewhat dated. It was decided, however, that a pre-pandemic point-in-time snapshot of these communities may prove useful as contrastive baseline for post-pandemic conditions analyses. The “present” for these profiles is the year 2019, as supplemented by a limited amount of data from the 2020 decennial census and a few footnotes marking known substantial or potentially substantial changes relevant to fishery engagement and dependency in the communities that have occurred in the 2020-2022 period.

Figure 1. Contemporary Communities and Selected Historic Villages of Unalaska, Akutan, and Akun Islands



2.0 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. In 1979 Akutan was incorporated as a 2nd Class City with a mayoral form of government and became a part of the Aleutians East Borough (AEB) when that was incorporated in 1987. The Akutan Corporation is the local Alaska Native Claims Settlement Act (ANCSA) chartered village corporation, the Aleut Corporation is the regional ANCSA chartered corporation, and the federally recognized tribal entity in the community is the Native Village of Akutan.

Figure 2 provides an overview of the boundaries of the City of Akutan and selected geographic features in and around the city. Also on this figure are insets showing the Akutan Harbor area, the processing plant complex and village of Akutan area, and the Akutan airport area.

Figure 3 provides a detailed look at village of Akutan portion of the city. Also shown on this figure are the locations of selected public buildings, as well as those of fishery related support service businesses and infrastructure.

Figure 2. City of Akutan Overview and Selected Detail Inset Maps

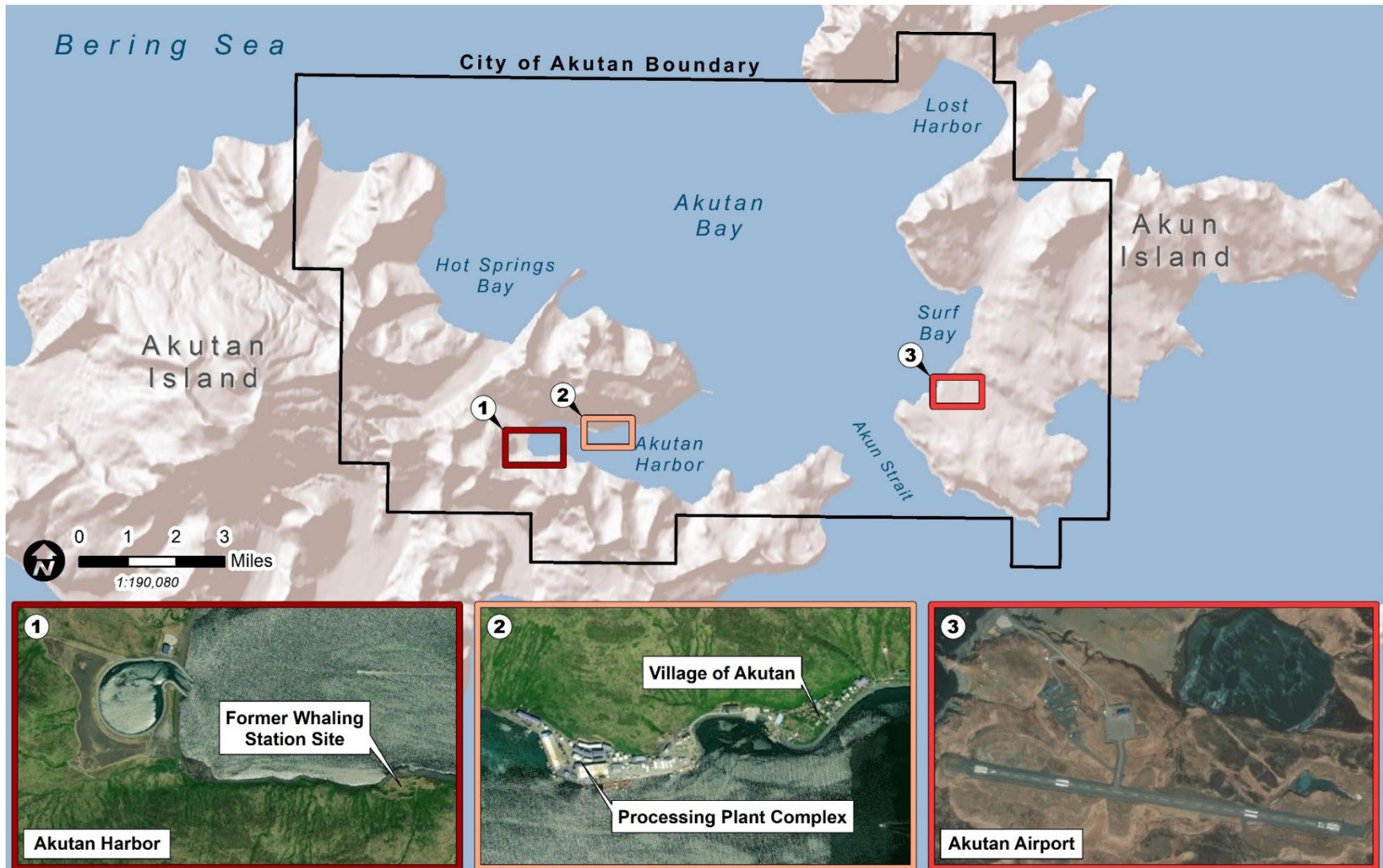


Figure 3. Village of Akutan Detail Map



2.1 OVERVIEW

The Aleutian Islands have been occupied by the Aleuts or *Unangan*, as is generally preferred in eastern Aleutians, for at least 8,000-9,000 years (Davis and Knecht 2010; McCartney and Veltre 1999). Archaeological and genetic evidence support the hypothesis that ancestors of the *Unangan* crossed Beringia, also known as the Bering Land Bridge, and populated the Aleutian Islands from east to west (Crawford et al. 2010). The earliest well-documented site is located on a small island off of the larger Umnak Island and dates to circa 8,000-8,500 BP (McCartney and Veltre 1999). The prehistoric chronology of the Aleutian Islands is generally broken into two successful but unrelated phases: the Anangula tradition, approximately 8,500-7,500 BP, and the Aleutian tradition, beginning approximately 5,500 BP and ending with Russian contact in 1741 (McCartney 1984). The Aleutian tradition is usually portrayed as a period of cultural continuity with regional variations in specific cultural traits and responses to environmental conditions (Grover 2002; McCartney and Veltre 1999). More recent research on Unalaska, Amaknak, and Hog islands suggests a more dynamic cultural system that lasted throughout the Holocene without a period of hiatus (Davis and Knecht 2010).

Archaeological sites of the Aleutian tradition are characterized by common, though not universal, features, one of which is extensive midden deposits (Veltre and Smith 2010). These middens result from long-term site occupation and suggest relatively stable procurement patterns over time. Of the ten total prehistoric archaeological sites currently recorded on Akutan Island, six are classified as village sites; of the 24 recorded prehistoric sites on Akun Island, nine are village sites.² The *Unangan* adaptive pattern included shore-edge settlements and a nearly complete dependence on marine foods, except for the peoples of Unimak Island and the tip of the Alaska Peninsula who utilized land mammals such as caribou and bear (McCartney and Veltre 1999). The nutrient upwelling from the Aleutian Trench just south of the Aleutian Islands, and through the Akun Strait, supports marine ecological diversity and high marine productivity compared to other parts of Alaska (McCartney and Veltre 1999; Turner 1976). While there are too few studies of faunal assemblages to discern meaningful patterns of prehistoric animal use in the Aleutians, among the principal species utilized are Pacific cod and halibut (McCartney 1984).³

The eastern Aleutian Islands are geographically larger and higher in elevation than the other islands in the chain, with large portions of the shoreline unsuitable for establishing settlements; however, prehistoric Unangan peoples had highly developed seafaring skills and *baidarkas* (kayak-style boats) and were able to obtain resources from the entire coastal margins of their islands and travel several kilometers offshore. Marine resources were not only important for sustenance but were also essential for heating and cooking. Because the Aleutians are treeless, driftwood was scarce and valuable, and sea mammal oil was the fuel of choice (McCartney and

² Based on archaeological records available digitally through the Alaska Department of Natural Resources Office of History and Archaeology's Alaska Heritage Resources Survey - Integrated Business Suite (accessed 2/14/2021).

³ Laughlin (1980), referring to archaeological assemblages in the area, noted that "of the fish, halibut and cod last much better than do salmon and other smaller fish" (pg 91) and observed that about 30 percent of diet was attributable to fish.

Veltre 1999). Sea mammals were also utilized for clothing, boat-making, and *barabaras* (semi subterranean houses) construction.

At the time of Russian contact, the Aleutian Islands population is estimated to be 12,000-15,000 people (Lantis 1984). Akutan and Akun islands were first visited by Russian fur traders in August of 1767 (Black 1999; Grover 2002). Matvei Polozkov, a crew foreman under Captain Afanasii Ocheredin on the *Sv. Pavel*, established his main camp on Akun, and placed contingents on Akutan and other Krenitzin Islands. In 1768, a Russian naval expedition arrived in Unalaska, and a navigator was sent to Akutan. The navigator reported a summer village with five houses, and upon further exploration of the island, later reported encountering “a settlement of two semi-subterranean dwellings” (Black 1999:34). In 1792, five villages on Akutan were inhabited; by 1821, only three were still populated. When Russian Orthodox priest Father Ivan Veniaminov visited the Aleutian Islands (1824-1834), one village consisting of “two small dwellings occupied by 13 people” remained on Akutan. Toward the end of the Russian period other nearby settlements absorbed the remnant of the Akutan population (Black 1999).

On Akun Island, at least eight village sites with an estimated 500 inhabitants were present at the end of the 18th century, but only three villages with 85 people remained at the time of Veniaminov’s visits (Veniaminov 1984). In the 1830s, the Russian American Company established a work crew station in Chulka, the main village on Akun Island. Following the smallpox pandemic of 1836-39 and forced relocations of the *Unangan* by the Russians, which decimated the population of the Krenitzin Islands, people from Tigalda, Rootak, and Avatanak islands moved to Chulka.

The community of Akutan, in its contemporary form, traces its origin on the northern shore of Akutan Bay in part to 1878 when the Western Fur and Trading Company established a sea otter trading post, the same year a Russian Orthodox Church and a school was built on the site. Many *Unangan* did return as Akutan village formed, drawing residents from nearby settlements, including some of the last residents of Chulka. “The first Aleut family to arrive at the new village site was Epoti and Esi Petikoff, who built a ‘mud dwelling’ (semi-subterranean dwelling) at the southwest end of the future village. Other families soon followed. In its first year the locality attracted 63 residents” (Black 1999).

In 1879, the trading post at Akutan was bought by the Alaska Commercial Company. Akutan’s historical ties to commercial fishing include a saltery that operated locally in the late 1800s. Whaling was also occurring at this time and following the discontinuation of the sea otter pelt trade in 1911, the Pacific Whaling Company built a whale processing station on the southern shore of Akutan Bay in 1912. It was the only whaling station in the Aleutians at the time and operated until 1939. During World War II, the whaling station facilities were leased and expanded by Navy and used as an emergency seaplane base and a ship refueling station. Following the Japanese attack on nearby Unalaska in June 1942, the U.S. government evacuated Akutan residents to Southeast Alaska and when Akutan was repopulated after the war, many villagers chose not to return (Grover 2002).

Contemporary seafood processing operations in the community trace their origin to Wakefield Seafood Processors, which began local processing of king crab in 1948, the same year that the former whaling station facilities were destroyed by fire. In 1968, Wakefield constructed a new dock on land leased from the Russian Orthodox Church. In 1979, Seawest, Inc. purchased Wakefield operations, which began a rapid expansion of Akutan’s shore-based facilities, now owned by Trident Seafoods.

Akutan is a unique community in terms of its relationship to the Bering Sea commercial fisheries. It is the site of one of the largest shoreplants in the region, but it is also the site of a village (Plate 1) that is geographically, demographically, socially, and historically distinct from the locally operating shoreplant (Plate 2). This “duality” of structure has had marked consequences for the relationship of Akutan to the Bering Sea commercial fisheries. One example of this may be found in Akutan’s status as a Community Development Quota (CDQ) community.



Plate 1. Village of Akutan



Plate 2. Trident Seafoods Akutan Processing Complex

Initially (in 1992), Akutan was (along with two other AEB major fishing communities, King Cove and Sand Point, as well as nearby Unalaska) deemed not eligible for participation in the CDQ program. Akutan’s ineligibility, like Unalaska’s, was based upon not meeting the fourth qualifying criterion that states “the community must not have previously developed harvesting and processing capability sufficient to support substantial groundfish fisheries participation in

the BSAI...” although they met the other three qualifying criteria. The Akutan Traditional Council, however, 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 Islands Community Development Association (APICDA) and others, Akutan was successful in a subsequent attempt to become a CDQ community and obtained that status in 1996, joining the APICDA CDQ group.⁴ This action highlights a fundamentally different aspect of the socioeconomic contexts of Akutan and Unalaska. Akutan, while deriving economic benefits from the presence of a large shoreplant near the traditional residential community of Akutan (referred to as the “village proper” herein), has not as fully integrated industrial-scale commercial fishing activity with the daily life and private sector economy of the community as has Unalaska. Akutan remains the only community in the region that is both a direct major/developed participant in multiple industrial scale fisheries of the Bering Sea and a CDQ community.

2.2 COMMUNITY DEMOGRAPHICS

In terms of the different population components of the community, and the relationship between local commercial fishery-related workers and the rest of the population, Akutan is unlike the other major ports in the AEB, King Cove and Sand Point, or its nearest neighboring port, Unalaska/Dutch Harbor. Compared to King Cove and Sand Point, communities with a single, large shore processing plant, Akutan’s local processing plant is more of an enclave type of operation than the plants in those communities. In the not-too-distant past, it was decidedly unlike Unalaska, which features plants with a range of “separateness” from the community, as there was little social integration of at least some longer-term plant employees into the social fabric of the community, but this has evolved in more recent years in Akutan, as outlined in the community processor characterization discussion below.

2.2.1 Total Population

Table 1 provides figures for the community total population by decade from 1880 through 2010. While U.S. Census figures show Akutan had a population of 713 in 2000, 1,027 in 2010, and 1,589 in 2020. According to interviews conducted at the time, the Traditional Council considered the 2000 “local” resident population of the community to be around 80 persons, with the balance being employees of the seafood processing plant residing on their worksite, which was the same figure estimated by senior City of Akutan staff in 2008. Senior staff from the City of Akutan

⁴ See Federal Register, Vol. 61, No. 95, Pg. 24475 for more detail on the history of this action.

updated this estimate to 90 persons in 2023. This definition, obviously, differs from census, state, and electoral definitions of residency but is reflective of an observed social reality of Akutan. Census figures for the years 1990 onward are known to include processing workers, but it is not clear for earlier years if or how fisheries or other commercial enterprise related workers were counted.

Table 1. Akutan Population by Decade, 1880-2020

Year	Population
1880	65
1890	80
1900	60
1910	0
1920	66
1930	71
1940	80
1950	86
1960	107
1970	101
1980	169
1990	589
2000	713
2010	1,027
2020	1,589

Source: Historic data from Alaska Department of Community and Economic Development; 2000, 2010, and 2020 data from U.S. Census Bureau.

2.2.2 Race/Ethnicity

Most residents of Akutan who live within the village proper are *Unangan*. The influence of the commercial fishery-related workers on the race/ethnic composition of the overall population of the community, however, may be seen in Table 2. The percentage of Native American/Alaska Native relative to the overall population as measured in the decennial census has progressively declined since 2000.

Table 2. Population by Race/Ethnicity, Akutan: 1990, 2000, 2010, and 2020

Race/Ethnicity	1990		2000		2010		2020	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White	227	38.5%	168	23.6%	239	23.3%	152	9.6%
Black or African American	6	1.0%	15	2.2%	184	17.9%	266	16.7%
Native American/Alaska Native	80	13.6%	112	15.7%	56	5.5%	57	3.6%
Asian/Pacific Islands*	247	41.9%	277	38.9%	460	44.8%	510	32.1%
Other**	29	4.9%	141	19.7%	88	8.6%	604	38.0%
Total	589	100.0%	713	100.0%	1,027	100.0%	1,589	100.0%
Hispanic***	45	7.6%	148	20.8%	214	20.8%	563	35.4%
Total Minority Population	371	63.0%	561	78.7%	933	90.8%	1,443	90.8%
Total Non-Minority Population	218	37.0%	152	21.3%	94	9.2%	146	9.2%

* In the 2000 census, this was split into Native Hawaiian and Other Pacific Islander (pop 2) and Asian (pop 275); in the 2010 census, this was split into Native Hawaiian and Other Pacific Islander (pop 10) and Asian (pop 967).

** In the 2000 census, this category was Some Other Race (pop 130) and Two or More Races (pop 11); in the 2010 census, this category was Some Other Race (pop 67) and Two or More Races (pop 32); in the 2020 census, this category was Some Other Race (pop 556) and Two or More Races (pop 48).

*** "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: U.S. Census Bureau 1990, 2000, 2010, and 2020.

2.2.3 Age and Sex

Table 3 shows the population composition of Akutan by sex in 1990, 2000, 2010, and 2020. The male-female population imbalance is reflective of a disproportionately male workforce that has resulted from seafood processing driven labor migration to the community. Similarly, the relatively high median age in the community is reflective of large proportion of adults working in the seafood processing industry who are not raising families in the community.

Table 3. Population by Age and Sex, Akutan: 1990, 2000, 2010, and 2020

	1990		2000		2010		2020*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Male	449	76%	549	77%	790	77%	519	68%
Female	140	24%	164	23%	237	23%	241	32%
Total	589	100%	713	100%	1,027	100%	760	100%
Median Age	NA		40.2 years		44.1 years		42.7 years	

*Note: Data for these variables for 2020 are estimates from the 2016-2020 ACS.

Source: U.S. Census Bureau 1990, 2000, 2010, 2020.

Table 4 provides information on school enrollments by fiscal year in Akutan over the period 1991 to 2019. As shown, there has been considerable year-to-year fluctuation over this time, and enrollments have generally been lower in recent years than in the earlier years in this time span. Of continuing concern for the community is the ability to maintain enough student enrollments to qualify for state funding, which requires a minimum of 10 students.

Table 4. Akutan School Enrollment: Fiscal Years 1991-2021

Fiscal Year	Student Count
FY 1991	22
FY 1992	24
FY 1993	29
FY 1994	21
FY 1995	24
FY 1996	20
FY 1997	27
FY 1998	23
FY 1999	20
FY 2000	15
FY 2001	15
FY 2002	16
FY 2003	18
FY 2004	14
FY 2005	14
FY 2006	11
FY 2007	11
FY 2008	14
FY 2009	7
FY 2010	10
FY 2011	8
FY 2012	8
FY 2013	14
FY 2014	18
FY 2015	20
FY 2016	16
FY 2017	10
FY 2018	13
FY 2019	19
FY 2020	20
FY 2021	17

Note: Year designation notes the calendar year in school year ended (e.g., FY 2003 refers to the 2002–2003 school year).

Source: 1991-2008 adapted from spreadsheet supplied by Aleutians East Borough School District, July 2008. 2009-2019 (includes Pre-K through Grade 12) from Alaska Department of Education & Early Development <https://education.alaska.gov/data-center#> accessed 1/3/2022.

Akutan’s school (Plate 3) is a part of the Aleutians East Borough School District.



Plate 3. Akutan School

2.2.4 Housing Types and Population Segments

Group housing in the community is almost exclusively associated with the seafood processing workforce. As shown in Table 5, in 1990 approximately 85 percent of the population lived in group quarters and in more recent years, approximately 90 percent did so. No other community in the region has nearly as large of a proportion of its total population living in group quarters housing.

Table 5. Group Quarters Housing Information, Akutan, 1990, 2000, 2010, and 2020

Year	Total Population	Group Quarters Population		Non-Group Quarters Population	
		Number	Percent of Total Population	Number	Percent of Total Population
1990	589	501	85.1%	88	14.9%
2000	713	638	89.5%	75	10.5%
2010	1,027	937	91.2%	90	8.8%
2020	1,589	1476	92.9%	113	7.1%

Source: U.S. Census Bureau 1990, 2000, 2010, and 2020.

Table 6 provides information on group housing and race/ethnicity for Akutan for 1990. Table 7 presents similar information for 2000 as does Table 8 for 2010. Group housing in the community is almost exclusively associated with housing units for the processing workforce within the processing complex footprint and non-group housing almost exclusively associated with detached homes occupied by long-term residents in the village proper. Also as shown, the

racial/ethnic composition of the group and non-group-housing segments were markedly different, with the non-group-housing population being predominately Alaska Native (83, 87, and 62 percent in 1990, 2000, and 2010, respectively), and the group housing population having little Alaska Native/Native American representation (one, seven, and zero percent in 1990, 2000, and 2010, respectively). Within group quarters, the total minority proportion of the population was approximately 60 percent in 1990 and 90 percent in 2010, while the total minority proportion of the population in non-group quarters was 83 and 87 percent in those same year. Within the non-group quarters population, only the categories of white and Alaska Native/Native American are represented in the 1990 and 2000 censuses, but the addition of the “two or more races” category in the 2010 census appears to make the results of that census less directly comparable to earlier years. The 2020 decennial census does not provide comparable data of race and ethnicity for group quarters and non-group quarters housing categories.

Table 6. Race/Ethnicity and Group Quarters Housing Information, Akutan, 1990

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	227	37.5%	212	42.3%	15	17.1%
Black or African American	6	1.0%	6	1.2%	0	0.0%
American Indian, Eskimo, Aleut	80	13.2%	7	1.4%	73	83.0%
Asian or Pacific Islander	247	40.8%	247	49.3%	0	0.0%
Other race	29	4.8%	29	5.8%	0	0.0%
Total Population	589	100.0%	501	100.0%	88	100.0%
Hispanic*	45	7.4%	45	9.0%	0	0.0%
Total Minority Population	342	56.5%	298	59.5%	73	83.0%
Total Nonminority Population	247	40.8%	203	40.5%	15	17.1%

*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: U.S. Census Bureau 1990.

Table 7. Race/Ethnicity and Group Quarters Housing Information, Akutan, 2000

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	168	23.6%	158	24.8%	10	13.3%
Black or African American	15	2.1%	15	2.4%	0	0.0%
Alaska Native/Native American	112	15.7%	47	7.4%	65	86.7%
Native Hawaiian/Other Pacific Islander	2	0.3%	2	0.3%	0	0.0%
Asian	275	38.6%	275	43.1%	0	0.0%
Some Other Race	130	18.2%	130	20.4%	0	0.0%
Two Or More Races	11	1.5%	11	1.7%	0	0.0%
Unknown	0	0.0%	0	0.0%	0	0.0%
Total	713	100.0%	638	100.0%	75	100.0%
Hispanic*	148	20.8%	148	23.2%	0	0.0%
Total Minority Population	561	78.7%	496	77.7%	65	86.7%
Total Nonminority Population	152	21.3%	142	22.3%	10	13.3%

*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: U.S. Census Bureau 2000.

Table 8. Race/Ethnicity and Group Quarters Housing Information, Akutan, 2010

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	239	23.3%	226	24.1%	13	14.4%
Black or African American	184	17.9%	184	19.6%	0	0.0%
Alaska Native/Native American	56	5.5%	0	0.0%	56	62.2%
Native Hawaiian/Other Pacific Islander	15	1.5%	15	1.6%	0	0.0%
Asian	445	43.3%	443	47.3%	2	2.2%
Some Other Race	40	3.9%	40	4.3%	0	0.0%
Two Or More Races	48	4.7%	29	3.1%	19	21.1%
Unknown	0	0.0%	0	0.0%	0	0.0%
Total	1,027	100.0%	937	100.0%	90	100.0%
Hispanic*	214	20.8%	214	22.8%	0	0.0%
Total Minority Population	933	90.8%	856	91.4%	77	85.6%
Total Nonminority Population	94	9.2%	81	8.6%	13	14.4%

*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: U.S. Census Bureau 2010

Table 9 displays basic information on housing units, households, families, and median household and family income for Akutan in 2000 and 2010. These figures underline the fact that Akutan, outside of the processing-related population, is a very small community.

Table 9. Selected Household Information, Akutan, 2000, 2010, and 2020

Year	Total Housing Units	Vacant Housing Units	Total Households	Average Persons per Household	Median Household Income	Family Households	Average Family Size	Median Family Income
2000	38	4	34	2.2	\$33,750	18	3.0	\$43,125
2010	44	4	40	2.3	\$34,375	23	2.8	\$33,750
2020	80	11	69	3.2	\$34,583	43	4.3	\$36,750

Source: U.S. Census Bureau 2000, 2010, and 2020.

2.3 LOCAL ECONOMY AND LINKS TO COMMERCIAL FISHERIES

Table 10 provides information on employment and poverty status for the community of Akutan for 1990, 2000, 2010, and 2020. These data paint a very different picture in 2000 than was seen in other years, and a working knowledge of the fishing industry would seem to indicate the 2000 data are anomalous. For example, in 2000 the U.S. Census lists a total of 505 unemployed persons in Akutan. Given that the village proper of Akutan consists of less than 100 persons (including all age groups, not just adults in the labor pool who could qualify as employed or unemployed), the overwhelming majority of persons enumerated as unemployed must have been idled seafood processing workers. While this unemployment may have been “real” in the sense that processing workers were present and not actively working when the census was taken, it is most likely an artifact of the timing of the census as processing workers are not typically present in the community when the plant is idle for any extended period. That is, under normal conditions, there are no unemployed seafood processing workers present in the community (by design). These workers are transported to and from the community by their employer to meet labor demand at the plant.

Table 10. Employment and Poverty Information, Akutan: 1990, 2000, 2010, and 2020

Year	Total Persons Employed	Unemployed	Percent Unemployment	Percent Adults Not Working	Not Seeking Employment	Percent Poverty
1990	527	2	0.4%	7.4%	40	16.6%
2000	97	505	78.9%	84.8%	38	45.5%
2010	1,516	43	2.7%	4.5%	28	11.4%
2020	662	6	0.8%	8.6%	56	17.5%

Source: U.S. Census Bureau 1990, 2000, 2010, 2020.

As part of the employment agreement, seafood processors typically provide room and board for workers, so it is uneconomic to have idled workers at the site unless the plant downtime is relatively brief (i.e., the cost of housing and feeding the employees during the idle interval does not exceed transportation, recruiting, training, and other costs associated with sending workers out and bringing them back in, including some level of turnover that always occurs in these situations). One set of circumstances that does result in idled workers at the plant, however, is triggered by a transportation bottleneck. After the plant shuts down (or substantially reduces its

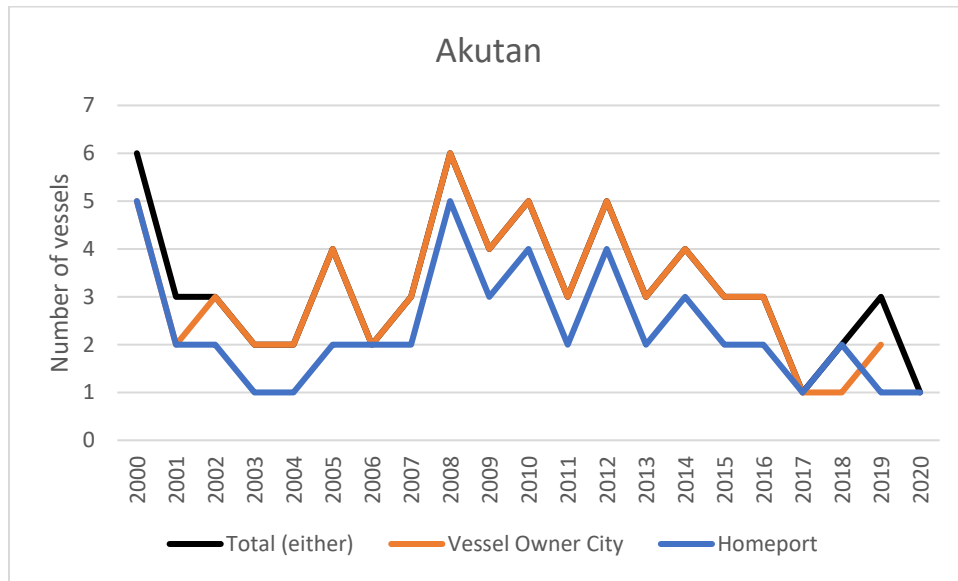
workforce) following a busy period, not all the workers can be flown out of the community at once. According to city staff interviewed for a previous project, it is not unusual to be able to move only 10 to 20 workers per day due to aircraft capacity. Weather may also cause delays.

2.3.1 Harvesting

2.3.1.1 Community Harvester Quantitative Description

Figure 4 displays the total number of active vessels with vessel ownership addresses in Akutan (Vessel Owner City) and/or that lists their homeport as Akutan from 2000-2020.⁵ The total number of active vessels listed has fluctuated between six and one through the years with a majority owned in Akutan and a little less than the total homeported in Akutan. Due to the overlapping lines in the figure, this information is also displayed in Table 11.

Figure 4. Catcher vessels with Akutan ownership addresses and/or Akutan listed as their homeport



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

⁵ Note that the discussion in the previous five paragraphs was limited vessels with Akutan ownership addresses (two of which did not list Akutan as their homeport). This discussion (and the accompanying figure and table) additionally includes vessels that listed Akutan as their homeport that did not have an Akutan ownership address.

Table 11. Catcher Vessels with Akutan Ownership Addresses and/or Listed Akutan as their Homeport, 2000-2019

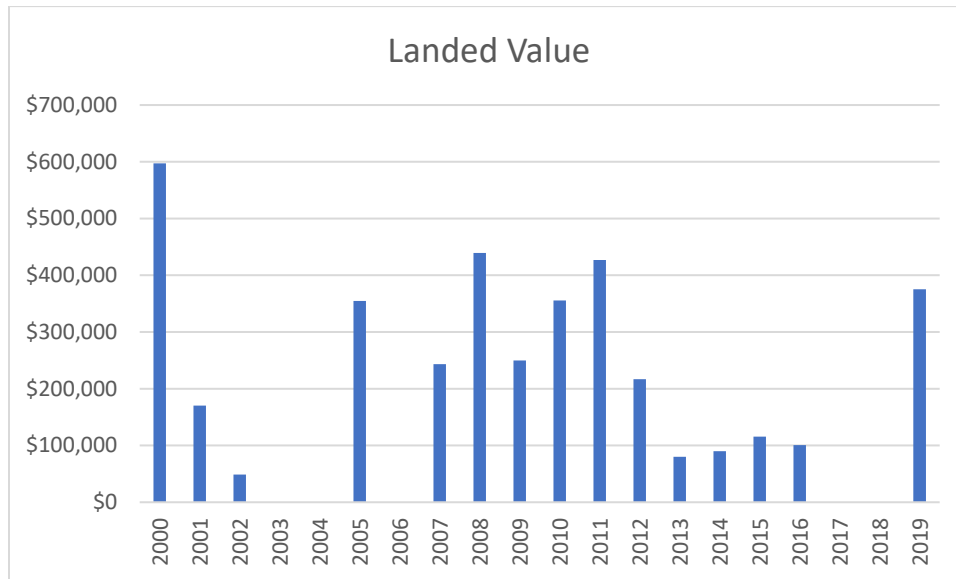
Year	Akutan Ownership Address	Akutan Homeport	Either Ownership Address or Homeport
2000	5	5	6
2001	2	2	3
2002	3	2	3
2003	2	1	2
2004	2	1	2
2005	4	2	4
2006	2	2	2
2007	3	2	3
2008	6	5	6
2009	4	3	4
2010	5	4	5
2011	3	2	3
2012	5	4	5
2013	3	2	3
2014	4	3	4
2015	3	2	3
2016	3	2	3
2017	1	1	1
2018	1	2	2
2019	2	1	3

Source CFEC data compiled by AKFIN

The average length overall of vessels that either had ownership address or homeport listed as Akutan in 2019 was 35.3 feet.

Figure 5 shows total landed value of vessels either owned or homeported in Akutan. Years with no data displayed are due to confidentiality rules. Throughout the time series, fixed gear groundfish and halibut IFQ have accounted for most of the landings from these vessels.

Figure 5. Total ex-vessel value of deliveries made by catcher vessels with Akutan ownership addresses and/or Akutan listed as their homeport



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

All halibut caught by the local small vessel fleet is delivered to the Akutan Trident plant. Deliveries from the local small boat fleet is not major source of fish for the plant, given its overall scale of operations, but these deliveries have been an important source of income for local fishermen. While no individuals who fish only in the local resident fleet make their livings exclusively from fishing, local fishermen do depend to varying degrees on fishing as a part of an integrated, plural employment and income strategy in a community that has relatively limited employment and income opportunities. According to local fisheries representatives, Akutan sought to qualify as a CQE community to allow community IFQ purchase, but it did not do so because of its formal classification as a Bering Sea (as opposed to Gulf of Alaska) community for fishery regulatory purposes, despite pursuing fisheries that are, at least in part, geographically in the Gulf of Alaska.

2.3.1.2 Community Harvest Sector Characterization

The vast majority of catch landed at the shore-based processing plant in Akutan is landed by vessels from outside of the community. There is, however, a locally important small vessel commercial fishery. In the early 1990s, the local plant reported taking deliveries of groundfish from approximately 12 small skiff-type vessels from the village of Akutan itself, but historical participation in this type of enterprise is not well documented. Since that time, several larger (but still relatively small) vessels were added to the local fleet, with some turnover among these larger vessels over the years. During fieldwork in 2002, plant managers reported about the same overall level of activity as in the past, but two local residents fishing out of a 28-foot vessel and a 24-foot vessel, respectively, were singled out as consistently making regular deliveries of halibut and black rockfish over time, with other local fishermen characterized as making more sporadic deliveries.

The local resident small boat fleet currently operates out of the Simeon M. Vincler skiff moorage (Plate 4), the first phase of which was completed in 2002. With the opening of this facility, moorage was easier for local vessels that previously were hauled up on the beach as well as for vessels too large to easily beach haul. A second phase of the moorage, which added another hook and small float to deflect waves from the direction of the seaplane ramp and increase capacity, was completed in 2005. This moorage facility was originally constructed with funding from several sources, including APICDA contributions and opilio fishery disaster funds that came to the community through the borough; the second phase was funded by the City of Akutan, the borough, and the state. While the facility was designed for skiffs up to 28 feet in length, it is currently being used by the largest local vessels, including the 42-foot vessel noted below.



Plate 4. Simeon M. Vincler Skiff Moorage

While the current vessels in the local fleet are all privately owned by Akutan residents or individuals with kinship ties to the community, reportedly the first vessel over 30 feet fished by local community residents was the APICDA vessel *Aleutian Pribilof No. 4* (commonly known as *AP-4*). For a few years in the early 2000s, most, but not all, local IFQ holders had fished their IFQ off the *AP-4*. The advantage of *AP-4* over smaller local vessels was that it could go out in rougher weather and stay out longer. For at least some resident permit holders, these advantages were offset by the need to pay for the boat, skipper, and expenses, leaving less return than they felt they could get fishing out of their own skiffs. *AP-4* operated under a lease arrangement that included a CDQ group grant to the local fishermen's association (which at the time had approximately 14 members and was formed specifically to qualify for CDQ grants). Using this grant as seed money, the operation of the vessel was predicated on a share basis, including earmarking a 15 percent share to the boat and another 15 percent share for the skipper. According to field interviews at the time, the skipper share did not provide the individual

involved with sufficient income to be a full-time commercial fisherman, such that it remained the case that no local harvesters are full-time fishermen.

Following the experience with *AP-4*, which no longer operates in the community, local residents individually or in partnership with another local resident acquired ownership of four vessels larger than those previously owned locally. These were two vessels that are 32-foot length overall (LOA), and one that is 35-foot LOA, and one that is 42-foot LOA. According to APICDA leadership, APICDA was involved in providing loans to facilitate building of this portion of the residential fleet capacity. According to one individual with local vessel ownership interests, the structure of the IFQ program itself has served to influence the composition of the local fleet. With IFQ class sizes transitioning at 36-foot vessels, the 42-foot vessel was acquired to participate in the larger class size fishery component.

In 2008, according to multiple interviews for an earlier project, including those with the vessel owners themselves, the locally based and locally owned active commercial fleet consisted primarily of the four larger vessels ranging in LOA from 32 to 42 feet LOA. One of the vessels, unlike the other three, reportedly does not typically spend the full year in Akutan, instead wintering in the more protected and larger Sand Point harbor. This vessel is also the only one of the four that does not list Akutan as its homeport.⁶

Landings data for more recent years compiled by AKFIN shows a decline in the number of locally active larger (32- to 42-foot LOA) vessels, with only two of them active after 2012. Specifically, one of the 32-foot vessels and the 35-foot vessel were not active participants in commercial fisheries (at least under Akutan resident ownership) over the years 2013-2019. The other 32-foot vessel showed landings in 2005 and then annually 2006-2019; the 42-foot vessel showed landings annually 2006-2015 and then again in 2019 following a three-year hiatus.

In terms of diversity of fishery participation, of the four 32- to 42-foot vessels:

- One of the 32-foot vessels was active in the IFQ halibut fisheries each of the five years it appears in the 2000-2019 data and in one of those years also participated in the IFQ sablefish fishery and in another of those years also participated in the salmon fishery.
- Of the 14 years the other 32-foot vessel appears in the 2000-2019 data, in seven of those years it participated in both the halibut IFQ fishery and the fixed gear groundfish fishery, in six years it participated exclusively in the halibut IFQ fishery, and in one year it participated exclusively in the fixed gear groundfish fishery.

⁶ The homeport for this vessel, which is one of the 32-foot LOA vessels, is shown as Sand Point (Alaska). The only other vessel listing Akutan ownership address but not Akutan as the homeport of the vessel in the 2000-2019 dataset was a vessel that was active in only two years (2000-2001) of the 20-year period and had Kodiak as its homeport. This vessel was also an anomaly relative to other Akutan ownership address vessels 2000-2019 due to (1) its size (at 90-foot LOA it was more the double the length of any other Akutan ownership address vessel), (2) its exclusive focus on crab and/or fixed gear groundfish during the years it is shown as active in the data with an Akutan ownership address (all other Akutan ownership address vessels during the 2010-2019 period harvested halibut IFQ either exclusively or in addition to other species), and (3) its not being identified as a vessel owned by a long-term resident or residents of the community during interviews for earlier projects or the present project.

- Of the five years the 35-foot vessel appears as active in the 2000-2019 data it participated in both the fixed gear groundfish fishery and the halibut IFQ fishery in three years, in the fixed gear groundfish fishery exclusively one year, and in the IFQ halibut fishery exclusively one year.
- Of the 11 years the 42-foot vessel appears in the 2000-2019 data, in eight of those years it participated exclusively in the halibut IFQ fishery and in three of those years it participated in both the halibut IFQ fishery and the fixed gear groundfish fishery.

Over the 2000-2019 period, in addition to the four 32- to 42-foot LOA vessels noted above, five smaller vessels with Akutan ownership addresses appear in the AKFIN-compiled data as being active in commercial fishing.

- The 24-foot and 28-foot vessels reported as especially productive in 2002 interviews as noted above appear in the data as being active in the halibut fishery annually 2000-2005 for the former and in the years 2000 and 2002 for the latter, with all commercial fishing activity for both vessels focused on halibut.
- Additional vessels included:
 - A 17-foot LOA vessel was active in the fixed gear groundfish fishery in 2000 (only).
 - A 19-foot LOA vessel was active in the fixed gear groundfish fishery in 2002-2005, 2008-2010, and 2013 and in the halibut IFQ fishery in 2003 and 2012-2016.
 - A 20-foot LOA vessel was active in the halibut IFQ fishery in 2000, 2010, 2014, and 2016 and in the salmon fishery in 2008.

Focusing on more recent years, over the period 2010-2019, six unique vessels with Akutan ownership addresses were active in the commercial halibut fishery. The number of vessels participating each year varied from year to year with five participating in 2013; four in 2010 and 2014; three in 2011, 2015, and 2016; and one in 2017 and 2018, and two in 2019.

Interviews in Akutan in 2019 suggested that IFQ held by multiple residents has been fished off a combination of a single local resident-owned vessel, consistent with the vessel participation data, and another vessel or other vessels with ownership addresses outside the community but whose owner(s) have kinship or other long-standing relationships with the community rather than on more vessels with local ownership addresses in recent years. This pattern was attributed by interviewees to a set of circumstances particular to the vessels involved rather than movement of quota or vessels out of the community, but none-the-less represents a change in local fishery engagement patterns.

In summary, in terms of vessel fishery diversity, data compiled by AKFIN also show that the Akutan-owned fleet, regardless of vessel size, has focused exclusively on the halibut fishery during the five most recent years covered by this analysis (2015-2019). From 2000-2014, at least one Akutan-owned vessel reported fixed gear groundfish landings each year except 2006 when no vessels did so. Jig gear was used exclusively for these groundfish landings, which included

rockfish in 2000, 2002-2005, and 2007, and Pacific cod each year from 2001-2014. Over the period 2000-2014, Pacific cod accounted for 98 percent of the revenue of groundfish landings made by Akutan ownership address vessels.

2.3.1.3 Local Fisheries Association, Quota Holders, Permit Holders, and Crew Members

Akutan's local fisheries organization, the Akutan Fisheries Association (FA), was incorporated in 1992. In 1995-96 Akutan became an eligible APICDA CDQ community and in 1996 the Akutan FA began to participate in the yearly Fish Association Grant program sponsored by APICDA. The grant from APICDA is used for the cost associated with running the Akutan FA, advancing fisheries through advocacy, or to promote initiatives to reduce harvesting barriers and increase fisheries access.⁷ APICDA requires that board members be active members of their local FAs, participate in a commercial or subsistence fishery, pay dues and attend annual FA meetings. As of 2022, the Akutan FA had three officers (President, Vice-President, Secretary/Treasurer), two additional directors on the board, and a total membership of eight Akutan residents.

Akutan is in IPHC Area 4A, which has no CDQ reserve. Based on data compiled by AKFIN, in 2019 eight Akutan residents held halibut quota shares, all of which were in Area 4A. Together, these individuals held 273,563 quota share units, which resulted in 30,946 IFQ pounds in 2019. No residents of Akutan are shown in the data set used for this analysis as holding any type of quota in the rationalized BSAI crab fisheries.

Communities also directly benefit from the harvest sector through participation of residents as crew members as well as the through the engagement of vessel owners and permit holders. The Alaska Fisheries Science Center (AFSC) produces estimates of crew members by community, based on the number of permit holders in the community, plus the community residents who have applied for a crew member license with the Alaska Department of Fish and Game (ADF&G). Table 12 provides counts of crew license holders for Akutan for the years 2000 through 2019. These data should be only taken as a rough indicator of the level of involvement of community members but, assuming the individuals represented in the data are persons living in the village proper, they do suggest that a substantial proportion of the long-term resident portion of population of the community was engaged in commercial fisheries during the years shown.

⁷ APICDA, personal communication, January 13, 2023.

Table 12. Number of Commercial Fishing Permit and Crew License Holders from Akutan, 2000-2019

Year	Permit Holders	Crew Members
2000	8	18
2001	8	8
2002	8	19
2003	11	23
2004	10	15
2005	11	10
2006	9	14
2007	9	15
2008	11	15
2009	11	16
2010	11	19
2011	10	12
2012	11	13
2013	10	8
2014	12	12
2015	10	15
2016	9	16
2017	9	13
2018	8	6
2019	8	5

Source: AFSC Community Profiles, data compiled by AKFIN

Historically, some Akutan residents have served as crew on commercial fishing vessels owned by individuals and entities outside of the community and/or owned in part by APICDA (EDAW 2008⁸). According to 2019 interviews, however, no Akutan residents were then known to be currently serving as crew members on commercial fishing vessels owned outside of the community. According to both local leaders and APICDA leadership, however, if Akutan residents wish to crew on crab or other larger commercial vessels, they have a resource in APICDA—and specifically in APICDA and Trident partnerships—that is not as immediately available to residents of the non-CDQ communities in the region. According to APICDA leadership, if an Akutan resident (or other APICDA community resident) wishes to crew on these vessels, they can be accommodated. If openings were not immediately available, existing crew would not be displaced, but the local resident would be hired to back-fill positions that came open because of normal crew turnover, a not uncommon situation. Further, as a CDQ community, Akutan benefits indirectly from BSAI commercial fishery resource-derived revenue independently of direct participation in the fishery.

⁸ BSAI Crab Rationalization Three-Year Program Review Social Impact Assessment.

2.3.2 Processing

2.3.2.1 Community Processor Quantitative Description

Given that shorebased processing operations in Akutan consist of a single plant, fishery data confidentiality constraints preclude a characterization of local processing operations that includes information on the volume and value of those operations. Information of this type has been aggregated with volume and value data from processing plants in Unalaska/Dutch Harbor and that combined information is presented in the Unalaska/Dutch Harbor community profile. In this Akutan profile, local shorebased operations are characterized in qualitative terms.

2.3.2.2 Community Processor Characterization

Trident Seafoods owns and operates the major shore processing facility in the community of Akutan. Trident first opened a shoreplant in the community in the summer of 1981, but the original structure was destroyed by fire in the summer of 1983. The plant was rebuilt later that year, and major expansions occurred in the 1990s. Like the large processing plants in Unalaska, the Trident Akutan plant is an AFA-qualified plant with its own pollock co-op. Also like the large Unalaska plants, it is a multispecies processing facility, and it accounts for a significant amount of regional crab processing as well as groundfish processing.⁹

Operations

In terms of the processing labor force at the Akutan Trident plant, there is considerable fluctuation over the course of a typical year. According to senior plant staff, processing workforce staff is at its maximum from January until April, when there are approximately 1,100-1,350 workers on-site (the maximum number of workers that can be accommodated in on-site housing is 1,350, excluding limited transient quarters used by visiting management, technicians, and industry visitors staying at the plant on a short-term basis). This peak activity coincides with pollock A season; opilio and bairdi crab processing, which typically runs from January through March; and cod processing, which primarily occurs from January through late February or early March, with a second pulse of processing occurring over a few days in April.

May represents a relative lull in processing, with between 200 and 300 personnel remaining on site, of whom perhaps 100 are processing personnel with the rest being administrative, management, maintenance, and project personnel, the number of which fluctuates based on specific projects undertaken each year. Processing activities during this time include halibut and black cod, which is processed at the plant beginning in March, with the highest volume of processing of these species occurring in the summer months.

From June through October, between 800 and 1,200 workers will be on site, which coincides with pollock B season; a pulse of cod processing that occurs in September; herring processing,

⁹ In 2022, Trident Seafoods announced plans to build a “next-generation processing plant” to replace its existing facility in Akutan. According to company sources, Trident is working with third-party engineering firms to weigh the feasibility, costs, and design options for expanding its footprint in Akutan versus building a new plant on Unalaska’s Captains Bay on property it recently acquired through its subsidiary LFS.

with that season beginning on July 4 and lasting approximately two weeks, with season length depending on quota; and the summer halibut and black cod processing peak which may last until the end of July or early August.

After the end of pollock B season things again slow down at the plant. From October 15 through early November king crab is typically processed at the plant. Depending on remaining cod and crab processing, between the end of October and mid-November, the number of workers on site will decline to between 200 and 250, of whom, as during the May lull, perhaps 100 are processing personnel with the rest being administrative, management, maintenance, and project personnel, the number of which fluctuates based on specific projects undertaken each year.

In addition to its shore facility, Trident historically operated floating processors in Akutan Bay as did other operators. While multiple floaters per year used to be common, according to city officials this changed due to environmental constraints (as well as changing fishery economics). Around 1990, the U.S. Environmental Protection Agency (EPA) declared the inner portion of Akutan Bay an “impaired water body” with the result that floaters could not operate in that area. According to city officials, the bay has subsequently moved up on EPA’s water quality scale as restrictions placed on discharges have improved conditions, but the inner bay remains off limits to any further processing, and floaters have not returned in number, for several reasons, including expansion of processing capacity at the shore-based processor in the community and rationalization of key fisheries, such as the BSAI crab fishery, which has diminished the need for supplementing peak processing capacity.

Previously operated in Unalaska Island’s Beaver Inlet, the Trident-owned *Arctic Enterprise* was the only floater operating in Akutan Bay on an ongoing basis by the mid-2000s but thereafter its use in Akutan in any given year was a function of pollock quotas, with its processing capacity not needed in low quota years. According to interviews in 2019, the *Arctic Enterprise* had not operated in Akutan Bay in many years, but two Trident floaters were then being used in the different capacities during peak BSAI cod processing, which represents one of the few remaining unrationalized major BSAI fisheries.¹⁰ *The Independence*, operating in Akutan Bay outside of the inner portion of the bay, would take deliveries of and process cod. The *Aleutian Falcon*, on the other hand, would tie up to the dock at the Trident shore-based processing facility but not process cod in the onboard factory. Rather, the *Aleutian Falcon* would be used to supplement the freezing and cold storage capacity of the Trident shore-based plant, as some of the cod delivered to the shore-based plant would be cut and gutted at the plant before being sent to the *Aleutian Falcon*’s pan freezers and then into cold storage. The *Aleutian Falcon* was also available to supplement onshore worker housing capacity during that time.¹¹ In 2019 interviews, local processing managers noted that having cod processing windows interspersed with the processing of deliveries from rationalized fisheries creates logistical challenges in balancing operations, with an example given of during short cod seasons operations may be slowed down in the

¹⁰ Amendment 122 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area, currently in the Secretarial Review process will, when fully implemented, create a trawl catcher vessel cooperative program rationalizing this fishery.

¹¹ In February 2021, the *Aleutian Falcon* was destroyed by a fire while docked at a shipyard in Tacoma, Washington and has not operated in Akutan or elsewhere since.

pollock portion of the plant and fleet delivery schedules for pollock vessels may be adjusted to allow a focus maximizing cod processing volume for a shortened season. This results in inefficiencies in operations and in the types of products that can be produced.

Relationship with the Community

In terms of the relationship between the plant and the community, social interactions between Trident employees and the other residents of the community were historically limited because the Trident site was more-or-less an industrial enclave separated from the village proper by Russian Orthodox church-owned land, part of which is the site of the Alexander Nevsky Chapel (Plate 5) and part of which the city leases for a warehouse and a ball field, the sea plane ramp, and coastal bluffs.



Plate 5. Alexander Nevsky Chapel

Access and interaction has, however, changed over the years, due to several factors, three of which stand out. First was the opening of a beach level road connecting the Trident site to the seaplane ramp, which was already connected to the Simeon M. Vincler skiff moorage and other lands on the western edge of residential community via a roadway segment that links to the boardwalk system used by both pedestrians and all-terrain vehicles that, in turn, interconnects the balance of the residential community (there is no road or standard vehicle access within the residential area or the portion of the village to the east of the main residential area). Before the beach road segment to the plant was built, the plant could be reached from the residential community only by boat or by a footpath that traversed coastal bluffs so steep that one section of the trail had a fixed rope to assist hikers.

A second factor that changed the relationship between the plant and the community was the construction by Trident of the Safe Harbor Church/community building (Plate 6) that is utilized by plant workers and other local residents alike. This building houses a modest-sized church, attached living quarters designed to accommodate a minister and family members, and a full-

sized gymnasium. (Because the gym has “church windows,” it is sometimes mistaken for a very large church.) The building is located adjacent to the seaplane ramp¹² on privately owned land and the gym attracts individuals from both the plant and the community, fostering social interaction. (The school gym, which used to draw plant workers for recreational activities, is now typically only used by children, according to city staff, as it requires a supervisor during open recreation, whereas, at the Trident church/community building gym, supervision is provided by the resident minister’s family.) A third factor was the opening of the Akutan community library, museum, and recreation center (Plate 7) located within the village itself that also draws patrons from both the plant and the rest of the community. The availability of internet connected computers at this facility is reportedly popular with both processing workers and fishermen passing through the community. As in years past, plant workers also make purchases and cash checks at the general store in the community and frequent the Akutan Roadhouse tavern that is also patronized by village residents.



Plate 6. Safe Harbor Church/Community Building

¹² The Akutan Seaplane Base (FAA Identifier KQA) is a public use seaplane base. The seaplane ramp, which features a memorial dedicating it in memory of pilot Nic Sias who died in a Grumman Goose accident in 1996, was modified for use by hovercraft as part of the Akutan Airport project. The project constructed a state-owned conventional airport on Akun Island (FAA Identifier 7AK), the opening of which coincided with the discontinuation of regularly scheduled amphibious plane service to the community in October 2012. Following subsequent the discontinuation of hovercraft service between Akutan Airport and the Akutan Seaplane Base, the seaplane/hovercraft ramp has been regularly used as a helipad by helicopters operated by Maritime Helicopters that now provide the connection between the community on Akutan Island and the airport on Akun Island. The Akutan Seaplane Base and the Akutan Airport share the International Air Transport Association (IATA) code of KQA.



Plate 7. Akutan Public Library/Museum/Rec Center

Another change over the years in terms of the social interaction between the Trident facility and the village proper has been the integration of some long-term Trident personnel into the fabric of the community. In the not-too-distant past, this was not reported to occur and for many years no Trident employees lived in the residential portion of the community, and no residents from the village proper worked at the plant. City officials did report that in the mid-1990s, two individuals from the community did work at the plant for approximately two years but found it difficult to maintain a family life and arrange for childcare given the long hours inherent in processing work during busy seasons. More recently, the history of limited interaction has changed in several ways. For example, interviewees in the mid-2000s cited the examples of two individuals who originally came to the community as Trident employees and subsequently established local kinship ties by marrying into local families. One of these individuals later moved to another community with their new family and the other left their position at Trident but accepted other employment in the community.

Trident employees have also forged ties with the community through public service, including serving in elected office, with one individual serving on the Akutan City Council and another serving on the AEB Assembly, although as of 2019 none are serving on either body. The individual who served on the City Council was also engaged in the larger community over the years through service in the local EPA Indian General Assistance Program (IGAP) community group and otherwise assisted the community through his involvement in local emergency planning efforts. He and at least a few other long-term employees living at the processing plant site came to consider Akutan their primary residence. According to interviews in 2019, two individuals who live in the village proper are currently employed by Trident. These various types of social integration, unknown in the past, are apparently becoming more common over time. According to interviews with non-Trident employee residents over the years, Trident is viewed

as continuing to be open to hiring local community residents, but processing employment, given the long hours inherent in processing work during busy seasons, is acknowledged as being difficult to balance with family and other responsibilities in the community.

Important for community interactions as well is that despite the scale of the Trident Akutan plant that, according to the Trident Seafoods website, has become the largest seafood production facility in North America, deliveries from small, locally owned vessels are still accepted at the plant. In 2019 interviews, local plant management personnel reported that deliveries of the local small vessel fleet in recent years have exclusively consisted of halibut landings (which have been delivered by a single vessel) but they also specifically expressed interest in taking cod deliveries as well if those were offered by local fishermen. Plant managers also noted that deliveries to the Akutan plant have also been made by small boat fishermen from Unalaska/Dutch Harbor but these have been characterized as occurring infrequently.

2.3.3 Support Services

Akutan differs sharply from nearby Unalaska in terms of opportunity to provide a support base for the commercial fishery. Logistical challenges presented by steep terrain around the community include the fact that there is no airport that is road accessible from the community and, outside of a small skiff moorage facility, Akutan does not have a boat harbor accessible by road from the community. Air service, previously provided via amphibious aircraft based in Unalaska/Dutch Harbor that utilized the Akutan Seaplane Base adjacent to the community of Akutan, was replaced in 2012 by the new Akutan Airport constructed on nearby Akun Island. Originally linked to the community via hovercraft shuttle service running between Akutan and Akun Islands, the airport and the community are now connected by helicopter shuttle service. Regularly scheduled fixed wing aircraft service to and from Akutan Airport is provided out of Unalaska/Dutch Harbor.

With respect to the harbor, the City of Akutan partnered with the AEB and the Army Corps of Engineers to build a new harbor at the head of Akutan Bay, the first phase of which opened in 2015, that has produced 12 acres of mooring basin and associated uplands designed to accommodate commercial fishermen and marine related industries. With the eventual build-out of associated infrastructure, the harbor is designed to eventually provide mooring for up to 57 large vessels, serve as a place of refuge for disabled vessels, and add an important link to the community's transportation network. According to 2019 interviews, to date a 600' float has been installed in the harbor and power and lighting projects are underway. Funds are also being sought for the construction of an approximately two-mile connector road from the community to the new harbor. The local skiff mooring basin in the community, designed to facilitate the local small boat fishery by allowing local vessel owners to keep their vessels in the water, was funded in part by APICDA. APICDA was also involved with obtaining a trailer that could handle up to 45-foot vessels to facilitate getting local small boats in and out of the water, but the trailer proved to be little-used and was subsequently shipped to St. George where it could be of greater benefit.

The only direct fishery support business active in the community in recent years was Pelkey's Dive Service, which was staffed by the two owners plus a couple of helpers on occasion. This

operation catered in part to fishing vessels, including changing zincs and clearing fouled propellers, among other services. The owners were originally introduced to the diving business by an individual diving for Trident in the early 1980s and Trident would over the years steer local business their way. This business also performed underwater maintenance on the main town outfall and the freshwater line beginning in the mid-1980s, but it was not a full-time enterprise. The owners of this company were also involved in marine pilot work, as well as enterprises not directly fishing or marine support oriented. According to an interview with one of the owners in 2019, the fishery support service (diving and piloting) components of this business have not been active in several years.

There are other enterprises in Akutan that derive benefits from the commercial fishery in less direct ways. The Akutan Corporation derives economic benefits from the local processing activities through sales of goods and services to local seafood plant employees at the McGlashan Store, the community general store the corporation owns and operates in the same building that contains the Akutan Post Office (Plate 8) and warehousing space. Processing workers utilize the store for check cashing purposes, for which they are charged a cashing fee, and for purchases of foodstuffs. According to interviews with corporation management in 2008 for a different project, sales to processing workers, who otherwise have access to food services at the processing plant, commonly include rice, canned foods, and microwavable foods, with processing worker business accounting for perhaps 20 to 25 percent of the overall store business, while fishing vessels calling on the local plant account for perhaps another 10 percent, which the store specifically encouraged by offering 10 percent boat case lot discounts. According to corporation staff, although vessels tend to ship in their own supplies, or re-supply at the Trident plant, some of the vessels do make local purchases if Trident runs out of supplies or if direct shipped goods do not make it in due to adverse weather conditions. According to 2019 interview information, direct business from seafood processing workers and from fishing vessels calling on the plant had come to account for approximately half of the store's overall revenue. According to corporation leadership, in addition to inputs to the local economy, the plant is also a good neighbor to the community in terms of providing fire safety and rescue services aid to the community in times of need.



Plate 8. Akutan Post Office

Although it is the major landowner in the community, the Akutan Corporation does not derive substantial leasing income from the local seafood processor. Prior to ANCSA, a private individual outside of the community obtained ownership of three parcels of land: the parcel on which the processing plant is located, a parcel across the bay from the community that is the site of a pot dock, and a parcel near the head of the bay that was the site of the historical local whaling station. Although according to city officials, these lands changed hands in the late 1990s, they have remained in private ownership outside of the community. Until the early 2000s, the only land leased by the Akutan Corporation to the seafood processor was an antenna site on the hill above the processing facility. In 2004, however, Trident began leasing 67 acres of corporation land on the hillsides near the plant under an “impact area” lease. This lease arrangement was necessitated by plant emission levels exceeding a threshold determined in part by the existing footprint of the plant.

The Akutan Corporation does derive at least some income from direct and indirect fisheries-related activity through its ownership of the Bayview Hotel and the Salmonberry Inn. The Bayview Hotel, a six-room facility of which two rooms are larger apartment-style accommodations, does see some business from such groups as marine pilots or fisheries observers, particularly when space is not available at the processing plant. This facility also derives business from tradesmen, such as Caterpillar mechanics and electricians, who are in the community on a short-term basis, as well as transient health care- or school-related personnel.

The Salmonberry Inn is a former processing bunkhouse facility that was obtained in a land swap with Trident in a straight-up exchange for land contiguous with the main Trident facility. According to 2008 interviews, the facility, configured for 34 beds, derived processing-related business, particularly when the processing activity ramped up during both A and B seasons,

when Trident would lease the facility for a combined total of three to four months of the year. According to 2019 interviews, however, the processor has not needed to lease back the facility in recent years, which is currently being used by fishery observers and transient work crews, including a crew involved in geothermal project assessment. In the past, Salmonberry Inn operations have been characterized as a more-or-less break-even operation for the Akutan Corporation, but it does provide economic activity and an augmented level of local resident employment.

The Akutan Corporation also built the local post office building and utilizes the lease income for other enterprises. This may be considered partially related to commercial fishery, as postal service demand does feel the influence of commercial fishing activities. The Akutan Corporation, as part of a coalition involving a few other Aleutian-Pribilof region communities along with a village in Alaska's interior, was also a participant in a cattle ranching operation on nearby Akun Island but, according to 2019 interviews, this undertaking is no longer a working ranch.

In the early 2000s, a small restaurant (the Grab a Dab Café) operated in Akutan but, according to senior city staff, it ceased to be economically viable as a café open to the public with the loss of a key subsidy for electricity. More recently, the Akutan Corporation constructed a new building and leased out the operations of what opened as the Bayview Café in June 2007. Operated by the same entity that operated the Unalaska airport café, the Bayview Café was reportedly patronized an estimated 75 percent by Trident processing workers and had a menu that included Asian cuisine. The Akutan Corporation desired the restaurant to remain open year-round, but it soon experienced closures attributed in part to transportation bottlenecks. According to 2019 interviews, the café is no longer in operation.

A private business in the community that has derived income from fishery-related activity for decades is the Akutan Roadhouse tavern. Owned by private individuals from Akutan who are no longer physically resident in the community, this business regularly draws patrons from the processing plant workforce and the village proper as well as from vessel crews and others passing through the community. According to a member of the extended family of the owners, the Roadhouse was opened in 1964 and continues to be operated by members of the same family. According to interviews conducted in 2019, about 60 to 70 percent of the business volume attributable to commercial fishing or processing related activity. At that same time, the tavern employed three Akutan residents full-time, and an additional two had been through required alcohol training classes and were available on a part-time as-needed basis for peak periods.

Over the years, Akutan Bay has also been the site of product transfers from at-sea processors to cargo vessels and this activity has resulted in shared state Fishery Resource Landing Tax revenues accruing to the City of Akutan, as noted in Section 2.4. According to interviews conducted in 2008 however, very little if any local business patronage has resulted from these types of activities, a characterization confirmed as still accurate by staff from the City of Akutan in 2023.

Akutan is a small enough community that nearly the complete range of employment can be characterized. Among permanent, long-term community residents, most employment is linked to the public sector, including positions associated with municipal and tribal entities. The City of Akutan has a total of six full-time employees, 11 part-time employees, and six temporary employees who work in the community,¹³ including airport and maritime/harbor related positions. The Traditional Council accounts for another two full-time positions, and the IGAP environmental watch function accounts for two part-time positions. Health care-related employment includes two full-time clinic workers (a community health practitioner trained in behavioral health support and a mid-level practitioner).¹⁴ Long-term local resident employment specific to the Akutan School includes two teachers and one health aide.

Non-governmental employment includes six positions with the Akutan Corporation (three full-time jobs, including two office workers and one weekday store employee, along with three part-time jobs, including a weekend store employee, a hotel service position, and a maintenance position). There is also one Community Liaison position with APICDA, which helps locally coordinate APICDA's programs and organize community events. According to interviews, in 2019 two long-term Akutan residents were employed at Trident Seafoods.

Other private sector employment among permanent community residents in addition to fishing and limited employment at the tavern are an estimated three to four individuals who intermittently pick up stevedoring or longshore work, driving vans, moving containers, and working on barges and trampers. Local employment that typically draws individuals from outside the local labor pool (in addition to seafood plant workers) includes teaching positions at the school, a mid-level practitioner position at the clinic, and a pastor's position at the nondenominational church in the community.

2.4 LOCAL GOVERNANCE AND REVENUES

Revenue directly related to commercial fishing activity accounts for a large majority of all general fund revenue received by the City of Akutan, as shown in Table 13. As shown, the taxes that generate this revenue include: a local fish tax, which was increased from 1.0 percent to 1.5 percent in 2013, the state shared Fisheries Business Tax, and the state shared Fisheries Resource Landing Tax. The state shared fishery business tax revenues are shared with the municipalities where fishery resources were processed (by shore-based or floating processors). If processing occurred within an incorporated city, which is located within an organized borough as is Akutan, 25 percent of the tax collected is shared with the city and 25 percent of the tax is shared with the borough. State shared fishery resource landing tax revenues are shared with the municipalities where fishery resources were landed (as processed product by at-sea catcher/processors or motherships). The mechanics for sharing fishery resource landing taxes are the same as described

¹³ The City of Akutan also has three full time employees and one person who works on a contract basis in the City's Anchorage office.

¹⁴ The clinic is owned by the City of Akutan, leased to the Indian Health Service, and operated by the Eastern Aleutian Tribes.

for fisheries business taxes.¹⁵ Additionally, as a member community of the AEB, Akutan benefits at least indirectly from AEB’s 2.0 percent fish tax, which funds borough programs and services of which Akutan is a beneficiary. Given that there is only one processing entity in the community, data confidentiality considerations preclude analysis of the relative dependency of the community on revenue associated with specific fisheries. Akutan does not have a local general sales tax or property tax.

Table 13. City of Akutan Selected Fisheries-Related General Fund Revenue, Fiscal Years 2010-2020

Fiscal Year	Revenue (dollars) by Direct Fishery Revenue Source				All General Fund Revenue	Direct Fishery Revenue Source Total as a Percent of All General Fund Revenue
	Direct Fishery Revenue Source			Direct Fishery Revenue Source Total		
	City Raw Seafood Tax	Shared State Fisheries Business Tax	Shared State Fisheries Resource Landing Tax			
FY2010	\$753,127	\$1,088,369	\$307,561	\$2,149,057	\$2,588,527	83.0%
FY 2011	\$1,222,653	\$827,408	\$154,758	\$2,204,819	\$2,926,637	75.3%
FY 2012	\$1,385,057	\$853,570	\$244,134	\$2,482,761	\$3,077,710	80.7%
FY 2013	\$1,663,209	\$1,186,396	\$178,611	\$3,028,216	\$3,831,293	79.0%
FY 2014	\$1,715,128	\$1,217,118	\$157,540	\$3,089,786	\$3,602,184	85.8%
FY 2015	\$1,774,963	\$1,029,663	\$69,412	\$2,874,038	\$3,418,630	84.1%
FY 2016	\$2,098,763	\$943,814	\$173,049	\$3,215,626	\$3,253,634	98.8%
FY 2017	\$2,044,698	\$1,082,206	\$210,114	\$3,337,018	\$3,784,609	88.2%
FY 2018	\$1,985,328	\$1,358,949	\$4,916	\$3,349,193	\$3,796,184	88.2%
FY 2019	\$2,101,784	\$1,097,955	\$163,372	\$3,363,111	\$3,887,032	86.5%
FY 2020	\$2,063,964	\$1,031,674	\$57,178	\$3,152,816	\$3,748,211	84.1%

Note: in 2013, the City of Akutan raised its local fish tax from 1.0 to 1.5 percent.

Source: City of Akutan, Alaska Basic Financial Statements, Required Supplementary Information, Additional Supplementary Information, and Compliance Reports, fiscal years 2010-2013 and 2015-2019; Certified Financial Statement, fiscal year 2014. <https://www.commerce.alaska.gov/dcra/dcrepoeext/Pages/FinancialDocumentsLibrary.aspx>. Accessed 1/3/2022.

Unlike some other major Alaska port communities, the City of Akutan does not derive revenue from providing water, power, wastewater, solid waste, or similar services to the seafood processing plant in the community. At the time of its construction, the plant was physically isolated from the community and thus was built as a completely self-contained facility. Although a shoreline road link to the community was subsequently established, the way services are provided to the plant has not changed. Trident currently leases 21 acres from the City of Akutan where it stores shipping containers. As part of the lands between the processor and the community, the status of this lease is exceptionally complicated, as previous land ownership and

¹⁵ The state revenue sharing process described is administered by the Alaska Department of Revenue. If processing (in the case of shared fisheries business taxes) or landings (in the case of shared fishery resource landing taxes) occur outside of any municipality in the unorganized borough, 50 percent of the taxes collected are shared with municipalities statewide, including Akutan, through a separate allocation program administered by the Department of Commerce, Community, and Economic Development.

leasing rights within this area involved such entities as the Bureau of Indian Affairs, a previous seafood processing enterprise, the Akutan Corporation, and the City of Akutan. After several years of working the relationship out, Trident currently pays a lease that is considered fair market rate to the city, which the city then turns over to the Akutan Corporation. Current or planned developments on other portions of this land that do or will have a reversion clause include the Trident nondenominational church/recreation facility and some planned housing. The area used for shipping activities is designated for continuing use under a renewable lease and plans for the future include building/expansion of a dock and related structures, which, if carried out, would likely result in increased city revenues in the long run.

3.0 Unalaska/Dutch Harbor

Unalaska is located approximately 800 miles southwest of Anchorage and 1,700 miles northwest of Seattle. 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 larger portion of the community, which is on Unalaska Island. The geographic feature of Dutch Harbor, which is adjacent to Amaknak Island, along with Amaknak Island itself, 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. Not part of an organized borough, Unalaska is situated within the Aleutians West Census Area.

Figure 6 provides an overview of the boundaries of the City of Unalaska and selected geographic features in and around the city. Also shown on this figure is a detailed inset of the Captains Bay portion of the city that shows the location of the three major shore-based processors in the community and the location of other selected fisheries related businesses and infrastructure.

Figure 7 provides a detailed look at the Amaknak Island and downtown Unalaska portions of the city. Also shown on this figure are the locations of selected public buildings, as well as those of fishery related support service businesses and infrastructure.

Figure 6. City of Unalaska Overview and Captains Bay Detail Maps

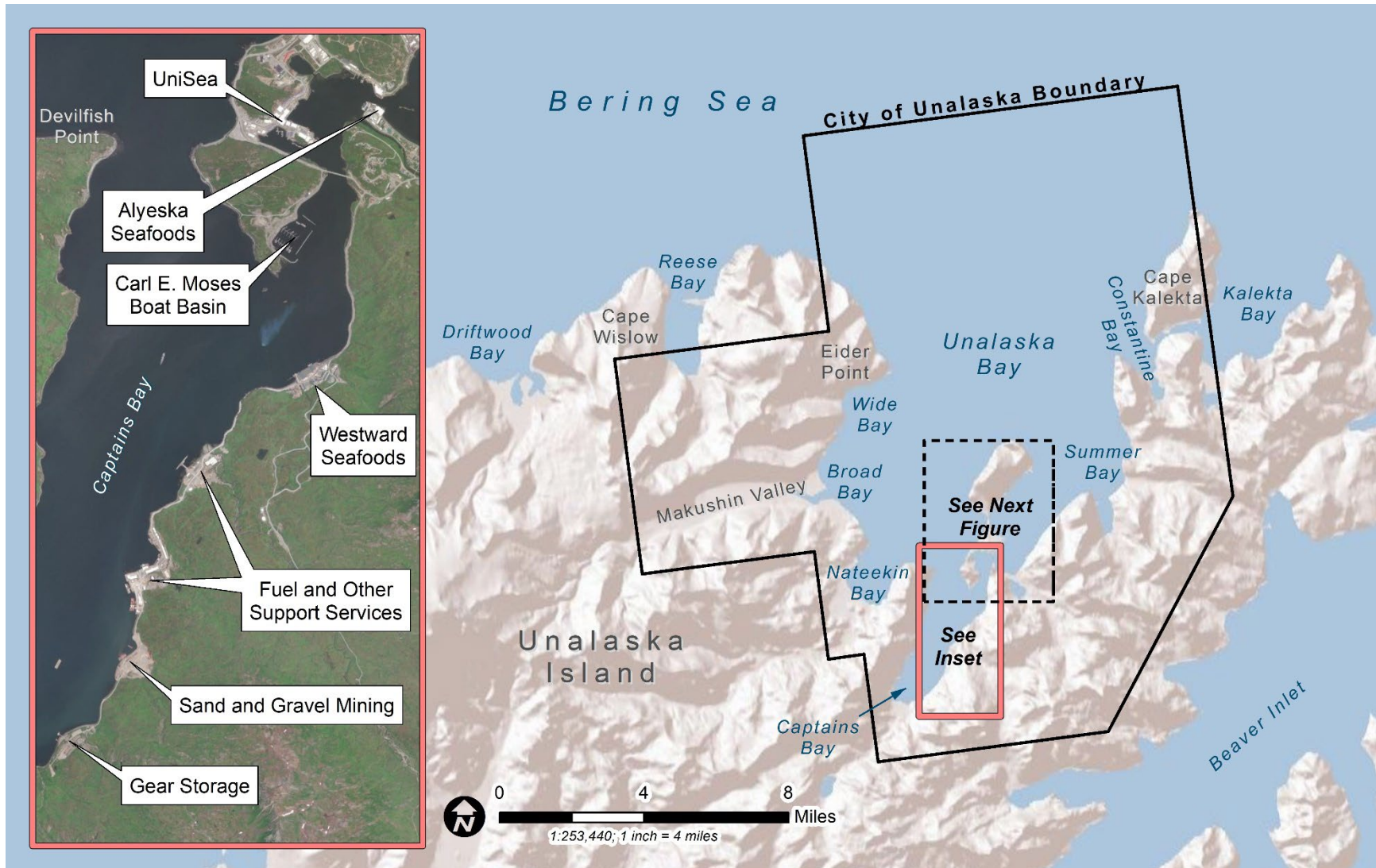
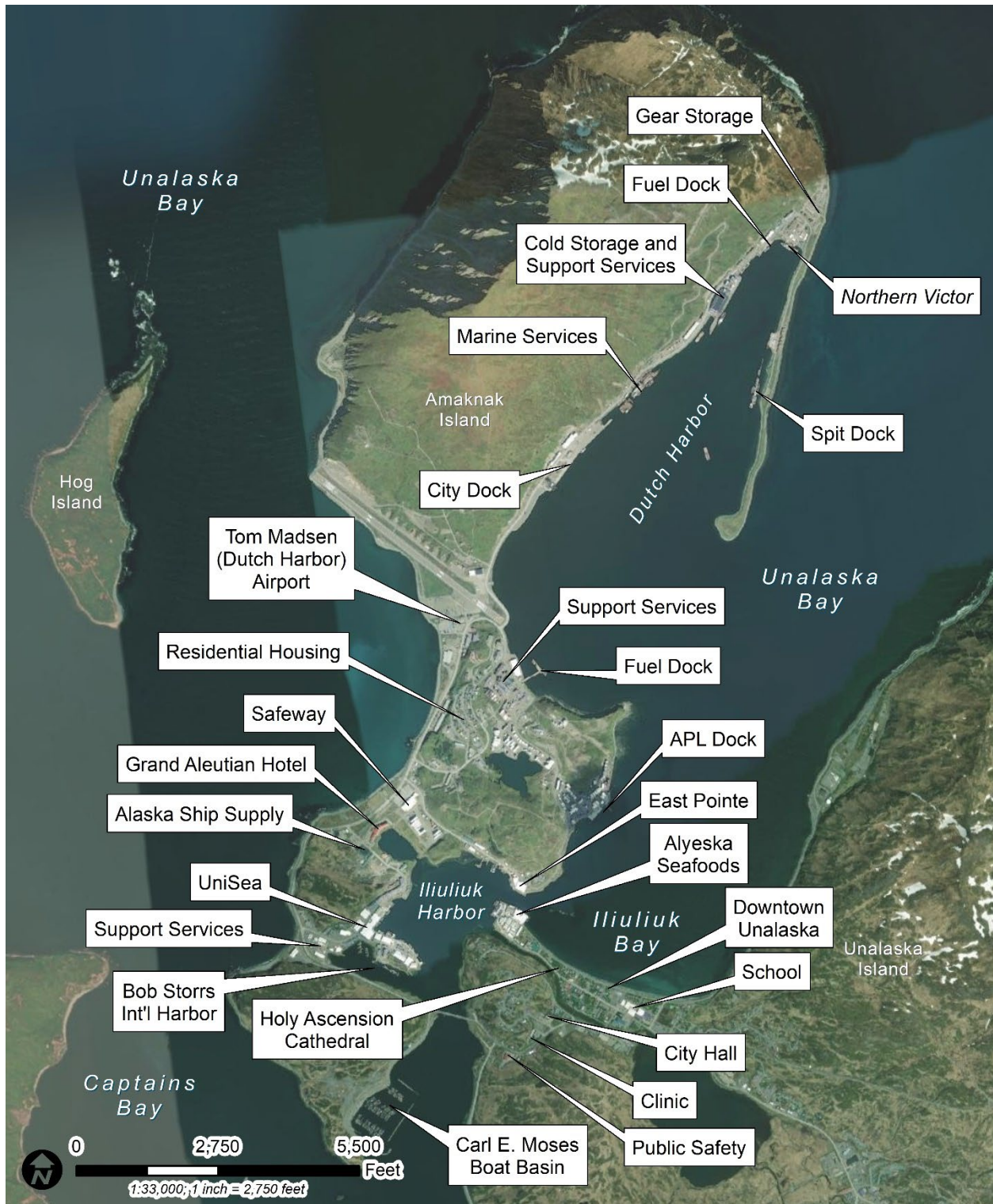


Figure 7. City of Unalaska Amaknak Island and Downtown Unalaska Detail Map



3.1 OVERVIEW

The Aleutian Islands have been occupied for at least 8,000-9,000 years (Davis and Knecht 2010; McCartney and Veltre 1999). The Native people of the region refer to themselves collectively as Unangaġ (Unangam tunuu in their own language) or Aleut (a name applied by foreigners in the mid-1700s) (APIA 2019). Archaeological and genetic evidence support the hypothesis that ancestors of the Unangaġ crossed Beringia, also known as the Bering Land Bridge, and populated the Aleutian Islands from east to west (Crawford et al. 2010). The earliest well-documented site is located on Anangula Island, located approximately 115 miles southwest of Unalaska, and dates to circa 8,000-8,500 BP (McCartney and Veltre 1999). The prehistoric chronology of the Aleutian Islands is generally broken into two successive but unrelated phases: the Anangula tradition, approximately 8,500-7,500 BP, and the Aleutian tradition, beginning approximately 5,500 BP and ending with Russian contact in 1741 (McCartney 1984). The Aleutian tradition is usually portrayed as a period of cultural continuity with regional variations in specific cultural traits and responses to environmental conditions (Grover 2002; McCartney and Veltre 1999). More recent research on Unalaska, Amaknak, and Hog islands suggests a more dynamic cultural system that lasted throughout the Holocene without a period of hiatus (Davis and Knecht 2010).

Within the Unalaska city boundary, over 50 prehistoric archaeological sites have been previously recorded; of these, ten are classified as village sites.¹⁶ Based on stratigraphic dating using sterile strata of volcanic ash, the oldest sites within the Unalaska city boundary date to around 8,000 BP. Stratigraphic analysis and radiocarbon dates from Unalaska and Amaknak islands paint a picture of continuous occupation of the area throughout prehistory, supported by archaeological and DNA evidence (Davis and Knecht 2010). Archaeological sites in the region, particularly those of the Aleutian tradition, are often characterized by extensive midden deposits, which result from long-term site occupation and suggest relatively stable procurement patterns over time (Veltre and Smith 2010). Around the time of Russian contact in the mid-1700s, more than 3,000 Unangan people lived in 24 settlements on Unalaska and Amaknak islands (APIA 2021). The village at the current site of Unalaska was known as Iliuliuk (also spelled Ililuliuk or Illyulyuk; Alaska Heritage Resources Survey number UNL-00059). Russian fur trader Stephen Glotof established a temporary camp at Iliuliuk in 1762, and later Ivan Solov'ov established a permanent trading station in the 1770s (Gross 1994). Unalaska was referred to as Iliuliuk into the 19th century, and prehistoric artifacts are reported to underly the historic settlement and present town (Mason and Hudson 2014).

In 1787, many hunters and their families were enslaved and relocated by the Russian American Company to the Pribilof Islands to work the fur seal harvest. By the late eighteenth century, the Aleutians had for the most part been abandoned by Russians in favor of eastern trapping grounds. However, several strategic outposts remained, including one in Iliuliuk Harbor. In 1825, the Russian Orthodox Church of the Holy Ascension of Christ was constructed. With local assistance, the founding priest, Ivan Veniaminov, composed the first Unangan writing system

¹⁶ Based on archaeological records available digitally through the Alaska Department of Natural Resources Office of History and Archaeology's Alaska Heritage Resources Survey - Integrated Business Suite (accessed 7/11/2021)

and used it to translate scripture. Since the Unangan were not forced to give up their language or culture by the Russian Orthodox priests, the church became (and remains) strong in the community (Plate 9). By 1830 and 1840, however, only 200 to 400 Unangan lived in Unalaska (APIA 2021).



Plate 9. Holy Ascension Cathedral

By 1850, Russians abandoned the outpost due to the diminished availability of furs. American influence in Alaska increased as people migrated northward; drawn by furs, fishing, and whaling. Dutch Harbor flourished in the 1880s as a coaling station and commercial trade center. The Klondike Gold Rush of the 1890s brought many ships to Dutch Harbor, lured by its position as a gateway to the gold fields of northwest Alaska. By the turn of the twentieth century, several processing entities may have been in operation processing herring, salmon, and whale meat. As coal began to be replaced by oil as ship fuel, the coal trade began to diminish in Dutch Harbor. Fox farming became popular throughout the Aleutians in 1910, which brought economic relief to Unalaska until the Great Depression of the 1930s saw the demise of the fur industry.

Construction began on Dutch Harbor Naval Operating Base and Fort Mears on Amaknak Island in 1940 as diplomatic relations with the Japanese deteriorated. Other military installations were established on Hog Island and remote locations throughout the area. Permanent facilities including a major hospital complex, docking and fueling facilities, submarine drydocking and repair facilities, an airport, and extensive living and recreational facilities were built to serve military personnel stationed in Unalaska.

Unalaska was incorporated as a 1st Class City in March 1942. On June 3, 1942, Japanese naval forces bombarded Dutch Harbor, damaging or destroying several facilities and killing dozens of

U.S. military personnel. In July 1942, Unangan residents (but not non- Unangan residents) of Unalaska were compelled to evacuate, were relocated to Office of Indian Affairs evacuation camps in Southeast Alaska and were not able to return to the community until April 1945. The population of Unalaska following the war was reported to be about 300.

Interest in fishery resources in the Aleutians began to increase around 1950 with the harvesting and processing of halibut, salmon, and king crab. The growth of the king crab fishery in the early 1960s greatly improved the local economic condition. Unalaska became a rapidly growing and culturally diverse community, primarily focused on fishing and fish-processing activities. Subsistence activities are important to both the Unangan community and many long-term non-Native residents, as well. The Ounalashka Corporation is the local ANCSA chartered village corporation, the Aleut Corporation is the regional ANCSA chartered corporation, and the federally recognized tribal entity in the community is the Qawalangin Tribe of Unalaska.

Unalaska is in a unique position with respect to the BSAI fisheries. It is the site of both the most intense direct and indirect fishery economic sector activity among all the communities in the region. More BSAI crab and groundfish are processed in Unalaska than in any other port, and the support service sector is developed to a greater degree in Unalaska than any other community on the Bering Sea. As a result, Unalaska is a community whose economy is strongly tied to Bering Sea commercial fisheries in general, as well as to several individual fisheries.

3.2 COMMUNITY DEMOGRAPHICS

Unalaska is a demographically complex community. Prehistorically and historically a traditional Unangan village, contemporary Unalaska has a diverse population that saw a great deal of growth in the last quarter of the twentieth century. This growth and diversification were directly attributable to the commercial fishing industry and its accompanying fishery support sector.



3.2.1 Total Population

It has always been difficult to ascertain total population figures for Unalaska or, perhaps more accurately, it is difficult to interpret and compare time series figures given for the historical population of Unalaska. In addition to residents whose ancestors have lived in the area for countless generations, 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 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 different census efforts. Caution must therefore be used in interpreting total population figures from various sources.¹⁷ Table 14 provides census figures for each decade from 1900 through 2020. As shown, the population exceeded 300 in the first two years of the series but then remained below that figure until the 1980 count (while noting that these data do not consider the thousands of military personnel stationed in and around the community during World War II when Unalaska was a significant base for both Army and Navy forces). The growth seen from 1980 onward can be directly traced to the development of the contemporary commercial fishery processing and support activity that has its roots in the Bering Sea crab fishery and subsequently diversified into other fisheries including the pollock fishery, which has proven to be a local economic mainstay.

¹⁷ As an example, one can find different counts by the City of Unalaska, the Alaska Department of Labor, the Alaska Department of Commerce, Community, and Economic Development (formerly the Alaska Department of Community and Regional Affairs), and the U.S. Census for various recent years using varying methodologies. Further, there are known challenges within time series data sets where published methodologies were not followed. Concerning the 1970 census, for example, a community leader with direct, contemporaneous knowledge has written that census “was done by the census taker from memory, sitting at home, and it was not accurate to any degree” (Impact Assessment 1987:64). Some sources list the 1970 census population as 342, while other sources list it as 178. U.S. Census Bureau correspondence from the period (Fay 1972) confirms the official figure as 178, but questions remain regarding whether the census did or did not include short-term residents or transient workers who were present at the time. In 1972, the Alaska Department of Labor apparently tried unsuccessfully to “correct” the census number to a total count of 336 (Fay 1972).

Table 14. Unalaska Population by Decade, 1890-2020

Year	Population
1890	317
1900	428
1910	281
1920	299
1930	226
1940	298
1950	173
1960	218
1970	178*
1980	1,322
1990	3,089
2000	4,178
2010	4,376
2020	4,254

*Other sources put the 1970 census figure at 342 residents.

Source: Historic data from Alaska Department of Community and Economic Development; 2000, 2010, and 2020 data from U.S. Census Bureau.

While the total population of Unalaska has grown considerably from the early fishery boom years, the contemporary community maintains a relatively high transient population. This transient population includes workers at shore-based processing plants, although this population segment is notably less transient as the nature of the business of the shore-based plants has changed. Once characterized by rapid turnover during the king crab processing surge in the late 1970s, the local pattern evolved to more-or-less year-round processing during the early years of full-scale pollock processing. The current pattern has marked peaks and valleys coinciding primarily with the pollock A and B seasons, which themselves overlap with other seasons that generate a substantial amount of processing activity (e.g., the cod and opilio processing that occurs around and during pollock A season). Outside of these peaks, plants typically employ a “core crew” of year-round individuals who process lower volume species than are harvested at other times of the year in addition to maintaining the plant.

The characterization of Unalaska’s “nontransient” population has its own challenges, as the nature of the community has changed over the years. Discussion and analytical categorization of the more-or-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. “Semipermanent” or “long-term transient” residents have been described as those individuals for whom Unalaska is now their community of residence, but for whom residency decisions are based primarily or exclusively on employment criteria, as opposed to a “permanent” resident who considers Unalaska “home” and is 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 “semipermanent” 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 more likely than not to leave the community if that specific employment opportunity is terminated for any reason. These individuals may indeed remain in the community for several years, but their residency decision-making process is predicated on Unalaska being first and foremost a worksite. Obviously, the categories “permanent” and “semipermanent” or “long-term transient” resident are not precise terms. They do not necessarily correspond to administrative/regulatory decisions about “official” residency (e.g., whether one is classified as an “Alaska resident” for employment statistical reporting or taxation purposes) nor do they correspond to U.S. Census Bureau count methodology,¹⁸ 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. While distinctions are often drawn between the processing-associated population in the community and other residents of the community, several persons interviewed were quick to point out that a number of those in management positions at the processing plants are active in the community in leadership roles, and that a number of other leaders in the community who currently hold positions in non-processing economic sectors originally came to the community for processing-related employment and then subsequently transitioned to other employment. This type of transition does not appear to occur as frequently among nonmanagement workers within the processing sector, but this clearly does occur and has served to diversify the demographics of the community over time.

3.2.2 Ethnicity

Unalaska may be described as a plural or complex community in terms of the demographic composition of its population. Although Unalaska was traditionally an Unangan community, the community has changed with people moving into the community on both a short-term and long-term basis. Not surprisingly, in the latter half of the 20th century especially, population fluctuations have coincided with periods of economic growth and decline related to exploitation of resources of varying abundance. The racial/ethnic composition of Unalaska’s population for the decennial census years 1970-2020 appears in Table 15.

Apart from the World War II years, prior to the growth of the current commercial fisheries-based economy that traces its present configuration back to 1970s, Unalaska was predominantly an Unangan community. In 1970, Unangan individuals made up slightly over 60 percent of the total community population (and Alaska Natives accounted for a total of 63 percent of the

¹⁸ The technical classification of residency has at times been a contentious issue with respect to the fishing industry-related workforce. In terms of U.S. Census Bureau 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).

population). In 1980, Alaska Natives, including Unangan, accounted for 15 percent of the population; by 2020 that figure was under five percent. This population shift is largely attributable to fisheries and fisheries-related economic development and associated immigration. Two other trends are readily apparent over this period as well. First, White residents made up 30 percent of the population in 1970, were over 60 percent of the population in 1980 and 1990, and by 2020 were back to about 30 percent of the population. Second was the proportional growth of the Asian or Asian/Pacific Islander population, which by 2020 accounted for about 40 percent of Unalaska’s population. The two trends were also largely attributable to fisheries related economic development and associated immigration as the workforce demographics in processing plants changed and as individuals initially associated with processing operations and/or fishery support sectors on a less than long-term basis have moved into other sectors of the economy and made Unalaska/Dutch Harbor their home.

Table 15. Population by Race/Ethnicity by Decade, Unalaska: 1970- 2020

Race/Ethnicity	1970		1980		1990		2000		2010		2020	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White	56	31.0%	848	64.1%	1,917	62.1%	1,893	44.2%	1,715	39.2%	1,386	32.6%
Black or African American	0	0.0%	19	1.5%	63	2.0%	157	3.7%	300	6.9%	222	5.2%
Alaska Native/Native American	113	63.4%	200	15.1%	259	8.4%	330	7.7%	268	6.1%	195	4.6%
Asian/Pacific Islander*	--	--	--	--	593	19.2%	1,336	31.2%	1,524	34.8%	1,715	40.3%
Other**	9	5.6%	255	19.3%	257	8.3%	567	13.2%	569	13.0%	736	17.3%
Total	178	100.0%	1,322	100.0%	3,089	100.0%	4,283	100.0%	4,376	100.0%	4,254	100.0%
Hispanic***	NA	NA	NA	NA	394	12.7%	551	12.9%	666	15.2%	594	14.0%
Total Minority Population	NA	NA	NA	NA	1,252	40.5%	2,503	58.4%	2,903	66.3%	2,928	68.8%
Total Non-Minority Population	NA	NA	NA	NA	1,837	59.5%	1,780	41.6%	1,473	33.7%	1,326	31.2%

*In the 2000 census, this was split into Native Hawaiian and Other Pacific Islander (pop 24) and Asian (pop 1,312); in the 2010 census, this was split into Native Hawaiian and Other Pacific Islander (pop 96) and Asian (1,428).

**In the 2000 census, this category was Some Other Race (pop 399) and Two or More Races (pop 168); in the 2010 census, this category was Some Other Race (pop 324) and Two or More Races (pop 245); in the 2020 census, this category was Some Other Race (pop 421) and Two or More Races (pop 315).

*** "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, 2000, 2010, and 2020 data, U.S. Census Bureau 1990, 2010, 2020.

3.2.3 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 male. Table 16 portrays the changes in proportion of males and females in the population for the years 1970-2020.

Table 16. Population by Age and Sex, Unalaska: 1970, 1980, 1990, 2000, 2010, and 2020

Attribute	1970		1980		1990		2000		2010		2020*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Male	98	55%	858	65%	2,194	71%	2,830	66%	2,995	68%	3,008	63%
Female	80	45%	464	35%	895	29%	1,453	34%	1,381	32%	1,750	37%
Total	178	100%	1,322	100%	3,089	100%	4,283	100%	4,376	100%	4,758	100%
Median Age	26.3 years		26.8 years		30.3 years		36.5 years		40.7 years		39.5 years	

*Note: Data for these variables for 2020 are estimates from the 2016-2020 ACS.

Source: 1970 data, University of Alaska, 1973; 1980, 1990, 2000, and 2010 data, U.S. Census Bureau 1990, 2010, 2020.

Census data from the period 1970 through 2020 shows a climb in median age from approximately 26 years in 1970 to approximately 40 years in 2020. This is commonly attributed to the relative size of the locally employed workforce in comparison to resident families and to an apparent rise in the average age of seafood processing employees over the years. That is, there is quite a large proportion of adult residents included in the census counts whose primary families, including any children or grandchildren, are not present in the community, thereby raising the median age.

School district enrollment figures are presented in Table 17. This is another indicator of the changing nature of Unalaska’s population over the 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 generally increased from the late 1980s to the late 1990s before dipping for a few years and then increasing again to around 400 students for most years 2003-2020, 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. According to school administrators, however, even in years where enrollment numbers are similar there is still quite a bit of turnover that occurs because of families moving into and out of the community tied, in part, to fluctuations in the fishing industry and fishing-related sectors of the economy. Within any given year, attendance also varies based on fishery cycles to the extent that some processing families visit families overseas during those periods when the plants shut down, which do not always coincide with the school calendar.

Table 17. Unalaska City School District Enrollment: Fiscal Years 1978-2021

Fiscal Year	School Enrollment
FY 1978	133
FY 1979	140
FY 1980	200
FY 1981	186
FY 1982	191
FY 1983	151
FY 1984	140
FY 1985	140
FY 1986	137
FY 1987	159
FY 1988	153
FY 1989	188
FY 1990	204
FY 1991	258
FY 1992	304
FY 1993	330
FY 1994	359
FY 1995	356
FY 1996	353
FY 1997	375
FY 1998	380
FY 1999	353
FY 2000	352
FY 2001	352
FY 2002	369
FY 2003	393
FY 2004	399
FY 2005	399
FY 2006	398
FY 2007	386
FY 2008	388
FY 2009	402
FY 2010	403
FY 2011	407
FY 2012	414
FY 2013	415
FY 2014	407
FY 2015	396
FY 2016	375
FY 2017	389
FY 2018	401
FY 2019	421
FY 2020	412
FY 2021	387

Note: Fiscal year designation refers to the calendar year in which the school year ended (e.g., FY 1978 refers to the 1977–1978 school year).
 Source: FY 1978-2019 data from spreadsheet supplied by Unalaska City School District, July 2019; FY 2020-2021 data from Alaska Department of Education & Early Development <https://education.alaska.gov/data-center/> accessed 1/3/2022.

One aspect of link between fisheries related activities and school population can be seen through a categorization of the employment, by sector, of parents of Unalaska schoolchildren as ascertained by the Unalaska School District for the 2000, 2002, 2004, and 2006 school years and shown in Table 18; similar information for 2019 is shown in Table 19.¹⁹ Information shown is for the parent designated as the “primary wage earner.”²⁰ As shown, the largest single sector for the primary wage earners has varied from year to year, but it is important to note that “fish processing” and “fishing support” when added together accounted for a large percentage each year, which is a very different situation than seen in other communities in the region, including Akutan. According to school staff, the assignment of individual employers/entities to the various categories (especially the “fishing support” category) is not exact (it is a judgment call made by the school administrator) but it does give an indication of the relative strength of ties of the different sectors to the school population.

Table 18. Parent Employment by Sector, Unalaska City School District Enrollment: Fiscal Years 2000, 2002, 2004, and 2006

Parent Employment Sector	2000		2002		2004		2006	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Fish Processing	62	17.7%	77	21.0%	96	25.3%	80	20.1%
Fishing Support	63	18.0%	55	15.0%	52	13.7%	78	19.6%
Retail/Restaurant/Services	58	16.5%	61	16.7%	73	19.3%	76	19.1%
Unemployed/Self-Employed	12	3.4%	14	3.8%	20	5.3%	22	5.5%
Government/Public	101	28.8%	123	33.6%	90	23.8%	102	25.6%
Transportation/Freight	55	15.7%	36	9.8%	48	12.7%	40	10.1%
Total	351	100.0%	366	100.0%	379	100.0%	398	100.0%

Source: Unalaska City School District Spreadsheet, May 2008.

Table 19. Parent Employment by Sector, Unalaska City School District Enrollment: Fiscal Year 2019

Parent Employment Sector	2019 (all students)		2019 (new students)	
	Number	Percent	Number	Percent
Fishing (includes fish processing)	86	18.1%	15	41.7%
Fishing Support	57	12.0%	3	8.3%
Transportation (includes fisheries related shipping)	60	12.6%	3	8.3%
Retail/Support Services	90	18.9%	2	5.6%
Government (includes Ounalashka Corp)	78	16.4%	2	5.6%
Health	15	3.2%	3	8.3%
Non-Profits	10	2.1%	1	2.8%
Construction	4	0.8%	0	0.0%
Homemaker, Retired, Unemployed	76	16.0%	7	19.4%
Total	476	100.0%	36	100.0%

Source: Unalaska City School District Spreadsheet, June 2019.

¹⁹ According to school staff, these studies are not carried out on a regularly scheduled basis, rather, they are undertaken only in response to specific requests by the city to do so.

²⁰ The school did track employment for both parents for the 2004 school year but has not done so for other years.

3.2.4 Housing Types and Population Segments

Another reflection of the diversity of the community and the distribution of different subpopulations within the community may be seen in the population differentiation by housing type. Group housing in the community is almost exclusively associated with the seafood processing workforce. As shown in Table 20, decennial census data from 1990-2020 indicates that roughly 48 to 61 percent of the community’s total population lived in group quarters in those census years.

Table 20. Group Quarters Housing Information, Unalaska, 1990, 2000, 2010, and 2020

Year	Total Population	Group Quarters Population		Non-Group Quarters Population	
		Number	Percent of Total Population	Number	Percent of Total Population
1990	3,089	1,614	52.3%	1,475	47.8%
2000	4,283	2,192	51.2%	2,091	48.8%
2010	4,376	2,099	48.0%	2,277	52.0%
2020	4,254	2,577	60.6%	1,677	39.4%

Source: U.S. Census Bureau 1990, 2000, 2010, and 2020.

The population residing in group housing in the community is demographically quite different from the population of the community in non-group housing. Table 21 provides information on group housing and ethnicity for Unalaska for 1990; Table 22 and Table 23 provide similar information for 2000 and 2010, respectively.²¹ As shown, among group quarters residents, the percent of minority population has been increasing over the years. In 1990, over half of residents in group quarter housing identified as White; in 2000 and 2010 residents in group quarters identifying as Asian constituted the largest group within a plurality where no individual census category represented a majority of the population. In non-group quarters housing, the percentage of residents identifying as Alaska Native/American Indian progressively declined (as did the percentage of residents identifying as White, which was below 50 percent in 2010), while the percentage of residents identifying as Asian progressively increased. In general, in 2010 Unalaska was substantially more demographically diverse than it was in 1990, with the group quarters population that is largely associated with seafood processing workers being a major driver of this change.

²¹ Comparable information is not available for the 2020 decennial census.

Table 21. Ethnicity and Group Quarters Housing Information, Unalaska, 1990

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	1,917	62.1%	870	53.9%	1,047	71.0%
Black or African American	63	2.0%	55	3.4%	8	0.5%
American Indian, Eskimo, Aleut	259	8.4%	20	1.2%	239	16.2%
Asian or Pacific Islander	593	19.2%	434	26.9%	159	10.8%
Other race	257	8.3%	235	14.6%	22	1.5%
Total Population	3,089	100.0%	1,614	100.0%	1,475	100.0%
Hispanic*	394	12.8%	337	20.9%	57	3.9%
Total Minority Population	1,252	40.5%	795	49.3%	457	31.0%
Total Non-Minority Population	1,837	59.5%	819	50.7%	1,018	69.0%

**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: U.S. Census Bureau 1990.

Table 22. Ethnicity and Group Quarters Housing Information, Unalaska, 2000

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	1,893	44.2%	665	30.3%	1,228	58.7%
Black or African American	157	3.7%	146	6.7%	11	0.5%
Alaska Native/Native American	330	7.7%	62	2.8%	268	12.8%
Native Hawaiian/Other Pacific Islander	24	0.6%	22	1.0%	2	0.1%
Asian	1,312	30.6%	931	42.5%	381	18.2%
Some Other Race	399	9.3%	318	14.5%	81	3.9%
Two Or More Races	168	3.9%	48	2.2%	120	5.7%
Unknown	0	0.0%	0	0.0%	0	0.0%
Total	4,283	100.0%	2,192	100.0%	2,091	100.0%
Hispanic*	551	12.9%	372	17.0%	179	8.6%
Total Minority Population	2,503	58.4%	1,568	71.5%	935	44.7%
Total Non-Minority Population	1,780	41.6%	624	28.5%	1,156	55.3%

**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: U.S. Census Bureau 2000.

Table 23. Ethnicity and Group Quarters Housing Information, Unalaska, 2010

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	1,715	39.2%	617	29.4%	1,098	48.2%
Black or African American	300	6.9%	265	12.6%	35	1.5%
Alaska Native/Native American	268	6.1%	32	1.5%	236	10.4%
Native Hawaiian/Other Pacific Islander	96	2.2%	73	3.5%	23	1.0%
Asian	1,428	32.6%	791	37.7%	637	28.0%
Some Other Race	324	7.4%	236	11.2%	88	3.9%
Two Or More Races	245	5.6%	85	4.0%	160	7.0%
Unknown	0	0.0%	0	0.0%	0	0.0%
Total	4,376	100.0%	2,099	100.0%	2,277	100.0%
Hispanic*	666	15.2%	454	21.6%	212	9.3%
Total Minority Population	2,903	66.3%	1,640	78.1%	1,263	55.5%
Total Non-Minority Population	1,473	33.7%	459	21.9%	1,014	44.5%

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: U.S. Census Bureau 2010.

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 worksites or, in a lesser number of cases, in single dwellings or duplexes leased by employers. This pattern has changed somewhat over the years with the construction of multiunit complexes not associated with employers providing housing for their employees. It is still the case, however, that seafood company processing workers tend to live in housing at the worksite and longer-term employees at the shoreplants tend to live in company housing adjacent to worksites. One seafood processor, however, owns multifamily dwellings in what is otherwise primarily a single-family residential area, so its workforce tends to be differently distributed geographically than other processor workforces.

In addition to seafood firms, multiple other firms provide or subsidize housing for employees in Unalaska both adjacent to and separate from their worksite locations, although interviews would suggest 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 there being more housing available in the community, 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, and the fact that support sector businesses are using many fewer seasonal employees than in the past, which is attributed, at least in part, to the rationalization of the major fisheries upon which much of the community economy depends.

Table 24 displays basic information on community housing, households, families, and median household and family income for Unalaska in 2000, 2010, and 2020. Increases seen in the number of both total housing units and vacant housing units is consistent with anecdotal evidence regarding market demand softening.

Table 24. Selected Household Information, Unalaska, 2000, 2010, and 2020

Year	Total Housing Units	Vacant Housing Units	Total Households	Average Persons per Household	Median Household Income	Family Households	Average Family Size	Median Family Income
2000	988	155	834	2.55	\$69,539	492	3.3	\$80,829
2010	1,106	179	927	2.46	\$80,625	533	3.2	\$95,000
2020	1,319	212	1,107	3.44	\$90,938	662	4.2	\$98,000

Source: U.S. Census Bureau 2000, 2010, and 2020.

3.3 LOCAL ECONOMY AND LINKS TO COMMERCIAL FISHERIES

In the late 1970s and early 1980s Unalaska experienced an economic boom in the king crab fishery that resulted in a dramatic increase in both the volume and value of landings and the number of processors in town. In the mid-1970s there were from 90 to 100 commercial vessels regularly fishing the Bering Sea. By 1979 the number had risen to between 250 and 280, an increase so dramatic that it was difficult for skippers to find crew members. The king crab fishery subsequently experienced a bust and fishermen and processors alike diversified their businesses. One of the avenues of diversification was the pollock fishery, which proved an economic mainstay for the community in subsequent years. While vessels owned and operated by community residents are comparatively few and of a relatively small scale, local processing plants are large and receive landings from vessels from elsewhere in Alaska and from the Pacific Northwest (and at least a few from farther afield). Economic activity in the community is cyclic, with busy periods coinciding with major fishery openings and closings.

Table 25 shows the volume and value of fish landed at Unalaska over the period 1977 through 2020. This span encompasses the high years of the king crab fishery in the late 1970s and the growth of the pollock fishery thereafter, along with many other fisheries changes over the years. Average value per pound is an artificial figure in that it combines 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 was ranked as the number one U.S. port in volume of landings from 1992 through 2019 and ranked first in value of landings from 1988 through 1999.²² In 2000, Unalaska dropped to second in value of landings behind New Bedford, Massachusetts, which has remained the highest value of landings ports since then; Naknek, Alaska displaced Unalaska as the second highest value of landings port 2018-2020.

²² If ports in U.S. territories are included, Unalaska/Dutch Harbor ranks second behind Pago Pago in American Samoa for value of landings 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), for example, more than doubled Unalaska/Dutch Harbor's total for that same year (WPRFMC 1999).

Table 25. Volume and Value of Fish Landed at Unalaska, 1977- 2020

Year	Volume		Ex-Vessel Value		Average Value (\$/lb.)*
	Millions of Pounds	U.S. Ranking	Millions of Dollars	U.S. 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
2001	834.5	1	129.4	2	0.15
2002	908.1	1	136.1	2	0.15
2003	908.7	1	156.9	2	0.17
2004	886.8	1	167.4	2	0.19
2005	887.6	1	166.1	2	0.19
2006	911.3	1	165.2	2	0.18
2007	777.1	1	174.1	2	0.22
2008	612.7	1	195.0	2	0.32
2009	506.3	1	159.7	2	0.32
2010	515.2	1	163.1	2	0.32
2011	705.7	1	246.8	2	0.35
2012	751.5	1	214.2	2	0.29
2013	752.5	1	197.2	2	0.26
2014	761.8	1	191.4	2	0.25
2015	787.4	1	218.2	2	0.28
2016	770.0	1	198.0	2	0.26
2017	768.7	1	173.0	2	0.23
2018	763.0	1	181.9	3	0.24
2019	763.0	1	190.3	3	0.25
2020	800.2	2	186.7	3	0.23

*Average value derived from volume and value data.

Source: 1977–1979 data from NMFS data as cited in IAI 1991; 1980–1996 data from NMFS data cited in City of Unalaska FY 97 Annual Report (December 1997); 1997–2006 data via personal communication from NMFS Fisheries Statistics and Economics Division, Silver Spring, MD (accessed 5/28/08; 10/6/10 through NMFS Website <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>); 2010–2020 data from NOAA Fisheries Top US Ports (accessed 1/3/22 at <https://foss.nmfs.noaa.gov/apexfoss/>).

The commercial fishery/seafood industry provides a large component of the employment base in Unalaska. In the past, the City of Unalaska would report the top ten employers in the community, but changes in federal law subsequently precluded that practice. In 2009, the last year for which data are available, UniSea, Westward, and Alyeska seafood processors were the top three employers in the community; the City of Unalaska and the Unalaska City School District were ranked as the fourth and seventh largest employers, respectively; and two stevedoring companies (Pacific Stevedoring and Dutch Harbor Services), a shipping company (American President Lines), and a fuel provider (North Pacific Fuel), all of which are largely if not nearly exclusively reliant on fisheries related customers for their Unalaska operations, were ranked fifth, ninth, sixth, and tenth respectively. The remaining top ten employer, a general store (Safeway/Eagle Quality Center) has a more diversified customer base than the shipping and fuel supply related firms in the top ten, but nonetheless derives a substantial amount of their revenue from fishing related customers, according to interviews with senior store management.

Beyond employment, fishing and fishing support define a substantial portion of the identity of the community, and fishing-related issues extend into many other areas of community life. An example of the engagement of the community with the direct and fisheries support sectors and vice versa may be seen in the individuals who have filled city council and mayoral positions in recent years, several of whom have been current or former fishermen or current or former employees of processing firms or support service businesses heavily reliant on the fishing industry.

Table 26 provides summary data on employment and poverty from the four decennial censuses 1990-2020. As shown, there was almost no unemployment in 1990 and relatively little in 2010 and 2020, but over 11 percent unemployment in 2000. These numbers should be treated with some caution, however, as it may well be that persons counted as unemployed included seafood processing workers temporarily idled between seasons. While this unemployment may have been “real” in the sense that processing workers were present and not actively working when the census was taken, it is most likely an artifact of the timing of the census as processing workers are not typically present in the community when the plant where they work is idle for an extended period. That is, under normal conditions, there are no unemployed seafood processing workers present in the community (by design). These workers are transported to and from the community by their employer to meet labor demand at the plant. As part of the employment agreement, seafood processors typically provide room and board for workers, so it is uneconomic to have idled workers at the site unless the plant downtime is relatively brief (i.e., the cost of housing and feeding the employees during the idle interval does not exceed transportation, recruiting, training, and other costs associated with sending workers out and bringing them back in, including some level of turnover that always occurs in these situations). This pattern has changed somewhat in recent years as at least some seafood processing employees choose to remain on-site during slack periods, according to processing company staff. These individuals enjoy the benefits of living in company housing, and the company enjoys the benefit of having an on-call labor pool available for intermittent small processing runs and a reduction of transportation expenses and logistical challenges involved in bringing people in at the start of a new season.

Table 26. Unemployment and Poverty Information, Unalaska, 1990, 2000, 2010, and 2020

Year	Total Persons Employed	Unemployed	Not Seeking Employment	Percent Unemployment	Percent Adults Not Working	Percent Poverty
1990	2,518	26	186	1.0%	7.8%	15.3%
2000	2,675	414	625	11.1%	27.9%	12.5%
2010	3,938	87	111	2.1%	4.8%	11.5%
2020	3,260	144	578	4.2%	18.0%	5.5%

Source: U.S. Census Bureau 1990, 2000, 2010, 2020.

Unalaska is not a CDQ community. The community met three of the four of the initial qualifying criteria for participation in the CDQ program (it is located within 50 miles of the Bering Sea coast, recognized as an Alaska Native village under the Alaska Native Claims Settlement Act (ANCSCA), and consisted of residents for whom greater than 50 percent of their commercial and subsistence fishing was conducted in the Bering Sea). However, it did not meet the fourth criterion that states “the community must not have previously developed harvesting and processing capability sufficient to support substantial groundfish fisheries participation in the BSAI, except if the community can show that benefits from an approved community development plan (CDP) would be the only way to realize a return from previous investments.”

Unalaska is, however, an ex-officio member of the Aleutian Pribilof Island Community Development Association (APICDA) CDQ group and Unalaska residents are eligible to participate in several APICDA programs.²³ The community also benefits from local economic activity generated by catcher/processors operating in the Bering Sea that are owned in part by APICDA Joint Ventures, a wholly-owned for-profit subsidiary of APICDA formed in 1994.

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.

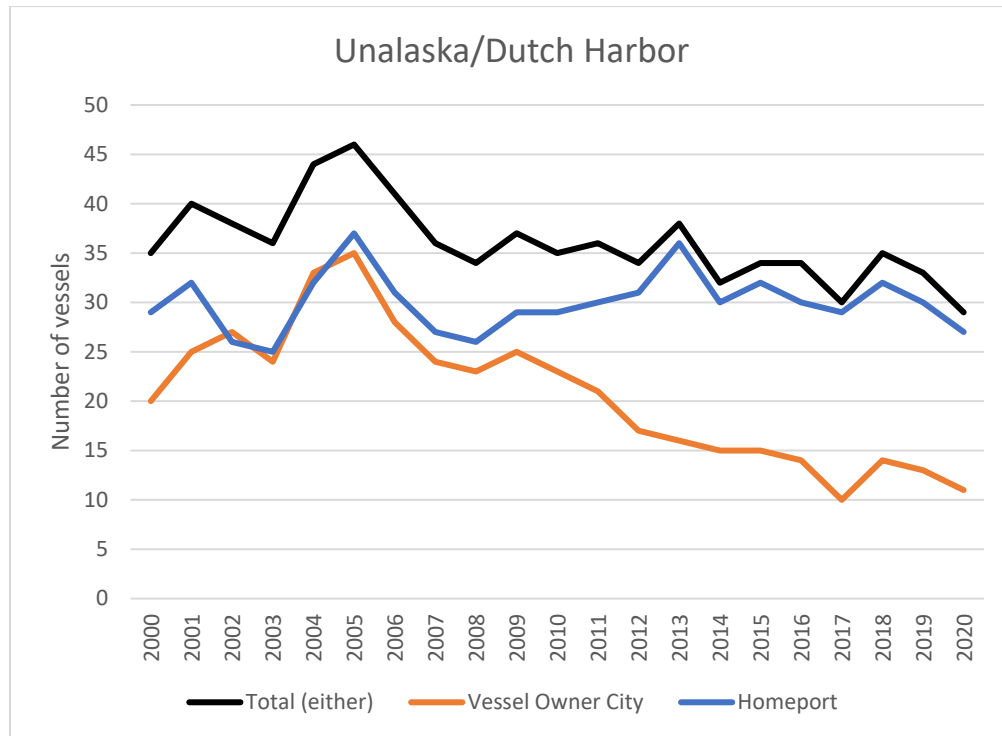
3.3.1 Harvesting

3.3.1.1 Community Harvester Quantitative Description

Figure 8 displays the total number of vessels with vessel ownership address (“Vessel Owner City”) or homeport in Unalaska/Dutch Harbor from 2000-2019. The number of vessels homeported in Unalaska/Dutch Harbor has stayed relatively constant since 2008 while the number of vessels listed Unalaska/Dutch Harbor as an ownership address has steadily declined since 2005.

²³ Although Alaska Native residents are a relatively small proportion of the total population of Unalaska, Unalaska has more Alaska Native residents than any of the full member communities of APICDA.

Figure 8. Catcher vessels with Unalaska/Dutch Harbor ownership addresses and/or Unalaska/Dutch Harbor listed as their homeport



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

The following figures use 2019 as a base year²⁴ to compare differences more closely between those vessels homeported in Unalaska/Dutch Harbor and those with Unalaska/Dutch Harbor as the vessel owner city. Table 27 shows the number of vessels and landed value by each homeport and owner city category. Vessels homeported in Unalaska/Dutch Harbor account for a much larger portion of landed value and average value per vessel than those for which Unalaska/Dutch Harbor is their owner city. Of the 20 vessels with a homeport in Unalaska/Dutch Harbor and an owner city elsewhere, 18 are cities in Washington state and two are cities in Alaska. All three vessels with Unalaska/Dutch Harbor as their ownership city but not their homeport have homeports listed in Alaska. As shown in the table, the total value of landings for vessels with Unalaska/Dutch Harbor as both their ownership address community and their homeport is approximately 4.2 percent of the value of landings of vessels listing their homeport as Unalaska/Dutch Harbor and their ownership address community elsewhere, while the average value of landings per vessel for vessels with Unalaska/Dutch Harbor as both their ownership address community and their homeport is approximately 8.4 percent of the average value of landings per vessel for vessels listing their homeport as Unalaska/Dutch Harbor and their ownership address community elsewhere.

²⁴ Analysts chose 2019 because it is the most recent year in the time series that was not impacted by the Covid-19 pandemic.

Table 27. Number of Vessels and Value of Landings by Unalaska/Dutch Harbor Homeport and Vessel Owner City Category

Category	Vessels	Total Value of Landings	Average Value of Landings per Vessel
Total Homeport or Vessel Owner City	33	\$91,777,437	\$2,781,134
Homeport	30	\$91,266,463	\$3,042,215
Homeport and not Vessel Owner City	20	\$87,606,487	\$4,380,324
Vessel Owner City	13	\$4,170,951	\$320,842
Both Vessel Owner City and Homeport	10	\$3,659,976	\$365,998
Vessel Owner City and not Homeport	3	\$510,974	\$170,325

Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

Table 28 compares the length overall of vessels with owner city in Unalaska/Dutch Harbor and those with only a homeport not owner city. Vessels homeported but not owned in Unalaska/Dutch Harbor are consistently larger than those with local ownership addresses.

Table 28. Length Overall (in feet) of Vessels with Unalaska/Dutch Harbor Ownership Addresses Compared to Vessels with an Unalaska/Dutch Harbor Homeport but not Ownership Address

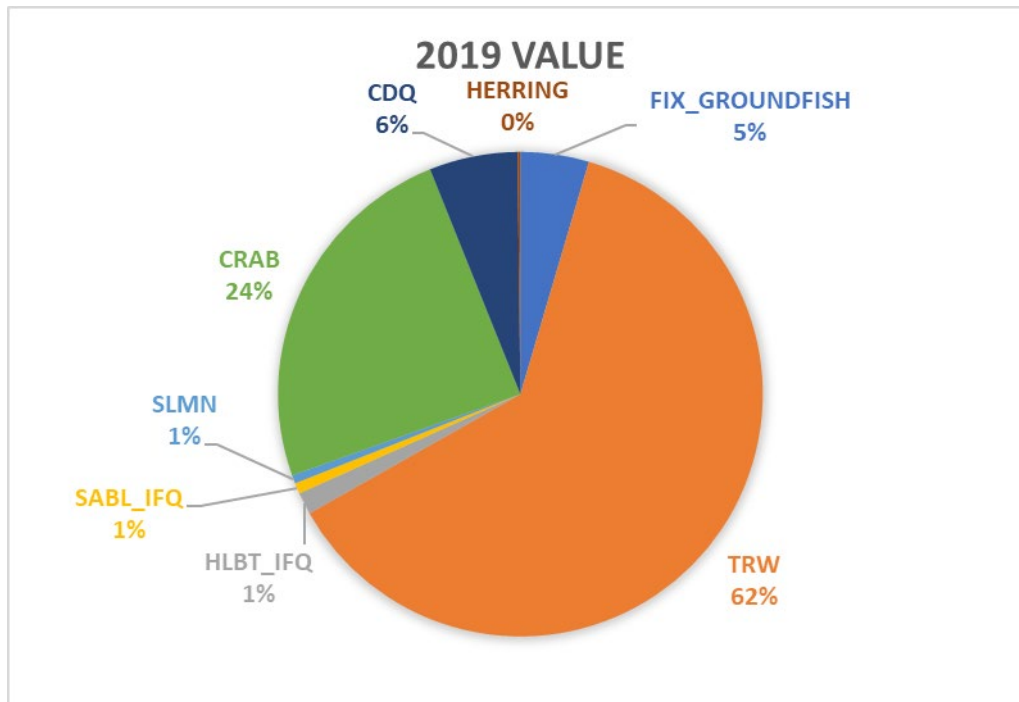
Length Overall Category	Vessels with Unalaska/Dutch Harbor Ownership Addresses	Vessels with Unalaska/Dutch Harbor Homeport but not Ownership Address
Minimum	19	32
Median	38	124.5
Mean	40.8	122.4
Maximum	58	295

Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

Landed value for vessels homeported in Unalaska/Dutch Harbor and owned elsewhere consisted mostly of trawl and crab landings (62 and 24 percent, respectively), with relatively little value deriving from IFQ halibut, fixed gear groundfish, and salmon (1, 5, and 1 percent, respectively) in 2019 (Figure 9). This general pattern of distribution has remained relatively stable throughout most of the 2000-2020 time series (Figure 10).²⁵

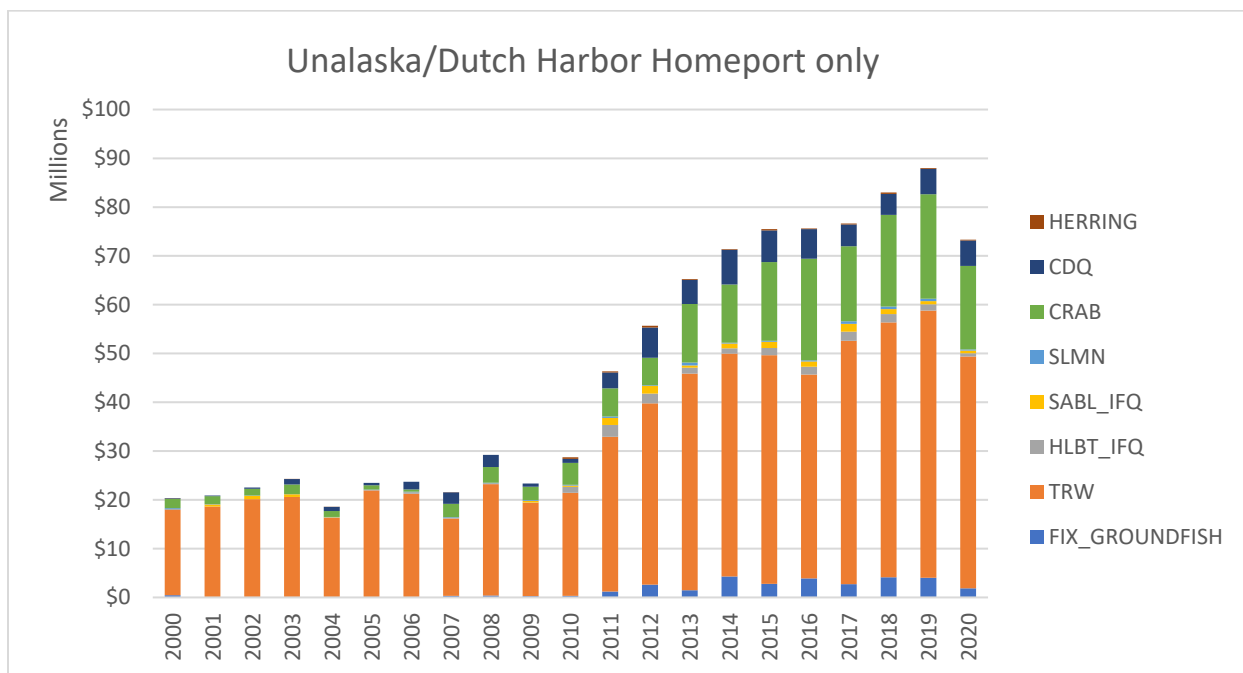
²⁵ Abbreviations used in this figure and others following but not elsewhere in the text or tables within this document include: FIX_ (fixed gear), HLBT (halibut), SABL (sablefish), SLMN (salmon), and TRW (trawl gear).

Figure 9. Landings diversity of vessels homeported in Unalaska/Dutch Harbor but owned elsewhere, 2019



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

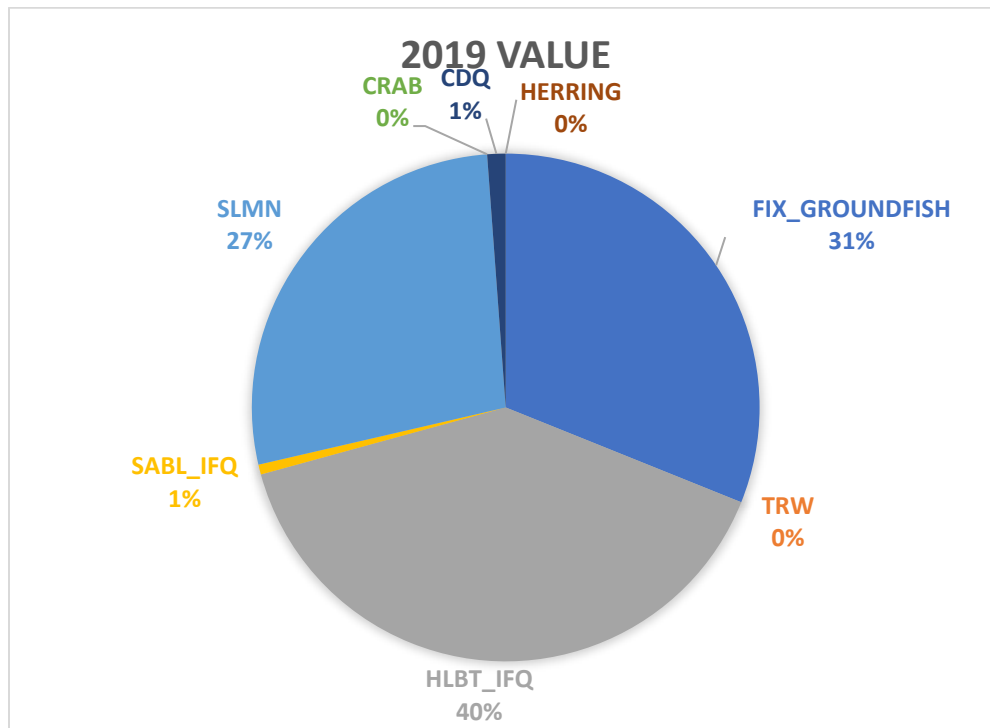
Figure 10. Landings diversity of vessels homeported in Unalaska/Dutch Harbor but owned elsewhere, 2010-2020.



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

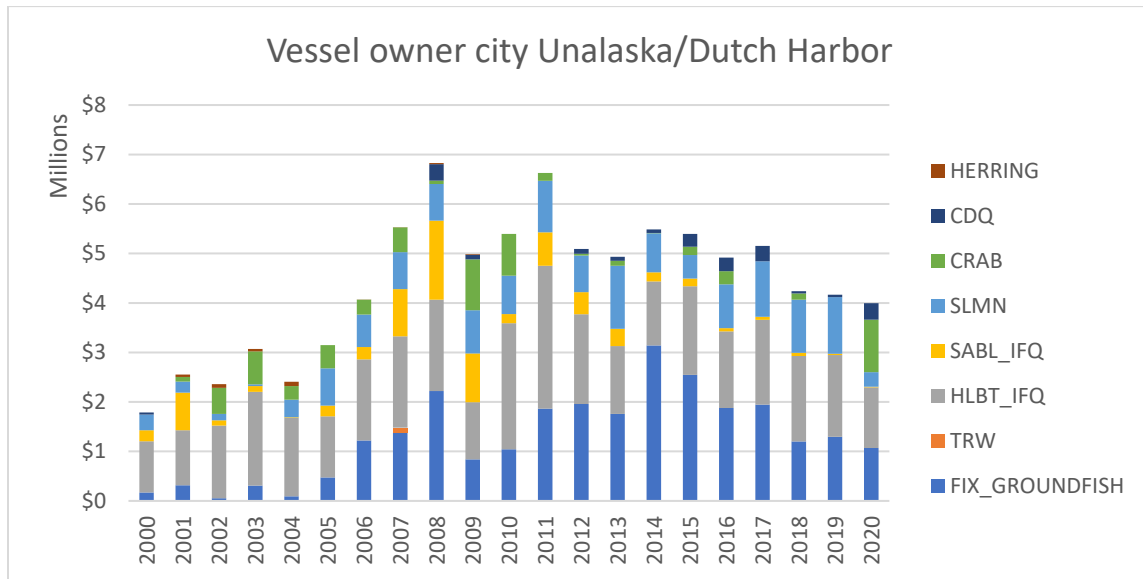
In contrast, landed value by vessels owned in Unalaska/Dutch Harbor was more evenly distributed between halibut IFQ (40 percent), fixed gear groundfish (31 percent) and salmon (27 percent) in 2019, while the value of trawl and crab landings were negligible (Figure 11). This general pattern of distribution of landings value among the fisheries has been more variable year-to-year for vessels with Unalaska/Dutch Harbor ownership addresses over the period 2000-2020 than was the case for vessels that had a homeport of Unalaska/Dutch Harbor, but ownership addresses elsewhere (Figure 12).

Figure 11. Landings diversity of vessels with Unalaska/Dutch Harbor ownership addresses, 2019



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

Figure 12. Landings diversity of vessels with Unalaska/Dutch Harbor ownership addresses, 2010-2020.



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

In terms of the distribution of effort across fisheries in 2019, among the 13 vessels with Unalaska/Dutch Harbor ownership addresses, eight vessels (62 percent of the total) made landings in only a single fishery (five made halibut IFQ landings only and three made salmon landings only), while five vessels (38 percent of the total) made landings in differing combinations of multiple fisheries, primarily including the fixed gear groundfish, halibut IFQ, and salmon fisheries, along with relatively modest landings in several other fisheries. In 2019, the ex-vessel value of landings of the five vessels with Unalaska/Dutch Harbor ownership addresses with mixed portfolios (over \$2.5 million) substantially exceeded the combined ex-vessel value of landings of the eight vessels that focused their efforts on a single fishery (with the ex-vessel value of landings of halibut IFQ only vessels and salmon only vessels each being between \$0.5 and \$1 million).

Of the 20 vessels homeported in Unalaska/Dutch Harbor but owned elsewhere in 2019, 13 vessels (65 percent of the total) made all landings in a single fishery while seven vessels (35 percent of the total) made landings in multiple fisheries.

3.3.1.2 Community Harvest Sector Characterization

Unalaska is at once both an industrial-scale fishing community and a small boat fleet town. It is home to a greater concentration of processing and catcher vessel activity than any other Alaskan community, but its residential fleet is much smaller than the fleets of some other fishing communities with much smaller populations within the same region (e.g., King Cove and Sand Point). As noted in the processing sector discussion (Section 3.3.2), most of the fish landed in Unalaska (and Akutan) both in terms of volume and value is landed by vessels from outside of

the community; this section focuses on the locally owned Unalaska fleet and is divided into small and large vessel subsections.²⁶

Small Vessel Fleet

As noted above, vessels with local ownership addresses have, to varying degrees, during the period 2000-2019 participated in the fixed gear groundfish, IFQ halibut, IFQ sablefish, salmon, and local crab fisheries on a relatively small scale. As was the case with Akutan, Pacific cod has been a major driver of local groundfish efforts. A frequently noted problem in developing markets and long-term relationships with the larger processing entities in the community, however, is that the locally based fleet consists of vessels that are small 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. These factors make it more challenging for larger plants to accommodate what are, by necessity, relatively small and (in most cases) sporadic deliveries. According to 2019 fishermen interview information, the large local plants were looking for different things from the local small vessel fleet. For example, while all three large plants bought cod from the local fleet, only Westward was buying halibut, while UniSea was also taking black cod, so an individual may experience limited markets even in a multi-processor town. One of the other challenges of being a small boat fisherman in Unalaska noted in 2019 interviews was the fact that there is no small boat haul-out available in the community.

According to multiple interviews in recent years, the number of Unalaska/Dutch Harbor residents focused on commercial fishing for their exclusive or even primary source of income remains very small. Other Unalaska residents engaged in commercial fishing do so as a supplement to other primary income-producing employment. Commercial fishing for small boat owners in Unalaska is generally one part of a (variable) multiple-income source strategy of “piecing together a living.” In the words of one long-time local vessel owner interviewed for a previous analysis, “you could do it [support a family off of local commercial fishing] when I was young, but if I had to support a family now, I would have to be a longshoreman.”²⁷

Large Vessel Fleet

The large vessels from outside of the community that are associated with the individual shoreplants in Unalaska are discussed in the processor section. Ownership patterns of the large catcher vessels have been changing in recent years, and this is making the local versus outside fleet dynamic somewhat more complex. This is more obvious within the groundfish fishery (and the pollock fishery specifically) than it is within the crab fishery. As detailed in the crab rationalization program reviews, there has been no direct participation in the rationalized BSAI crab fisheries by vessels with Unalaska/Dutch Harbor ownership addresses since the rationalization program was implanted. Locally owned vessels also do not participate in the pollock fishery, which is a dominant local fishery in terms of local processing and revenues

²⁶ In addition to the commercial fleet, Unalaska does have a small charter boat fishery. In 2019, this sector had two active vessels as described in Section 3.3.3.

²⁷ Interestingly, of the local vessel owners interviewed for this community profile update, several were in fact longshoremen who find that occupation compatible with being part-time fishermen.

generated for the community. Within the pollock fishery, one of the trends over the years has been an increase in ownership and/or control (through third-party entities with some type of business relationship to the processors) of pollock harvest vessels by some of the firms that operate shoreplants in Unalaska.

3.3.1.3 Local Fisheries Association, Quota Holders, Permit Holders, and Crew Members

The local small vessel fleet, among them vessels ranging from 18 to 68 feet in length, is represented by the Unalaska Native Fisherman’s Association (UNFA). While UNFA, according to tribal leadership, has a close working relationship with the Qawalangin Tribe of Unalaska, membership in UNFA is not limited to those residents of Alaska Native descent. There is, however, a requirement that members must live in the community eight months per year and the association does maintain a majority of Alaska Native board members to retain access to existing funding sources. Active membership in UNFA varies widely from year to year based on current fishery issues. With the financial support of APICDA that includes underwriting travel expenses, UNFA represents the interests of Unalaska small boat fishermen before the North Pacific Fishery Management Council by sending local representatives to attend relevant meetings.

While the Qawalangin Tribe of Unalaska works closely with UNFA, it is not otherwise directly involved in commercial fishing. The Tribe does, however, have a fisheries program that focuses on multiple dimensions of local subsistence fisheries.²⁸ Subsistence fishing related skills are also a part of Camp Qungaayux, a week-long Unangan culture camp held every summer, that was created to preserve the Unangan ways of being by handing down Unangan knowledge and wisdom to the younger generations of Unalaska.²⁹ Camp Qungaayux, which means “humpy,” accepts students (of any cultural background) entering 4th through 12th grade, includes salmon preparation in its curriculum.

Unalaska/Dutch Harbor (like Akutan) is in IPHC Area 4A, which has no CDQ reserve. All IFQ halibut quota shares held in Unalaska/Dutch Harbor are held by individuals, with the holdings varying more widely across IPHC regulatory areas than is typical in other communities. Based on data compiled by AKFIN, in 2019, 12 individuals with Unalaska/Dutch Harbor addresses held Area 4A shares exclusively; two held Area 4A and 4B shares; one held Area 4A and 4E shares; one held Area 4A, 4C, and 4D shares; two hold Area 4B shares exclusively; one held Area 4A and 3A shares; and one held Area 4A and 3B shares. Together, these 20 individuals held 2,693,016 quota share units, which resulted in 293,228 IFQ pounds in 2019.

Among the now-rationalized BSAI crab fisheries (not all of which have been open in recent years), two individuals listed as Unalaska residents in the dataset qualified for initial catcher vessel owner quota share allocations in each of the Bristol Bay red king crab, the Bering Tanner East, the Bering Tanner West, and the Pribilof blue and red king crab fisheries. One of these two individuals also qualified for an initial catcher vessel owner quota share allocation in each of the Bering Sea snow crab and the St. Matthew blue king crab fisheries. Of these two individuals who received initial catcher vessel owner quota shares, one is an individual who was (and, indeed,

²⁸ <https://www.qawalangin.com/fisheries> accessed 2/1/2023

²⁹ <https://www.qawalangin.com/camp-q> accessed 2/1/2023.

still is) considered by community members to be a local resident. The other individual, according to knowledgeable local sources, is also considered a local resident, at least on a part-time basis, as this individual reportedly has a history of property ownership in Unalaska but spends a significant portion of the year residing elsewhere.

According to the BSAI crab rationalization database, only two individuals listed as Unalaska residents in the database qualified for initial allocation of catcher vessel crew quota shares. One of these two individuals is also one of the two individuals in Unalaska who received catcher vessel owner shares under the program. This individual holds catcher vessel crew shares in the Bristol Bay red king crab, the Bering Sea snow crab, the Bering Tanner East, the Bering Tanner West, and the Pribilof blue and red king crab fisheries, all the same fisheries for which he qualified for catcher vessel owner share allocation (except this individual also qualified for St. Matthew blue king crab fishery catcher vessel owner quota, but not for catcher vessel crew quota). This individual, according to knowledgeable local sources, is considered a local resident, at least on a part-time basis, as he reportedly has a history of property ownership in Unalaska but spends a significant portion of the year residing elsewhere.

The second individual with an Unalaska address receiving initial catcher vessel crew quota share received allocations in the Bering Tanner East and Bering Tanner West fisheries under an Unalaska address but received initial allocations for the Bristol Bay red king crab, the Bering Sea snow crab, and the St. Matthew blue king crab fisheries under a Seattle address. According to an informed local source in Unalaska, this individual was not known to have actually lived in Unalaska except during the fishing season and has since passed away. After the 2007/2008 season, no catcher vessel crew quota shares are shown in the dataset under this individual's name nor do any additional catcher vessel crew shares show up under any other individual's name associated with an Unalaska address, presumably meaning the shares formerly held by this individual have passed to ownership outside of Unalaska.

Communities also directly benefit from the commercial harvest sector through participation of residents as crew members as well as the through the engagement of vessel owners and permit holders. The Alaska Fisheries Science Center (AFSC) produces estimates of crew members by community, based on the number of permit holders in the community, plus the community residents who have applied for a crew member license with the Alaska Department of Fish and Game (ADF&G). Table 29 provides counts of crew license holders for Unalaska for the years 2000 through 2019.

Table 29. Estimated Number of Permit Holders and Crew Members from Unalaska/Dutch Harbor 2000-2019

Year	Permit Holders	Crew Members
2000	54	197
2001	57	193
2002	58	197
2003	57	220
2004	62	228
2005	63	212
2006	50	206
2007	54	197
2008	40	198
2009	42	236
2010	42	181
2011	39	183
2012	38	185
2013	36	173
2014	35	155
2015	37	171
2016	37	168
2017	29	105
2018	26	86
2019	29	86

Source: AFSC Community Profiles, data compiled by AKFIN

3.3.1.4 Sport Charter Vessel Sector

The local sport charter fishing sector became established and experienced a surge in popularity in the mid-1990s when world record sport halibut were caught locally in 1995 and 1996, with the latter fish weighing in at 459 pounds.³⁰ According to earlier interviews with sector participants, in the mid-2000s there were still five local charter businesses, of which three were characterized as proactive business operations and two others that were characterized as less continuously active or more opportunistic participants. According to interviews in 2019, there were only two charter vessels available for hire left in the community. None of the sportfishing charter operations in Unalaska, even in the busy years, were full-time businesses or the primary source of income for their operators given the very short season, with business being characterized as “dead” before mid-June, busy during July, and fair during August before dropping off completely in mid-September.

³⁰ Still the current International Game Fishing Association all tackle world record for Pacific halibut (<https://igfa.org/member-services/world-record/common-name/Halibut.%20Pacific>), a mount of this fish is displayed in a prominent location in the Ted Stevens Anchorage International Airport.

3.3.2 Processing

3.3.2.1 Community Processor Quantitative Description

Due to confidentiality requirements, landings information for Akutan alone cannot be disclosed so that information is grouped in this section with analogous information for Unalaska/Dutch Harbor. As shown in Table 30 Akutan has had only one processor operating in the community over the years 2000-2020, while Unalaska/Dutch Harbor as fluctuated between four and eight shore-based and floating processors combined operating in the community over that same period.^{31,32}

Table 30. Number of Shore-based and Floating Processors in Unalaska/Dutch Harbor and Akutan, 2000-2020

Community	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Akutan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0
Unalaska/Dutch Harbor	7	8	8	8	5	7	7	7	6	7	5	4	4	4	7	7	7	6	6	5	4	6.1
Total	8	9	9	9	6	8	8	8	7	8	6	5	5	5	8	8	8	7	7	6	5	7.1

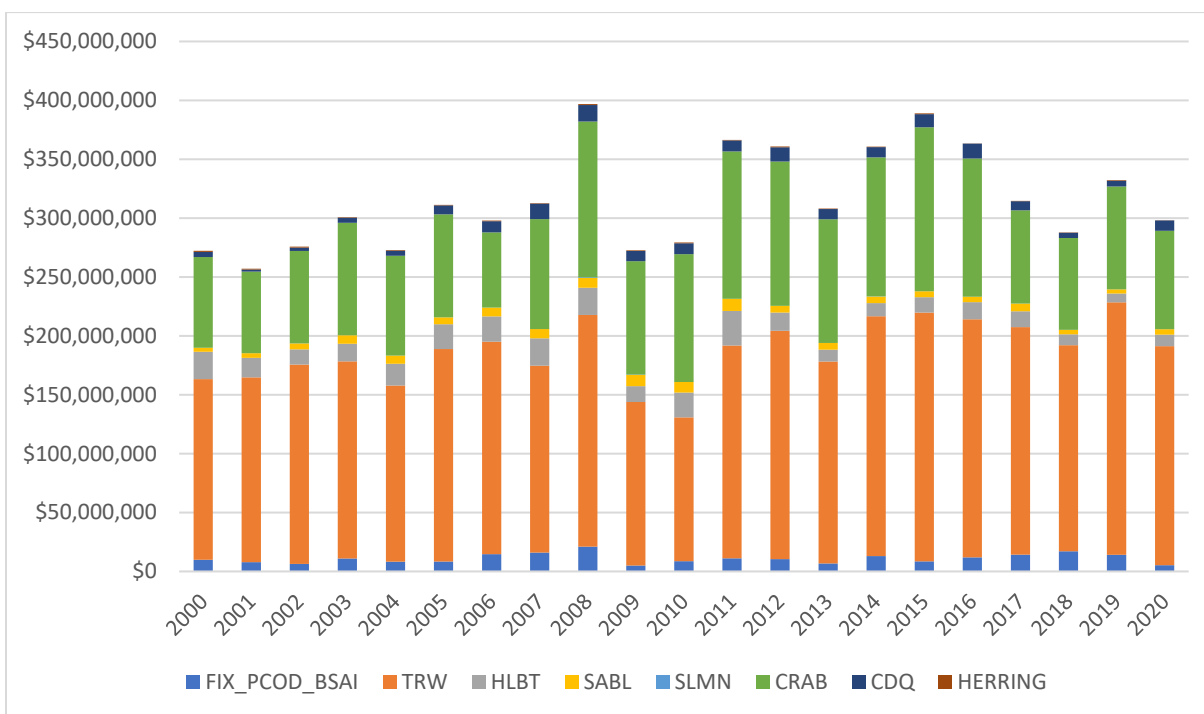
Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database

Figure 13 shows landed value by major fishery or fishery group to shore-based and floating processors in Unalaska/Dutch Harbor over the period 2000-2020. As shown, while there is considerable year-to-year variation in total value and individual fisheries value, the relative importance of the trawl and crab fisheries in all years is apparent.

³¹ In at least some years in the series shown, Akutan had both a shore-based processing plant and a floating processor operating in the community as previously described in the Akutan community profile. These two physically separate processing facilities were, however, both owned and operated by the same firm and appear to have been combined in the data used to create the table.

³² As noted in Section 2.3.2.2, in 2022, Trident Seafoods announced plans to build a “next-generation processing plant” to replace its existing facility in Akutan. According to company sources, Trident is working with third-party engineering firms to weigh the feasibility, costs, and design options for expanding its footprint in Akutan versus building a new plant on Unalaska’s Captains Bay on property it recently acquired through its subsidiary LFS. The potential Captains Bay site is shown on Figure 6 as a sand and gravel mining area, which reflects the use of the property under its previous ownership. Trident has acquired a tidelands lease for the property from the City of Unalaska and, according to company sources, is in the process of constructing a dock for any future maritime use of the property and to fulfill a condition of the tidelands lease.

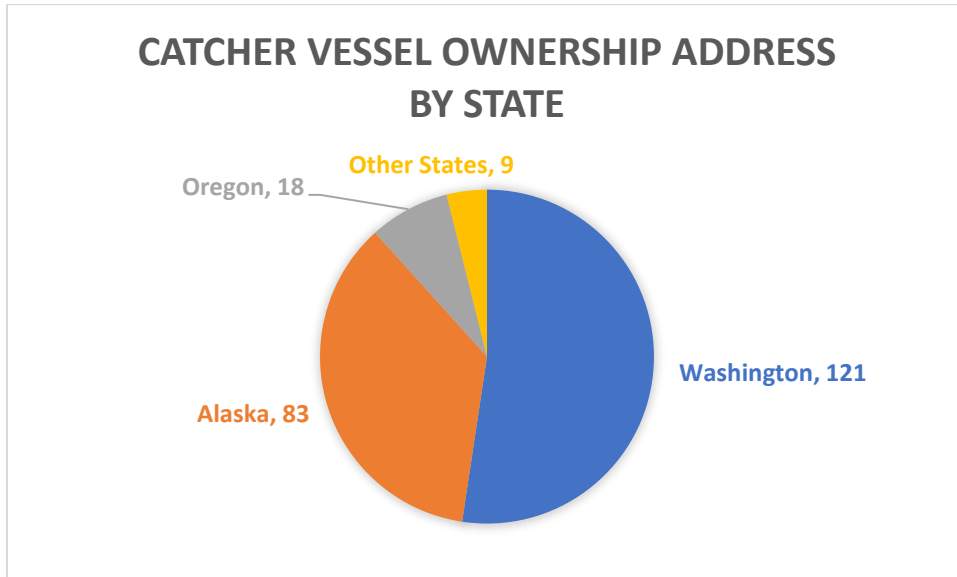
Figure 13. Landed value by fishery to shore-based or floating processors in Unalaska/Dutch Harbor and Akutan combined, 2000-2020.



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

The catcher vessels that made deliveries in 2019 to shore-based and floating processors in Unalaska/Dutch Harbor and Akutan were from several states, as shown in Figure 14. As shown in that figure, the majority (60 percent) of the catcher vessels that made deliveries in 2019 were from the Pacific Northwest, with 52 percent having ownership addresses in the state of Washington and eight percent having ownership addresses in Oregon. That same year, Alaska ownership address vessels accounted for 36 percent of the catcher vessels making deliveries to Unalaska/Dutch Harbor and Akutan shore-based and floating processors, with the balance (four percent) having ownership addresses in states other than Washington, Oregon, or Alaska.

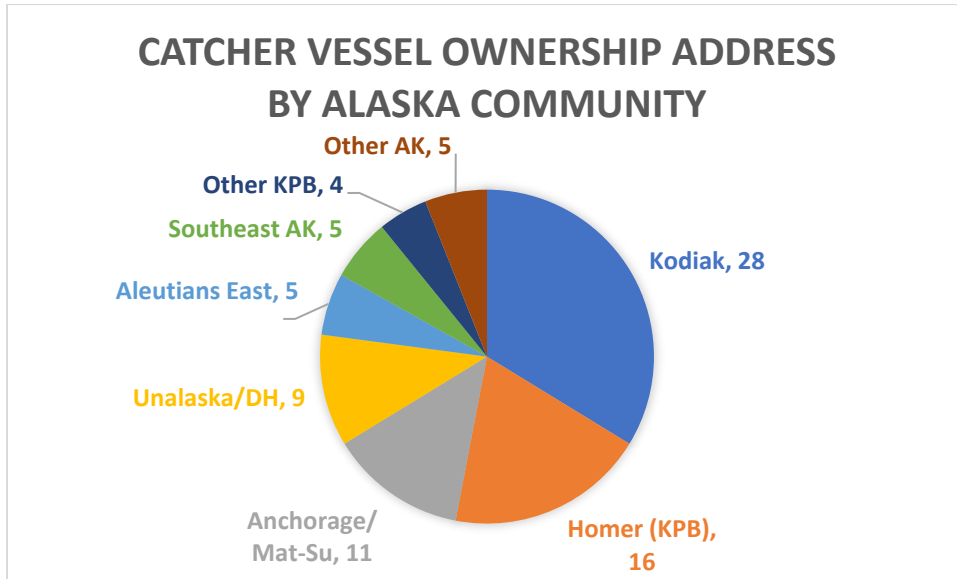
Figure 14. State of ownership address of catcher vessels (n=231) making deliveries to shore-based and floating processors in Unalaska/Dutch Harbor and Akutan, 2019



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

Figure 15 provides a break-out by community, borough, or other regional grouping of the catcher vessels with Alaska ownership addresses making deliveries to Unalaska/Dutch Harbor and Akutan shore-based or floating processors in 2019. As shown, Kodiak, together with Homer and other Kenai Peninsula Borough communities, accounted for the majority (58 percent) of Alaska ownership address vessels making deliveries that year. Unalaska/Dutch Harbor and Aleutians East Borough community vessels (including Akutan) accounted for 17 percent of the delivering vessels but, it is important to note, Unalaska/Dutch Harbor and Akutan vessels are among the smallest vessels delivering to the plants in those communities.

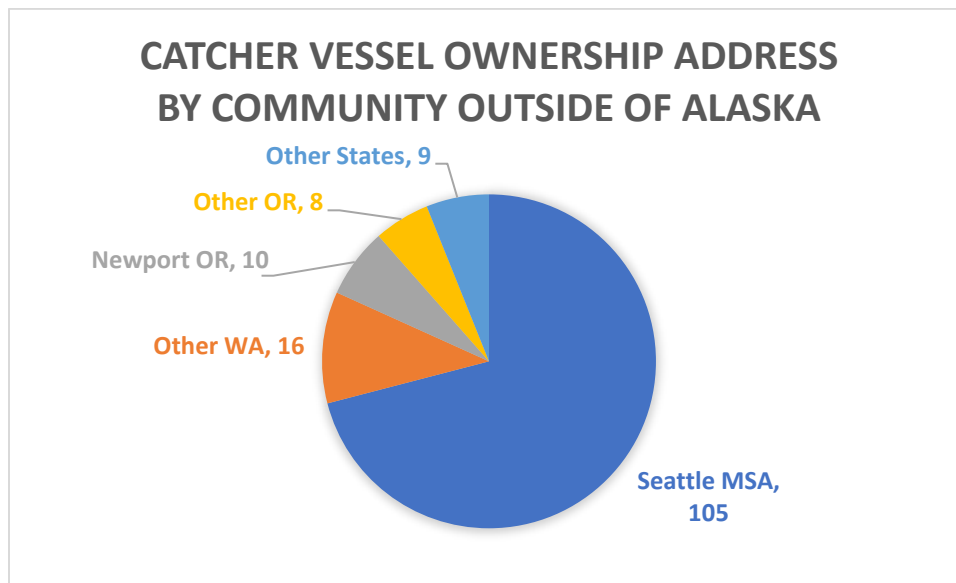
Figure 15. City of ownership of catcher vessels with Alaska ownership addresses (n=83) making deliveries to shore-based and floating processors in Unalaska/Dutch Harbor and Akutan, 2019



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

Figure 16 provides a break-out by community or community grouping for catcher vessels making deliveries to Unalaska/Dutch Harbor or Akutan shore-based or floating processors in 2019 for those vessels with ownership addresses outside of Alaska. Of note is the concentration of vessels in the Seattle Metropolitan Statistical Area within the state of Washington (87 percent), the concentration of vessels in Newport within the state Oregon (56 percent), and the overall concentration of vessels outside of Alaska within the Pacific Northwest region (94 percent).

Figure 16. City of ownership of catcher vessels with ownership addresses outside of Alaska (n=148) making deliveries to shore-based and floating processors in Unalaska/Dutch Harbor and Akutan, 2019



Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database.

Table 31 provides information like that of the previous figures but does so for the years 2000-2020. As shown, the overall patterns of vessel distribution are similar, but the decline in the overall numbers of vessels is apparent.

Table 31. Number of Catcher Vessels by Community of Ownership Address Making Deliveries to Shore-based and Floating Processors in Unalaska/Dutch Harbor and Akutan, 2000-2020

Community	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
ALASKA	114	153	114	109	112	120	92	92	102	98	103	91	83	75	81	79	82	82	81	83	86	96.8
Akutan	5	2	3	2	2	4	2	3	5	4	5	3	5	3	4	3	3	1	1	2	0	3.0
Unalaska/Dutch Harbor	11	20	22	22	27	29	21	21	20	21	17	14	13	12	11	11	10	9	11	9	9	16.2
Homer	16	32	16	15	14	20	12	16	15	16	17	17	16	15	13	19	21	20	23	16	20	17.6
Kodiak	43	52	44	39	41	39	34	29	33	26	29	23	24	19	19	17	20	27	21	28	22	30.0
WASHINGTON	191	187	179	159	164	168	130	129	128	116	118	123	120	125	123	124	126	126	109	121	119	137.4
Seattle MSA	154	157	152	142	140	142	110	106	105	97	97	102	103	107	104	106	107	109	95	105	103	116.3
OREGON	34	35	35	34	33	34	30	30	29	26	23	24	23	23	22	21	17	20	17	18	22	26.2
Newport	21	20	20	20	19	15	14	14	15	14	13	13	12	12	11	11	10	11	11	10	10	14.1
OTHER STATES	12	13	16	15	16	10	6	5	6	6	4	6	8	5	5	6	8	11	9	9	9	8.8
GRAND TOTAL	351	387	344	317	325	330	257	256	265	246	248	243	234	228	231	230	233	239	216	231	236	268.9

Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database

Table 32 provides information like that of the previous table, except the catcher vessels delivering to Unalaska/Dutch Harbor shore-based and floating processors are categorized by selected homeport rather than vessel ownership address community. Clearly evident is the fact that the large majority of vessels delivering to Unalaska/Dutch Harbor based processors are from outside of the community and many are from outside the state.

Table 32. Number of Catcher Vessels by Selected Homeport Making Deliveries to Shore-based and Floating Processors in Unalaska/Dutch Harbor and Akutan, 2000-2020

Homeport	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Akutan	2	0	2	1	1	1	0	0	1	1	2	0	1	1	2	1	2	0	0	0	0	0.86
Unalaska/Dutch Harbor	22	27	26	24	32	35	25	26	24	24	25	23	24	25	24	22	23	20	24	22	21	24.7
Homer	15	30	14	14	16	21	16	18	20	20	17	16	19	15	15	18	20	19	23	17	19	18.2
Juneau	23	27	21	16	16	13	9	13	9	11	10	12	11	12	14	13	12	11	10	10	12	13.6
Kodiak	51	52	58	54	54	57	46	48	47	41	48	45	41	35	34	30	33	45	38	44	41	44.9
Seattle MSA	146	140	128	114	113	109	88	84	86	83	78	82	79	82	78	84	80	83	67	78	78	93.3
Newport OR	12	12	13	12	12	13	12	12	12	12	11	11	11	12	12	12	11	13	11	11	12	11.9

Source: ADF&G fish ticket data compiled by AKFIN in the Comprehensive FT database

As noted below, this amount of shore-based and floating processor related catcher vessel activity has created, in combination with the activities of offshore catcher/processor vessels operating in the BSAI region, a demand for support services that has made Unalaska/Dutch Harbor the BSAI regional hub not only for processor and vessel activity, but the largest concentration of direct fisheries support service providers, by far, in the region.

3.3.2.2 Community Processing Characterization

In terms of links to the community, it is important to note that shoreplants have long been a part of the community. Among the large plants in the community, the facility now operating as Alyeska Seafoods was originally constructed by Pan Alaska Seafoods in the early 1960s, UniSea began local operations in 1975, Icicle Seafoods has been processing locally since 1987, and Westward Seafoods was locally established in 1990. That is not to say that relationships between the plants and other interests in the community have always been without strain, but in Unalaska several 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 leadership capacities with the City of Unalaska and numerous community organizations. This level of social integration sharply differentiates Unalaska from other major fishing ports in the region, including Akutan.

There still is, however, a transient underpinning to the local processing industry, with very few, if any, processing workers at the larger plants being recruited from the local residential labor pool. However, the nature of “transient-ness” has changed over the years in Unalaska. Worker stays in the community have become longer with more predictable processing labor demands, attributed in part to the rationalization of key fisheries upon which the plants depend.

Management positions at nearly all of the seafood companies (as well as with the major fisheries support sector entities in Unalaska) are occupied by individuals who, if not originally from the community, have at least become long-time residents of the community or the region. In several 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 10 to 20 years of experience in the community and the region are not uncommon.

Very few, if any, lifetime residents of the community work at the shoreplants at any given time. There are several 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, lifetime residents who have tried working at the plants have found that entry-level position work schedules, involving very long hours for extended periods during processing peaks, are not compatible with an active involvement in community and family life outside of the plant.

Current Processing Operations

Current shore-based and floating processing operations in Unalaska include three large shore-based multispecies plants (UniSea, Alyeska, and Westward) and one specialized shore-based processor that is owned and operated by a company that also owns and operates a floating processor that routinely processes in Unalaska for part of the year (Icicle). The local operations of each of these firms is briefly described below.

UniSea

UniSea has a large multispecies plant in the community (Plate 10). Like other processing enterprises, the number of workers on site varies during the year with fluctuating processing demand. In its most efficient configuration, UniSea facilities have bunks for up to 1200 employees. In 2019, UniSea had about 1,100 workers in Unalaska from January to April, including employees involved in processing, direct support, and other business functions. Hiring and staffing is a challenge and while they would prefer to hire locally, they recruit in Washington, California, Hawaii, Las Vegas and internationally depending on the availability of visas. There is concern that a majority of the experienced workforce is aging and it is becoming more challenging to find younger workers to fill positions as it is no longer common for high school and college students in the lower 48 to spend summers working in processing plants.



Plate 10. UniSea Processing Complex

Processing labor demand ramps up quickly in January initially with pot cod, followed by pollock and cod trawl plus crab fisheries opening later in the month. In 2019, there were approximately 800 processing workers on site during this time, which decreased to less than 100 processing workers after pollock processing ended in early April, with the total onsite employee count declining to between 300 and 400 individuals at this time. During the slow season in May and

June, activities focus on maintenance and fabrication as well as running halibut and black cod. Processing labor needs increase into the 420-450 persons range with another pollock opening in June. Between pollock and crab, that level of activity lasts until late September when pollock shuts down, with a step down in workers through king crab season, followed by a very slow period from late November through December. UniSea does provide idled processing workers with room and board during the slow wintertime if they choose to remain in the community for the upcoming season. During the lowest point in December there are still approximately 440 workers on site, including about 120 processors who are available to process intermittent deliveries but who also help with offseason maintenance.

As is the case with other large multi-species plants in Unalaska, labor demand at UniSea depends on the mix of product forms being produced (e.g., surimi versus fillets), with some products being more labor intensive than others. Changes in technology and an emphasis on labor efficiency have also had an impact on employment levels, such that the plant has the ability to run that same product mix with fewer employees than in the past. UniSea has multiple plants within their overall footprint, including a cod plant that opened in 2018.

UniSea's non-processing businesses in Unalaska include the Grand Aleutian hotel, a local restaurant/sports bar, and a liquor store.

Alyeska Seafoods

Alyeska has a large multispecies plant adjacent to "downtown Unalaska" portion of the community (Plate 11). The annual processing round is similar to that of the other large plants in the community. There is a core crew of 60-65 employees at the plant year-round, including maintenance personnel, dock workers, and administrative, housing, galley, and other support staff that is augmented by seasonal processing workers that are hired on a "duration of season" basis. Alyeska has housing for approximately 425 workers on site, but unlike other local processors owns offsite housing units as well, with a total of 24 two or three-bedroom housing units that include 12 townhouses in the downtown Unalaska area, a six-plex in Unalaska Valley, and three duplexes on Standard Oil Hill on Amaknak Island. According to 2019 interviews, peak labor demand has declined over the years due to multiple efficiencies gained with fisheries rationalization and increased automation in the plant, such that Alyeska has not reached their bunkhouse bed capacity limit in three years. As a result, Alyeska is in the process of converting some of their bunkhouse space into private rooms.



Plate 11. Alyeska Processing Complex

In a pattern similar to the other large, multi-species processors in the community, Alyeska has approximately 160-180 workers the first few weeks of January during the pot cod season before bringing a peak of 400 workers on-site during the mid-January through March period, when pollock, opilio, and trawl cod largely fuel operations. Activity increases again in late May to early June with 220-230 processors on site, which drops to 100-150 in September and down to around 75 by Thanksgiving. Slow periods occur between April and early June and again from November through December when plant maintenance activities occur and full-time, year-round employees at the plant rotate out on vacations.

Westward Seafoods

Westward Seafoods is a high-volume groundfish plant and a high-capacity crab plant (Plate 12) that has an annual round like that of the other large multispecies plants in Unalaska. Fixed gear cod deliveries typically start in the first week of January, crab deliveries start closer to mid-January, and pollock and trawl cod deliveries start soon after their January 20 openers, making January to mid-April the busiest time of year. In 2019 there were 529 processing employees on site during this period and 637 employees overall when maintenance, office, galley, and housing workers are included.



Plate 12. Westward Seafoods Processing Complex

Mid-April through June is the off season for pollock and trawl cod, with pollock finishing on April 9 in 2019. With increased effort in the A season trawl cod fishery, B season cod openers have been very short and are completed before the finish of pollock. After the pollock and trawl cod deliveries end, production staff is reduced to 80 processors to have one shift per day to process the last of the fixed gear Cod, as well as IFQ halibut and sablefish. The roughly 110 full-time employees also remain for a total of 190 employees in this period.

From June until the end of B season pollock in mid-September is another distinct period. In 2019, 267 processors and 370 employees total were on-site during this period. From mid-November (following the last of the red king crab and groundfish deliveries) through the end of the year Westward shuts down processing operations. During this time 110 full-time, non-processing employees remain (though some take vacation during this time), as well as roughly 15 processors who take temporary jobs in other departments.

Icicle

Icicle Seafoods operations in Unalaska in 2019 included two different processing platforms: the *Northern Victor* and the *Gordon Jensen*.³³ In October 2017, the *Northern Victor*, which previously operated as a floating processor in Unalaska Island's Beaver Inlet (outside of the Unalaska city limits) was moved into Dutch Harbor (inside Unalaska city limits) and was converted into a stationary processing facility by constructing a dock, permanently mooring the vessel, severing the connection between the engine and the propeller, and connecting to shore power (Plate 13). The *Gordon Jensen* is a floating processor that spends a part of the year processing at a mooring station in Wide Bay (a part of Unalaska Bay within Unalaska city limits).



Plate 13. Northern Victor Processing Facility

Except for a small volume of cod, the *Northern Victor* exclusively processes pollock using a processing crew of 150-170 persons and a total employee complement of approximately 220 individuals when support personnel (e.g., office, galley, laundry, maintenance) are included in the count. During the gap between the last pollock A season deliveries and the first pollock B

³³ In 2022, Icicle Seafoods sold the *Northern Victor* to Westward Seafoods and the 20-year lease agreement with the City of Unalaska for an outfall easement in the city's tidelands was assigned to Westward Seafoods.

season deliveries (i.e., from April through the start of June) approximately 50 employees are on-site. The move from Beaver Inlet to Dutch Harbor simplified logistics for supporting processing operations and operating in a more sheltered area closer to the fishing grounds also was of benefit to catcher vessels making deliveries to the facility. The move not only saved approximately eight hours of transit time coming and going to the grounds, but improved access to fuel, replacement crew members, and resupply provisions. Although a few employees who worked aboard the *Northern Victor* lived in bunkhouses ashore following the move to Dutch Harbor, almost all employees continued to live as well as work aboard the *Northern Victor* itself.

The *Gordon Jensen* typically arrives in Unalaska around January 1 and engages in processing in Wide Bay until the end of cod deliveries, which typically in mid-April at the latest. In 2019, after early cod processing in Unalaska, the *Gordon Jensen* followed the cod to Atka before returning for approximately four days of processing in Wide Bay following the short opening of trawl cod in early April. The Atka trip was unusual, and the *Gordon Jensen* would typically pursue Togiak herring in April, then be laid up until mid-June when it would process Bristol Bay red salmon, followed by Prince William Sound pink salmon before heading to Seattle where it typically stays until around Christmas when it heads back to Unalaska. While in Unalaska, the *Gordon Jensen* exclusively produces head and gut cod with a crew of approximately 190-200 persons.

Other Current Processing Related Operations

Bering Select is a processor that produces cod liver and salmon oils and provides bottling and softgel encapsulation for its products. A relatively new entrant in the Unalaska processing sector, ground was broken for the plant in August 2014 and the first oil was produced in December of that same year. Initially focused on cod liver oil, oil from salmon heads was added to production in 2018. While Bering Select is new to the community, local operations are run by an individual with 15 years of rendering experience at one of the Unalaska/Dutch Harbor's large multispecies processing plants.

In terms of an annual round, approximately 30 percent of production occurs in the January through March cod A season, with the balance occurring between July and December, with the highest oil recovery yields occurring in the month of October. A highly automated plant, Bering Select employees in Unalaska/Dutch Harbor include the manager and the quality assurance person (both are year-round employees) and two part-time employees who help with production and product handling. Cod livers are obtained from head and gut catcher/processors who freeze the livers on the vessel, while the materials used for salmon oil production are obtained from the floating processor *Gordon Jensen* (which operates seasonally in the Wide Bay portion of Unalaska Bay as described above). The *Gordon Jensen* grinds the materials on board and pumps them to a vessel that delivers that material to Unalaska/Dutch Harbor. After local processing, Bering Select works with a secondary processor in Minneapolis to produce pharmacy grade oil.

At least a few small-scale firms in the community are not processors *per se* but handle and ship seafood from Unalaska as well. The most visible of these is Aleutian Fresh Seafoods, which began operations in 1990. Aleutian Fresh buys a range of Bering Sea product from local processors, including crab, as well as from sources outside of the community (for example, shrimp from Southeast Alaska, smoked salmon from Fairbanks and Kenai, and scallops from

Yakutat) and ships primarily direct to consumers, although some shipments are made to restaurants as well. Aleutian Fresh sales are typically generated online and by word of mouth, and peak around the Thanksgiving and Christmas holidays. Locally generated orders can be delivered to customers at the airport as well as shipped direct. In addition to seafood products, Aleutian Fresh also sells a few miscellaneous seafood-related items. While for a few years in the early 2000s Aleutian Fresh had a small store at the airport with multiple employees, since then it has operated only by its owner out of its original location. Like several other entrepreneurs in Unalaska/Dutch Harbor who have built a diversified income stream across several ventures that include fisheries related enterprises (Aleutian Fresh is co-located with Mike's Fire Equipment and Western Alaska Appliances, the owner of Aleutian Fresh reported that he further diversified into the seafood businesses to make up for a decline in revenues in another of his business ventures.

3.3.3 Support Services

Unalaska is unique among Alaska coastal communities in the degree to which it provides support services for the BSAI fisheries. Detailed descriptions of key fisheries support businesses in Unalaska and their relative reliance on federally managed commercial fisheries are available in earlier community profiles³⁴ and are not recapitulated here as it is beyond the scope of the current effort. Rather, this section provides a brief overview of the range and depth of the types of support services active in the community.

The Ounalashka Corporation, the local Unalaska village Alaska Native Claims Settlement Act (ANCSA) corporation, is in a unique position with respect to functioning as a support service entity to the fishing industry. By far the largest landowner in and around the community, the corporation leases land to multiple fishery support businesses. The larger processing plants in the community, Alyeska, UniSea, and Westward, all own their own land, as these parcels were in private hands prior to the passage of ANCSA in 1971.

Other support service providers include a wide range of companies, including such diverse services as accounting and bookkeeping, banking, construction and engineering, diesel engine sales and service, electrical and electronics services, freight forwarding, marine fuel sales, gear storage, hydraulic services, logistical support, marine pilots/tugs, maritime agencies, gear 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. Plate 14, which includes the northern end of Dutch Harbor, shows the city's Spit Dock and gear storage area, a building housing multiple support services businesses, a large cold storage facility, a fuel dock,

³⁴ These include the 2005 Comprehensive Baseline Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove, and Kodiak Alaska (available at: <https://www.npfmc.org/wp-content/PDFdocuments/resources/AKCommunityProfilesVoll.pdf>) and the 2010 Five-Year Review of the Crab Rationalization Management Program for Bering Sea and Aleutian Islands Crab Fisheries, Appendix A: Social Impact Assessment.

bunkhouse facilities, private sector gear storage operations, and the *Northern Victor* processor, among other fishery-related operations and land uses.



Plate 14. Northern End of Dutch Harbor

3.3.3.1 Shoreplant Support

In general, in the way of support services, there is little direct local supply of the main shoreplants in the community. This is especially true of the large combined pollock and crab-oriented shoreplants, by far the largest plants in the community. These entities are large enough 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. Large-volume supplies, such as packaging materials and food, are commonly purchased “down south” and shipped direct. Individual processing plant workers do patronize local businesses to some extent, although this is limited by the fact that they are supplied furnished housing and meals by the processors. Nonetheless, this trade is important to some of the retail stores in the community. Historically, the smaller processing operations in Unalaska have been noted as making proportionally more local purchases of goods and services in the community than the larger operations.

3.3.3.2 Vessel Support

There are numerous businesses within a variety of subsectors in Unalaska that are oriented toward supporting catcher vessels or, to a lesser degree, catcher processor vessels for a significant amount of their business. These include such diverse enterprises as vessel grocery supply (both from general stores and specialty operations), marine supplies/hardware, hydraulics, marine electric, marine electronics, mechanical services, dive services, welding services, vessel repair services, and fuel provision, among others. Each of these categories of service providers have more than one supplier present in Unalaska, except a highly specialized marine salvage and wreck removal operation (Plate 15) that operates throughout the state.



Plate 15. Resolve Marine Unalaska Facilities

There are multiple other businesses in the community that support various aspects of fishing operations. These include such direct services as gear storage and bait sales, and less direct support services such as lodging, food and beverage services, vehicle rental businesses, and the like. These businesses all derive a substantial portion of their revenues from fishing-related activities.

3.3.3.3 Shipping

Shipping seafood products is also a major business sector in the community. In addition to two main shipping lines that move seafood products from the community (the terminal of one of which is shown in Plate 16), several other entities service different niches, including domestic coastal freighter service and tug and barge service. Unalaska has the westernmost container terminals in the state, and the community is strategically located on the Great Circle Route between northern Asia and the west coast of the United States, which is why it has become a major transshipment point. Seafood products from Bristol Bay, Akutan, and other seafood processing facilities in the region (and beyond) move by tug and barge to Unalaska where they are typically transhipped to container ships or other vessels destined for their ultimate marketplace.



Plate 16. American President Lines Terminal

3.3.3.4 Stevedoring

Another type of support service provided in the community for both the inshore and offshore fleet is stevedoring services. While some shore-based plants 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. One of the locally active stevedoring firms also manages a large cold storage facility in the community that is used primarily for processed product transfers from catcher/processors (Plate 17).

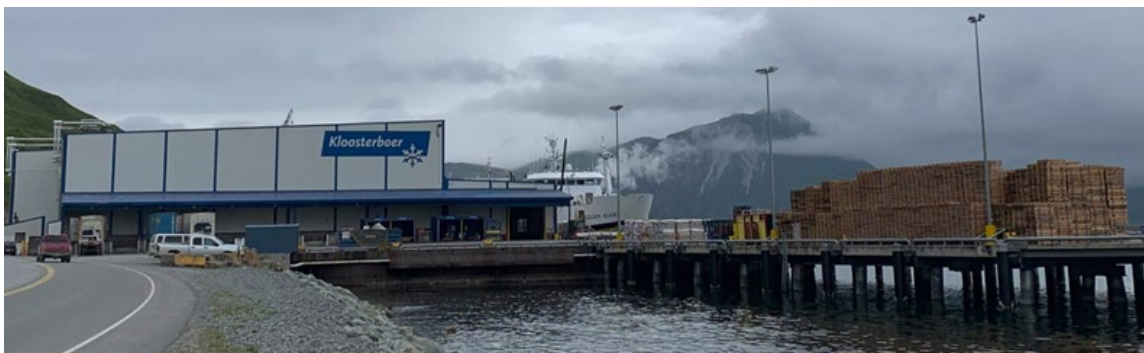


Plate 17. Cold Storage Facility

3.3.3.5 Remote Operations Support

There are also service providers in Unalaska who support inshore processing entities that are operating far outside of the community, including floating processors and shore-based processors in other communities. Offshore vessels are supported by multiple entities in the community as well. Processed product transfers are made in Unalaska, which has also served as a support base and a port for crew changes. In addition to these types of support, there is a range of businesses

in the community that handle a variety of expediting, logistical, and ship agent tasks. Though typically small in terms of the number of employees at any individual firm, these types of businesses in aggregate do provide employment for a substantial number of residents.

3.3.3.6 Support Service Business and Fishery Management Trends

In general, changes experienced by support service sector businesses in Unalaska over the last two or three decades 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 on the economic inefficiency of the commercial fishing industry under race-for-fish conditions. To the extent that the implementation of rationalization programs has made different fisheries, such as the halibut/sablefish, pollock, and crab fisheries, more efficient, it also allowed vessel and facility owners to be more efficient in their purchase of support services. In general, this has meant a decline in peak season local support service activity, employment, and revenue levels. There are no systematic data available to quantify the amount of this decline but based on time series interview data, it has clearly been significant for multiple businesses in this sector over time. Overall, peak demand is lower, the pace of business is slower, money has become at least as important a consideration as time, and businesses do not need the same level of inventory and staff as in the past, particularly at peak times. In general, direct fishery businesses in the community, as well as the municipality itself, have seen gains with rationalization, but within the support service sector impacts have been more mixed.

3.3.3.7 Other Fishery Related Demand for Services

In addition to the resident population, there are also a collection of individuals who may be thought of as a “floating population” or “additional service population” that creates demand for public safety services, such emergency medical, search and rescue, fire, and law enforcement services, as well as clinical and social services provided by the City of Unalaska, the Unalaska/Dutch Harbor Community Medical Center (run by Iliuliuk Family & Health Services, Inc.), and the Qawalangin Tribe of Unalaska, among others. These individuals are from the catcher vessels, catcher/processors, floating processors, and motherships that work in the BSAI area and may make port calls in Unalaska for services provided out of Unalaska in one form or another (e.g., potential patients for emergency medical services care). Crew transfers using Unalaska’s Tom Madsen (Dutch Harbor) airport (Plate 18) are also common. Table 33 provides an estimate of the direct fisheries harvesting and processing component of this floating population for 2019.



Plate 18. Tom Madsen (Dutch Harbor) Airport

Table 33. Estimated Number of Crew Members, BSAI Vessels, 2019

Vessel Type	Estimated Number of Vessels ¹	Average Crew Size ²	Estimated Total Number of Crew Members
Floating Processors			
Motherships	3	131.0	393
Inshore Floating Processors	2	100.0	200
Trawlers			
Catcher Vessels	101	5.0	506
Catcher/Processors - Surimi/Fillet ³	15	93.3	1,400
Catcher/Processors - Head & Gut ³	19	27.2	517
Longline			
Catcher Vessels	9	5.4	49
Catcher/Processors	22	19.7	434
Crab/Pot			
Catcher Vessels	170	5.4	910
Catcher/Processors ⁴	6	18.3	110
Jig			
Catcher Vessels	3	1.8	5
Grand Total Estimated Number of Crew Members			4,525

Notes: (1) Vessel counts include all vessels with landings in the BSAI, except for the over 200 halibut and sablefish IFQ hook-and-line vessels that work in the area, as the large majority of those are part of local small boat fleets and the residents of Unalaska who participate in this fishery would already be counted in the standard Unalaska population counts; (2) Crew estimates are from eLandings data; (3) Trawl catcher/processor data are from 2019 Weekly Production Reports; (4) Includes two catcher/processors with 2019 federal crab catcher/processor landings and four additional processors with groundfish landings only.

Although these estimated 4,525 individuals are not residents of Unalaska, this “floating” or “additional service” population does have an impact on the community. They are associated with business and revenue generated in and for the city, and with services required of the city. There is also a potentially large number of other infrequent or “floating” visitors associated with the port. Some of these are more-or-less directly fishery related, such as the crews on domestic and international cargo vessels that have company facilities in the community, freighters affiliated with specific seafood companies, and independent trampers. (While there are no current estimates available, in 1990 the cargo vessel freighter/tramper component of a floating population was estimated at 8,750 individuals, derived from an assumed 350 vessels with an average crew size of 25 [Professional Growth Systems, Inc. 1990:12]. The current validity of this estimate is unknown.) Additionally, there are various other transient vessels that may or may not be directly affiliated with the fishery, such as barges, cruise ships, and ferries, that call on the community of Unalaska and the Port of Dutch Harbor and effectively add to a service population for the community. While the calculation of such a population is less than straightforward,

whatever the actual numbers are for any given season or year, it is the case that Unalaska services a floating population that is very large in relation to its resident population base, and a great number of these individuals are directly or indirectly associated with commercial fisheries.

3.4 LOCAL GOVERNANCE AND REVENUES

Revenue directly related to commercial fishing activity accounts for a substantial portion of all general fund revenue received by the City of Unalaska, as shown in Table 34. These include the local raw seafood tax (first instituted in FY 1987), the state shared Fisheries Business Tax, and the state shared Fisheries Resource Landing Tax (first appearing on city statements in FY 1996). The local raw seafood tax is currently levied on all raw seafood product sales made in the City for the purpose of processing, reselling, storing, transshipping, or consumption for profit at the rate of two percent of the primary gross sales value. State shared fishery business tax revenues are shared with the municipalities where fishery resources were processed (by shore-based or floating processors). If processing occurs within an incorporated city that is not located within an organized borough, such as Unalaska, 50 percent of the tax collected is shared with the city. State shared fishery resource landing tax revenues are shared with the municipalities where fishery resources were landed (as processed product by at-sea catcher/processors or motherships). For Unalaska, the mechanics for sharing fishery resource landing taxes are the same as described for fisheries business taxes.³⁵ As shown, while there has been year-to-year variability, together the direct fishery revenue sources noted have contributed between one-third and one-half of all Unalaska general fund revenues in any given year over the period 1995-2019.

³⁵ The state revenue sharing process described is administered by the Alaska Department of Revenue. If processing (in the case of shared fisheries business taxes) or landings (in the case of shared fishery resource landing taxes) occur outside of any municipality in the unorganized borough, 50 percent of the taxes collected are shared with municipalities statewide, including Unalaska, through a separate allocation program administered by the Alaska Department Commerce, Community, and Economic Development.

Table 34. City of Unalaska Selected Fisheries-Related General Fund Revenues, Fiscal years 1991-2019

Fiscal Year	Revenue (dollars) by Direct Fishery Revenue Source				All General Fund Revenue	Direct Fishery Revenue Source Total as a Percent of All General Fund Revenue
	Direct Fishery Revenue Source			Direct Fishery Revenue Source Total		
	City Raw Seafood Tax	Shared State Fisheries Business Tax	Shared State Fisheries Resource Landing Tax			
FY 1991	\$2,851,008	\$2,067,793	\$0	\$4,918,801	--	--
FY 1992	\$3,681,908	\$2,475,197	\$0	\$6,157,105	--	--
FY 1993	\$3,131,661	\$3,581,134	\$0	\$6,712,795	--	--
FY 1994	\$2,641,802	\$2,770,321	\$0	\$5,412,123	--	--
FY 1995	\$3,340,512	\$2,364,847	\$0	\$5,705,359	\$17,288,818	33.0%
FY 1996	\$2,212,833	\$2,828,570	\$2,637,708	\$7,679,111	\$16,079,178	47.8%
FY 1997	\$2,641,645	\$2,071,914	\$3,015,804	\$7,729,363	\$21,242,573	36.4%
FY 1998	\$2,641,124	\$2,424,747	\$2,604,706	\$7,670,577	\$19,422,869	39.5%
FY 1999	\$2,513,500	\$2,424,787	\$2,739,821	\$7,678,108	\$19,079,204	40.2%
FY 2000	\$3,410,717	\$2,483,670	\$2,224,903	\$8,119,290	\$19,413,548	41.8%
FY 2001	\$3,065,220	\$3,249,218	\$2,813,250	\$9,127,688	\$22,170,480	41.2%
FY 2002	\$3,329,131	\$3,179,799	\$3,000,184	\$9,509,114	\$22,852,455	41.6%
FY 2003	\$3,662,646	\$2,838,537	\$4,183,140	\$10,684,323	\$24,387,238	43.8%
FY 2004	\$4,190,128	\$3,272,188	\$2,598,108	\$10,060,424	\$21,723,394	46.3%
FY 2005	\$3,873,868	\$3,659,452	\$3,876,283	\$11,409,603	\$28,279,878	40.3%
FY 2006	\$4,188,063	\$3,446,660	\$3,736,810	\$11,371,533	\$26,238,173	43.3%
FY 2007	\$4,076,762	\$4,281,211	\$4,357,759	\$12,715,732	\$30,791,407	41.3%
FY 2008	\$4,689,810	\$3,909,016	\$4,362,451	\$12,961,277	\$32,900,676	39.4%
FY 2009	\$4,619,222	\$3,877,701	\$5,200,897	\$13,697,820	\$38,855,095	35.3%
FY 2010	\$3,594,173	\$4,547,084	\$4,676,603	\$12,817,860	\$29,604,371	43.3%
FY 2011	\$5,371,768	\$3,199,290	\$3,531,739	\$12,102,797	\$29,152,912	41.5%
FY 2012	\$5,260,999	\$4,143,777	\$3,469,263	\$12,874,039	\$31,634,417	40.7%
FY 2013	\$4,784,198	\$4,398,441	\$4,898,543	\$14,081,182	\$32,609,892	43.2%
FY 2014	\$4,449,921	\$4,377,934	\$6,974,887	\$15,802,742	\$34,376,971	46.0%
FY 2015	\$4,981,770	\$3,639,448	\$5,014,309	\$13,635,527	\$34,525,170	39.5%
FY 2016	\$5,123,372	\$4,099,315	\$3,034,438	\$12,257,125	\$30,723,626	39.9%
FY 2017	\$4,657,385	\$4,276,287	\$8,272,661	\$17,206,333	\$34,371,441	50.1%
FY 2018	\$4,475,150	\$4,014,323	\$4,532,106	\$13,021,579	\$30,300,957	43.0%
FY 2019	\$4,761,506	\$3,528,499	\$5,220,958	\$13,510,963	\$36,419,248	37.1%

Source: City of Unalaska Finance Department spreadsheet originally supplied in 2001 and updated December 2004, May 2008, and September 2010. City of Unalaska, Alaska. Comprehensive Annual Financial Reports, Fiscal Years 2010-2019. <https://www.commerce.alaska.gov/dcr/dcrarepoext/Pages/FinancialDocumentsLibrary.aspx>. Accessed 4/25/2020. General fund revenue data pre-FY 1995 not readily available.

The amount of state shared fisheries tax revenue Unalaska receives relative to other municipalities, boroughs, and cities in the state illustrates the scale of shore-based processing activity in the community as well as at-sea processing ties to the community, both of which serve to foster private and public sector support activities. In 2019, the City of Unalaska received 32.6 percent of all state shared fishery business tax revenue shared with all cities in Alaska and 16.0 percent of percent of all state shared fishery business tax revenue shared with all municipalities, boroughs, and cities in Alaska combined. That same year, the City of Unalaska received 94.2 percent of all state shared fishery resource landing tax revenue shared with all cities in Alaska and 92.1 percent of percent of all state shared fishery resource landing tax revenue shared with all municipalities, boroughs, and cities in Alaska combined.

Beyond direct fishery landings-related revenues, Unalaska also derives revenues from several different types of fishery related activities, including property taxes and port and harbor activity related fees. In 2019 the three largest shore-based processing operations in the community were in the top five principal real property taxpayers in terms of total assessed value, together accounting for 16.1 percent of total taxable assessed value in the community. Port and harbor facilities include the Unalaska Marine Center (Plate 19) (commonly referred to as the City Dock), the Spit Dock (Plate 20), the Light Cargo Dock, the Robert Storrs Small Boat Harbor (Plate 21) (also referred to as the Bobby Storrs International Harbor), and the Carl E. Moses Boat Harbor (Plate 22). The Port of Dutch Harbor is the only deep draft port in the Arctic Region that is ice-free year-round. It houses the western-most container terminal in the United States, with product shipped domestically as well as to Europe and Asia on a weekly basis. It is also a part of the Alaska Marine Highway System.



Plate 19. Unalaska Marine Center



Plate 20. Spit Dock



Plate 21. Robert Storrs Small Boat Harbor



Plate 22. Vessels in the Carl E. Moses Boat Harbor