APPENDIX A

BSAI CRAB RATIONALIZATION TEN-YEAR PROGRAM REVIEW SOCIAL IMPACT ASSESSMENT

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ACDC	Adak Community Development Corporation
ADFG	Alaska Department of Fish and Game
AEB	Aleutians East Borough
AFA	American Fisheries Act
ANCSA	Alaska Native Claims Settlement Act
APICDA	Aleutian Pribilof Islands Community Development Association
BSAI	Bering Sea and Aleutian Islands
CBSFA	Central Bering Sea Fishermen's Association
CDQ	Community Development Quota
CFEC	Commercial Fisheries Entry Commission
DSFU	Deep Sea Fishermen's Union of the Pacific
EAI	Eastern Aleutian Islands
EBS	Eastern Bering Sea
EDR	Economic Data Report
FY	fiscal year
GHL	guideline harvest level
ICE	Inter-Cooperative Exchange
IFQ	Individual Fishing Quota
IPQ	Individual Processor Quota
KFDA	Kodiak Fisheries Development Association
KIB	Kodiak Island Borough
MSA	Metropolitan Statistical Area
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
NPRB	North Pacific Research Board
PQ	Processor Quota
RIR/IRFA	Regulatory Impact Review/Initial Regulatory Flexibility Analysis
TAC	total allowable catch
WAI	Western Aleutian Islands
WBS	Western Bering Sea

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1.0 SOCIAL AND ECONOMIC COMMUNITY IMPACTS

1.1 OVERVIEW AND APPROACH

This social impact assessment component of the 10-year program review of the Bering Sea/Aleutian Islands (BSAI) crab rationalization program (hereafter called the "10-year program review") strongly focuses on what has changed (or has not changed) at the community level since the 5-year program review. This analysis explicitly builds upon and updates portions of the social impact assessment that was a part of the 5-year BSAI crab rationalization program review[1] (which, in turn, built upon the 3-year program review social impact assessment).

1.1.1 Background

In the social impact assessment contained in the BSAI crab rationalization 5-year program review, a two-pronged approach to analyzing the community or regional[2] components of changes associated with the implementation of BSAI crab rationalization was utilized. First, tables based on existing quantitative fishery information were developed to identify patterns of participation in the various components of the fishery. Second, a subset of BSAI crab communities were characterized in a series of detailed community profiles to describe the range, direction, and order of magnitude of social- and community-level impacts associated with the relevant crab fisheries.

1.1.2 Quantitative Fishery Information

For the purposes of this 10-year program review, the quantitative fishery information tables used in the "first prong" of the 5-year program review social impact assessment were updated. These tables, presenting data on an annual basis from 1998 through 2014/2015 are quite large and are

[1] Available at: http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Crab/5YearRev1210_AppxA.pdf (accessed 4/19/16); a separate executive summary is available at: http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Crab/SIAexS_911.pdf (accessed 4/19/16).

[2] Within Alaska, a total of five regions are typically used in this document for regional analysis. These are: (1) the Aleutian/Pribilof region, consisting of the Aleutians East Borough and the Aleutians West Census Area (which includes the Pribilof Islands) -- this region includes, but is not limited to, communities within the Aleutian Pribilof Island Community Development Association (APICDA) and Central Bering Sea Fishermen's Association (CBSFA) Community Development Quota (CDQ) groups; (2) the Bering Sea region, consisting of communities in the Bristol Bay Economic Development Corporation, Coastal Villages Region Fund, Yukon Delta Fisheries Development Association, and Norton Sound Economic Development Corporation CDQ groups (only); (3) the Kodiak region, consisting of the City of Kodiak (in the few cases where the Kodiak Island Borough is used as a region instead of just the City of Kodiak it is so noted); (4) the South-Central (Alaska) region, consisting of the Lake and Peninsula Borough (exclusive of its CDQ communities), the Kenai Peninsula Borough, the Matanuska-Susitna Borough, the Municipality of Anchorage (a unified City/Borough), and the Valdez-Cordova Census Area; and (5) the Southeast (Alaska) region, consisting the Haines Borough, the Hoona-Angoon Census Area, the City and Borough of Juneau, the Ketchikan Gateway Borough, the Petersburg Borough, the Prince of Wales-Hyder Census Area, the City and Borough of Sitka, the Municipality of Skagway, the City and Borough of Wrangell, and City and Borough of Yakutat. Regions outside of Alaska used in the analysis include: (1) the "Seattle MSA" region consisting of the Seattle-Tacoma-Bellevue Metropolitan Statistical Area, which includes King, Pierce, and Snohomish counties in the state of Washington; (2) the Other Washington region, consisting of the entirety of the state of Washington exclusive of the Seattle MSA; (3) the Oregon region, consisting of the state of Oregon; and (4) the Other US region, consisting of the entirety of the United States, exclusive of the states of Alaska, Washington, and Oregon.

presented in Attachment 1. Summary tables are presented in Section 1.2 along with accompanying narrative. This analysis focuses on fishery sectors (harvesters, catcher processors, and processors) and contrasts average annual participation indictors for pre- and post-rationalization implementation years over the span of 1998 through 2014/2015. For the purposes of this analysis, vessels are assigned to communities based on ownership address and shoreplants are assigned to communities based on location of operations. In the case vessel ownership location in particular, appropriate caution should be used on the interpretation of these data, but they do represent the most consistent community linkage data available and are further used in here in order to provide continuity and comparability with earlier time series analyses.[3] There are, however, substantial limitations on the data that can be utilized for these purposes, based on confidentiality restrictions. A prime example of this is where a community is the site of a single

[3] Within the quantitative data, for the purposes of this analysis, assignment of harvest vessels and catcher/ processors to a region or community has been made based upon ownership address information as listed in the Alaska Commercial Fisheries Entry Commission (CFEC) vessel registration files or the National Oceanic Atmospheric Administration (NOAA) Fisheries federal permit data. As a result, some caution in the interpretation of this information is warranted. It is not unusual for vessels to have complex ownership structures involving more than one entity in more than one region. Further, ownership location does not directly indicate where a vessel spends most of its time, purchases services, or hires its crew as, for example, some of the vessels owned by residents of the Pacific Northwest spend a great deal of time in Alaska ports and hire at least a few crew members from these ports. The region or community of ownership, however, does provide a rough indicator of the direction or nature of ownership ties (and a proxy for associated economic activity, as no existing datasets provide information on where crab vessel earnings are spent), especially when patterns are viewed at the sector or vessel class level.

Ownership location has further been chosen for this social impact assessment analysis as the link of vessels to communities rather than other indicators, such as vessel homeport information, for several reasons. Primary among these are (1) a desired consistency with the ownership location-based analysis that was done in the pre-implementation community and social impact assessment (NOAA 2004) as well as the 3-year program review social impact assessment (NPFMC 2008, Appendix A) and the 5-year program review social impact assessment (NPFMC 2010, Appendix A) to facilitate pre- and post-implementation BSAI crab rationalization impact analysis comparisons and (2) the same reason(s) that led to the selection of ownership rather than homeport data for use in the original pre-implementation social impact assessment in the first place: the apparent inconsistencies in homeport designation by vessels that appear to correspond at times with ownership location, at times with where the vessel spends most of its fishing year, and at times with neither. Additionally, in some instances homeport information is particularly problematic for BSAI crab fishery-related social impact analysis. One example cited in the 3-year program review social impact assessment is Juneau, where (a) no BSAI crab vessel ownership is apparent for any of the years 1998–2007 in the BSAI crab data set, (b) BSAI crab landings by Juneau homeported vessels are substantial at least in some years, and (c) BSAI crab landings and related activities have not occurred in Juneau itself, such that it is not clear how these activities link back to Juneau in the absence of ownership or direct activity ties. A second example, also cited in the 3-year program review social impact assessment, is King Cove, where, in a very different pattern, no BSAI crab vessels show up in the BSAI crab data set as being homeported in the community during 1998–2007, but it is known that both locally owned BSAI crab vessels and at least a few BSAI crab vessels with Pacific Northwest ownership spent considerable time in the port, hired local crew, and effectively operated out of the community for extended periods of time. (Additional information comparing community of vessel ownership to homeport may be found in NPFMC 2010, Appendix A, Attachment 2.)

For shoreplants, regional or community designation was based on the location of the plant itself (rather than ownership address) to provide a relative indicator of the local volume of fishery-related economic activity, which can also serve as a rough proxy for the relative level of associated employment and local government revenues. This is also consistent with the methodology utilized in the BSAI crab rationalization pre-implementation social impact assessment, as well as in the 3-year and 5-year program review social impact assessments, although in the case of the pre-implementation work, more information was available on the location of floating processors for at least a few of the communities. The lack of operating location information for floating processors is a known shortcoming in the available BSAI crab data.

processor, or even two or three processors.[4] No information can be disclosed about the volume and value of crab landings in those communities. This, obviously, severely limits quantitative discussions of the impacts of the rationalization program. In short, the frame of reference or unit of analysis for the discussion in this section is the individual sector, and the analysis looks at how pre- and post-rationalization changes are differentially distributed across communities and regions within this framework. The practicalities of data limitations, however, serve to restrict this discussion. This discussion is also supplemented with information on changes that have occurred in the geographic distribution of unique quota holders and quota units held by sector between the initial allocation and the 2015/2016 Individual Fishing Quota (IFQ) allocation process (the most recent available information).

1.1.3 Previously Compiled Community Profiles

In contrast to the quantitative fishery information tables, which have been updated and included in this document, the detailed community profiles used in the "second prong" of the 5-year program review social impact assessment have not been updated and are not included in this 10-year program review. Given the focus on changes that have occurred in the second five-year interval following program implementation, the intent of this analysis is to not replicate detailed background information contained in the earlier document that is still readily available (and remains applicable to the current analysis).

As noted in the 5-year program review, the total set of communities engaged in the fishery is numerous and far-flung. Communities (and types of impacts) vary based upon the type of engagement of the individual community in the fishery, whether it is through being the community of ownership of a portion of the catcher vessel fleet, being the location of shore-based processing, being the base of catcher processor or floating processor ownership or activity, the location of fishery support sector businesses, or the location of participation in the fishery through being the community of residence for crew members and/or holders of the various forms of quota shares issued under the crab rationalization program. In short, "second prong" approach taken in the 5-year program review used the community or region as the frame of reference or unit of analysis (as opposed to the fishery sector as in the first approach). This approach examined, within the community or region, the local nature of engagement or dependence on the fishery in terms of the various sectors present in the community and the relationship of those sectors (in terms of size and composition, among other factors) to the rest of the local social and economic context. This approach then qualitatively explored the social and community impacts that resulted from the rationalization-associated changes to the locally present sectors in combination with other community-specific attributes and socioeconomic characteristics.

Chosen for the community-level analysis in the 5-year program review were those Alaskan communities characterized in the pre-implementation BSAI crab rationalization social impact assessment. These were Unalaska/Dutch Harbor, Akutan, King Cove, Kodiak, Sand Point, Adak,

[4] The number of data points that need to be lumped to comply with data confidentiality restrictions vary by data source. The CFEC requires aggregation of four data points to permit reporting of what would otherwise be confidential data, while virtually all other data sources require the aggregation of three data points to permit disclosure. In this section, because several data sources draw at least in part on CFEC data, volume and value data are presented only when four or more data points are aggregated. This is consistent with what was done in the 3-year and 5-year program review social impact assessments.

St. Paul, and St. George.[5] A community-by-community summary of the social impacts of BSAI crab rationalization for each of these communities is presented in Section 1.3 of this 10-year program review; this summary is derived from the earlier detailed community-profiling efforts, the results of which are in part included in this analysis and in part included in other documents incorporated by reference, as well as limited follow-up contacts with key individuals via email or phone, and informed by public comment.

Pre-rationalization crab fishery-oriented profiles for each of these communities were developed for the *BSAI Crab Fisheries Final Environmental Impact Statement Social Impact Assessment* (NOAA 2004, Appendix 3[6]). Updated, detailed profiles with a focus on crab dependence and BSAI crab rationalization impacts were provided in the BSAI crab rationalization 5-year program review for four of these communities. These are Unalaska/Dutch Harbor, St. Paul, King Cove, and Kodiak. Three of these profiles were updated through fieldwork for the 5-year program review social impact assessment (Unalaska/Dutch Harbor, King Cove, and Kodiak) while one (St. Paul) was updated through phone contacts and written correspondence.[7] While at least some information was gathered for all eight communities previously analyzed, these four communities were chosen for more comprehensive data collection and profile updating in the 5-year program review based upon the results of the BSAI crab rationalization program review social impact assessment results.

Each of the profiles included in the 5-year program review explicitly builds upon the profiles of these communities developed for the pre-rationalization crab social impact analysis referenced above and, in the case of Unalaska/Dutch Harbor, King Cove, and Kodiak, on those contained in *Comprehensive Baseline Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove, and Kodiak* (EDAW 2005). The latter of these profile efforts, also produced prior to the implementation of BSAI crab rationalization, was jointly funded by the North Pacific Fishery Management Council (NPFMC) and the North Pacific Research Board (NPRB). In addition to the information that has was updated in the 5-year program review, the *Comprehensive Baseline*

[5] These communities were chosen for the pre-implementation crab rationalization social impact assessment based on then-current understandings of the level of engagement in, and dependence on, the BSAI crab fisheries being considered for inclusion in the rationalization program, consistent with National Standard 8 under the Magnuson-Stevens Act. Seven of these eight communities (all but Sand Point) were later determined to be "Eligible Crab Communities" (i.e., eligible for community protection measures under the rationalization program as implemented). Eligible Crab Communities were defined as those with 3 percent or more of the qualified landings in any fishery included in the program. In addition to the communities included in the earlier profiles, False Pass and Port Moller were also designated as Eligible Crab Communities, as discussed Section 1.3.9. Community protection measures applicable to these nine Eligible Crab Communities include (or included) right of first refusal on proposed sales of processor quota shares (except for Adak) and a "cooling-off" period (a temporary prohibition against the use of individual processor quota outside of the community or borough boundary in which the individual processor quota was derived). Regional designations assigned to quota share/individual fishing quota and processing share/individual processing quota for most fisheries (also referred to as regional landing and processing requirements) were structured to protect historic crab fishery engagement and dependency in the Pribilof Islands in the northern region (an area encompassing the communities of St. Paul and St. George) and in the western Aleutian Islands in the western region (an area encompassing the communities of Adak and Atka) in the BSAI; and an additional regional "sweep up" measure for processing quota derived within the northern Gulf of Alaska but otherwise not assigned to a community with other rights under the program specifically protects Kodiak Island.

[6] Available at https://alaskafisheries.noaa.gov/sites/default/files/analyses/Appendix3.pdf. Accessed 4/20/16.

[7] Available at http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Crab/5YearRev1210_AppxA.pdf. Accessed 4/19/16.

Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove, and Kodiak (EDAW 2005) profiles contain quantitative characterization of each of the community's local commercial fishing harvest sector, including detailed information on an annual basis, from 1995 through 2002, of local vessel characteristics, distribution of permit holders, catch and earnings estimates, and landings inside and outside of the community, along with an analysis of the spatial distribution of fishing effort of the local fleet. As updating this information is effort intensive and was not central to the BSAI crab rationalization 5-year program review-oriented community analysis, it was not updated in the community profiles included in that document (nor was it updated for the 3-year program review), but this information is readily available[8] for review in the original document and is incorporated by reference. For the BSAI crab rationalization 3-year program review social impact assessment, the community profiles of Unalaska/Dutch Harbor, Akutan, King Cove, and Kodiak were comprehensively updated through field efforts and appeared as an appendix to the program review document itself (NPFMC 2008, Appendix A[9]). As part of the update of the community profiles for Unalaska/Dutch Harbor, King Cove, and Kodiak for the 5-year program review effort, information from the 3-year program review update has been retained where relevant to allow a look at social impacts that were seen to occur at both the 3-year and 5-year marks.

Post-BSAI crab rationalization profiles for the other four communities central to the current analysis (Sand Point, Adak, St. Paul, and St. George) were completed in June 2008 under the title *Comprehensive Baseline Commercial Fishing Community Engagement and Dependency Profiles: Adak, St. George, St. Paul, and Sand Point, Alaska* (EDAW 2008). These profiles, funded by the NPFMC (Contract NEPA-1-06) and the NPRB (Project 640), explicitly built upon the community profiles contained in the *BSAI Crab Fisheries Final Environmental Impact Statement Social Impact Assessment* (NOAA 2004, Appendix 3) and contain, as part of the overall description of each commercial fishery-related sector in the community and where relevant, information on community-specific effects of crab rationalization. As these comprehensive profiles were (and remain) readily available[10] for review, and were distributed to the NPFMC at its constituent bodies during the BSAI crab rationalization 3-year program review process, they were incorporated by reference rather than reproduced in the 3-year program review social impact assessment itself. The St. Paul community profile included in the 5-year program review explicitly built upon and updated this earlier St. Paul community profile.

1.1.4 Community Fisheries Engagement Indices

In a separate effort supporting this 10-year program review, an Alaska Fisheries Science Center staff-led team have developed fisheries engagement indices for communities involved in harvesting and processing crab species as part of the BSAI crab rationalization program (Kasperski, *et al.* 2016, included as Appendix B to the 10-year program review document). These indices show how engaged in these fisheries each community is and how their relative position has changed over time (using aggregate values for all variables across all crab fisheries included in the rationalization program). Two basic types of crab fisheries involvement are

[8] Available at http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/AKCommunityProfilesVol1.pdf. Accessed 4/19/16.

[9] Available at http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Crab/3yearreview1208_appendix.pdf. Accessed 4/19/16.

[10] Available at http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/AKCommunityProfilesVol2.pdf. Accessed 4/19/16.

considered, commercial processing and commercial harvesting, and numerical indices of engagement were created for each of them. Indices of overall harvesting and processing engagement were also created to provide a comparison between the changes in engagement in the rationalized crab fisheries changes specifically and changes in overall commercial fisheries engagement in general.

Processing engagement, for the purposes of the AFSC analysis, represents the scale of the processing industry in the community and represents landings being made in the community while harvesting engagement represents the communities where the revenue that harvesters are earning from fishing crab in the rationalization program is likely being spent and is expected to have some economic impacts. These indicators provide a quantitative measure of community involvement in the relevant crab fisheries which helps provide information about which communities have been most affected by the implementation of the rationalization program.

Using the AFSC-developed methodology, Kasperski *et al*. determined that within the crab fisheries included in the rationalization program, there were only four communities that are highly engaged in each of the harvesting and processing indices, and that there was no overlap between them. For processing engagement, Unalaska/Dutch Harbor was determined to be highly engaged for all 17 fishing seasons 1998/1999 through 2014/2015, followed by the At-Sea grouping with 14 fishing seasons, Saint Paul with 11 fishing seasons, and Akutan with six fishing seasons being highly engaged. In terms of harvesting engagement, the Seattle MSA grouping was determined to be highly engaged for all 17 fishing seasons, followed by Kodiak with four fishing seasons, and Anchorage and Oregon, both of which were highly engaged for one fishing season.

These AFSC-developed quantitative indices are relative to all communities within a given fishing season and therefore do not measure absolute changes in processing or harvesting engagement. For example, while there was a large and significant decline in harvesting vessels in the fishing seasons following implementation of the rationalization program, if the distribution of those vessels exiting was proportional across all communities, these indices would show little or no change. However, what these indices do show are the changes in the relative position of rationalized crab harvesting engagement away from many smaller Alaska communities toward larger communities such as Anchorage, Homer, and to communities outside of Alaska. In contrast, these trends were not as apparent when looking across overall commercial harvesting or processing engagement. Furthermore, there were more changes in rationalized crab harvesting engagement than rationalized crab processing engagement over time, likely as a result of harvester sector related activity being more mobile across communities than processing sector related activity, which was an intentional design feature of the program through regional landing requirements, right of first refusal provisions on the transfer of processor quota, and other community protection measures.

Relative to the social impact assessment methodology used in this document, the AFSC study was used to cross-check the communities included in the social impact assessment. While the AFSC indicators are limited to harvesting and processing, and the social impact assessment looks and several other indicators of fishery engagement and dependence, such as quota ownership and crew employment, among others, the communities determined to be highly engaged in the AFSC

study are included in the set of individual communities whose various forms of engagement and levels of dependency are described in this social impact assessment.[11]

1.2 QUANTITATIVE PARTICIPATION DESCRIPTION BY COMMUNITY

The data used to develop the tables in this section cover the span of years from 1998 through the 2014/2015 crab seasons and are derived from Alaska Department of Fish and Game (ADFG) fish ticket data and Alaska Commercial Fisheries Entry Commission (CFEC) gross revenues data.[12] Following an introductory table in the first subsection below, the comparative information presented in this section is largely focused on the Bristol Bay red king crab (*Paralithodes camtschaticus*) and Bering Sea snow crab (*Chionoecetes opilio*)[13] fisheries, as participation in the other rationalized BSAI crab fisheries[14] was concentrated in a relatively few communities, are of relatively lesser economic importance, and/or limited to a shorter span of years by fishery closures, as described in Section 1.3. For harvester data, pre-rationalization annual averages displayed in the tables in this section are based on annual data from 1998 through 2004 for the Bristol Bay red king crab fishery and from 1998 through 2005 for the Bering Sea snow crab fishery. Post-rationalization averages are based on annual data from the 2005/2006 through the 2014/2015 seasons for both fisheries, with post-rationalization averages typically shown in two intervals: from the 2005/2006 through the 2009/2010 seasons, representing the first five years post-rationalization, and from the 2010/2011 through the 2014/2015 seasons, representing the second five years post-rationalization, consistent with the focus of this social impact assessment component of the BSAI crab rationalization 10-year program review being on highlighting changes seen since the 5-year program review.[15]

[11] An exception to this generalization is that Oregon as a whole is treated as an engaged community in the AFSC study, as is the at-sea sector, but neither are considered as communities in this social impact assessment, which focuses on more localized communities of place. Of all of the communities for which data are analyzed in the AFSC study, two Alaska communities do not appear in the harvester or processor data in the dataset used for this social impact assessment: Nome and Unalakleet. In the data used by AFSC, Nome is shown as having one crab vessel owner in 2002 (and one IFQ holder in 2009), while Unalakleet is shown as having one vessel owner from 2000 through 2002. As the data the AFSC study uses were provided at the community level, there is no way to cross-check these individual vessels (by, for example, vessel ID number) in the dataset used for this social impact assessment. In practical terms, the apparent variation in the data is not large enough to alter any findings.

[12] Crab rationalization community analysis dataset, NPFMC 2015, updated 2016. Also referred to in this social impact assessment document as the "BSAI crab fishery 1998–2014/2015 dataset" the "crab dataset," or simply the "dataset."

[13] Bering Sea snow crab is also referred to as "Bering Sea *C. opilio*" or simply "opilio" in other parts of this document.

[14] The other seven crab fisheries included in the BSAI crab rationalization program are: the Eastern Aleutian Islands golden king crab (*Lithodes aequispinus* east of 174º West longitude) and Western Aleutian Islands golden king crab (*Lithodes aequispinus* west of 174º West longitude) fisheries; the Western Aleutian Islands red king crab (*Paralithodes camtschaticus* west of 179º West longitude) fishery; Eastern Bering Sea Tanner (*Chionoecetes bairdi* east of 166º West longitude) and Western Bering Sea Tanner (*Chionoecetes bairdi* west of 166º West longitude) fisheries; the St. Matthew Island blue king crab (*Paralithodes platypus*) fishery; and the Pribilof Islands blue and red king crab fishery (the stocks are managed collectively as a single fishery). Two other fisheries managed under the BSAI crab Fishery Management Plan, the Norton Sound red king crab and Pribilof Islands golden king crab fisheries, are excluded from the crab rationalization program.

[15] Consistent with the approach used in the crab rationalization 5-year program review, dollar figures in this social impact assessment are typically not adjusted for inflation. As stated in the 5-year program review, "generally, inflation rates have been low in recent years, averaging less than three percent per year … In addition, crab prices tend to vacillate erratically with variation that greatly exceeds inflation rates. Consequently, dollars in the tables in this report are not inflated (unless specifically noted)."

It is important to note the years included in the pre-rationalization annual average calculations shown in the tables in this section are not the same years that were used as the base years to determine qualification for the rationalization program and the level of initial quota allocation under the program, nor are they the same years that were used as a baseline for the pre-implementation *BSAI Crab Fisheries Final Environmental Impact Statement Social Impact Assessment* (NOAA 2004, Appendix 3). The base years for rationalization program qualification and initial allocation of BSAI crab fishing quota were 1996–2000, with one throw-away year. The baseline years used for the pre-implementation social impact assessment were 1991–2000, spanning more years of historic fishery participation but having the same ending date as the program qualification period itself.

For the purposes of post-implementation social impact analysis, more recent years were included as changes in communities did occur after the close of the qualification period and before the actual implementation of the program. Participants in the fishery itself made decisions during the "in between" time predicated upon the knowledge that a rationalization program would likely be implemented and their understanding of their likely position within that program once implementation occurred. For communities as well time did not pause with the end of the qualifying period, and local governments, businesses, and individuals continued to adapt to existing conditions during the interstitial post-qualification and pre-implementation time as they did before and continued to do after. It is against this backdrop that the impacts to communities are analyzed in this document.

It is also important to note that by using an annual average for a number of indicators for pre- and post-rationalization years (and two different reporting periods during the post-rationalization years), trends within those time periods may be obscured. For example, just by looking at the vessel counts, it is apparent that the average number of vessels actively participating in the BSAI crab fisheries on an annual basis was much higher in the pre-rationalization years covered by the dataset than in the post-rationalization years covered by the dataset. These tables do not, however, allow the reader to know if the consolidation of the fleet happened all at once or took place more gradually. Similarly, a very large change in pre- and post-rationalization annual averages in Bering Sea snow crab harvest especially apparent during the first five post-implementation years covered in the 5-year program review was due to a sharp reduction in guideline harvest levels (GHLs) and total allowable catch (TAC) levels that occurred during the pre-rationalization period, not something that occurred as a result of BSAI crab rationalization or even coincidental with the implementation of rationalization. To address the likely interest of at least some readers to more fully explore trend information but at the same time not make the tables in this section unwieldy, parallel year-by-year data for each of the "annual averages" tables presented in this section are available in Attachment 1. The tables in Attachment 1 follow a similar numbering convention to those in this section for ease of cross-reference.

1.2.1 Harvest Trends by Crab Fishery

Table 1-1 displays information on overall harvest trends for catcher vessels within the rationalized crab fisheries on an annual average basis for the pre- and post-rationalization years covered by these data (1998–2004/2005, 2005/2006–2009/2010, and 2010/2011–2014/2015).

Table 1-1. Harvest Annual Averages by BSAI Crab Fishery, Pre- and Post-Rationalization

Fishery	Pre-Rationalization Annual Average 1998–2004 or 2005*	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Pounds			
Bristol Bay Red King Crab	11,052,597	17,308,668	9,550,242
Bering Sea Snow Crab	71,970,487	44,738,757	63,137,329
EAI Golden King Crab	3,045,172	**	**
WAI Golden King Crab	**	**	**
EBS Tanner Crab	NA	1,438,018	4,753,242
WBS Tanner Crab	NA	546,461	2,681,523
Value			
Bristol Bay Red King Crab	$52,397,119	$76,120,961	$74,141,105
Bering Sea Snow Crab	$71,067,184	$64,288,093	$136,258,001
EAI Golden King Crab	$9,318,065	**	**
WAI Golden King Crab	**	**	**
EBS Tanner Crab	NA	$2,321,534	$11,855,899
WBS Tanner Crab	NA	$842,348	$5,995,338
Vessels			
Bristol Bay Red King Crab	244.4	76.8	62.4
Bering Sea Snow Crab	200.5	70.8	69.2
EAI Golden King Crab	17.1	4.2	3.0
WAI Golden King Crab	7.9	2.4	2.8
EBS Tanner Crab	NA	22.8	34.0
WBS Tanner Crab	NA	38.3	45.5
Average Price per Pound			
Bristol Bay Red King Crab	$4.74	$4.40	$7.76
Bering Sea Snow Crab	$0.99	$1.44	$2.18
EAI Golden King Crab	$3.06	**	**
WAI Golden King Crab	**	**	**
EBS Tanner Crab	NA	$1.61	$2.49
WBS Tanner Crab	NA	$1.54	$2.24
Average Value per Vessel			
Bristol Bay Red King Crab	$214,366	$991,158	$1,188,159
Bering Sea Snow Crab	$354,450	$908,024	$1,970,409
EAI Golden King Crab	$543,554	**	**
WAI Golden King Crab	**	**	**
EBS Tanner Crab	NA	$102,045	$348,703
WBS Tanner Crab	NA	$22,022	$131,766

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
** Computation suppressed due to confidentiality of primary data.
Note: EBS Tanner and WBS Tanner averages do not include the years the fisheries were closed (2005/2006 plus 2010/2011 through 2012/2013 for EBS Tanner and 2009/2010 through 2012/2013 for WBS Tanner).
Source: ADFG 2015; CFEC 2015

The post-rationalization consolidation of the fleet is apparent for all four fisheries that were consistently open[16] prior to the implementation of rationalization, although the Eastern Aleutian Islands (EAI) golden king crab and Western Aleutian Islands (WAI) golden king crab fisheries[17] are far smaller than, and much less economically important than, the Bristol Bay red king crab and Bering Sea snow crab fisheries, in terms of dollars and jobs generated. Also apparent from the table is the increase in average annual value of harvest per vessel post-rationalization compared to the average annual figure for the pre-rationalization years covered.

Looking specifically at changes that have occurred between the 5-year and the 10-year program reviews, vessel consolidation has continued to occur in both the Bristol Bay red king crab and Bering Sea snow crab fisheries, but to a greater extent in the former compared to the latter (approximately 19 percent versus approximately 2 percent fewer vessels, respectively). Average value per vessel has increased by approximately 20 percent for Bristol Bay red king crab and approximately 117 percent for Bering Sea snow crab.

[16] The Bristol Bay red king crab, Bering Sea snow crab, Eastern Aleutian Islands (EAI) golden king crab, and Western Aleutian Islands (WAI) golden king crab fisheries have been open for all years covered by the 1998–2014/2015 dataset and were open during the 2015/2016 fisheries. The Bering Sea Tanner fishery changed during the span of years covered by the dataset. As the (single) Bering Sea Tanner fishery, it was open each year during the pre-rationalization period. Following implementation of the rationalization program, the Bering Sea Tanner fishery was divided into the Eastern Bering Sea (EBS) Tanner and Western Bering Sea (WBS) Tanner fisheries. During the 2005/2006 through 2014/2015 period, the EBS Tanner fishery was closed a total of four years, in 2005/2006 and again from 2010/2011 through 2012/2013 (i.e., it was open during four of the five years covered in the 5-year program review and closed three of the five subsequent years that are included in this 10-year program review); it was also open during the 2015/2016 season. During the 2005/2006 through 2014/2015 period, the WBS Tanner fishery was closed a total of four years, from 2009/2010 through 2012/2013 (i.e., it was open during four of the five years covered in the 5-year program review and closed three of the five subsequent years included in this 10-year program review); it was also open during the 2015/2016 season. The St. Matthew Island blue king crab fishery has been open intermittently during the years covered by the dataset, including one of the pre-rationalization years (1998, when it was open during the fall of that year), one of the first five seasons after program implementation (2009/2010) that were covered in the 5-year program review, and four of the second five seasons after implementation (all except 2013/2014) that are covered in this 10-year program review (plus the 2015/2016 season). The WAI red king crab fishery was completely closed during two of the pre-rationalization years covered by the dataset (1999/2000 and 2004/2005), and open on a limited basis for some other pre-rationalization seasons (it was open west of 174º in November 1998 for a limited commercial fishery to collect information on the stock [the Petrel Bank area between 179º E and 179º W was closed]; it was open again in January/February and November 2001 for two commissioner's permit surveys in the Petrel Bank area [179º E to 179º W]). It was open in 2002/2003 and 2003/2004 for commercial fisheries in the Petrel Bank area, but has not been open any season after the implementation of the program (including 2015/2016, the most recent year for which there has been an IFQ allocation process). Given the lack of comparability of pre- and post-program implementation data for this fishery, no data for the WAI red king crab fishery is presented in this analysis, except as relate to quota share allocations. The Pribilof Islands blue and red king crab fishery was closed all but one of the pre-rationalization years covered dataset (it was last open in the fall of 1998), and has not been open in any of the seasons following the implementation of the BSAI crab rationalization program (including 2015/2016, the most recent year for which there has been an IFQ allocation process). Given the lack of comparability of pre- and post-program implementation data for this fishery, no data for the Pribilof Islands blue and red king crab fishery is presented in this analysis, except as relate to quota share allocations.

[17] The EAI golden king crab is also commonly referred to as Dutch Harbor golden king crab, while the WAI golden king crab is also commonly referred to as Adak golden king crab. Golden king crab is also known as brown king crab, with alternate common names being Dutch Harbor brown king crab and Adak brown king crab.

1.2.2 Local Community Fleet Participation

Table 1-2 provides information on the average annual distribution of the Bristol Bay red king crab and the Bering Sea snow crab fleets, by community, both pre- and post-rationalization[18] (full distribution by community by year, in absolute and percentage terms, is shown in Tables A1-2a and A1-2b in Attachment 1[19]). As shown, the annual average participation in the Bristol Bay red king crab fishery dropped from 244 vessels pre-rationalization to 77 vessels during the first five years of the program to 62 vessels during the second five years of the program, while the analogous drops were from 200 to 71 to 69 vessels in the Bering Sea snow crab fishery.

Within Alaska, while the fleet size in every region declined with rationalization, Kodiak had more vessels participating in both fisheries on an annual average basis, both pre- and post-rationalization, than all other communities in the state combined at the time of the 5-year program review. During the second five years of the program, however, a shift was seen and the annual average participation for all other Alaska communities combined exceeded that of Kodiak alone.

Following rationalization, the percentage of vessels participating from Southeast and Aleutian/Pribilof region communities declined during the first five years of the program and no vessels from either region participated in the Bristol Bay red king crab or the Bering Sea snow crab fisheries during the second five years of the program. In the South-Central region, the number of participating vessels declined but the percentage of participating vessels increased in both fisheries during the first five years of the program; during the second five years of the program, the annual average number of participating vessels increased over 5-year program review totals (but remained below pre-rationalization totals) and the percentage of participating vessels continued to increase over pre-rationalization figures in each of the two fisheries.

In the case of Kodiak, the annual average number of vessels participating in the Bristol Bay red king crab and Bering Sea snow crab fishery dropped sharply in the first five years of the program and dropped again during the second five years of the program. In percentage terms, Kodiak participation remained at roughly similar to pre-rationalization conditions at the time of the 5-year program review, but declined somewhat during the second five years of the program.

In general, with post-rationalization fleet consolidation, all participating Alaska communities lost crab vessels during the first five years of the program, and remaining vessels tended to aggregate in fewer and often larger communities. Distinct differences by region in continuing participation are apparent as well. Within the South-Central region, for example, at the time of the 5-year

[18] In some instances, the 1998–2004 pre-rationalization annual averages and the 2005/2006–2009/2010 post-rationalization annual averages in this table (Table 1-2) vary slightly from the analogous averages that appeared in the crab rationalization 5-year program review, due to a minor vessel historic ownership attribution changes that occurred during routine (and ongoing) fishery statistical data clean-up processes, which became apparent when undertaking the analysis for this 10-year program review. This is also true for Table 1-3, Table 1-4, Table 1-5, and Table 1-6. These historic ownership attribution changes are not large enough to significantly change any of the social impact assessment findings in the crab rationalization 5-year program review (or in the crab rationalization 3-year program review before it; in fact, similar minor owner attribution changes had occurred in the data between the 3-year program review and the 5-year program review, as noted in the latter analysis).

[19] Unique crab vessel counts for selected communities are provided in Tables 1-13a and 1-13b (controlling for double counting of those vessels that may have participated in more than one of the fisheries included in the BSAI crab rationalization program in any given year).

Table 1-2. Bristol Bay Red King Crab and Bering Sea Snow Crab Vessel Count by Community, Annual Averages Pre- and Post-Rationalization

State	Region	Community	Bristol Bay Red King Crab						Bering Sea Snow Crab					
			Pre-Rationalization Annual Average (1998–2004)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)		Pre-Rationalization Annual Average (1998–2005)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alaska	South-Central	Anchor Point	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
		Anchorage	6.1	2.5%	3.6	4.7%	3.6	5.8%	5.9	2.9%	4.2	5.9%	6.6	9.5%
		Big Lake	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.1	0.0%	0.0	0.0%	0.0	0.0%
		Cordova	1.6	0.7%	0.0	0.0%	0.0	0.0%	1.3	0.6%	0.0	0.0%	0.0	0.0%
		Homer	7.3	3.0%	3.2	4.2%	5.0	8.0%	6.8	3.4%	3.4	4.8%	4.4	6.4%
		Kenai	0.6	0.2%	0.0	0.0%	0.0	0.0%	0.6	0.3%	0.0	0.0%	0.0	0.0%
		Seldovia	1.0	0.4%	0.8	1.0%	0.4	0.6%	1.0	0.5%	0.8	1.1%	1.0	1.4%
		Seward	0.9	0.4%	0.0	0.0%	0.0	0.0%	0.6	0.3%	0.0	0.0%	0.0	0.0%
		Wasilla	0.0	0.0%	0.2	0.3%	0.0	0.0%	0.0	0.0%	0.2	0.3%	0.2	0.3%
		South-Central Subtotal	*17.7*	*7.2%*	*7.8*	*10.2%*	*9.0*	*14.4%*	*16.3*	*8.1%*	*8.6*	*12.1%*	*12.2*	*17.6%*
	Southeast	Ketchikan	1.0	0.4%	0.4	0.5%	0.0	0.0%	1.0	0.5%	0.4	0.6%	0.0	0.0%
		Pelican	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.1	0.0%	0.0	0.0%	0.0	0.0%
		Petersburg	3.4	1.4%	0.0	0.0%	0.0	0.0%	3.3	1.6%	0.0	0.0%	0.0	0.0%
		Sitka	1.7	0.7%	0.0	0.0%	0.0	0.0%	1.6	0.8%	0.0	0.0%	0.0	0.0%
		Yakutat	0.9	0.4%	0.0	0.0%	0.0	0.0%	0.8	0.4%	0.0	0.0%	0.0	0.0%
		Southeast Subtotal	*7.0*	*2.9%*	*0.4*	*0.5%*	*0.0*	*0.0%*	*6.8*	*3.4%*	*0.4*	*0.6%*	*0.0*	*0.0%*
	Aleutian/Pribilof	Akutan	0.4	0.2%	0.0	0.0%	0.0	0.0%	0.3	0.1%	0.0	0.0%	0.0	0.0%
		King Cove	2.4	1.0%	1.0	1.3%	0.0	0.0%	1.5	0.7%	0.0	0.0%	0.0	0.0%
		Sand Point	2.3	0.9%	0.0	0.0%	0.0	0.0%	1.1	0.5%	0.0	0.0%	0.0	0.0%
		Unalaska/Dutch Harbor	0.9	0.4%	0.0	0.0%	0.0	0.0%	0.8	0.4%	0.2	0.3%	0.0	0.0%
		Aleutian/Pribilof Subtotal	*6.0*	*2.5%*	*1.0*	*1.3%*	*0.0*	*0.0%*	*3.6*	*1.8%*	*0.2*	*0.3%*	*0.0*	*0.0%*
	All non-Kodiak Alaska Regions Combined Subtotal		*30.7*	*12.6%*	*9.2*	*12.0%*	*9.0*	*14.4%*	*26.6*	*13.3%*	*9.2*	*13.0%*	*12.2*	*17.6%*
	Kodiak	Kodiak	34.0	13.9%	10.4	13.5%	7.8	12.5%	26.9	13.4%	9.6	13.6%	8.0	11.6%
	Alaska Total		**64.7**	**26.5%**	**19.6**	**25.5%**	**16.8**	**26.9%**	**53.5**	**26.7%**	**18.8**	**26.6%**	**20.2**	**29.2%**
Washington	Seattle MSA		138.0	56.5%	43.6	56.8%	35.4	56.7%	111.0	55.4%	41.4	58.5%	38.6	56.1%
	Other Washington		16.9	6.9%	4.0	5.2%	2.2	3.5%	14.9	7.4%	1.6	2.3%	1.8	2.6%
	Washington Total		**154.9**	**63.4%**	**47.6**	**62.0%**	**37.6**	**60.3%**	**125.9**	**62.8%**	**43.0**	**60.7%**	**40.4**	**58.4%**
Oregon	**Oregon Total**		**19.1**	**7.8%**	**8.4**	**10.9%**	**6.8**	**10.9%**	**16.4**	**8.2%**	**7.8**	**11.0%**	**6.8**	**9.8%**
Other U.S.	**Other U.S. Total**		**5.7**	**2.3%**	**1.2**	**1.6%**	**1.2**	**1.9%**	**4.8**	**2.4%**	**1.2**	**1.7%**	**1.8**	**2.6%**
All States	**All States Total**		**244.4**	**100.0%**	**76.8**	**100.0%**	**62.4**	**100.0%**	**200.5**	**100.0%**	**70.8**	**100.0%**	**69.2**	**100.0%**

Source: ADFG 2015; CFEC 2015

program review, only vessels from Anchorage, Homer, and Seldovia continued to participate in either or both the Bristol Bay red king crab and Bering Sea snow crab fisheries, and only Anchorage and Homer increased their relative proportion of the overall fleet compared to pre-rationalization conditions.

During the second five years of the program, in the Bristol Bay red king crab fishery, the annual average number of vessels participating were declined slightly in Seldovia, remained flat in Anchorage, and increased in Homer, with percentages of participation increasing in the latter two communities. In the Bering Sea snow crab fishery in the second five years of the program, the annual average numbers of vessels participating increased in all three communities (exceeding the pre-rationalization annual average in the case of Anchorage and matching it in the case of Seldovia) and in percentage terms participation was higher than pre-rationalization annual average percentage figures in all three communities.

The case of the South-Central community of Wasilla is unique in that it showed any absolute increase in vessel participation in either the Bristol Bay red king crab or Bering Sea snow crab fisheries during the first five years of the rationalization program. Wasilla does not show as having any vessel ownership participation pre-rationalization in the years covered by the dataset, but at the time of the 5-year program review did show up in the data as having at least minimal participation post-rationalization in both fisheries. During the second five years of the program, Wasilla was absent from the Bristol Bay red king crab data, but it again showed a minimal level of vessel participation in the Bering Sea snow crab fishery. It remains the only community shown in the data as having participating vessel ownership in any post-rationalization year that did not have local vessel ownership in at least one pre-rationalization year.

Within Southeast Alaska, five communities had vessels participating in the pre-rationalization Bristol Bay red king crab fishery and/or the Bering Sea snow crab fishery during the years covered by the dataset. During the first five years of the rationalization program, no Southeast community except Ketchikan had vessels in either fishery, and Ketchikan had an annual average of less than one vessel per year. No Southeast community vessels participated in either fishery during the second five years of the rationalization program.

Within the Aleutian/Pribilof region, while four communities had vessels participated in the pre-rationalization Bristol Bay red king crab and Bering Sea snow crab fisheries in the years covered by the dataset, at the time of the 5-year program review, only King Cove was represented in the post-rationalization Bristol Bay red king crab fleet and only Unalaska/Dutch Harbor was represented in the post-rationalization Bering Sea snow crab fleet. No community in the Aleutian/Pribilof region had vessels participating in either fishery during the second five years of the rationalization program.

While these trends of Alaska regional vessel participation appear especially stark, it is important to note that relatively few vessels from small communities have historically participated in the capital-intensive BSAI crab fisheries. Further, because of the small numbers involved, even slight shifts in participation make a relatively large percentage difference in results. Nevertheless, the consolidation trends, with the noted exceptions of Anchorage and Homer, appear to be unidirectional (downward) and consistent across Alaska communities, and the participation of even a very few vessels may be important in a small community for a number of reasons, as noted below. Overall, at the time of the 5-year program review, Alaska as a whole

accounted for a slightly smaller percentage of the Bristol Bay red king crab and Bering Sea snow crab fleets on an annual basis post-rationalization than was the case pre-rationalization. During the second five years of the rationalization program, Alaska as a whole accounted for a slightly larger percentage of the Bristol Bay red king crab and Bering Sea snow crab fleets on an annual basis than was the case pre-rationalization.

Outside of Alaska, vessels owned by residents of the metropolitan Seattle area of Washington (as defined by the Seattle-Tacoma-Bellevue, Washington Metropolitan Statistical Area and referred to as the "Seattle MSA" in this document)[20] alone made up over half of the fleet on an annual average basis in both the Bristol Bay red king crab fishery and the Bering Sea snow crab fisheries over the pre-rationalization years covered by the dataset as well as during the first five years and the second five years post-rationalization; Washington as a whole accounted for roughly 60 percent of the fleet during each of these same time periods. Percentages declined slightly post-rationalization in both fisheries for Washington as a whole, but increased slightly for the Seattle MSA, generally mirroring the Alaska trend of fleet aggregation into fewer and larger communities.

The percentage of Oregon vessels in the post-rationalization fleet has been higher on an annual average basis than was the case in the pre-rationalization fleet, but the absolute number of vessels declined in both the first five years and second five years of the rationalization program. The results are more mixed for vessels from all states outside of Alaska, Washington, and Oregon combined, but very small numbers of vessels in these states suggest caution should be used in interpreting the data.

1.2.3 Catcher Vessel Crab Harvest Volume and Value by Community

Table 1-3 displays catcher vessel average annual harvest by volume (absolute and percentage) both pre- and post-rationalization. Table 1-4 provides similar information for value of harvest. (Tables A1-3a, A1-3b, A1-4a, and A1-4b in Attachment 1 provide analogous information on a year-by-year basis.)

Confidentiality restrictions effectively preclude the display of pre- and post-rationalization comparative harvest volume and value data for all communities and regions within Alaska except for Kodiak, due to the small number of vessels participating in the fisheries from most communities, particularly post-rationalization. Within Alaska but outside of Kodiak, totals could be shown for either all of Alaska exclusive of Kodiak (allowing a state total) or the South-Central region, but not both. The option allowing a state total was chosen to allow comparisons between vessels from different states.

As shown in Table 1-3, in absolute terms, annual average volume for Bristol Bay red king crab was higher and Bering Sea snow crab was lower in the first 5 years of the post-rationalization era compared to the pre-rationalization era shown. This, however, was a function of GHLs or TAC rather than a function of rationalization. Since the 5-year program review, the pattern has changed somewhat, with overall annual averages for Bristol Bay red king crab being lower than

[20] The Seattle-Tacoma-Bellevue Metropolitan Statistical Area is a U.S. Census Bureau defined region used to tabulate the metropolitan area in and around Seattle, Washington. It includes of King, Pierce, and Snohomish counties.

Table 1-3. Bristol Bay Red King Crab and Bering Sea Snow Crab Catcher Vessel Harvest Volume by Community, Annual Averages Pre- and Post-Rationalization

State	Region	Bristol Bay Red King Crab						Bering Sea Snow Crab					
		Pre-Rationalization Annual Average (1998–2004)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)		Pre-Rationalization Annual Average (1998–2005)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)	
		Pounds	**Percent**	**Pounds**	**Percent**	**Pounds**	**Percent**	**Pounds**	**Percent**	**Pounds**	**Percent**	**Pounds**	**Percent**
Alaska	Kodiak	1,336,809	12.1%	2,065,594	11.9%	1,112,562	11.6%	9,434,463	13.1%	5,387,662	12.0%	7,172,143	11.4%
	All Other Alaska	1,274,811	11.5%	2,233,113	12.9%	1,668,743	17.5%	9,463,787	13.1%	7,570,349	16.9%	11,611,395	18.4%
	Alaska Total	*2,611,620*	*23.6%*	*4,298,708*	*24.8%*	*2,781,305*	*29.1%*	*18,898,250*	*26.3%*	*12,958,011*	*29.0%*	*18,783,538*	*29.8%*
Washington		*7,297,325*	*66.0%*	*10,875,886*	*62.8%*	*5,672,810*	*59.4%*	*46,466,872*	*64.6%*	*26,708,932*	*59.7%*	*37,418,322*	*59.3%*
Oregon and Other U.S.		*1,143,651*	*10.3%*	*2,134,074*	*12.3%*	*1,096,126*	*11.5%*	*6,605,366*	*9.2%*	*5,071,815*	*11.3%*	*6,935,469*	*11.0%*
All State Total		**11,052,597**	**100.0%**	**17,308,668**	**100.0%**	**9,550,242**	**100.0%**	**71,970,487**	**100.0%**	**44,738,757**	**100.0%**	**63,137,329**	**100.0%**

Source: ADFG 2015; CFEC 2015

Table 1-4. Bristol Bay Red King Crab and Bering Sea Snow Crab Catcher Vessel Harvest Value by Community, Annual Averages Pre- and Post-Rationalization

State	Region	Bristol Bay Red King Crab						Bering Sea Snow Crab					
		Pre-Rationalization Annual Average (1998–2004)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)		Pre-Rationalization Annual Average (1998–2005)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)	
		Dollars	**Percent**	**Dollars**	**Percent**	**Dollars**	**Percent**	**Dollars**	**Percent**	**Dollars**	**Percent**	**Dollars**	**Percent**
Alaska	Kodiak	$6,381,737	12.2%	$9,301,675	12.2%	$8,630,356	11.6%	$9,217,332	13.0%	$7,825,479	12.2%	$15,497,603	11.4%
	All Other Alaska	$5,998,490	11.4%	$9,910,901	13.0%	$12,846,894	17.3%	$8,693,960	12.2%	$11,195,729	17.4%	$24,834,880	18.2%
	Alaska Total	*$12,380,227*	*23.6%*	*$19,212,577*	*25.2%*	*$21,477,250*	*29.0%*	*$17,911,292*	*25.2%*	*$19,021,208*	*29.6%*	*$40,332,483*	*29.6%*
Washington		*$34,567,234*	*66.0%*	*$47,595,758*	*62.5%*	*$44,347,658*	*59.8%*	*$46,002,388*	*64.7%*	*$38,068,017*	*59.2%*	*$81,015,146*	*59.5%*
Oregon and Other U.S.		*$5,449,658*	*10.4%*	*$9,312,626*	*12.2%*	*$8,316,197*	*11.2%*	*$7,153,504*	*10.1%*	*$7,198,868*	*11.2%*	*$14,910,372*	*10.9%*
All State Total		**$52,397,119**	**100.0%**	**$76,120,961**	**100.0%**	**$74,141,105**	**100.0%**	**$71,067,184**	**100.0%**	**$64,288,093**	**100.0%**	**$136,258,001**	**100.0%**

Source: ADFG 2015; CFEC 2015

the pre-rationalization era; Bering Sea snow crab averages increased over early post-rationalization years, but remain below pre-rationalization averages.

At the time of the 5-year program review, in proportional terms, overall, the annual average percentage of total fishery landings attributable to Kodiak vessels had decreased in both the Bristol Bay red king crab and the Bering Sea snow crab fisheries under post-rationalization conditions compared to pre-rationalization conditions. The opposite pattern was seen for Alaska vessels outside of Kodiak (and, as a result, for vessels from all areas of Alaska combined). Both of these trends have continued since the 5-year program review, with Kodiak's percentage of landings continuing to fall below pre-rationalization levels and the percentage of landings attributable to Alaska communities outside of Kodiak continuing to increase above pre-rationalization levels.

In the case of Washington communities, confidentiality restrictions allowed the display of data for vessels from the Seattle MSA or all of Washington, but not both, due to the low number of vessels participating in the post-rationalization Bering Sea snow crab fishery that are owned outside of Seattle. Again, the option that allowed a state total to be shown was selected. For Oregon vessels and vessels from states other than Alaska, Washington, and Oregon, either the Oregon totals could be shown, or the overall fleet totals could be shown, but not both, so the decision was made to combine Oregon vessel totals with those from states other than Alaska and Washington to allow overall crab fleet totals to be shown.

Overall, at the time of the 5-year program review, the annual average proportion of landings by volume for Washington vessels had decreased compared to the overall crab fleet in both the Bristol Bay red king crab and the Bering Sea snow crab fisheries under pre-rationalization conditions (although, again, for the Bristol Bay red king crab fishery, absolute numbers for landings increased). The trend of declining proportion of both Bristol Bay red king crab and Bering Sea snow crab fisheries landings for Washington vessels has continued since the 5-year program review.

In the case of vessels from Oregon and all other states (that is, all states except Alaska and Washington) combined, at the time of the 5-year program review the proportion of landings had increased post-rationalization compared to pre-rationalization conditions. Since the 5-year program review, the overall proportion of annual average landings for vessels from these states have decreased somewhat, but remain above pre-rationalization averages.

As shown in Table 1-4, values roughly tracked with volumes for Kodiak and Alaska vessels in general; the post-rationalization annual average percentage of value of the Bristol Bay red king crab and Bering Sea snow crab fisheries for Kodiak vessels remained about the same or declined somewhat for Kodiak vessels, while they increased for vessels from the rest of Alaska outside of Kodiak (and the state as a whole), a trend that has continued since the 5-year program review. Outside of Alaska, the proportion of total value harvested by Washington vessels has remained below pre-rationalization figures, continuing to decline for Bristol Bay king crab since the 5-year program review while remaining virtually unchanged for the Bering Sea snow crab fishery.

BSAI crab vessels vary in their relative dependency on crab as vessels participate in a wide range of other fisheries. Table 1-5 displays diversity information by volume of harvest by species on an average annual basis during both pre- and post-rationalization years. Due to confidentiality

Table 1-5. BSAI Crab Vessel Harvest Diversity, Annual Averages by Volume, Pre- and Post-Rationalization

State	Region	Species	Pre-Rationalization Annual Average (1998–2004)		First 5 Years Post-Rationalization Annual Average (2006–2010)		Second 5 Years* Post-Rationalization Annual Average (2011–2014)	
			Pounds	**Percent**	**Pounds**	**Percent**	**Pounds**	**Percent**
Alaska	Kodiak	Rationalized Crab	12,407,313	18.0%	7,647,163	13.6%	8,326,402	12.1%
		Non-Rationalized Crab	***	***	***	***	***	***
		Groundfish	52,758,969	76.5%	46,407,926	82.2%	59,311,788	86.0%
		Other Species	***	***	***	***	***	***
		Total	68,955,776	100.0%	56,433,143	100.0%	69,004,854	100.0%
	All Other Alaska Regions	Rationalized Crab	12,060,969	44.1%	9,293,306	39.2%	12,363,652	42.0%
		Non-Rationalized Crab	***	***	***	***	***	***
		Groundfish	11,450,834	41.9%	10,509,405	44.3%	14,568,387	49.5%
		Other Species	***	***	***	***	***	***
		Total	27,332,362	100.0%	23,702,389	100.0%	29,435,907	100.0%
	Alaska Total	*Rationalized Crab*	*24,468,282*	*25.4%*	*16,940,469*	*21.1%*	*20,690,054*	*21.0%*
		Non-Rationalized Crab	*1,861,826*	*1.9%*	*449,085*	*0.6%*	*377,804*	*0.4%*
		Groundfish	*64,209,803*	*66.7%*	*56,917,331*	*71.0%*	*73,880,175*	*75.1%*
		Other Species	*5,748,228*	*6.0%*	*5,828,648*	*7.3%*	*3,492,728*	*3.5%*
		Total	*96,288,138*	*100.0%*	*80,135,533*	*100.0%*	*98,440,761*	*100.0%*
Washington Total		*Rationalized Crab*	*60,629,562*	*8.9%*	*35,913,862*	*6.2%*	*41,541,423*	*6.0%*
		Non-Rationalized Crab	***	***	***	***	***	***
		Groundfish	*616,572,300*	*90.5%*	*542,261,504*	*93.4%*	*650,486,948*	*93.5%*
		Other Species	***	***	***	***	***	***
		Total	*681,145,138*	100.0%	*580,837,328*	*100.0%*	*695,933,196*	*100.0%*
Oregon and Other U.S. Total		*Rationalized Crab*	*9,735,245*	*14.2%*	*8,524,895*	*13.7%*	*9,603,479*	*14.8%*
		Non-Rationalized Crab	***	***	***	***	***	***
		Groundfish	*56,550,275*	*82.5%*	*51,527,204*	*83.1%*	*53,625,252*	*82.7%*
		Other Species	***	***	***	***	***	***
		Total	*68,581,552*	100.0%	*62,004,569*	*100.0%*	*64,820,854*	*100.0%*
All States Total		**Rationalized Crab**	**94,833,088**	**11.2%**	**61,379,226**	**8.5%**	**71,834,956**	**8.4%**
		Non-Rationalized Crab	**5,098,582**	**0.6%**	**1,257,748**	**0.2%**	**1,401,325**	**0.2%**
		Groundfish	**737,332,377**	**87.2%**	**650,706,039**	**90.0%**	**777,992,375**	**90.5%**
		Other Species	**8,750,781**	**1.0%**	**9,634,418**	**1.3%**	**7,966,155**	**0.9%**
		Total	**846,014,829**	**100.0%**	**722,977,430**	**100.0%**	**859,194,811**	**100.0%**

*Note: data are only available for 4 years of this period at present.
** Data are suppressed due to confidentiality of primary data.
***Data are suppressed to protect confidentiality of other data.
Source: ADFG 2015; CFEC 2015

restrictions, the only Alaska community for which a community total may be disclosed is Kodiak. Table 1-6 provides parallel information displayed by value rather than by volume of harvest. (Tables A1-5a, A1-5b, A1-6a, and A1-6b in Attachment 1 provide analogous volume and value information on a year-by-year basis.) The relatively lower annual average percentage of dependence on crab seen especially in the first five years following implementation of the rationalization program is largely, if not entirely, attributable to the sharp decline in the Bering Sea snow crab fishery that occurred partway through the span of pre-rationalization years in the tables (with the inclusion of the much higher volume and value years at the beginning of the pre-rationalization time period covered serving to skew the pre-rationalization average upward). By the second five post-rationalization years, annual average dependency on crab as measured by value was generally higher than pre-rationalization annual averages or annual values for the rationalization program post-implementation years covered in the 5-year program review.

1.2.4 Local Community Processor Participation

As shown in Table 1-7a and Table 1-7b, processors are concentrated in a relatively few communities, but community data for processing are known to be less than complete due to a lack of processing location data for a number of floating catcher processors and inshore stationary floating processors.[21] (Tables A1-7a and A1-7b in Attachment 1 provide analogous information on a year-by-year basis.) Only Unalaska/Dutch Harbor shows an annual average of more than one processor for each year for each species shown (Bristol Bay red king crab, Bering Sea snow crab, EAI golden king crab, and WAI golden king crab) before and after rationalization within the span of years covered.

Besides Unalaska/Dutch Harbor, only King Cove and Kodiak show an annual average of one or more processors in the pre-rationalization period, the first five post-rationalization years, and the second five post-rationalization years for both Bristol Bay red king and Bering Sea snow crab. St. Paul shows an annual average of more than one processor for each of these same intervals for Bering Sea snow crab, but not for Bristol Bay red king crab. In the case of St. Paul, the number of processors shown, especially for Bering Sea snow crab, has been clearly influenced in recent years by the trend of custom processing, where a single entity physically present in the community is running product for other processors more typically based elsewhere that find

[21] The pre-rationalization annual averages in Tables 1-7a and 1-7b and the analogous table from the 5-year program review vary slightly from the analogous pre-rationalization averages that appeared in the crab rationalization 3-year program review, due to two factors. First, slightly smaller rounding errors appear in the 5-year program review version and the current 10-year program review version of the table, due to a change in the way averages were calculated (and specifically when in the process rounding occurred). Second, 2005 data were excluded from the 3-year program review version of the table and included in the current version of the table. The exclusion of 2005 data in the earlier version of Table 1-7 was an attempt to avoid a "double count" of processor activity for species that had two open seasons during the 2005 calendar year as a result of rationalization and simply the data presentation through this conservative approach. Data used for the 5-year and 10-year program reviews, however, are more detailed with regard to processor pre- and post-rationalization activities for 2005, allowing 2005 data to be included in pre-rationalization annual average calculations for Bering Sea snow crab and WAI golden king crab (and in post-rationalization averages for all species shown [understanding that post-rationalization annual averages are also potentially influenced by the additional years that passed between the 3-year program review and the later program reviews]). The changes to pre-rationalization annual averages brought about by these two factors are not large enough to significantly change any of the social impact assessment findings in the crab rationalization 3-year program review.

Table 1-6. BSAI Crab Vessel Harvest Diversity, Annual Averages by Value, Pre- and Post-Rationalization

State	Region	Species	Pre-Rationalization Annual Average (1998–2004)		First 5 Years Post-Rationalization Annual Average (2006–2010)		Second 5 Years* Post-Rationalization Annual Average (2011–2014)	
			Dollars	Percent	Dollars	Percent	Dollars	Percent
Alaska	Kodiak	Rationalized Crab	$18,160,225	53.7%	$18,418,875	51.6%	$24,789,019	60.1%
		Non-Rationalized Crab	***	***	***	***	***	***
		Groundfish	$8,609,153	25.5%	$11,211,386	31.4%	$12,294,082	29.8%
		Other Species	***	***	***	***	***	***
		Total	$33,788,298	100.0%	$35,678,254	100.0%	$41,241,940	100.0%
	All Other Alaska Regions	Rationalized Crab	$16,138,512	71.7%	$22,484,579	70.0%	$38,579,287	75.0%
		Non-Rationalized Crab	***	***	***	***	***	***
		Groundfish	$2,339,356	10.4%	$4,651,388	14.5%	$7,529,296	14.6%
		Other Species	***	***	***	***	***	***
		Total	$22,515,632	100.0%	$32,132,404	100.0%	$51,414,268	100.0%
	Alaska Total	*Rationalized Crab*	*$34,298,737*	*61.0%*	*$40,903,454*	*60.3%*	*$63,368,306*	*68.4%*
		Non-Rationalized Crab	*$3,473,039*	*6.2%*	*$981,113*	*1.4%*	*$1,567,344*	*1.7%*
		Groundfish	*$10,948,509*	*19.5%*	*$15,862,774*	*23.4%*	*$19,823,378*	*21.4%*
		Other Species	*$7,547,076*	*13.4%*	*$10,063,318*	*14.8%*	*$7,897,181*	*8.5%*
		Total	*$56,267,360*	*100.0%*	*$67,810,659*	*100.0%*	*$92,656,208*	*100.0%*
Washington Total		*Rationalized Crab*	*$90,360,935*	*54.8%*	*$85,843,209*	*46.8%*	*$125,165,148*	*52.4%*
		Non-Rationalized Crab	***	***	***	***	***	***
		Groundfish	*$68,034,898*	*41.2%*	*$94,419,554*	*51.5%*	*$109,725,686*	*46.0%*
		Other Species	***	***	***	***	***	***
		Total	*$164,981,809*	*100.0%*	*$183,382,960*	*100.0%*	*$238,689,869*	*100.0%*
Oregon and Other U.S. Total		*Rationalized Crab*	*$17,480,354*	*57.5%*	*$20,292,801*	*53.6%*	*$29,264,752*	*64.3%*
		Non-Rationalized Crab	***	***	***	***	***	***
		Groundfish	*$7,878,557*	*25.9%*	*$11,664,544*	*30.8%*	*$11,776,990*	*25.9%*
		Other Species	***	***	***	***	***	***
		Total	*$30,376,174*	*100.0%*	*$37,874,309*	*100.0%*	*$45,527,733*	*100.0%*
All States Total		**Rationalized Crab**	**$142,140,026**	**56.5%**	**$147,039,464**	**50.9%**	**$217,798,206**	**57.8%**
		Non-Rationalized Crab	**$10,257,699**	**4.1%**	**$3,214,533**	**1.1%**	**$5,275,548**	**1.4%**
		Groundfish	**$86,861,963**	**34.5%**	**$121,946,872**	**42.2%**	**$141,326,054**	**37.5%**
		Other Species	**$12,402,226**	**4.9%**	**$16,867,058**	**5.8%**	**$12,474,003**	**3.3%**
		Total	**$251,661,914**	**100.0%**	**$289,067,927**	**100.0%**	**$376,873,811**	**100.0%**

*Note: data are only available for 4 years of this period at present.
** Data are suppressed due to confidentiality of primary data.
***Data are suppressed to protect confidentiality of other data.
Source: ADFG 2015; CFEC 2015

Table 1-7a. BSAI Crab Processor Count by Community, Annual Averages Pre- and Post-Rationalization, Bristol Bay Red King Crab and Bering Sea Snow Crab

Region	Community	Bristol Bay Red King Crab						Bering Sea Snow Crab					
		Pre-Rationalization Annual Average* (1998–2004/2005)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)		Pre-Rationalization Annual Average* (1998–2004/2005)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
South-Central	Cordova	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.1	0.3%	0.0	0.0%	0.0	0.0%
	Ninilchik	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.1	0.3%	0.0	0.0%	0.0	0.0%
	Wasilla	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.1	0.3%	0.0	0.0%	0.0	0.0%
	South-Central Total	*0.0*	*0.0%*	*0.0*	*0.0%*	*0.0*	*0.0%*	*0.4*	*1.3%*	*0.0*	*0.0%*	*0.0*	*0.0%*
Southeast	Sitka	0.0	0.0%	0.2	1.1%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Aleutian/ Pribilof	Adak	0.1	0.4%	0.0	0.0%	0.0	0.0%	0.1	0.3%	0.0	0.0%	0.0	0.0%
	Akutan	1.0	3.8%	1.4	8.0%	2.4	12.9%	0.9	2.9%	1.2	5.4%	2.2	10.1%
	King Cove	1.4	5.3%	1.8	10.2%	2.0	10.8%	1.1	3.6%	1.0	4.5%	1.0	4.6%
	Sand Point	0.4	1.5%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
	St. Paul	0.4	1.5%	1.4	8.0%	2.0	10.8%	2.0	6.5%	4.2	18.9%	6.4	29.4%
	Unalaska/Dutch Harbor	6.4	24.2%	5.4	30.7%	6.0	32.3%	6.6	21.6%	6.0	27.0%	6.0	27.5%
	Aleutian/Pribilof Total	*9.9*	*37.5%*	*10.0*	*56.8%*	*12.4*	*66.7%*	*10.8*	*35.3%*	*12.4*	*55.9%*	*15.6*	*71.6%*
Kodiak	Kodiak	4.4	16.7%	3.6	20.5%	3.6	19.4%	1.9	6.2%	2.0	9.0%	1.8	8.3%
Floating Catcher Processors		5.4	20.5%	3.0	17.0%	2.0	10.8%	5.1	16.7%	3.6	16.2%	2.0	9.2%
Inshore Stationary Floating Processors		2.6	9.8%	0.8	4.5%	0.6	3.2%	4.4	14.4%	4.2	18.9%	2.4	11.0%
Floating Domestic Motherships		0.0	0.0%	0.0	0.0%	0.0	0.0%	0.1	0.3%	0.0	0.0%	0.0	0.0%
Unknown		4.1	15.5%	0.0	0.0%	0.0	0.0%	8.0	26.1%	0.0	0.0%	0.0	0.0%
Total All Areas		**26.4**	**100.0%**	**17.6**	**100.0%**	**18.6**	**100.0%**	**30.6**	**100.0%**	**22.2**	**100.0%**	**21.8**	**100.0%**

Note: Not all percentages add up due to rounding introduced in computing pre- and post-rationalization averages.
Source: ADFG 2015; CFEC 2015

Table 1-7b. BSAI Crab Processor Count by Community, Annual Averages Pre- and Post-Rationalization, EAI Golden King Crab and WAI Golden King Crab

Region	Community	EAI Golden King Crab						WAI Golden King Crab					
		Pre-Rationalization Annual Average* (1998–2004/2005)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)		Pre-Rationalization Annual Average* (1998–2004/2005)		First 5 Years Post-Rationalization Annual Average (2005/2006–2009/2010)		Second 5 Years Post-Rationalization Annual Average (2010/2011–2014/2015)	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
South-Central	Cordova	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
	Ninilchik	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
	Wasilla	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
	South-Central Total	*0.0*	*0.0%*	*0.0*	*0.0%*	*0.0*	*0.0%*	*0.0*	*0.0%*	*0.0*	*0.0%*	*0.0*	*0.0%*
Southeast	Sitka	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Aleutian/ Pribilof	Adak	0.9	18.0%	0.0	0.0%	0.0	0.0%	1.9	28.8%	1.2	20.7%	1.2	14.3%
	Akutan	0.1	2.0%	0.4	7.4%	2.0	21.3%	0.0	0.0%	0.0	0.0%	2.4	28.6%
	King Cove	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
	Sand Point	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
	St. Paul	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
	Unalaska/Dutch Harbor	3.6	72.0%	4.2	77.8%	7.0	74.5%	2.9	43.9%	3.0	51.7%	4.2	50.0%
	Aleutian/Pribilof Total	*4.6*	*92.0%*	*4.6*	*85.2%*	*9.0*	*95.7%*	*4.8*	*72.7%*	*4.2*	*72.4%*	*7.8*	*92.9%*
Kodiak	Kodiak	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Floating Catcher Processors		0.0	0.0%	0.6	11.1%	0.0	0.0%	0.9	13.6%	1.0	17.2%	0.6	7.1%
Inshore Stationary Floating Processors		0.0	0.0%	0.2	3.7%	0.4	4.3%	0.0	0.0%	0.6	10.3%	0.0	0.0%
Floating Domestic Motherships		0.0	0.0%	0.0	0.0%	0.0	0.0%	0.1	1.5%	0.0	0.0%	0.0	0.0%
Unknown		0.4	8.0%	0.0	0.0%	0.0	0.0%	0.9	13.6%	0.0	0.0%	0.0	0.0%
Total All Areas		**5.0**	**100.0%**	**5.4**	**100.0%**	**9.4**	**100.0%**	**6.6**	**100.0%**	**5.8**	**100.0%**	**8.4**	**100.0%**

Note: Not all percentages add up due to rounding introduced in computing pre- and post-rationalization averages.
Source: ADFG 2015; CFEC 2015

custom processing arrangements advantageous under the rationalized fishery system, particularly in light of the regionalization features[22] built into the rationalization program.

Besides Unalaska/Dutch Harbor, Adak is the only community that shows up processing WAI golden king crab both pre- and post-rationalization (but Akutan shows up in the second five years under rationalization); besides Unalaska/Dutch Harbor, Akutan is the only community that shows up as processing EAI golden king crab both pre- and post-rationalization (although Adak shows up the pre-rationalization period). Again, there are known shortcomings in these data from the exclusion of at least some inshore stationary floating processors and/or other floating processors that should be associated with specific communities.[23]

One trend that is apparent in the second five post-rationalization years, however, is the increase in the number of Bering Sea snow crab processors in Akutan and, as previously noted, St. Paul; the increase in EAI golden king crab processors in Akutan and Unalaska/Dutch Harbor; and the increase in WAI golden king crab processors in Akutan and Unalaska/Dutch Harbor. It is assumed that in Akutan and Unalaska/Dutch Harbor these increases are largely the result of increased custom processing in those communities, given the lack of new physical processing plants in the communities (and, indeed, the decrease in physical plants involved in processing rationalized crab over the two post-rationalization five-year intervals[24]), similar to what was earlier described for St. Paul.

1.2.5 Processor Volume and Value by Community by Share Type

Due to the low number of processors, confidentiality restrictions preclude the disclosure of community-specific volume or value information for every community except Unalaska/Dutch Harbor, simply based on the number of active processors. Even in that case, the desire to show a

[22] The Bristol Bay red king crab, the Bering Sea snow crab, the EAI golden king crab, and the St. Matthew Island blue king crab fisheries each have north and south regional designations; the Pribilof Islands blue and red king crab fishery has a north regional designation (only); the WAI red king crab fishery has a south regional designation (only); and the WAI golden king crab fishery has a west region designation portion of the fishery and an undesignated region portion of the fishery. Both the EBS Tanner and the WBS Tanner crab fisheries are entirely undesignated region fisheries. North region shares are designated for delivery in areas on the Bering Sea north of 56º 20' North latitude, while southern shares are designated for any other areas, including Kodiak and other areas on the Gulf of Alaska. West region shares are designated for delivery west of 174º West longitude.

[23] The only catcher processors shown as owned by a resident of an Alaska community in the 1998–2014/2015 dataset are one Kodiak-owned vessel that participated in the Bristol Bay red king crab fishery in 2002 only and a second Kodiak-owned vessel that participated in the EAI golden king crab fishery in 2006 and the WAI golden king crab fishery from 2000 through 2006 (with this same vessel also classed as a floating domestic mothership in the WAI golden king crab fishery in 2002). From 2007 through 2012, the latter vessel is shown in the dataset as Washington-owned; it is not present in the dataset past 2012. The only other catcher processor in the data that does not have Washington ownership was one catcher processor that is shown in the data as Sisters, Oregon owned that participated in the Bristol Bay red king crab fishery in 2002 only. According to the 1998–2014/2015 dataset, all catcher processors, inshore stationary floating processors, and domestic motherships (other than those previously noted as having Alaska or Oregon ownership) that participated in any of the crab fisheries included in the rationalization program were listed with Washington ownership addresses. It is important to note, however, that ownership location information for these sectors in general is more consistently available in the data from about 2002 onward. In earlier years, as reported in the 5-year program review, it would appear that there may have additional limited activity by at least one Kodiak-owned catcher processor and one year/one species involvement by one locally owned catcher processor each in Juneau and Cordova, but no further activity is apparent in later years (for which better data are available) other than that already noted.

[24] Due to the closures of the Prime Alaska Seafoods and Harbor Crown Seafoods/Bering Fisheries plants.

more complete analysis of the distribution of processing of A, B, and C share quota requires lumping of Unalaska/Dutch Harbor data with Akutan data.[25] Further, while neither Kodiak nor St. Paul data can be shown in isolation due to confidentiality restrictions, if Kodiak and King Cove data are aggregated where possible, and St. Paul and "Other Alaska" (i.e., Alaska exclusive of Unalaska/Dutch Harbor, Akutan, Kodiak, King Cove, and St. Paul) are aggregated where possible, a relatively complete picture of how the processing of share types track with each other by community group begins to emerge.[26]

As described in the 5-year program review, the geographic distribution of B and C share processing compared to A share processing varied by year and fishery over the 5 years of the program. Overall, however, in the Bristol Bay red king crab fishery, over the first 3 years of the program, B and C share processing tended to track relatively closely with A share processing in terms of distribution across communities, except for B share processing in the 2007/2008 season, which tended to be more aggregated in Akutan and Unalaska/Dutch Harbor (and less aggregated in King Cove and Kodiak) than either A or C share processing, as reported in the 3-year program review, with the lapse in "cooling off" requirements in the third year of the program seen as accounting for some of the movement of B and C shares from Unalaska/Dutch Harbor and Akutan back to King Cove and Kodiak. During the following two seasons (2008/2009 and 2009/2010) that were also included in the 5-year program review, between 66 and 67 percent of Bristol Bay red king crab A shares were processed in Unalaska/Dutch Harbor and Akutan combined, while between 79 and 84 percent of B shares were processed in those communities those same years, mirroring the pattern seen in the 2007/2008 season. For all of the first five post-rationalization seasons, C share processing tended to track more closely with A share processing, except for the 2008/2009 season when 88 percent of Bristol Bay red king crab C shares were processed in Unalaska/Dutch Harbor and Akutan combined.

As described in the 5-year program review, the pattern for the Bering Sea snow crab varied from that of the Bristol Bay red king crab fishery over the first five years of the program. For the Bering Sea snow crab fishery, proportionally far more B share processing (between 67.2 percent and 89.3 percent of IFQ pool) and C share processing (between 70.3 percent and 87.4 percent of IFQ pool) tended to take place in Unalaska/Dutch Harbor and Akutan than did A share processing (between 34.1 percent and 46.1 percent of share type) across the first 3 years of the program, also as reported in the 3-year program review; similar comparisons could not be consistently made for King Cove and Kodiak combined because of confidentiality restrictions. During the following two seasons (2008/2009 and 2009/2010) that were also included in the 5-year program review, Unalaska/Dutch Harbor and Akutan combined accounted for between 30 and 35 percent of Bering Sea snow crab A share processing, but more than double that percentage for the other share types, accounting for between 72 and 86 percent of B share processing and 72 and 90 percent of C share processing.

[25] As noted in the Unalaska/Dutch Harbor summary below, however, it can be qualitatively stated that Unalaska did increase its processing market share on an annual average basis for Bristol Bay red king crab over the period 2006–2010 compared to pre-rationalization for the years covered by the data, and then yet again in the period 2011–2014. For Bering Sea snow crab, Unalaska did increase its processing market share on an annual average basis over the period 2006–2010 compared to pre-rationalization for the years covered by the data, but its annual average market share for 2011–2014 was lower than in the pre-rationalization years covered by the data or in the first five full years under the rationalization program (2006–2010).

[26] Please see the "Processing by Share Type and Community" tables in Section 7, Processing Sector, of the main document to which this social impact assessment is an appendix.

In the five seasons since the 5-year program review,[27] in the Bristol Bay red king crab fishery, Unalaska/Dutch Harbor and Akutan combined accounted for about 66 percent of A share crab processed in 2010/2011 and 2011/2012, and about 76 percent of A share crab 2012/2013 through 2014/2015.

- In each of these seasons (2010/2011 through 2014/2015), Unalaska/Dutch Harbor and Akutan combined processed proportionally more C share crab than A share crab, except for 2012/2013, when the proportions for A share and C share crab processed were the same. Over all five seasons, the amount of C share crab processed in Unalaska/Dutch Harbor ranged between 75 percent and 91 percent of all C share crab processed in all geographies combined.

- For B share crab, proportionally less B share than A share crab was processed in Unalaska/Dutch Harbor and Akutan combined in the three seasons 2010/2011 through 2012/2013, but proportionally more B share than A share in the following two seasons 2013/2014 and 2014/2015. Over all five seasons, the amount of B share crab processed in Unalaska/Dutch Harbor ranged between 61 percent and 80 percent of all B share crab processed in all geographies combined.

For Kodiak and King Cove combined, parallel Bristol Bay red king crab information can only be disclosed for the 2010/2011 and 2011/2012 seasons. In both of those seasons, Kodiak and King Cove combined processed about 22 percent of A share crab processed in all geographies combined. In both of those seasons substantially proportionally less of B share crab was processed in the two communities combined than A share crab (at about 9 percent and 6 percent of all B share crab processed, respectively). The relative proportions of A share crab to C share crab processed can only be discussed for one season (2010/2011) and in that case the proportion of C share crab processed (about 7 percent of all C share crab processed in all geographies combined) was much less than the proportion of A share crab for these two communities combined.

All data on Bristol Bay red king crab A share processing for St. Paul and Other Alaska (i.e., exclusive of Unalaska/Dutch Harbor, Akutan, Kodiak, King Cove, and St. Paul) combined are confidential for every season 2010/2011 through 2014/2015. Over these seasons, B share processing in these two geographies combined ranged between 16 and 33 percent of all B shares processed in all geographies combined. C share processing is non-confidential for three seasons, 2010/2011, 2011/2012, and 2014/2015. For these three seasons, C share processing in these two geographies combined ranged between 10 and 18 percent of all C shares processed.

In the Bering Sea snow crab in the fishery five seasons since the 5-year program review, Unalaska/Dutch Harbor and Akutan combined accounted for about 38 or 39 percent of A share

[27] Note: the methodology used to calculate share processing by community was slightly different for the years since the 5-year program review (2010/2011 through 2014/2015) than for the years included in the 5-year program review. For the more recent years, catcher processor owner shares landed on shore are included in the data as B shares, while catcher processor crew shares landed on shore are included in the data as C shares and attributed to the community where they are landed on shore. Like B and C shares, both catcher processor owner and catcher processor crew shares can be landed with any Registered Crab Receiver and do not require share matching. Catcher processor owner and catcher processor crew shares processed on a catcher processor are attributed to "Other Alaska."

crab processed each season 2010/2011 through 2014/2015. In each of these seasons, Unalaska/Dutch Harbor and Akutan combined processed proportionally quite a bit more C share crab than A share crab, ranging between 48 and 71 percent of all C share crab. In every season in this 5-year span, except 2013/2014, proportionally more B share than A share crab was processed in Unalaska/Dutch Harbor and Akutan, ranging between 38 and 49 percent of all B share crab.

For Kodiak and King Cove combined, parallel Bering Sea snow crab information can only be disclosed for the 2010/2011 season. In that season, Kodiak and King Cove combined processed about 9 percent of all A share crab processed, about 10 percent of the C share crab processed, and less than 1 percent of the B share crab processed. Limited information is available for the 2012/2013 season when Kodiak and King Cove combined again processed about 9 percent[28] of all A share crab processed, but only about 2 percent of all B share crab (with the relative amount of C share crab processed being confidential).

For St. Paul and Other Alaska combined, parallel Bering Sea snow crab information can only be disclosed for all share types for the 2010/2011 and 2011/2012 seasons. In those seasons, St. Paul and Other Alaska combined processed about 53 percent of A share crab processed. In 2010/2011, proportionally more B share crab was processed (about 61 percent of all B share processing) and in 2011/2012, proportionally slightly less was (about 50 percent of all B share processing). In both seasons, proportionally less C share than A share crab was processed (about 28 and 29 percent of all C share crab processed, respectively). No other data on the proportion of share processing for St. Paul and Other Alaska combined can be disclosed, except for B shares in the 2012/2013 and 2014/2015 seasons, when these two geographies combined accounted for about 53 percent of all B shares processed in all geographies.

For the EAI golden king crab fishery, Unalaska/Dutch Harbor alone or Unalaska/Dutch Harbor and Akutan together account for virtually all processing of all share types in each year for which data can be disclosed since the implementation of the rationalization program. For WAI golden king crab, a similar pattern is seen, except for Adak joining Unalaska/Dutch Harbor alone or Unalaska/Dutch Harbor and Akutan together as a processing community for a limited number of years (i.e., those years when the shore-based processing plant has been open in Adak). For the St. Matthew Island blue king crab fishery, in the few years that it has been open since the implementation of the rationalization program, all processing of all share types has occurring in Unalaska/Dutch Harbor, Akutan, and St. Paul in each year, except for 2014/2015, when it all took place in St. Paul; confidentiality restrictions, however, preclude a description of differing patterns of processing by share type among the communities. The EBS Tanner and WBS Tanner crab fisheries have only been open for two seasons since the time of the 5-year program review (2013/2014 and 2014/2015) and while the processing of all share types have largely occurred in Unalaska/Dutch Harbor and Akutan combined, there is more variation in processing location than seen in the EAI and WAI golden and St. Matthew blue king crab fisheries, particularly for A shares. Due to the low number of processing entities involved, however, the level of processing in the other participating communities cannot be quantified.

[28] This percentage (only) includes Naknek as well as Kodiak and King Cove to allow disclosure.

1.2.6 Quota Share Distribution by Community

Initial allocations of quota share by community for catcher vessel operator, catcher vessel crew, catcher processor owner, and catcher processor crew shares, along with the distribution of those share types as of the IFQ allocation process for the 2015/2016 season are discussed in more detail in the individual community summaries in Section 1.3 below. This information is also presented in greater detail in tabular form in Attachment 1 (Tables A1-8 through A1-11). While share distribution cannot be used for analysis of pre- and post-rationalization conditions, these data do provide a useful means for looking at distributional changes that have occurred over the life of the rationalization program itself, from the time of initial share allocation (2005/2006) through the most recent quota allocation process (2015/2016).

Catcher Vessel Owner Shares Distribution

As shown in Table 1-8, relatively few Alaska communities had residents receive initial allocations for Bristol Bay red king crab catcher vessel owner shares. These include Anchorage, Dillingham, Homer, and Seldovia in the South-Central region; Petersburg and Yakutat in the Southeast region; Unalaska/Dutch Harbor and King Cove in the Aleutian/Pribilof region; and Kodiak in its own region. By the time of the 2015/2016 IFQ allocation process, all of these communities either maintained or increased their number of unique quota holders, with the exception of Petersburg and King Cove. Petersburg had two unique holders at the time of the initial allocation, but only one by the time of the 2015/2016 IFQ allocation process (which is unchanged from the time of the 5-year program review). King Cove had one unique quota holder at the time of initial allocation (and at the time of the 5-year program review), but none at the time of the 2015/2016 IFQ allocation process. Additionally, while not receiving any initial allocation, residents of Wasilla in the South-Central region and St. Paul in the Aleutian/Pribilof region held at least some catcher vessel owner quota by the time of the 5-year program review and continued to do so at the time of the 2015/2016 IFQ allocation process.[29]

Residents of Petersburg, Yakutat, and King Cove held fewer catcher vessel owner quota units at the time of the 5-year program review compared to quota units held at initial allocation; the number of quota units held in Petersburg and Yakutat have remained constant since then, but by the time of the 2015/2016 IFQ allocation process, no King Cove residents held any catcher vessel owner quota units. All other Alaska communities listed gained quota units between initial allocation and the time of the 5-year program review; with one exception (St. Paul[30]), by the time of the 2015/2016 IFQ allocation process these communities had either maintained the number of quota units held at the time of the 5-year program review (Seldovia, Petersburg, Yakutat, and

[29] At the time of the 5-year program review, one resident of Soldotna in the South-Central region also held quota. No Soldotna residents received quota under the initial allocation, and none held quota at the time of the 2015/2016 IFQ allocation process.

[30] St. Paul represents an unusual situation in the data. While much more quota was attributed to St. Paul at the time 5-year program review than was attributed to Wasilla (over 5 million units in St. Paul compared to about 350,000 units in Wasilla), by the time of the 2015/2016 IFQ allocation process, only a negligible amount of quota was attributed to St. Paul (23 units), while the amount of quota attributed to Wasilla had greatly increased (to over 10 million units). The St. Paul CDQ group, the Central Bering Sea Fishermen's Association (CBSFA) and/or 57 Degrees North, LLC, a CBSFA subsidiary, holds substantial amounts of catcher vessel owner quota, but the physical address associated with that quota has shifted from St. Paul to Wasilla, where the group maintains offices.

Table 1-8. Catcher Vessel Owner Shares by Community, Bristol Bay Red King Crab and Bering Sea Snow Crab, Initial Allocation and 2015/16 Distribution

			Bristol Bay Red King Crab								Bering Sea Snow Crab							
			Total Number of Unique Holders				Total Number of Quota Units				Total Number of Unique Holders				Total Number of Quota Units			
			Initial		2015/2016		Initial		2015/2016		Initial		2015/2016		Initial		2015/2016	
State	Region	Community	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alaska	South-Central	Anchorage	8	3.3%	12	4.9%	11,675,744	3.1%	42,112,932*	11.4%	8	3.5%	10	4.0%	24,434,682	2.8%	106,219,839*	12.0%
		Dillingham	1	0.4%	1	0.4%	3,307,771	0.9%	9,610,824*	2.6%	1	0.4%	1	0.4%	8,261,724	0.9%	26,294,351*	3.0%
		Homer	3	1.2%	4	1.6%	5,669,820	1.5%	8,665,075	2.3%	3	1.3%	5	2.0%	15,335,150	1.7%	23,562,874	2.7%
		Seldovia	1	0.4%	1	0.4%	1,138,742	0.3%	1,138,742	0.3%	1	0.4%	1	0.4%	4,103,172	0.5%	4,103,172	0.5%
		Wasilla	0	0.0%	2	0.8%	0	0.0%	10,125,745*	2.7%	0	0.0%	2	0.8%	0	0.0%	20,997,683*	2.4%
		South-Central Subtotal	*13*	*5.4%*	*20*	*8.2%*	*21,792,077*	*5.9%*	*71,653,318*	*19.4%*	*13*	*5.6%*	*19*	*7.6%*	*52,134,728*	*5.9%*	*181,177,919*	*20.5%*
	Southeast	Juneau	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.4%	0	0.0%	1,965,574*	0.2%
		Petersburg	2	0.8%	1	0.4%	3,068,068	0.8%	1,319,391	0.4%	3	1.3%	2	0.8%	10,320,267	1.2%	5,912,446	0.7%
		Yakutat	1	0.4%	1	0.4%	921,242	0.2%	460,621	0.1%	1	0.4%	1	0.4%	2,545,705	0.3%	2,545,705	0.3%
		Southeast Subtotal	*3*	*1.2%*	*2*	*0.8%*	*3,989,310*	*1.1%*	*1,780,012*	*0.5%*	*4*	*1.7%*	*4*	*1.6%*	*12,865,972*	*1.4%*	*10,423,725*	*1.2%*
	Aleutian/ Pribilof	King Cove	1	0.4%	0	0.0%	927,155	0.2%	0	0.0%	1	0.4%	0	0.0%	614,388	0.1%	0	0.0%
		St. Paul	0	0.0%	1	0.4%	0	0.0%	23	0.0%	0	0.0%	1	0.4%	0	0.0%	66	0.0%
		Unalaska/Dutch Harbor	2	0.8%	2	0.8%	1,904,867	0.5%	1,904,867	0.5%	1	0.4%	1	0.4%	2,304,206	0.3%	2,304,206	0.3%
		Aleutian/Pribilof Subtotal	*3*	*1.2%*	*3*	*1.2%*	*2,832,022*	*0.8%*	*1,904,890*	*0.5%*	*2*	*0.9%*	*2*	*0.8%*	*2,918,594*	*0.3%*	*2,304,272*	*0.3%*
	All non-Kodiak Alaska Regions Combined Subtotal		*19*	*7.9%*	*25*	*10.2%*	*28,613,409*	*7.7%*	*75,338,220*	*20.4%*	*19*	*8.2%*	*25*	*10.0%*	*67,919,294*	*7.6%*	*193,905,916*	*22.0%*
	Kodiak	Kodiak	20	8.3%	26	10.6%	31,448,272	8.5%	29,286,887	7.9%	19	8.2%	24	9.6%	77,790,013	8.8%	73,416,019	8.3%
	Alaska Total		**39**	**16.2%**	**51**	**20.8%**	**60,061,681**	**16.1%**	**104,625,107**	**28.3%**	**38**	**16.5%**	**49**	**19.7%**	**145,709,307**	**16.4%**	**267,321,935**	**30.3%**
Washington	**Washington Total**		**158**	**65.6%**	**161**	**65.7%**	**257,800,213**	**69.3%**	**225,000,849**	**60.8%**	**149**	**64.5%**	**163**	**65.5%**	**601,502,598**	**67.7%**	**514,211,603**	**58.3%**
Oregon	**Oregon Total**		**35**	**14.5%**	**22**	**9.0%**	**44,095,159**	**11.9%**	**31,424,318**	**8.5%**	**37**	**16.0%**	**23**	**9.2%**	**117,211,725**	**13.2%**	**73,810,969**	**8.4%**
Other U.S.	**Other U.S. Total**		**9**	**3.7%**	**11**	**4.5%**	**10,097,982**	**2.7%**	**9,080,073**	**2.5%**	**7**	**3.0%**	**14**	**5.6%**	**24,064,015**	**2.7%**	**26,650,736**	**3.0%**
All States	**All States Total**		**241**	**100.0%**	**245**	**100.0%**	**372,055,035**	**100.0%**	**370,130,347**	**100.0%**	**231**	**100.0%**	**249**	**100.0%**	**888,487,645**	**100.0%**	**881,995,243**	**100.0%**

*Increase in quota share units held is exclusively, or nearly exclusively, attributable to CDQ group ownership of these units; this being the case, it is assumed that the primary direct benefits deriving from that share ownership would accrue to the respective CDQ group(s) in the Western Alaska region, not the community of ownership record shown on this table. See the respective community summary discussions in Section 1.3.9.
Note: Not all percentages add up due to rounding introduced in computing pre- and post-rationalization averages.
Source: National Marine Fisheries Service Alaska Regional Office 2008, 2015.

Unalaska/Dutch Harbor) or increased their holdings (Anchorage, Dillingham, Homer, and Wasilla[31]).

In sum, Alaska communities as a group, between initial allocation and the 2015/2016 IFQ allocation process, went from 39 to 51 unique catcher vessel owner quota holders in the Bristol Bay red king crab fishery (which is down from 54 unique quota holders at the time of the 5-year program review); they also went from owning 16.1 percent to 28.3 percent of the total catcher vessel owner quota units in the Bristol Bay red king crab fishery (which is up from 25.5 percent held at the time of the 5-year program review).

The number of Washington unique holders of catcher vessel owner quota increased for the Bristol Bay red king crab fishery between initial allocation (158 unique shareholders) and the 2015/2016 allocation process (161 unique shareholders, although the number decreased from what was seen at the time of the 5-year program review (165 unique shareholders). Over this same time period, the amount of quota units held by Washington residents declined from 69.3 percent at initial allocation to 60.8 percent for the 2015/2016 IFQ allocation process, which was also a decrease from the 62.6 percent seen at the time of the 5-year program review.

In the case of Oregon, both the number of unique holders of catcher vessel owner shares and the amount of quota share units held declined in the Bristol Bay red king crab fishery between initial allocation and the 2015/2016 IFQ allocation process. When compared to 5-year program review figures, however, the number of unique shareholders declined slightly (from 23 to 22), the amount and percentage of quota units held increased between the time of the 5-year program review and the 2015/2016 IFQ allocation process (from about 28 million quota units to about 31 million quota units and from about 7.4 percent to about 8.5 percent).

In the case of states other than Alaska, Washington, or Oregon, the number of unique holders of catcher vessel owner shares increased and the amount of quota units held decreased in the Bristol Bay red king crab fishery between initial allocation and the 2015/2016 IFQ allocation process. The number of unique shareholders decreased from what was seen at the time of the 5-year program review (from 13 to 11), as did the amount and percentage of quota units held (from about 16 million shares to about 9 million shares and from about 4.4 percent to about 2.5 percent).

Also as shown in Table 1-8, the same general patterns of change for catcher vessel owner quota occur for Alaska communities for the Bering Sea snow crab fishery as were seen for the Bristol Bay red king crab fishery, with a few exceptions. For the Bering Sea snow crab fishery, at the time of the 5-year program review, the number of unique quota holders in Petersburg had increased and both Petersburg and Yakutat had retained the same number of quota units held from initial allocation (meaning that no Alaska community had seen a decrease in unique holders of catcher vessel owner quota and that King Cove was the only Alaska community that had seen a decrease in locally held catcher vessel owner quota units from the time of initial allocation to the time of the 5-year program review for the Bering Sea snow crab fishery).

[31] As discussed in detail in their respective community summaries in Section 1.3.9, the increases in catcher vessel owner shareholdings in Anchorage, Dillingham, and Wasilla have fueled been by CDQ group acquisitions of those shares, with the CDQ groups, in turn, using addresses in those communities as the ownership address of the shares.

By the time of the 2015/2016 allocative process, Anchorage, Dillingham, and Homer retained the same number of catcher vessel owner quota holders as seen at the time of the 5-year program review, but all increased their holdings of quota units and percentage of quota units held.[32] Seldovia and Unalaska/Dutch Harbor have continued to retain the same number of quota holders and the same number of quota units as they had under the initial allocation.

Wasilla, which received no initial allocation of catcher vessel owner quota in the Bering Sea snow crab fishery, increased both the number of unique quota holders and the number and percentage of quota units held between the time of the 5-year program review and the 2015/2016 allocative process. St. Paul retained the same number of quota holders, but the amount of quota units held dropped between the time of the 5-year program review and the 2015/2016 allocative process (from just under 12 million units to 66 units) while the number of units attributed to Wasilla sharply increased, mirroring the pattern seen in the Bristol Bay red king crab fishery (with changing geographic attribution of units owned by the St. Paul CDQ group and/or its subsidiaries from St. Paul to Wasilla).

Juneau received no initial allocation in the Bering Sea snow crab fishery, and had no resident quota holders at the time of the 5-year program review, but had a quota holder and quota units held by the time of the 2015/2016 allocative process.[33] Petersburg and Kodiak lost some quota holders, quota units, and percentage of quota units between the time of the 5-year program review and the 2015/2016 allocative process, while King Cove lost all quota holders and quota units held between the time of the 5-year program review and 2015/2016 allocative process.

In sum, Alaska communities as a group, between initial allocation, the time of the 5-year program review, and the 2015/2016 allocative process, went from 38 to 57 to 49 unique catcher vessel owner quota holders in the Bering Sea snow crab fishery, respectively; they also went from owning 16.4 percent to 27.6 percent to 30.3 percent of the total catcher vessel owner quota units in the Bering Sea snow crab fishery. For Washington, the number of unique quota holders in Bering Sea snow crab fishery went from 149 to 149 to 163, while the amount of quota share units held decreased (from 67.7 percent to 60.9 percent 58.3 percent of the total quota units in the fishery). For Oregon and for states other than Alaska, Washington, and Oregon, the same patterns described for the Bristol Bay red king crab fishery also apply to the Bering Sea snow crab fishery (with the exception that there was a slight increase in the number of unique quota holders in the Bering Sea snow crab fishery from states other than Alaska, Washington, and Oregon between the time of the 5-year program review and the 2015/2016 allocative process).

As described in the summary community discussions below, the pattern of catcher vessel owner quota distribution by community for rationalized crab species other than Bristol Bay red king crab and Bering Sea snow crab is somewhat more complex, but at the state level, a clear pattern emerges. For Alaska as a whole, for all rationalized crab fisheries, there has been an increase in the number of unique holders of catcher vessel owner quota and an increase in the number of quota units held from the time of program implementation (initial allocations) to the time of the 5-year program review (the 2010/2011 allocations) and then again to the time of the 2015/2016 IFQ allocation process (as shown in Table A1-8 in Attachment 1).

[32] In the case of Anchorage and Dillingham, this growth was due to CDQ acquisition of shares, similar to the case described for Bristol Bay red king crab.

[33] These shares were all owned by a CDQ group; for details, see the Juneau community summary in Section 1.3.9.

For Washington as a whole, there has been variability by individual fishery in terms of increases or decreases in the number of unique catcher vessel owner quota holders in rationalized crab fisheries other than the Bristol Bay red king crab and Bering Sea snow crab. For each of these fisheries, however, a decrease has occurred in the number of quota units held by Washington residents from initial allocation to the time of the 5-year program review and then again from the time of the 5-year program review to the 2015/2016 allocative process.

For Oregon as a whole, for all rationalized fisheries other than Bristol Bay red king crab and Bering Sea snow crab, the pattern is more complex. Between initial allocation and the time of the 5-year program review, the number of unique catcher vessel owner quota holders and number of quota units held either remained unchanged or declined, with one exception: the number of quota holders and quota units held in the EAI golden king crab fishery increased. Between the 5-year program review and the 2015/2016 allocative process, however, there was more variability in the increase or decrease of unique quota holders, but the number of quota units held either remained the same or declined, with four exceptions: WAI golden king, Western Bering Sea (WBS) Tanner, St. Matthew Island blue king, and WAI red[34] king crab fisheries.

For states other than Alaska, Washington, and Oregon, at the time of the 5-year program review, for all rationalized fisheries other than Bristol Bay red king crab and Bering Sea snow crab, the number of unique catcher vessel owner quota holders had remained the same or increased, and the quota units increased, for all fisheries for which residents of these states received initial allocations. Between the 5-year program review and the 2015/2016 IFQ allocation process, however, the pattern became more complex, with residents of these states acquiring quota in two fisheries for which initial allocations were not received: the EAI golden and WAI red king crab fisheries. In other fisheries, the number of quota holders remained the same but the number of quota units held dropped (Eastern Bering Sea [EBS] Tanner and WBS Tanner), or the number of quota holders increased and the number of quota units held increased (Pribilof Islands blue and red king crab), or the number of quota holders decreased and the number of quota units held dropped (St. Matthew Island blue king crab). No residents of this region were initially allocated shares of WAI golden king crab, and none were held by regional residents at the time of the 5-year program review or during the 2015/2016 allocative process.

Catcher Vessel Crew Shares Distribution

As shown in Table 1-9, relatively few Alaska communities had residents receive initial allocations for Bristol Bay red king crab catcher vessel crew shares. These include Anchorage, Homer, Kenai, Soldotna, Valdez, and Wasilla in the South-Central region; Petersburg in the Southeast region; Unalaska/Dutch Harbor, King Cove, and Sand Point in the Aleutian/Pribilof region; and Kodiak in its own region. Among these communities, only Anchorage, Homer, King Cove, and Kodiak featured more than one unique quota holder at the time of initial allocation.

Only two of these communities, Homer and Petersburg, saw an increase in the number of unique catcher vessel crew quota holders in the Bristol Bay red king crab fishery over the course of the first five years of the crab rationalization program, going from five to six holders and one to two holders, respectively. Cordova, in the South-Central region, while not receiving an initial allocation, had one unique quota holder at the time of the 5-year program review. Soldotna,

[34] The WAI red king crab fishery is also commonly known as the Adak red king crab fishery.

Table 1-9. Catcher Vessel Crew Shares by Community, Bristol Bay Red King Crab and Bering Sea Snow Crab, Initial Allocation and 2015/16 Distribution

			Bristol Bay Red King Crab								Bering Sea Snow Crab							
			Total Number of Unique Holders				Total Number of Quota Units				Total Number of Unique Holders				Total Number of Quota Units			
			Initial		2015/2016		Initial		2015/2016		Initial		2015/2016		Initial		2015/2016	
State	Region	Community	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alaska	South-Central	Anchorage	9	5.1%	5	4.0%	527,839	4.6%	446,692	3.9%	7	4.6%	6	5.1%	1,015,704	3.6%	1,458,613	5.1%
		Homer	5	2.8%	4	3.2%	368,637	3.2%	511,951	4.4%	6	3.9%	5	4.2%	1,155,042	4.1%	1,618,399	5.7%
		Kenai	1	0.6%	0	0.0%	37,403	0.3%	0	0.0%	1	0.7%	0	0.0%	136,608	0.5%	0	0.0%
		Soldotna	1	0.6%	0	0.0%	45,874	0.4%	0	0.0%	1	0.7%	0	0.0%	183,536	0.6%	0	0.0%
		Valdez	1	0.6%	1	0.8%	27,581	0.2%	126,664	1.1%	0	0.0%	1	0.8%	0	0.0%	306,943	1.1%
		Wasilla	1	0.6%	1	0.8%	54,984	0.5%	54,984	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
		South-Central Subtotal	*18*	*10.1%*	*11*	*8.8%*	*1,062,318*	*9.2%*	*1,140,291*	*9.8%*	*15*	*9.9%*	*12*	*10.2%*	*2,490,890*	*8.8%*	*3,383,955*	*11.9%*
	Southeast	Petersburg	1	0.6%	1	0.8%	51,340	0.4%	58,169	0.5%	1	0.7%	1	0.8%	249,242	0.9%	207,434	0.7%
		Southeast Subtotal	*1*	*0.6%*	*1*	*0.8%*	*51,340*	*0.4%*	*58,169*	*0.5%*	*1*	*0.7%*	*1*	*0.8%*	*249,242*	*0.9%*	*207,434*	*0.7%*
	Aleutian/ Pribilof	King Cove	4	2.2%	1	0.8%	182,340	1.6%	54,367	0.5%	3	2.0%	1	0.8%	446,113	1.6%	125,493	0.4%
		Sand Point	1	0.6%	0	0.0%	36,820	0.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
		Unalaska/Dutch Harbor	1	0.6%	1	0.8%	57,493	0.5%	57,493	0.5%	1	0.7%	1	0.8%	104,355	0.4%	104,355	0.4%
		Aleutian/Pribilof Subtotal	*6*	*3.4%*	*2*	*1.6%*	*276,653*	*2.4%*	*111,860*	*1.0%*	*4*	*2.6%*	*2*	*1.7%*	*550,468*	*1.9%*	*229,848*	*0.8%*
	All non-Kodiak Alaska Regions Combined Subtotal		*25*	*14.0%*	*14*	*11.2%*	*1,390,311*	*12.0%*	*1,310,320*	*11.3%*	*20*	*13.2%*	*15*	*12.7%*	*3,290,600*	*11.6%*	*3,821,237*	*13.4%*
	Kodiak	Kodiak	20	11.2%	15	12.0%	1,023,164	8.8%	1,192,656	10.3%	17	11.2%	12	10.2%	2,970,849	10.4%	2,366,087	8.3%
	Alaska Total		**45**	**25.3%**	**29**	**23.2%**	**2,413,475**	**20.8%**	**2,502,976**	**21.6%**	**37**	**24.3%**	**27**	**22.9%**	**6,261,449**	**22.0%**	**6,187,324**	**21.8%**
Washington	**Washington Total**		**105**	**59.0%**	**74**	**59.2%**	**7,312,710**	**63.2%**	**7,246,354**	**62.6%**	**89**	**58.6%**	**68**	**57.6%**	**17,948,497**	**63.1%**	**17,073,799**	**60.1%**
Oregon	**Oregon Total**		**14**	**7.9%**	**10**	**8.0%**	**907,218**	**7.8%**	**967,365**	**8.4%**	**13**	**8.6%**	**10**	**8.5%**	**2,085,701**	**7.3%**	**3,064,049**	**10.8%**
Other U.S.	**Other U.S. Total**		**14**	**7.9%**	**12**	**9.6%**	**945,201**	**8.2%**	**861,909**	**7.4%**	**13**	**8.6%**	**13**	**11.0%**	**2,138,014**	**7.5%**	**2,100,948**	**7.4%**
All States	**All States Total**		**178**	**100.0%**	**125**	**100.0%**	**11,578,604**	**100.0%**	**11,578,604**	**100.0%**	**152**	**100.0%**	**118**	**100.0%**	**28,433,661**	**100.0%**	**28,426,120**	**100.0%**

Note: Not all percentages add up due to rounding introduced in computing pre- and post-rationalization averages.
Catcher vessel crew shares are not currently (2015) subject to regional landing requirements, nor have they been at any time during the BSAI crab rationalization program to date, but regionalization designations applied during the initial allocation process are still associated with these shares.
Source: National Marine Fisheries Service Alaska Regional Office 2008, 2015.

Wasilla, Unalaska/Dutch Harbor, and Sand Point all had one unique quota holder at initial allocation and at the time of the 5-year program review. Anchorage, King Cove, and Kodiak lost some of their initial quota holders by the time of the 5-year program review, while Kenai and Valdez had no quota holders remaining by the time of the 5-year program review.

At the time of the 2015/2016 allocative process for Bristol Bay red king crab, among Alaska communities only Anchorage, Homer, and Kodiak had more than one unique catcher vessel crew quota holder and each had fewer quota holders than at the time of initial allocation; Homer and Kodiak residents held more quota share units than at the time of initial allocation, while Anchorage residents held less.

Among communities with initial catcher vessel crew quota allocations, Kenai, Soldotna, and Sand Point no longer had any quota holders or quota units held at the time of the 2015/2016 IFQ allocation process. Valdez, Wasilla, Petersburg, and Unalaska/Dutch Harbor remained at one unique quota holder; Valdez increased in the number of quota units held, Wasilla and Unalaska/Dutch Harbor held the same number of quota units, and Petersburg saw a decline in quota units held. King Cove saw a decrease in unique quota holders (from four to one) and a decrease in quota units held. Cordova, which did not have an initial allocation, had one quota holder at the time of the 5-year program review, but did not have any quota holders or quota units held at the time of the 2015/2016 allocative process. Juneau, which did not have an initial allocation, and did not have any quota holders at the time of the 5-year program review, but did have one quota holder and quota units held at the time of the 2015/2016 allocative process.

In sum, Alaska communities as a group, between initial allocation, the 5-year program review, and the 2015/2016 IFQ allocative process, the number of unique catcher vessel crew quota holders in the Bristol Bay red king crab fishery declined from 45 to 34 to 29. Alaska communities as a group, however, also went from owning 20.8 percent to 22.6 percent to 21.6 percent of the catcher vessel crew quota units in the Bristol Bay red king crab fishery.

At the time of the 5-year program review, the number of Washington unique holders of catcher vessel crew quota decreased for the Bristol Bay red king crab fishery (from 105 to 80) from initial allocation, with the percentage of crew share quota units held also decreasing (from 63.2 percent to 61.7 percent) over this same period. By the 2015/2016 IFQ allocation process, the number of quota holders had further declined to 74, but the percent of quota units held was up slightly to 62.6 percent.

In the case of Oregon, at the time of the 5-year program review, the number of unique holders of catcher vessel crew shares decreased from initial allocation (from 14 to 11) in the Bristol Bay red king crab fishery; the amount of quota units held also decreased (from 7.8 percent to 7.6 percent) over this same time. By the 2015/2016 IFQ allocation process, the number of quota holders had further declined to 10, but the percent of quota units held was up to 8.4 percent (i.e., higher than initial allocation).

In the case of states other than Alaska, Washington, or Oregon, at the time of the 5-year program review, the number of unique holders of catcher vessel crew shares in the Bristol Bay red king crab fishery decreased from initial allocation by one (from 13 to 12); the amount of quota units declined (from 8.2 percent to 8.1 percent) at this same time. By the 2015/2016 IFQ allocation

process, the number of quota holders remained at 12, but the percent of quota units further declined to 7.4 percent.

Also as shown in Table 1-9, relatively few Alaska communities had residents receive initial allocations for Bering Sea snow crab catcher vessel crew shares. These include Anchorage, Homer, Kenai, and Seldovia in the South-Central region; Petersburg in the Southeast region; Unalaska/Dutch Harbor and King Cove in the Aleutian/Pribilof region; and Kodiak in its own region. Among these communities, only Anchorage, Homer, King Cove, and Kodiak featured more than one unique quota holder at the time of initial allocation.

Among these communities, only Petersburg saw an increase in the number of unique catcher vessel crew quota holders in the Bering Sea snow crab fishery over the course of the first 5 years of the crab rationalization program, going from one to two holders. Cordova, in the South-Central region, while not receiving an initial allocation, had one unique quota holder at the time of the 5-year program review. Homer, Soldotna, and Unalaska/Dutch Harbor all had the same number quota holders at initial allocation (six, one, and one, respectively) and at the time of the 5-year program review. Anchorage, King Cove, and Kodiak lost some of their initial quota holders by the time of the 5-year program review, while Kenai had no quota holders remaining by the time of the 5-year program review.

At the time of the 2015/2016 allocative process for Bering Sea snow crab, among Alaska communities only Anchorage, Homer, and Kodiak had more than one unique catcher vessel crew quota holder and each had fewer quota holders than at the time of initial allocation; Anchorage and Homer residents held more quota share units than at the time of initial allocation, while Kodiak residents held less. Among communities with initial allocations, Kenai and Soldotna no longer had any quota holders or quota units held. Petersburg and Unalaska/Dutch Harbor remained at one unique quota holder; Unalaska/Dutch Harbor held the same number of quota units, while Petersburg saw a decline in quota units held. King Cove saw a decrease in unique quota holders (from three to one) and a decrease in quota units held. Cordova, which did not have an initial allocation, had one quota holder at the time of the 5-year program review, but did not have any quota holders or quota units held at the time of the 2015/2016 allocative process.

In sum, Alaska communities as a group, between initial allocation, the 5-year program review, and the 2015/2016 allocative process, the number of unique catcher vessel crew quota holders in the Bering Sea snow crab fishery declined from 37 to 28 to 27. Alaska communities as a group went from owning 22.0 percent to 21.5 percent to 21.8 percent of the catcher vessel crew quota units in the Bering Sea snow crab fishery.

At the time of the 5-year program review, the number of Washington unique holders of catcher vessel crew quota decreased for the Bering Sea snow crab fishery (from 89 to 71) from initial allocation, with the percentage of crew share quota units held also decreasing (from 63.1 percent to 62.4 percent) over this same period. By the 2015/2016 IFQ allocation process, the number of quota holders had further declined to 68 and the percent of quota units held declined to 60.1 percent.

In the case of Oregon, at the time of the 5-year program review, the number of unique holders of catcher vessel crew shares decreased from initial allocation (from 13 to 10) in the Bering Sea snow crab fishery; the amount of quota units held increased (from 7.3 percent to 8.0 percent)

over this same time. By the 2015/2016 IFQ allocation process, the number of quota holders had further declined to 10, but the percent of quota units held was up to 10.8 percent (i.e., higher than initial allocation).

In the case of states other than Alaska, Washington, or Oregon, at the time of the 5-year program review, the number of unique holders of catcher vessel crew shares in the Bering Sea snow crab fishery increased from initial allocation by one (from 13 to 14); the amount of quota units increased (from 7.5 percent to 8.1 percent) at this same time. By the 2015/2016 IFQ allocation process, the number of quota holders was back to 13, and the percent of quota units declined to 7.4 percent.

As described in the summary community discussions below (and as shown in Table A1-9 in Attachment 1), the pattern of catcher vessel crew quota distribution by community for rationalized crab species other than Bristol Bay red king crab and Bering Sea snow crab from the time of program implementation (initial allocations) to the time of the 5-year program review (the 2010/2011 allocations) and then again to the time of the 2015/2016 IFQ allocation process is somewhat different from that for either of these two species.

For Alaska as a whole, at the time of the 5-year program review, there had been decreases in unique quota holders and the number of quota share units held in the EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries, while in the St. Matthew Island blue king crab fishery there had been increases in both the number of unique holders of catcher vessel crew quota and the number of quota share units held. In the EAI golden king crab fishery, the number of unique quota holders and the number of quota share units held had been unchanged. No Alaska residents held shares in the WAI golden king crab or WAI red king crab fisheries, either at the time of initial allocation or at the time of the 5-year program review.

By the time of the 2015/2016 IFQ allocation process, there were decreases in the numbers of Alaska unique quota holders in the EBS Tanner, WBS Tanner, and St. Matthew Island blue king crab fisheries, and increases in numbers of unique quota holders in the Pribilof Islands blue and red king crab fishery compared to what was seen at the time of the 5-year program review. The number of quota units held increased over what was seen at the time of the 5-year program review in the EBS Tanner, the WBS Tanner, and the Pribilof Islands blue and red king crab fisheries, while decreases continued in the St. Matthew Island blue king crab fishery.

Among the rationalized crab fisheries other than Bristol Bay red king crab and Bering Sea snow crab, for Washington as a whole, over the period from initial allocation to 5-year program review, there were been decreases in the number of unique catcher vessel crew quota holders and the amount of quota share units held in the EAI golden king crab, EBS Tanner, WBS Tanner, and St. Matthew Island blue king crab fisheries. At the time of the 5-year program review, the number of unique quota holders and number of quota share units remained unchanged from initial allocations in the WAI golden king crab and WAI red king crab fisheries, while the number of unique holders and the number of quota share units held in the Pribilof Islands blue and red king crab fisheries increased over that same time.

Between the time of the 5-year program review and the 2015/2016 IFQ allocation process, there were increases in catcher vessel crew quota units held by Washington residents in the EAI golden, WAI golden, EBS Tanner, and WBS Tanner fisheries, and decreases in quota units held

the Pribilof Islands blue and red and the WAI red king crab fisheries. The number of unique quota holders remained the same or increased for each of the fisheries except for the Pribilof Islands blue and red and the WAI red king crab fisheries.

For Oregon as a whole, at the time of the 5-year program review, the number of unique catcher vessel crew quota holders had increased in the WAI golden king crab fishery; remained the same in the EAI golden king crab, St. Matthew Island blue king crab, and WAI red king crab fisheries; and decreased in the EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries compared to initial allocation figures. In terms of quota share units held, there were increases in all of these fisheries over that same time, except for WAI red king crab, which remained the same, and Pribilof Islands blue and red king crab, which decreased.

By the time of the 2015/2016 IFQ allocation process, the number of unique Oregon quota holders and the number of quota units held remained the same in the WAI red king crab fishery and increased in the St. Matthew Island blue king crab fishery compared to what was seen at the time of the 5-year program review; for all of the other noted fisheries, quota units held declined over this period, while the unique number of quota holders either remained the same or declined.

Among the rationalized crab fisheries other than Bristol Bay red king crab and Bering Sea snow crab, for states other than Alaska, Washington, and Oregon, the pattern of distribution of catcher vessel crew quota is quite different. Between initial allocation and the time of the 5-year program review, decreases in the number of unique quota holders and number of quota share units held were seen in the EAI golden king crab and WAI golden king crab fisheries, with no quota share units in either fishery held by residents of these states at the time of the 5-year program review. Increases in both the number of unique holders and the number of quota share units held were seen over this same time period in the EBS Tanner, WBS Tanner, St. Matthew Island blue king crab, and Pribilof Islands blue and red king crab fisheries. No residents of these states received catcher vessel crew share initial allocations in the WAI red fishery, nor were any shares in this fishery held by residents of these states at the time of the 5-year program review.

Between the time of the 5-year program review and the 2015/2016 allocative process, there were decreases in the number of unique quota holders and the number of quota units held in the St. Matthew Island blue king crab fishery by residents of states other than Alaska, Washington, and Oregon. In the EBS Tanner and WBS Tanner fisheries the number of unique quota holders was unchanged, which the number of quota units held increased slightly. In the Pribilof Islands blue and red king crab fishery, the number of unique quota holders remained constant, but quota units held increased or decreased depending on area designations within the fishery.

Catcher Processor Owner Shares Distribution

As shown in Table 1-10, within Alaska, initial allocation of catcher processor owner shares was limited to one unique quota holder with an Anchorage address in each of the Bristol Bay red king crab and Bering Sea snow crab fisheries, with the amount of quota share units held being 4.4 and 3.9 percent of the total quota share units for each of these fisheries, respectively. All other catcher processor owner shares in these two fisheries were held by residents of Washington.

By the time of the 5-year program review, however, this picture had changed substantially. While quota continued to be concentrated exclusively in Alaska and Washington, Alaska

Table 1-10. Catcher Processor Owner Shares by Community, Bristol Bay Red and Bering Sea Snow Crab, Initial Allocation and 2015/16 Distribution

State	Community	Bristol Bay Red King Crab								Bering Sea Snow Crab							
		Total Number of Unique Holders				Total Number of Quota Units				Total Number of Unique Holders				Total Number of Quota Units			
		Initial		2015/2016		Initial		2015/2016		Initial		2015/2016		Initial		2015/2016	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alaska	Anchorage	1	7.7%	3	33.3%	777,429	4.4%	5,542,322	31.3%	1	7.1%	3	14.3%	3,494,652	3.9%	31,685,269	35.7%
	Kodiak	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	9.5%	0	0.0%	500,383	0.6%
	Wasilla	0	0.0%	1	11.1%	0	0.0%	1,883,177	10.6%	0	0.0%	1	4.8%	0	0.0%	8,593,014	9.7%
	Alaska Total	*1*	*7.7%*	*4*	*44.4%*	*777,429*	*4.4%*	*7,425,499*	*42.0%*	*1*	*7.1%*	*6*	*28.6%*	*3,494,652*	*3.9%*	*40,778,666*	*46.0%*
Washington	*Washington Total*	*12*	*92.3%*	*5*	*55.6%*	*16,921,219*	*95.6%*	*10,273,149*	*58.0%*	*13*	*92.9%*	*15*	*71.4%*	*85,185,819*	*96.1%*	*47,901,805*	*54.0%*
All States	**All States Total**	**13**	**100.0%**	**9**	**100.0%**	**17,698,648**	**100.0%**	**17,698,648**	**100.0%**	**14**	**100.0%**	**21**	**100.0%**	**88,680,471**	**100.0%**	**88,680,471**	**100.0%**

Note: Not all percentages add up due to rounding introduced in computing pre- and post-rationalization averages.
Source: National Marine Fisheries Service Alaska Regional Office 2008, 2015.

residents had markedly increased their holdings. While the number of Anchorage resident unique quota holders increased by one (from one to two) in each of the fisheries, the amount of quota share units held increased to 11.4 percent in the Bristol Bay red king crab fishery and 18.2 percent in the Bering Sea snow crab fishery. Additionally, one unique quota holder in St. Paul was added to each of these fisheries, holding 10.6 and 9.7 percent, respectively of the Bristol Bay red king crab and Bering Sea snow crab fisheries. Overall, Alaska increased catcher processor owner quota units increased from 4.4 percent at initial allocation to 22.1 percent in the Bristol Bay red king crab fishery and from 3.9 percent to 27.9 percent in the Bering Sea snow crab fishery over the first 5 years of the BSAI crab rationalization program (with accompanying declines in Washington holdings).

By the time of the 2015/2016 IFQ allocation process, additional changes to Bristol Bay red king crab and Bering Sea snow crab catcher processor quota distribution were apparent. First, St. Paul was replaced in the data by Wasilla, with Wasilla having a single unique quota holder and an identical number of quota units (and percentage of overall quota units) in the 2015/2016 IFQ allocation process in both fisheries as St. Paul had at the time of the 5-year program review. It is assumed that this shift is due to a change in community attribution in the data was prompted by the quota now being associated with the Central Bering Sea Fishermen's Association (CBSFA) and/or 57 Degrees North, LLC, a CBSFA subsidiary, office address in Wasilla; in other words, the quota is still being held by a St. Paul institution, although that is not immediately apparent in the data. Second, Kodiak newly appears in the data for Bering Sea snow crab with 2 unique quota holders and 0.6 percent of all catcher processor owner quota units. Third, the number of unique quota holders in Anchorage increased to three in both fisheries, and the number of quota units held increased substantially since the time of the 5-year program review (from 22.1 percent to 31.3 percent for the Bristol Bay red king crab fishery and from 27.9 percent to 35.7 percent for the Bering Sea snow crab fishery). This has largely driven catcher processor quota unit ownership in Alaska to 42.0 percent in the Bristol Bay red king crab fishery and 46.0 percent in the Bering Sea snow crab fishery (with accompanying additional declines in Washington holdings).

At the time of initial allocations, Alaska holdings of other rationalized species catcher processor owner shares were limited to one unique Anchorage quota holder (holding 3.5 percent of the total quota shares) for each of EBS Tanner and WBS Tanner fisheries. By the time of the 5-year program review, however, this picture had changed substantially. While quota continued to be concentrated in exclusively Alaska and Washington, Alaska residents had markedly increased their holdings, with Anchorage residents accounting for two unique holders and 17.0 percent of total quota units in each of these fisheries. Additionally, one unique quota holder in St. Paul was added to each fishery, with 10.5 percent of each species total catcher processor owner quota units, respectively. Overall, Alaska increased catcher processor owner quota units from 3.5 percent to 27.5 percent in each of these fisheries over the first 5 years of the BSAI crab rationalization program (with an accompanying decline in Washington holdings).

By the time of the 2015/2016 IFQ allocation process, Anchorage accounted for 98.9 percent of the WAI golden king crab catcher processor quota units, 54.6 percent of EBS Tanner and WBS Tanner crab fisheries catcher processor quota units, 100 percent of the Pribilof Islands blue and red king crab fishery catcher processor quota units, and 96.9 percent of the WAI red king crab fishery catcher processor quota units. Also by this time, one unique Kodiak catcher processor owner quota holder accounted for 7.3 percent of the quota units in the EAI golden king crab

fishery. Wasilla 2015/2016 holdings were the same as St. Paul's 2010/2011 holdings reported in the 5-year program review.

Washington residents accounted for 100 percent of the initial allocations of catcher processor owner shares for EAI golden king crab, WAI golden king crab, Pribilof Islands blue and red king crab, St. Matthew Island blue king crab, and WAI red king crab catcher processor owner shares and 96.5 percent of the EBS Tanner and WBS Tanner fisheries. At the time of the 5-year program review, they continued to hold 100 percent of the catcher processor owner shares for EAI golden king crab, WAI golden king crab, Pribilof Islands blue and red king crab, St. Matthew Island blue king crab, and WAI red king crab catcher processor owner shares, but ownership had declined to 72.5 percent for the EBS Tanner and WBS Tanner fisheries. By the 2015/2016 IFQ allocation process, Washington residents retained 100 percent ownership of only Pribilof Islands blue and red king crab catcher processor quota, with ownership of all other species declining (EAI golden king crab to 92.8 percent, EBS Tanner and WBS Tanner to 35.0 percent each, and WAI red king crab to 3.1 percent; and to nothing for St. Matthew Island blue king crab).

Catcher Processor Crew Shares Distribution

As shown in Table 1-11, within Alaska, initial allocation of catcher processor crew shares in the either Bristol Bay red king crab fishery or the Bering Sea snow crab fishery were limited to two unique quota holders with Kodiak addresses in the Bristol Bay red king crab fishery, who together held 0.3 percent of the total catcher processor crew quota units in the fishery. At the time of the 5-year program review, these figures were unchanged. By the 2015/2016 IFQ allocation process, the number of catcher processor crew quota holders and the number of quota units held by Kodiak residents in the Bristol Bay red king crab fishery remained unchanged from initial allocations, but in the Bering Sea snow crab fishery, one Kodiak resident also held catcher processor crew shares, accounting for four percent of the total catcher processor crew quota units in the fishery.

Other initial allocation catcher processor crew share recipients in the Bristol Bay red king crab fishery included four unique quota holders in Washington (together holding 50.0 percent of the total catcher processor crew quota units) and two unique quota holders in states other than Alaska, Washington, and Oregon (together holding 49.7 percent of the total catcher processor crew quota units). As of the 5-year program review, those figures were unchanged; by the time of the 2015/2016 IFQ allocation process, Washington had one fewer quota holder and Oregon had added two, with Washington losing and Oregon gaining in terms of the number of quota units held; the number of quota holders and quota units held remained unchanged in states other than Alaska, Washington, and Oregon.

Within the Bering Sea snow crab fishery, initial allocations consisted of six unique quota holders in Washington (together holding 69.3 percent of the total catcher processor crew quota units) and two unique quota holders in states other than Alaska, Washington, and Oregon (together holding 30.7 percent of the total catcher processor crew quota units). By the time of the 5-year program review, the number of quota holders was unchanged for Washington and decreased by one for the other states, with Washington residents coming to own 86.8 percent of all catcher processor crew quota units. By the time of the 2015/2016 IFQ allocation process, Washington had two fewer quota holders, Oregon had added one, and the states other than Alaska, Washington, and

Table 1-11. Catcher Processor Crew Shares by Community, Bristol Bay Red and Bering Sea Snow Crab, Initial Allocation and 2015/16 Distribution

State	Community	Bristol Bay Red King Crab								Bering Sea Snow Crab							
		Total Number of Unique Holders				Total Number of Quota Units				Total Number of Unique Holders				Total Number of Quota Units			
		Initial		2015/2016		Initial		2015/2016		Initial		2015/2016		Initial		2015/2016	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alaska	Kodiak	2	25.0%	2	22.2%	1,184	0.3%	1,184	0.3%	0	0.0%	1	14.3%	0	0.0%	71,261	4.0%
	Alaska Total	*2*	*25.0%*	*2*	*22.2%*	*1,184*	*0.3%*	*1,184*	*0.3%*	*0*	*0.0%*	*1*	*14.3%*	*0*	*0.0%*	*71,261*	*4.0%*
Washington	*Washington Total*	*4*	*50.0%*	*3*	*33.3%*	*210,926*	*50.0%*	*159,029*	*37.7%*	*6*	*75.0%*	*4*	*57.1%*	*1,230,257*	*69.3%*	*1,268,313*	*71.5%*
Oregon	*Oregon Total*	*0*	*0.0%*	*2*	*22.2%*	*0*	*0.0%*	*51,897*	*12.3%*	*0*	*0.0%*	*1*	*14.3%*	*0*	*0.0%*	*201,036*	*11.3%*
Other U.S.	*Other U.S. Total*	*2*	*25.0%*	*2*	*22.2%*	*209,621*	*49.7%*	*209,621*	*49.7%*	*2*	*25.0%*	*1*	*14.3%*	*543,814*	*30.7%*	*233,461*	*13.2%*
All States	**All States Total**	**8**	**100.0%**	**9**	**100.0%**	**421,731**	**100.0%**	**421,731**	**100.0%**	**8**	**100.0%**	**7**	**100.0%**	**1,774,071**	**100.0%**	**1,774,071**	**100.0%**

Note: Not all percentages add up due to rounding introduced in computing pre- and post-rationalization averages.
Source: National Marine Fisheries Service Alaska Regional Office 2008, 2015.

Oregon had one fewer quota holder. In combination with the gains by Alaska quota holders, Washington gained in terms of quota units held as did Oregon, while the number of quota units held by residents of states other than Alaska, Washington, and Oregon declined.

Alaska holdings of other rationalized species catcher processor crew shares at the time of initial allocations were limited to one unique Anchorage quota holder (holding 5.2 percent of the total quota units) for each of EBS Tanner and WBS Tanner fisheries. By the time of the 5-year program review, these quota units were no longer held by individuals with Alaska addresses (nor was any other catcher processor crew quota in any of these fisheries). By the time of the 2015/2016 allocative process, however, one Anchorage quota holder again held the same number and percentage of quota units as were held by an Anchorage resident at the time of initial allocations. A second Alaska community, Homer, was also represented in the data for 2015/2016 IFQ allocations, with one quota holder holding 7.2 percent of the total catcher processor crew quota units for the EBS Tanner and the WBS Tanner fisheries.

A total of 11 unique catcher processor crew quota holders with Washington addresses received initial allocations in the EBS Tanner and WBS Tanner fisheries (76.4 percent of the total quota units in each fishery), with the number of unique quota holders increasing by one (and the percentages of total quota units held increasing to 81.6 percent) by the time of the 5-year program review (meaning the former Alaska quota shares had gone to Washington). At the time of the 2015/2016 IFQ allocation process, the number of Washington quota holders was down to 10 (holding a combined 67.2 percent of the quota units in each fishery). Three other unique quota holders of EBS Tanner and WBS Tanner fisheries from states other than Alaska, Washington, and Oregon were initially allocated 18.4 percent of the total catcher processor crew quota units for these fisheries, and these numbers were unchanged by the time of 5-year program review. By the 2015/2016 allocative process, these states were down to two unique quota holders and 15.5 percent of the total quota units held in each fishery. While no one from Oregon received initial allocations or held quota in either fishery at the time of the 5-year program review, as of the 2015/2016 allocative process, two unique Oregon quota holders held 4.9 percent of the catcher processor crew quota in each of the EBS Tanner and WBS Tanner fisheries.

The only other rationalized crab fisheries for which catcher processor crew shares were issued were the WAI golden king crab and the WAI red king crab fisheries. One unique quota holder from Washington received an initial allocation in the WAI golden king crab fishery (consisting of 98.2 percent of the total catcher processor quota units in this fishery), numbers that were unchanged at the time of the 5-year program review and during the 2015/2016 IFQ allocation process. One unique quota holder from a state other than Alaska, Washington, or Oregon also received an initial allocation in the WAI golden king crab fishery (consisting of 1.8 percent of the total catcher processor quota units in this fishery), but by the time of 5-year program review, these shares were held by one unique quota holder with an Oregon address, which remained unchanged as of the 2015/2016 IFQ allocation process. There was one unique quota holder with a Washington address for the WAI red king crab fishery (with 100 percent of the total catcher processor crew quota units held) at the time of initial allocation and this situation had not changed by the time of the 5-year program review or the 2015/2016 allocative process. No catcher processor crew shares were initially (or subsequently) allocated for the EAI golden king crab, Pribilof Islands blue and red king crab, or St. Matthew Island blue king crab fisheries.

Processing Quota Shares Distribution

Social impacts related to changes in the distribution of processing effort linked to the distribution of processor quota through the Individual Processor Quota (IPQ) allocation process have been isolated to a few communities.

- As noted in the Adak community summary in Section 1.3.6 below, a locally substantial amount of crab was processed in Adak after the close of the rationalization initial allocation qualifying period but prior to the implementation of the crab rationalization program itself. From a community perspective, the crab rationalization program served to impede what was at the time a growth area for local processing, because the level of processor quota initially allocated to the local processor was minor compared to volumes processed immediately before the implementation of the program.

  Adak was, however, the beneficiary of two community protection features under the crab rationalization program related to fostering benefits from local processing, also as discussed in Section 1.3.6: (1) a regionalization feature that created a western region designation requiring landings of half of the WAI golden king crab fishery in that region (with the western region having two communities with any existing commercial processing capacity [Adak and Atka] and only one community [Adak] with a history of crab processing)[35] and (2) a direct Adak Community Allocation of 10 percent WAI golden king crab TAC (now managed by the Adak Community Development Corporation [ACDC]), with the dual intent that this quota could be harvested on terms that were beneficial for the community (including, perhaps, to help attract or retain local vessels in the fishery) as well as landed and processed in the community. Due multiple ownership changes and intermittent operation of the local shore-based processor, however, there have been several recent years when no processing of crab has occurred in Adak.

- As discussed in the St. George community summary below, crab processing occurred in St. George during the rationalization initial allocation qualifying period, but had exited the community prior to the implementation of the crab rationalization. Crab rationalization—and specifically the community regionalization protection feature that created the northern region[36] designation—had, at the time of the crab rationalization 3-year program review, served to bring crab processing local public revenue benefits back to St. George (via St. Paul on an annual agreement basis), but not actual processing itself. Importantly, however, no long-term revenue agreement was then in place for the City of St. George. As the crab rationalization 3-year program review was going final, however, Aleutian Pribilof Islands Community Development Association (APICDA), the Community Development Quota (CDQ) group that represents St. George (along with several other communities in the Aleutian/Pribilof Islands region) acquired the processor quota shares that were associated with one processing company's processing history in that community and had entered into a confidential agreement regarding the processing

[35] The western share landing/processing region was defined for the purposes of this community protection measure as being west of 174º West longitude in the North Pacific Ocean/Bering Sea.

[36] The northern share landing/processing region was defined for the purposes of this community protection measure as being north of 56º 20' North latitude in the Bering Sea.

history of the other firm that had obtained an initial allocation of processor shares associated with St. George, as discussed in the community summary in Section 1.3.8. Processing still (as of 2016) has not returned to St. George, meaning the community does not benefit from local fish taxes on landings or from the other local economic activities brought about by having by having local processing take place and vessels making local landings, but the community does derive benefits from APICDA ownership and/or contractual control of the processor quota tied to St. George.

- As described in the Kodiak community profile included in the 5-year program review, changes in ownership structure of one locally operating crab plant (Ocean Beauty Seafoods) resulted in that plant no longer being able to process their A share crab,[37] but institutional arrangements were made under the auspices of the rationalization program with the creation of the Kodiak Fisheries Development Association (KFDA) that have served to retain the ongoing, consistent use of the Bristol Bay red king crab portion of this processing quota in Kodiak, as discussed in Section 1.3.4.

- With the owners of UniSea coming to have ownership interest in Unalaska/Dutch Harbor-based processor shares initially allocated to Royal Aleutian Seafoods at the time of crab rationalization, ownership divestiture of some Unalaska/Dutch Harbor-based shares of EAI golden king crab was required and occurred immediately prior to the actual implementation of the program. Acquired by a third party, these shares had been leased to Harbor Crown Seafoods in Unalaska/Dutch Harbor at the time of the crab rationalization 3-year program review, which helped to foster the growth of a relatively new processing entrant to the BSAI crab fisheries while retaining the processing of those shares in the community. As noted in the Unalaska community profile included in the 5-year program review, however, Harbor Crown Seafoods subsequently went out of business (for reasons, according to a former part-owner of Harbor Crown Seafoods, unrelated to the crab rationalization program). According to the owner of the processor shares in question, at the time of the 5-year program review these shares continued to be processed in Unalaska/Dutch Harbor, as they had every year since the beginning of the program, but they were then (2010) being custom processed at one of the long-established crab processors in the community. Since the time of the 5-year program review, these shares have continued to be custom processed in Unalaska/Dutch Harbor every year to the present (2016) and, given a modification to facility use caps under the crab rationalization program (that occurred more-or-less coincident with the demise of Harbor Crown Seafoods), can be processed at the UniSea facility in Unalaska/Dutch Harbor if desired without running afoul of the original divesture requirement.

- As reported in the 5-year program review, an increase in common ownership between several processors (including Westward Seafoods, Peter Pan Seafoods, and Alyeska Seafoods, all owned by Maruha-Nichiro) triggered the requirement for divestiture of some crab processor quota among the group, which could have included processor quota share moving from either King Cove (Peter Pan Seafoods), Unalaska/Dutch Harbor (Alyeska Seafoods and/or Westward Seafoods), or both.

[37] This occurred as a result of investment in Ocean Beauty Seafoods (and therefore acquisition of ownership interest in the company) by an Alaska Native entity that also holds vessel ownership interests.

- An NPFMC amendment on custom processing around the time of the crab rationalization 3-year program review, however, has allowed an agreement to be reached that retained a stable level for processor quota in King Cove. In this case, King Cove-based processor shares of Bristol Bay red king crab were acquired by Aleutia. While this acquisition was not specifically made under the crab rationalization program right of first refusal process, the existence of that process, according to key individuals involved, clearly influenced the acquisition and those shares have continued to be processed in the community in the years since.

- In the case of Unalaska/Dutch Harbor, the species at issue were EAI golden king crab and WAI golden king crab. These shares were acquired by the APICDA CDQ group, which was not the right of first refusal holder, with the approval of local EAI golden king crab right of first refusal holders for Unalaska/Dutch Harbor[38] (with there being no right of first refusal for WAI golden king crab). According to APICDA staff, these shares were processed in Adak in 2008/2009. This represents the only known case of processor shares moving between communities after having gone through the right of first refusal process following the implementation of the BSAI crab rationalization program.[39] This quota was processed (custom processed) again in Unalaska/Dutch Harbor, however, when the processing plant in Adak did not operate in 2009/2010; in more recent years, however, it has been processed in Akutan, according to senior APICDA staff.

  Also as a result of the Adak plant closures over multiple years, all quota shares of WAI golden king crab held by either APICDA or Atxam (the Atka Alaska Native Claims Settlement Act [ANCSA] village corporation), together accounting for approximately 87 percent of all west-designated shares of WAI golden king crab, according to APICDA staff,[40] were in earlier years custom processed in Unalaska/Dutch Harbor (along with the EAI golden king crab quota that originated in Unalaska/Dutch Harbor), but more recently these have reportedly been custom processed in Akutan as well. While processing of this quota may occur in an expanded plant in Atka in the future,[41] there are logistical challenges to doing so at present, especially given that typically the WAI golden quota taken by one or at most two vessels with sometimes two or three weeks between deliveries, creating multiple processing start-up and shut-down cycles which come with their own inherent challenges, especially for a small plant.

[38] Unalaska Crab, Inc., an entity whose board membership typically overlaps with that of the Unalaska City Council.

[39] In this case, the holder of the right of first refusal agreed to waive their right to purchase the processor quota shares in question. There are no known cases of holders of the right of first refusal exercising their right to purchase quota shares specifically following the formal procedures established under the rationalization program.

[40] APICDA senior staff reports ownership of undesignated WAI golden king crab as well, but not at as high a percentage.

[41] APICDA senior staff report that an expansion of the Atka Pride Seafoods plant in Atka will occur in conjunction with an already initiated U.S. Army Corps of Engineers Atka harbor improvement project that will take five to seven years to construct. The plant is expected to move into the crab processing when the improved harbor and expanded plant allow it to efficiently do so.

- A number of transactions have involved the transference of processing quota share ownership that have not been driven by divestiture requirements or that triggered the right of first refusal process.[42] An example of this would be the transfer of processing quota shares that were initially allocated to Prime Alaska Seafoods and Osterman Fish, both in Unalaska/Dutch Harbor, that were subsequently acquired by a third party that has continued have the associated individual processor quota processed in Unalaska/Dutch Harbor. As these types of transfers have involved processing remaining within the same community, no obvious social impacts have resulted from these transactions.

- After the close of the period covered by this 10-year program review (the last season covered being the 2014/2015 season), Icicle Seafoods crab assets were sold (during the 2015/2016 season) to 57 Degrees North, LLC, a subsidiary of the CBSFA CDQ group that is the operating company that produces and markets CBSFA's crab holdings. Icicle Seafoods floating processors for many years typically operated in both the north and south regions and continued to do so until the sale of Icicle Seafoods crab assets, which has reportedly resulted in the effective sidelining, if not permanent retirement, of the Icicle Seafoods floating processing infrastructure from the crab fishery.[43] During the 2015/2016 season, the transfer of assets to 57 Degrees North, which does not have its own crab processing capacity, created a use cap problem in the EBS Tanner and WBS Tanner crab fisheries. In the recent past, facilities owned by four entities, Trident Seafoods, Maruha-Nichiro, UniSea, Inc., and Icicle Seafoods, have accepted Bering Sea Tanner A share deliveries. With Icicle Seafoods stopping processing, however, the only Bering Sea facilities currently available for EBS and WBS Tanner deliveries are controlled by three entities, each of which is subject to a 30 percent cap limit (thus, only 90 percent of the A share IFQ could be harvested under established rules and regulations, potentially stranding the remaining 10 percent of the total IFQ). For six other rationalized crab fisheries, this would not pose a substantial problem due to an existing custom processing exemption,[44] but no such exemption exists in the EBS Tanner and WBS Tanner fisheries. For the post-asset transfer portion of the 2015/2016 season, this situation was addressed through an emergency rule; a longer term solution had at time of this writing (May 2016) not yet been put in place.[45] How the acquisition of the Icicle Seafoods crab assets by 57 Degrees North will ultimately change the community-by-

[42] Transfers of processor quota shares may take place without triggering the right of first refusal process if (1) the new owner of the processor quota shares enters into a new right of first refusal agreement and (2) agrees to use 80 percent of the individual processor quota in the community two of the following five years.

[43] According the 57 Degrees North staff, the floating processing barges and vessels owned by Icicle Seafoods were not a part of the agreement by which 57 Degrees North obtained Icicle Seafoods' crab IFQ and IPQ. Further, especially with the Trident Seafoods plant in St. Paul reportedly able to easily accommodate the additional IPQ, 57 Degrees North is not interested in acquiring additional processing capacity to directly process its IPQ, instead preferring to enter into custom processing agreements with Trident Seafoods for processing its northern shares. (Further, 57 Degrees North staff pointed out, if push came to shove, the Trident Seafoods' owned floater *Independence* could likely be used to provide additional capacity in the north region.)

[44] Amendment 27 to the BSAI crab Fishery Management Plan established that a total of six crab fisheries in which IPQ crab that are processed under a custom processing arrangement would not apply against the use cap of IPQ holders who own the facility where those crab are custom processed. These are: Bering Sea snow crab with a north region designation; EAI golden king crab; Pribilof Islands blue and red king crab; St. Matthew Island blue king crab; WAI golden king crab processed west of 174° West longitude; and WAI red king crab.

[45] The NPFMC is scheduled to consider a proposed regulatory amendment to address this issue at the June 2016 Council meetings.

community distribution of processing activity associated with the former Icicle Seafoods processing quota shares, especially in the south region, is an open question.[46]

- Also after the close of the period covered by this 10-year program review a BSAI crab Fishery Management Plan amendment, designed to strengthen the efficacy of the right of first refusal community protection measure, was implemented. As noted elsewhere, tracking the existence of rights of first refusal, of fundamental importance to the functioning of this measure, has been complicated by the fact that reporting requirements established under the original rule provided insufficient information for NMFS to actively monitor rights. For example, only if a lapse of rights was voluntarily reported to NMFS were those lapses recorded in NMFS data. In response to this type of known shortcoming and with the additional input from community representatives and fishery participants that a number of aspects of the rights of first refusal as implemented may have diminished their effectiveness in in protecting community interests, the NPFMC developed and NMFS published an amendment package, effective February 12, 2016, intended to improve the transparency and effectiveness of the right of first refusal program.[47]

1.3 SUMMARY OF SOCIAL IMPACTS OF BSAI CRAB RATIONALIZATION BY COMMUNITY

As noted in Section 1.1, a more comprehensive discussion of community level impacts may be found in the four individual community profiles (Unalaska/Dutch Harbor, St. Paul, King Cove, and Kodiak) included in the crab rationalization 5-year program review (NPFMC 2010, Appendix A) or those incorporated by reference in the 5-year program review (Sand Point, Adak, and St. George [EDAW 2008], as well as Akutan [NPFMC 2008, Appendix A]). The following summaries follow the order of issue discussion in the referenced profiles, and include harvesting, processing, support service, and local governance and revenue considerations. In general, the changes associated with rationalization have not been occurring in a vacuum. While crab fleet consolidation has been an issue for a number of different direct and indirect reasons as noted in the summaries below, this consolidation has occurred during a time when Alaska community

[46] According to 57 Degrees North staff, during the 2015/2016 season, the former Icicle Seafoods southern shares were processed in part by Maruha-Nichiro in Unalaska/Dutch Harbor, UniSea in Unalaska/Dutch Harbor, and Trident Seafoods in Akutan, with the long-term location of processing of these processing quota shares not fully decided. According to CBSFA staff, the right of first refusal on the former Icicle Seafoods processing quota originally affiliated with Port Moller has expired, such that those quota shares can be processed in the same location(s) as the other southern shares formerly owned by Icicle Seafoods.

[47] See the discussion in Section 7.2 "Processing by IFQ Share Type and Community" in the main body of the document to which this social impact assessment is an appendix; the specific action was Amendment 44 to the BSAI crab Fishery Management Plan, with the final rule published at 81 Federal Register 1557 (01/13/2016). One key change in right of first refusal contract terms under Amendment 44 is the removal of the right of first refusal contract term that allows a right of first refusal to lapse if the PQS subject to the right of first refusal was processed outside the community of origin for a period of three consecutive years. Under this amendment, a right of first refusal remains in effect for PQS subject to a right of first refusal regardless of the location in with the IPQ associated with that PQS was processed. Several other key changes are covered under Amendment 44, including the removal of the right of first refusal contract term stating that a right of first refusal will lapse if an Eligible Crab Community entity fails to exercise its right of first refusal after it is triggered by a transfer of PQS, which has been replaced with a right of first refusal contract term that requires that a recipient of a PQS transfer enter into a new right of first refusal contract with an Eligible Crab Community entity of its choosing in the designated region of the PQS.

fleets in general have been getting smaller, as discussed in Section 1.5 below. While rationalization has not largely been seen as resulting in adverse social impacts regarding processing and local governance and revenue considerations (with a few notable few exceptions discussed below), support service businesses in a number of communities have also reported a longer-term trend of decline, variously attributed to rationalization in other fisheries or changes in fishery market demands, among other factors. The specific social impacts attributed to crab rationalization in each community are largely a function of the size and structure of the specific community, the nature and intensity of the community engagement in the crab fishery, and the relative level of dependence of the particular community on the crab fishery.

1.3.1 Unalaska/Dutch Harbor

Harvesting

- **Vessels** – According to the BSAI crab fishery 1998–2014/2015 dataset, during the pre-rationalization period, two Unalaska-owned vessels participated in the Bristol Bay red king crab fishery in 1998 and 1999, none did in 2000 and 2001, one did in 2002 and 2003, and none did in 2004. None have participated in the fishery in any of the post-rationalization years. In the Bering Sea snow crab fishery, during the pre-rationalization period, one Unalaska-owned vessel participated in 1998 and 1999, none did in 2000 and 2001, and one did each year 2002–2005. During the post-rationalization years, one Unalaska-owned vessel has participated in the Bering Sea snow crab fishery, and then for a single year (2005/2006).

  At the time of the 5-year program review (2010), of the three unique vessels with ownership attributed to Unalaska residents that showed up in the database as having fished for even one season for either Bristol Bay red king crab or Bering Sea snow crab between 1998 and 2004, one of those vessels (*Vessel Unalaska A*) was still Unalaska owned and remained active in commercial fishing during the transition year of 2005 and each year after rationalization 2006–2010 (and thus presumably continued to generate at least some level of economic benefit, even if it had exited the rationalized crab fisheries). The other two vessels (*Vessel Unalaska B* and *Vessel Unalaska C*) had moved to Washington[48] before implementation of the rationalization program and remained active in commercial fishing during the 2005 transition year and each year 2006–2010.

  More recently, since the time of the 5-year program review, the one vessel (*Vessel Unalaska A*) that remained in the dataset as Unalaska resident-owned continued to fish each year until its last recorded revenues in 2012 (i.e., after 2012, none of the original three Unalaska resident-owned crab vessels that fished before the rationalization program in the years covered by the dataset remained both Unalaska resident-owned and still active in any commercial fishery). The other two vessels (*Vessel Unalaska B* and *Vessel*

[48] *Vessel Unalaska B* is shown in the dataset as having Seattle ownership 2000–2014, except for 2011; in 2010 it is shown as having both Seattle and Shoreline, Washington ownership and Shoreline ownership only in 2011. *Vessel Unalaska C* is shown in the dataset as having Unalaska and Lakewood, Washington ownership in 2004 and Lakewood ownership only 2005–2014. (*Vessel Unalaska B* began the pre-rationalization period covered in the dataset as an Unalaska resident-owned vessel; *Vessel Unalaska C* is shown as having Mukilteo, Washington [1998 and 1999] and Seattle [2000 and 2001] before it shows in the data as having Unalaska ownership.)

Unalaska C) remained active with Washington resident ownership, fishing each year 2011 through 2014, the most recent year for which data are available.

Three other vessels with activity in the crab fisheries that were included in the rationalization program but that did not have Unalaska resident ownership before the implementation of the program appeared in the data as Unalaska resident-owned by the time of the 5-year program review. One of these vessels (*Vessel Unalaska D*) shows as Unalaska resident owned for one year (2007); before rationalization and during the transition year it shows as owned in Sitka (1998–2003) and Mill Creek, Washington (2005), while after being owned in Unalaska it shows up for one year each in Seattle (2008) and Cape May, New Jersey (2014). A second vessel (*Vessel Unalaska E*), which formerly had Seattle ownership (1998–2004) shows as having been active with Unalaska resident ownership in 2005–2007, 2009, and 2010, after which it became inactive in commercial fishing. The third vessel (*Vessel Unalaska F*), previously shown as Seattle resident-owned (1998–2005) first shows in the data as Unalaska resident-owned in 2006 and remained active in commercial fishing each year covered by the 5-year program review (2006–2010), although its last year participating in the rationalized BSAI crab fishery was 2006. More recently, this latter vessel has remained shown in the data as Unalaska resident-owned and active in each year 2007–2014, the most recent year for which data are available. In other words, this is the only vessel with Unalaska resident ownership ties in any pre-rationalization or post-rationalization year that was still under Unalaska resident ownership and active in commercial fishing in 2014 (although not in any of the rationalized crab fisheries).

Catcher Vessel Owner Shares: Among the now-rationalized BSAI crab fisheries (not all of which have been open in recent years), two individuals listed as Unalaska residents qualified for initial catcher vessel owner quota share allocations in each of the Bristol Bay red king crab, the EBS Tanner, the WBS Tanner, and the Pribilof Islands 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 Island blue king crab fisheries. At the time of the 5-year program review, the number and percentage of overall quota shares held by these two individuals were the same as they were for the initial allocation. As of the 2015/2016 IFQ allocation process, the number of unique quota holders and the number of quota units held in each rationalization crab fishery and designated geographic area remained unchanged from the initial allocation as well.

- **Crew –** Although good pre-rationalization quantitative data are unavailable, interview data collected over the years would suggest that Unalaska historically has had relatively few permanent resident crab crew members, just as it has had few resident crab vessel owners as shown in the quantitative data, especially when viewed in contrast to its importance as a service and processing port for the BSAI crab fisheries. According to multiple interviews with knowledgeable community residents in 2004 and 2008, no full-time, long-term Unalaska residents had been known to crew on BSAI crab vessels in recent years, either before or after the implementation of rationalization. Interviews in 2010 would suggest, however, that at least one and perhaps a few more long-term residents had crewed on BSAI crab boats more recently, but apparently the number remained small at that time. Whatever the exact number of full-time residents who

crewed on crab vessels before or after the implementation of the program, at the time of the 5-year review it was clear that unlike at least two of the other major port communities (King Cove and Kodiak), local crew job loss as a result of the consolidation of the crab fleet that accompanied BSAI crab rationalization was not a salient social impact issue in Unalaska/Dutch Harbor.

More recent data collected under the comprehensive economic data collection requirement component of the rationalization program in the form of Economic Data Reports (EDRs) provide annual crew counts post-rationalization program implementation, as outlined in Section 1.3.9, below. Those data, as described in that section, do show trend information for Unalaska/Dutch Harbor and other communities over the post-rationalization years, but as discussed in that same section, some caution is suggested in their interpretation.

EDR data, available only for years after the crab rationalization program was implemented, indicate that between 12 and 30 Alaska residents who provided Unalaska/Dutch Harbor addresses on their ADFG commercial fishing crew licenses crewed on crab vessels each year from 2006 through 2014. Further, EDR data also indicate that an additional one to four Alaska residents with Unalaska/Dutch Harbor addresses on their CFEC gear operator permits may have served as skippers on BSAI crab vessels each year from 2006 through 2014 (or, at minimum, crewed on crab vessels those years). Additionally, between two and 10 Alaska non-residents who provided Unalaska/Dutch Harbor addresses on their ADFG commercial fishing crew licenses crewed on crab vessels each year from 2006 through 2014. Further, EDR data also indicate that an additional Alaska non-resident with an Unalaska/Dutch Harbor address on their CFEC gear operator permit may have served as a skipper on a BSAI crab vessel in 2006, 2012, and 2013 (or, at minimum, crewed on a crab vessel those years).

Catcher Vessel Crew Shares: Two individuals listed as Unalaska/Dutch Harbor 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/Dutch Harbor who received catcher vessel owner shares under the program. This individual held catcher vessel crew shares in the Bristol Bay red king crab, the Bering Sea snow crab, the EBS Tanner, the WBS Tanner, and the Pribilof Islands blue and red king crab fisheries.

As of the 5-year program review (2010/2011), this individual still held catcher vessel quota shares equivalent to those he received under the initial program allocation. The second individual received initial allocations in the EBS Tanner and WBS Tanner fisheries under an Unalaska/Dutch Harbor address, but received initial allocations for the Bristol Bay red king crab, the Bering Sea snow crab, and the St. Matthew Island blue king crab fisheries under a Seattle address. All of these quota shares were listed as owned by this same individual but under an Unalaska/Dutch Harbor address for the 2005/2006, 2006/2007, and 2007/2008 seasons. After the 2007/2008 season, no catcher vessel crew quota shares are shown in the dataset under this individual's name nor did any additional catcher vessel crew shares show up under any other individual's name associated with an Unalaska/Dutch Harbor address during the first five post-rationalization years. In other words, at the time of the 5-year program review, the quota units held by fishery matched those of the initial allocation of the one Unalaska/Dutch Harbor resident who received

initial allocations in multiple crab species fisheries, all under an Unalaska/Dutch Harbor address.

As of the 2015/2016 IFQ allocation process (the most recent data available), the number of quota holders and the number of quota units held was the same as at the time of the 5-year program review, with the exception of the Pribilof Islands blue and red king crab fishery where a new unique individual had come to own quota in both northern and southern designated regions, increasing the number of quota units in both regions of that fishery held by Unalaska/Dutch Harbor residents.

Processing

- Unalaska/Dutch Harbor is home to several shore processors of BSAI crab. At the time of the crab rationalization 3-year program review (2008), the plants then currently operating in Unalaska/Dutch Harbor could usefully be grouped into three different categories: the three large multispecies plants (UniSea, Alyeska Seafoods, and Westward Seafoods), a mobile processor operator (Icicle Seafoods), and two smaller specialty processors (Prime Alaska Seafoods and Harbor Crown Seafoods). The large multispecies plants were all American Fisheries Act (AFA)-qualified groundfish plants, and all processed a wide range of species. Each of these plants had their own initial allocation processor quota shares with the exception of Harbor Crown Seafoods, which as noted elsewhere leased processor quota (as well as completed with other plants for B share and C share quota). Another plant that processed a significant amount of BSAI crab prior to rationalization (Royal Aleutian Seafoods) had been sold and its quota essentially consolidated with another processor and related interests on the eve of the implementation of crab rationalization, well before the time of the 3-year program review.

  By the time of the 5-year program review, however, both plants characterized as smaller specialty processors had ceased operations (both in 2009), with only the larger of the two (Harbor Crown Seafoods) being the subject of plans for re-opening as a different entity under new ownership. In addition to the major plants, at the time of the 5-year review Unalaska/Dutch Harbor continued to have one small, independent direct-to-market seafood business (Aleutian Fresh Seafoods), that includes crab in its offerings, obtaining the crab from local processors rather than contracting with vessels directly.

  In the pre-rationalization years covered by the dataset, Unalaska/Dutch Harbor plants processed between 38 and 50 percent of all Bristol Bay red king crab each year and between 23 and 43 percent of all Bering Sea snow crab, with considerable variation from year to year. During the first 5 post-rationalization years, Unalaska/Dutch Harbor plants processed between 43 and 58 percent of all Bristol Bay red king crab processed, while in the second 5 post-rationalization years the range was between 44 and 54 percent, with no discernable overall trend, except for plateauing at 54 percent in 2012–2014. Unalaska/Dutch Harbor did increase its processing market share on an annual average basis for Bristol Bay red king crab over the period 2006–2010 compared to pre-rationalization for the years covered by the data, and then yet again in the period 2011–2014.

For the Bering Sea snow crab fishery, the pattern is somewhat different as Unalaska/Dutch Harbor processors, as a group, built market share over the period 1998 through 2005 (from 25 percent to 43 percent), but subsequent processing levels, as a percentage of total processing, have tended to decline somewhat since that time, although again there is substantial year-to-year variability, and levels have remained between 28 and 30 percent between 2009 and 2014. On an annual average basis, Unalaska/Dutch Harbor did increase its processing market share over the period 2006–2010 compared to pre-rationalization for the years covered by the data, but its annual average market share for 2011–2014 was lower than in the pre-rationalization years covered by the data or in the first five full years under the rationalization program (2006–2010).

While there was displacement of workers with the closure of the Royal Aleutian plant, crab processing at this plant was typically done with a temporary infusion of nonlocal resident workers, and the ramping up of the Harbor Crown Seafoods plant operations at the same time likely provided at least some offsetting job opportunities. With the subsequent closure of Harbor Crown Seafoods, overall processing employment in the community had likely fallen by the time of the 5-year program review (especially when combined with trends of less labor intensive methods of processing at local plants in general). Unlike the case with Royal Aleutian, however, the closure of Harbor Crown Seafoods, according to a former owner, was not crab rationalization related.

From a community social impact perspective, at the time of the 5-year program review, Unalaska/Dutch Harbor did not appear to have experienced adverse impacts linked to processing as a result of BSAI crab rationalization. As noted in Section 1.2.6, however, there had been some movement of EAI golden king crab and WAI golden king crab Unalaska/Dutch Harbor-based processor quota out of the community as a result of processor ownership changes, but this ownership movement was at least partially offset by the fact that this quota was largely still being processed in Unalaska/Dutch Harbor under custom processing agreements.

In terms of changes to the Unalaska/Dutch Harbor processing sector seen since the 5-year program review, the annual average number of crab processors increased for all species included in the rationalization program compared to the annual average figure for the first 5 post-rationalization years, with the exception of the Bering Sea snow crab fishery, where the annual average remained the same between the two time periods. The general increase in numbers of processing entities is reportedly more reflective of increases in custom processing in the community than changes in the number of physical processing plants in the community.[49]

[49] As reported in the 5-year program review, a total of 14 entities qualified under the crab rationalization program for at least some initial allocation of processor quota shares that were subject to the program community protection measures of right of first refusal and the cooling off period with Unalaska listed as the boundary for those measures (in the case of Unalaska, unlike some communities, all processing quota shares subject to one were subject to the other as well). These included Alyeska, Osterman Fish, Prime Alaska, Royal Aleutian, Westward, and Unisea among shoreside processors; Highland Light, Icicle, Peter Pan Seafoods, Snopac, and Yardarm Knot among mobile processors/mobile processor operators; and D&G Fisheries, Orca Bay Seafoods, and Malezi Seafoods, which may be termed niche entities in the community. The niche entities were each allocated a small fraction of the processor quota shares of any of the other entities listed, whether shoreside or mobile. Among the niche entities, D&G Fisheries was a locally owned, Unalaska-based entity that is primarily focused on harvesting rather than processing; Orca Bay is a global seafood firm that does not have a physical presence in the

The successor entity for the physical structures operated as Harbor Crown Seafoods, Bering Fisheries, was relatively short-lived. Focusing on halibut, sablefish, Pacific cod, and crab, its operations included processing rationalized crab for four years (2011–2014)[50] before the plant closed its doors in 2014. With the opening and closing of the Bering Fishery plant, it is assumed that demand first increased and then decreased for crab processing labor, but it is unknown how much of Bering Fisheries regular labor force was used for crab processing or how many workers were brought in specifically for peak crab processing demand, if any. The facilities that were used for both Harbor Crown Seafoods and Bering Fisheries facilities have since been converted to non-fisheries use.[51]

With the demise of Bering Fisheries, and the assumed end of Icicle Seafoods inshore floating processing of crab in the community,[52] the three remaining physical plants in the community that have a significant focus on BSAI crab (Alyeska Seafoods, UniSea, and

community; and Malezi Seafoods was a small, locally operated business that has out-of-state ownership (listed in Georgia initially and Florida in more recent years). Each of the niche entities as of the time of the 5-year program review (2010/2011) held the same number of share units they held at initial allocation. Also in 2010/2011, processor quota shares that are or were designated with Unalaska as the boundary for right of first refusal and cooling off provisions, were no longer held by Osterman Fish or Prime Alaska Seafoods among shore processors, and Highland Light, Snopac, or Yardarm Knot among mobile processors. Entities that in 2010/2011 held processor quota shares that are or were designated with Unalaska right of first refusal and cooling off boundaries that did not hold those shares at initial allocation included 57 Degrees North, LLC; APICDA Joint Ventures, Inc. (which acquired the former SnoPac shares, as detailed in Sections 1.3.3 and 1.3.8); Arctic Sea Holdings, Inc.; Quota Share Leasing, Inc.; and RAS II, LLC. CDQ groups accounted for a substantial degree of ownership among these then-relatively new holders of Unalaska-affiliated processor quota shares. All processor quota shares that were subject to Unalaska right of first refusal remained so in 2010/2011 except for the EAI golden king crab processing quota shares held by APICDA Joint Ventures, Inc., which were no longer subject to a right of first refusal (that right having been waived by the original holder of that right, Unalaska Crab, Inc., as detailed in the processing quota shares distribution discussion in Section 1.2.6, Quota Shares Distribution by Community. More recently, as of the 2015/2016 IPQ allocation process, the number of shares subject to an Unalaska right of first refusal boundary remained the same as in 2010/2011 for all entities, with the following exceptions: the number of shares held by 57 Degrees North, LLC and UniSea, Inc., increased and the number of shares held by D&G Fisheries and Icicle Seafoods, Inc. decreased (to zero). The number of shares subject to an Unalaska cooling off boundary tracked in parallel with the shares subject to Unalaska right of first refusal boundary, with one exception: B&N Fisheries Company, which did not hold shares subject to an Unalaska cooling off boundary in 2010/2011 did so in 2015/2016.

[50] Siu Alaska Corporation, a wholly owned subsidiary of the Norton Sound Economic Development Corporation CDQ group, and Copper River Seafoods formed Dutch Harbor Acquisitions LLC to purchase the idle Harbor Crown Seafoods plant and operated it (in conjunction with others) for most of its active span as Bering Fisheries. With direct access to CDQ crab and acquired access to catcher processor owner crab quota, its operational structure was quite different than those of Harbor Crown Seafoods and other shoreplants in Unalaska/Dutch Harbor.

[51] Pacific Stevedoring, Inc. currently (2016) leases and occupies these buildings, which are owned by the Ounalashka Corporation, and has converted them to other uses (including fisheries support service use, but not fish processing use).

[52] As noted earlier, after the close of the period covered by this 10-year program review (the last season covered being the 2014/2015 season), Icicle Seafoods crab assets were sold during the 2015/2016 season to 57 Degrees North, as subsidiary of the CBSFA CDQ group. Icicle Seafoods floating processors (normally the *Arctic Star* or the *Bering Star*) had typically operated in Unalaska/Dutch Harbor as stationary inshore floaters for crab processing, and continued to do so until the sale to 57 Degrees North, which has reportedly resulted in the effective sidelining, if not permanent retirement, of the Icicle Seafoods floating processing infrastructure from the crab fishery. What this means for the future location of the processing of the proportion of the crab typically processed in Unalaska/Dutch Harbor in the past is an open question.

Westward Seafoods) are all large, multi-species shore-based plants.[53] In general, Unalaska/Dutch Harbor remains the center of gravity for shore-based processing for all of the species included in the crab rationalization program, with the exception of the Bering Sea snow crab fishery, which has seen an increasing shift in shore-based processing toward St. Paul during the rationalization era, and the St. Matthew Island blue king crab fishery, the shore-based processing of which has been centered in St. Paul in the relatively few recent years the fishery has been open. Unalaska's direct-to-market seafood business (Aleutian Fresh Seafoods) continues to do well, according to interview information, with the main challenge being obtaining crab in a timely manner when their needs are relatively very small compared to that of the plants that provide their supply.

Based on interview data and a comparison of the number of physical plants with the number of active IPQ holders whose quota was processed in Unalaska/Dutch Harbor, custom processing at Unalaska/Dutch Harbor plants is common.[54] While concerns have been expressed by community leadership that custom processing could essentially function as a loophole to more processing quota share between communities, bypassing the right of first refusal process, the data on percentage of total rationalized fishery processing occurring annually in Unalaska/Dutch Harbor would suggest that Unalaska has not, as of the 2014/2015 season, experienced processor quota exiting the community. An expressed concern remains, however, that this type of exit could occur in the future.

Another concern for the future from an Unalaska perspective related to processing and expressed in interviews has to do with the consolidation of processors and the likely ability of the fewer remaining processors to handle vessel deliveries in a timely manner if harvest quotas substantially increase or even approach historic peaks. The specific concern is that there would be excessive off-load wait times, with potentially increased dead loss.[55] Like the concern over custom processing, this is not a concern that reflects adverse impacts experienced under the rationalization program to date; it is, however, a concern for what could happen under future conditions, given the consolidation that has happened in the processing sector under the program to date.

[53] It has been observed that at present (2016) virtually all of the shore-based plants processing BSAI crab included in the rationalization program are relatively large, multispecies plants with substantial dependency on other fisheries, where crab is but one (important) element in a "balanced portfolio" of fisheries engagement and dependency. A notable exception to this generalization is the shoreplant in St. Paul, which, aside from supporting a comparatively modest local halibut fishery, is highly focused on rationalized crab in general and Bering Sea snow crab in particular. Adak, with its current live crab shipment focus, does represent a third type of shore-based enterprise, but as of the 2014/2015 season was not physically processing crab onshore in the same sense as was being done at other shoreplants.

[54] Please see the "Number of Active IPQ Holder Accounts and IPQ Processing Plants by Fishery, Region, and Community" table in Section 7, Processing Sector, of the main document to which this social impact assessment is an appendix. Also, the 5-year program review social impact assessment under the "Other Local Processing Activity" discussion in the Unalaska profile (Page 2-40) provides a characterization of other entities shown in the then-current dataset has having processed BSAI crab in addition to the shoreplants and mobile processors that processed in the community; since then, during the 2011–2015 period entities other than the shoreplants and mobile processors discussed in this 10-year program review section include 57 Degrees North LLC, Adak Community Seafoods, LLC, APICDA Joint Venture, Inc., Coastal Villages Crab LLC, Coastal Villages Seafoods LLC, EAG Quota LLC, Erla-N LLC, and Quota Share Leasing LLC.

[55] It should be noted that a reciprocal concern has been expressed by at least one local processing entity that the consolidated catcher vessel fleet may not be able to adequately supply the larger plants under similar circumstances.

Support Services

- Unalaska has the most developed fishery support service sector in the BSAI region. One general trend among the diverse vessel support businesses in the community prior to crab rationalization, however, was a drop-off in peak seasonal demand that was widely attributed to the earlier occurring pollock co-op rationalization and shortened crab seasons, coupled with a decline in harvest levels in the opilio fishery. In general, as described in the Unalaska community profile included in the 5-year program review, seasonal support service sector employment, which used to be quite substantial for many businesses, had declined over a number of years, as had overtime earnings for support service employees in a number of subsectors, while full-time, year-round employment had tended to remain relatively stable among existing businesses, although some additional downturn in employment was seen in some businesses during the 2008–2010 time period.

  While no data are available to allow for a systematic quantitative analysis, interview data gathered for the 5-year program review suggested that the impacts of crab rationalization have varied widely by individual business, even for businesses within the same support service subsector, based on business structure and relative dependency on the crab fishery *per se*. Local grocery suppliers to the fleet reported that crab rationalization impacts had been either minor or offset by other factors, but that there had been turnover in businesses in the sector overall. Some marine supply and hardware businesses reported that they had not yet recovered from a decline in crab-related revenues, but this sector had also seen a new (post-rationalization) entrant. Within the hydraulics sector, at the time of the crab rationalization 3-year program review, at least one business reported consistent year-over-year growth for many years, but there had also been a post-rationalization consolidation with the closure of one of the three pre-rationalization providers (although, according to the former owner of the now-closed business, crab rationalization-related declines were offset by gains in other fisheries before the business was closed for other reasons).

  By the time of the 5-year program review, the hydraulics business that had experienced earlier steady gains reported that revenues had leveled off if not declined, due to multiple factors. Among welding and ship repair businesses, as of the 3-year program review, revenues had generally increased over time, as had employment at all but one entity, but a number of these gains had come from diversifying the businesses as opposed to growth within existing types of offerings. By the time of the 5-year program review, there had been some decline in employment in this sector. Among the three major local sellers of marine fuels, one reported that crab rationalization caused a significant decline in sales, another reported essentially no impacts, and the third was somewhere in between. As reported in the 5-year program review, impacts among lodging and food and beverage providers attributable to crab rationalization were difficult to gauge because of then-recent changes in market share in this sector, including changes in business ownership (along with one new entrant) and consolidation of other businesses. At the time of the 5-year program review, local housing market was strong, with essentially no vacancies in the community, a quite different situation than was seen after the rationalization of the pollock fishery.

More recently, since the 5-year program review, the support service sector has been reported to be relatively stable, with few notable changes in local support businesses. One crab-related change is the emergence of a new pot hauling and storage service that, according to Harbor Department officials, is generating more activity across the City's light cargo dock and on land leased from the Ounalaska Corporation than has been seen in recent years. An outgrowth of the existing Aleutian Expeditors enterprise, which previously was more tightly focused on mail and freight expediting, this new service started circa 2013, with the individual who heads the service also managing warehouses. One change to a long-term, signature local fishing and marine industry support business in the community (described in the Unalaska community profile in the 5-year program review social impact assessment) that is not directly crab related was the acquisition of Magone Marine by Florida-based Resolve Marine group in August 2013 which then formed Resolve-Magone Marine Services (Alaska). Other relatively recent support service changes noted in phone contacts with community leaders include an increase in cod coming across the docks in the community, as opposed to being transferred vessel-to-vessel to trampers, which has generated additional local service demand, and the emergence of another stevedoring firm in the community.

Local Governance and Revenues

- As reported in the 5-year program review (2010), local fishery-derived revenues had continued to grow over time and the percentage of General Fund revenue attributed to direct fishery sources fluctuated between approximately 35 and 46 percent over the previous 10 years with no clear pattern to those fluctuations. Harbor-specific revenues grew annually over the period 2000 through 2006, were relatively flat from 2006 through 2007, and increased again in 2008. In 2009 and 2010, however, revenues declined to levels seen in the 2003–2004 timeframe, but these declines were noted as being driven by the opening of a private sector marine facility in the community that directly competes with municipal harbor facilities. At the time of the 5-year program review, there were no known adverse impacts to public revenues in Unalaska related to BSAI crab rationalization.

  In more recent years, since the 5-year program review the General Fund revenue attributed to direct fishery sources has increased to figures between $12 million (2011) and nearly $16 million (2014). The FY 2016 budget was nearly $14.7 million. The proportion of General Fund revenue from direct fishery sources has been increasing annually since a low of 35.6 percent in 2011 to a high of 43.6 percent in 2014.

  Revenues from Unalaska/Dutch Harbor port facilities have increased each year from 2009 to 2014, although revenues have fluctuated over those years for the Cargo Dock, Small Boat Harbor, Spit Dock and Marine Center Dock. Small Boat Harbor revenues reached their lowest point since at least 2000 in 2013 with a total of $86,955 (note: FY 2015 revenue figures were lower but were considered incomplete); however, other revenues and fees increased substantially during this time, coincident with the opening of

the city's new Carl E. Moses Boat Harbor[56] in November 2011. This facility has reportedly made mooring in the community more convenient, lessening the need to tie up vessels three-deep at the Spit Dock in Dutch Harbor, and attracting vessels that were previously moored in other harbors. For example, King Cove leadership specifically attributes a drop in moorage and other harbor fees in that community, including crab pot movement and storage, to vessels choosing to tie up in Unalaska/Dutch Harbor rather than King Cove, due to Unalaska/Dutch Harbor's closer proximity to the BSAI fishing grounds (which was even more of a differentiator when fuel costs were higher); its more robust vessel support service sector, which encompasses a large range of services and infrastructure, including a floating dry dock; and its better access to air transport for both passengers and freight, which results, among other things, in the ability to ship in parts in a timely manner to get broken down boats back on the water. The Marine Center Dock experienced an increase in revenues from 2009 to 2011 before a small drop in 2012. Since then, revenues in 2013 and 2014 have increased. (See Tables A2-1 through A2-3 in Attachment 2.)

1.3.2 Akutan

Harvesting

- **Vessels** – According to the BSAI crab fishery 1998–2014/2015 dataset, during the pre-rationalization period, one Akutan-owned vessel participated in the Bristol Bay red king crab fishery in 1998, 2000, and 2001, and one Akutan-owned vessel participated in the Bering Sea snow crab fishery in 1999 and 2001. No Akutan-owned vessel participated in either fishery in any of the other pre-rationalization years, the first five post-rationalization years, or the second five post-rationalization years. No Akutan-owned vessel participated in any of the other crab fisheries included in the rationalization program during either the pre- or post-rationalization period.

  According to the dataset, the one unique Akutan resident-owned vessel (*Vessel Akutan A*) that shows up in the data has having fished during the pre-rationalization period had ownership attributed to four different communities over the period 1998–2006. It was attributed to two locations in 1998 (Akutan and King Cove[57]) and 2000 (Akutan and Mankato, Minnesota), to Akutan alone in 1999 and 2001, to Mankato alone in 2002–2004, and to Kodiak[58] in the 2005 transition year and the first full year under the rationalization program (2006). This vessel participated in the BSAI crab fisheries that were included in the rationalization program in each of these years, as well as in other commercial fisheries in 1998–2000 and 2002–2005.

[56] During its planning and construction stages, this new harbor was typically referred to by its geographic location (the southern tip of Amaknak Island known as "Little South America"). It is classified as a small boat harbor, accommodating a range of vessels from recreational skiffs to commercial boats over 100 feet in length, but should not be confused with the previously existing Robert Storrs Small Boat Harbor located nearby (adjacent to the nearby Expedition Island peninsula of Amaknak Island) that accommodates vessels up to 60 feet in length (and is thus sometimes locally referred to as the "small small boat harbor").

[57] See the discussion of *Vessel King Cove D* in Section 1.3.3.

[58] See the discussion of *Vessel New Kodiak B* in Section 1.3.4.

Catcher Vessel Owner Shares: No Akutan residents qualified for an initial allocation of catcher vessel owner quota shares, and no residents held catcher vessel owner quota shares at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process. Akutan is a member community of the APICDA CDQ group, which has ownership interest in three vessels[59] that harvest rationalized crab.

- **Crew** – An earlier study (Knapp and Lowe 2007) reported that, as a result of rationalization, four Akutan residents lost crab crew jobs (out of five Akutan residents who were actively crewing prior to rationalization). Interviews for 5-year program review suggested that crab crew jobs are still available to Akutan residents on an ongoing basis through APICDA, and, if less frequently, on an opportunistic basis through vessels calling on the local processor. Interviews conducted for the crab rationalization 3-year program review (2008) suggested, however, that these post-rationalization crew jobs may be less attractive to local residents than pre-rationalization crew jobs due to (1) a perception that longer seasons have made crab crewing less compatible with other fishing and non-fishing opportunities in the community that are considered an important part of an integrated employment and income strategy (and preferred family/social arrangements) and (2) a perceived decline in the ability to make a relatively high financial return per day of fishing effort invested away from the community. Data presented in Section 5.6 of the main document to which this social impact assessment is an appendix, however, indicate a more complex situation, where neither season length nor crew compensation (especially on a per-day basis) have changed in a straightforward, unidirectional manner across the relevant crab fisheries. These issues are discussed in detail in Section 1.4, below.

  EDR data, available only for years after the crab rationalization program was implemented, as discussed in Section 1.3.9, below, indicated that one to four Alaska residents who provided Akutan addresses on their ADFG commercial fishing crew licenses have crewed on crab vessels each year from 2006 through 2014, except for 2012 when none did so. EDR data also show that one Alaska resident with an Akutan address held a CFEC gear operator permit indicating they may have served as a skipper on a BSAI crab vessel in 2008, 2009, 2012, and 2014 (or, at minimum, otherwise crewed on crab vessels those years).

  Catcher Vessel Crew Shares: No Akutan residents qualified for an initial allocation of catcher vessel crew quota shares, and no residents held catcher vessel crew quota shares at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process.

Processing

- Akutan is home to a large processing operation (Trident Seafoods) that was a major crab processing plant prior to rationalization and has remained so post-rationalization.

[59] The *Farwest Leader* and the *Barbara J* are both 50 percent owned by APICDA and 50 percent owned by Trident Seafoods; the *Golden Dawn* is 25 percent owned by APICDA, 50 percent owned by Trident Seafoods, and 25 percent owned by Aleutian Spray.

Confidentiality restrictions do not allow disclosure of processing volumes or values.[60] Given the lack of processor quota movement from the community, however, it is assumed that net processing volumes as a percentage of total fishery processing volumes have not decreased substantially, and it can be assumed with an increase in custom processing since the time of the 5-year program review that it is likely that locally processed percentage of overall fishery volume has increased. According to 2008 interviews with Akutan community leaders, no long-term residents of the community work at the plant other than a few individuals who came to the community for employment at the plant, a situation that existed prior to rationalization. According to local leadership, at present (2016) there is one local individual who has worked at the plant "for the last couple of years."

Support Services

- Akutan has little in the way of fishery support services compared to other major fishing ports, and those businesses that do exist are owned by a very few entities. Although an earlier report (Knapp and Lowe 2007) reported that one local business estimated a loss in revenue during the first year post-rationalization, later (2008) interviews for the crab rationalization 3-year program review suggest that this particular business was not experiencing adverse long-term effects from rationalization. Interviews with other business owners at that same time would suggest that BSAI crab rationalization was not having a substantial impact on their enterprises. At present (2016), according to local leadership, this situation is unchanged. Also, with major construction phases otherwise completed, the new boat harbor is scheduled to become operational this summer (2016) with the installation of floats.

Local Governance and Revenues

- As reported in the 5-year program review, detailed information on fish taxes could not be disclosed, but local tax revenues as a whole had increased steadily since 2004, ultimately exceeding $1 million in 2008. Following a sharp decrease from 2002 to 2003 (prior to rationalization) total operating revenues increased on an annual basis, reaching a high point of over $4.5 million in 2008 for all revenues and over $2.5 million in the General Fund. In more recent years, General Fund totals have ranged between $2.7 million in 2010 to $3.8 million in 2013, although the 2016 budgeted total revenues in the General Fund are over $4.7 million. For the years 2011 through 2014, local fish taxes comprised between 42.3 and 47.5 percent of the total General Fund revenues. In 2015, this percentage was 54.9 percent (based on the 2015 budget), which was higher than the projected percentage of 38.1 percent for 2016.

[60] In terms of processing quota shares held, at the time of initial allocation, Trident held processor quota shares with Akutan as the designated boundary for right of first refusal and the Aleutians East Borough designated as the cooling off boundary under the community protection measures built into the program for the Bristol Bay red king crab, Bering Sea snow crab, EAI golden king crab, St. Matthew blue king crab, and Pribilof Islands blue and red king crab fisheries. At the time of the 5-year program review, these share holdings were unchanged from initial allocations and right of first refusal and cooling off boundaries were unchanged as well; the same holds true at present (2016).

1.3.3 King Cove

Harvesting

- **Vessels –** According to the BSAI crab fishery 1998–2014/2015 dataset, and as reported in the 5-year program review, one vessel owned by King Cove residents participated in the Bristol Bay red king crab fishery in the year immediately prior to the implementation of rationalization, and none participated in the Bering Sea snow crab fishery in the 2 years immediately prior to the implementation of rationalization (although up to four locally owned vessels fished in Bristol Bay red king crab fishery at least 1 year and up to three vessels fished in the Bering Sea snow crab fisheries at least one year [1998 through 2003]). With the exception of one vessel participating in the EBS Tanner fishery in 2007/2008, no locally owned vessels participated in the EBS Tanner or WBS Tanner fisheries in the years covered by the BSAI crab fishery 1998–2014/2015 dataset. One locally owned vessel remained active in the Bristol Bay red king crab fishery annually through the 2008/2009 season, and a second Bristol Bay red king crab vessel was active in the 2006/2007 season only, but no locally owned vessels have been active in the rationalized BSAI fisheries since, according to the dataset (i.e., there have been no changes since the time of the 5-year program review).

  At the time of the 5-year program review (2010), of the five unique vessels with ownership attributed to King Cove residents that showed up in the database as having fished for even one season in any year for either Bristol Bay red king crab or Bering Sea snow crab in the pre-rationalization years from 1998 to 2004, two of those vessels (*Vessel King Cove A* and *Vessel King Cove B*) remained owned by King Cove residents and active in commercial fishing according to the dataset in at least some of the post-rationalization years and another two of the five were known from both the dataset and field interviews to have remained active in commercial fishing, but with ownership in locations other than King Cove (Seattle then Seward in one case [*Vessel King Cove C*] and Kodiak in the other [*Vessel King Cove D* [61]]) and thus four of the five vessels shown in the dataset presumably continued to generate at least some level of local economic benefit, even if they had by then exited the rationalized crab fisheries, two in King Cove and two elsewhere; the fifth vessel [*Vessel King Cove E*] was retired through the crab vessel buy-back program before in the implementation of the crab rationalization program and left all fisheries after 2001.

  Two other vessels with activity in the crab fisheries that were included in the rationalization program but that did not have King Cove resident ownership before the implementation of the program appeared in the data as King Cove resident-owned by the time of the 5-year program review. One of these vessels (*Vessel King Cove F*) showed as King Cove resident-owned and active in commercial fishing for two years (2006 and 2007); before rationalization and during the transition year it showed as owned in Seattle

[61] Unlike *Vessel King Cove A*, *Vessel King Cove B*, and *Vessel King Cove C*, *Vessel King Cove D* is only shown in the dataset as having fished under King Cove ownership for one year (1998) and even in that year ownership is shown as divided between King Cove and Akutan. In subsequent years, it is shown in the dataset as having Akutan ownership in 1999 and 2001, ownership in both Akutan and Mankato, Minnesota in 2000, Mankato in 2002–2004, and Kodiak in 2005 and 2006. See the discussion of *Vessel Akutan A* in Section 1.3.2 and *Vessel New Kodiak B* in Section 1.3.4.

(1998–2001) and Friday Harbor (2002–2005). Before the implementation of the rationalization program, this vessel spent a considerable amount of time in King Cove and often hired local crew. The second vessel (*Vessel King Cove G*) at the time of the 5-year program review showed as active in commercial fishing under King Cove resident-ownership in 2006–2008; before rationalization and during the transition year it shows as owned in Friday Harbor (1998–2005). Before the implementation of the rationalization program, this vessel also spent a considerable amount of time in King Cove and often hired both a local skipper and local crew.

More recently, however, during the period 2010–2014, of the original five vessels that were King Cove resident-owned BSAI crab vessels any pre-rationalization year 1998–2005, two were active as commercial fishing vessels under King Cove resident ownership in any year. One of these vessels (*Vessel King Cove A*) shows in the dataset as still being King Cove resident owned and as active in commercial fisheries each of these five years. A second vessel (*King Cove B*) was active four of the five years, but is shown as having King Cove ownership in 2010 only before changing ownership to Kenai for 2011–2013; it is not shown as commercially fishing in 2014.

Of the two former crab vessels that became King Cove resident owned after implementation of the rationalization program, one (*Vessel King Cove G*) shows landings in any commercial fishery in the period 2010–2014, and then for one year only (2012), but it is known from interview data that this vessel has generated other local economic activity in the past as a tender (which would not show up in the dataset), and continues to do so at present (2016).

In sum, in the most recent year for which data are available (2014), one of the King Cove resident owned vessels that ever fished in any of the crab fisheries included in the rationalization program in any of the years covered by the dataset is still shown as active in any commercial fisheries. This vessel remains owned and operated in King Cove.

Catcher Vessel Owner Shares: According to the dataset, initial allocation catcher vessel quota share in King Cove was received for the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, and WBS Tanner fisheries (with each held by one person), as well as in the Pribilof Islands blue and red king crab fisheries (held by two persons), for a total of three unique quota holders in the community. At the time of the 5-year program review (2010/2011), the number of unique local catcher vessel owner holders remained the same, but the number of quota share units had decreased substantially in each of these fisheries, except for the Pribilof Islands blue and red king crab fishery, and local interviews indicated that in at least some of these cases, different individuals own these quota units than was the case at the time of initial allocations.

As of the 2015/2016 IFQ allocation process (the most recent data available), King Cove residents held the same number of catcher vessel owner quota units in the EBS Tanner and WBS Tanner fisheries and a substantially lower number of quota units in the Pribilof Islands blue and red king crab fisheries compared to local holdings at the time of the 5-year program review; no local residents held catcher vessel owner quota units in either Bristol Bay red king crab or Bering Sea snow crab fisheries.

- **Crew** – While the King Cove locally owned fleet, with one exception, did not engage in BSAI crab fisheries immediately prior to rationalization, King Cove residents did crew on a number of vessels owned by individuals from outside of the community, and especially on a limited number of vessels that, while owned outside of the community, regularly spent time in King Cove. An earlier study (Knapp and Lowe 2007) reported that about 20 King Cove residents lost crab fishing jobs in the 2006/2007 season as a result of crab rationalization. While this is difficult to quantify with precision, based on the fact participation of individuals varied from year to year for a number of reasons, this estimate is generally consistent with information developed in 2004 pre- and 2008 post-rationalization implementation interviews for the crab rationalization program review effort. Essentially, opportunities for crewing within the local fleet were very limited and had become more so in recent years as a result of the separate crab vessel buy-back program and previously occurring changes, including the timing of fishing seasons, that tended to limit direct participation of local vessels. However, pre-rationalization crewing on crab vessels from outside of the community nonetheless represented a significant source of employment and income for King Cove residents in a way and to a degree not seen in post-rationalization crabbing. This same situation was confirmed during field interviews in 2010 (and further crew opportunities were lost with the exit of the last remaining King Cove vessel from active participation in the rationalized BSAI crab fisheries following the 2008/2009 season).

  As a non-CDQ community, King Cove residents do not have the degree of alternative access to post-rationalization crab crew jobs that is seen in a CDQ community such as Akutan. Information from multiple interviews with individuals from a variety of sectors in the community suggest that loss of crab crew jobs in King Cove was a serious social impact of rationalization at the time of both the 3-year and 5-year program reviews. Again, similar to Akutan, however, interviews conducted for earlier (3-year and 5-year in this case) program review efforts in King Cove suggested that post-rationalization crew jobs, even when available, may have been less attractive than pre-rationalization crew jobs for the same reasons described in the Akutan summary (i.e., due to [1] a perception that longer seasons have made crab crewing less compatible with other fishing and non-fishing opportunities in the community that are considered an important part of an integrated employment and income strategy [and preferred family/social arrangements] and [2] a perceived decline in the ability to make a relatively high financial return per day of fishing effort invested away from the community). Data presented in Section 5.6 of the main document to which this social impact assessment is an appendix, however, indicate a more complex situation, where neither season length nor crew compensation (especially on a per-day basis) have changed in a straightforward, unidirectional manner across the relevant crab fisheries. These issues are discussed in detail in Section 1.4, below.

  EDR data, available only for years after the crab rationalization program was implemented, as discussed in Section 1.3.9, below, indicate that between two and 10 Alaska residents who provided King Cove addresses on their ADFG commercial fishing crew licenses crewed on crab vessels each year from 2006 through 2009, while between one and three did so each year 2010 through 2014. Further, EDR data also indicate that an additional three or four Alaska residents with King Cove addresses on their CFEC gear operator permits may have served as skippers on BSAI crab vessels each year from

2006 through 2008 (or, at minimum, crewed on crab vessels those years), but that one or none have done so each year from 2009 through 2014.

Catcher Vessel Crew Shares: According to interview data gathered for 5-year program review and according to at least one other study (including Knapp and Lowe 2007), a total of three King Cove residents qualified for an initial allocation of catcher vessel crew quota shares in any of the rationalized BSAI fisheries. According to the quota allocation dataset, however, a total of four unique King Cove residents received initial allocations of catcher vessel crew shares in the Bristol Bay red king crab fishery, while initial allocations were made to three individuals in each of the Bering Sea snow, EBS Tanner, and WBS Tanner crab fisheries; two individuals received initial allocations of catcher vessel crew shares in the Pribilof Islands blue and red king crab and St. Matthew Island blue king crab fisheries. As of the 5-year program review (2010/2011), the number of unique King Cove resident crew quota shareholders had declined in every fishery and the number of quota share units held by King Cove residents had declined substantially in every fishery compared to initial allocation levels.

As of the 2015/2016 IFQ allocation process, however, the pattern was more complex. King Cove resident holdings of Bristol Bay red king crab catcher vessel crew quota declined in comparison to levels held at the time of the 5-year program review, while Bering Sea snow crab holdings were unchanged, as were St. Matthew Island blue king crab holdings. Within the EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries, however, the number of King Cove catcher vessel crew quota holders and the number of catcher vessel crew quota units held increased from levels seen at the time of the 5-year program review, returning to initial allocation levels.

Processing

- King Cove is home to a large processing operation (Peter Pan Seafoods) that was a major crab processing plant prior to rationalization and has remained so post-rationalization. Confidentiality restrictions do not allow disclosure of processing volumes or values, but city officials on multiple occasions, have noted that local fish taxes, while varying from year-to-year are often a rough balance between crab, salmon, and groundfish.[62] Given the lack of processor quota movement from the community, however, it is assumed that net processing volumes as a percentage of total fishery quota processed have not changed substantially. Additionally, as reported in the 5-year program review (and confirmed with subsequent correspondence with Peter Pan Seafoods management), the plant has benefited from a consolidation of processor history within the Aleutians East Borough (AEB) (and within the same firm) that was originally associated with processing activity during the qualification period that took place in both False Pass and Port Moller.[63] This

[62] Percentage dependency for major species groups ranged widely on an annual basis between FY 2000 and FY 2015, based on relative fishing success and variable market (price) conditions. During this time span, crab ranged between roughly 30 and 50 percent, salmon accounted for between roughly 15 and 40 percent, and groundfish between roughly 25 and 50 percent of total local landing taxes in any given year.

[63] Qualifying crab processing history associated both False Pass and Port Moller resulted exclusively from floating processors operating within those communities. All False Pass associated processing history was derived from Peter Pan Seafoods operations. In the case of Port Moller, Peter Pan Seafoods was one of three firms with qualifying history associated with that community (with the other two being Snopac and Icicle Seafoods).

consolidated processing has continued to take place in King Cove through the present (2016). Further, according to interviews with plant management conducted for the 5-year program review, employment levels and the annual activity fluctuations at the plant have remained consistent with the patterns seen before rationalization was implemented.

Also, as reported in the 5-year program review, according to interviews, no long-term residents of the community work at the plant other than a few individuals who originally came to the community for employment at the plant, a situation that existed prior to rationalization; according to more recent (2016) interview information, this situation remains unchanged, although it is reported also that there have always been a few local teenagers who take the opportunity provided by the summer break to work at the plant.

As noted in Section 1.2.6, and previously reported in the 5-year program review, changing processor ownership patterns have required divestiture, and resulted in the transfer (through sale) of some King Cove-based processor quota from Peter Pan Seafoods to Aleutia, a regional-based (AEB-based) entity. These shares have continued to be processed in King Cove under a series of annual custom processing agreements.[64] According to City staff, this situation has remained unchanged in more recent years, with the City and the Borough continuing to support Aleutia's efforts through a favored tax status.

Support Services

- An earlier study analyzed confidential sales tax information from eight King Cove businesses and concluded that it was difficult to see any clear negative effect of crab rationalization on sales, with one noted exception (Knapp and Lowe 2007). Interviews conducted for the crab rationalization 3-year project review with a variety of support service providers suggested that there was a commonly held perception that there had been declines in business related to the loss of crab crew jobs by local residents and associated income that is re-spent in the community by those residents. Further, the consolidation of the fleet, in turn, was seen as resulting in both fewer vessels to service and fewer people coming into King Cove from outside of the community (and spending

According to Peter Pan Seafoods management, the Peter Pan Seafoods processor quota associated with False Pass and Port Moller have been processed annually in the Peter Pan Seafoods plant in King Cove; the Port Moller associated processing quota shares owned by the other two firms (or the successor owners of the processor quota originally owned by those other firms, APICDA and CBSFA/57 Degrees North, respectively), has not been custom processed at the Peter Pan Seafoods King Cove plant.

[64] At the time of initial allocation, Peter Pan Seafoods held processor quota shares with King Cove designated as the right of first refusal boundary and the Aleutians East Borough designated as the cooling off boundary under the community protection measures built into the program for the Bristol Bay red king crab, Bering Sea snow crab, Pribilof blue and red king crab, and St. Matthew blue king crab fisheries. At the time of the 5-year program review (2010), Peter Pan Seafoods retained ownership of all of these shares, except for a portion of the Bristol Bay red king crab shares that had been acquired by Aleutia. For the shares owned by Aleutia (including EBS Tanner and WBS Tanner crab, in addition to the Bristol Bay red king crab quota obtained from Peter Pan Seafoods), no right of first refusal provisions existed; for all other shares, right of first refusal and cooling off boundaries were unchanged. At the time of 2015/2016 IPQ allocation, Aleutia's holdings were unchanged from the time of the 5-year program review. For Peter Pan Seafoods, all remained the same as at the time of the 5-year program review except for their St. Matthew blue king crab processor quota shares which, according to the dataset, were listed under a different holder (B&N Fisheries Company) and had no right of first refusal provisions attached; otherwise, right of first refusal and cooling off boundaries were unchanged.

money in the community). This situation was reported to be unchanged at the time of the 5-year program review.

While individual quantitative business information was not available, the owners of a number of one- or two-person businesses, such the local cab company, a filter business, a welding operation, and a dive operation, report that business has been off as a result of crab fleet consolidation. For some of these businesses, and others like them, quantification of impacts and attribution to any one cause would be particularly difficult as, in most cases, their owners split their efforts between multiple business ventures, and in other cases pursue opportunities in more than one community during the year. For other businesses, another complexity is introduced as businesses have diversified or otherwise adapted to changing circumstances. For example, the two larger general stores in the community experienced opposite fortunes in the years immediately following crab rationalization, reportedly due to a shift in market share between the businesses, which, in one of the two cases, (along with any other natural growth) has served to offset whatever crab-related decline may have otherwise been experienced. In another example, the owner of the local pot hauling business reports that while pot hauling revenue declined sharply following rationalization, increases in revenue from a boat watch service he also owns offset those declines. Of the two bars in the community, at the time of the 5-year program review, the owner of one reported that business has been off as a result of a decrease in crab-related activity, but management of the other reports that business has been improved during these same years and returns are up post-rationalization due to changes in business practices. In short, the local economy of King Cove, like other communities, is dynamic and individual businesses (and individual business owners), even within the same service sector, adapt to changing circumstances in a number of different ways. Also at the time of the 5-year program review, an increased economic vitality associated with gains in other locally important fisheries made isolating conditions that would exist but for BSAI crab rationalization all the more problematic.

Since the time of the 5-year program review, according to City staff, this situation has remained largely unchanged, with the king crab fisheries performing as predicted, pollock and cod fisheries doing OK from a local perspective, and record returns seen in the pink salmon fishery in 2015. The private sector business climate has also been characterized as steady in more recent years, including a rebound of the general store that was experiencing significant challenges at the time of the 5-year program review and the King Cove Corporation continuing to do well, recently having taken on new projects. According to the owner of the pot-hauling business who also owns a boat watch business, however, a continuing decrease in larger vessels mooring in the harbor, at least a portion of which is attributed to a new boat harbor opening in Unalaska/Dutch Harbor during this period (as discussed in Section 1.3.1 and noted below), has had a negative impact on his vessel watch business as well as the other vessel watch business in the community (and, as noted above, his vessel watch business was helping to offset a decline in his pot hauling business that was brought about the consolidation of the crab fleet under the crab vessel buy-back program and the implementation of the BSAI crab rationalization program).

Local Governance and Revenues

- As reported in the 5-year program review, details on local fish tax revenues cannot be disclosed. At that time (2010), however, local tax revenues had increased annually since 2002, following a sharp decline between 2000 and 2002, such that by 2008, local leadership characterized the financial situation of the community as being as strong and as healthy as it has ever been, a clear reversal of what was experienced early in the decade (with total revenues over $3 million). While harbor-specific revenues were apparently adversely affected by decreases in activity associated with BSAI crab rationalization during the first year post-program implementation, and the annual revenue related to pot transfers remained lower than in the years immediately preceding crab rationalization, moorage revenues specifically and harbor revenues in general had returned to, if not exceeded, pre-rationalization levels by the time of the 5-year program review.

  In more recent years, general fund revenues have generally stayed below the $3 million peak, dropping to $2.7 million in 2009 before increasing to $2.8 million in 2010, 2011, and 2012. In 2013, total revenues were over $2.9 million before a drop in 2014 to $2.6 million. The budgeted revenues in 2015 and 2016 were $2.7 million and $3.5 million, respectively, which, if actualized, would exceed the high mark of 2008. According to City staff, however, the continuing state budget crisis has led King Cove to be proactive in protecting local revenues by passing a measure that increased the local general sales tax from four percent to six percent, effective January 1, 2016, recognizing that the heart of city funding is driven by the now six percent local general sales and use tax and the local two percent raw fish tax, with the other largest component consisting of state fish taxes and revenue sharing. The city has seen a cuts in state revenue sharing, which so far are being balanced by the increase in local taxes, and while the city is characterized as doing relatively well, especially compared to many rural Alaska communities, they are not in as strong of a position now (2016) as they were at the time of the 5-year program review. State grants are now characterized as few and far between as well, with the city borrowing to complete the construction of a second hydroelectric plant on Waterfall Creek, a facility that is seen as needed for future energy cost savings but one for which the city would not have had to assume debt in the past.

  Harbor revenues, in more recent years, which were above $400,000 for the first time in FY 2010, remained above $400,000 annually until dropping to approximately $345,000 in FY 2015. The latter figure is still well above annual totals in the years leading up to the implementation of the crab rationalization program (all of which in the available data were below $300,000), but it does represent the lowest annual total harbor revenues seen since FY 2007. Additionally, while remaining relatively high, year-over-year harbor revenues have declined each year since FY 2012 (see Table A2-4 in Attachment 2[65]). Further, city staff reports that the harbor does continue to feel the loss of vessel activity that accompanied crab rationalization, with a part of the peak in harbor revenues seen around the time of the 5-year program review being attributable to a substantial

[65] The sharp dip in pot storage revenue seen in this same table FY 2013 and FY 2014 compared to earlier and later years is, according to city staff and the owner of the local pot hauling business, more of an accounting/reporting artifact than it is reflective any substantial changes in the actual volume of crab and/or cod pots moved across the dock or into and out of storage, which has been characterized as relatively steady over recent years.

(generally 35 percent) increase in the fee schedule rather than an increase in activity.[66] This fee increase applied equally to local vessel owners as well as to vessels with ownership outside of the community, and it has been noted that there is the potential for another round of fee increases to be needed sooner rather than later, particularly due to concerns for the longer term viability of ongoing local government subsidies provided to the harbor, given the challenges faced by the city's general fund due to ongoing state budget difficulties.

1.3.4 Kodiak

Harvesting

- **Vessels** – According to the BSAI crab fishery 1998–2014/2015 dataset, in the years leading up to the implementation of BSAI crab rationalization, an annual average of 34.0 and 26.9 vessels owned by Kodiak residents participated in the Bristol Bay red king crab and Bering Sea snow crab fisheries, respectively. In the first five post-rationalization years reported in the 5-year program review, these annual averages dropped to 10.4 for the Bristol Bay red king crab fishery and 9.6 for the Bering Sea snow crab fishery, decreases of 69 percent and 64 percent, respectively.

  During the second five post-rationalization years, participation would appear to have plateaued: in the Bristol Bay red king crab fishery, seven Kodiak-owned vessels participated in 2010/2011 and eight Kodiak-owned vessels participated in the fishery in each of the four more recent years for which data are available; in the Bering Sea snow crab fishery, eight Kodiak-owned vessels participated in the fishery in each of the second five post-rationalization years (2010/2011 through 2014/2015).

  Compared to vessels owned by residents of other communities (both Alaska and non-Alaska), the annual average percentage of the total harvest by volume attributed to Kodiak vessels for the Bristol Bay red king crab fishery declined slightly from pre-rationalization years to the first five years of the program and then again during the second five years of the program (with annual averages of 12.1, 11.9, and 11.6 percent, respectively). The same pattern can be seen in the Bering Sea snow crab fishery (with analogous annual averages of 13.1, 12.0, and 11.4 percent).

  Kodiak vessel owners were the only Alaska vessel owners outside of Anchorage to have harvested EAI golden king crab and WAI golden king crab in the pre-rationalization years covered by the 1998–2014/2015 dataset, although none participated in the last three pre-rationalization seasons in WAI golden king crab fishery and none have participated in any of the post-rationalization years in either fishery.

[66] Part of the drop in moorage fee revenues in King Cove in the years since the 5-year program review may be attributable to changes in moorage capacity elsewhere within the region, especially with Unalaska opening its new Carl E. Moses Boat Harbor in November 2011. Not directly related to the crab rationalization program, this has resulted in a decrease in range of harbor-related vessel income and/or employment opportunities, including gear storage and vessel watch service opportunities, as King Cove competes against a new facility that is closer to the crab fishing grounds in a port has more reliable air transport service for both personnel and freight.

An annual average of 2.8 and 2.5 Kodiak-owned vessels participated in the EBS Tanner fishery in the first five and second five post-rationalization years, respectively, while an annual average of 4.8 and 4.5 Kodiak-owned vessels participated in the in the WBS Tanner fishery in the first five and second five post-rationalization years, respectively, with year-to-year variability in participation levels evident in both fisheries. In the years covered by the 1998–2014/2015 dataset, no Kodiak resident-owned vessels participated in the St. Matthew Island blue king crab fishery in any of the pre-rationalization years, or in the post-rationalization years before the 2009/2010 season. One Kodiak-resident owned vessel participated in the 2009/2010, 2010/2011, and 2012/2013 seasons, while two vessels did so in the 2011/2012 season. The fishery was closed for the 2013/2014 season, and no Kodiak resident-owned vessels participated in the 2014/2015 season.

At the time of the 5-year program review, of the 52 unique vessels with ownership attributed to Kodiak residents that showed up in the database as then having fished for even one pre-rationalization season during the years 1998 through 2004 in any of the crab fisheries subsequently included in the rationalization program, 33 of those vessels were shown in the database as still under Kodiak ownership and still active in commercial fishing in at least one year from 2006 to 2009 (and thus they presumably continued to generate at least some level of local economic benefit, even if only 10 of those vessels participated specifically in the rationalized crab fisheries in 2009, the most recent year covered in the 5-year program review).

More recently (2010–2014), out of the "original" 52 vessels with pre-rationalization BSAI crab fishery activity under Kodiak resident ownership, the number that have remained involved in the now-rationalized BSAI crab fisheries under Kodiak resident ownership was nine in 2010, eight in 2011, nine in 2012, and eight in 2013 and 2014. Of the original 52 vessels, the number that remained under Kodiak resident ownership and involved in any commercial fishing, including BSAI rationalized crab, was 19 in in 2010 and 2011, 20 in 2012, and 19 in 2013, and 18 in 2014. Of those same original 52 vessels, the number of that remained under Kodiak resident ownership and remained involved in other commercial fishing (but not in any of the now-rationalized crab fisheries) was 10 vessels in 2010 through 2013, and nine vessels in 2014.

In addition to the vessels that participated in the now-rationalized crab fisheries during the pre-rationalization years under Kodiak resident ownership seen in the dataset (i.e., 1998–2004), there are a number of other vessels that participated in the crab fisheries during the pre-rationalization years under the ownership of residents of other communities, but later came to be Kodiak resident-owned vessels. The number of unique Kodiak resident-owned vessels that fished for BSAI crab species including in the rationalization program for any year covered in the 1998–2014 dataset includes those 52 vessels that were Kodiak resident-owned from 1998–2004, as well as four vessels whose ownership was first attributed to the Kodiak after 2004.

Of the four vessels new to Kodiak, *Vessel New Kodiak A* ownership was attributed to Washington from 1998 to 2007 and to Kodiak in 2008 and 2009. *Vessel New Kodiak A* participated in the BSAI rationalized crab fisheries in each of these years, as well as other fisheries in 1998 and 2000–2003. The ownership of the second vessel, *Vessel New*

Kodiak B, was attributed to two locations in 1998 (Akutan and King Cove[67]) and 2000 (Akutan and Mankato, Minnesota), to Akutan alone in 1999 and 2001, Mankato alone in 2002–2004, and Kodiak in 2005 and 2006. This vessel participated in the BSAI rationalized crab fisheries in each of these years, as well as other fisheries in 1998–2000 and 2002–2005. The ownership of the third vessel, *Vessel New Kodiak C*, was attributed to Anchorage in 1998–2004, followed by Washington (Seattle MSA area) in 2005. No ownership attribution was present for *Vessel New Kodiak C* in 2006, but the vessel ownership was attributed to Kodiak in 2007–2009 before changing to Homer in 2010–2014. *Vessel New Kodiak C* participated in the BSAI rationalized crab fisheries for each year (aside from 2006) and in other fisheries in 1998, 2000, 2008, and 2010–2013. Finally, the ownership of *Vessel New Kodiak D* was attributed to Sand Point in 1998–2009[68] before changing to Washington in 2011 (outside the Seattle MSA), another location in Washington in 2012 and 2013 (inside the Seattle MSA), and finally to Kodiak in 2014. *Vessel New Kodiak D* participated in the BSAI rationalized crab fisheries in 1998, 2000 and 2001, and 2003 and 2004; however, it has been active in other fisheries every year from 1998 to 2014.

In sum, in 2014, the most recent year for which data are available, of the 56 unique Kodiak resident-owned vessels that fished for BSAI crab species included in the rationalization program for any year covered in the 1998–2014 dataset, a total of 19 remained active under Kodiak ownership. These include five that fished in the BSAI rationalized crab fisheries exclusively, four that fished in at least one rationalized BSAI crab fishery and in other commercial fisheries as well, and 10 that did not fish in any rationalized BSAI crab fishery but did fish in at least one other commercial fishery. Of the other 37 vessels not shown as both Kodiak resident-owned and active in 2014, 16 were shown as active but with ownership attributed to towns other than Kodiak, with the balance (21 vessels) not showing as active in any commercial fishery.

Catcher Vessel Owner Shares: In terms of initial catcher vessel owner quota allocations, the unique numbers of Kodiak residents receiving allocations in each of the fisheries are as follows: 20 for Bristol Bay red king crab, 19 for Bering Sea snow crab, 1 for EAI golden king crab, 2 for WAI golden king crab, 21 each for EBS Tanner and WBS Tanner, 12 for St. Matthew Island blue king crab, and 3 for WAI red king crab.

At the time of the 5-year program review (2010/2011), among fisheries that had been open following program implementation, with the exception of the EAI golden king crab and WAI golden king crab fisheries, which remained the same in terms of number of unique quota holders and the number of quota units held, there were more unique Kodiak owners of catcher vessel owner quota and a higher percentage of total fishery catcher vessel owner quota owned by Kodiak residents than was the case under the initial allocation. Specifically, comparing the number of 2010/2011 season unique Kodiak resident owners of catcher vessel owner quota with the number of residents owning quota under the initial allocation, Kodiak resident ownership increased from 20 to 31 in the Bristol Bay red king crab fishery; from 19 to 30 in the Bering Sea snow crab fishery; from 21 to 28 in the EBS Tanner fishery; from 21 to 29 in the WBS Tanner fishery; and

[67] See the discussion of *Vessel Akutan A* in Section 1.3.2 and *Vessel King Cove C* in Section 1.3.3.
[68] See the discussion of *Sand Point Vessel A* in Section 1.3.5.

from 12 to 19 in the St. Matthew Island blue king crab fishery. Comparing 2010/2011 IFQ distribution to the distribution of initial quota share allocations, Kodiak catcher vessel owner IFQ as a percent of the total fishery catcher vessel owner quota increased from 8.5 to 10.0 percent of the Bristol Bay red king crab fishery; from 8.8 percent to 10.4 percent of the Bering Sea snow crab fishery; from 10.9 percent to 12.5 percent of the EBS Tanner fishery; and from 10.9 percent to 12.5 percent of the WBS Tanner fishery. (Among the BSAI crab fisheries that had not been open since program implementation, eight Kodiak vessel owners qualified for initial allocations in the Pribilof Islands blue and red king crab fishery. Between the initial allocation and the 2010/2011 season IFQ allocation process, the number of Kodiak unique quota holders increased to 12, while the percentage of total quota units held declined from 6.0 to 4.0 percent of total quota units held. Because these fisheries were closed, however, effectively no impacts related to the use of quota had occurred, other investments for potential future returns or sales in lieu of potential future returns.)

More recently, the pattern of Kodiak catcher vessel owner quota ownership has become more complex. As of the 2015/2016 quota allocation process, when compared to the 2010/2011 holdings reported in the 5-year program review, the number of unique holders of quota shares and the number of quota units held decreased in Bristol Bay red king crab fishery (with the number of shareholders remaining above what was seen at initial allocation, but the number of quota units held falling below initial allocation numbers). This same pattern of change (the number of unique holders of quota shares and the number of quota units held decreasing between the 5-year and 10-year program reviews, but remaining above initial allocation for the number of quota holders and below initial allocation for the number of quota units held) is repeated in the Bering Sea snow crab, EBS Tanner, WBS Tanner, St. Matthew Island blue king crab, and the Pribilof Islands blue and red king crab fisheries. In the EAI golden, WAI golden, and WAI red king crab fisheries, however, the number of unique Kodiak holders of catcher vessel owner quota and the number of quota units held were the same at the time initial allocation, at the time of the 5-year program review (2010/2011), and at the time of the 2015/2016 IFQ allocation process.

Catcher Processor Owner Shares: No Kodiak residents received initial allocations of catcher processor owner quota in any of the fisheries included in the BSAI crab rationalization program, and no Kodiak residents held any at the time of the 5-year program review (2010/2011).

More recently, however, two unique Kodiak residents held catcher processor owner quota in the Bering Sea snow crab fishery and one unique Kodiak resident held catcher processor owner quota in the EAI golden king crab fishery at the time of the 2015/2016 IFQ allocation process. These Kodiak holdings represent all catcher processor owner quota holdings attributed to Alaska addresses outside of Anchorage and Wasilla, and the only Alaska community attributed catcher processor holdings that according to the database were not held in the name of a CDQ group or a CDQ group subsidiary.

- **Crew –** Crew job loss associated with the fleet consolidation that accompanied BSAI crab rationalization was the main direct social impact issue for Kodiak at the time of the 5-year program review as it was for King Cove. As reported in the 5-year program

review, Kodiak, as home to the largest local fleet engaged in the now-rationalized BSAI crab fisheries, was the community that experienced the greatest absolute reduction in the number of local vessels participating in the fisheries. While, as noted above, some of these vessels have remained in the community and continue to generate some economic activity for support service businesses and, in some cases, for crew in other fisheries, and the local vessels remaining in the BSAI crab fisheries have met or exceeded the Kodiak fleet harvest share of those fisheries seen in the last couple of pre-rationalization years, this has not benefited quite a few former crew members.

This situation is unchanged from the time of the 5-year program review. Kodiak, with one of the largest residential commercial fishing fleet in the state, arguably has more alternate crew opportunities for ex-crab crew members in other fisheries than does any other community and, with the remaining largest BSAI crab fleet in the state, arguably has more ongoing opportunities for those individuals looking to continue participation in the fishery than is the case in any other Alaska community. However, as reported in the 5-year program review, interviews conducted in Kodiak for the 3-year and 5-year program reviews suggested that these post-rationalization crew jobs may be less attractive to local residents than pre-rationalization crew jobs for the same reasons noted in the Akutan discussion (i.e., due to [1] a perception that longer seasons have made crab crewing less compatible with other fishing and non-fishing opportunities in the community that are considered an important part of an integrated employment and income strategy [and preferred family/social arrangements] and [2] a perceived decline in the ability to make a relatively high financial return per day of fishing effort invested away from the community). Data presented in Section 5.6 of the main document to which this social impact assessment is an appendix, however, indicate a more complex situation, where neither season length nor crew compensation (especially on a per-day basis) have changed in a straightforward, unidirectional manner across the relevant crab fisheries. These issues are discussed in detail in Section 1.4, below.

EDR data, available only for years after the crab rationalization program was implemented, as discussed in Section 1.3.9, below, indicate that between 48 and 62 Alaska residents who provided Kodiak addresses on their ADFG commercial fishing crew licenses crewed on crab vessels each year from 2006 through 2014. Further, EDR data also indicate that an additional 15 to 20 Alaska residents with Kodiak addresses on their CFEC gear operator permits may have served as skippers on BSAI crab vessels each year from 2006 through 2014 (or, at minimum, crewed on crab vessels those years). Additionally, between two and six Alaska non-residents who provided Kodiak addresses on their ADFG commercial fishing crew licenses crewed on crab vessels each year from 2007 through 2009 and in 2012. Further, EDR data also indicate that an additional Alaska non-resident with a Kodiak address on their CFEC gear operator permit may have served as a skipper on a BSAI crab vessel in 2006 through 2008 and in 2010 and 2011 (or, at minimum, crewed on a crab vessel those years).

Catcher Vessel Crew Shares: In terms of catcher vessel crew initial quota allocations, the unique number of Kodiak residents receiving allocations in each of the fisheries is as follows: 20 for Bristol Bay red king crab, 17 for Bering Sea snow crab, 20 for EBS Tanner, 20 for WBS Tanner, and 12 for St. Matthew Island blue king crab. While in the case of catch vessel owner quota shares the number of unique quota holders and

percentage of quota units held by Kodiak residents either increased or stayed the same between initial allocation and the time of the 5-year program review (2010/2011), a very different pattern was seen for catcher vessel crew quota.

As reported in the 5-year program review, between the initial allocation and the 2010/2011 IFQ allocation process, the number of unique individuals holding Bristol Bay red king crab catcher vessel crew quota decreased (from 20 to 15), but the proportion of catcher vessel crew quota units held increased (from 8.8 to 10.0 percent). For Bering Sea snow crab, the number of Kodiak catcher vessel crew quota holders declined (from 17 to 12) as did the percentage of total fishery catcher vessel crew quota held by community residents (from 10.4 to 8.3 percent) For the EBS Tanner fishery, the number of Kodiak catcher vessel crew quota holders declined (from 20 to 16), as did the number of WBS Tanner Kodiak catcher vessel crew quota holders; in both fisheries the percentage of total fishery catcher vessel crew quota held by Kodiak residents remained the same (11.6 percent), although the absolute number of share units held declined slightly. For the St. Matthew Island blue king crab fishery, the number of unique individuals holding catcher vessel crew quota remained the same (9) and the proportion of catcher vessel crew quota units held increased (from 14.0 to 14.4 percent). Among the BSAI crab fisheries that had not been open since program implementation at the time of the 5-year program review, four Kodiak residents qualified for initial allocations of catcher vessel crews in the Pribilof Islands blue and red king crab fishery. Between the initial allocation and the 2010/2011 season IFQ allocation process, the number of Kodiak unique quota holders remained the same and the percentage of total quota units held increased (from 7.6 to 9.5 percent). Because this fishery was closed, however, no direct impacts had occurred.

More recently, in the Bristol Bay red king crab fishery, at the time of the 2015/2016 IFQ allocation process, the unique number of Kodiak resident holders of catcher vessel crew quota was unchanged from what was reported in the 5-year program review, but the number of quota units held increased slightly (increasing from 10.0 to 10.3 percent of all catcher vessel crew quota units). Kodiak resident holdings of Bering Sea snow crab catcher vessel crew quota, both in terms of numbers of holders and quota units held, was unchanged. In the EBS Tanner and WBS Tanner fisheries, the number of Kodiak resident unique quota holders decreased (from 16 to 14 each), while the number of quota units increased slightly (from 11.6 to 11.9 percent of all catcher vessel crew quota units each). In the St. Matthew Island blue and the Pribilof Islands blue and red king crab fisheries, the unique number of Kodiak resident catcher vessel crew quota holders declined (from nine to seven and from four to three, respectively), as did the number of quota units held (from 14.4 to 13.0 percent and from 9.5 to 7.1 percent, respectively).

Catcher Processor Crew Shares: Two unique Kodiak residents also received initial allocations of catcher processor crew quota in the Bristol Bay red king crab fishery. At the time of the 5-year program review (2010/2011), the number of quota holders and the number of quota shares held were the same as at initial allocation and this situation remained unchanged at the time of the 2015/2016 IFQ allocation process. No Kodiak residents received initial allocations of catcher processor crew quota in the Bering Sea snow crab fishery, nor did any hold any quota at the time of the 5-year program review. More recently, however, one unique Kodiak resident held catcher processor crew quota in

this fishery at the time of the 2015/2016 IFQ allocation process, for a total of three unique Kodiak residents owning catcher processor crew quota for that season in all of the rationalized crab fisheries combined.

Processing

- According to the BSAI crab fishery 1998–2014/2015 dataset, in the years leading up to the implementation of BSAI crab rationalization, between one and eight Kodiak shoreplants processed Bristol Bay red king crab and between one and four Kodiak plants processed Bering Sea snow crab in any given year. For the pre-rationalization years covered by the dataset, an annual average of 4.4 Kodiak plants processed Bristol Bay red king crab and 1.9 plants processed Bering Sea snow crab.

  During the first five years of the rationalization program, according to the dataset, three or four Kodiak plants processed Bristol Bay red king crab and between one and three Kodiak plants processed Bering Sea snow crab in any given year. As reported in the 5-year program review, however, interview data would suggest that only three plants (Ocean Beauty Seafoods, Alaska Pacific Seafoods, and Alaska Fresh Seafoods) were actually processing any BSAI rationalized crab as a targeted activity.[69] Due to confidentiality restrictions, processing volumes and values for these species for Kodiak could not be disclosed. Given the lack of processor quota movement from the community, however, it was assumed that net processing volumes as a percentage of total fishery quota processed had not changed substantially.[70] Further, according to interview

[69] As noted in the Kodiak community profile that was a part of the 5-year program review social impact assessment, Ocean Beauty Seafoods was required to effectively divest itself of processing quota A shares in a number of rationalized crab fisheries due to corporate acquisitions that resulted in Ocean Beauty Seafoods being a part of organizational structure that included vessel ownership interests. While Ocean Beauty Seafoods retained ownership of these shares, they were leased to, and came to be operationally controlled by, the Kodiak Fisheries Development Association (KFDA), a joint entity of the City of Kodiak and the Kodiak Island Borough, which, in turn, leased them to private entities for processing (including, at that time, Alaska Pacific Seafoods and Alaska Fresh Seafoods). See the KFDA discussion under "Local Governance and Revenues" below.

[70] As noted in the 5-year program review, a total of seven entities qualified under the crab rationalization program for at least some initial allocation of processor quota shares that were subject to the program community protection measure of right of first refusal with Kodiak listed as the boundary for the right of first refusal. For some, but not all of those allocations, the Kodiak Island Borough was listed as the boundary for the cooling off period community protection measure. For the processors with larger amounts of initial allocation processor quota shares (Alaska Fresh Seafoods, North Pacific Seafoods, and Ocean Beauty Seafoods), Kodiak was the boundary for the right of first refusal and the Kodiak Island Borough was the boundary for the cooling off period. For entities with smaller initial allocations of processor quota shares (Aquatech, Deep Creek Custom Packing, Inc., Douglas Stuart, and John Whittier), Kodiak was the boundary of right of first refusal, but there was no cooling off period boundary designated. At the time of the 5-year program review (2010/2011) all processor quota shares initially designated with Kodiak as the boundary for right of first refusal and/or the Kodiak Island Borough as the cooling off period boundary remained in the hands of the original owners and were still subject to the same right of first refusal (and these processor quota owners had not acquired additional processing quota shares beyond those received during initial allocation), with one exception. In the case of the processing quota shares initially allocated to Ocean Beauty, operational control (but not ownership) of those shares had been acquired by Kodiak Fisheries Development Association (KFDA), the right of first refusal entity for those shares, as described under the processing quota shares distribution discussion in Section 1.2.6, Quota Shares Distribution by Community. By the time of the 5-year program review, the shares controlled KFDA were no longer subject to right of first refusal restrictions, but were still designated as having the Kodiak Island Borough as their cooling off boundary. As noted earlier, an additional crab rationalization program community protection "sweep up" measure for processing quota derived within the Gulf of Alaska but otherwise not assigned to a community was designed to protect Kodiak

data, processing employment levels at the processors were not adversely affected by BSAI crab rationalization and, unlike processors in other communities profiled in the 5-year program review, Kodiak processors mainly utilized a local resident processing workforce. The dataset indicates that no other species of crab included in the rationalization program was processed in Kodiak during the first five years following the implementation of the rationalization program, except for EBS Tanner crab at one processor in each of two years (2008/2009 and 2009/2010) and WBS Tanner at one processor in one year only (2005/2006).

More recently, during the second five years of the rationalization program (2010/2011 through 2014/2015) the dataset indicated that between three and five Kodiak plants processed Bristol Bay red king crab and between one and three Kodiak plants processed Bering Sea snow crab in any given year. The annual average number of plants processing Bristol Bay red king crab was the same during the first five and the second five years of the rationalization program (3.6 plants), while the annual average number of Kodiak plants processing Bering Sea snow crab declined slightly (from 2.0 to 1.8 plants). The dataset indicates that no other species of crab included in the rationalization program was processed in Kodiak during the second five years following the implementation of the rationalization program, except for EBS Tanner crab at one processor in one year only (2013/2014).

Overall, the Kodiak plants with the steadiest participation in processing rationalized crab during this period continued to be Ocean Beauty Seafoods, Alaska Pacific Seafoods, and Alaska Fresh Seafoods, each of which received processing quota at the time of initial allocation. While Trident Seafoods was characterized in the 5-year program review as not currently processing rationalized crab in Kodiak, one major change since the 5-year program review was Trident Seafoods purchasing Alaska Fresh Seafoods in 2013. During this period Trident Seafoods also successfully bid to lease processor quota from the KFDA at least once, so between that the use of that quota and the processor quota obtained in the Alaska Fresh Seafoods acquisition, Trident Seafoods processed crab in Kodiak in at least a couple of recent years, including 2014, the most recent year for which data are available.[71] Trident Seafoods also purchased the Western Alaska Fisheries

Island communities. As of 2010/2011, it was not apparent that any Gulf of Alaska-linked processing quota shares had changed hands during the first 5 years of the program and no effects, positive or negative, appear to have resulted from this particular community protection measure. More recently, as noted below, in 2013 Trident Seafoods acquired processor quota shares initially allocated to Alaska Fresh Seafoods. As of the 2015/2016 IPQ allocation process, these shares were still designated as having a Kodiak right of first refusal boundary and the Kodiak Island Borough as a cooling off boundary. No other changes in Kodiak affiliated processor quota between 2010/2011 and 2015/2016 were apparent in the data.

[71] Trident has subsequently demolished the former Alaska Fresh Seafoods plant, which was adjacent to its own operations, and replaced it with a new freezer plant (the use of which will reportedly decrease the need to tender fish from the Gulf of Alaska to Trident's Akutan plant). At the time of the 5-year program review, Alaska Fresh Seafoods reported having a core crew of about 12 people working 40-hour weeks throughout the year, with seasonal increases during peak fishery times, with a Bering Sea snow crab peak occurring for about two weeks in late February/early March and a Bristol Bay red king crab peak occurring in late November, which lasted some years into early December. After integrating Alaska Fresh Seafoods operations into Trident operations, the net effect on crab processing-specific employment (or the net effect on processing employment levels in general) in Kodiak is unknown.

processing plant in Kodiak in December 2014, but this plant did not participate in the processing of crab from the BSAI rationalized crab fisheries.[72]

While too recently occurring to be included in the time period covered in this 10-year crab rationalization program review, Kodiak processors in the fall of 2015 (that is, within the 2015/2016 fishing season) experienced very difficult markets in the pollock fishery. While not directly related to the crab fishery, as the plants that ran rationalized crab in Kodiak in the most recent season covered in this review (2014/2015) are multi-species plants that include pollock in their local processing portfolio (Ocean Beauty Seafoods, Alaska Pacific Seafoods, and Trident Seafoods), their overall diversification and relative reliance on crab varies with challenges in other fisheries.

Catcher Processors: As noted elsewhere, the only catcher processors shown in the 1998–2014/2015 dataset as owned by a resident of an Alaska community are one Kodiak resident-owned vessel that participated in the Bristol Bay red king crab fishery in 2002 and a second Kodiak resident-owned vessel that participated in the EAI golden king crab fishery in 2006 and the WAI golden king crab fishery from 2000 through 2006.[73] No Kodiak resident-owned (or any other Alaska resident-owned) catcher processors appear in the dataset after 2006.

Support Services

- An earlier study conducted soon after the implementation of the crab rationalization program (Knapp 2006) included an analysis of sales tax information from a total of 12 Kodiak marine supply and service businesses and concluded that BSAI crab rationalization "has cut into the sales of some Kodiak businesses which supply and service the crab fleet—but there has been no obvious major decline for marine supply and service companies since rationalization began." The 5-year program review reported that interviews conducted for that project with a variety of support service providers in Kodiak, like those in King Cove, suggested that there was a commonly held perception that there had been declines in business related to the loss of crab crew jobs by local residents and the loss of associated income that was formerly re-spent in the community by those residents, but data from the interviews largely supported the findings of the earlier study. Further, as was the case for King Cove support businesses, the consolidation of the fleet, in turn, resulted in fewer vessels to service. Whereas in King Cove this fleet consolidation meant fewer people (and their spending) affiliated with outside vessels coming through the community, BSAI crab vessels in Kodiak pre- and post-rationalization largely were and are Kodiak vessels.

  As presented in the crab rationalization 3-year program review, an updated analysis of the sales information of 12 businesses included in the earlier (Knapp 2006) study showed that one business had closed in the meantime (in December 2006) but that among the remaining 11 businesses, sales had increased for nine of the 11 businesses when comparing the fourth quarter of 2007 (then the most recent fourth quarter) to the fourth

[72] The Western Alaska Fisheries plant in Kodiak, according to interview data, is currently (2016) shuttered.

[73] This second vessel also classed as a floating domestic mothership in the WAI golden king crab fishery in 2002. From 2007 through 2012, this same vessel is shown in the dataset as Washington-owned; it is not present in the dataset past 2012.

quarter of 2004 (the last fourth quarter prior to rationalization); analogous figures for the first quarter of 2008 (then the most recent first quarter) to the first quarter of 2005 (the last first quarter prior to rationalization) showed sales increases for 10 of the 11 remaining businesses. More recently, 8 of the 11 remaining businesses were up in the fourth quarter of 2009 compared to the fourth quarter of 2004; 7 of the 11 businesses were up in the first quarter of 2010 compared to the first quarter of 2005.

Drawing conclusions from point-in-time data was noted as challenging in the 3-year program review, however, and while overall there did not appear to be substantial BSAI crab rationalization social impacts generated from the support service sector for the community as a whole, data from interviews suggested a complex situation, similar to that seen in King Cove, but on a larger scale. That is, a number of businesses had adapted to changing conditions and absorbed declines related to BSAI crab rationalization by focusing on other opportunities. Whether these businesses would have been better off but for BSAI crab rationalization remains an open question, but clearly rationalization was seen as a disruption in business operations for a number of these firms and for some more than others. For example, as noted in the crab rationalization 3-year program review, among three major marine supply businesses in Kodiak, one reported virtually no direct impacts, but they reportedly did experience indirect impacts through a decrease in spending by former crab crew members on gear for other fisheries. Another reported initial declines followed by an adaptation to new conditions, while a third reported being hit hard with both a loss of direct sales and a loss of indirect sales through a decline in crew spending. Neither of the larger hydraulics businesses reported an impact to the bottom line of the firm, but at least one reportedly picked up market share from another Kodiak firm that went out of business. Other firms, such as the largest local welding firm, reported that BSAI crab rationalization had an adverse impact, but that the levels of employment at the firm had already experienced a steep decline prior to the implementation of rationalization. Still other firms reported a loss in sales related to the consolidation of the crab fleet but these had not been large enough to make a significant difference in the bottom line of the business, such as the largest local grocery store, while others reported that after taking an initial hit, an adjustment of business practices helped in recovery, such as was the case with the primary marine electronics supplier.

In short, the local economy of Kodiak, like other communities, was noted as dynamic and individual businesses, and individual business owners, even within the same service sector, had adapted to changing circumstances in a number of different ways. This same pattern was seen as holding during interviews for the 5-year program review in 2010, with the additional complication of a then-ongoing national recession (or, technically, the then-ongoing lingering aftermath of a national recession) that was noted by a number of business owners in Kodiak (and several of the other communities) as having an impact on their customer's decision-making.

While more recently the uncertainty and customer spending caution associated with the aftermath of the national recession may have diminished, the extent to which the current (2016) state budget/economic challenges associated with the downturn in the fortunes of the oil and gas industry may bring about another round of customer spending/capital investment caution, if any, is unknown. Limited phone contact with fishing industry personnel in Kodiak for this 10-year program review would suggest that the support

service sector is largely unchanged since the time of the 5-year program review, although the presence of at least one new entrant was noted, in this case offering services in vessel hydraulics and refrigeration.

Local Governance and Revenues

- As reported in the 5-year program review, detailed information on local fish tax revenues related to BSAI crab cannot be disclosed. At that time (2010), however, local operating revenues generated by taxes had generally increased each year since 2001; shared fish taxes showed a more complex pattern. Although all subsequent years were higher than the figure for 2003, the state shared fish tax revenues for 2004 were higher than those for 2005 and 2006, but lower than those for 2007 (the then-most recent year for which state-compiled data comparable to that provided for other communities were available). Kodiak Island Borough fish tax revenues showed an annual decline from 2002 to 2004 but an annual increase from 2004 through 2010. Kodiak harbor revenues showed annual increases from 2004 to 2009.

  In more recent years, general fund revenues ranged between $14.7 million (2011) to $20.1 million (2015). Revenues fell from $15.1 million in 2010 to $14.7 million in 2011 before steady increasing from 2012 to 2015. The general fund budget for 2016 was over $19.2 million. State shared fish tax revenues since 2010 have generally been higher than totals seen in previous years, with totals above $1.1 million for all years 2010–2015, with the exception of 2011. The budgeted state shared fish tax revenue for 2016 was nearly $1.4 million. Kodiak Island Borough fish tax revenues were over $1.0 million in 2011 and increased to over $1.6 million in 2013 before declining to approximately $1.5 million in 2014 and (estimated) 2015. Kodiak harbor revenues have fluctuated between approximately $2.5 million and $2.7 million from 2012–2015, with a 2016 budget of over $2.4 million. (See Tables A2-5 through A2-7 in Attachment 2.) Kodiak has also been the beneficiary of a number harbor improvement projects since the time of the 5-year program review, including major improvements to Pier III, which have included installation of a Matson 100-gauge crane that arrived in Kodiak in August 2015.

  As previously noted, KFDA operationally controls (but does not own) the A shares that Ocean Beauty Seafoods were initially allocated (and still retain ownership of) but are now precluded from processing as a result of changing corporate relationships. KFDA was formed as the crab rationalization program right of first refusal entity for obtaining processor quota that might otherwise exit the community and as the potential recipient of the northern Gulf of Alaska community protection regionalization "sweep up" measure,[74] whereby KFDA has right of first refusal on the sale of processor quota in the northern Gulf of Alaska region.

  Control of the Ocean Beauty Seafoods A shares (for Bristol Bay red king crab, Bering Sea snow crab, Bering Sea Tanner crab, and St. Matthew Island blue king crab) are the only assets KFDA has held since its inception; no sales of processor quota have occurred

[74] The northern Gulf of Alaska region was defined for the purposes of this community protection measure as being that portion of the Gulf north of 56º 20' North latitude (the same latitude used for the northern share landing/processing region in the Bering Sea).

in the designated northern Gulf of Alaska region over which KFDA could exercise its right of first refusal and accumulate additional processing quota assets. According to KFDA leadership, KFDA is planning to approach holders of relatively modest amounts of northern Gulf of Alaska processor quota, especially those holders whose processor quota appears minimally active (or inactive) to proactively find out if there is interest in selling. With few assets, also according to KFDA leadership, it is unlikely that KFDA would have access to the resources to exercise its right of first refusal to obtain processing quota in the quantities held by the currently active larger crab processing firms in Kodiak.

KFDA controlled Bristol Bay red king crab quota has been processed in Kodiak every year since the inception of the program (by at least three different processors over the years, as noted above). For the other three crab species for which quota is held, the KFDA-controlled quota, according to KFDA leadership, has been processed in Kodiak in only one year since the KFDA has managed the quota (and in Unalaska/Dutch Harbor all other years); while the KFDA has benefited from lease payments on these processor quota utilized outside of Kodiak, the community has not received the additional benefits that local processing brings, including fish tax revenues on landings at local processors and local employment opportunities, among others. Each year, KFDA issues a Request for Proposals for four lots of quota for each species, and bidders can price their bids differently on each of the four lots, with different firms reportedly using different strategies in their actual bid structures. KFDA has the option of accepting the highest one or two lot bids from different bidders, even if they are not the highest overall bids for those lots if, in the case at hand, they feel it is in the best interest of the community in to spread the processing activities out among different entities.

Of the different local the winning bidders over the years (Alaska Pacific Seafoods/North Pacific Seafoods, Alaska Fresh Seafoods, and Trident Seafoods), two received their own initial allocation of Kodiak-affiliated processor quota (Alaska Pacific Seafoods and Alaska Fresh Seafoods) while the other (Trident Seafoods) eventually obtained their own Kodiak-affiliated processor quota when they acquired one of the other two firms (Alaska Fresh Seafoods). The only other entity that regularly processes crab in the community, Ocean Beauty Seafoods, is not eligible to bid on its own quota obtained during initial allocations and now controlled by KFDA, but they do actively (and successfully) compete with other Kodiak processors for B share (and/or C share) crab.

The KFDA receives lease payments from successful bidders and, in turn, provides lease payments to Ocean Beauty Seafoods, the actual owner of the processing quota. KFDA has been accumulating funds through this process for several years but, according to KFDA leadership, to date (2016) has not yet spent these funds in Kodiak.

1.3.5 Sand Point

Harvesting

- **Vessels** – According to the BSAI crab fishery 1998–2014/2015 dataset, patterns of Sand Point vessel participation are generally unchanged from what was reported in the crab rationalization 3-year and 5-year program reviews. During the pre-rationalization years,

one locally owned vessel fished in the Bristol Bay red king crab fishery after 2000 and none fished in the Bering Sea snow crab fishery after 2000[75]; no locally owned vessel fished in either fishery (or any other crab fishery included in the rationalization program) after the implementation of the rationalization program.

Interview data gathered for the 3-year program review and confirmed for the 5-year program would suggest, however, a more complicated pattern. Specifically, one vessel (*Vessel Sand Point A*), shown in the dataset and confirmed by interviews as owned by a Sand Point resident, fished in the Bristol Bay red king crab fishery five of the seven seasons leading up to BSAI crab rationalization, but it has not participated in the fishery following rationalization. This same vessel also participated in the Bering Sea snow crab fishery in two of the three seasons between 1998 and 2000 but has not participated in that fishery since that time. At the time of the 5-year program review, this vessel actively participated in other fisheries out of Sand Point, but more recently ownership information changed from Sand Point to Bellingham, Washington (2011), Seattle (2012 and 2013), and Kodiak[76] (2014).

Another vessel (*Vessel Sand Point B*) is shown in the dataset as Sand Point owned and having fished in both the Bristol Bay red king crab and Bering Sea snow crab fisheries in 1998–2000, but as a Seattle owned boat thereafter participating in both fisheries to the present (2014), was identified as owned by a Sand Point resident during interviews. A third vessel (*Vessel Sand Point C*), shown in the dataset as Sand Point owned and having fished in both the Bristol Bay red king crab and Bering Sea snow crab fisheries in 1998, but as a Seattle/Edmonds, Washington-owned boat thereafter participating in both fisheries to the present (2014), was identified as owned by a Sand Point resident during interviews. *Vessel Sand Point B* and *Vessel Sand Point C* reportedly have ownership in common (with the owner of one owning a portion of the other as well), and these are the only two vessels still associated with Sand Point ownership that still actively participated in the BSAI rationalized crab fisheries. With the exception of *Vessel Sand Point B* in 2009 and 2013, and *Vessel Sand Point C in 2012*, both of these vessels have also fished in fisheries other than rationalized crab in each of the years since the implementation of the rationalization program.

A fourth vessel (*Vessel Sand Point D*), shown in the dataset as Sand Point owned and having fished in both the Bristol Bay red king crab and Bering Sea snow crab fisheries in 1998–2000, but as a Seattle-owned boat thereafter participating in both fisheries until 2004, was identified as owned by a Sand Point resident during interviews, but this vessel has apparently not participated in any fishery since 2004. A fifth vessel (*Vessel Sand Point E*), shown in the dataset as Sand Point owned and having fished in the Bristol Bay red king crab fishery in 1998–2000, but as a Seattle-owned boat thereafter participating in the fishery until 2004, was identified as owned by a Sand Point resident during interviews. This vessel has continued to participate in fisheries other than rationalized crab every year since the implementation of the rationalization program, with ownership

[75] Five Sand Point resident-owned vessels are shown in the dataset as fishing in the Bristol Bay red king crab fishery in 1998 and 2000, while three as shown as doing so in 1999; one vessel is shown as participating in the fishery in 2001, 2003, and 2004, with none doing so in 2002. Four Sand Point resident-owned vessels are shown in the dataset as participating in the Bering Sea snow crab fishery in 1998, two in 1999, and three in 2000.

[76] See the discussion of *Vessel New Kodiak D* in Section 1.3.4.

information identified in the dataset as either Edmonds (2007–2011) or Seattle (2001–2006; 2012–2014). *Vessel Sand Point D* and *Vessel Sand Point E* were reportedly owned by the same individual (until *Vessel Sand Point D* was sold under the buy-back program), and the owner of these two vessels is reportedly a partial owner of *Vessel Sand Point C* as well.

A sixth vessel (*Vessel Sand Point F*), shown in the dataset as Sand Point owned and having fished in the Bristol Bay red king crab fishery in 2000, but as a Bellevue/Renton, Washington-owned boat thereafter participating in the fishery until 2004. This vessel was identified as owned by a Sand Point resident during interviews and has continued to participate in fisheries other than the rationalized crab fisheries every from the implementation of the crab rationalization program to present (2014/2015).

The apparent disconnect between catcher vessel ownership as shown in the dataset and ownership as reported during field interviews is not unique to Sand Point, but it is singular in its pervasiveness for this community. Part of the answer may be that individual vessel owners may have residences in more than one community, with individuals who historically were Sand Point residents spending at least part of the year in the Pacific Northwest in more recent years. In any event, Sand Point residents would appear to have more direct access to vessels with local ownership ties still directly participating in the rationalized crab fisheries than the residents of any of the other Aleutian/Pribilof region communities, and especially among the non-CDQ communities.

Catcher Vessel Owner Shares: According to the quota share dataset, one Sand Point resident qualified for an initial allocation of catcher vessel owner quota shares in the EBS Tanner fishery, one qualified for quota shares in the WBS Tanner fishery, and one qualified for quota shares in the Pribilof Islands blue and red king crab fishery; no other Sand Point vessel owners qualified for initial allocation in any of the other crab fisheries included in the rationalization program. At the time of the 5-year program review (2010/2011), no Sand Point residents owned quota in either the EBS Tanner or WBS Tanner fisheries, but the number of holders and quota units held in the Pribilof Islands blue and red king crab fishery remained the same as at initial allocation. As of the 2015/2016 IFQ allocation process (the most recent available data), the situation remained unchanged from what was seen at the 5-year program review, with the only quota being held was that of a fishery that has not been open since the inception of the rationalization program.

- **Crew** – Interviews conducted in Sand Point for the crab rationalization 3-year program review (2008) suggested that one crab vessel with an all-Sand Point crew and another vessel that hired at least some local crew members left the BSAI crab fisheries as a result of consolidation following rationalization. A few local fishermen also seasonally crewed on other BSAI crab vessels, according to those interviews, such that estimates by a number of local fishermen and local government personnel suggested that perhaps six to eight seasonal crab crew positions were lost that were normally filled by Sand Point residents, but the actual number of residents directly affected as former crew members was estimated to be closer to a dozen, as different individuals would occupy these positions from year to year. Some of the individuals involved were then cod fishing in the winter out of Sand Point, but there had reportedly been a decline in earning potential

compared to the level of effort associated with the switch from crab to cod fisheries. Despite the losses in seasonal crew positions and the loss of a few vessels from outside of the community that would spend at least some time moored in Sand Point, the overall assessment by both local community and AEB leadership in 2008 was that Sand Point was relatively little affected by BSAI crab rationalization (especially when compared to neighboring King Cove), a position reiterated by local and borough leadership in 2016.[77]

EDR data, available only for years after the crab rationalization program was implemented, as discussed in Section 1.3.9, below, indicated that between one and six Alaska residents who provided Sand Point addresses on their ADFG commercial fishing crew licenses have crewed on crab vessels each year from 2006 through 2014, except for 2012, when none did so. Specifically, the data indicate that one resident crewed in 2006, 2010, 2011, and 2013; two crewed in 2009; three crewed in 2014; four crewed in 2008; and six crewed in 2007. EDR data also show that one Alaska resident with a Sand Point address held a CFEC gear operator permit indicating they may have served as a skipper on BSAI crab vessels in 2014 (or, at minimum, otherwise crewed on crab vessels that year).

Catcher Vessel Crew Shares: According to the quota allocation dataset, there was one initial allocation of catcher vessel crew quota shares for a Sand Point resident in in the Bristol Bay red king crab fishery and one in the Pribilof Islands blue and red king crab fishery. This level of share ownership (and relative share allocation) was unchanged as of the 5-year program review (2010/2011 seasonal IFQ allocation). As of the 2015/2016 IFQ allocation process, one Sand Point resident owned the same number of Pribilof Islands blue and red king crab fishery catcher vessel crew quota units as were held at the time of initial allocation; no other catcher vessel crew quota units were held in any of the rationalized crab fisheries by any Sand Point resident. In other words, the only catcher vessel crew quota being held by a Sand Point resident was in a fishery that has not been open since the inception of the rationalization program.

[77] Information from follow-up interviews with senior borough leadership suggest that there were several reasons why Sand Point was relatively little affected by BSAI crab rationalization compared to its neighbor and fellow AEB community King Cove. First among those was the relative focus of the local shore-based processing plants in the years leading up to the implementation of the program. While the King Cove plant remained involved with the BSAI crab fisheries over the years, and thus attracted continuing crab vessel activity during the crab seasons, the Sand Point shore-based processor(s) had earlier shifted from a processing portfolio that included substantial engagement in local shellfish fisheries to a strong focus on groundfish, such that by the time of the BSAI crab rationalization program qualifying years, essentially no BSAI crab was being processed at the plant. Second, in Sand Point local activity of BSAI crab vessels from outside the community was largely limited to use of the harbor during the run-up to season openers and for longer term moorage, especially after the local airport runway was realigned (improving the reliability of air access) and a series of harbor improvements were made, but before competing harbor capacity was expanded elsewhere (most notably in Unalaska/Dutch Harbor). While the loss of much of this BSAI crab-related harbor activity following the end of derby crab fisheries and the consolidation of the BSAI crab fleet was felt in Sand Point, this loss was not of the same magnitude as analogous losses in King Cove. Third, in comparison to King Cove, Sand Point had, and still has, a much larger local resident-owned trawl fleet that works the Gulf of Alaska in the winter, which provides alternative seasonal vessel engagement, crew employment, and business for a range of support activities during a portion of the year when the impacts of crab vessel consolidation are most acutely felt in King Cove.

Processing

- Sand Point is home to both a large local processing operation (Trident Seafoods) and a local buying station offering some vessel support services (Peter Pan Seafoods). While the local processing operation did process at least some Bristol Bay red king crab from 2002 to 2004, according to the BSAI crab dataset, no Bristol Bay red king crab was processed in the earlier years covered by this dataset (back to 1998), nor has any Bristol Bay red king crab been processed at the plant since the implementation of BSAI rationalization. Further, no other species of BSAI crab included in the rationalization program was processed at the plant in any of the years covered by the dataset before or after rationalization (1998 through 2014/2015). According to interviews conducted in 2008, the discontinuation of processing of Bristol Bay red king crab reportedly did affect seasonal worker demand at the local plant for at least a brief period, but subsequent changes in pollock product form created an offsetting need for additional processors, such that net processor labor demand was essentially unchanged.

Support Services

- Sand Point has a fishery support service industry of a scale comparable to that seen in King Cove, which is to say smaller than those of the larger communities of Unalaska/Dutch Harbor and Kodiak and larger than the smaller communities of Akutan, Adak, St. George, and St. Paul. As reported in the 5-year program review, local support businesses included small-scale welding, mechanical, and shipwright services; general and hardware/marine supply stores; lodging and restaurants; and a variety of enterprises pursued by the Shumagin Corporation, the local ANCSA village corporation. According to interviews conducted for the crab rationalization 3-year program review (2008), while the Shumagin Corporation in particular had felt the impact of a slow-down in business related to a drop-off in activities from pre-rationalization crab seasons when a portion of the fleet would await openers in the community, according to borough and local officials, historically Sand Point had been characterized by flexibility and the ability to adapt to fishery conditions that may fluctuate on a shorter- or longer-term basis. Also as reported in the 3-year program review, it was the opinion of community leaders interviewed that while limited access to investment capital at that time resulted in a little less flexibility, the customer base for fishery support services was affected more by the larger economic forces surrounding the salmon and halibut fisheries than by changes in the BSAI crab fisheries. According to local interviewees, this situation remains essentially unchanged as of 2016, with the noted exception of one support business (Larry's Marine) that is no longer operating in the community due to the retirement of its owner.

Local Governance and Revenues

- As reported in the 5-year program review, detailed information on local fish taxes cannot be disclosed, but Sand Point local tax revenues as a whole had fluctuated dramatically in recent years, from as low as $287,282 in 1999 to as high as about $1.3 million in 2008. As an example of the volatility of this revenue source, local tax revenue dropped from close to $1 million in 2004 to under $500,000 in 2005 before rebounding past $1 million in 2006, 2007, and 2008. During this same time period, overall total operating revenues

did not show the same degree of variability, however, and between 2004 and 2008 they ranged from $2.4 million and $3.0 million.

In more recent years, the total revenue budget for Sand Point was nearly $4.6 million in 2015 and $4.4 million in 2016. The general fund revenue was over $2.1 million in 2010 before increasing to $2.6 million by 2012. The general fund revenue declined slightly in 2013 to $2.5 million before increasing again to nearly $3.1 million in 2014.

Recent fishery-related changes in the community have included a rehabilitation of the small boat harbor, completed in 2014, that included the addition of power and lighting to uplands. A second project that would result in the doubling of dock space on the city dock is currently in the design phase, with construction scheduled for 2017.

1.3.6 Adak

Harvesting

- **Vessels** – According to the BSAI crab fishery 1998–2014/2015 dataset and interviews conducted for the 5-year program review, no vessels owned by Adak residents participated in the BSAI crab fisheries that have been rationalized either in the years leading up to rationalization or in the first five years following rationalization. The dataset indicates this has remained unchanged in the second five post-rationalization years. Adak is not a member of a CDQ group and does not have any ownership interest in any crabbing vessels.

  Catcher Vessel Owner Shares: No Adak vessel owners qualified for an initial allocation of catcher vessel owner quota shares in any of the rationalized BSAI crab fisheries and no Adak residents held catcher vessel owner shares at the time of the 5-year program review (2010/2011) nor did any at the time of the 2015/2016 IFQ allocation process.

- **Crew –** At the time of the 5-year program review (2010/2011), no vessels local to Adak were large enough to participate in the BSAI crab fishery directly, and interviews with local residents suggested that obtaining a crew position on a crab vessel outside the community was not a viable employment alternative. This situation would appear to have remained unchanged in more recent years.

  EDR data, available only for years after the crab rationalization program was implemented, as discussed in Section 1.3.9, below, indicated that one Alaska resident who provided an Adak address on their ADFG commercial fishing crew license crewed on a crab vessel in 2008 and 2014; none did so in any other years 2006 through 2014. EDR data also show no Alaska residents with Adak addresses held CFEC gear operator permits indicating they may have served as skippers on BSAI crab vessels in any year 2006 through 2014 (or, at minimum, otherwise crewed on crab vessels those years).

  Catcher Vessel Crew Shares: No Adak residents qualified for an initial allocation of catcher vessel crew quota shares in any of the rationalized BSAI crab fisheries and no Adak residents held catcher vessel crew shares at the time of the 5-year program review (2010/2011) nor did any at the time of the 2015/2016 IFQ allocation process.

Processing

- According to the 1998–2014/2015 dataset, Bristol Bay red king crab and Bering Sea snow crab were each processed in Adak in one pre-rationalization year (2001 and 2000, respectively), while during the pre-rationalization years EAI golden king crab was processed locally each year 2000 through 2004; none of these species was processed locally in any of the post-rationalization years covered by the data. WAI golden king crab, however, is shown in the data as being processed every year 2000 through 2008/2009 before becoming more intermittent, with processing occurring in 2011/2012, 2012/2013, and 2014/2015, but not in 2009/2010, 2010/2011, and 2013/2014.

  At the time of the crab rationalization 3-year program review (2008), Adak was home to one onshore processing operation (Adak Fisheries), which, among crab fisheries, was primarily engaged in WAI golden king crab processing. Although the Adak Fisheries did not qualify for a significant initial allocation of processor quota based on processing history during the program qualifying years, the plant did process a locally significant amount of crab in the interval of years following the close of the qualifying period, but prior to the implementation of the rationalization program itself. Although specific figures are confidential,[78] interviews with plant management in 2008 suggested that the implementation of crab rationalization and the accompanying lack of ability to process crab at the levels seen just prior to rationalization were a substantial impact both to this individual business operation and to the local economy of Adak. Although the plant received an initial processor quota allocation equivalent at the time to approximately 60,000 pounds of WAI golden king crab[79] and the Adak Direct Allocation community enhancement feature of the BSAI crab rationalization program (described in more detail below) provided a direct allocation of 10 percent of the TAC of the WAI golden king crab fishery that was initially equivalent to a 250,000-pound WAI golden king crab harvester community quota to the community (held and managed by the Adak Community Development Corporation [ACDC]), these levels of initial allocation were not great enough to underpin viable operation and effectively "turned the lights off on crab in the community," according to processor management.[80]

[78] In public testimony at the December 2010 NPFMC meetings, an individual with ownership interest in the plant during the relevant time period testified before the Council that in one of the years immediately preceding implementation of the rationalization program, approximately 2 million pounds of the 2.8 million total pounds harvested in the WAI golden king crab fishery that year were processed at the Adak plant. A waiver of confidentiality was also offered by and obtained from a representative of Adak Fisheries in order to provide Alaska Department of Fish and Game fish ticket data for a Pacific cod processing sideboards analysis by NPFMC. The data contained in that document indicate that in the 3-year span 2002 through 2004, inclusive, between 679 and 861 metric tons (i.e., between 1.5 million and 1.9 million pounds) of WAI golden king crab were landed in Adak per year over that period (784 metric tons [1.7 million pounds] in 2002, 861 metric tons [1.9 million pounds] in 2003, and 679 metric tons [1.5 million pounds] in 2004). More recent landing figures are confidential due to the low number of vessels delivering to the community.

[79] As for 2016, the processor quota allocation is still held by Adak Fisheries, although the ownership structure of Adak Fisheries has changed since the time of initial allocation.

[80] Public testimony at the December 2010 NPFMC meetings pointed out an additional indirect impact to processing on Adak that had resulted from the crab rationalization program. Historically, the processing plant in Adak has primarily been dependent on cod and crab processing. Following the implementation of crab rationalization, non-shoreside processing capacity that was previously devoted to opilio crab processing was reportedly freed to pursue cod processing in the Adak area (among other floating processing capacity from other rationalized fisheries), directly competing with the shoreplant at a higher level than was the case before crab rationalization. The Adak

By the time of the 5-year program review (2010), the Adak plant was not operating, as it closed down in April 2009 and remained closed through the 2009/2010 season. At that time, it was expected to reopen under new ownership in time for 2011 A season, following an October 2010 resolution of outstanding business issues, but it did not do so. During the period the plant was shut down, no crab processing occurred in Adak, although some local fleet activity did take place with halibut being flown fresh from the community. Crab that would have been processed in Adak was reportedly processed in Unalaska/Dutch Harbor while the Adak plant was shuttered.

More recently, in the years following the 5-year program review, Icicle Seafoods began operating the plant 2012, once again processing a large portion of AI Pacific cod in the community, with a limited amount of crab[81] also being processed at the facility. In April 2013, however, Icicle Seafoods closed its operation in Adak citing concerns about the health of the region's Pacific cod resource and increased regulatory uncertainty surrounding AI Pacific cod.[82] In June 2013, the City of Adak was the highest bidder in an auction for the processing equipment formerly owned by Adak Seafood, LLC. The intent of the purchase by the City was to keep the processing equipment in place, as a turnkey operation, in order to facilitate the expedited reopening of the plant.

In September 2013, Aleut Corporation's subsidiary Aleut Fisheries signed a 20-year lease with Adak Cod Cooperative to operate the Adak seafood processing facility. Adak Cod Cooperative renovated the Adak seafood processing facility from a headed and gutted operation into a fillet operation. The renovated shoreplant again began processing AI Pacific cod in early February 2014, utilizing six trawl CVs, four greater than 60' in length and two 58' in length. In addition, when the new processor entered the AI Pacific cod fishery, US Seafoods agreed to stand down in the targeted AI Pacific cod fishery, processing only AI Pacific cod incidentally caught while targeting other AI fisheries to give the new processor a better chance of succeeding.[83] The Adak Cod Cooperative, however, closed its operation at the Adak shoreside processing facility in May 2014.

plant was dependent upon cod landings from Areas 541 (Eastern Aleutian Islands District) and 542 (Central Aleutian Islands District). In recognition of this issue, the NPFMC tasked staff with examining the potential for sideboards for limiting the amount of catcher vessel Pacific cod harvest in Areas 541 and 542 that can be processed by a processing vessel (catcher processor, floating processor, or mothership) that is part of an identified rationalization program, including the American Fisheries Act and BSAI Amendment 80, along with the BSAI crab rationalization program.

[81] This included one load of Adak Community Development Corporation (ACDC) crab in January 2012 (with another going to the company's floater in Unalaska/Dutch Harbor), but no ACDC crab during the 2012/2013 season.

[82] As noted in a staff report delivered to the NPFMC in December, 2010, additional uncertainty for future Adak processing operations stemmed from a draft Steller sea lion Biological Opinion released by the National Marine Fisheries Service (NMFS) in August, 2010, within which NMFS outlined a reasonable and prudent alternative (RPA) that would significantly restrict Pacific cod and Atka mackerel fisheries in the Aleutian Islands, with Area 543 (western Aleutian Islands) closed to both fisheries entirely. As A season catcher vessel deliveries of Aleutian Island cod had been a mainstay of the shoreside processor in Adak for several years, it was felt that this may have a substantial impact on the future viability of local processing, with actual impacts of Pacific cod restrictions (for the industry and general and Adak processing in particular) depending on the scope of the final RPA. Adak was and is also the primary beneficiary of a separate, direct allocation in the Aleutian Islands pollock fishery to the Aleut Corporation; how the final RPA might additionally impact Adak through alterations in the Aleutian Islands pollock fishery was unknown at that time.

[83] Reportedly, US Seafoods was under the assumption that others in the sector would do the same, but their stand down proved to be a unilateral move.

After the exit of Icicle Seafoods and during the time the Adak Cod Cooperative was operating the plant, no BSAI crab was processed in the community.

According to interview information, Premier Harvest began a live crab operation in Adak in the fall of 2014 (i.e., during the 2014/2015 season). An April 2015 article in The Adak Eagle's Call, reported that Premier Harvest, LLC had recently purchased fishing processing equipment from the City of Adak and signed a 20-year lease with the Aleut Corporation for the Adak fish processing facility. According to that same article, Premier Harvest specializes in premium live and fresh crab with shipments domestically, as well as Europe, Asia, and Middle East. According to interview information, in the fall of 2015, Premier Harvest took delivery of ACDC managed crab as well as B share crab obtained from others.[84] Further, in December of 2015, Premier Harvest was in the process of refurbishing the cook line in Adak plant to reestablish full crab processing capability in the community when a storm damaged the plant, setting back those plans as well as ongoing operations.

Adak is also the intended beneficiary of a proposed WAI golden king crab full offload delivery exemption (in Secretarial Review Draft as of December 2015). The measures under consideration would create an exemption to the prohibition against continuing to fish in a BSAI crab rationalization fishery once off-loading has commenced until all crab rationalization program crab are landed. Specifically, as stated in the Regulatory Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA) of the proposed regulatory amendment, the proposed action would allow vessels harvesting WAI golden king crab to deliver partial loads of live crab to Adak opportunistically when markets and commercial airline transportation are available. While according to the RIR/IRFA the processing plant in Adak cannot currently (2015) economically justify accepting and processing a full offload from catcher vessels prosecuting this fishery, the processor can accept small deliveries of live crab product to be packed and shipped via commercial airline. Eliminating the full offload regulation for this specific fishery could allow vessels a better opportunity to supply a small delivery of WAI golden king crab to Adak, without subsequently incurring the harvest inefficiency costs associated with traveling significant distances to deliver a partially load of WAI golden king crab to, for example, Unalaska/Dutch Harbor. Depending on the magnitude of this economic inefficiency, this could discourage harvesters from taking advantage of the live market opportunity. Instead, the proposed delivery exemption would permit vessels harvesting WAI golden king crab to make partial deliveries and continue harvesting crab before fully offloading at a processor that would accommodate the full volume of crab onboard these catcher vessels.

Subsequent interviews with industry personnel suggest that processing of frozen product in Adak in conjunction with the live market operation may be economically efficient in the future, as the crab selected for the premium live market are necessarily a subset of

[84] Processor quota owned by Adak Fisheries was in part used by Premium Harvest in 2015, according to interview data; in other recent years when the Adak plant has not processed crab this processor quota has been processed in Unalaska/Dutch Harbor and is currently (2016) leased to 57 Degrees North.

crab that have to be sorted[85] for that market, and a processing operation to handle crab that did not make the premium market sorting cut would seem a natural extension of the business when conditions allow. The Premium Harvest planned refurbishment of the cook line at the plant noted above would suggest that this may happen sooner rather than later.

Support Services

- As a newly reconstituted civilian community, Adak was characterized in the crab rationalization 3-year program review (2008) as being in the process of developing support service capabilities for the fishing fleet. One challenge reported at that time was that, according to local business owners, vessels that fished in the Adak area in the more distant past were used to being self-sufficient and may not have realized that supplies and services were now available locally or, even if they did have an awareness of availability, still had established relationships elsewhere. This was true of the few larger crab vessels in the area, some of which had started to refuel in Adak. Vessel crew transfers were also increasing in Adak at that time, as Alaska Airlines was able to provide relatively well-scheduled service to Adak's former military airport.

  By the time of the 5-year program review (2010/2011), support service businesses had felt the impact of the local processing plant closure. Shortly before this time (in the winter of 2008/2009), the local electric utility was transferred from the city to TDX, a private entity, that by necessity, was reportedly more focused on cost-recovery than the city was, which had translated into more expensive energy costs, prompting the relocation (and removal from the grid) of at least one business in the time between the 3-year and 5-year program reviews. Also at the time of the 5-year program review, then-recent sea lion-related fishing area closures were also anticipated to impact local marine fuel sales, beyond sales to vessels delivering to the local plant.

  More recently (2016), the local economy has reportedly not improved. The general store located in the Sandy Cove area has closed and while its inventory was purchased and a new store opened in a different location in the community, the new store, open two hours per day in the evenings has, according to interviews, eliminated fresh and frozen foods, essentially focusing on non-perishable/longer shelf life groceries rather than a range of grocery and general store merchandise including hardware. The bar in the community (the Aleutian Sports Bar and Grill) apparently has also closed.

Local Governance and Revenues

- As reported in the 5-year program review, detailed information on revenue from fish taxes cannot be disclosed, but local tax revenues had decreased since 2003, when there was a peak of just over $792,000, dropping to just over $642,000 in 2005, $589,000 in 2006, and $405,000 in 2008. The total revenue from all sources for 2008 ($1,361,881)

[85] In terms of potential differential impacts to communities, concern has been expressed by some holders of WAI golden king crab processor quota outside of Adak that high grading could occur under the partial load exemption, such that larger or cleaner shelled (i.e., more valuable) crab could be differentially selected for the live market partial offload, with the effect that the holders of IPQ receiving the balance of the load could be getting crab of a less than average value mix for their quota shares.

marked the lowest total revenue since 2002 ($1,236,726), which was the first year Adak provided municipal revenue information to the State of Alaska, and is less than two-thirds of the revenue seen in the preceding 3 years.

In more recent years, the total revenue from all sources was just over $932,000 in 2011 to increasing sharply to over $1.7 million in 2012. Total revenues from 2013 to 2015 were around $1.2 million to $1.3 million. Local tax revenue during the years 2011 to 2015 were also highly variable, with a low of $352,000 in 2015 to a high of nearly $900,000 in 2012. In 2016, the total revenue budget was nearly $1.1 million, with $370,500 budgeted for local tax revenue, which included $56,000 in local fish tax revenues.

As reported in the 5-year program review, the community was also the beneficiary of a direct allocation community protection feature of the BSAI crab rationalization program. Similar in design to the CDQ program, the Adak Direct Allocation program grants 10 percent of the WAI golden king crab TAC to Adak (as represented by ACDC) with the intent of providing the community with a sustainable allocation of crab to aid in the development of local seafood harvesting and processing activities. The direct allocation, approved by the NPFMC and later mandated by congressional action, took effect in 2005 and had yielded positive results almost every year through the time of the 5-year program review. The City did derive at least some modest revenue from the lease of the allocated quota during the first year of the program. No vessels were interested in leasing quota with a royalty obligation during the second year of the program, however, due to poor prices, so the Adak community quota was given to a vessel, royalty free, with the stipulation that the crab harvested under the allocation would be delivered to Adak. By the third year of the program, standard 20 percent of value lease royalty payments to ACDC were reportedly again collected, and they had been collected in all subsequent years through the 5-year program review (2010), including during the time the local processing plant has been closed and processing of crab harvested under this allocation has occurred in Unalaska/Dutch Harbor.

The community also has benefitted from a crab rationalization program community protection feature that implemented a western region landing requirement for 50 percent of the catcher vessel owner quota pool in the WAI golden king crab fishery. The only communities with existing processing capacity in the western region are Atka and Adak; at the time of the 5-year program review (2010), western region landings of WAI golden king crab post-rationalization had been made exclusively in Adak. With the then-current closure of the Adak plant, landings that would have otherwise necessarily been made in the western region have been made in Unalaska/Dutch Harbor (under the auspices of an emergency rule implemented by the NPFMC).

More recently, deliveries of ACDC managed crab were made exclusively in Unalaska/Dutch Harbor until the opening of the Icicle Seafoods Adak plant. With the exception of the 2012 Icicle Seafoods delivery noted above, however, ACDC managed crab was exclusively processed outside of Adak (mostly in Unalaska/Dutch Harbor but some in Akutan as well) until the presence of Premier Harvest allowed for a resumption of local use of that allocation in 2015.

No BSAI crab designated for Western region deliveries has been landed any community in the Western region other than Adak in any of the years covered by this 10-year crab rationalization program review. Despite the limited success in having the ACDC managed crab benefit Adak through local processing activity, the benefits of the royalties from the leasing of that crab have benefitted the development of other fisheries in the community. The local Community Quota Entity, using the funds generated from the ACDC crab holdings, has obtained approximately 70 thousand pounds of halibut IFQ and approximately eight thousand pounds of sablefish IFQ that is leased to three local vessels. A local halibut buying station is reportedly now (2016) in its third season of operation, providing additional opportunities for both the local fleet (to which a fourth vessel will reportedly be added in the near future) as well as for vessels from outside of the community.

1.3.7 St. Paul

Harvesting

- **Vessels** – According to the BSAI crab fishery 1998–2014/2015 dataset and interviews conducted for the 5-year program review, no vessels owned by St. Paul residents participated in the BSAI crab fisheries that have been rationalized either in the years leading up to rationalization or in the first five years following rationalization. The dataset indicates this situation has remained unchanged during the second five post-rationalization years.

  Catcher Vessel Owner Shares: No individual St. Paul vessel owners qualified for an initial allocation of catcher vessel owner quota shares, nor have they acquired them in subsequent years. St. Paul, however, is the only member community of the CBSFA, a CDQ group, which at the time of the 5-year program review owned and, in some cases, managed, through its wholly owned subsidiary St. Paul Fishing Company[86] percentages of four vessels that harvest rationalized crab and retained BSAI crab harvester quota originally associated with two previously owned vessels. Catcher vessel owner quota (non-CDQ quota) at the time of the 5-year program review (2010/2011) held by the CBSFA and/or its subsidiaries, and attributed to the community of St. Paul in the database, included quota shares in all of the rationalized BSAI crab fisheries. By the time of the 2015/2016 IFQ allocation process, the CBSFA had acquired interest in a fifth crab vessel[87]; however, all but a negligible amount of catcher vessel owner quota shares held by the CBSFA and/or its subsidiaries had come to be attributed to Wasilla rather than St. Paul in the database (based on the business address associated with those shares). During the 2015/2016 season, the CBSFA subsidiary 57 Degrees North acquired additional catcher vessel owner shares through the acquisition of Icicle Seafoods' crab assets, as described below.

[86] St. Paul Fishing Company, formerly named Multi-Species Development Holdings, LLC, is the CBSFA subsidiary that manages fishing assets belonging to CBSFA including vessels, gear, equipment, limited license permits, and certain crab, pollock, cod and sablefish allocations.

[87] The most recently acquired vessel is the FV Adventure. The five vessels (their fisheries) and percent owned by CBSFA/SPFC are: FV Adventure (crab and salmon) 100%; FV Starlite and FV Starward (pollock, crab, and cod) 75% each; FV Early Dawn (crab) 50%; FV Fierce Allegiance (pollock, crab, and cod) 30%. Source: http://www.cbsfa.com/spfc.html, accessed 4/6/2016.

Catcher Processor Owner Shares: Although no St. Paul entities were issued catcher processor owner quota during the initial allocation process, in 2008 the CBSFA, through its wholly owned subsidiary 57 Degrees North, obtained catcher processor owner shares in the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, and WBS Tanner fisheries through the purchase of shares originally allocated to Highland Light Seafoods and Yardarm Knot, and held these shares, attributed to the community of St. Paul in the database, at the time of the 5-year program review. These same shares were still held by CBSFA's subsidiary as of the 2015/2016 IFQ allocation process (the most recent available data), but were attributed to the community of Wasilla (where the CBSFA has offices) rather than St. Paul.

- **Crew** – In terms of direct participation, local fishermen are almost exclusively engaged in the halibut fishery. With CBSFA investments in multiple crab vessels, St. Paul residents interested in obtaining a crew position on a crab vessel have ready access though the CBSFA. At the time of the 5-year program review, however, officials from the CBSFA report, however, that this is not common because of (1) the relative ability of halibut fishermen to receive income throughout the year due to a phased payment for the halibut harvest that continues through the fall and winter, (2) relatively ample alternate employment opportunities on-island during typical crabbing months, and (3) the less attractive nature of the BSAI crab fishery when compared to the halibut fishery.

  More recently, however, CBSFA leadership reported that this situation has changed somewhat. While there is still a strong local focus on the halibut fishery, the vitality of which is largely attributable to the CDQ program,[88] a number of residents have reportedly crewed on CBSFA's 58-foot cod vessels, and at least a few individuals in the most recent seasons have worked on crab vessels in which CBSFA or its subsidiaries have an ownership interest. One local resident is currently (2016) serving as deck boss on the *FV Fierce Allegiance*, having first gained experience on halibut and then cod vessels (opportunities made possible, in part, by CBSFA fisheries investments); local officials are optimistic that continuing opportunities for experience in the other two fisheries will, in turn, provide others the opportunity to take similar routes into the crab fishery, should they choose to do so.

  EDR data, available only for years after the crab rationalization program was implemented, as discussed in Section 1.3.9, below, indicated that three Alaska residents with St. Paul addresses on their ADFG commercial fishing crew license crewed on BSAI crab vessels in 2014; none did so in any other year 2006 through 2014. One Alaska non-resident who provided a St. Paul address on their ADFG commercial fishing crew license crewed on a crab vessel in 2010; none did so any other year 2006 through 2014, the most recent year for which data are available. EDR data also show no Alaska residents or non-residents with St. Paul addresses held CFEC gear operator permits indicating they may have served as skippers on BSAI crab vessels in any year 2006 through 2014 (or, at minimum, otherwise crewed on crab vessels those years).

  Catcher Vessel Crew Shares: No St. Paul residents qualified for an initial allocation of catcher vessel crew quota shares, nor have they acquired them in subsequent years.

[88] 170 Degrees West, LLC, a subsidiary of CBSFA, is the operating company for the CBSFA halibut cooperative.

Processing

- St. Paul is home to one large onshore processing operation (Trident Seafoods), which was a major crab processing plant prior to rationalization and has remained so post-rationalization. As reported in the 5-year program review, St. Paul had also historically been the site of a number of mobile processing operations over the years either inside the harbor (with larger operations including UniSea and Icicle) or in the area but outside the harbor (including Norquest[89] and a number of others) as the nature of the fishery and its economic incentives dictated, and by limitations imposed by weather.[90] While the floating processors did not typically employ any St. Paul residents, a handful of long-term residents were employed at the Trident Seafoods shoreplant, mostly as dock workers or crane operators. These employees typically worked the entire year, which includes the BSAI crab season in the fall and winter months, and the halibut season in the spring and summer months.

  More recently, according to CBSFA staff, in each year since the 5-year program review, the Icicle Seafoods floating processor R.M. Thorstenson processed BSAI crab within the municipal boundaries but outside of the harbor up through the 2014/2015 season. It did not do so in the 2015/2016 season and, with the sale of Icicle Seafoods crab assets consisting of both IFQ and IPQ[91] to 57 Degrees North, is not expected to return to the community as a crab processor in the future. The Trident Seafoods shoreplant has continued to provide employment to a number of residents, mostly in dock crew and crane operator positions, but CBSFA staff report that a few local residents have worked line and other inside jobs at the plant as well in recent years. With the local presence of a major processing operation, CBSFA staff also point out that indirect employment is generated across a range of businesses, including at the fuel dock, the grocery store, and the air carriers, among others, not to mention administrative positions at the CBSFA as well as 57 Degrees North, St. Paul Fish Company, and other CBSFA subsidiaries.

  As reported in the 5-year program review, an overriding concern of St. Paul entities was that if changes in the crab fishery through the BSAI crab rationalization program itself or

[89] Norquest was later (2004) purchased by Trident.

[90] A total of seven entities received initial allocations of processor quota with St. Paul designated as the right of first refusal boundary and the cooling off boundary: Icicle Seafoods, Inc., Norquest Seafoods, Inc., Peter Pan Seafoods, Inc., SnoPac Products, Inc., Trident Seafoods Corporation, UniSea, Inc., and Yardarm Knot, Inc. By the time of the 5-year program review (2010/2011) the number of processor quota shares with a St. Paul right of first refusal and cooling off boundary was unchanged for each of the entities that received initial allocations, with the following exceptions: APICDA had acquired the St. Paul affiliated processor quota shares that were initially allocated to SnoPac (with the St. Paul right of first refusal and cooling off boundaries remaining intact) and 57 Degrees North had acquired the St. Paul affiliated processor quota shares that were initially allocated to the Yardarm Knot (with the St. Paul cooling off boundary remaining intact, but the right of first refusal boundary expiring). By the time of the 2015/2016 IPQ allocation process, the number of processor quota shares with a St. Paul right of first refusal and cooling off boundary held by each of the relevant entities was unchanged from what they held at the time of the 5-year review, with the following exceptions: 57 Degrees North had acquired all of the St. Paul affiliated processor quota shares that were initially allocated to Icicle and some of the St. Paul affiliated processor quota shares that were initially allocated to UniSea (with the St. Paul right of first refusal and cooling off boundaries remaining intact for each).

[91] Including processor quota not directly affiliated with St. Paul, CBSFA/57 Degrees North has held BSAI crab processor quota since initial allocation, substantially adding to that quota with the acquisition of Yardarm Knot quota in 2008/2009 before acquiring the additional Icicle Seafoods processor quota in 2015/2016.

another "crab crash" were to result in the closure of the shoreplant and processing moving away from St. Paul, the results would be devastating for two primary reasons. First, local fiscal revenues depend heavily on fish taxes. Second, the processing infrastructure and capacity allowed the local halibut fishery, a mainstay of household income, to be economically viable. In the then-current environment, Trident Seafoods processed crab and locally caught halibut and the concern was that, absent the crab fishery, the local halibut fishery was not large enough to support local processing activity.[92] BSAI crab rationalization, with its northern region share designation, was seen in the community as an essential component in a viable local economy. In other words, the regionalization feature of crab rationalization was seen to have worked from the perspective of St. Paul.

According to CBSFA staff, this characterization of the positive benefits of the crab rationalization program in general, and the regionalization feature of the program in particular, is now (2016) more true than ever. According to CBSFA staff, without regionalization there is the real possibility that shore processing of crab in St. Paul would not now be taking place, which would then bring down the local halibut fishery (given that the plant provides the only economically viable processing capacity and other support infrastructure for the St. Paul [and St. George] halibut fishery). The plant, whose overall economic viability depends on the crab fishery, is also expected to provide support similar to that it already provides to the local halibut fishery to a planned local cod fishery. Fostered by a recently enacted CDQ fishery small boat exemption, the local cod fishery, according to CBSFA staff, is expected to begin in the summer of 2016.

Support Services

- As reported in the 5-year program review, the 1999–2000 downturn in BSAI crab GHLs had come in hindsight to be looked at as a crab crash that generally affected the community of St. Paul negatively with lower stocks affecting taxes, CBSFA investments, and the viability of support services. By the time of the 5-year program review, however, BSAI crab rationalization had resulted in stabilizing the season. With a longer season, vessels remaining in the fishery were likely to purchase more fuel and supplies locally than was the case prior to rationalization. Residents generally felt that the community had benefited from crab rationalization and specifically the program's regionalization community protection feature that established a northern region designation for quota shares, although the level of benefits that would have otherwise been anticipated to result from that feature were tempered, to a degree, by a coincidental decrease in Bering Sea snow crab GHL/TAC over levels seen in the early pre-rationalization years covered by the dataset, a condition that resulted in the official determination by the NMFS of a

[92] As noted earlier (in Section 1.3.1), the St. Paul shoreplant has a different processing "portfolio" than the other shoreplants currently (2016) engaged in processing of the BSAI crab fisheries included in the rationalization program. All of the plants in other communities relatively large, multispecies plants with substantial dependency on other fisheries. The St. Paul plant, on the other hand, has a much higher relative dependency on rationalized crab in general (and Bering Sea snow crab in particular), with a secondary focus on supporting the comparatively modest local halibut fishery (upon which the local community fleet is highly dependent). When the plant is processing crab, it reportedly focuses exclusively on doing so, as it does not have the capacity to simultaneously support the processing of other types of fisheries; further, according to CBSFA officials, there are seasonal processing constraints related to discharge and outfall issues in St. Paul harbor that otherwise limit the potential for the plant to become a year-round, multi-species operation.

"commercial fishery failure" for the Bering Sea snow crab fishery from 2001 through 2007. A few enterprises, such as crab gear storage, had seen some decline in revenues more directly linked to crab rationalization. The CBSFA, however, had invested in rationalized crab and reinvested the profits from those activities into a more secure base for support services, funding a large proportion of the then-newly installed small boat harbor, as well as purchasing cranes, funding and supporting visiting shipwrights and other trade workers, and participating in the construction and establishment of a new boat maintenance facility.

More recently, since the time of the 5-year program review, the CBSFA has made additional investments in local fisheries infrastructure, including purchasing a new crane used to haul local vessels among other waterfront tasks (replacing an older, existing crane); purchasing a new community fuel truck that, operated by the City of St. Paul, is used for the delivery of heating fuel to homes and marine fuel to the local small boat fleet; and, working jointly with Aleut Community of St. Paul Island, the local tribal governmental entity, constructing a new ship supply and vessel center, according to CBSFA staff. Other recently added marine infrastructure in St. Paul includes a new tribal dock in the small boat harbor.

Local Governance and Revenues

- As reported in the 5-year program review, detailed information on fish taxes related specifically to crab cannot be disclosed, but the local tax revenues as a whole increased since crab rationalization was implemented. Total general fund revenue was approximately $1.9 million in FY 2006 and increased to approximately $4.0 million by FY 2010.

  In more recent years, total general fund revenues have remained in excess of $4.0 annually (see Table A2-8 in Attachment 2). Between FY 2010 and FY 2012, total general fund revenues increased from $4.0 million to $5.5 million. General fund revenues declined in FY 2013 (to $5.2 million) and have continued to decline to a budget of $4.4 million in FY 2014. The local fish tax in recent years has ranged between $1.1 million and $2.3 million for the years FY 2010–2014. State fisheries revenue sharing was around $656,000 in FY 2010, increased to $1.2 million by FY 2013, and declined slightly in FY 2014. Fisheries landing taxes were nearly $375,000 in FY 2009 but have since sharply declined; budgeted fisheries landing tax in FY 2015 was $12,000. In recent years (FY 2011 to FY 2013), the percentage of these three fisheries sources combined as a percentage of total general fund revenues has been around 64 to 65 percent, but that percentage has increased in FY 2014 (67.9 percent) and in FY 2015 (69.9 percent, based on the budget).

  Fiscal challenges the City is now facing include a decline in fisheries related revenue, due to a sharp decrease in Bering Sea snow crab TAC for the 2015/2016 season, by far the most economically important fishery overall to the community, and an ongoing decline in halibut exploitable biomass available to the directed halibut fishery, the most significant fishery pursued by the local fleet. Slowdowns in these fisheries are also felt throughout the range of support services provided in the community, such as fuel sales and marine usage, which also underpin the local economy. These fiscal challenges are also occurring

at a time when state budget difficulties are beginning to be felt at that local level and the City of St. Paul has been undergoing staff reductions.

The City has been active in fisheries infrastructure projects in recent years, including the rehabilitation of the City berth in the harbor. This project, funded by a grant from Economic Development Administration, with a match from the City, has resulted in dredging of the Saint Paul harbor area adjacent to the City berth that was completed in 2013. The intent of the project is to potentially attract a floating processor capable of processing not only crab, but other species as well, thereby helping to diversify St. Paul's fishery portfolio. The City is also involved in supporting an ongoing Army Corps of Engineers pursuit of an operations and maintenance effort to repair the harbor's breakwaters.

1.3.8 St. George

Harvesting

- **Vessels** – According to the BSAI crab fishery 1998–2014/2015 dataset, no vessels owned by St. George residents participated in the BSAI crab fisheries that have been rationalized either in the years leading up to rationalization or the years following rationalization.

  Catcher Vessel Owner Shares: No St. George vessel owners qualified for an initial allocation of catcher vessel owner quota shares, nor have they acquired them in subsequent years. Like Akutan, St. George is a member community of the APICDA CDQ group, which has ownership interest in vessels that harvest rationalized crab.

- **Crew –** As was the case for St. Paul, St. George fishermen are exclusively or nearly exclusively focused on the halibut fishery and are not directly involved in crab fishing in any way. As a member community of APICDA, St. George residents interested in crewing on a crab vessel do have the opportunity to apply for a position on those vessels owned in part by APICDA. However, information gathered during fieldwork in 2007 suggests that this is not regularly practiced, a circumstance that has apparently not changed in more recent years.

  EDR data, available only for years after the crab rationalization program was implemented, as discussed in Section 1.3.9, below, indicated that no Alaska residents with a St. George address on their ADFG commercial fishing crew license crewed on any BSAI crab vessels in any year 2006 through 2014, the most recent year for which data are available. EDR data also show no Alaska residents with St. George addresses held CFEC gear operator permits indicating they may have served as skippers on BSAI crab vessels in any year 2006 through 2014 (or, at minimum, otherwise crewed on crab vessels those years).

  Catcher Vessel Crew Shares: No St. George residents qualified for an initial allocation of catcher vessel crew quota shares, nor have they acquired them in subsequent years.

Processing

- During a number of years within the BSAI crab rationalization qualifying period when crab stocks (and quota) were large, smaller inshore floating processors operated in St. George harbor, but with relatively depressed crab stocks such operations have reportedly not been economically viable. In the years immediately preceding the implementation of BSAI crab rationalization, St. George saw no local crab processing, nor has St. George seen local processing in the years following the implementation of BSAI crab rationalization.[93] North region-designated processor quota that was historically accrued by Snopac Products, Inc. and Peter Pan Seafoods in St. George has been processed in St. Paul since the implementation of the rationalization program.[94]

  In October 2008, APICDA announced that its wholly owned for-profit subsidiary, APICDA Joint Ventures, Inc., reached an agreement with Snopac Products, Inc. to purchase all of Snopac's crab processor quota shares originally associated with St. George, along with their crab processing line and equipment. APICDA had earlier reached a contractual relationship with Peter Pan Seafoods regarding the processor quota shares that Peter Pan qualified for through their St. George-based operations, although the specifics of that contractual relationship remain confidential. One stated goal of APICDA in acquiring the processor quota shares from Snopac was to eventually return processing activity to St. George, but the timeline for doing so depends on a number of factors that would make it economically feasible to do so, including completion of significant improvements to the harbor, the timing of which is indefinite.[95]

[93] The St. George harbor and its entrance were damaged in a storm in October 2004, effectively preventing the rebuilding of local processor capacity for a number of post-rationalization years. The city did receive disaster assistance funding for harbor repairs from the Alaska Division of Homeland Security & Emergency Management and the Federal Emergency Management Agency in October 2005. This funding covered approximately $8.8 million in repairs to the south breakwater arm, the harbor entrance channel (dredging), and the shoreline in front of the tank farm (the north shoreline). South breakwater and north shoreline repairs were completed in 2006. Entrance channel dredging, finishing the project and returning the harbor to pre-2004 storm damage conditions, was completed in May 2008. The harbor remains a challenge for larger vessels, however, particularly under adverse sea conditions.

[94] Two entities, Peter Pan Seafoods, Inc. and Snopac Products, Inc., qualified under the crab rationalization program for an initial allocation of processor quota shares that were subject to the program community protection measures of right of first refusal and the cooling off period with St. George listed as the boundary for those measures. The number of shares held by Peter Pan and their associated cooling off boundaries were unchanged at the time of the 5-year program review, but the right of first refusal provisions associated with these shares had expired, a situation that has remained unchanged as of the 2015/2016 IPQ allocation process. In the case of the shares that were initially allocated to Snopac, as noted below, those shares had been acquired by APICDA Joint Ventures, Inc., by the time of the 5-year program review; their associated cooling off boundaries were unchanged at the time of the 5-year program review, but the right of first refusal provisions associated with these shares had expired, a situation that has remained unchanged as of the 2015/2016 IPQ allocation process.

[95] Although the harbor has been repaired to pre-2004 storm conditions, and typical crab vessels occasionally call on St. George, establishing that the harbor can accommodate those vessels, according to APICDA staff it is well established that most Bering Sea vessels do not want to use the harbor for safety reasons. Further, according to senior APICDA staff, there are three problems with the harbor, each of which needs to be corrected before St. George can appropriately function as a crab processing location: (1) the inner harbor needs to be dredged to a consistent minus 20 foot low, lower water depth; (2) two high points in the entrance channel must be removed (the channel can be navigated safely at present, but only if there is not heavy surge); and, (3) the south arm of the breakwater needs to be lengthened to a distance sufficient to eliminate surge into the harbor and/or a new submerged breakwater needs to be constructed in front of the harbor such that surge is eliminated and access to the entrance channel would be made easy and safe under a wider range of sea conditions than is possible at present

In the meantime, St. George, as a member community of APICDA, shares the benefits of owning the processor quota shares accrued in the community with other APICDA member communities (and all APICDA-owned north-designated shares continue to be processed in St. Paul). APICDA completed construction of a processing-capable facility at the St. George harbor in the summer of 2010, and this facility could be expanded to accommodate crab processing when harbor improvements allow reliable crab operations, which, according to senior APICDA staff, would be more advantageous than bringing a floating processor into the harbor. According to senior APICDA staff, since the time of the 5-year program review, this facility has been minimally used each year through the present (2016) for the production of ice for the local halibut fishing fleet and storage. Halibut caught by St. George fishermen continues to be tendered to St. Paul for processing at the Trident plant as, according to senior APICDA staff, the halibut quota in St. George is too small to make the operation of a processing plant feasible at present, a situation unchanged from the time of the 5-year program review.

Support Services

- Of all of the communities covered in this section, the support service (and general) economy of St. George is arguably the least robust, having scaled back considerably since the crab crash and the termination of local seafood processing. There are no fishery support services aside from marine fuel sales at the harbor and crab pot storage, both of which experienced a steep decline in the years immediately prior to rationalization due to decreased GHLs. Damage to the harbor several years ago exacerbated the situation, making navigation of the harbor difficult for larger crab vessels and leading many of these vessels to refuel and/or store crab pots in nearby St. Paul instead of St. George. According to APICDA senior staff, this situation will not change until the harbor is significantly upgraded.

Local Governance and Revenues

- As reported in the 5-year program review, detailed information on fish taxes cannot be disclosed, but it was known that in then-recent years no landings had been made in the community by vessels other than the local small-boat fleet and that even those landings were tendered to St. Paul for processing. While St. George, through its membership in APICDA, has gained a measure of benefits from the ownership and/or contractual control of the processor quota shares that were historically associated with the community following a period of temporary inter-community revenue sharing described in the 5-year program review, in general, by the time of the 5-year program review, St. George total revenues had decreased markedly since the days of crab processing in the community. The total of all revenues showed annual declines (except for a pause in 2000–2001) from

(2016). At the time of the 5-year program review, APICDA estimated the cost of these improvements to be in the range of $20 million to $30 million and it was thought funding would most likely be a combination of federal and state dollars, and while it is possible that some APICDA funds could also be used, senior APICDA staff reported that APICDA has already contributed $3.1 million toward the harbor project (exclusive of their recent investment in a shoreside processing facility). Currently (2016), according to senior APICDA staff, the harbor improvements are a "live" U.S. Army Corps of Engineers project, with a best-case scenario of construction beginning in 2018, with less favorable scenarios having construction occur five to seven years in the future.

$2.6 million in 1999 to $536,674 in 2005. In 2006, however, total revenues began to rise, increasing to $835,657 in 2006 and to $1.8 million in 2008.

In more recent years, total revenues for St. George have continued to be low, with total general fund revenues in 2010 budgeted at $602,000. The city received a large grant from the state to improve their harbor, which increased the total general fund revenue budget to nearly $3.7 million in 2012, but the total general revenue budgets from 2013 to 2015 have been approximately $977,000 annually.

According to APICDA senior staff, the only crab processing related local fish tax revenues received in St. George in recent years were generated by the Icicle Seafoods floater R.M. Thorstenson processing while anchored off of St. George "for a couple of weeks" in the winter of 2014 when its usual destination, St. Paul harbor, was iced in. With the apparent exit of floating processors focusing on crab from the north region with the sidelining, if not retirement, of Icicle Seafoods' floating crab processing capacity with the sale of Icicle's crab assets during the 2015/2016 season, the possibility of even these types of temporary infusions revenue from future local crab processing in St. George is all the more uncertain.

1.3.9 Other Alaska Communities by Participation Type

Beyond the communities listed individually in Sections 1.3.1 through 1.3.8, other Alaska communities are engaged in the rationalized BSAI crab fisheries in a number of different ways. These include fishery participation through locally owned vessels, being the location of shore-based processing, as well as through holding catcher vessel owner shares and/or catcher vessel crew shares, which are summarized in the immediately following subsection.

Other subsections that follow include summaries of the following Alaska community participation types:

- crew employment participation
- catcher processor-based participation
- CDQ-based participation
- cooperatives-based participation, and
- other crab communities-based participation.

Vessel, Processor, Catcher Vessel Owner Share-, and Catcher Vessel Crew Share-Based Participation

- As noted in Section 1.2.2, from 1998 through 2014/2015, catcher vessels participating in the now-rationalized crab fisheries were owned by individuals or entities in 19 different Alaska communities. In addition to the communities whose residents were already noted in the above summaries as owning crab vessels (Unalaska/Dutch Harbor, Akutan, King Cove, Kodiak, and Sand Point), the other communities are Anchor Point, Anchorage, Big Lake, Cordova, Homer, Kenai, Ketchikan, Pelican, Petersburg, Seldovia, Seward, Sitka, Wasilla, and Yakutat. As discussed in Section 1.2.2, however, none of these communities, with the exception of Kodiak, have had a sufficient number of vessels post-

rationalization fleet consolidation to allow disclosure of harvest, such that pre- and post-rationalization harvest comparisons cannot be made for these other communities.

- As noted in Section 1.2.4, from 1998 through 2014/2015, processors participating in the now-rationalized crab fisheries operated in 11 different Alaska communities. In addition to the communities with locally operating processors already noted in the above summaries (Unalaska/Dutch Harbor, Akutan, King Cove, Kodiak, Sand Point, Adak, and St. Paul), the other communities are Cordova, Ninilchik, Sitka, and Wasilla. As discussed in Section 1.2.4, however, none of these communities, with the exception of Unalaska/ Dutch Harbor, have had a sufficient number of processors to allow disclosure of processing volumes or values, such that pre- and post-rationalization processing comparisons cannot be made for these other communities.

- In terms of initial catcher vessel owner quota allocations, 10 Alaska communities had any residents receive quota. In addition to the communities whose residents received catcher vessel owner quota as already noted in the above summaries (Unalaska/Dutch Harbor, King Cove, Kodiak, and Sand Point), the other communities are Anchorage, Dillingham, Homer, Petersburg, Seldovia, and Yakutat. Of these, only Anchorage, Dillingham, Homer, and Petersburg had more than one resident receiving initial catcher vessel owner quota allocation for any individual rationalized BSAI crab fishery.

- In terms of the catcher vessel crew quota share initial allocations, 12 Alaska communities had residents who received catcher vessel crew allocations. In addition to the communities whose residents received an initial allocation of catcher vessel crew quota as already noted in the above summaries (Unalaska/Dutch Harbor, King Cove, Kodiak, and Sand Point), these are Anchorage, Homer, Kenai, Petersburg, Sitka, Soldotna, Valdez, and Wasilla. Of these, none had more than one resident receive catcher vessel crew quota in any individual fishery except for Anchorage and Homer.

The following paragraphs summarize individual Alaska community participation, and pre- and post-rationalization participation, for these four factors. (This listing is exclusive of the eight communities summarized in Sections 1.3.1 through 1.3.8.)

South-Central Alaska Communities

- **Anchor Point:** Direct participation in the crab fisheries included in the rationalization program was limited to the pre-rationalization time frame, a situation that is unchanged from the time of the 5-year program review.

    - One vessel listed as owned by an Anchor Point resident fished Bristol Bay red king crab in 2004 (prior to rationalization). No other Anchor Point resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No processing of crab species included in the rationalization program occurred in Anchor Point during 1998–2014/2015, before or after rationalization.

    - No Anchor Point residents received initial allocations of catcher vessel owner quota or catcher vessel crew quota in any of the rationalized crab fisheries, nor

did any residents hold catcher vessel owner quota or catcher vessel crew quota at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process.

- **Big Lake:** Direct participation in the crab fisheries included in the rationalization program was limited to the pre-rationalization time frame, a situation that is unchanged from the time of the 5-year program review.

    - One vessel listed as owned by a Big Lake resident fished Bristol Bay red king crab in 2000 and one vessel listed as owned by a Big Lake resident fished Bering Sea snow crab in 1999 (both prior to rationalization). No other Big Lake resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No processing of crab species included in the rationalization program occurred in Big Lake during 1998–2014/2015, before or after rationalization.

    - No Big Lake residents received initial allocations of catcher vessel owner quota or catcher vessel crew quota in any of the rationalized crab fisheries, nor did any residents hold catcher vessel owner quota or catcher vessel crew quota at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process.

- **Cordova:** Direct participation in the crab fisheries included in the rationalization program through vessel ownership or local processing activities was limited to the pre-rationalization time frame, a situation that is unchanged from the time of the 5-year program review. Participation through quota ownership patterns are more complex and has changed since the time of the 5-year program review.

    - One or two vessels listed as owned by a Cordova resident fished the Bristol Bay red king crab fishery in each of the years 1998–2004 (prior to rationalization) and one or two vessels listed as owned by a Cordova resident fished the Bering Sea snow crab fishery in each of the years 1998–2005 (prior to rationalization). No other Cordova resident owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. Processing of Bering Sea snow crab occurred at one Cordova plant in 2001, but no other Cordova plant processed any crab species included in the rationalization program during 1998–2014/2015 before or after rationalization.

    - No Cordova residents received initial allocations of catcher vessel owner quota in any of the rationalized crab fisheries, nor did any residents hold catcher vessel owner quota at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process.

    - No Cordova residents received initial allocation catcher vessel crew quota shares in any of the rationalized crab fisheries, but at the time of the 5-year program review (2010/2011) one Cordova resident held catcher vessel crew quota in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, St. Matthew Island blue king crab fisheries. As of the 2015/2016

allocative process, however, no Cordova residents held catcher vessel crew quota in any of the rationalized crab fisheries.

- **Dillingham:** Direct participation in the crab fisheries included in the rationalization program has been limited to local ownership of catcher vessel owner quota, with increases seen in the amount of quota held since the time of the 5-year program review. This quota has been held exclusively by the Bristol Bay Economic Development Corporation CDQ group.

    - No Dillingham resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No processing of crab species included in the rationalization program occurred in Dillingham during 1998–2014/2015, before or after rationalization.

    - One Dillingham-based entity, the Bristol Bay Economic Development Corporation, received initial catcher vessel owner quota shares in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, St. Matthew Island blue king crab, Pribilof Islands blue and red king crab, and WAI red king crab fisheries. By the time of the 5-year program review, the number of unique quota holders had not changed, but quota shares had been obtained in northern region Bristol Bay red king crab and southern region St. Matthew Island blue king crab fisheries (neither of which were categories of quota held at initial allocation). Further, the Dillingham entity quota holder had increased the amount of quota units held in each of the fisheries for which they had received initial allocations, except for the Pribilof Islands blue and red king crab fishery and the WAI red king crab fishery, where the number of quota share units held remained unchanged. By the time of the 2015/2016 allocative process, the number of quota holders in each fishery was unchanged from the time of the 5-year program review, but the amount of quota units held increased in every fishery and regional designation within each fishery, with the exception of Bristol Bay red king crab northern quota and Pribilof Islands blue and red king crab northern quota, where the amount of quota units held was unchanged.

    - No Dillingham residents received initial allocations of catcher vessel crew quota in any of the rationalized crab fisheries, nor did any residents hold catcher vessel crew quota at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process.

- **Kenai:** Direct participation in the crab fisheries included in the rationalization program through vessel ownership was limited to the pre-rationalization time frame. Participation through catcher vessel owner and crew quota ownership is more complex but in general quota has completely exited the community, except for some catcher vessel crew shares in a single fishery, as situation that has remained unchanged since the 5-year program review.

    - One vessel listed as owned by a Kenai resident fished Bristol Bay red king crab from 1998 through 2001 and one vessel listed as owned by a Kenai resident fished Bering Sea snow crab from 1998 through 2002 (both prior to rationalization). No

other Kenai resident owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No processing of crab species included in the rationalization program occurred in Kenai during 1998–2014/2015, before or after rationalization.

- Kenai residents received no initial allocations of catcher vessel owner quota in any of the rationalized crab fisheries, but at the time of the 5-year program review (2010/2011), one unique holder held quota units in the Pribilof Islands blue and red king crab fishery. As of the 2015/2016 allocative process, however, no Kenai residents held catcher vessel owner quota in any of the rationalized crab fisheries.

- One Kenai resident received initial allocation catcher vessel crew quota shares in each of the Bristol Bay red king crab, Bering Sea snow crab, Bering Sea Tanner, and Pribilof Islands blue and red king crab fisheries. By the time of the 5-year program review, however, no Kenai residents held catcher vessel crew shares in any of the rationalized crab fisheries, except for the Pribilof Islands blue and red king crab fishery, where the amount of quota share units held was unchanged from the initial allocation. As of the 2015/2016 allocative process, the number type and number of quota units held was unchanged from the 5-year program review. In other words, the only catcher vessel crew quota being held by a Kenai resident was in a fishery that has not been open since the inception of the rationalization program.

- **Ninilchik:** Direct participation in the crab fisheries included in the rationalization program was limited to the pre-rationalization time frame, a situation that is unchanged from the time of the 5-year program review.

  - No Ninilchik resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. Processing of Bering Sea snow crab occurred at one Ninilchik plant in 1998, but no other processing of any crab species included in the rationalization program occurred from 1998–2014/2015, before or after rationalization.

  - No Ninilchik residents received initial allocations of catcher vessel owner quota or catcher vessel crew quota in any of the rationalized crab fisheries, nor did any residents hold catcher vessel owner quota or catcher vessel crew quota at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process.

- **Seward:** Direct participation in the crab fisheries included in the rationalization program was limited to the pre-rationalization time frame, a situation that is unchanged from the time of the 5-year program review.

  - Four and three vessels listed as owned by Seward residents fished the Bristol Bay red king crab and Bering Sea snow crab fisheries, respectively, in 1998; one vessel listed as owned by a Seward resident fished in each of these fisheries in 1999 and 2000 (prior to rationalization) as well. No other Seward resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No processing of crab species included in the

rationalization program occurred in Seward during 1998–2014/2015, before or after rationalization.

- No Seward residents received initial allocations of catcher vessel owner quota or catcher vessel crew quota in any of the rationalized crab fisheries, nor did any residents hold catcher vessel owner quota or catcher vessel crew quota at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process.

- **Soldotna:** Direct participation in the relevant crab fisheries has been limited to ownership of catcher vessel owner and catcher vessel crew quota obtained after initial allocation. Since the time of the 5-year program review, this ownership has declined, with only catcher vessel crew shares in two fisheries remaining as of the 2015/2016 allocative process.

  - No Soldotna resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No processing of crab species included in the rationalization program occurred in Soldotna during 1998–2014/2015, before or after rationalization.

  - No Soldotna residents received initial catcher vessel owner quota shares in any of the rationalized crab fisheries, but at the time of the 5-year program review one Soldotna resident held catcher vessel quota in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, St. Matthew Island blue king crab, and WAI red king crab fisheries. As of the 2015/2016 allocative process (the most recent available data), however, no Soldotna residents held catcher vessel owner quota in any of the rationalized crab fisheries.

  - One Soldotna resident received initial catcher vessel crew quota shares in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries. By the time of the 5-year program review (2010/2011), the number of unique quota holders had not changed in the Bristol Bay red king crab and Bering Sea snow crab fisheries, but the number of quota share units held had increased for the Bristol Bay red king crab fishery and decreased for the Bering Sea snow crab fishery. In the EBS Tanner and WBS Tanner fisheries, there were two unique Soldotna holders of catcher vessel crew quota by 2010/2011, accompanied by an increase in quota share units held in each of these fisheries. Soldotna holdings of Pribilof Islands blue and red king crab catcher vessel quota increased between initial allocation and the 5-year program review, while one Soldotna resident came to hold St. Matthew Island blue king crab catcher vessel crew quota by 2010/2011. Between the 5-year program review and the 2015/2016 allocative process the number of catcher vessel crew quota units held by Soldotna residents decreased substantially, with only quota in the EBS Tanner, WBS Tanner, and St. Matthew Island blue king crab fishery remaining. The number of units held decreased for both Tanner fisheries and remained the same for the St. Matthew fishery in comparison to the number of units held at the time of the 5-year program review.

- **Wasilla:** Direct participation in the rationalized crab fisheries by Wasilla resident owned vessels was confined to a single year post-rationalization and local processing was confined to a single year pre-rationalization. The most substantial participation indicated in the database for Wasilla has been through holding catcher vessel owner quota, all of which was obtained after initial allocation and the most of which, by far, was obtained after the time of the 5-year program review. Similarly, Wasilla is shown in the database as the community of attribution for some catcher processor owner quota shares, all of which were obtained after the 5-year program review. Importantly, the large majority of these catcher vessel owner quota units and all of these catcher processor owner quota units are held by wholly owned subsidiaries of the St. Paul CDQ entity. The type and amount of catcher vessel crew quota held by Wasilla residents is unchanged from what was held at the time of the 5-year program review.

    - One vessel listed as owned by a Wasilla resident fished in the Bristol Bay red king crab, the Bering Sea snow crab, and the EBS Tanner fisheries in 2009/2010 (after rationalization). No other Wasilla resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. Processing of Bering Sea snow crab occurred at one Wasilla plant in 1998, but no other Wasilla plant processed any crab species included in the rationalization program during 1998–2014/2015 before or after rationalization.

    - No Wasilla residents received initial allocation catcher vessel owner quota shares in any of the rationalized crab fisheries, but by the time of the 5-year program review (2010/2011) one Wasilla resident held catcher vessel owner quota in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries.[96] As of the 2015/2016 allocative process (the most recent available data), either one or two Wasilla residents/Wasilla-based entities owned catcher vessel owner shares in every crab fishery included in the rationalization program and the number of quota units held in each of the fisheries held at the time of the 5-year program review had increased substantially. As noted elsewhere, this substantial increase in Wasilla-based catcher vessel owner quota units is the result of attributing quota held by 57 Degrees North, LLC, a CBSFA subsidiary, to a Wasilla address.[97] The number of quota units held by the other unique Wasilla address quota holder at the time of the 2015/2016 IFQ allocation process were the same as seen at the time of the 5-year program review, while 57 Degrees North had come to own 96.6 percent of all Bristol Bay red king crab catcher vessel owner quota units and 98.3

[96] The current (1998–2014/2015) version of the dataset shows a second entity, Multi-Species Development Holding, LLC, a CBSFA CDQ group subsidiary, as also holding a very small number of catcher vessel owner quota units (111 units) in 2010/2011 that were also attributed to Wasilla. This change is not material to potential impacts to Wasilla (it is less than one percent of the Wasilla catcher vessel owner quota holdings in that year). As of the 2015/2016 IFQ allocation process, this quota was held by another CBSFA subsidiary, St. Paul Fishing Company, and was based out of St. Paul, reversing the pattern of movement of 57 Degrees North catcher vessel owner quota seen between the time of the 5-year program review and this 10-year program review.

[97] As noted elsewhere, 57 Degrees North received an initial allocation of catcher vessel owner quota, all of which was attributed to Edmonds, Washington. Over the years, the amount of quota held by 57 Degrees North has increased; at the time of the 5-year program review it was attributed to St. Paul in the data, before more recently being attributed to Wasilla.

percent of all Bering Sea snow crab catcher vessel owner quota units with a Wasilla address.

- One Wasilla resident received initial allocations of catcher vessel crew quota shares in each of the Bristol Bay red king crab, EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries. At the time of the 5-year program review and as of the 2015/2016 allocative process, the number of unique quota holders and the number of quota share units held by Wasilla residents had not changed from initial allocation levels.

- No Wasilla residents received initial allocation catcher processor owner quota shares in any of the rationalized crab fisheries, and no Wasilla resident owned any at the time of the 5-year program review (2010/2011). More recently however, as of the 2015/2016 IFQ allocation process, one unique entity with a Wasilla address owned catcher processor owner shares in the Bristol Bay red king crab, the Bering Sea snow crab, the EBS Tanner, and the WBS Tanner fisheries. It is important to note, however, that these shares are held by 57 Degrees North, LLC, a subsidiary of the CBSFA CDQ group, not an individual Wasilla resident or a Wasilla-based independent private fishing entity.

- **Valdez:** Direct participation in the relevant crab fisheries has been limited to ownership of catcher vessel crew quota. Since the time of the 5-year program review, the number of owners is unchanged, but the number of quota units held has increased substantially.

  - No Valdez resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No rationalized crab was processed in the community during 1998–2014/2015 before or after rationalization.

  - No Valdez residents received initial allocations of catcher vessel owner quota in any of the rationalized crab fisheries, nor was any catcher vessel owner quota held at the time of the 5-year program review or at the time of the 2015/2016 allocative process.

  - One Valdez resident received initial allocations of catcher vessel crew shares in the Bristol Bay red king crab, EBS Tanner, WBS Tanner, and St. Matthew Island blue king crab fisheries, but at the time of the 5-year program review no Valdez residents held any catcher vessel crew quota units in any of the rationalized crab fisheries except for the St. Matthew Island blue king crab fishery (with the number of units held remaining unchanged from initial allocation). As of the 2015/2016 IFQ allocation process (the most recent available data), however, one Valdez resident owned catcher vessel crew quota in the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, Pribilof Islands blue and red king crab, and St. Matthew Island blue king crab fisheries and all at levels exceeding initial allocation and 5-year program review levels.

- **Seldovia:** Direct participation in the relevant crab fisheries has at a minimum included one locally owned vessel fishing in the Bristol Bay red king crab and/or Bering Sea snow

crab fisheries every year 1998–2014/2015 (although average annual participation in the Bristol Bay red king crab fishery has declined since the 5-year program review) and ownership of catcher vessel owner shares in multiple fisheries at levels that have remained constant since initial allocation and the 5-year program review.

- One Seldovia resident-owned vessel fished the Bristol Bay red king crab fishery in each of the years 1998–2004 (prior to rationalization) and one vessel fished the Bering Sea snow crab fishery in each of the years 1998–2005 (prior to rationalization). In the Bristol Bay red king crab fishery, one vessel fished four of the first five post-rationalization years; since the 5-year program review one vessel fished in 2010/2011 and 2011/2012, but not in the most recent three years. In the Bering Sea snow crab fishery, one Seldovia resident-owned vessel fished post-rationalization year 2005/2006 through 2014/2015 except for 2012/2013. One Seldovia resident-owned vessel also participated in the WBS Tanner fishery in two post-rationalization years (2006/2007 and 2013/2014). No other Seldovia resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No crab included in the rationalization program was processed in Seldovia during period 1998–2014/2015 before or after rationalization.

- One Seldovia resident received initial catcher vessel owner quota shares in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries and at the time of the 5-year program review, the number of unique quota holders and the number of quota share units held had not changed from initial allocation levels. At the time of the 2015/2016 IFQ allocation process, the number of unique quota holders and the number of quota share units held remained unchanged.

- No Seldovia residents received initial allocations of catcher vessel crew quota in any of the rationalized crab fisheries, nor was any catcher vessel crew quota held by residents at the time of the 5-year program review or at the time of the 2015/2016 IFQ allocation process.

- **Anchorage:** Annual average participation by Anchorage resident-owned catcher vessels increased since the time of the 5-year program review in six of the seven relevant crab fisheries and remained the same in the Bristol Bay red king crab fishery. In each case, except the Bristol Bay red king crab fishery, annual average participation in the second 5 post-rationalization years was higher than during the pre-rationalization years covered by the dataset. Anchorage ownership of catcher vessel owner shares, which had substantially increased over initial allocation by the time of the 5-year program review, has continued to substantially increase, largely due to attribution of a number of CDQ group holdings to Anchorage in the dataset. With the exception of the St. Matthew Island blue king crab fishery, the number of holders of catcher vessel crew quota has increased since the 5-year program review, as have the number of quota units held. The ownership of catcher processor owner shares attributed to Anchorage in the database in the Bristol Bay red king, Bering Sea snow, EBS Tanner, and WBS Tanner crab fisheries greatly increased between initial allocation and the time of the 5-year program review, and increased greatly yet again between the 5-year program and the 2015/2016 IFQ allocation process.

All of these catcher processor owner shares were owned by CDQ entities, not individual Anchorage residents or Anchorage-based independent private business entities. Additionally, four CDQ entities using Anchorage addresses owned all, or nearly all, of the catcher processor owner quota in the WAI golden, St. Matthew Island blue, and WAI red king crab fisheries at the time of the 2015/2016 IFQ allocation process (despite holding no quota in any of these fisheries at initial allocation or at the time of the 5-year program review).

- Between five and seven catcher vessels listed as owned by Anchorage residents fished the Bristol Bay red king crab fishery in each of the years 1998–2004 (prior to rationalization) and five or six vessels listed as owned by Anchorage residents fished the Bering Sea snow crab fishery in each of the years 1998–2005 (prior to rationalization. During the first 5 post-rationalization years, two vessels listed as owned by Anchorage residents fished the Bristol Bay king crab fishery the first year and four vessels fished each of the other four years. Since the time of the of the 5-year program review, four vessels fished three years and three vessels fished two years, resulting in the same annual average participation during the first five post-rationalization years and second five post-rationalization years. During the first 5 post-rationalization years, one vessel listed as owned by an Anchorage resident fished the Bering Sea snow crab fishery the first year and between four and six vessels fished each of the other four years. Since the time of the of the 5-year program review, six vessels fished three years, seven vessels fished one year, and eight vessels fished one year, resulting in a higher annual average participation during the second five post-rationalization years than was the case during either the pre-rationalization years or the first 5 post-rationalization years covered by the 5-year program review.

- One catcher vessel listed as owned by an Anchorage resident fished in the EAI golden king crab fishery each year 1998 through 2004 (prior to rationalization); during the first 5 post-rationalization years one vessel listed as owned by an Anchorage resident fished in this fishery in 2008/2009 and 2009/2010, while none did so in the other 3 years. During the second 5 post-rationalization years, one Anchorage resident-owned vessel participated in this fishery each year, resulting in an annual average participation during the second five post-rationalization years that was equal to that of the pre-rationalization years and higher than that of the first 5 post-rationalization years. One vessel listed as owned by an Anchorage resident fished in the WAI golden king crab fishery in 1998, 2000, and 2001 (prior to rationalization); during the first 5 post-rationalization years, one vessel listed as owned by an Anchorage resident has fished in this fishery in 2009/2010, and none did so the other four years. During the second 5 post-rationalization years, two Anchorage resident-owned vessel participated in this fishery three of the five years while two did so in the other two years, resulting in a higher annual average participation during the second five post-rationalization years than was the case during either the pre-rationalization years or the first 5 post-rationalization years.

- Annual average participation by catcher vessels owned by Anchorage residents during the second 5 post-rationalization years has increased over annual average

participation in the first 5 post-rationalization years in the EBS Tanner, WBS Tanner, and St. Matthew Island blue king crab fisheries. No Anchorage resident-owned vessels participated in these fisheries in the pre-rationalization years covered by the dataset, and none did so in the first 5 post-rationalization years in the EBS Tanner and St. Matthew Island blue king crab fisheries.

- Of the 10 catcher vessels that fished in the BSAI crab fisheries included in the rationalization program in any year 1998 through 2014 that had Anchorage resident ownership and resident ownership in another Alaska community during that time, nine came from other Alaska communities to Anchorage and two went from Anchorage to other Alaska communities.

    - Of the nine that came from other Alaska communities to Anchorage, six came from Kodiak directly or indirectly, while two came from Homer and one from Seward. Of the four vessels that came directly to Anchorage from Kodiak, one moved between 2007 and 2008, one moved between 2009 and 2010, and one moved between 2012 and 2013; the other had a gap in its activity, having last fished under Kodiak ownership in 1999 and next fishing under Anchorage ownership in 2012. Of the two vessels that came indirectly from Kodiak to Anchorage, one last fished under Kodiak resident ownership in 2001 and after intermediate ownership out of state, is first shown under Anchorage ownership in 2006; the other last fished under Kodiak ownership in 2008 and then fished under Kenai ownership 2009 through 2013 before showing up as Anchorage resident owned in 2014. Of the two vessels that came from Homer to Anchorage, one transitioned from Homer to Anchorage ownership between 2004 and 2005, while the other did so between 2002 and 2003. The vessel that transitioned from Seward to Anchorage ownership did so between 2000 and 2001. In sum, while there has been consolidation of vessels from some smaller Alaska communities into the larger community of Anchorage, the few communities involved (Kodiak, Homer, and Seward) are relatively large by Alaska standards and have relatively diversified fleets and/or relatively diversified local economies.

    - Of the two vessels that had Anchorage resident ownership that then went to other Alaska communities, one transitioned from Anchorage to Kenai ownership between 2013 and 2014. The other last fished under Anchorage ownership in 2004, is showing as being owned out of state in 2005, appears under Kodiak ownership[98] from 2007 through 2009, and then is shown under Homer ownership from 2010 through 2014.

- Multiple Anchorage residents received initial catcher vessel owner quota shares in all rationalized fisheries (with up to eight unique quota holders per fishery) except for the EAI golden king crab and WAI golden king crab fisheries (in which no Anchorage residents held initial quota allocations). By the time of the 5-year program review (2010/2011), individuals and entities with Anchorage addresses

[98] See *Kodiak New Vessel C* in Section 1.3.4.

had come to hold catcher vessel owner quota in all of the rationalized crab fisheries and had increased the number of unique quota holders and the amount of quota units held in all of the rationalized fisheries, easily becoming the largest concentration of catcher vessel owner quota held in Alaska outside of Kodiak for most of the fisheries, and surpassing Kodiak in a few of the fisheries. By the 2015/2016 IFQ allocation process, the number unique holders of catcher vessel owner quota with Anchorage addresses remained the same or increased for all relevant crab fisheries over what was seen at the time of the 5-year program review; the amount of quota units increased for all relevant crab fisheries and geographies, except for the EAI golden king crab fishery, where the number of quota units held remained the same.

It is important to note, however, that a very large proportion of the Anchorage ownership of catcher vessel owner quota share units acquired since initial allocation actually consists of ownership by CDQ groups with offices (and addresses) in Anchorage, and not of ownership by individual Anchorage residents or small-scale Anchorage-based private fishing firms. At the time of the 5-year program review (2010/2011), for example, in the Bristol Bay red king crab fishery, Coastal Villages Region Fund held 54 percent of all the catcher vessel owner quota share units listed as held in Anchorage, while the Yukon Delta Fisheries Development Association and the Norton Sound Economic Development Corporation held 20 and 3 percent, respectively. Together, these three CDQ entities accounted for approximately 77 percent of all Bristol Bay red king crab catcher vessel owner quota held in Anchorage. Among Anchorage address initial allocation quota holders (none of which were CDQ groups), three of the original eight held no quota by 2010/2011, two held fewer quota share units, two held the same number of quota share units, and one increased the number of quota share units held. Similarly, in the Bering Sea snow crab fishery, in 2010/2011 the Coastal Villages Region Fund held 47 percent of all the catcher vessel owner quota share units listed as held in Anchorage, while the Yukon Delta Fisheries Development Association and the Norton Sound Economic Development Corporation held 21 and 6 percent, respectively. Together, these three CDQ entities accounted for approximately 74 percent of all Bering Sea snow crab catcher vessel owner quota held in Anchorage. None of these CDQ groups held any catcher vessel owner quota shares at the time of initial allocation. Among Anchorage initial allocation catcher vessel owner quota holders (none of which were CDQ groups), two of the original eight held no quota by 2010/2011, two held fewer quota share units, four held the same number of quota share units as at initial allocation, and none increased the number of quota share units held. Additionally, there was one new Anchorage non-CDQ catcher vessel owner quota share holder by 2010/2011.

More recently, at the time 2015/2016 IFQ allocation process, the proportion of Bristol Bay red king crab catcher vessel owner quota share units attributed to Anchorage (based on holder supplied addresses) that were held by the Coastal Villages Region Fund had decreased to 43 percent, while the Yukon Delta Fisheries Development Association and Norton Sound Economic Development Corporation held increased 25 and 16 percent, respectively. Together, these three

CDQ entities accounted for approximately 84 percent of all Bristol Bay red king crab catcher vessel owner quota held in Anchorage. Among Anchorage address initial allocation quota holders, by the time of the 2015/2016 IFQ allocation process, four of the original eight held quota in Anchorage, with a fifth holding quota in Holualoa (HI). Of the four remaining quota holders in Anchorage, two held fewer quota share units, one held the same number of quota share units, and one increased the number of quota share units held. With regard to the Bering Sea snow crab fishery as of the 2015/2016 IFQ allocation process, Coastal Villages Region Fund held 37 percent of all the catcher vessel owner quota share units listed as held in Anchorage, while the Yukon Delta Fisheries Development Association and the Norton Sound Economic Development Corporation held 27 and 19 percent, respectively. Together, these three CDQ entities accounted for approximately 83 percent of all Bering Sea snow crab catcher vessel owner quota held in Anchorage. Among the eight initial allocation quota holders Anchorage addresses, three were remaining in Anchorage in 2015/2016; all three held fewer quota shares. Additionally, there were four new non-CDQ catcher vessel owner quota shareholders since the initial allocation and three new holders since 2010/2011.

- Multiple Anchorage residents received initial allocation catcher vessel crew quota shares in the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, St. Matthew Island blue king crab, and Pribilof Islands blue and red king crab fisheries, along with one resident receiving initial allocation catcher vessel crew quota shares in the EAI golden king crab) fishery. By the time of the 5-year program review (2010/2011), however, the number of quota holders and quota share units held had dropped to zero for the EAI golden king crab and the Pribilof Islands blue and red king crab fisheries; the number of unique quota holders and quota units held had declined in the Bristol Bay red king crab and Bering Sea snow crab fisheries, and in St. Matthew Island blue king crab fishery the number of unique quota holders increased by one, but the number of quota share units held declined over this period. In the EBS Tanner and WBS Tanner fisheries, the number of unique quota holders declined, but the number of quota share units held by Anchorage residents increased somewhat. As of the 2015/2016 IFQ allocation process (the most recent available data), the number of unique quota holders and the number of quota units held by Anchorage residents increased over 5-year program review levels for all fisheries in which Anchorage residents held catcher vessel crew quota, with the exception of the St. Matthew Island blue king crab fishery where holdings dropped to zero. Additionally, Anchorage residents acquired quota in the Pribilof Islands blue and red king crab fishery, none of which was held at the time of the 5-year program review.

- In terms of catcher processor owner quota, Anchorage appears in the dataset as being a location of ownership from initial allocation through the most recent (2015/2016) IFQ allocation process, with all ownership being exclusively attributable to CDQ entities using Anchorage business addresses, rather than to individual Anchorage residents or independent Anchorage-based private enterprises. One unique CDQ entity (Norton Sound Economic Development Corporation, through its wholly owned subsidiary Norton Sound Investment

Company, LLC) using an Anchorage business received initial allocations of catcher processor owner quota in the Bristol Bay red king crab, the Bering Sea snow crab, the EBS Tanner, and the WBS Tanner fisheries. At the time of the 5-year program review (2010/2011), two unique entities with Anchorage business addresses (both of which were CDQ groups, the Norton Sound Economic Development Corporation and the Coastal Villages Region Fund) held catcher processor owner quota in each of these same fisheries and the number of quota units held in each fishery greatly increased over what was seen at initial allocation. At initial allocation, Anchorage-based holdings ranged between 3.5 and 4.4 percent of all catcher processor owner shares for each fishery; by the time of the 5-year program review (2010/2011) these values ranged between 11.4 and 18.2 percent. More recently, as of the 2015/2016 IFQ allocation process, the number of holders of catcher processor owner quota using Anchorage addresses increased to 4 unique entities, all of which were CDQ groups (the Norton Sound Economic Development Corporation, the Coastal Villages Region Fund, the Yukon Delta Fisheries Development Association, and KDS, Inc., a subsidiary of the Norton Sound Economic Development Corporation). In the same fisheries for which quota was held at the time of the 5-year program review, the number of quota units held increased greatly, and quota was additionally (newly) held in the St. Matthew Island blue and WAI red king crab fisheries, with Anchorage-attributed quota now accounting for between 31.3 and 100 percent of the total quota in each of the relevant fisheries.

- One unique Anchorage resident received initial allocations of catcher processor crew quota in the EBS Tanner and the WBS Tanner fisheries. At the time of the 5-year program review (2010/2011), no Anchorage residents are shown in the data as holding any catcher processor crew quota in any of the rationalized crab fisheries. As of the 2015/2016 IFQ allocation process, however, one unique Anchorage resident again held catcher processor crew quota in the same fisheries and held the same number of quota units as were held at the time of initial allocation.

- No shore-based processing of crab species included in the rationalization program occurred in Anchorage during 1998–2014/2015, before or after rationalization.

- **Homer:** Annual average participation by Homer resident-owned catcher vessels increased since the time of the 5-year program review in all five of the relevant crab fisheries in which the community participated either before or after rationalization, although in the Bristol Bay red king crab and Bering Sea snow crab fisheries, annual average participation remained lower than during the pre-rationalization years covered by the dataset. With the exception of the Bristol Bay red king crab fishery, catcher vessel owner quota units held by Homer residents have remained the same or increased since the time of the 5-year program review. Catcher vessel crew quota units held by Homer residents have generally declined since the time of the 5-year program review, but with few exceptions remain equal to or greater than the number of quota units held at initial allocation.

- Between nine and five catcher vessels listed as owned by Homer residents fished the Bristol Bay red king crab fishery in each of the years 1998–2004 (prior to rationalization) and between eight and three vessels listed as owned by Homer residents fished the Bering Sea snow crab fishery in each of the years 1998–2005 (prior to rationalization), with the specific numbers per year decreasing over these time spans. During the first 5 post-rationalization years, three or four vessels listed as owned by Homer residents fished the Bristol Bay king crab fishery each year, while during the second 5 post-rationalization years between four and six vessels did so. During the first 5 post-rationalization years, between two and five vessels listed as owned by Homer residents fished in the Bering Sea snow crab fishery each year, while during the second 5 post-rationalization years four or five vessels did so. For both of these fisheries, annual average participation was higher during the second 5 post-rationalization years than during the first 5 post-rationalization years, but remained lower than the annual average participation rate for the pre-rationalization years covered by the dataset.

- No Homer resident-owned catcher vessels participated in the EAI or WAI golden king crab fisheries in the years covered by the dataset, either before or after rationalization. Annual average participation by vessels owned by Homer residents during the second 5 post-rationalization years has increased over annual average participation in the first 5 post-rationalization years in the EBS Tanner, WBS Tanner, and St. Matthew Island blue king crab fisheries. No Homer resident-owned vessels participated in these fisheries in the pre-rationalization years covered by the dataset.

- Of the seven catcher vessels that fished in the BSAI crab fisheries included in the rationalization program in any year 1998 through 2014 that had Homer resident ownership and resident ownership in another Alaska community during that time, three came from other Alaska communities to Homer, one had shared ownership between Homer and another Alaska community in one year, and three went from Homer to other Alaska communities.

    - Of the three that came from other Alaska communities to Homer, all came from Kodiak. One transitioned in 2007, when ownership is shown in both communities (but is shown in Kodiak in prior years and Homer in later years); one transitioned between 2009 and 2010[99]; and the other had a gap in its activity, having last fished under Kodiak ownership in 2009 and next fishing under Homer ownership in 2013. In sum, while there has been consolidation of vessels into Homer from elsewhere in Alaska, only one community involved (Kodiak) is relatively large by Alaska standards and has a relatively diversified fleet.

    - One vessel is shown in the data as having resident ownership in both Homer and Anchor Point in 2004. This vessel is otherwise shown as having Homer resident ownership exclusively from 1998 through 2013.

[99] See *Kodiak New Vessel C* in Section 1.3.4.

- Of the three vessels that had Homer resident ownership that then went to other Alaska communities, two transitioned from Homer to Anchorage ownership, one between 2002 and 2003 and the other between 2004 and 2005. The third vessel is shown in the data as having ownership in both Homer and Sitka in 1998, in Homer exclusively from 1999 through 2001, and the Cordova resident ownership from 2002 through 2014.

- No shore-based processing of crab species included in the rationalization program occurred in Homer during 1998–2014/2015, before or after rationalization.

- Multiple Homer residents received initial catcher vessel owner quota shares in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries. By the time of the 5-year program review (2010/2011), Homer residents had come to hold catcher vessel owner quota in the St. Matthew Island blue king crab fishery as well, and had increased the number of unique quota holders and the amount of quota units held in the Bristol Bay red king crab, Bering Sea snow crab, and Pribilof Islands blue and red king crab fisheries. The number of unique Homer quota holders remained constant, but the number of quota share units held by Homer residents declined at least to some degree in the EBS Tanner, and WBS Tanner fisheries between initial allocation and the 5-year program review. By the time of the 2015/2016 IFQ allocation process, the number of quota units held had declined in the Bristol Bay red king crab fishery, but still remained above initial allocation levels (except for northern region designated units), while in the Bering Sea snow crab fishery generally increased (except for a decline in northern region designated units). Holdings of quota units also increased in the EBS Tanner and WBS Tanner fisheries, surpassing initial allocation levels. Homer resident holdings of Pribilof Islands blue and red king crab and St. Matthew Island blue king crab as of the 2015/2016 IFQ allocation process were the same as at the time of the 5-year program review.

- Multiple Homer residents received initial allocation catcher vessel crew quota shares in the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, and Pribilof Islands blue and red king crab fisheries, along with a single resident receiving initial allocation catcher vessel crew quota shares in the St. Matthew Island blue king crab fishery. By the time of the 5-year program review (2010/2011), however, Homer residents had increased both the number of unique holders and the number of quota share units held in each of the fisheries for which Homer residents received initial catcher vessel crew share allocations. As of the 2015/2016 IFQ allocation process (the most recent available data), the number of unique quota holders and the number of quota units held declined over 5-year program review levels in every fishery except the St. Matthew Island blue king crab fishery (where levels were unchanged). Except for Bristol Bay red king crab northern region designated shares and EBS Tanner and WBS Tanner, the number of quota units held remained the same or higher than the number of units held at initial allocation.

- No Homer residents received initial allocations of catcher processor crew quota in any of the fisheries included in the BSAI rationalization program, and no Homer residents held any catcher processor crew shares at the time of the 5-year program review (2010/2011). More recently, however, one unique Homer resident held catcher processor crew quota in the EBS Tanner and WBS Tanner fisheries at the time of the 2015/2016 IFQ allocation process.

Southeast Alaska Communities

- **Juneau:** Direct participation in the crab fisheries included in the rationalization program has been limited to local ownership of catcher vessel owner quota, all of which has been obtained since the time of the 5-year crab rationalization program review. This quota has been held exclusively by the Aleutian Pribilof Island Community Development Corporation CDQ group.

    - No Juneau resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No processing of crab species included in the rationalization program occurred in Juneau during 1998–2014/2015, before or after rationalization.

    - One Juneau-based entity, the Aleutian Pribilof Island Community Development Corporation, currently (2015/2016) holds catcher vessel owner quota shares in the Bering Sea snow crab, EBS Tanner, and WBS Tanner fisheries. No Juneau residents or Juneau-based entities obtained catcher vessel owner shares in any of the fisheries included in the BSAI crab rationalization program through the initial allocation process or had obtained catcher vessel owner shares in any of these fisheries by the time of the 5-year program review.

    - No Juneau residents received initial allocations of catcher vessel crew quota in any of the rationalized crab fisheries, nor did any residents hold catcher vessel crew quota at the time of the 5-year program review or as of the 2015/2016 IFQ allocation process.

- **Pelican:** Direct participation in the crab fisheries included in the rationalization program was limited to the pre-rationalization time frame, a situation that is unchanged from the time of the 5-year program review.

    - One vessel listed as owned by a Pelican resident fished Bering Sea snow crab in 1998 (prior to rationalization). No other Pelican resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No rationalized crab was processed in the community during 1998–2014/2015 before or after rationalization.

    - No Pelican residents received initial allocations of catcher vessel owner quota or catcher vessel crew quota in any of the rationalized crab fisheries, nor did any residents hold catcher vessel owner quota or catcher vessel crew quota at the time of the 5-year program review or the 2015/2016 IFQ allocation process.

- **Petersburg:** Direct participation in the crab fisheries included in the rationalization program by Petersburg resident owned vessels was limited to the pre-rationalization time frame, a situation that is unchanged from the time of the 5-year program review. Petersburg residents were direct participants in the fisheries through holding catcher vessel owner and catcher vessel crew quota, although the number of quota units held for both owners and crew have generally declined since the time of the 5-year program review.

    - Four vessels listed as owned by Petersburg residents fished the Bristol Bay red king crab and Bering Sea snow crab fisheries each year from 1998 through 2002 and two vessels each fished each of the remaining pre-rationalization years (2003 and 2004 for Bristol Bay red king crab and 2003 through 2005 for Bering Sea snow crab). No other Petersburg resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No rationalized crab was processed in the community during 1998–2014/2015 before or after rationalization.

    - Three Petersburg residents received initial catcher vessel owner quota shares in each of the Bering Sea snow crab, EBS Tanner, and WBS Tanner fisheries; two Petersburg residents received initial catcher vessel owner quota in the Bristol Bay red king crab fishery; and one Petersburg resident received an initial allocation in the St. Matthew Island blue king crab fishery. At the time of the 5-year program review, one Petersburg resident held quota in the Bristol Bay red king crab fishery and the number of quota share units held in this fishery declined substantially. For the Bering Sea snow crab, EBS Tanner, and WBS Tanner fisheries, however, the number of unique quota holders increased by one, while the number of quota share units held remained the same. For the St. Matthew Island blue king crab fishery, the number of unique quota holders decreased by one, but the number of quota share units held was the same in 2010/2011 as at the time of initial allocation. As of the 2015/2016 IFQ allocation process (the most recent available data), the number of unique quota holders and the number of quota units held remained the same for Bristol Bay red and St. Matthew Island blue king crab, but the number of quota holders declined from four to two for Bering Sea snow crab and from four to three for EBS Tanner and WBS Tanner and the number of quota units held declined as well from numbers seen at the time of the 5-year program review.

    - One Petersburg resident received initial catcher vessel crew quota shares in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, and WBS Tanner fisheries. At the time of the 5-year program review, two Petersburg residents held catcher vessel crew quota shares in each of these fisheries and the number of quota share units held by Petersburg residents increased substantially in each of these fisheries. One Petersburg resident had also come to hold St. Matthew Island blue king crab catcher vessel crew quota at the time of the 5-year program review. By the time of the 2015/2016 IFQ allocation process, one unique quota holder remained in each of the same fisheries with decreases in quota units held for each fishery since the time of the 5-year program review, with the exception of the St. Matthew Island blue king crab fishery, where the number

of quota holders and quota units held remained the same as seen at the time of the 5-year program review. Among the other fisheries for which catcher vessel crew quota was held, as of the 2015/2016 IFQ allocation process, more quota units were held by Petersburg residents in the Bristol Bay red king crab, EBS Tanner, and WBS Tanner (along with St. Matthew Island blue king crab) fisheries than were held at initial allocation, while the opposite was true for the Bering Sea snow crab fishery.

- **Sitka:** Direct participation in the crab fisheries included in the rationalization program was limited to resident-owned vessels in pre-rationalization years and an initial allocation of catcher vessel crew quota to one unique holder. At the time of the 5-year program review, no quota remained in the community, which was also the situation at the time of the 2015/2016 IFQ allocation process.

    - One or two vessels listed as owned by Sitka residents fished the Bristol Bay red king crab and Bering Sea snow crab fisheries each year from 1998 through 2004 (prior to rationalization). No other Sitka resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. Processing of Bristol Bay red king crab occurred at one Sitka plant in 2005/2006 (after rationalization), but no other Sitka plant processed any rationalized crab during 1998–2014/2015 before or after rationalization.

    - No Sitka residents received initial allocations of catcher vessel owner quota in any of the rationalized crab fisheries, nor was any catcher vessel owner quota held by residents at the time of the 5-year program review.

    - One Sitka resident received initial allocation catcher vessel crew quota in the EBS Tanner and WBS Tanner fisheries. At the time of the 5-year program review, however, no Sitka residents held catcher vessel crew quota in any of the rationalized crab fisheries, a situation that was unchanged at the time of the 2015/2016 IFQ allocation process.

- **Yakutat:** Direct participation in the crab fisheries included in the rationalization program by Yakutat resident owned vessels was limited to the pre-rationalization time frame, a situation that is unchanged from the time of the 5-year program review. Yakutat residents were direct participants in multiple rationalized crab fisheries through holding catcher vessel owner quota, and number of quota units held has not changed since the time of the 5-year program review.

    - One vessel listed as owned by a Yakutat resident fished Bristol Bay red king crab 6 out of the 7 years from 1998 through 2004 (prior to rationalization) and one vessel listed as owned by a Yakutat resident fished Bering Sea snow crab 6 out of the 8 years from 1998 through 2005 (prior to rationalization). No other Yakutat resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No rationalized crab was processed in the community during 1998–2014/2015 before or after rationalization.

- One Yakutat resident received initial catcher vessel owner quota shares in each of the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, WBS Tanner, and St. Matthew Island blue king crab fisheries. The number of unique quota holders did not change in any of these fisheries between the time of initial allocation and 5-year program review (2010/2011). At the time of the 5-year program review, however, the number of locally held quota share units in the Bristol Bay red king crab fishery had declined substantially, but for all of the other fisheries for which Yakutat residents received initial quota allocations, the number of quota share units held were the same as they had been at the time of initial allocation. At the time of the 2015/2016 IFQ allocation process, the number of catcher vessel owner quota holders and the number of quota units held was the same in all fisheries as it was at the time of the 5-year program review.

- No Yakutat residents received initial allocations of catcher vessel crew quota in any of the rationalized crab fisheries, nor were any catcher vessel crew quota units held by residents at either the time of the 5-year program review or the 2014/2015 IFQ allocation process.

- **Ketchikan:** Direct participation was limited to resident-owned vessels fishing every year prior to rationalization and two of the first five post-rationalization years; no Ketchikan owned vessels have fished in any of the relevant fisheries since the time of the 5-year program review.

    - One vessel listed as owned by a Ketchikan resident fished the Bristol Bay red king crab fishery in each of the years 1998–2004 (prior to rationalization) and one vessel listed as owned by a Ketchikan resident fished the Bering Sea snow crab fishery in each of the years 1998–2005 (prior to rationalization). One vessel listed as owned by a Ketchikan resident fished in the Bristol Bay red king crab, Bering Sea snow crab, EBS Tanner, and WBS Tanner fisheries during the 2006/2007 and 2007/2008 seasons (with the first 5 years after rationalization). No other Ketchikan resident-owned vessels fished any of the rationalized crab fisheries during 1998–2014/2015 before or after rationalization. No rationalized crab was processed in the community during 1998–2014/2015 before or after rationalization.

    - No Ketchikan residents received initial allocations of catcher vessel owner quota or catcher vessel crew quota in any of the rationalized crab fisheries, nor did any residents hold catcher vessel owner quota or catcher vessel crew quota at the time of the 5-year program review or the 2015/2016 IFQ allocation process.

In summary, there have clearly been different outcomes for different regions and communities with respect to engagement patterns as measured by resident vessel ownership, local processing activity, catcher vessel owner share holdings, and catcher vessel crew share holdings.

With respect to the literature on the subject, a recent article explored the impacts to smaller Alaskan communities as a result of the development of transferable fishing privilege programs, including the BSAI crab rationalization program (Himes-Cornell and Hoelting 2015). The authors discussed how rationalization programs make it possible for fishing rights to leave place-

based communities through individual community members either selling their quota or moving away. Over time, they suggested, the human, social, cultural, technical, and financial capital of the community can erode for these communities if they are not able to find an alternative to a fishery-based economy. Those communities disproportionately affected seem to have been smaller, predominantly Alaska Native villages, with consolidation of fishing rights occurring in those communities where highly successful fishing business were already located or possess, "a highly entrepreneurial value system." The authors identified a number of existing government, private-sector, and community-based programs and fishery management plan community protection features that function to decrease vulnerability, increase resilience, and provide increased fishery access opportunities to smaller communities that would otherwise be adversely (or more adversely) affected by changes in fishery regulations, including the CDQ program and geographic landing requirement-oriented community protection management plan features.

It should be noted, however, that the communities that benefit from these types of programs are not always the same communities, in whole or in part, that may experience the greatest adverse impacts from a particular fisheries management change, e.g., King Cove experienced a loss of locally available vessels that provided multiple crew opportunities, did not benefit from any of the regional landing requirements under the crab rationalization program nor, despite being an ANCSA community with a relatively high proportion of Alaska Native residents, did it qualify for inclusion in the CDQ program. The latter was due to its not being located on the Bering Sea coast; it was also disqualified by the fact that it was home to "previously developed harvesting or processing capability sufficient to support substantial groundfish participation in the BSAI," the absence of which was one of the qualifying criteria at the time of the implementation of the CDQ program.

A larger analysis of various catch share programs around the U.S. found that while most programs experienced a decline in the number of entities holding shares, the number entities holding shares in the BSAI crab rationalization program increased (Brinson and Thunberg 2016). A calculation and comparison of revenue distribution of active vessels found that half of the programs (including the BSAI crab rationalization program) resulted in a pattern of more evenly distributed revenue among active vessels compared to a pre-program baseline period. In summary, the authors stated that the economic effects from catch share fisheries have generally improved but that consolidation rates have been identified as an issue for some programs. They note that the accumulation of shares through *purchasing* did not seem to be a concern but that the consolidation in the use of quota (facilitated at least in part by *leasing*) has led to high consolidation rates.

Crew Employment Participation

In addition to communities directly participating in the rationalized crab fisheries through vessel ownership, catcher vessel owner quota ownership, and catcher vessel crew quota ownership, communities also participate through crew employment. It is known that catcher vessel crab crew members were and are dispersed among multiple Alaska communities. Given the lack of reliable crew information for the years before the implementation of the rationalization program, however, it is not possible to say whether the pre- to post-implementation patterns of change directly mirror those for vessels or follow their own pattern.

For the post-implementation years, consistently collected crab crew participation data by geography are available and provide a useful means for looking at distributional changes that have occurred from 2006 through 2014. These data are available from EDRs and, in addition to the distribution by Alaska community as noted in the summaries above, year by year information for post-rationalization program implementation era are provided in the tables in Attachment 3. The following are some general notes/caveats about these data:

- Both in the summary community discussions above and in the tables in Attachment 3, "crew" refers to distinct ADFG Commercial Crew license holders and "captain" refers to distinct CFEC Gear Operator permit numbers, respectively, as reported in EDR records.

- "Crew" counts include non-captain crew members only; "Captain" counts include crab vessel captains, but may also include crew members who hold a CFEC permit in lieu of an ADFG crew license but did not act as captain of the crab vessel. In other words, non-captain crew may be under-counted and captains may be over-counted, but when added together, the total number of fishing personnel on the vessels should be accurate.

- Data are also available regarding Alaska residency status for crew. A "Non-Resident" crew license does not necessarily mean that the holder is not an Alaska resident, but it does mean that whoever paid for the permit didn't claim residency in the application and therefore paid the substantially higher non-resident license fee.

- Caution in interpretation of assigned communities in the data is also warranted, as anecdotal information would suggest that in some cases, skippers/vessel owners buy crew permits for some or all of their crew rather than leave the responsibility with the crew members, which may affect the address on the crew license (e.g., it could be the port where the permits are purchased and the crew joins the vessel), but the prevalence of this type of purchase is unknown. In the case of Unalaska/Dutch Harbor, the numbers of crew members reported in the EDR data with Unalaska/Dutch Harbor address are higher than would have been expected from interviews conducted with community leaders knowledgeable about the local fishing industry and with commercial fishermen from the community. It is may be that part of this apparent disconnect is due to even relatively well-informed long-term residents of the community not knowing how many shorter-term residents of the actually work on crab vessels, or it may be that transient crew from elsewhere who work out of Unalaska/Dutch Harbor simply use an Unalaska/Dutch Harbor address on their license. A full analysis of this issue was beyond the scope of the present undertaking, especially considering that comparable pre-rationalization crew employment data are not available.

- Address information for CFEC permits is considered to be much better than ADFG crew licenses given the durability of the permits, and the CFEC counts are thus considered more accurate than the ADFG counts.

Overall, for both Alaska and Washington, at the state level the annual average number of crew declined from 2006–2010 to 2011–2014, as did the number of captains; regional differences within each state, however, were more or less apparent (see Table A3-1).

- In Alaska, annual averages for numbers of crew decreased between the 2006–2010 period and the 2011–2014 period in the Aleutian/Pribilof and Southeast Alaska regions, but increased in all other Alaska regions; the annual average number of captains decreased for every Alaska region. For the state as a whole, including all crew members using an Alaska address on their crew license (that is, both Alaska residents and Alaska non-residents who used an Alaska address on their crew license), Alaska averaged 191.2 and 178.5 crew members annually in 2006–2010 and 2011–2014, respectively, and 44.0 and 41.5 captains annually in 2006–2010 and 2011–2014, respectively.

- In Washington, the annual average number of crew members remained essentially unchanged between the two periods in both the Seattle MSA and the rest of the state, while the annual average number of captains declined. For the state as a whole, Washington averaged 195.8 and 180.0 crew members annually in 2006–2010 and 2011–2014, respectively, and 75.6 and 68.8 captains annually in 2006–2010 and 2011–2014, respectively.

Inside the Alaska regions, a number of different patterns are seen (Tables A3-2 through A3-6).

- In the Aleutian/Pribilof region, in every community where the average number in either the crew or captain category in either time period is greater than one, the average number of crew members and captains declined between 2006–2010 and 2011–2014. Well over half of the Alaska resident crew in the region had Unalaska/Dutch Harbor addresses in both periods (an annual average of 24.8 and 16.5 crew members had Unalaska/Dutch Harbor addresses in the two periods, respectively); the other communities in the region averaging more than one Alaska resident crew member annually in either period were King Cove (averaging 5.2 and 2.0 crew in 2006–2010 and 2011–2014, respectively), Sand Point (averaging 2.8 and 1.3 crew in 2006–2010 and 2011–2014, respectively), and Akutan (averaging 2.4 and 1.0 crew in 2006–2010 and 2011–2014, respectively). The other communities in the region with any Alaska resident crew representation in the data were Adak, with one crew member in 2008 and 2014, and St. Paul, with three crew members in 2014. For the region as a whole, the Aleutian/Pribilof region averaged 35.4 and 21.8 Alaska resident crew members annually in 2006–2010 and 2011–2014, respectively, and 5.8 and 3.0 Alaska resident captains annually in 2006–2010 and 2011–2014, respectively.

- In the Bering Sea region, average annual crew participation increased between the two periods for every CDQ group across the board, but with relatively few individuals engaged, small changes make big percentage differences. Half or over half of the Alaska resident crew in the region in either time period were from the Coastal Villages Region Fund group of villages (with an annual average of 4.6 and 10.3 crew members in the two periods, respectively). The Bristol Bay Economic Development Corporation communities averaged 2.4 and 3.0 Alaska resident crew members annually for the two respective periods, while the analogous annual averages for Norton Sound Economic Development communities were 0.8 and 1.8. During the overall 2006–2014 period, the Yukon Delta Fisheries Development Association communities had one Alaska resident crew member in 2007 and 2011 only. The Alaska resident captains in the region were in the Bristol Bay Economic Development Corporation area (one captain in 2008, 2009, and 2013) and the Norton Sound Economic Development Corporation area (one captain in 2008, 2009, and

2014). For the region as a whole, the Bering Sea region averaged 8.0 and 15.3 Alaska resident crew members annually in 2006–2010 and 2011–2014, respectively, and 0.8 and 0.5 Alaska resident captains annually in 2006–2010 and 2011–2014, respectively.

- In the Kodiak Island Borough region, participation is highly concentrated in the city of Kodiak, with annual average number of Alaska resident crew increasing between the two time periods (an annual average of 51.0 and 55.3 crew for 2006–2010 and 2011–2014, respectively) and the annual average number of captains remaining about the same (16.8 and 17.0, respectively). Within the borough outside of the City of Kodiak, only Chiniak and Old Harbor averaged more than one Alaska resident crew member in either time period (Chiniak had 1.3 crew members annually over the period 2011–2014, while Old Harbor had 1.2 crew members annually over the period 2006–2010). The other communities in the borough with any crew representation in the data were Ouzinkie, Port Lions, and Seal Bay, which each had one Alaska resident crew member participate in one year during the entire combined period 2006–2014 (2014, 2011, and 2006, respectively). For the region as a whole, the Kodiak Island Borough region averaged 52.4 and 57.3 Alaska resident crew members annually in 2006–2010 and 2011–2014, respectively, and 16.8 and 17.0 Alaska resident captains annually in 2006–2010 and 2011–2014, respectively.

- In the South-Central region, participation is highly concentrated in Anchorage and Homer, with annual average number of crew increasing slightly between the two time periods and the annual average number of captains decreasing somewhat. Anchorage averaged 31.4 and 31.8 Alaska resident crew members annually in 2006–2010 and 2011–2014, respectively, with the analogous figures for Homer being 21.4 and 18.5 crew members, respectively. Other communities in the region annually averaging more than two Alaska resident crew members in both time periods were Anchor Point, Kenai, Soldotna, and Wasilla; none of these communities averaged more than five crew members annually in either time period. Regional communities that averaged more than one Alaska resident crew member in the years 2006–2010 or 2011–2014 (or both) were Kasilof, Seldovia, and Sterling; none of these communities averaged more than five crew members in either time period. Fritz Creek had one crew member in five out of the nine years 2006–2014; the other communities in the region with one crew member in at least one but no more than three years during 2006–2014 were Big Lake, Chignik, Chignik Lake, Chugiak,[100] Cooper Landing, Ninilchik, Talkeetna, Tatitlik, and Valdez. In terms of Alaska resident captains, Anchorage averaged 7.6 and 7.3 Alaska resident captains annually in 2006–2010 and 2011–2014, respectively, with the analogous figures for Homer being 8.4 and 7.8 captains, respectively. The only other South-Central communities with any Alaska resident captains in the years 2006 through 2014 were Anchor Point, Kasilof, Seldovia, Soldotna, and Wasilla; none of these communities averaged more than one Alaska resident captain for either time period, and none had more than one Alaska resident captain in any one year in 2006 through 2014. For the region as a whole, the South-Central Alaska region averaged 73.2 and 68.3 Alaska resident crew members annually in 2006–2010 and 2011–2014, respectively, and 18.2 and 17.5 Alaska resident captains annually in 2006–2010 and 2011–2014, respectively.

[100] Chugiak is an unincorporated community in the municipality of Anchorage but reported separately in these data.

- In the Southeast region, participation is the lightest of any Alaska region, with a relative concentration in Sitka, and an annual average number of crew decreasing between the two time periods; there is almost no captain participation in the region outside of Sitka in either period. Sika, with an annual average crew participation of 4.8 and 3.5 crew members in 2006–2010 and 2011–2014, respectively, accounted for more than half of the regional average number of crew in both time periods. The only other community the region averaging more than one Alaska resident crew member in either time period was Ketchikan, which averaged 1.2 crew members in 2006–2010 (and 0.3 crew members in 2011–2014). The other communities in the region with Alaska resident crew members participating in multiple years were Juneau (one crew member in 2007, 2008, 2010, and 2012) and Petersburg (three crew members in 2006 and one crew member in 2008, 2009, and 2014). The only other communities in the region with any Alaska resident crew representation in the data were Haines, with one crew member in 2007 and 2014; Kake, with one crew member in 2007; and Wrangell, with one crew member in 2008. In terms of Alaska resident captains, Sitka averaged 0.4 and 1.8 Alaska resident captains annually in 2006–2010 and 2011–2014. The only other South-Central community with any Alaska resident captains in the years 2006 through 2014 was Petersburg with one captain in 2011. For the region as a whole, the Southeast Alaska region averaged 8.2 and 4.5 Alaska resident crew members annually in 2006–2010 and 2011–2014, respectively, and 0.4 and 2.0 Alaska resident captains annually in 2006–2010 and 2011–2014, respectively.

Catcher Processor Based Participation

Few Alaska communities have direct ties to the catcher processor sector outside of the CDQ program. In terms of Alaska non-CDQ vessel ownership, the only catcher processors shown in the 1998–2014/2015 dataset as owned by a resident of an Alaska community are one Kodiak resident-owned vessel that participated in the Bristol Bay red king crab fishery in 2002 and a second Kodiak resident-owned vessel that participated in the EAI golden king crab fishery in 2006 and in the WAI golden king crab fishery from 2000 through 2006. In terms of the ownership of catcher processor owner shares, a total of four Alaska communities show up in the dataset: St. Paul, Wasilla, Anchorage, and Kodiak. Of these, catcher processor owner quota holdings are limited exclusively to CDQ entities in each of these communities except Kodiak. In terms of catcher processor crew quota, as of the 2015/2016 IFQ allocation process, Alaska resident ownership was limited to Anchorage (one individual), Homer (one individual), and Kodiak (three individuals).

CDQ Based Participation

CDQ entities represent another type of community engagement in rationalized BSAI crab fisheries. In general, CDQ entities initially directly benefited from the BSAI crab rationalization program due to the increase in CDQ quota from 7.5 percent to 10 percent of the fishery upon implementation of the program. Details of the impacts of the implementation of the BSAI crab rationalization program on CDQ groups are discussed elsewhere in this crab rationalization 10-year program review.[101]

[101] Please see Section 8, CDQ Group and Adak Community Group Participation in Crab Rationalization Program Fisheries, of the main document to which this social impact assessment is an appendix.

Beyond direct CDQ allocations, a number of CDQ groups have obtained processor quota shares, catcher processor owner shares, and catcher vessel owner shares over the course of the rationalization program. For example, as noted in processor quota shares distribution discussion in Section 1.2.6, APICDA has gained some processor quota for EAI golden king crab as a result of processor ownership changes that required share divestiture, with the result that these formerly Unalaska/Dutch Harbor-based shares are being custom processed elsewhere (Akutan). Also as noted in that same section, APICDA has also come to have ownership of some of the processing quota shares affiliated with St. George and contractual control over the balance of the processing quota shares linked to St. George, all of which are being custom processed elsewhere (St. Paul), as well as some of the processing shares affiliated with Port Moller, as discussed in Section 1.3.9, which are also being custom processed elsewhere (Akutan). More recently, CBSFA purchased the crab assets of Icicle Seafoods, including crab processor quota, as discussed in Section 1.3.1 (footnote) and in Section 1.3.9.

As a result of these and other transactions in which CDQ groups have been involved, sometimes as a greater or lesser partner in combination with other entities, CDQ groups have come to have ownership interest in a significant portion of the processor quota for the range of rationalized crab fisheries, with that quota being processed in both CDQ and non-CDQ communities, either directly or under custom processing agreements.

As noted in the community summaries above, the CBSFA, Coastal Villages Region Fund, Norton Sound Economic Development Corporation, and Yukon Delta Fisheries Development Association CDQ groups have obtained ownership interest in catcher vessel owner quota, and will base or manage this quota out of non-CDQ Alaskan communities if that results in a net benefit for their CDQ community constituents. In the case of the CBSFA, through their subsidiary 57 Degrees North, catcher vessel owner quota is reported as based in Wasilla, accounting 97 percent of all Bristol Bay red king crab and 98 percent of all Bering Sea snow crab catcher vessel owner quota units assigned in the dataset to that community as of the 2015/2016 IFQ allocation process. In this case, 57 Degrees North received an initial allocation, which at that time was based in Edmonds, Washington; at the time of the 5-year program review it was based in St. Paul; and at the time of the 2015/2016 IFQ allocation process it was based in Wasilla, a non-CDQ Alaskan community.[102] In the case of Anchorage, the catcher vessel owner quota units held by Coastal Villages Region Fund, Norton Sound Economic Development Corporation, and Yukon Delta Fisheries Development Association CDQ groups and/or their subsidiaries together accounted for 84 percent of all Bristol Bay red king crab and 83 percent of all Bering Sea snow crab catcher vessel owner quota units assigned in the dataset to that community as of the 2015/2016 IFQ allocation process. As noted in the Juneau summary above, the Aleutian Pribilof Island Community Development Association CDQ group has similarly obtained catcher vessel

[102] At the time of the 5-year program review, another CBSFA subsidiary, Multi-Species Development Holdings, LLC was holding and managing a modest amount of quota using a Wasilla address; at the time of 2015/2016 IFQ allocation process, this quota was held by St. Paul Fishing Company, another CBSFA subsidiary, and was shown in the data as based in St. Paul. 57 Degrees North did not start as a wholly owned subsidiary of CBSFA; rather, CBSFA originally purchased a minority interest in an already existing 57 Degrees North, forming a partnership with another party who retained controlling interest and with whom they owned two catcher processors and their affiliated catch history in common. Eventually, 57 Degrees North and the other entity sold the steel, divided their quota and ended up as two separate entities, with 57 Degrees North becoming a wholly owned subsidiary of CBSFA. Edmonds was the address of the partnership; when 57 Degrees North became fully owned by CBSFA, its address was changed to St. Paul, before eventually being affiliated with a 57 Degrees North satellite office in Wasilla.

owner quota and is basing/managing those quota shares out of a non-CDQ Alaskan community. These CDQ holdings account for 100 percent of the rationalized crab catcher vessel owner quota units held in Juneau. As noted in the Dillingham summary above, the Bristol Bay Economic Development Corporation, a CDQ community, obtained catcher vessel owner shares at the time of initial allocation and based their management out of Dillingham (a CDQ community); the group has increased their holdings over time and has continued to manage their use out of Dillingham, accounting for 100 percent of the rationalized crab catcher vessel owner quota units held in Dillingham.

Also as noted in the community summaries above, the CBSFA, Coastal Villages Region Fund, Norton Sound Economic Development Corporation, and Yukon Delta Fisheries Development Association CDQ groups have obtained ownership interest in catcher processor owner quota, and often base or manage this quota out of the same non-CDQ Alaskan communities as they do for their catcher vessel owner quota holdings for the benefit of their CDQ community constituents. In the case of the CBSFA, through their subsidiary 57 Degrees North, catcher processor owner quota is reported as based in Wasilla, accounting for 100 percent of all catcher processor quota units assigned in the dataset to that community as of the 2015/2016 IFQ allocation process. In the case of Anchorage, the catcher processor owner quota units held by Coastal Villages Region Fund, Norton Sound Economic Development Corporation, and Yukon Delta Fisheries Development Association CDQ groups and/or their subsidiaries together accounted for 100 percent of all crab catcher processor owner quota units assigned in the dataset to that community as of the 2015/2016 IFQ allocation process.

CDQ groups have also invested in crab catcher vessels and crab catcher processors. According to the NOAA Fisheries CDQ program summary webpage, as of September 2014, every CDQ group had obtained ownership interest in one or more BSAI crab catcher vessels and the Yukon Delta Fisheries Development Association had also acquired interest in two BSAI crab catcher processors.[103] As summarized in the "Crew Employment Participation" discussion earlier in this section, in the Bering Sea region, average annual crew participation increased between 2006–2010 and 2011–2014, but overall participation remains modest and varies between the individual CDQ groups. Crew employment within the CDQ communities in the Aleutian/Pribilof region are discussed in the individual community summaries above, with active participation in any year 2006–2014 limited to the communities of Akutan (APICDA) and St. Paul (CBSFA).

Recent academic literature on the CDQ program has not dealt with its direct and/or indirect involvement in the commercial BSAI crab fisheries. For example, Haynie (2014) discusses the changing patterns of use and value of CDQ in the pollock fishery before and after the passage of the American Fisheries Act, including the use of CDQ by catcher-processors to access otherwise closed areas and maximize their catch, but does not address the crab fishery. The article does note, however, that non-pollock royalties received by CDQ groups increased from 1997 to 2005 and continue to grow.

While not occurring in the time period covered by this 10-year program review, one challenge reported to have occurred for the first time in the most recent fishing season (2015/2016) was in the WAI golden king crab fishery, where APICDA (and the Atxam Corporation) had approximately 100,000 pounds of unharvested crab left in the water. Neither APICDA nor the

[103] https://alaskafisheries.noaa.gov/sites/default/files/cdqprogsummary.pdf accessed 3/16/16.

Atxam Corporation have their own vessel and, although they have harvest rights in this fishery, neither had a mechanism for recourse when they could not successfully negotiate with a vessel or vessels to harvest their quota, according to senior APICDA leadership. While the City of Adak/ACDC faced this same situation at least once in managing their own WAI golden king crab quota in the early years of the program (and essentially decided to give away direct quota benefits under those circumstances by allowing it to be fished lease payment/royalty-free, especially if delivered to Adak), APICDA/Atxam are faced with a different set of circumstances. Unlike the Adak/ACDC case, APICDA/Atxam would likely not have accrued the same type of secondary benefits Adak experienced by temporarily allowing the quota to be fished lease-free as (a) it might not have been processed in an APICDA community and (b) APICDA has a constituency larger than a single community. According to APICDA senior leadership, this was the functional equivalent of the entity having stranded capital, one of the very issues sought to be addressed through the crab rationalization program.

Cooperatives-Based Participation

The cooperatives and related structures that have formed under the BSAI crab rationalization program have, at least in some instances, identifiable geographic/community-based dimensions to their constituent membership. As reported in the 5-year program review, according to a knowledgeable industry source, in the first phase of co-op formation under the rationalization program, there were individual co-ops that might be termed community-centric, or region-centric, for Kodiak, Homer, and Oregon, and possibly other locations, in that the composition of their membership was, in part, structured by established relationships that had place-based dimensions to them, including vessels for whom the common experience was delivering to the same processor. For these co-ops, as well as others, established relationships were reportedly a common foundation in the formation of individual cooperatives, but it is important to note that these established relationships were based on a range of factors that may or may not include common geographic ties for any individual co-op. This process, and the relative role of geographic relationships, was somewhat different than what was seen with the earlier formation of co-ops in the pollock fishery.

When co-ops were formed in the pollock fishery under the auspices of the AFA, it was not uncommon for the preexisting relationships that contributed to any particular co-op formation to include a common community orientation based on the historic location of landings (among other factors). This commonality of location of landings was based on relatively strong common processor ties, as even before the formation on co-ops, the vessels were organized into a platoon system for deliveries to individual processors, which was largely dictated by biological resource and product form constraints specific to that fishery. This platoon system arrangement, in turn, structured relationships between delivering vessels. In the case of the crab fishery, however, processor delivery patterns were reportedly less of a factor in structuring relationships between harvesters, given a different strength of relationship between harvesters and processors in the crab fishery compared to the pollock fishery. Pre-rationalization, it was reportedly not uncommon for crab vessels to contact processors on the way in from the fishing grounds to ascertain price and offload turnaround time, with both of these considerations subject to negotiation that could result in the vessel choosing to deliver to a different processor than originally intended.

With the evolution of the Inter-Cooperative Exchange (ICE) under the crab rationalization program, geographically or community-based co-ops are no longer apparent in the crab fishery, but the voting districts within ICE, themselves shaped by preceding co-op structures, still retain the geographic affiliation of a number of those earlier structures. Within ICE, voting districts coordinate the activities of the subset of ICE members in those districts, with the continuing cooperation of vessels still reportedly evident on the voting district level as it was at the co-op level in the initial phase of co-op formation. According to ICE leadership, however, even this vestigial organizational scheme is beginning to blur with time, as voting district membership changes as, for example, where voting districts that were based on co-ops that were themselves originally organized based on Kodiak as a geographic center have accepted members from elsewhere. Similarly, groups originally formed around common processor ties have accepted members with different landings histories; one indicator of change in this area was seen in 2014 when a major processor announced that it would no longer give priority to vessels that historically had delivered to the processor. Rather, priority would be given to vessels based on fishing schedule and share matching criteria.

With regard to the available literature, recent research on fishery co-ops have included a wide look at how various co-ops are structured throughout the Alaska and U.S. west coast (De Alessi *et al.* 2014) and a specific analysis of the effects the co-op program has had on the commercial BSAI crab fleet since rationalization (Felthoven *et al.* 2014). At the broader geographical level, De Alessi *et al.* (2014) suggested that, while co-ops originally formed to lengthen seasons, increase harvested TAC, reduce bycatch, and/or create risk pools, subsequent changes in co-ops have been reactive and now serve to manage quota allotment. In Alaska, the authors noted that the participation in co-ops within the commercial BSAI crab fishery has had two major beneficial impacts (Felthoven *et al.* 2014), neither of which address the question of how co-ops may represent a lesser or greater restructuring of pre-existing social ties within the fleet. First, quantitative data suggested that co-ops appeared to have intra-co-op efficiency opportunities, idling historically less productive vessels and pooling quota on historically more productive vessels. Second, quantitative data also suggested that a higher level of catch among one's peers within a co-op increases one's own catch levels, which the authors identified as a "peer effect" and could be attributable to intra-co-op communications on productive fishing locations.

Other Eligible Crab Communities: False Pass and Port Moller

As noted earlier, a total of nine Alaska communities were determined eligible for community protection measures under the BSAI rationalization program as implemented. These Eligible Crab Communities were defined as those with 3 percent or more of the qualified landings in any fishery included in the program. These communities were Unalaska/Dutch Harbor, Akutan, King Cove, Kodiak, Adak, St. Paul, and St. George (summarized in Sections 1.3.1 through 1.3.4 and 1.3.6 through 1.3.8), plus False Pass and Port Moller. Community protection measures applicable to these nine Eligible Crab Communities include (or included) right of first refusal on proposed sales of processor quota shares (except for Adak) and a "cooling-off" period (a temporary prohibition against the use of individual processor quota outside of the community or borough boundary in which the individual processor quota was derived). False Pass and Port Moller have had significantly different histories of engagement with the crab fishery than the other Eligible Crab Communities or other communities noted above as engaged to some degree in the BSAI crab fisheries. They have also had substantially different outcomes under the crab rationalization program than what has been seen in the other communities discussed.

False Pass

False Pass is known to have experienced at least some other types, or combination of types, of impacts related to crab rationalization not common to other communities. A small community with population 64 in 2000 and 35 in 2010, according to the U.S. Census on Unimak Island in the AEB, False Pass does provide some support to commercial fishing fleets through a local fueling operation, owned by APICDA, and a pot storage business, owned by the Isanotski Corporation, the local ANCSA village corporation.

According to an earlier study (Knapp and Lowe 2007), the pot storage business experienced a decrease in sales of $29,820 between fiscal year (FY) 2005 and FY 2006. According to an interview with a senior corporation leader for 5-year program review, the pot storage business was then (2010) losing money but was being kept open because it provided employment for a local resident corporation shareholder (although this person was working fewer hours and had a lower income from the business than was the case prior to rationalization), which was the same situation as reported at the time of the crab rationalization 3-year program review (2008). According to the mayor of False Pass interviewed in 2008, there was also been a decrease in city revenues from a decline in the number of pots moving across the city dock that accompanied crab rationalization. A 2010 interview confirmed that this was still the situation at the time of the 5-year program review (2010) and, although the city had increased their fees, revenue related to pot movement was still well below pre-rationalization levels. The community had also lost revenues as a result of crab rationalization as with a smaller fleet (following consolidation) there had been less traffic through the community resulting in less business activity in general, including sales at the local store (owned by the Isanotski Corporation).

More recently, according to City officials, following a period when Peter Pan Seafoods was no longer selling marine fuels in the community, crab vessel-related business has increased somewhat since APICDA recently began operating a local fuel facility. While these vessels typically do not obtain moorage in the community, six-hour layovers are not uncommon, which have fostered an increase in traffic at the local store and an increase in demand for gear storage, with the latter enterprise now (2016) offering part-time work that is shared by two members of the same family (a father and a son).

As reported in the 5-year program review, according to the mayor, additional revenues accrued to the City of False Pass in pre-rationalization years from a floating processor processing Bristol Bay red king crab within the city limits, but that reportedly had not occurred in post-rationalization years through the time of the 5-year program review (2010). At present (2016), city officials could recall only one floating processor present in the community in the last five or six years, with that floater remaining in the community for a few days only, which nonetheless provided welcome direct economic benefits to the city in the form of fish tax revenues. In addition to landings at the local processing plant (owned by Bering Pacific Seafoods, a wholly owned subsidiary of APICDA) and the activity of the one floater that has relatively recently operated briefly within the community, the city has also received fishery related tax revenues from tendering activities (primarily for Peter Pan Seafoods) that have taken place in the community over the longer run.

False Pass is unique with respect to being a year-round community determined to be an Eligible Crab Community for the purposes of the right of first refusal and cooling off period community

protection measures under the crab rationalization program, but effectively not receiving the same individual community level of protection as occurred with other year-round communities that also qualified as Eligible Crab Communities, for a number of reasons.[104] False Pass crab processing history was exclusively accrued through floating processing, not shoreplant processing or a combination of shoreplant and floating processing as was the case in the other communities, and this history was essentially consolidated within the AEB, which did not trigger cooling off provisions, such that post-rationalization processing of the processor quota that otherwise would have been associated with False Pass has exclusively taken place elsewhere in the AEB.[105] The non-crab processing that took place in False Pass at the time of the 5-year program review (2010) was reported to occur at the local APICDA-owned shoreplant, which operates during the summer focusing on salmon, although some halibut is also run.

More recently (2016), while shore processing of crab is still not occurring, APICDA senior staff have reported a range of operational improvement resulting from investments of $22 million being made in the plant over the past three years. As a member community of the AEB, False Pass benefits from the borough-wide benefits that accompany BSAI crab landings and processing that occurs elsewhere in the borough, including landings and processing associated with the processing history derived from False Pass-based activities, but False Pass no longer benefits from the additional community-level public revenue and private sector business activity that used to accompany crab landings and processing (and related activities) within the community itself.[106]

Port Moller

Port Moller is unique among Eligible Crab Communities on two accounts: it is not a year-round community and it is not an incorporated municipality (nor is it treated as a community by the U.S. Census, the Alaska Department of Community and Economic Development, or other data sources). Located within the AEB, it is the site of a Peter Pan Seafoods facility that exclusively processes salmon and only operates seasonally (May through September).[107] The cannery was built in 1911 inside the Moller Bay sand spit and was operated for many years by Pacific American Fisheries; Port Moller also is the location of a seasonal ADFG office, according to the department's website.[108] The local airport, previously known as Port Moller Air Force Station, is owned by the U.S. Department of the Interior, Bureau of Land Management. According to the Peter Pan Seafoods website,[109] during peak production there is a crew of 140 on-site and the site

[104] In terms of processing quota shares held, at the time of initial allocation, Peter Pan Seafoods, Inc. held processor quota shares with False Pass as the designated boundary for right of first refusal and the Aleutians East Borough designated as the cooling off boundary under the community protection measures built into the program. At the time of the 5-year program review, these share holdings were unchanged from initial allocations and right of first refusal and cooling off boundaries were unchanged as well; the same held true as of the time of the 2015/2016 IPQ allocation process.

[105] This processing has taken place at the King Cove shoreplant, which is owned by Peter Pan Seafoods, the same firm that owned the BSAI crab processing history accrued on a floating processor then operating in False Pass (that is, the effective consolidation of False Pass-affiliated processor quota into King Cove took place not only within the same borough, but also within the same processing operation). All False Pass-affiliated processing quota shares were for Bristol Bay red king crab.

[106] False Pass, like Akutan, King Cove, and Sand Point, has a city fish tax on local landings in addition to the AEB raw fish tax (and the state fish tax). Akutan's city fish tax rate is set at 1 percent; the others are set at 2 percent.

[107] http://www.ppsf.com/facilities/, accessed 4/7/16.

[108] http://www.adfg.alaska.gov/index.cfm?adfg=contacts.portmoller, accessed 4/7/16.

[109] http://www.ppsf.com/facilities/, accessed 4/7/16.

is self-sufficient, providing for all housing, food, electricity, water, and other supplies needed by the operation; this is the same pattern that was confirmed as being in place during 2010 interviews with Peter Pan Seafoods management in King Cove.

As an unincorporated community, Port Moller has never derived local tax benefits from processing in the community, including BSAI crab processing. Essentially a seasonal industrial enclave, Port Moller is not considered to have experienced any adverse community/social impacts as a result of BSAI crab rationalization.

BSAI crab processing history associated with Port Moller, from which processor quota shares were derived, was accrued by three different firms that operated floating processors in the community: Peter Pan Seafoods, Snopac, and Icicle Seafoods.[110] The Peter Pan Seafoods processor quota shares originally affiliated with Port Moller are being processed at a Peter Pan facility elsewhere in the AEB (i.e., in King Cove under the same circumstances as described for False Pass), thus the shift from Port Moller to King Cove was neutral from the perspective of the borough. The Snopac processor quota shares affiliated with Port Moller, obtained by APICDA Joint Ventures, Inc. in the same 2008 transaction[111] by which they obtained the St. George affiliated processor quota shares previously discussed, have in recent years been processed in Akutan (as have all other south-designated quota shares owned by APICDA in recent years, according the APICDA leadership). As Akutan is a part of the AEB, this shift of processing location from Port Moller to Akutan, like the shift of processing of Peter Pan Seafoods owned quota shares from Port Moller to King Cove, was also neutral from the perspective of the borough. The processing shares affiliated with Port Moller that resulted from Icicle Seafoods processing history were obtained during the 2015/2016 season (i.e., outside the timeframe covered by this 10-year program review) by 57 Degrees North, a subsidiary of the CBSFA CDQ group, with its purchase of Icicle Seafoods crab assets. It is assumed that before the purchase by 57 Degrees North, the specific Icicle Seafoods IPQ deriving from processor quota shares linked to qualifying processing history in Port Moller was being processed annually in the nearest Icicle Seafoods crab floating processor facility in the south region (which was located in Unalaska/Dutch Harbor,[112] outside of the AEB). As noted earlier, during the 2015/2016 season 57 Degrees North had all former Icicle Seafoods southern shares processed in either

[110] Processing quota shares with Port Moller as the designated right of first refusal boundary and the Aleutians East Borough as the cooling off boundary were initially allocated to Peter Pan Seafoods, Icicle Seafoods, and Snopac. All shares were for Bristol Bay red king crab. The number of shares and the right of first refusal and cooling off boundaries for the shares held by Peter Pan were unchanged from the time of initial allocation at the time of the 5-year program review and as of the time of the 2015/2016 IPQ allocation process. In the case of the shares initially allocated to Snopac, as noted below, these were acquired by APICDA Joint Ventures, Inc. before the time of the 5-year program review; the number of shares and their right of first refusal and cooling off boundaries were otherwise unchanged at the time of the 5-year program review and as of the time of the 2015/2016 IPQ allocation process. In the case of the shares initially allocated to Icicle, as noted below, these were acquired by 57 Degrees North after the time of the 5-year program review but before the end of the 2015/2016 season; the number of shares and their right of first refusal and cooling off boundaries were unchanged at the time of the 5-year program review, but as of 2015/2016, their right of first refusal had expired, while their cooling off boundary had remained unchanged.

[111] These right of first refusal for these processor shares was the subject of a dispute between APICDA and Aleutia, which sought to exercise that right; it was ultimately determined (in APICDA's favor) that the right of first refusal restrictions on these shares had expired.

[112] On any given year, the *Arctic Star* or the *Bering Star* would typically function as an inshore stationary floating processor for crab in Unalaska/Dutch Harbor.

Unalaska/Dutch Harbor or Akutan[113] but, according to CBSFA staff, the decision of where the IPQ from these processing quota shares will be processed over the longer term had not yet been made by the time input to this document was provided (May 2016).

1.3.10 Seattle and Other Non-Alaska Communities

As described in the Seattle community profile in the *BSAI Crab Fisheries Final Environmental Impact Statement Social Impact Assessment* (NOAA 2004, Appendix 3), Seattle is the community most engaged in the BSAI crab fisheries, if gauged by the sheer number of locally owned vessels participating in the fisheries as a whole. As described earlier, post-rationalization volume or value harvest data for the Seattle MSA cannot be broken out separately from the data for the communities in the rest of the state of Washington due to data confidentiality restrictions (based on the low number of vessels from elsewhere in Washington participating in the individual fisheries). With the exception of the Bristol Bay red king crab fishery during the 2005/2006 and 2006/2007 seasons, no more than three vessel owned by Washington residents outside of the Seattle MSA participated in any of the other BSAI rationalized crab fisheries in any of the seasons following the implementation of the crab rationalization program.

As described above, the Seattle fleet did experience consolidation similar in proportion to that seen for the crab fleet as a whole. Annual average harvest values, as a proportion of the total harvest values, for Washington vessels in the Bristol Bay red king crab fishery declined from 66.0 percent in the pre-rationalization years to 62.5 percent for the period covered by the 5-year program review (2005/2006 through 2009/2010), to 59.8 percent for the most recent five years covered in this 10-year program review (2010/2011 through 2014/2015). For the Bering Sea snow crab fishery, analogous figures for Washington are 64.7 percent, 59.2 percent, and 59.5 percent, indicating a plateau in recent years not seen in the Bristol Bay red king crab fishery.

As detailed in earlier community profiles, Seattle is the location of regional if not company headquarters for a number of the processing firms engaged in the BSAI crab fisheries. It is also a major support service center for the fleet, both in terms of providing services directly and as the headquarters for a number of firms that provide support services out of Alaskan ports. While no adverse social impacts related to changes in processing firms under rationalization are known, the consolidation of the fleet likely affected a range of Seattle-based support businesses. As described in the earlier community profile, crab fishery support activity takes a variety of forms and does not appear to be heavily concentrated in any one area of Seattle. As a result, no localized social impacts resulting from BSAI crab rationalization are thought to have occurred, although clearly fewer crab crew jobs formerly filled by Seattle residents are available and at least some volume of Seattle-based or Seattle-managed support service work associated with the crab fleet has been lost.

Also, as described in earlier profiles, Seattle is the home of a number of fishery-related organizations, including vessel-oriented entities, such as the United Catcher Boats, and crew-oriented entities, such as the Deep Sea Fishermen's Union of the Pacific (DSFU), that have an interest in BSAI crab fishery issues. According to its then-president, although the DSFU was

[113] According to 57 Degrees North staff, it is understood that the right of first refusal on the former Icicle Seafoods processor shares originally affiliated with Port Moller had expired before their acquisition by 57 Degrees North in the 2015/2016 season.

traditionally been a set line gear-oriented organization, it enlarged its scope to allow inclusion of crabbers as associate members in 2000/2001. Reportedly, this broadening of the base of the DSFU was both logical and desirable due to previous experiences with fixed gear and IFQ issues similar to those being faced by crab crew, including fleet consolidation and quota share allocation/acquisition, along with a specific goal of increasing the DSFU membership base. As reported in the crab rationalization 3-year program review, most of the membership of the DSFU was from the Pacific Northwest, but targeted recruiting efforts in Unalaska/Dutch Harbor and Kodiak had specifically increased Alaska crab-related membership in then-recent years and the DSFU had become actively involved in crab crew issues before the NPFMC. According to subsequently developed interview information, at the time of the 5-year program review there were been between 50 and 60 crab crewmen who were associate members of the DSFU in the then-most recent couple of years, most of them from Seattle and the Pacific Northwest, but a "handful" of members were from Alaska, including individuals from Anchorage, Unalaska/Dutch Harbor, Homer, and Petersburg, among other communities. This was down considerably from the early years of crab rationalization, when there was a reported peak of approximately 200 associate members in the first fishing year under the rationalization program. Reportedly, however, most of those DSFU associate members lost their crew jobs through fleet consolidation, such that associate membership totals have been much lower in subsequent years.

As reported in the 5-year program review, in the years between the 3-year program review and the 5-year program review, according to the president of the DSFU, the DSFU focused most of their effort with respect to BSAI crab on two issues: increasing the amount of crew share allocations such that the new shares would be available for purchase by eligible captains or crew members and helping to get a federal loan program in place that would be available to those captains and crew members who desire to purchase quota shares. While crab crew issues are most prominent in Kodiak, among Alaska communities, the DFSU reportedly has relatively little presence among crew in that community due to other, locally based, crew organizations.

Since the time of the 5-year program review, according the now-former president of the DSFU, the sought-after federal loan program has been put in place through an expansion the existing halibut IFQ program to include the crab fishery. While the sought-after increase in the amount of crew shares did not occur (apparently due to the desire not to dilute the value of existing shares or to alter the overall ratio of owner to crew shares), a right of first offer program for qualified captains and crew interested in purchasing quota shares has also come online since the time of the 5-year program review, as described in the "skipper and crew" discussion in Section 1.4, below.

According to information contained in the *BSAI Crab Fisheries Final Environmental Impact Statement Social Impact Assessment* (NOAA 2004, Appendix 3), communities in Oregon participated in the pre-rationalization BSAI crab fisheries primarily through ownership of catcher vessels. Following the implementation of rationalization, the number of Oregon vessels participating declined sharply (but seems to have plateaued in the most recent years, as shown in detail in Table A1-2 in Attachment 1). Due to parallel sharp declines in participation of vessels from elsewhere in the United States (that is, outside of Alaska, Washington, and Oregon), where with the exception of the Bering Sea snow crab fishery in 2013/2014, no more than two vessels have participated in any rationalized crab fishery in any post-program implementation year, confidentiality restrictions allowed for a display of either Oregon vessel information (but not a

fishery total) or a combined Oregon and other U.S. total (allowing a fishery total to be displayed), but not both. In this case, the option of showing fishery total was selected due to its greater utility in showing overall fisheries trends. Although this limits the analysis specifically for Oregon, the known previous patterns of crab fishery engagement and limited interaction with industry participants would suggest that no substantial social impacts accrued to Oregon communities as a result of BSAI crab rationalization, although it is likely that some crew job loss did occur as well as a decrease in vessel-related support service demand.

1.4 OTHER ISSUES

The pre-rationalization *BSAI Crab Fisheries Final Environmental Impact Statement Social Impact Assessment* (NOAA 2004, Appendix 3) identified a number of other, less direct, potential social impact issues that could be anticipated to accompany crab rationalization. These included skipper and crew issues, processing employment, changes in harvester and processor relationships, community preclusion issues, and community divisiveness.

- **Skipper and crew issues** have proven to be among the most problematic of crab rationalization social impact issues for at least a few communities, especially King Cove and Kodiak, but they appear to be less of a concern in most other Alaska communities, based on a number of factors, including a relative lack of historical participation in the harvest sector of the fishery or continuing access to post-rationalization crew positions through CDQ entities, among others. Beyond overall crew position losses with fleet consolidation and quota equity concerns, crew employment has been seen by some as less attractive post-rationalization than it was pre-rationalization for two primary reasons (as briefly described previously in some of the community summaries [and described in more detail in some of the community profiles included in the 5-year program review social impact assessment]), according to interviews conducted for the 3-year and 5-year program review social impact assessment.

  First, for the residents of at least some communities interviewed in the first three and five years of the program, longer seasons[114] were perceived to make crab crewing less compatible with other fishing and non-fishing opportunities in the community that are considered by some as an important part of an integrated yet diversified employment and income strategy (which, in turn, is consistent with preferred family/social arrangements). This "employment pluralism" strategy may be seen as an adaptive approach to fishing (and non-fishing) employment and income opportunities that vary considerably over time based on both short- and long-term resource fluctuations (as well as political/economic fluctuations that, in turn, result in fluctuations in various employment-producing opportunities such as major construction project funding). This is especially true for small communities where alternative employment options are limited by small-scale, relatively undiversified economies and subsistence pursuits are of relatively high importance (for cultural as well as sustenance reasons), but it is also true for communities like Kodiak, where crew members may use economic returns from one fishery to capitalize relatively small-scale owner-operator participation in other fisheries, with

[114] See Section 1.5.3 for a discussion of season lengths.

seasonal (and multiseason) fluctuations again influencing changes in relative dependence on individual fisheries.[115,116,117]

Data presented in the main body of the of the crab rationalization 10-year program review notes, however, that in more recent years, effective season lengths for crew, as measured in days at sea, have more closely approximated immediate pre-rationalization conditions[118] although there is some variation between communities, especially when measured in average fishing days per season per vessel.[119] In general, the Bristol Bay red king crab fishery, mean days at sea were 14 in 1998 and 12 in 2001 and 2004; while mean days at sea ranged between 20 and 33 between 2005 and 2010 (consistent with interview information reporting longer seasons in the first five post-rationalization years than in the immediate pre-rationalization years), they ranged between 12 and 16 between 2011 and 2014, closely approximating pre-rationalization conditions. While days at sea in the most recent years would appear to no longer be the potential income plurality challenge for crew they were in the early years of the program, the number of jobs available and associated potential ease/fluidity of access to those jobs has remained constrained by the overall vessel consolidation that occurred under the program. It is important to note, however, that consolidation was a planned outcome of the program designed to address overcapitalization in the fishery, and that pre-rationalization Bristol Bay red king crab season length was constrained by both historically low GHLs that continued through the balance of the pre-rationalization period following a fishery crash in 1981/1982 and a race for fish exacerbated by a race for history that occurred in

[115] An "income pluralism" strategy, if not an employment pluralism strategy, has also proven important over time for vessel owner/operators, particularly in communities with long-established commercial fishing traditions. The ability of vessel owners to move between commercial fisheries in response to both short- and long-term resource and economic fluctuations has been noted as an integral part of an adaptive approach to earning a living in a number of these communities for generations. There have been concerns expressed in at least some communities (such as King Cove and Sand Point) that fishery management programs that may serve to limit this type of flexibility, such as crab rationalization, may not be in the long-term best interests of communities that are dependent on an established residential fleet that is proportionately large compared to other local economic sectors. This would appear to be particularly of concern in those communities that are neither CDQ communities nor sizable enough to support a large vessel fleet with greater effective fishing ranges (and therefore at least some greater degree of spatial adaptability) and where relatively fluid lateral movements such as between salmon and crab fisheries and between salmon and halibut fisheries, even on a weekday/weekend switch basis during seasons, are well-remembered.

[116] For additional information on the cultural role of commercial fishing, its articulation with subsistence pursuits, and social changes associated with limited access fishery programs in a contemporary Eastern Aleutian community (King Cove), see Reedy-Maschner (2010).

[117] It should be noted, however, as shown in Figure 4-1 on Page 29 in the main body of the crab rationalization 5-year program review dated December 28, 2010 (http://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Crab/5YearRev1210.pdf accessed 5/6/16), that annual average vessel harvests have varied considerably over the past three-plus decades. With season lengths being influenced by harvest levels and crew opportunities influenced by the number of vessels participating as well, the relatively short seasons with relatively high numbers of vessels participating (which would be most advantageous conditions for fitting BSAI crab fishing into a suite of other annual or seasonal pursuits within a broader employment pluralism strategy) in the years 2000 through 2004, immediately before implementation of the crab rationalization program, were not average conditions with respect to longer term trends. The same data in Figure 4-1, however, point to the variability inherent in the fishery, which is one factor in the relative long-term success of an employment plurality strategy.

[118] Please see Section 5.6, Crew Employment and Remuneration, of the main document to which this social impact assessment is an appendix (and especially the table titled "Crew employment and earnings, BBR and BSS crab fisheries – 1998, 2001, and 2004 through 2014 calendar year fisheries" [Table 5-22] in that section).

[119] Please see the discussion of season lengths and average days fished per vessel in Section 1.5.3.

anticipation of the implementation of a rationalization program. While these factors arguably created conditions that were both atypical from an historical perspective and unsustainable in the long run, these were the very conditions that enabled crew to benefit from the risks of participation that often resulted in relatively high compensation for relatively short seasons, which were a good fit for an overall income plurality strategy, and provided the existing conditions context for perceptions of change in crew employment conditions brought about by the program.

A similar pattern is seen in the Bering Sea snow crab fishery, where mean days at sea declined from 67 in 1998 to 26 in 2001 and eventually to 18 and 16 in 2004 and 2005, respectively, the last two seasons before the implementation of the rationalization program. In this fishery, depressed GHLs constraining season lengths also followed a crash, which occurred in 1999/2000, substantially later than the Bristol Bay red king crab crash, but one that also continued through the balance of the pre-rationalization period and were likewise exacerbated by a race for fish accentuated by a race for catch history in anticipation of implementation of a rationalization program. Mean days at sea ranged between 34 and 47 in the years 2006 through 2010 (consistent with interview information reporting longer seasons in the first five post-rationalization years than in the immediate pre-rationalization years); they ranged between 46 and 77 between 2011 and 2014, closely approximating pre-rationalization pre-crash conditions, which were considerably longer seasons than seen in the immediate pre-rationalization years. In this case, unlike the Bristol Bay red king crab case, mean days at sea has not come to approximate what was seen in the immediate pre-rationalization years with the passage of time; rather, it has come to more closely approximate what was seen over a longer baseline period.

Second, according to interview data earlier gathered for the 3-year and 5-year program reviews, there has been a perceived decline in the ability of crew to make a relatively high financial return per day of fishing effort invested away from the community, due to a number of factors, including what are effectively seen as crew share decreases based on quota leasing practices. Crew compensation information based on Crab Economic Data Reports and presented in in the main body of the crab rationalization 10-year program review[120] would suggest, however, that the crew compensation issue is quite complex. As noted in that discussion, while approaches to calculating crew compensation vary from vessel to vessel (e.g., how vessels deduct or charge expenses for acquired quota from crew compensation) and the percent of gross vessel revenues paid to crew in practice varies substantially between different fleet quartiles, the median overall percent of gross vessel revenues paid to crew (including captain) has been declining across the fleet in the post-rationalization era. Crew pay per day post-rationalization, however, had not varied as much from pre-rationalization levels or consistently declined as might otherwise have been expected. In an example provided in that discussion, in the Bristol Bay red king crab fishery, the mean individual crew member pay per day was estimated at $1,166 on average over the three pre-rationalization base years of 1998, 2001, and 2004, while the estimated mean was $1,032 on average for the years 2005-2009 and $1,471 for the years 2010-2014.[121] These figures would indicate an 11.5 percent decrease from baseline

[120] Please see Section 5.6, Crew Employment and Remuneration, of the main document to which this social impact assessment is an appendix.

[121] Please see the table titled "Crew compensation indices, BBR and BSS fisheries, 1998, 2001, and 2004 through 2014" (Table 5-25) in the section referenced in the previous footnote.

during the first five post-rationalization years and a 26.2 percent increase from baseline during the second five post-rationalization years, with the caveats that there is considerable variation within the fleet and inter-annually within periods, catcher processor data were included in the calculations, and a very limited baseline was used for these calculations. Similarly, in the Bering Sea snow crab fishery, the estimated mean individual crew member pay per day was estimated to be $656 on average over the four pre-rationalization base years of 1998, 2001, 2004, and 2005, while the estimated mean was $615 on average for the years 2006-2009 and $807 for the years 2010-2014.[122] These figures would indicate a 6.1 percent decrease from baseline during the first four post-rationalization years and a 23.1 percent increase from baseline during the second five post-rationalization years, again with the caveats that there is considerable variation inter-annually and between vessels within the fleet, catcher processor data were included in the calculations, and a very limited baseline was used for these calculations. These two concerns were noted as issues in both the BSAI crab rationalization 3-year and 5-year program reviews (2008 and 2010, respectively) and they remain issues of concern at present (2016), with crew issues in general, and the crew compensation concerns specifically being particularly prominent in King Cove and Kodiak.

In terms of the available literature on the topic, research conducted by the Alaska Fisheries Science Center on two separate occasions sought to more fully explore the impacts on crew. The first project, Lazarus *et al.* 2011, explored a range of crew employment aspects based on information gathered through ethnographic interviews with present and former crew members, captains, vessel owners, and other stakeholders. The authors presented interview data on a range of topics, including the geographic distribution of crew positions, number of crew positions available, the effects of leased quota on crew compensation, and the effects of local sources of alternative employment on crew. The authors concluded that the number of crew positions declined dramatically with rationalization, with the majority of the declines occurring among Washington-based vessels. They also concluded that crew members can experience a diminished rate of compensation per unit of effort if their vessel has higher rates of leased quota. Finally, they concluded that longer seasons can hinder the continuation of historic patterns of crew participation in other fisheries and other employment pluralism. The second project, Himes-Cornell 2015, used interview data with crew members, captains, vessel owners, and other stakeholders to explore why captains and crew were not, generally, purchasing quota shares on the open market. The study found that the reasons cited included the price of quota shares, low availability of shares for purchase, poor knowledge of the quota purchase/leasing system, and concerns related to paying off an investment in quota shares.

Perhaps the most widely cited recent study on crew employment and remuneration effects of the BSAI crab rationalization program has been Abbott *et al.* 2010, which conducted a quantitative analysis of vessel employment before and after implementation of the rationalization program. The authors found that the number of crew declined in proportion with the number of vessels that exited the fishery, but that total crew hours remained roughly constant. They also found that total compensation increased for those crew members who remained in the fishery, but compensation per unit of effort decreased as a result of increased crew productivity and the indirect payment for quota leasing on many

[122] Please see sources cited in the previous footnote.

vessels. Crew issues, including changes in compensation, changes in employment terms, and job security, were also explored in a research project conducted by Macinko (2010). The project conducted a series of surveys and interviews with current (at the time) and former crew. The author found that absolute crew compensation had increased, but that most quota leasing arrangements resulted in crew being effectively charged for leased quota. The resulting crew jobs are longer-term (i.e., months instead of weeks) and the amount of crew compensation is known prior to the start of the season based on the amount of quota held by the vessel owner, the amount to be leased, lease rates, and price per pound of the crab species. Conclusions of the report with regard to crew well-being were not definitive, with the author stating that many crew interviewees had a negative perspective on the length of the season under rationalization but total wages (for some) were higher.

Other research has also focused on the impact of a lengthened season on crew employment options, including Fina 2011, who noted in his review of catch share management in Alaska, "Because of the relatively small allowable catches in the fisheries in the years leading up to the rationalization program, most crew worked only a month or so in the crab fisheries. Crews typically worked other jobs (including crew jobs in other fisheries) throughout the remainder of the year. … Notwithstanding their relatively short term, these crab fishing jobs were reported to have provided important contributions to annual income. Particularly in the case of crew from remote Alaska communities with few job opportunities, replacing income from lost crab crew jobs is reported to be problematic." The author also stated that the remaining crew positions are more stable and some crew now rely exclusively on crab fishing for their income and vessel owners have a general preference to hire crew who will commit to working all year on the vessel. An analysis of various catch share programs, including the BSAI crab rationalization program, concurred, concluding that catch share programs generally resulted in employment transitioning from shorter-term part-time positions to fewer full-time positions; over all of the catch share programs included in the analysis, hours per job increased an average of 69 percent (Grimm *et al.* 2012).

In sum, skipper and crew issues are complex and remain a salient concern. In recognition of some of the complexities of skipper and crew issues resulting from both the initial allocation process and the subsequent consolidation and evolution of the fishery under the rationalization program, the NPFMC, in the form of Amendment 31 to the BSAI crab Fishery Management Plan, has created a limited opportunity for captains and crew with history in the fishery, but who were subsequently displaced from it, a chance to re-enter the fishery. Not designed as a broad entry opportunity, Amendment 31 acknowledges that individuals who qualified for small amounts of crew quota were sometimes then bumped from the fishery through loss of employment opportunities resulting from vessel consolidation, while others who had history of participation, but were displaced because they did not have the right history to qualify for an initial allocation of C shares. As discussed elsewhere in the main document to which this social impact assessment is appended, Amendment 31, among other features, provides qualifying individuals in each of these groups a chance to re-enter the fishery through loosened restrictions on the purchase of C shares for a specific time period. Other provisions of Amendment 31 include a future tightening of C share active participation requirements and a mechanism to maintain a 97 percent catcher vessel owner quota/three percent catcher vessel crew quota split despite temporarily loosening C share purchase requirements.

The Council has also been active in encouraging industry solutions to known skipper and crew issues as an alternative or supplement to regulatory action. As briefly noted in Section 1.3.10 above, a right of first offer program has come online since the time of the 5-year program review. Developed by Alaska Bering Sea Crabbers in consultation with ICE in response to a range of concerns expressed by the NPFMC, including concerns over the issue of new entry into the fishery, particularly for younger captains and crew for whom obtaining IFQ could prove to be an impediment to entry. Under this program, the ICE membership agreement was modified to include a requirement that ICE members who are selling quota shares offer at least 10 percent to qualified captains and crew on a right of first offer basis.[123] This program is not limited to captains and crew that were included in the initial allocation process, but eligibility requirements do include current active sea service requirements. According to ICE leadership, to date[124] a total of 52 unique qualified crew member entities have purchased IFQ (of any type, including, but not limited to catcher vessel crew shares) from the time the right of first offer program was enacted.[125] Of these 52, a total of 19 unique individuals have purchased catcher vessel owner or catcher processor owner IFQ over the same time period. Also according to ICE leadership, persons taking advantage of the right of first offer program have included persons with vessels who did not receive initial allocations of quota and are attempting to acquire quota for use on their own vessels (often through a variety of ways, not just through the right of first offer program), as well as captains and crew without vessel ownership interest who are often encouraged and/or otherwise incentivized by vessel owners to acquire quota to help with present vessel success as well as to build for success of the next generation of vessel and quota owners.[126]

Similarly, since the time of the 5-year program review, a voluntary limit on the rate of compensation charged for leased crab IFQ (to 65 percent of ex-vessel value of Bristol Bay red king crab and 50 percent of ex-vessel value for Bering Sea snow crab) was initially adopted by ICE and subsequently adopted by other harvest cooperatives in response to Council concerns for the effect of lease rates on crew compensation, as noted elsewhere.[127] That analysis indicates that the majority of IFQ leased by vessels during 2013 and 2014 conforms to the voluntary lease rate limits.

[123] As currently structured (2016), with limited exceptions, qualified captains and crew members registered for the program have an initial 15-day window to respond (and purchase up to the 10 percent amount [or higher if successfully negotiated with the seller]); after these 15 days, any unsold portion of the quota initially offered to captains and crew plus the other 90 percent of the quota will be made available to active captains, crew, and qualified vessel owners under a second right of first for a period of five days. Upon expiration of this five-day period, any quota share which has not been committed will be made available to the broader market under terms no more favorable than those available under the rights of first offerings. Source: http://www.alaskaberingseacrabbers.org/article.php?article=70 accessed 5/1/2016.

[124] This information was received May 10, 2016.

[125] The program went online February 1, 2013 with a notification to ICE members; it became binding upon ICE members as of May 2, 2013.

[126] For additional, detailed information on this right of first offer program, including usage, please see the Access to Market Opportunities discussion in Section 10.2, Entry to the Harvest Sector under the Crab Rationalization Program, of the main document to which this social impact assessment is an appendix.

[127] See the discussion in Section 5.6 in the body of the main document to which this social impact assessment is an appendix; that discussion specifically references Council motion on C-4(a)-(c), February, 2013, whereby the Council elected pursue measures coordinated by, and implemented through, harvest cooperatives on a voluntary basis rather than develop regulatory measures to address these concerns.

- **Processing employment** has not proven to be a salient issue due, at least in part, to the transient nature of most crab-specific processing employment, the fact that a number of the larger crab processors were already operating within an overall context that allowed crab processing to take place without bringing in dedicated crab crew (due, for example, to the ability to adjust crew assignments on the previously rationalized pollock fishery in the case of the shore-based processing plants in the Aleutian/Pribilof region), and/or the changed nature of processing under a rationalized system. This would appear unchanged since the time of the 3-year and 5-year program reviews and is discussed on an individual community and processor level in the detailed community profiles in Chapter 2.0 of the 5-year program review.

  In terms of the available literature on the general issue of processing employment under catch share programs, as discussed in Grimm *et al.* 2012, it is common for processing employment to experience impacts when a traditionally managed fishery transitions to an incentive-based rationalized fishery. In their analysis, they found that the number of processing employees generally decreases as the season stabilizes and landings are more evenly spread over time. They also found that a more even landing pattern reduces the need for freezing, providing more opportunities for fresh product and reducing the cost of entry for new processors. Conversely, those processors with highly specialized freezing equipment may find their capital stranded.

  While these types of changes were clearly seen in Alaska with, for example, the transition of the halibut fishery to an IFQ system (which also changed, to a degree the geographic patterns of landings with a greater bias toward road connectivity and associated post-landing transport efficiency), the crab fishery has evolved differently under rationalization, in part because of a continuing emphasis on frozen product (and more involved processing requirements), although there some examples of focus on live markets (e.g., see the Adak discussion in Section 1.3.6) or other specialty handling/processing that would have been difficult under pre-rationalization conditions. Further, as noted above, the nature of BSAI crab processing had already largely pivoted away from the use of specialized, distinct workforce-within-a-workforce crab crews before rationalization, thereby avoiding or minimizing the impacts to processing employment directly attributable to the crab rationalization program.

- Concerns over changes in **harvester and processor relationships** appear to have mitigated at least to a degree by the arbitration system implemented under rationalization, as discussed elsewhere.[128] This would also appear unchanged since the time of the 3-year and 5-year program reviews.

  With respect to the available literature in this area, a *Marine Resource Economics* article published in 2008 that focused on the Alaska red king crab fishery and provided a quantitative analysis of imputed quota values based solely on harvesting efficiency in the absence of processor quota versus the empirical quota trading prices experienced under the program (Matulich 2008). The author found that harvesters paid 22 to 26 percent more for quota under the program than they would have based purely on imputed

[128] Please see the arbitration discussion in Section 9.2, Ex-Vessel Price and Terms of Delivery, in the main body of document to which this social impact assessment is an appendix.

efficiency rates (i.e., if the program was not in place). He suggested that if processor quota had a negative effect on harvesters, those leasing quota would have paid less, not more, than the imputed efficiency value. Subsequent research (Matulich 2009) suggested that the processing sector captured approximately 5 percent of the gross value earned by harvesters and that processors did not experience benefits of the same degree as harvesters as a result of the rationalization program.

In practical terms, however, it would appear that the ability to access the arbitration system has largely avoided the type of inequities (or, perhaps more accurately from some perspectives, the magnitude of inequities) that were of concern before the implementation of the program. This is attributable in large part to the harvesting and processing sectors having agreed, as part of the design of the arbitration system, to a formula based on the historic (pre-rationalization) division of revenues that would underpin the system and thereby provide for a measure of stability in the relative economic position of the two sectors.

Overall, industry sources report that instances of arbitration have declined in recent years, which would seemingly indicate relatively smooth function of (or general acceptance of) the existing system. There have been arguments made, however, that with changes in the industry since rationalization some of the cost structures have changed, and the decrease in the number of arbitration cases does not necessarily indicate all are contented with the system. At present (2016), at least one group within one of the sectors is suggesting that the evolution of the rationalization program, differences in the rates of increases in cost between the sectors, and variation in the way that individual entities would choose to run their operations is being submerged in a system where arbitration does not function, from their perspective, to optimize negotiations and win-win situations, or to effectively reward innovation and risk taking, which warrants a re-examination of the formula used for arbitration. To date, however, the system has remained fundamentally true to its original design.

One factor increasing the complexity in the relationship between harvesters and processors under the rationalization program compared to pre-rationalization conditions has been the emergence of holders of processing quota who are not themselves processors. In these cases, the holders of processing quota effectively have to purchase harvest from harvesters and processing from processors, creating a different set of economic relationships than existed for either harvesters or processors under pre-rationalization conditions, with three rather than two types of entities involved. Clearly, the continuing evolution of consolidation in both the harvesting and processing sectors continues to influence the ongoing relationships between harvesters and processors under the program as well.

- **Community preclusion** issues remain a concern for at least some communities, as was the case at the time of the 3-year and 5-year program reviews, with the cost of obtaining processor quota shares (or the effective unavailability of processor quota shares) being perceived as a potential bar to future entry or, in the case of Adak, future expansion (or a return to levels seen immediately prior to rationalization). The Adak situation has become more complex with the intermittent closures of the local plant in recent years, however, with the planned role of crab in future operations unknown.

Recent literature on the subject of community preclusion has largely focused on small communities with high proportions of Alaska Native residents, detailing how the BSAI crab rationalization program has affected access and participation in commercial fishing (as have other catch share programs). For example, research on Kodiak Island has suggested that residents of Alutiiq villages with historical commercial fishing participation have found themselves constrained by recent fishery management actions that have limited resource access rights and exclude informal, adaptive fishing participation. With limited access to some commercial fisheries, the social and economic attachments some people have to their communities have been threatened (Carothers 2010, Carothers and Chambers 2012). A related article by Criddle (2012) reached similar conclusions, suggesting that longer fishing seasons under the BSAI crab rationalization program have benefited those who specialize in crab fisheries and have disadvantaged those who historically engaged in a wider suite of fisheries.

Related research has shown that subsistence-use access to king crab for residents of some smaller communities has become more complex and vulnerable under BSAI crab rationalization (Reedy and Maschner 2014). For example, fewer crew members involved in the fishery has resulted in reduced access to "home-pack," which are boxes of crab brought home by crew members that would be commonly redistributed to relatives and/or otherwise used for socially significant purposes.

- Crab rationalization remains a **divisive issue** within and between communities, as it was at the time of the 3-year and 5-year program reviews. While there are a number of communities where the program has had apparently unambiguously beneficial social impacts, in other communities the social impact outcomes are more ambiguous or more clearly negative, particularly with respect to continuing direct participation in the fishery, especially in the catcher vessel sector (and within those portions of local support service sectors that rely on opportunities generated by sustained local catcher vessel activity). The basic structure of crab rationalization runs counter to strongly held opinions on the desired future state of fishery management for some communities, or groups associated with some communities. A number of people and organizations remain fundamentally opposed to rationalization programs on philosophical grounds, even in some cases where there have been apparent material benefits from the program. Particularly troubling to some is the perceived differential distribution of beneficial and adverse impacts in general and the specific disproportional benefit that has accrued to quota owners not otherwise actively participating in the fishery through the quota leasing process. An indication of the longer term concern over the BSAI crab rationalization program (and other catch share type of programs) cited in the 5-year program review was that in early 2010, the City of King Cove and the Kodiak Island Borough both sent letters, signed by their respective mayors, to the 111th U.S. House Committee on Natural Resources, Subcommittee on Insular Affairs, Oceans and Wildlife, registering their concerns regarding new catch share policies then being developed and reporting damage to their local economies and local residents as the result of implementation of the halibut and sablefish and the BSAI crab catch share programs.

  Recent literature on this topic includes research in Kodiak exploring the perception of social changes among commercial fishermen as a result of rationalization and other fishery management programs that have limited access (Carothers 2015). Survey data

and interviews suggested that recent shifts in fishery management programs, including, but not limited to the crab rationalization program, are being seen as serving to create or accentuate disparity between residents. Reported results included that a majority of those surveyed believed that catch share programs had negative effects on the community of Kodiak and interview data identified perceptions regarding decreased equity among fishermen, constrained opportunities, and the entrenchment of class divisions in the community between those who materially benefited from a program and those who did not.

1.5 LARGER FISHERY AND ECONOMIC TRENDS

Several larger fishery and economic trends also have the potential to influence the way that crab rationalization impacts may be felt in various communities. These include, among others, the engagement of crab vessels in other fisheries, longer term trends of changing local fleet sizes, changes in season lengths before and after rationalization, and the ongoing national recession. These are each, in turn, discussed briefly in this section.

1.5.1 Engagement of Crab Vessels in other Fisheries

In this crab rationalization 5-year program review social impact assessment, data from vessels fishing for BSAI crab species that were included in the rationalization program in any season from 1998 through 2010/2011 are used to characterize pre-rationalization conditions and post-rationalization changes. After rationalization (2005), a number of these vessels stopped fishing for the rationalized crab species. Some of the vessels that stopped fishing for rationalized crab stayed active in other fisheries and continued to participate in the economy of coastal communities, while others discontinued fishing entirely. Tables A1-12a, A1-12b, and A1-12c in Attachment 1 provide detailed information on the level of activities of two categories of crab vessels: "crab vessels in rationalized fisheries after 2004" (those vessels that fished at least one species of rationalized crab during at least one season 2005/2006 through 2014/2015) and "crab vessels not in rationalized fisheries after 2004" (those vessels that did not fish any species of rationalized crab during any season 2005/2006 and 2014/2015), as measured by value of harvest of crab, other species, and all (crab and non-crab) species, by year (and community, where possible). Summary tables are presented in this section.

Table 1-12a provides information on these two categories of crab vessels, contrasting pre-rationalization averages per vessel with post-rationalization averages per vessel by geography. Not surprisingly, vessels active in the crab fisheries post-rationalization increased their annual average value in crab post-rationalization compared to pre-rationalization in both the years covered by the 5-year program review and again in the most recent years covered by this 10-year program review in every geography shown, but they also generally increased their average annual value for non-crab species (except for "Other Washington" and "Oregon and Other U.S." in the years after the 5-year program review). For vessels not participating in the crab fisheries after 2004, crab values dropped to zero post-rationalization, but values for non-crab species went up substantially for all geographies shown, with non-crab species annual average values in both the first and second five post-rationalization year intervals exceeding average annual values of crab and non-crab species combined during the pre-rationalization period. As these are averages per vessel, these figures do not take into consideration total fishery values for each geography.

Table 1-12a. Comparison of Harvests of BSAI Crab Vessels* Participating and Not Participating in Rationalization Crab Fisheries Post-2005, Average Annual Values per Vessel by Geography, Pre-Rationalization (1998–2004) and Post-Rationalization (2006–2010 and 2011–2014)

Area	Period	Crab Vessels in Rationalized Crab After 2004				Crab Vessels Not in Rationalized Crab After 2004				All Crab Vessels	
		Number of Vessels	Rationalized Crab (Average Value)	Other Species (Average Value)	All Species (Average Value)	Number of Vessels	Rationalized Crab (Average Value)	Other Species (Average Value)	All Species (Average Value)	Number of Vessels	All Species (Average Value)
Kodiak	Pre-Rationalization (1998–2004)	17.9	$684,497	$300,424	$984,921	21.7	$273,418	$472,654	$746,072	39.6	$853,856
	Post-Rationalization (2006–2010)	12.0	$1,534,906	$350,970	$1,885,876	13.4	NA	$973,712	$973,712	25.4	$1,404,656
	Post-Rationalization (2011–2014)	9.3	$2,679,894	$317,575	$2,997,469	10.0	NA	$1,351,535	$1,351,535	19.3	$2,142,438
Other Alaska (non-Kodiak)	Pre-Rationalization (1998–2004)	13.4	$591,491	$222,984	$814,475	21.4	$382,463	$157,862	$540,325	34.9	$645,940
	Post-Rationalization (2006–2010)	16.0	$1,405,286	$268,625	$1,673,911	7.6	NA	$703,925	$703,925	23.6	$1,361,543
	Post-Rationalization (2011–2014)	9.3	$2,679,894	$317,575	$2,997,469	10.0	NA	$1,351,535	$1,351,535	19.3	$2,142,438
Alaska Total	*Pre-Rationalization (1998–2004)*	*31.3*	*$644,576*	*$267,185*	*$911,761*	*43.1*	*$327,579*	*$316,301*	*$643,880*	*74.4*	*$756,483*
	Post-Rationalization (2006–2010)	*28.0*	*$1,460,838*	*$303,916*	*$1,764,753*	*21.0*	*NA*	*$876,075*	*$876,075*	*49.0*	*$1,383,891*
	Post-Rationalization (2011–2014)	*28.0*	*$2,263,154*	*$355,175*	*$2,618,329*	*16.5*	*NA*	*$1,172,302*	*$1,172,302*	*44.5*	*$2,082,162*
Seattle MSA	Pre-Rationalization (1998–2004)	66.3	$659,697	$290,867	$950,564	86.3	$440,260	$610,760	$1,051,019	152.6	$1,007,376
	Post-Rationalization (2006–2010)	54.8	$1,503,839	$462,111	$1,965,950	33.2	NA	***	***	88.0	***
	Post-Rationalization (2011–2014)	48.3	$2,463,966	$591,920	$3,055,886	33.5	NA	***	***	44.5	***
Other Washington (non-Seattle MSA)	Pre-Rationalization (1998–2004)	4.4	$515,676	$196,930	$712,605	13.7	$463,796	$128,960	$592,756	18.1	$622,011
	Post-Rationalization (2006–2010)	3.8	$903,378	$452,833	$1,356,211	2.6	NA	**	**	6.4	***
	Post-Rationalization (2011–2014)	3.8	$1,674,343	$49,232	$1,723,575	2.5	NA	**	**	6.3	***
Washington Total	*Pre-Rationalization (1998–2004)*	*70.7*	*$650,677*	*$284,984*	*$935,662*	*100.0*	*$443,487*	*$544,684*	*$988,172*	*170.7*	*$966,421*
	Post-Rationalization (2006–2010)	*58.6*	*$1,464,901*	*$461,509*	*$1,926,410*	*35.8*	*NA*	*$1,969,143*	*$1,969,143*	*94.4*	*$1,942,616*
	Post-Rationalization (2011–2014)	*52.0*	*$2,407,022*	*$552,784*	*$2,959,806*	*36.0*	*NA*	*$2,354,999*	*$2,354,999*	*88.0*	*$2,712,385*
Oregon and Other U.S.	*Pre-Rationalization (1998–2004)*	*13.3*	*$704,634*	*$361,481*	*$1,066,115*	*15.3*	*$531,136*	*$529,467*	*$1,060,603*	*28.6*	*$1,063,166*
	Post-Rationalization (2006–2010)	*12.4*	*$1,636,516*	*$531,032*	*$2,167,548*	*6.6*	*NA*	*$1,666,169*	*$1,666,169*	*19.0*	*$1,993,385*
	Post-Rationalization (2011–2014)	*14.8*	*$1,984,051*	*$380,693*	*$2,364,744*	*6.0*	*NA*	*$1,774,627*	*$1,774,627*	*20.8*	*$2,194,108*
All States Total	**Pre-Rationalization (1998–2004)**	**115.3**	**$655,240**	**$288,970**	**$944,209**	**158.4**	**$420,380**	**$481,023**	**$901,403**	**273.7**	**$919,433**
	Post-Rationalization (2006–2010)	**99.0**	**$1,485,247**	**$425,645**	**$1,910,892**	**63.4**	**NA**	**$1,575,546**	**$1,575,546**	**162.4**	**$1,779,975**
	Post-Rationalization (2011–2014)	**94.8**	**$2,298,662**	**$467,598**	**$2,766,260**	**58.5**	**NA**	**$1,961,892**	**$1,961,892**	**153.3**	**$2,459,209**

*Includes any vessel listed as fishing over the period 1998–2004 for crab species that were later rationalized.
** Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Note: Since 2005 was a transition year, pre- and post-rationalization averages do not include 2005.
Source: ADFG 2015; CFEC 2015

Table 1-12b provides total annual average value by geography for all crab vessels combined for the pre-rationalization period and the post-rationalization period (as opposed to annual average value per vessel) for these two categories of vessels. This table shows a more complex pattern. For crab vessels remaining in rationalized crab in both the years covered by the 5-year program review and again in the most recent years covered by this 10-year program review in every geography shown they increased their value of crab over the pre-rationalization average. For all geographies combined, vessels still in rationalized crab after 2004 increased their annual average value for other species was well in each interval, but there is variability between geographies (e.g., there are declines in each interval for Kodiak). For vessels no longer in rationalized crab after 2004, the annual average values for other species actually decreased from the pre-rationalization period in the first five years following implementation of the rationalization program in all geographies that can be disclosed (and for all geographies combined). While there was some rebound in the second five-year interval following program implementation, for all geographies annual averages remained below pre-rationalization annual averages.

Table 1-12c expresses the information contained in Table 1-12b as percentages rather than as absolute numbers. This allows for relatively easy comparison of proportional values of these two vessel categories.

In terms of the recent literature, one quantitative analysis of harvest diversification by commercial fishermen found that the income of the current fleet of vessels on the U.S. west coast and in Alaska was less diverse than at any point in the last 30 years (Kasperski and Holland 2013). This study also found that higher levels of species diversification can substantially reduce the variability of income from fishing; however, rationalization and other catch share programs generally serve to initially limit diversification opportunities for those who remain active in the fishery while, at the same time, provide an opportunity for some fishermen with access to capital to build a diversified portfolio of harvest privileges across many species.

One recent article explored how diversified commercial fishermen from Oregon had been affected by recent changes in fishery management along the West Coast and Alaska, including the BSAI crab rationalization program (Package-Ward and Himes-Cornell 2014). Of the 21 Oregon fishermen included in the study, 20 had been involved in commercial crab fishing in Alaska in the 1980s and 1990s and many had a catch history that qualified them to receive for BSAI crab quota under the rationalization program. The article suggests that Oregon fishermen, many seasonally transient with respect to Alaska fisheries, share multiple features of the descriptions of the social networks common among other types of seasonal workers; some have settled and formed a concentration in Kodiak akin to a sociocultural enclave that has served to provide a higher level of resilience and a capacity to shift effort to other fisheries in the event of regulatory changes or fluctuations in fish stocks. This level of resilience, the authors hypothesized, was unique to Oregon fishermen and other groups of fishermen with ties to an outside community who shift their effort from their home region to another region outside of their historical home range.

1.5.2 Alaska Local Fleet Sizes

While crab fleet consolidation has been an issue for a number of different direct and indirect reasons as noted in the community summaries above (and in the detailed community profiles included by reference, noted earlier), this consolidation has occurred during a time when Alaska

Table 1-12b. Comparison of Harvests of BSAI Crab Vessels* Participating and Not Participating in Rationalization Crab Fisheries Post-2005, Average Annual Values for All Vessels Combined by Geography, Pre-Rationalization (1998–2004) and Post-Rationalization (2006–2010 and 2011–2014)

Area	Period	Crab Vessels in Rationalized Crab After 2004				Crab Vessels Not in Rationalized Crab After 2004				All Crab Vessels	
		Number of Vessels	Rationalized Crab (Average Value)	Other Species (Average Value)	All Species (Average Value)	Number of Vessels	Rationalized Crab (Average Value)	Other Species (Average Value)	All Species (Average Value)	Number of Vessels	All Species (Average Value)
Kodiak	Pre-Rationalization (1998–2004)	17.9	$12,223,157	$5,364,719	$17,587,876	21.7	$5,937,068	$10,263,354	$16,200,422	39.6	$33,788,298
	Post-Rationalization (2006–2010)	12.0	$18,418,875	$4,211,642	$22,630,517	13.4	NA	$13,047,737	$13,047,737	25.4	$35,678,254
	Post-Rationalization (2011–2014)	9.3	$24,789,019	$2,937,569	$27,726,589	10.0	NA	$13,515,352	$13,515,352	19.3	$41,241,940
Other Alaska (non-Kodiak)	Pre-Rationalization (1998–2004)	13.4	$7,942,877	$2,994,354	$10,937,231	21.4	$8,195,634	$3,382,767	$11,578,401	34.9	$22,515,632
	Post-Rationalization (2006–2010)	16.0	$22,484,579	$4,297,993	$26,782,572	7.6	NA	$5,349,832	$5,349,832	23.6	$32,132,404
	Post-Rationalization (2011–2014)	18.8	$38,579,287	$7,007,344	$45,586,632	6.5	NA	$5,827,636	$5,827,636	25.3	$51,414,268
Alaska Total	*Pre-Rationalization (1998–2004)*	*31.3*	*$20,166,035*	*$8,359,072*	*$28,525,107*	*43.1*	*$14,132,702*	*$13,646,121*	*$27,778,823*	*74.4*	*$56,303,930*
	Post-Rationalization (2006–2010)	*28.0*	*$40,903,454*	*$8,509,635*	*$49,413,089*	*21.0*	*NA*	*$18,397,570*	*$18,397,570*	*49.0*	*$67,810,659*
	Post-Rationalization (2011–2014)	*28.0*	*$63,368,306*	*$9,944,914*	*$73,313,220*	*16.5*	*NA*	*$19,342,988*	*$19,342,988*	*44.5*	*$92,656,208*
Seattle MSA	Pre-Rationalization (1998–2004)	66.3	$43,728,486	$19,280,334	$63,008,821	86.3	$37,988,106	$52,699,832	$90,687,938	152.6	$153,696,758
	Post-Rationalization (2006–2010)	54.8	$82,410,372	$25,323,662	$107,734,034	33.2	NA	***	***	88.0	***
	Post-Rationalization (2011–2014)	48.3	$118,886,363	$28,560,151	$147,446,513	33.5	NA	***	***	81.8	***
Other Washington (non-Seattle MSA)	Pre-Rationalization (1998–2004)	4.4	$2,283,706	$872,117	$3,155,823	13.7	$6,360,637	$1,768,591	$8,129,229	18.1	$11,285,051
	Post-Rationalization (2006–2010)	3.8	$3,432,837	$1,720,765	$5,153,601	2.6	NA	**	**	6.4	***
	Post-Rationalization (2011–2014)	3.8	$6,278,785	$184,621	$6,463,406	2.5	NA	**	**	6.3	***
Washington Total	*Pre-Rationalization (1998–2004)*	*70.7*	*$46,012,192*	*$20,152,451*	*$66,164,643*	*100.0*	*$44,348,743*	*$54,468,423*	*$98,817,166*	*170.7*	*$164,981,809*
	Post-Rationalization (2006–2010)	*58.6*	*$85,843,209*	*$27,044,426*	*$112,887,636*	*35.8*	*NA*	*$70,495,324*	*$70,495,324*	*94.4*	*$183,382,960*
	Post-Rationalization (2011–2014)	*52.0*	*$125,165,148*	*$28,744,772*	*$153,909,919*	*36.0*	*NA*	*$84,779,950*	*$84,779,950*	*88.0*	*$238,689,869*
Oregon and Other U.S.	*Pre-Rationalization (1998–2004)*	*13.3*	*$9,361,562*	*$4,802,536*	*$14,164,098*	*15.3*	*$8,118,792*	*$8,093,285*	*$16,212,077*	*28.6*	*$30,376,174*
	Post-Rationalization (2006–2010)	*12.4*	*$20,292,801*	*$6,584,793*	*$26,877,594*	*6.6*	*NA*	*$10,996,715*	*$10,996,715*	*19.0*	*$37,874,309*
	Post-Rationalization (2011–2014)	*14.8*	*$29,264,752*	*$5,615,218*	*$34,879,969*	*6.0*	*NA*	*$10,647,764*	*$10,647,764*	*20.8*	*$45,527,733*
All States Total	**Pre-Rationalization (1998–2004)**	**115.3**	**$75,539,788**	**$33,314,059**	**$108,853,848**	**158.4**	**$66,600,237**	**$76,207,829**	**$142,808,066**	**273.7**	**$251,661,914**
	Post-Rationalization (2006–2010)	**99.0**	**$147,039,464**	**$42,138,854**	**$189,178,318**	**63.4**	**NA**	**$99,889,609**	**$99,889,609**	**162.4**	**$289,067,927**
	Post-Rationalization (2011–2014)	**94.8**	**$217,798,206**	**$44,304,903**	**$262,103,109**	**58.5**	**NA**	**$114,770,702**	**$114,770,702**	**153.3**	**$376,873,811**

*Includes any vessel listed as fishing over the period 1998–2004 for crab species that were later rationalized.
** Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Note: Since 2005 was a transition year, pre- and post-rationalization averages do not include 2005.
Source: ADFG 2015; CFEC 2015

Table 1-12c. Comparison of Harvests of BSAI Crab Vessels* Participating and Not Participating in Rationalization Crab Fisheries Post-2005, Average Annual Value (Percentage) for All Vessels Combined by Geography Pre-Rationalization (1998–2004) and Post-Rationalization (2006–2010 and 2011–2014)

Area	Period	Crab Vessels in Rationalized Crab After 2004				Crab Vessels Not in Rationalized Crab After 2004				All Crab Vessels	
		Number of Vessels	Rationalized Crab (Average Value)	Other Species (Average Value)	All Species (Average Value)	Number of Vessels	Rationalized Crab (Average Value)	Other Species (Average Value)	All Species (Average Value)	Number of Vessels	All Species (Average Value)
Kodiak	Pre-Rationalization (1998–2004)	45.1%	36.2%	15.9%	52.1%	54.9%	17.6%	30.4%	47.9%	100.0%	100.0%
	Post-Rationalization (2006–2010)	47.2%	51.6%	11.8%	63.4%	52.8%	NA	36.6%	36.6%	100.0%	100.0%
	Post-Rationalization (2011–2014)	48.1%	60.1%	7.1%	67.2%	51.9%	NA	32.8%	32.8%	100.0%	100.0%
Other Alaska (non-Kodiak)	Pre-Rationalization (1998–2004)	38.5%	35.3%	13.3%	48.6%	61.5%	36.4%	15.0%	51.4%	100.0%	100.0%
	Post-Rationalization (2006–2010)	67.8%	70.0%	13.4%	83.4%	32.2%	NA	16.6%	16.6%	100.0%	100.0%
	Post-Rationalization (2011–2014)	74.3%	75.0%	13.6%	88.7%	25.7%	NA	11.3%	11.3%	100.0%	100.0%
Alaska Total	*Pre-Rationalization (1998–2004)*	*42.0%*	*35.8%*	*14.8%*	*50.7%*	*58.0%*	*25.1%*	*24.2%*	*49.3%*	*100.0%*	*100.0%*
	Post-Rationalization (2006–2010)	*57.1%*	*60.3%*	*12.5%*	*72.9%*	*42.9%*	*NA*	*27.1%*	*27.1%*	*100.0%*	*100.0%*
	Post-Rationalization (2011–2014)	*62.9%*	*68.4%*	*10.7%*	*79.1%*	*37.1%*	*NA*	*20.9%*	*20.9%*	*100.0%*	*100.0%*
Seattle MSA	Pre-Rationalization (1998–2004)	43.4%	28.5%	12.5%	41.0%	56.6%	24.7%	34.3%	59.0%	100.0%	100.0%
	Post-Rationalization (2006–2010)	62.3%	46.6%	***	***	37.7%	NA	***	***	100.0%	100.0%
	Post-Rationalization (2011–2014)	59.0%	51.9%	***	***	41.0%	NA	***	***	100.0%	100.0%
Other Washington (non-Seattle MSA)	Pre-Rationalization (1998–2004)	24.4%	20.2%	7.7%	28.0%	75.6%	56.4%	15.7%	72.0%	100.0%	100.0%
	Post-Rationalization (2006–2010)	59.4%	52.1%	***	***	40.6%	NA	**	**	100.0%	100.0%
	Post-Rationalization (2011–2014)	60.0%	66.6%	***	***	40.0%	NA	**	**	100.0%	100.0%
Washington Total	*Pre-Rationalization (1998–2004)*	*41.4%*	*27.9%*	*12.2%*	*40.1%*	*58.6%*	*26.9%*	*33.0%*	*59.9%*	*100.0%*	*100.0%*
	Post-Rationalization (2006–2010)	*62.1%*	*46.8%*	*14.7%*	*61.6%*	*37.9%*	*NA*	*38.4%*	*38.4%*	*100.0%*	*100.0%*
	Post-Rationalization (2011–2014)	*59.1%*	*52.4%*	*12.0%*	*64.5%*	*40.9%*	*NA*	*35.5%*	*35.5%*	*100.0%*	*100.0%*
Oregon and Other U.S.	*Pre-Rationalization (1998–2004)*	*46.5%*	*30.8%*	*15.8%*	*46.6%*	*53.5%*	*26.7%*	*26.6%*	*53.4%*	*100.0%*	*100.0%*
	Post-Rationalization (2006–2010)	*65.3%*	*53.6%*	*17.4%*	*71.0%*	*34.7%*	*NA*	*29.0%*	*29.0%*	*100.0%*	*100.0%*
	Post-Rationalization (2011–2014)	*71.1%*	*64.3%*	*12.3%*	*76.6%*	*28.9%*	*NA*	*23.4%*	*23.4%*	*100.0%*	*100.0%*
All States Total	**Pre-Rationalization (1998–2004)**	**42.1%**	**30.0%**	**13.2%**	**43.3%**	**57.9%**	**26.5%**	**30.3%**	**56.7%**	**100.0%**	**100.0%**
	Post-Rationalization (2006–2010)	**61.0%**	**50.9%**	**14.6%**	**65.4%**	**39.0%**	**NA**	**34.6%**	**34.6%**	**100.0%**	**100.0%**
	Post-Rationalization (2011–2014)	**61.8%**	**57.8%**	**11.8%**	**69.5%**	**38.2%**	**NA**	**30.5%**	**30.5%**	**100.0%**	**100.0%**

*Includes any vessel listed as fishing over the period 1998–2004 for crab species that were later rationalized.
** Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Note: Since 2005 was a transition year, pre- and post-rationalization averages do not include 2005.
Source: ADFG 2015; CFEC 2015

community fleets in general have been getting smaller. As shown in Table 1-13a, the local fleets in seven of the eight Alaska crab communities profiled in the pre-rationalization social impact assessment were smaller, and in many cases much smaller in 2004 (the last full year prior to crab rationalization) than they were in 1995 (the earliest year in the data shown). This time span encompasses a number of different changes that were occurring in other fisheries, such as the implementation of the halibut and sablefish IFQ programs and inshore/offshore and AFA-related programs in the pollock fishery, that directly or indirectly led to fleet consolidation, as well as the crab vessel buy-back program that was explicitly designed to reduce the size of the crab fleet in advance of a then-yet-to-be-determined rationalization program. The only community among the eight profiled in the 5-year program review social impact assessment that did not see fleet consolidation over this period was Adak, which was still a military community at the start of the period and whose local fleet grew from no vessels to seven by 2004.

From the 2005, the first year of crab rationalization, through 2009 (the most recent year included in the 5-year program review) the downward trend of local fleets continued for four of the seven communities that had previously experienced fleet declines (local fleet size grew in both St. George and St. Paul, while Akutan's fleet remained about the same size), and a downward trend for local vessels was seen for the first time in Adak. As stated in the 5-year program review, however, it is important to note that crab rationalization did not originate this downward trend, nor did it contribute to a continuing downward trend in every community, as noted in the community summaries and detailed community profiles from earlier program reviews. Crab rationalization and the specific exit of locally owned crab vessels did, however, contribute to a continuing downward trend in King Cove, Kodiak, and Unalaska/Dutch Harbor, also as noted in the community summaries and those same detailed community profiles.

The 5-year program review also noted that with the overall decline in local fleets before and after crab rationalization, a number of support service businesses in several communities have also reported a longer-term trend of decline, variously attributed to rationalization in other fisheries or changes in fishery market demands, among other factors. The size of the incremental impact caused by the consolidation of the crab fleet on any particular support service business has depended on a number of factors, including the nature of engagement and dependency on the crab fishery.

More recently, data from 2010 through 2015 show a more complex pattern across these eight communities in the years following the 5-year program review. For Akutan, St. George, St. Paul, and Sand Point, average annual fleet size was greater in 2010–2015 than it was in 2005–2009. In the case of Kodiak, average annual fleet size was essentially the same in these two time intervals, while in King Cove annual average fleet size was down about seven percent 2010–2015 compared to 2005–2009, but year-to-year changes were variable and not unidirectional. For Adak and Unalaska/Dutch Harbor, however, clear downward trends have continued. In Adak, the local resident-owned fleet was down to one vessel each year 2010 through 2015, except in 2014 when the community had no resident-owned vessels. In Unalaska/Dutch Harbor, annual average community commercial fishing fleet size was 40.6 vessels from 2005–2009 and 27.2 vessels from 2010–2015. Table 13b puts the decline of resident-owned crab vessels in these communities in a broader state and regional context.

Table 1-13a. Total Number of Unique Locally Owned Commercial Fishing Catcher Vessels by Community by Year (BSAI Crab and All Fisheries), 1995–2015

Community	Type of Catcher Vessel	Year																				
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Adak	BSAI Crab	--	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	All Fisheries	0	0	0	0	0	2	4	3	3	7	7	6	4	2	2	1	1	1	1	0	1
Akutan	BSAI Crab	--	--	--	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	All Fisheries	6	5	7	5	8	6	6	6	5	4	6	4	4	7	6	6	6	7	5	6	5
King Cove	BSAI Crab	--	--	--	4	3	4	3	2	2	1	1	2	1	2	0	0	0	0	0	0	0
	All Fisheries	134	131	126	119	109	105	92	81	79	78	75	77	63	69	67	73	63	63	64	68	59
Kodiak	BSAI Crab	--	--	--	41	40	37	35	32	30	33	22	14	11	12	12	9	8	9	8	8	8
	All Fisheries	748	723	744	698	702	714	659	603	579	580	524	486	480	473	452	456	486	484	479	483	500
St. George	BSAI Crab	--	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	All Fisheries	13	10	12	12	12	11	11	14	7	6	3	3	3	5	8	5	8	6	5	7	6
St. Paul	BSAI Crab	--	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	All Fisheries	29	32	27	29	27	28	27	25	24	16	15	16	17	18	19	19	19	18	18	18	15
Sand Point	BSAI Crab	--	--	--	5	3	5	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	All Fisheries	250	242	232	233	228	230	219	192	169	163	156	146	144	137	146	144	140	154	158	151	156
Unalaska/ Dutch Harbor	BSAI Crab	--	--	--	2	2	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	All Fisheries	73	66	62	54	49	44	44	44	38	56	53	40	44	32	34	31	32	27	24	27	22
Total	BSAI Crab	--	--	--	**52**	**49**	**47**	**40**	**35**	**34**	**36**	**24**	**17**	**12**	**14**	**12**	**9**	**8**	**9**	**8**	**8**	**8**
	All Fisheries	**1,252**	**1,209**	**1,210**	**1,150**	**1,135**	**1,139**	**1,061**	**968**	**904**	**910**	**839**	**778**	**759**	**743**	**734**	**735**	**755**	**760**	**754**	**760**	**764**

Note: "BSAI Crab" vessels are locally owned vessels that participated in any of the crab fisheries included in the crab rationalization program in the years shown; as these are unique vessel counts, a single vessel may have participated in more than one fishery included in the rationalization program in any given year (in contrast to separate counts by fishery shown in Table A1-2a in Attachment A). Data are not readily available for these vessels for the years 1995 through 1997. BSAI Crab vessels are included in the "All Fisheries" total for each community.
Source: CFEC 2015

Table 1-13b. Total Number of Unique Locally Owned Vessels Fishing BSAI Rationalized Crab (Any Species) by Community by Year, 1998–2015

State	Community	Year																		Pre-Rationalization Annual Average (1998-2004)	Post-Rationalization Annual Average (2006-2010)	Post-Rationalization Annual Average (2011-2015)
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015			
Alaska	Profiled Communities*	52	49	47	40	35	34	36	24	17	12	14	12	9	8	9	8	8	8	41.9	12.8	8.2
	Anchorage	6	6	6	6	6	7	7	8	4	4	6	5	8	6	8	9	7	9	6.3	5.4	7.8
	Homer	9	8	8	8	7	6	6	3	3	3	4	4	5	5	6	5	4	4	7.4	3.8	4.8
	All Other Alaska	17	14	13	11	12	9	9	6	2	2	2	2	1	1	1	1	1	3	12.1	1.8	1.4
	Alaska Total	**84**	**77**	**74**	**65**	**60**	**56**	**57**	**41**	**26**	**21**	**26**	**23**	**23**	**20**	**24**	**23**	**20**	**24**	**67.6**	**23.8**	**22.2**
Washington	Seattle MSA	157	161	137	141	134	137	140	103	55	46	50	48	42	42	45	41	39	38	143.9	48.2	41.0
	Other Washington	17	18	16	16	15	18	20	12	5	3	3	3	2	3	2	3	2	2	17.1	3.2	2.4
	Washington Total	**174**	**179**	**153**	**157**	**149**	**154**	**160**	**115**	**60**	**49**	**53**	**51**	**44**	**45**	**47**	**44**	**41**	**40**	**160.9**	**51.4**	**43.4**
Oregon	**Oregon Total**	**16**	**19**	**20**	**19**	**23**	**27**	**26**	**19**	**11**	**11**	**10**	**10**	**9**	**9**	**9**	**11**	**10**	**9**	**21.4**	**10.2**	**9.6**
Other U.S.	**Other U.S. Total**	**7**	**8**	**8**	**4**	**8**	**8**	**6**	**2**	**2**	**1**	**1**	**2**	**2**	**1**	**1**	**1**	**6**	**8**	**7.0**	**1.6**	**3.4**
All States	**All States Total**	**279**	**283**	**254**	**244**	**239**	**244**	**247**	**176**	**98**	**82**	**90**	**85**	**77**	**75**	**81**	**79**	**73**	**74**	**255.7**	**86.4**	**76.4**

*Note: Includes the communities of Adak, Akutan, King Cove, Kodiak, St. George, St. Paul, Sand Point, and Unalaska/Dutch Harbor. See Table 1-13a community level data.
Source: CFEC 2015

1.5.3 Season Lengths and Average Days Fished per Vessel

Days fished per vessel and season lengths have changed considerably in the Bristol Bay red king crab fishery and the Bering Sea snow crab fishery before and after rationalization. As shown in Table 1-14, during the period 1998 through 2004 (before rationalization), Bristol Bay red king crab seasons lasted between 3 and 5 days, and typically vessels fished all available days. During the period 1998 through 2005 (before rationalization), Bering Sea snow crab seasons lasted between 6 and 66 days, and if the very high years of 1998 and 1999 are excluded, Bering Sea snow crab seasons lasted between 6 and 30 days in the years leading up to rationalization.

With the implementation of the rationalization program, crab seasons took on a different meaning and were, in theory, quite open-ended, with opening and closing dates and the number of available/open fishing days shown in Table 1-15. A number of factors, however, served to limit the number of days per season any particular vessel fished. Table 1-14 shows the average number of fishing days per season per vessel for the Bristol Bay red king crab fishery and for the Bering Sea snow crab fishery from 1998 through 2014/2015. As shown, the average number of days fished per season per vessel post-rationalization varied by community of ownership of the vessel. Overall, however, for the first five seasons under the rationalization program (i.e., the seasons covered in the 5-year program review) Bristol Bay red king crab average days fished per season varied between 19.4 days and 25.8 days. This does not, however, account for yard work and other days of work for the vessel before the individual vessel's fishing begins and after the individual vessel's fishing ends, but it does give a sense of scale for the effective seasons of the vessels. For the Bering Sea snow crab fishery, for those same seasons covered under the 5-year program review (2005/2006 through 2009/2010) the average number of days fished per post-rationalization season for the overall fleet has varied between 27.7 and 39.4 days, although there is variation by community of vessel ownership, and the same data interpretation caveats as described for Bristol Bay red king crab also apply for the Bering Sea snow crab fishery.

More recently, while there has been substantial year-to-year variability, some general patterns differentiating the first five seasons under the program (2005/2006 through 2009/2010) from the second five seasons under the program (2010/2011 through 2014/2015) are apparent. For the Bristol Bay red king crab fishery, while there is variability by geography, in general, average annual season length has grown shorter in more recent years, with the 1998 through 2004 pre-rationalization annual average being 4.0 days, the annual average of the years covered in the 5-year program review being 21.6 days (2005/2006 through 2009/2010), and the annual average of the five most recent years (2010/2011 through 2014/2015) being 15.9 days. For the Bering Sea snow crab fishery, the seasons have continued to lengthen, with the analogous annual average days for the season being 26.8 days (1998–2005), 34.3 days (2005/2006 through 2009/2010), and 52.9 days (2010/2011 through 2014/2015).

With respect to the literature, a number of recent studies have looked at the overall productivity of the BSAI crab fishery through several types of quantitative measurements. Walden *et al*. (2014, see also Thunberg *et al*. 2015) developed a series of input and output indices based on baseline and post-rationalization harvests, ultimately concluding that, regardless of the total BSAI crab biomass, there have been steady improvements in productivity for the fishery and crew days (as a measurement) are an important component in overall productivity measurements despite vessel consolidation.

Table 1-14. Average Fishing Days per Season per Vessel, Bristol Bay Red King Crab and Bering Sea Snow Crab Fisheries, 1998 through 2014/2015

Community	Year																	
	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
Bristol Bay Red King Crab																		
Kodiak	5	5	4	3	3	5	3	--	16.8	15.8	25.4	29.9	30.3	33.3	14.1	11.9	17.1	18.0
Other Alaska (non-Kodiak)	5	5	4	3	3	5	3	--	27.1	16.3	32.9	30.9	20.2	27.4	13.8	10.6	16.1	15.0
Alaska Total	*5*	*5*	*4*	*3*	*3*	*5*	*3*	--	*20.7*	*16.0*	*29.4*	*30.5*	*24.7*	*30.0*	*13.9*	*11.3*	*16.7*	*16.5*
Seattle MSA	5	5	4	3	3	5	3	--	19.3	15.4	22.0	24.5	23.6	26.4	12.6	11.5	12.2	13.7
Other Washington (non-Seattle MSA)	5	5	4	3	3	5	3	--	24.7	14.0	22.0	21.0	26.0	27.0	12.0	12.3	12.5	12.0
Washington Total	*5*	*5*	*4*	*3*	*3*	*5*	*3*	--	*19.9*	*15.3*	*22.0*	*24.2*	*23.8*	*26.5*	*12.5*	*11.5*	*12.2*	*13.6*
Oregon and Other U.S.	*5*	*5*	*4*	*3*	*3*	*5*	*3*	--	*15.2*	*16.2*	*22.8*	*23.8*	*18.3*	*26.5*	*12.4*	*11.6*	*11.2*	*14.2*
All States Total	**5**	**5**	**4**	**3**	**3**	**5**	**3**	--	**19.4**	**15.6**	**23.8**	**25.8**	**23.3**	**27.3**	**12.9**	**11.5**	**13.1**	**14.4**
Bering Sea Snow Crab																		
Kodiak	64	66	7	30	24	9	8	6	24.8	22.9	46.1	44.3	28.4	44.9	81.6	57.8	48.8	68.0
Other Alaska (non-Kodiak)	64	66	7	30	24	9	8	6	36.0	38.0	49.3	57.8	32.2	33.0	64.9	56.9	43.6	74.5
Alaska Total	*64*	*66*	*7*	*30*	*24*	*9*	*8*	*6*	*30.1*	*28.9*	*47.9*	*51.4*	*30.4*	*38.3*	*71.9*	*57.3*	*45.8*	*71.7*
Seattle MSA	64	66	7	30	24	9	8	6	32.6	26.9	35.7	36.9	35.4	35.1	66.3	48.3	48.5	60.1
Other Washington (non-Seattle MSA)	64	66	7	30	24	9	8	6	40.7	17.0	28.3	35.5	43.5	35.5	71.0	62.0	55.0	56.0
Washington Total	*64*	*66*	*7*	*30*	*24*	*9*	*8*	*6*	*33.1*	*26.4*	*35.3*	*36.9*	*35.8*	*35.1*	*66.5*	*48.9*	*48.8*	*59.9*
Oregon and Other U.S.	*64*	*66*	*7*	*30*	*24*	*9*	*8*	*6*	*30.8*	*31.4*	*35.8*	*29.3*	*31.9*	*32.2*	*67.7*	*48.6*	*40.0*	*60.6*
All States Total	**64**	**66**	**7**	**30**	**24**	**9**	**8**	**6**	**32.0**	**27.7**	**38.4**	**39.4**	**33.8**	**35.6**	**68.1**	**51.1**	**46.7**	**63.2**

Note: for 1998 through 2004, it is assumed that all vessels fished the entire open season in each fishery. For 2005/2006 through 2014/2015, the date when fishing began for an individual vessel was used as that vessel's season starting date and the date fishing ended for that vessel was used as that vessel's season ending date. The number of days per season for an individual vessel includes non-fishing days between that vessel's starting and ending dates, but does not include yard work and transit time before the fishing starting date or after the fishing ending date.
Source: NPFMC 2015.

Table 1-15. Bristol Bay Red King Crab and Bering Sea Snow Crab Season Dates and Lengths, 2005 through 2014/2015

Season	Bristol Bay Red King Crab				Bering Sea Snow Crab			
	Date Season Opened (First Fishing Day)	Date Season Closed (Last Fishing Day)	Date of Last Reported Landings	Number of Days Season Open (Fishing Days)	Date Season Opened (First Fishing Day)	Date Season Closed (Last Fishing Day)	Date of Last Reported Landings	Number of Days Season Open (Fishing Days)
1991	11/1/1991	11/8/1991	11/14/1991	7	1/15/1991	6/23/1991	6/30/1991	159
1992	11/1/1992	11/8/1992	11/13/1992	7	1/15/1992	4/22/1992	4/26/1992	98
1993	11/1/1993	11/10/1993	11/16/1993	9	1/15/1993	3/15/1993	3/27/1993	59
1994	**Closed**				1/15/1994	3/1/1994	3/13/1994	45
1995	**Closed**				1/15/1995	2/17/1995	2/24/1995	33
1996	11/1/1996	11/5/1996	11/12/1996	4	1/15/1996	2/29/1996	3/13/1996	45
1997	11/1/1997	11/5/1997	11/12/1997	4	1/15/1997	3/21/1997	3/27/1997	65
1998	11/1/1998	11/6/1998	11/14/1998	5	1/15/1998	3/20/1998	3/31/1998	64
1999	10/15/1999	10/20/1999	10/31/1999	5	1/15/1999	3/22/1999	3/27/1999	66
2000	10/16/2000	10/20/2000	10/31/2000	4	4/1/2000	4/8/2000	4/20/2000	7
2001	10/15/2001	10/18/2001	10/28/2001	3	1/15/2001	2/14/2001	2/25/2001	30
2002	10/15/2002	10/18/2002	10/28/2002	3	1/15/2002	2/8/2002	2/18/2002	24
2003	10/15/2003	10/20/2003	10/30/2003	5	1/15/2003	1/25/2003	2/6/2003	10
2004	10/15/2004	10/18/2004	10/28/2004	3	1/15/2004	1/23/2004	2/3/2004	8
2005	**Not Applicable**				1/15/2005	1/20/2005	1/31/2005	5
2005/2006	10/15/2005	1/15/2006	1/17/2006	92	10/15/2005	5/31/2006	6/2/2006	228
2006/2007	10/15/2006	1/15/2007	1/17/2007	92	10/15/2006	5/31/2007	6/2/2007	228
2007/2008	10/15/2007	1/15/2008	1/17/2008	92	10/15/2007	5/31/2008	6/2/2008	229
2008/2009	10/15/2008	1/15/2009	1/17/2009	92	10/15/2008	5/31/2009	6/2/2009	228
2009/2010	10/15/2009	1/15/2010	1/17/2010	92	10/15/2009	5/31/2010	6/2/2010	228
2010/2011	10/15/2010	1/15/2011	1/17/2011	92	10/15/2010	5/31/2011	6/2/2011	228
2011/2012	10/15/2011	1/15/2012	1/17/2012	92	10/15/2011	5/31/2012	6/15/2012	229
2012/2013	10/15/2012	1/15/2013	1/17/2013	92	10/15/2012	5/31/2013	6/2/2013	228
2013/2014	10/15/2013	1/15/2014	1/17/2014	92	10/15/2013	5/31/2014	6/2/2014	228
2014/2015	10/15/2014	1/15/2015	1/17/2015	92	10/15/2014	5/31/2015	6/2/2015	228

Source: AFKIN 2016

1.5.4 National and State Economies

Between crab rationalization 3-year and 5-year program reviews, the economy of the United States, along with a number of other countries around the world, experienced a sharp decline in gross domestic product (GDP), leading to a protracted economic recession. As reported in the 5-year program review, this economic downturn was expected to confound socioeconomic impacts associated with the BSAI crab rationalization program by creating its own economic and social changes in crab communities.

A number of economic information sources generally agree that the recession (in the United States) began in December 2007 and ended in June of 2009 (Schaefer 2010). However, the New York Stock Exchange drop that occurred throughout the month of October 2008 signaled the beginning of a greater-than-normal recession to many people. Combined with a housing market that was experiencing challenges due to a number of major mortgage lenders either requesting federal assistance or outright collapsing; a tightening of the credit market; and the failure of a number of high-profile lending, commercial, and industrial businesses, this sharp drop in the market led to massive stock market sell-offs. As the economy worsened, unemployment rose dramatically throughout much of the United States, but had already been creeping up before the large market downturn. Unemployment began to rise in the Midwest and parts of the South in mid-2008, eventually spreading to most regions by January 2009 (Slate 2010). By November, 2010 (the time of the 5-year program review), well after the technical end of the recession, nationwide unemployment was still 9.6 percent, up from 6.1 percent in August 2008 (National Public Radio 2010). Now often referred to as "The Great Recession," this economic downturn was generally referred to in the 5-year program review social impact assessment as the "ongoing nationwide recession." The "ongoing" label was used because many people interviewed as part of the project referred to the recession in a manner that suggested that they believed it was still occurring and influencing behaviors that were resulting in at least indirect impacts in some of the crab communities.

Compared to the rest of the nation, Alaska weathered the recession well. In November 2008, Alaska was singled out as the only state with an expanding economy, while the other 49 were either identified as "in recession" or "at risk" of falling into a recession (Mayerowitz 2008). The main reasons provided for Alaska's success was its economic reliance on natural resources (fishing, oil, and mining) and government jobs, which provided relative stability. Fish prices stayed high throughout the downturn, the state salmon runs were strong, oil revenues sharply increased (helping fund state and local government operations), and the mining industry experienced a small boom due to high price in gold because of economic uncertainty elsewhere in the world (Forgey 2010). The unemployment rate in Alaska was consistently below the national average. However, by May 2009, the economy of Alaska lost 4,100 jobs, which was the state's first month of job loss since the nationwide recession began. The downward trend only lasted a handful of months, and by January 2010, the state had added over 4,000 jobs and growth resumed (Holland 2010).

A number of Alaskan residents interviewed as part of the 5-year program review noted that the recession that had hit the Lower 48 hard had made very little direct impact on the local economy of their coastal communities, as ex-vessel prices had stayed high and state and federal construction projects had continued. Indirect impacts, however, were noted. For example, many interviewees suggested that tourism had decreased (particularly in St. Paul and Kodiak) as a

result of the recession as clients and potential clients felt the economic pinch. A number of Alaska businesses whose customers included businesses in the Lower 48, including fishing vessels based in the Lower 48, also suggested that the Alaska expenditure patterns of these businesses were also influenced by the recession. A number of these comments were noted in the detailed community profiles that accompanied the 5-year program review social impact assessment.

As noted in the 5-year program review, however, economic information for most of the Alaska coastal communities engaged in the crab fishery was not available on a detailed enough scale to allow for close documentation of the presence or absence of local recession-related impacts. One exception to this generalization was Kodiak, and an example of how resilient the Alaskan economy was with regard to the recession may be seen in the detailed second-quarter gross receipt information provided by the City of Kodiak for 2006 through 2010 that shows the overall trends of the larger, relatively more diversified economy present on the island. (While there are drawbacks to using data from any specific quarter to illustrate overall trends in an economy with pronounced seasonal fluctuations, annual data were not available for 2010; this example was intended to briefly illustrate year-over-year differences for the quarter representing the most recently available data.) For many business types, slight decreases were seen in 2009 second-quarter business compared to second-quarter totals in 2008 and 2010, but 2009 second-quarter totals were generally higher than second-quarter totals in 2006 or 2007, suggesting an overall upward trend in the economy over the 5 years of information provided for the 5-year program review analysis. Even for those sectors hit hard by the recession elsewhere in the country, specifically construction and manufacturing, overall upward trends were noted. Kodiak 2009 second-quarter totals for construction were $7 million more than 2008 second-quarter totals. Kodiak 2009 second-quarter totals for manufacturing were approximately $40,000 less than 2008 second-quarter totals, but 2010 second-quarter totals were approximately $40,000 more than 2008 second-quarter levels, again suggesting overall upward growth. Retail trade, on the other hand, was clearly much lower in the second quarter of 2009 ($24 million) than in the second quarter of 2008 ($36 million), reinforcing the observation that retail activity was much slower, likely due at least to some degree to indirect impacts from the Lower 48, but most other business types exhibit total gross receipts in the second quarter of 2009 within the natural variation seen between the second quarters of 2006 and 2010. Some industries, specifically real estate, which suffered elsewhere in nation, showed their highest Kodiak second-quarter total in 2009 compared to the other second quarters in the years within the range of data provided.

In sum, the Great Recession or its immediate aftermath did not broadly impact BSAI crab dependent communities in general, or the locally present fisheries sectors in those communities in particular, in the years encompassed by the crab rationalization 5-year program review. More recently however, while the national economy has generally rebounded, the economy of the state of Alaska is currently (2016) experiencing difficulties based on the diminished local, national, and international fortunes of the oil and gas industry. While the accompanying lower cost of energy has benefited a number of fisheries related activities, such as fuel costs for vessels, the state budget difficulties have affected a number of the crab dependent communities, especially in terms of a lack of funding for infrastructure projects, including port projects.

While the fortunes, vulnerability, and resiliency of individual crab dependent communities have varied in this regard to date, with no immediate turn-around predicted it is assumed that this will be an ongoing challenge in several of the communities. In King Cove, for example, a loss of

harbor revenues due to decrease in use from a smaller, more consolidated crab fleet resulting from BSAI crab rationalization were largely offset by raises in fees (generally a 35 percent increase) that occurred in 2009, but the harbor fund continued to be subsidized by the general fund, and state funds were obtained for harbor improvements. With a loss of state funding for harbor improvements, an additional strain on the general fund for harbor-related activities and improvements is leading to consideration of additional fee hikes that will have spill-over effects for all commercial fishery users, a situation more challenging due to the earlier exit of the BSAI crab fleet. This type of cumulative impact is difficult to capture, especially given the passage of 10 years since crab rationalization program implementation and the unknown state of the BSAI crab fishery if the program had not been implemented, but clearly the crab fleet that departed and did not return has made communities more vulnerable to these types of impacts by removing one component of fisheries related economic diversity.

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3.0 REFERENCES

Abbott, J., B. Garber-Yonts, and J. Wilen

2010 Employment and Remuneration Effects of IFQs in the Bering Sea/Aleutian Islands Crab Fisheries. *Marine Resource Economics*. 25:333-354.

Brinson, A., and E. Thunberg

2016 Performance of Federally Managed Catch Share Fisheries in the United States. *Fisheries Research.* 179:213-223.

Carothers, C.

2010 Tragedy of Commodification: Displacements in Alutiiq Fishing Communities in the Gulf of Alaska. *MAST* 9(2):95-120.

Carothers, C.

2015 Fisheries Privatization, Social Transitions, and Well-being in Kodiak, Alaska. *Marine Policy* 61:313-322.

Carothers, C., and C. Chambers

2012 Fisheries Privatization and the Remaking of Fishery Systems. *Environment and Society: Advances in Research* 3:39-59.

Criddle, K.

2012 Adaptation and Maladaptation: Factors that Influence the Resilience of Four Alaskan Fisheries Governed by Durable Entitlements. *ICES Journal of Marine Science.* 69 (7):1168-1179.

De Alessi, M., J. Sullivan, and R. Hilborn

2014 The Legal, Regulatory, and Institutional Evolution of Fishing Cooperatives in Alaska and the West Coast of the United States. *Marine Policy*. 43:217-225.

EDAW, Inc. (EDAW)

2005 Comprehensive Baseline Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove and Kodiak, Alaska. Final Report. Prepared for the North Pacific Fishery Management Council and the North Pacific Research Board. 437 pp.

2008 Comprehensive Baseline Commercial Fishing Community Profiles: Sand Point, Adak, St. Paul and St. George, Alaska. Final Report. Prepared for the North Pacific Fishery Management Council and the North Pacific Research Board. 538 pp.

Felthoven, R., J. Lee, and K. Schnier

2014 Cooperative Formation and Peer Effects in Fisheries. *Marine Resource Economics.* 29 (2):133-156.

Fina, M.
2011 Evolution of Catch Share Management: Lessons from Catch Share Management in the North Pacific. *Fisheries*. 36 (4):164-177.

Forgey, Pat
2010 Alaska's economy powers through recession. JuneauEmpire.com. http://www.juneauempire.com/stories/082410/sta_699586622.shtml.

Grimm, D., I. Barkhorn, D. Festa, K. Bonzon, J. Boomhower, V. Hovland, and J. Blau
2012 Assessing Catch Shares' Effects Evidence from Federal United States and Associated British Columbian Fisheries. *Marine Policy* 36:644.657.

Haynie, A.
2014 Changing Usage and Value in the Western Alaska Community Development Quota (CDQ) Program. *Fisheries Science*. 80:181-191.

Himes-Cornell, A.
2015 *Industry Perceptions of Measures to Affect Access to Quota Shares, Active Participation, and Lease Rates in the Bering Sea and Aleutian Islands Crab Fisheries.* NOAA Technical Memorandum NMFS-AFSC-304. September.

Himes-Cornell, A, and K. Hoelting
2015 Resilience Strategies in the Face of Short- and Long-term Change: Out-migration and Fisheries Regulation in Alaskan Fishing Communities. *Ecology and Society*. 20 (2):9.

Kasperski, S., and D. Holland
2013 Income Diversification and Risk for Fishermen. *Proceedings of the National Academy of Sciences*. 110 (6): 2076-2081.

Kasperski, S., Z. Koehn, and A. Himes-Cornell
2016 Community Fisheries Engagement Indices throughout the BSAI Crab Rationalization Program. Included as Appendix B to the Ten-Year Review of the Crab Rationalization Management Program for Bering Sea and Aleutian Islands Crab Fisheries. North Pacific Fishery Management Council. June.

Knapp, Gunnar
2006 Economic Impacts of BSAI Crab Rationalization on Kodiak Fishing Employment and Earnings and Kodiak Businesses. A Preliminary Analysis. Institute of Social and Economic Research, University of Alaska Anchorage. June. 57 pp.

Knapp, Gunnar, and Marie Lowe
2007 Economic and Social Impacts of BSAI Crab Rationalization on the Communities of King Cove, Akutan and False Pass. Institute of Social and Economic Research, University of Alaska Anchorage. Prepared for the Aleutians East Borough and the City of King Cove. November. 120 pp.

Lazarus, H, J. Sepez, R. Felthoven, and J. Lee
2011 *Post-Rationalization Restructuring of Commercial Crew Member Opportunities in Bering Sea and Aleutian Island Crab Fisheries.* NOAA Technical Memorandum NMFS-AFSC-217. March.

Macinko, S.
2010 *Fisheries "Rationalization" and Crew: Workplace Dynamics and Compensation, What Can We Learn?* North Pacific Research Board Project Final Report. NPRB Project 725. July.

Matulich, S.
2008 Did Processing Quota Damage Alaska Red King Crab Harvesters? Empirical Evidence. *Marine Resource Economics* 23:253-271.

Matulich, S.
2009 That Value of Individual Processing Quota in the Alaska Red King Crab Fishery: A Preliminary Analysis. *Marine Resource Economics* 24:187-193.

Mayerowitz, Scott
2008 Recession Nation: 49 States at Risk. ABC News. http://abcnews.go.com/Business/Economy/story?id=6158877&page=1.

National Oceanic and Atmospheric Administration (NOAA)
2004 Bering Sea Aleutian Islands Crab Fisheries Final Environmental Impact Statement. Appendix 3. Social Impact Assessment. August. 250 pp.

North Pacific Fishery Management Council (NPFMC)
2008 Three-Year Review of the Crab Rationalization Management Program for Bering Sea and Aleutian Islands Crab Fisheries. November 12.

2010 Five-Year Review of the Crab Rationalization Management Program for Bering Sea and Aleutian Islands Crab Fisheries. December 28.

National Public Radio
2010 Tracking U.S. Monthly Unemployment. http://www.npr.org/templates/story/story.php?storyId=99136097.

Package-Ward, C., and A. Himes-Cornell
2014 Utilizing Oral Histories to Understand the Social Networks of Oregon Fishermen in Alaska. *Human Organization*. 73 (3):277-288.

Reedy-Maschner, Katherine L.
2010 Aleut Identities: Tradition and Modernity in an Indigenous Fishery. McGill-Queen's University Press.

Reedy, K., and H. Maschner
2014 Traditional Foods, Corporate Controls: Networks of Household Access to Key Marine Species in Southern Bering Sea Villages. *Polar Record* 50 (255):364-378.

Schaefer, Steve
2010 Street Rallies Into Fed Meeting; Stocks surge as NBER announces recession ended in June 2009. Forbes.com. http://www.forbes.com/2010/09/20/briefing-markets-recession-over-stocks-rally.html?boxes=Homepagechannels.

Thunberg, E., J. Walden, J. Agar, R. Felthoven, A. Harley, S. Kasperski, J. Lee, T. Lee, A. Mamula, J. Stephen, and A. Strelcheck
2015 Measuring Changes in Multi-factor Productivity in U.S. Catch Share Fisheries. *Marine Policy* 62:294-301.

Walden, J., J. Aga, R. Felthoven, A. Harley, S. Kasperski, J. Lee, T. Lee, A. Mamula, J. Stephen, A. Strelcheck, and E. Thunberg
2014 *Productivity Change in U.S. Catch Share Fisheries.* NOAA Technical Memorandum NMFS-F/SPO-146. October.

ATTACHMENT 1

ANNUAL QUANTITATIVE FISHERY DATA (1998–2014/2015) AND QUOTA SHAREHOLDER STATISTICS

Table A1-1. Annual Harvests and Averages by BSAI Crab Fishery, Pre- and Post-Rationalization

Fishery	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Pounds													
Bristol Bay Red King Crab	14,290,271	11,162,522	7,473,777	7,682,520	8,628,929	14,623,764	13,506,396	NA	17,282,614	14,777,160	19,515,989	19,537,438	15,430,137
Bering Sea Snow Crab	243,250,200	184,693,785	29,440,846	20,231,297	28,512,334	25,541,268	21,504,123	22,590,045	33,650,926	32,477,793	57,479,966	53,724,222	46,360,880
EAI Golden King Crab	3,247,863	3,069,886	3,134,079	3,178,653	2,821,851	2,977,055	2,886,817	NA	2,847,104	2,971,368	**	**	**
WAI Golden King Crab	2,444,628	**	2,112,052	1,970,243	1,890,710	1,797,103	2,046,123	1,920,930	**	**	**	**	**
EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	1,313,476	1,316,327	1,807,344	1,314,924
WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	926,882	670,659	479,052	109,250	CLOSED
St. Matthew Island Blue King Crab	`NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	460,859
Value													
Bristol Bay Red King Crab	$37,313,764	$69,334,788	$35,129,062	$36,083,814	$52,967,001	$73,180,530	$62,770,874	NA	$75,761,813	$53,926,631	$83,911,598	$96,952,935	$70,051,828
Bering Sea Snow Crab	$135,790,155	$179,729,517	$53,930,055	$30,712,512	$38,516,817	$45,676,188	$43,689,714	$40,492,511	$38,509,008	$52,046,172	$96,559,567	$74,198,705	$60,127,014
EAI Golden King Crab	$6,013,306	$9,308,659	$10,722,820	$10,116,883	$9,611,628	$10,386,474	$9,066,683	NA	$7,604,877	$5,635,266	**	**	**
WAI Golden King Crab	$4,671,104	**	$6,612,831	$6,379,813	$6,133,102	$6,119,689	$6,885,032	$5,912,523	**	**	**	**	**
EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	$2,077,439	$2,170,119	$2,873,588	$2,164,989
WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	$1,341,461	$1,057,512	$804,947	$165,474	CLOSED
St. Matthew Island Blue King Crab	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	$986,770
Vessels													
Bristol Bay Red King Crab	274	256	238	224	234	242	243	NA	87	80	72	76	69
Bering Sea Snow Crab	229	241	222	201	182	185	183	161	75	65	74	73	67
EAI Golden King Crab	14	15	15	19	19	19	19	NA	7	5	3	3	3
WAI Golden King Crab	10	3	15	11	8	5	6	5	3	2	2	2	3
EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	34	20	21	16
WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	42	37	32	42	CLOSED
St. Matthew Island Blue King Crab	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	7
Average Price per Pound													
Bristol Bay Red King Crab	$2.61	$6.21	$4.70	$4.70	$6.14	$5.00	$4.65	NA	$4.38	$3.65	$4.30	$4.96	$4.54
Bering Sea Snow Crab	$0.56	$0.97	$1.83	$1.52	$1.35	$1.79	$2.03	$1.79	$1.14	$1.60	$1.68	$1.38	$1.30
EAI Golden King Crab	$1.85	$3.03	$3.42	$3.18	$3.41	$3.49	$3.14	NA	$2.67	$1.90	**	**	**
WAI Golden King Crab	$1.91	**	$3.13	$3.24	$3.24	$3.41	$3.36	$3.08	**	**	**	**	**
EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	$1.58	$1.65	$1.59	$1.65
WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	$1.45	$1.58	$1.68	$1.51	CLOSED
St. Matthew Island Blue King Crab	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	$2.14
Average Value per Vessel													
Bristol Bay Red King Crab	$136,182	$270,839	$147,601	$161,088	$226,355	$302,399	$258,316	NA	$870,825	$674,083	$1,165,439	$1,275,697	$1,015,244
Bering Sea Snow Crab	$592,970	$745,766	$242,928	$152,799	$211,631	$246,898	$238,742	$251,506	$513,453	$800,710	$1,304,859	$1,016,421	$897,418
EAI Golden King Crab	$429,522	$620,577	$714,855	$532,468	$505,875	$546,657	$477,194	NA	$1,086,411	$1,127,053	**	**	**
WAI Golden King Crab	$467,110	**	$440,855	$579,983	$766,638	$1,223,938	$1,147,505	$1,182,505	**	**	**	**	**
EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	$61,101	$108,506	$136,838	$135,312
WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	$31,940	$28,581	$25,155	$3,940	CLOSED
St. Matthew Island Blue King Crab	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	$140,967

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data suppressed due to confidentiality.
***Computation suppressed to protect confidentiality of primary data.
Note: Averages do not include any years the fishery was closed.
Source: ADFG 2015; CFEC 2015

Table A1-1 (continued). Annual Harvests and Averages by BSAI Crab Fishery, Pre- and Post-Rationalization

Fishery	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Pounds								
Bristol Bay Red King Crab	14,366,550	7,600,489	7,616,147	8,341,139	9,826,883	11,052,597	17,308,668	9,550,242
Bering Sea Snow Crab	51,787,678	84,206,079	62,562,058	51,570,809	65,560,020	71,970,487	44,738,757	63,137,329
EAI Golden King Crab	**	**	**	**	**	3,045,172	***	***
WAI Golden King Crab	**	**	**	2,672,524	**	***	***	***
EBS Tanner	CLOSED	CLOSED	CLOSED	1,419,144	8,087,339	NA	1,438,018	4,753,242
WBS Tanner	CLOSED	CLOSED	CLOSED	865,205	4,497,840	NA	546,461	2,681,523
St. Matthew Island Blue King Crab	1,263,984	1,880,620	1,616,058	CLOSED	308,583	NA	460,859	1,267,311
Value								
Bristol Bay Red King Crab	$104,995,195	$81,781,309	$61,054,541	$56,629,172	$66,245,310	$52,397,119	$76,120,961	$74,141,105
Bering Sea Snow Crab	$130,601,299	$179,811,936	$142,670,877	$120,053,555	$108,152,337	$71,067,184	$64,288,093	136,258,001
EAI Golden King Crab	**	**	**	**	**	$9,318,065	***	***
WAI Golden King Crab	**	**	**	$10,240,460	**	***	***	***
EBS Tanner	CLOSED	CLOSED	CLOSED	$3,479,499	$20,232,300	NA	$2,321,534	$11,855,899
WBS Tanner	CLOSED	CLOSED	CLOSED	$2,196,701	$9,793,974	NA	$842,348	$5,995,338
St. Matthew Island Blue King Crab	$6,225,905	$8,695,968	$6,966,710	CLOSED	$1,020,302	NA	$986,770	$5,727,221
Vessels								
Bristol Bay Red King Crab	64	61	63	62	62	244.4	76.8	62.4
Bering Sea Snow Crab	67	70	68	71	70	200.5	70.8	69.2
EAI Golden King Crab	3	3	3	3	3	17.1	4.2	3.0
WAI Golden King Crab	2	2	3	4	3	7.9	2.4	2.8
EBS Tanner	CLOSED	CLOSED	CLOSED	29	39	NA	22.8	34.0
WBS Tanner	CLOSED	CLOSED	CLOSED	66	25	NA	38.3	45.5
St. Matthew Island Blue King Crab	11	19	17	CLOSED	4	NA	7.0	12.8
Average Price per Pound								
Bristol Bay Red King Crab	$7.31	$10.76	$8.02	$6.79	$6.74	$4.74	$4.40	$7.76
Bering Sea Snow Crab	$2.52	$2.14	$2.28	$2.33	$1.65	$0.99	$1.44	$2.18
EAI Golden King Crab	**	**	**	**	**	$3.06	***	***
WAI Golden King Crab	**	**	**	$3.83	**	***	***	***
EBS Tanner	CLOSED	CLOSED	CLOSED	$2.45	$2.50	NA	$1.61	$2.49
WBS Tanner	CLOSED	CLOSED	CLOSED	$2.54	$2.18	NA	$1.54	$2.24
St. Matthew Island Blue King Crab	$4.93	$4.62	$4.31	CLOSED	$3.31	NA	$2.14	$4.52
Average Value per Vessel								
Bristol Bay Red King Crab	$1,640,550	$1,340,677	$969,120	$913,374	$1,068,473	$214,366	$991,158	$1,188,159
Bering Sea Snow Crab	$1,949,273	$2,568,742	$2,098,101	$1,690,895	$1,545,033	$354,450	$908,024	$1,970,409
EAI Golden King Crab	**	**	**	**	**	$543,554	***	***
WAI Golden King Crab	**	**	**	$2,560,115	**	***	***	***
EBS Tanner	CLOSED	CLOSED	CLOSED	$119,983	$518,777	NA	$102,045	$348,703
WBS Tanner	CLOSED	CLOSED	CLOSED	$33,283	$391,759	NA	$22,022	$131,766
St. Matthew Island Blue King Crab	$565,991	$457,683	$409,806	NA	$255,076	NA	$140,967	$449,194

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data suppressed due to confidentiality.
***Computation suppressed to protect confidentiality of primary data.
Note: Averages do not include any years the fishery was closed.
Source: ADFG 2015; CFEC 2015

Table A1-2a. BSAI Crab Vessel Count by Community

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Alaska	South-Central	Anchor Point													
		Bristol Bay Red King	0	0	0	0	0	0	1	NA	0	0	0	0	0
		Bering Sea Snow	0	0	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Anchorage													
		Bristol Bay Red King	6	6	5	6	6	7	7	NA	2	4	4	4	4
		Bering Sea Snow	6	6	6	6	5	6	6	6	1	4	6	5	5
		EAI Golden King	1	1	1	1	1	1	1	NA	0	0	0	1	1
		WAI Golden King	1	0	1	1	0	0	0	0	0	0	0	0	1
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	1	3	2	2	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Big Lake													
		Bristol Bay Red King	0	0	1	0	0	0	0	NA	0	0	0	0	0
		Bering Sea Snow	0	1	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Cordova													
		Bristol Bay Red King	2	1	1	1	2	2	2	NA	0	0	0	0	0
		Bering Sea Snow	1	2	1	1	1	1	2	1	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Homer													
		Bristol Bay Red King	9	8	8	8	7	6	5	NA	3	3	3	4	3
		Bering Sea Snow	8	8	8	8	7	6	6	3	3	2	3	4	5
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	1	2	1	1
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	1	1	2	3	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Kenai													
		Bristol Bay Red King	1	1	1	1	0	0	0	NA	0	0	0	0	0
		Bering Sea Snow	1	1	1	1	1	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
		Seldovia													
		Bristol Bay Red King	1	1	1	1	1	1	1	NA	0	1	1	1	1
		Bering Sea Snow	1	1	1	1	1	1	1	1	1	1	1	0	1
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	1	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Seward													
		Bristol Bay Red King	4	1	1	0	0	0	0	NA	0	0	0	0	0
		Bering Sea Snow	3	1	1	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Wasilla													
		Bristol Bay Red King	0	0	0	0	0	0	0	NA	0	0	0	0	1
		Bering Sea Snow	0	0	0	0	0	0	0	0	0	0	0	0	1
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	1
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		South-Central Total													
		Bristol Bay Red King	*23*	*18*	*18*	*17*	*16*	*16*	*16*	*NA*	*5*	*8*	*8*	*9*	*9*
		Bering Sea Snow	*20*	*20*	*18*	*17*	*15*	*14*	*15*	*11*	*5*	*7*	*10*	*9*	*12*
		EAI Golden King	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*NA*	*0*	*0*	*0*	*1*	*1*
		WAI Golden King	*1*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
		EBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	CLOSED	*1*	*2*	*1*	*2*
		WBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*2*	*5*	*4*	*5*	CLOSED
		St. Matthew Island Blue	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	CLOSED	CLOSED	CLOSED	CLOSED	*0*
	Southeast	Ketchikan													
		Bristol Bay Red King	1	1	1	1	1	1	1	NA	0	1	1	0	0
		Bering Sea Snow	1	1	1	1	1	1	1	1	0	1	1	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	1	1	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	1	1	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Pelican													
		Bristol Bay Red King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		Bering Sea Snow	1	0	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
		Petersburg													
		Bristol Bay Red King	4	4	4	4	4	2	2	NA	0	0	0	0	0
		Bering Sea Snow	4	4	4	4	4	2	2	2	0	CLOSED	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Sitka													
		Bristol Bay Red King	2	1	2	2	2	2	1	NA	0	0	0	0	0
		Bering Sea Snow	2	2	2	2	2	2	1	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Yakutat													
		Bristol Bay Red King	1	0	1	1	1	1	1	NA	0	0	0	0	0
		Bering Sea Snow	1	1	1	0	0	1	1	1	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Southeast Total													
		Bristol Bay Red King	*8*	*6*	*8*	*8*	*8*	*6*	*5*	*NA*	*0*	*1*	*1*	*0*	*0*
		Bering Sea Snow	*9*	*8*	*8*	*7*	*7*	*6*	*5*	*4*	*0*	*1*	*1*	*0*	*0*
		EAI Golden King	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*NA*	*0*	*0*	*0*	*0*	*0*
		WAI Golden King	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		EBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	CLOSED	*1*	*1*	*0*	*0*
		WBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*0*	*1*	*1*	*0*	CLOSED
		St. Matthew Island Blue	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	CLOSED	CLOSED	CLOSED	CLOSED	*0*
	Aleutian/Pribilof	Akutan													
		Bristol Bay Red King	1	0	1	1	0	0	0	NA	0	0	0	0	0
		Bering Sea Snow	0	1	0	1	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		King Cove													
		Bristol Bay Red King	3	3	4	2	2	2	1	NA	1	2	1	1	0
		Bering Sea Snow	3	2	3	2	1	1	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	1	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
		Sand Point													
		Bristol Bay Red King	5	3	5	1	0	1	1	NA	0	0	0	0	0
		Bering Sea Snow	4	2	3	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Unalaska/Dutch Harbor													
		Bristol Bay Red King	2	2	0	0	1	1	0	NA	0	0	0	0	0
		Bering Sea Snow	1	1	0	0	1	1	1	1	1	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0	0	0	0
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
		Aleutian/Pribilof Total													
		Bristol Bay Red King	*11*	*8*	*10*	*4*	*3*	*4*	*2*	*NA*	*1*	*2*	*1*	*1*	*0*
		Bering Sea Snow	*8*	*6*	*6*	*3*	*2*	*2*	*1*	*1*	*1*	*0*	*0*	*0*	*0*
		EAI Golden King	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*NA*	*0*	*0*	*0*	*0*	*0*
		WAI Golden King	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		EBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	CLOSED	*0*	*1*	*0*	*0*
		WBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*0*	*0*	*0*	*0*	CLOSED
		St. Matthew Island Blue	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	CLOSED	CLOSED	CLOSED	CLOSED	*0*
	All Regions (non-Kodiak)	*All Regions (non-Kodiak)*													
		Bristol Bay Red King	*42*	*32*	*36*	*29*	*27*	*26*	*23*	*NA*	*6*	*11*	*10*	*10*	*9*
		Bering Sea Snow	*37*	*34*	*32*	*27*	*24*	*22*	*21*	*16*	*6*	*8*	*11*	*9*	*12*
		EAI Golden King	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*NA*	*0*	*0*	*0*	*1*	*1*
		WAI Golden King	*1*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
		EBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	CLOSED	*2*	*4*	*1*	*2*
		WBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*2*	*6*	*5*	*5*	CLOSED
		St. Matthew Island Blue	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	CLOSED	CLOSED	CLOSED	CLOSED	*0*
	Kodiak	Kodiak													
		Bristol Bay Red King	39	35	35	34	32	30	33	NA	13	10	9	11	9
		Bering Sea Snow	31	33	34	28	25	22	21	21	10	8	10	11	9
		EAI Golden King	1	2	2	2	3	3	3	NA	0	0	0	0	0
		WAI Golden King	2	1	1	2	1	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	5	1	4	1
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	5	3	5	6	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	1
	Alaska Total	**Alaska Total**													
		Bristol Bay Red King	**81**	**67**	**71**	**63**	**59**	**56**	**56**	**NA**	**19**	**21**	**19**	**21**	**18**
		Bering Sea Snow	**68**	**67**	**66**	**55**	**49**	**44**	**42**	**37**	**16**	**16**	**21**	**20**	**21**
		EAI Golden King	**2**	**3**	**3**	**3**	**4**	**4**	**4**	**NA**	**0**	**0**	**0**	**1**	**1**
		WAI Golden King	**3**	**1**	**2**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	CLOSED	**7**	**5**	**5**	**3**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**7**	**9**	**10**	**11**	CLOSED
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	CLOSED	CLOSED	CLOSED	CLOSED	**1**

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Washington	Seattle MSA	Seattle MSA													
		Bristol Bay Red King	153	147	131	128	132	136	139	NA	49	45	40	44	40
		Bering Sea Snow	126	136	117	114	98	100	103	94	45	39	42	43	38
		EAI Golden King	11	11	11	15	15	14	14	NA	7	5	3	2	2
		WAI Golden King	5	1	11	6	5	3	4	3	2	1	1	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	22	12	12	10
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	26	20	17	24	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	5
	Other Washington	Other Washington													
		Bristol Bay Red King	18	18	16	14	15	18	19	NA	6	5	3	3	3
		Bering Sea Snow	16	17	14	15	13	16	18	10	3	1	2	1	1
		EAI Golden King	0	0	0	0	0	1	1	NA	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	1	0	1	1
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	1	1	0	0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
	Washington Total	**Washington Total**													
		Bristol Bay Red King	**171**	**165**	**147**	**142**	**147**	**154**	**158**	**NA**	**55**	**50**	**43**	**47**	**43**
		Bering Sea Snow	**142**	**153**	**131**	**129**	**111**	**116**	**121**	**104**	**48**	**40**	**44**	**44**	**39**
		EAI Golden King	**11**	**11**	**11**	**15**	**15**	**15**	**15**	**NA**	**7**	**5**	**3**	**2**	**2**
		WAI Golden King	**5**	**1**	**11**	**6**	**5**	**3**	**4**	**3**	**2**	**1**	**1**	**0**	**0**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**23**	**12**	**13**	**11**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**27**	**21**	**17**	**24**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**5**
Oregon	**Oregon Total**	**Oregon Total**													
		Bristol Bay Red King	**15**	**18**	**16**	**16**	**21**	**25**	**23**	**NA**	**11**	**8**	**9**	**7**	**7**
		Bering Sea Snow	**13**	**14**	**18**	**15**	**17**	**20**	**16**	**18**	**9**	**8**	**8**	**8**	**6**
		EAI Golden King	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**NA**	**0**	**0**	**0**	**0**	**0**
		WAI Golden King	**2**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**4**	**3**	**3**	**2**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**8**	**6**	**5**	**6**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**1**
Other U.S.	**Other U.S. Total**	**Other U.S. Total**													
		Bristol Bay Red King	**7**	**6**	**4**	**3**	**7**	**7**	**6**	**NA**	**2**	**1**	**1**	**1**	**1**
		Bering Sea Snow	**6**	**7**	**7**	**2**	**5**	**5**	**4**	**2**	**2**	**1**	**1**	**1**	**1**
		EAI Golden King	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**NA**	**0**	**0**	**0**	**0**	**0**
		WAI Golden King	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**0**	**0**	**0**	**0**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**0**	**1**	**0**	**1**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**0**
All States	**All States Total**	**All States Total**													
		Bristol Bay Red King	**274**	**256**	**238**	**224**	**234**	**242**	**243**	**NA**	**87**	**80**	**72**	**76**	**69**
		Bering Sea Snow	**229**	**241**	**222**	**201**	**182**	**185**	**183**	**161**	**75**	**65**	**74**	**73**	**67**
		EAI Golden King	**14**	**15**	**15**	**19**	**19**	**19**	**19**	**NA**	**7**	**5**	**3**	**3**	**3**
		WAI Golden King	**10**	**3**	**15**	**11**	**8**	**5**	**6**	**5**	**3**	**2**	**2**	**2**	**3**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**34**	**20**	**21**	**16**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**42**	**37**	**32**	**42**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**7**

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
Source: ADFG 2015; CFEC 2015

Table A1-2a (continued). BSAI Crab Vessel Count by Community

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Alaska	South-Central	Anchor Point								
		Bristol Bay Red King	0	0	0	0	0	0.1	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.0	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Anchorage								
		Bristol Bay Red King	4	3	3	4	4	6.1	3.6	3.6
		Bering Sea Snow	6	7	6	6	8	5.9	4.2	6.6
		EAI Golden King	1	1	1	1	1	1.0	0.4	1.0
		WAI Golden King	1	1	2	2	2	0.4	0.2	1.6
		EBS Tanner	CLOSED	CLOSED	CLOSED	3	4	NA	0.0	3.5
		WBS Tanner	CLOSED	CLOSED	CLOSED	6	1	NA	2.0	3.5
		St. Matthew Island Blue	3	4	3	CLOSED	0	NA	0.0	2.5
		Big Lake								
		Bristol Bay Red King	0	0	0	0	0	0.1	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.1	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Cordova								
		Bristol Bay Red King	0	0	0	0	0	1.6	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	1.3	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Homer								
		Bristol Bay Red King	5	5	6	5	4	7.3	3.2	5.0
		Bering Sea Snow	4	5	5	4	4	6.8	3.4	4.4
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	3	4	NA	1.3	3.5
		WBS Tanner	CLOSED	CLOSED	CLOSED	3	3	NA	1.8	3.0
		St. Matthew Island Blue	0	0	2	CLOSED	0	NA	0.0	0.5
		Kenai								
		Bristol Bay Red King	0	0	0	0	0	0.6	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.6	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	1	NA	0.0	0.5
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
		Seldovia								
		Bristol Bay Red King	1	1	0	0	0	1.0	0.8	0.4
		Bering Sea Snow	1	1	1	1	1	1.0	0.8	1.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	1	0	NA	0.3	0.5
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Seward								
		Bristol Bay Red King	0	0	0	0	0	0.9	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.6	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Wasilla								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.2	0.0
		Bering Sea Snow	0	0	0	0	1	0.0	0.2	0.2
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.3	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		South-Central Total								
		Bristol Bay Red King	*10*	*9*	*9*	*9*	*8*	*17.7*	*7.8*	*9.0*
		Bering Sea Snow	*11*	*13*	*12*	*11*	*14*	*16.3*	*8.6*	*12.2*
		EAI Golden King	*1*	*1*	*1*	*1*	*1*	*1.0*	*0.4*	*1.0*
		WAI Golden King	*1*	*1*	*2*	*2*	*2*	*0.4*	*0.2*	*1.6*
		EBS Tanner	CLOSED	CLOSED	CLOSED	*6*	*8*	*NA*	*1.5*	*7.0*
		WBS Tanner	CLOSED	CLOSED	CLOSED	*10*	*5*	*NA*	*4.0*	*7.5*
		St. Matthew Island Blue	*3*	*4*	*5*	CLOSED	*0*	*NA*	*0.0*	*3.0*
	Southeast	Ketchikan								
		Bristol Bay Red King	0	0	0	0	0	1.0	0.4	0.0
		Bering Sea Snow	0	0	0	0	0	1.0	0.4	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.5	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.5	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Pelican								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.1	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
		Petersburg								
		Bristol Bay Red King	0	0	0	0	0	3.4	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	3.3	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Sitka								
		Bristol Bay Red King	0	0	0	0	0	1.7	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	1.6	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Yakutat								
		Bristol Bay Red King	0	0	0	0	0	0.9	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.8	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Southeast Total								
		Bristol Bay Red King	*0*	*0*	*0*	*0*	*0*	*7.0*	*0.4*	*0.0*
		Bering Sea Snow	*0*	*0*	*0*	*0*	*0*	*6.8*	*0.4*	*0.0*
		EAI Golden King	*0*	*0*	*0*	*0*	*0*	*0.0*	*0.0*	*0.0*
		WAI Golden King	*0*	*0*	*0*	*0*	*0*	*0.0*	*0.0*	*0.0*
		EBS Tanner	CLOSED	CLOSED	CLOSED	*0*	*0*	*NA*	*0.5*	*0.0*
		WBS Tanner	CLOSED	CLOSED	CLOSED	*0*	*0*	*NA*	*0.5*	*0.0*
		St. Matthew Island Blue	*0*	*0*	*0*	CLOSED	*0*	*NA*	*0.0*	*0.0*
	Aleutian/Pribilof	Akutan								
		Bristol Bay Red King	0	0	0	0	0	0.4	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.3	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		King Cove								
		Bristol Bay Red King	0	0	0	0	0	2.4	1.0	0.0
		Bering Sea Snow	0	0	0	0	0	1.5	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.3	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
		Sand Point								
		Bristol Bay Red King	0	0	0	0	0	2.3	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	1.1	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Unalaska/Dutch Harbor								
		Bristol Bay Red King	0	0	0	0	0	0.9	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.8	0.2	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	0	0	NA	0.0	0.0
		St. Matthew Island Blue	0	0	0	CLOSED	0	NA	0.0	0.0
		Aleutian/Pribilof Total								
		Bristol Bay Red King	*0*	*0*	*0*	*0*	*0*	*6.0*	*1.0*	*0.0*
		Bering Sea Snow	*0*	*0*	*0*	*0*	*0*	*3.6*	*0.2*	*0.0*
		EAI Golden King	*0*	*0*	*0*	*0*	*0*	*0.0*	*0.0*	*0.0*
		WAI Golden King	*0*	*0*	*0*	*0*	*0*	*0.0*	*0.0*	*0.0*
		EBS Tanner	CLOSED	CLOSED	CLOSED	*0*	*0*	*NA*	*0.3*	*0.0*
		WBS Tanner	CLOSED	CLOSED	CLOSED	*0*	*0*	*NA*	*0.0*	*0.0*
		St. Matthew Island Blue	*0*	*0*	*0*	CLOSED	*0*	*NA*	*0.0*	*0.0*
	All Regions (non-Kodiak)	*All Regions (non-Kodiak)*								
		Bristol Bay Red King	*10*	*9*	*9*	*9*	*8*	*30.7*	*9.2*	*9.0*
		Bering Sea Snow	*11*	*13*	*12*	*11*	*14*	*26.6*	*9.2*	*11.8*
		EAI Golden King	*1*	*1*	*1*	*1*	*1*	*1.0*	*0.4*	*1.0*
		WAI Golden King	*1*	*1*	*2*	*2*	*2*	*0.4*	*0.2*	*1.6*
		EBS Tanner	CLOSED	CLOSED	CLOSED	*6*	*8*	*NA*	*2.3*	*7.0*
		WBS Tanner	CLOSED	CLOSED	CLOSED	*10*	*5*	*NA*	*4.5*	*7.5*
		St. Matthew Island Blue	*3*	*4*	*5*	CLOSED	*0*	*NA*	*0.0*	*3.0*
	Kodiak	Kodiak								
		Bristol Bay Red King	7	8	8	8	8	34.0	10.4	7.8
		Bering Sea Snow	8	8	8	8	8	26.9	9.6	8.0
		EAI Golden King	0	0	0	0	0	2.3	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.9	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	3	2	NA	2.8	2.5
		WBS Tanner	CLOSED	CLOSED	CLOSED	8	1	NA	4.8	4.5
		St. Matthew Island Blue	1	2	1	CLOSED	0	NA	1.0	1.0
	Alaska Total	**Alaska Total**								
		Bristol Bay Red King	**17**	**17**	**17**	**17**	**16**	**64.7**	**19.6**	**16.8**
		Bering Sea Snow	**19**	**21**	**20**	**19**	**22**	**53.5**	**18.8**	**20.2**
		EAI Golden King	**1**	**1**	**1**	**1**	**1**	**3.3**	**0.4**	**1.0**
		WAI Golden King	**1**	**1**	**2**	**2**	**2**	**1.3**	**0.2**	**1.6**
		EBS Tanner	CLOSED	CLOSED	CLOSED	**9**	**10**	**NA**	**5.0**	**9.5**
		WBS Tanner	CLOSED	CLOSED	CLOSED	**18**	**6**	**NA**	**9.3**	**12.0**
		St. Matthew Island Blue	**4**	**6**	**6**	CLOSED	**0**	**NA**	**1.0**	**4.0**

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Washington	Seattle MSA	Seattle MSA								
		Bristol Bay Red King	37	36	37	33	34	138.0	43.6	35.4
		Bering Sea Snow	39	41	38	37	38	111.0	41.4	38.6
		EAI Golden King	2	2	2	2	2	13.0	3.8	2.0
		WAI Golden King	0	0	0	0	0	4.8	0.8	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	15	19	NA	14.0	17.0
		WBS Tanner	CLOSED	CLOSED	CLOSED	34	12	NA	21.8	23.0
		St. Matthew Island Blue	5	9	8	CLOSED	3	NA	5.0	6.3
	Other Washington	Other Washington								
		Bristol Bay Red King	2	2	2	3	2	16.9	4.0	2.2
		Bering Sea Snow	2	1	2	2	2	14.9	1.6	1.8
		EAI Golden King	0	0	0	0	0	0.3	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	CLOSED	CLOSED	CLOSED	1	2	NA	0.8	1.5
		WBS Tanner	CLOSED	CLOSED	CLOSED	2	0	NA	0.5	1.0
		St. Matthew Island Blue	0	1	1	CLOSED	0	NA	0.0	0.5
	Washington Total	**Washington Total**								
		Bristol Bay Red King	**39**	**38**	**39**	**36**	**36**	**154.9**	**47.6**	**37.6**
		Bering Sea Snow	**41**	**42**	**40**	**39**	**40**	**125.9**	**43.0**	**40.4**
		EAI Golden King	**2**	**2**	**2**	**2**	**2**	**13.3**	**3.8**	**2.0**
		WAI Golden King	**0**	**0**	**0**	**0**	**0**	**4.8**	**0.8**	**0.0**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**16**	**21**	**NA**	**14.8**	**18.5**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**36**	**12**	**NA**	**22.3**	**24.0**
		St. Matthew Island Blue	**5**	**10**	**9**	**CLOSED**	**3**	**NA**	**5.0**	**6.8**
Oregon	**Oregon Total**	**Oregon Total**								
		Bristol Bay Red King	**7**	**5**	**6**	**8**	**8**	**19.1**	**8.4**	**6.8**
		Bering Sea Snow	**6**	**6**	**7**	**8**	**7**	**16.4**	**7.8**	**6.8**
		EAI Golden King	**0**	**0**	**0**	**0**	**0**	**0.6**	**0.0**	**0.0**
		WAI Golden King	**1**	**1**	**1**	**1**	**1**	**1.9**	**1.0**	**1.0**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**3**	**5**	**NA**	**3.0**	**4.0**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**7**	**6**	**NA**	**6.3**	**6.5**
		St. Matthew Island Blue	**2**	**3**	**2**	**CLOSED**	**1**	**NA**	**1.0**	**2.0**
Other U.S.	**Other U.S. Total**	**Other U.S. Total**								
		Bristol Bay Red King	**1**	**1**	**1**	**1**	**2**	**5.7**	**1.2**	**1.2**
		Bering Sea Snow	**1**	**1**	**1**	**5**	**1**	**4.8**	**1.2**	**1.8**
		EAI Golden King	**0**	**0**	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**
		WAI Golden King	**0**	**0**	**0**	**1**	**0**	**0.0**	**0.4**	**0.2**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**1**	**3**	**NA**	**0.0**	**2.0**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**5**	**1**	**NA**	**0.5**	**3.0**
		St. Matthew Island Blue	**0**	**0**	**0**	**CLOSED**	**0**	**NA**	**0.0**	**0.0**
All States	**All States Total**	**All States Total**								
		Bristol Bay Red King	**64**	**61**	**63**	**62**	**62**	**244.4**	**76.8**	**62.4**
		Bering Sea Snow	**67**	**70**	**68**	**71**	**70**	**200.5**	**70.8**	**69.2**
		EAI Golden King	**3**	**3**	**3**	**3**	**3**	**17.1**	**4.2**	**3.0**
		WAI Golden King	**2**	**2**	**3**	**4**	**3**	**7.9**	**2.4**	**2.8**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**29**	**39**	**NA**	**22.8**	**34.0**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**66**	**25**	**NA**	**38.3**	**45.5**
		St. Matthew Island Blue	**11**	**19**	**17**	**CLOSED**	**4**	**NA**	**7.0**	**12.8**

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
Source: ADFG 2015; CFEC 2015

Table A1-2b. BSAI Crab Vessel Count Percentages by Community

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Alaska	South-Central	Anchor Point													
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Anchorage													
		Bristol Bay Red King	2.2%	2.3%	2.1%	2.7%	2.6%	2.9%	2.9%	NA	2.3%	5.0%	5.6%	5.3%	5.8%
		Bering Sea Snow	2.6%	2.5%	2.7%	3.0%	2.7%	3.2%	3.3%	3.7%	1.3%	6.2%	8.1%	6.8%	7.5%
		EAI Golden King	7.1%	6.7%	6.7%	5.3%	5.3%	5.3%	5.3%	NA	0.0%	0.0%	0.0%	33.3%	33.3%
		WAI Golden King	10.0%	0.0%	6.7%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	2.4%	8.1%	6.3%	4.8%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Big Lake													
		Bristol Bay Red King	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Cordova													
		Bristol Bay Red King	0.7%	0.4%	0.4%	0.4%	0.9%	0.8%	0.8%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.4%	0.8%	0.5%	0.5%	0.5%	0.5%	1.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Homer													
		Bristol Bay Red King	3.3%	3.1%	3.4%	3.6%	3.0%	2.5%	2.1%	NA	3.4%	3.8%	4.2%	5.3%	4.3%
		Bering Sea Snow	3.5%	3.3%	3.6%	4.0%	3.8%	3.2%	3.3%	1.9%	4.0%	3.1%	4.1%	5.5%	7.5%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	2.9%	10.0%	4.8%	6.3%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	2.4%	2.7%	6.3%	7.1%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Kenai													
		Bristol Bay Red King	0.4%	0.4%	0.4%	0.4%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.4%	0.4%	0.5%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
		Seldovia													
		Bristol Bay Red King	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	NA	0.0%	1.3%	1.4%	1.3%	1.4%
		Bering Sea Snow	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	1.3%	1.5%	1.4%	0.0%	1.5%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	2.7%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Seward													
		Bristol Bay Red King	1.5%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	1.3%	0.4%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
		Wasilla													
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	1.4%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	6.3%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		South-Central Total													
		Bristol Bay Red King	*8.4%*	*7.0%*	*7.6%*	*7.6%*	*6.8%*	*6.6%*	*6.6%*	*NA*	*5.7%*	*10.0%*	*11.1%*	*11.8%*	*13.0%*
		Bering Sea Snow	*8.7%*	*8.3%*	*8.1%*	*8.5%*	*8.2%*	*7.6%*	*8.2%*	*6.8%*	*6.7%*	*10.8%*	*13.5%*	*12.3%*	*17.9%*
		EAI Golden King	*7.1%*	*6.7%*	*6.7%*	*5.3%*	*5.3%*	*5.3%*	*5.3%*	*NA*	*0.0%*	*0.0%*	*0.0%*	*33.3%*	*33.3%*
		WAI Golden King	*10.0%*	*0.0%*	*6.7%*	*9.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*33.3%*
		EBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*CLOSED*	*2.9%*	*10.0%*	*4.8%*	*12.5%*
		WBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*4.8%*	*13.5%*	*12.5%*	*11.9%*	*CLOSED*
		St. Matthew Island Blue	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*CLOSED*	*CLOSED*	*CLOSED*	*CLOSED*	*0.0%*
	Southeast	Ketchikan													
		Bristol Bay Red King	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	NA	0.0%	1.3%	1.4%	0.0%	0.0%
		Bering Sea Snow	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	0.0%	1.5%	1.4%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	2.9%	5.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	2.7%	3.1%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Pelican													
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
		Petersburg													
		Bristol Bay Red King	1.5%	1.6%	1.7%	1.8%	1.7%	0.8%	0.8%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	1.7%	1.7%	1.8%	2.0%	2.2%	1.1%	1.1%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Sitka													
		Bristol Bay Red King	0.7%	0.4%	0.8%	0.9%	0.9%	0.8%	0.4%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.9%	0.8%	0.9%	1.0%	1.1%	1.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Yakutat													
		Bristol Bay Red King	0.4%	0.0%	0.4%	0.4%	0.4%	0.4%	0.4%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.4%	0.4%	0.5%	0.0%	0.0%	0.5%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Southeast Total													
		Bristol Bay Red King	*2.9%*	*2.3%*	*3.4%*	*3.6%*	*3.4%*	*2.5%*	*2.1%*	*NA*	*0.0%*	*1.3%*	*1.4%*	*0.0%*	*0.0%*
		Bering Sea Snow	*3.9%*	*3.3%*	*3.6%*	*3.5%*	*3.8%*	*3.2%*	*2.7%*	*2.5%*	*0.0%*	*1.5%*	*1.4%*	*0.0%*	*0.0%*
		EAI Golden King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*NA*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		WAI Golden King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		EBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*CLOSED*	*2.9%*	*5.0%*	*0.0%*	*0.0%*
		WBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*0.0%*	*2.7%*	*3.1%*	*0.0%*	*CLOSED*
		St. Matthew Island Blue	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*CLOSED*	*CLOSED*	*CLOSED*	*CLOSED*	*0.0%*
	Aleutian/Pribilof	Akutan													
		Bristol Bay Red King	0.4%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.4%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		King Cove													
		Bristol Bay Red King	1.1%	1.2%	1.7%	0.9%	0.9%	0.8%	0.4%	NA	1.1%	2.5%	1.4%	1.3%	0.0%
		Bering Sea Snow	1.3%	0.8%	1.4%	1.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	5.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
		Sand Point													
		Bristol Bay Red King	1.8%	1.2%	2.1%	0.4%	0.0%	0.4%	0.4%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	1.7%	0.8%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Unalaska/Dutch Harbor													
		Bristol Bay Red King	0.7%	0.8%	0.0%	0.0%	0.4%	0.4%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.4%	0.4%	0.0%	0.0%	0.5%	0.5%	0.5%	0.6%	1.3%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	0.0%	0.0%	0.0%	0.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	0.0%	0.0%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
		Aleutian/Pribilof Total													
		Bristol Bay Red King	*4.0%*	*3.1%*	*4.2%*	*1.8%*	*1.3%*	*1.7%*	*0.8%*	*NA*	*1.1%*	*2.5%*	*1.4%*	*1.3%*	*0.0%*
		Bering Sea Snow	*3.5%*	*2.5%*	*2.7%*	*1.5%*	*1.1%*	*1.1%*	*0.5%*	*0.6%*	*1.3%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		EAI Golden King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*NA*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		WAI Golden King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		EBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*CLOSED*	*0.0%*	*5.0%*	*0.0%*	*0.0%*
		WBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*CLOSED*
		St. Matthew Island Blue	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*CLOSED*	*CLOSED*	*CLOSED*	*CLOSED*	*0.0%*
	All Regions (non-Kodiak)	*All Regions (non-Kodiak)*													
		Bristol Bay Red King	*15.3%*	*12.5%*	*15.1%*	*12.9%*	*11.5%*	*10.7%*	*9.5%*	*NA*	*6.9%*	*13.8%*	*13.9%*	*13.2%*	*13.0%*
		Bering Sea Snow	*16.2%*	*14.1%*	*14.4%*	*13.4%*	*13.2%*	*11.9%*	*11.5%*	*9.9%*	*8.0%*	*12.3%*	*14.9%*	*12.3%*	*17.9%*
		EAI Golden King	*7.1%*	*6.7%*	*6.7%*	*5.3%*	*5.3%*	*5.3%*	*5.3%*	*NA*	*0.0%*	*0.0%*	*0.0%*	*33.3%*	*33.3%*
		WAI Golden King	*10.0%*	*0.0%*	*6.7%*	*9.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*33.3%*
		EBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*CLOSED*	*5.9%*	*20.0%*	*4.8%*	*12.5%*
		WBS Tanner	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*4.8%*	*16.2%*	*15.6%*	*11.9%*	*CLOSED*
		St. Matthew Island Blue	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*CLOSED*	*CLOSED*	*CLOSED*	*CLOSED*	*0.0%*
	Kodiak	Kodiak													
		Bristol Bay Red King	14.2%	13.7%	14.7%	15.2%	13.7%	12.4%	13.6%	NA	14.9%	12.5%	12.5%	14.5%	13.0%
		Bering Sea Snow	13.5%	13.7%	15.3%	13.9%	13.7%	11.9%	11.5%	13.0%	13.3%	12.3%	13.5%	15.1%	13.4%
		EAI Golden King	7.1%	13.3%	13.3%	10.5%	15.8%	15.8%	15.8%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	20.0%	33.3%	6.7%	18.2%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	14.7%	5.0%	19.0%	6.3%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	11.9%	8.1%	15.6%	14.3%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	14.3%
	Alaska Total	**Alaska Total**													
		Bristol Bay Red King	**29.6%**	**26.2%**	**29.8%**	**28.1%**	**25.2%**	**23.1%**	**23.0%**	**NA**	**21.8%**	**26.3%**	**26.4%**	**27.6%**	**26.1%**
		Bering Sea Snow	**29.7%**	**27.8%**	**29.7%**	**27.4%**	**26.9%**	**23.8%**	**23.0%**	**23.0%**	**21.3%**	**24.6%**	**28.4%**	**27.4%**	**31.3%**
		EAI Golden King	**14.3%**	**20.0%**	**20.0%**	**15.8%**	**21.1%**	**21.1%**	**21.1%**	**NA**	**0.0%**	**0.0%**	**0.0%**	**33.3%**	**33.3%**
		WAI Golden King	**30.0%**	**33.3%**	**13.3%**	**27.3%**	**12.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**33.3%**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**20.6%**	**25.0%**	**23.8%**	**18.8%**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**16.7%**	**24.3%**	**31.3%**	**26.2%**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**14.3%**

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Washington	Seattle MSA	Seattle MSA													
		Bristol Bay Red King	55.8%	57.4%	55.0%	57.1%	56.4%	56.2%	57.2%	NA	56.3%	56.3%	55.6%	57.9%	58.0%
		Bering Sea Snow	55.0%	56.4%	52.7%	56.7%	53.8%	54.1%	56.3%	58.4%	60.0%	60.0%	56.8%	58.9%	56.7%
		EAI Golden King	78.6%	73.3%	73.3%	78.9%	78.9%	73.7%	73.7%	NA	100.0%	100.0%	100.0%	66.7%	66.7%
		WAI Golden King	50.0%	33.3%	73.3%	54.5%	62.5%	60.0%	66.7%	60.0%	66.7%	50.0%	50.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	64.7%	60.0%	57.1%	62.5%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	61.9%	54.1%	53.1%	57.1%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	71.4%
	Other Washington	Other Washington													
		Bristol Bay Red King	6.6%	7.0%	6.7%	6.3%	6.4%	7.4%	7.8%	NA	6.9%	6.3%	4.2%	3.9%	4.3%
		Bering Sea Snow	7.0%	7.1%	6.3%	7.5%	7.1%	8.6%	9.8%	6.2%	4.0%	1.5%	2.7%	1.4%	1.5%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	5.3%	NA	0.0%	0.0%	0.0%	CLOSED	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	2.9%	0.0%	4.8%	6.3%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	2.4%	2.7%	0.0%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
	Washington Total	**Washington Total**													
		Bristol Bay Red King	**62.4%**	**64.5%**	**61.8%**	**63.4%**	**62.8%**	**63.6%**	**65.0%**	**NA**	**63.2%**	**62.5%**	**59.7%**	**61.8%**	**62.3%**
		Bering Sea Snow	**62.0%**	**63.5%**	**59.0%**	**64.2%**	**61.0%**	**62.7%**	**66.1%**	**64.6%**	**64.0%**	**61.5%**	**59.5%**	**60.3%**	**58.2%**
		EAI Golden King	**78.6%**	**73.3%**	**73.3%**	**78.9%**	**78.9%**	**78.9%**	**78.9%**	**NA**	**100.0%**	**100.0%**	**100.0%**	**66.7%**	**66.7%**
		WAI Golden King	**50.0%**	**33.3%**	**73.3%**	**54.5%**	**62.5%**	**60.0%**	**66.7%**	**60.0%**	**66.7%**	**50.0%**	**50.0%**	**0.0%**	**0.0%**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**67.6%**	**60.0%**	**61.9%**	**68.8%**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**64.3%**	**56.8%**	**53.1%**	**57.1%**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**71.4%**
Oregon	**Oregon Total**	**Oregon Total**													
		Bristol Bay Red King	**5.5%**	**7.0%**	**6.7%**	**7.1%**	**9.0%**	**10.3%**	**9.5%**	**NA**	**12.6%**	**10.0%**	**12.5%**	**9.2%**	**10.1%**
		Bering Sea Snow	**5.7%**	**5.8%**	**8.1%**	**7.5%**	**9.3%**	**10.8%**	**8.7%**	**11.2%**	**12.0%**	**12.3%**	**10.8%**	**11.0%**	**9.0%**
		EAI Golden King	**7.1%**	**6.7%**	**6.7%**	**5.3%**	**0.0%**	**0.0%**	**0.0%**	**NA**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
		WAI Golden King	**20.0%**	**33.3%**	**13.3%**	**18.2%**	**25.0%**	**40.0%**	**33.3%**	**40.0%**	**33.3%**	**50.0%**	**50.0%**	**50.0%**	**33.3%**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**11.8%**	**15.0%**	**14.3%**	**12.5%**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**19.0%**	**16.2%**	**15.6%**	**14.3%**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**14.3%**
Other U.S.	**Other U.S. Total**	**Other U.S. Total**													
		Bristol Bay Red King	**2.6%**	**2.3%**	**1.7%**	**1.3%**	**3.0%**	**2.9%**	**2.5%**	**NA**	**2.3%**	**1.3%**	**1.4%**	**1.3%**	**1.4%**
		Bering Sea Snow	**2.6%**	**2.9%**	**3.2%**	**1.0%**	**2.7%**	**2.7%**	**2.2%**	**1.2%**	**2.7%**	**1.5%**	**1.4%**	**1.4%**	**1.5%**
		EAI Golden King	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**NA**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
		WAI Golden King	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**50.0%**	**33.3%**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**0.0%**	**2.7%**	**0.0%**	**2.4%**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**0.0%**
All States	**All States Total**	**All States Total**													
		Bristol Bay Red King	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**NA**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		Bering Sea Snow	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		EAI Golden King	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**NA**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		WAI Golden King	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		EBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		WBS Tanner	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**CLOSED**
		St. Matthew Island Blue	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**CLOSED**	**CLOSED**	**CLOSED**	**CLOSED**	**100.0%**

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
Source: ADFG 2015; CFEC 2015

Table A1-2b (continued). BSAI Crab Vessel Count Percentages by Community

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Alaska	South-Central	Anchor Point								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Anchorage								
		Bristol Bay Red King	6.3%	4.9%	4.8%	6.5%	6.5%	2.5%	4.7%	5.8%
		Bering Sea Snow	9.0%	10.0%	8.8%	8.5%	11.4%	2.9%	5.9%	9.5%
		EAI Golden King	33.3%	33.3%	33.3%	33.3%	33.3%	5.8%	9.5%	33.3%
		WAI Golden King	50.0%	50.0%	66.7%	50.0%	66.7%	4.8%	8.3%	57.1%
		EBS Tanner	CLOSED	CLOSED	CLOSED	10.3%	10.3%	NA	0.0%	10.3%
		WBS Tanner	CLOSED	CLOSED	CLOSED	9.1%	4.0%	NA	5.2%	7.7%
		St. Matthew Island Blue	27.3%	21.1%	17.6%	CLOSED	0.0%	NA	0.0%	19.6%
		Big Lake								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	NA	0.0%	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Cordova								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Homer								
		Bristol Bay Red King	7.8%	8.2%	9.5%	8.1%	6.5%	3.0%	4.2%	8.0%
		Bering Sea Snow	6.0%	7.1%	7.4%	5.6%	5.9%	3.4%	4.8%	6.4%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	10.3%	10.3%	NA	5.5%	10.3%
		WBS Tanner	CLOSED	CLOSED	CLOSED	4.5%	12.0%	NA	4.6%	6.6%
		St. Matthew Island Blue	0.0%	0.0%	11.8%	CLOSED	0.0%	NA	0.0%	3.9%
		Kenai								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	4.0%	NA	0.0%	1.1%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
		Seldovia								
		Bristol Bay Red King	1.6%	1.6%	0.0%	0.0%	0.0%	0.4%	1.0%	0.6%
		Bering Sea Snow	1.5%	1.4%	1.5%	1.4%	1.5%	0.5%	1.1%	1.4%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	1.5%	0.0%	NA	0.7%	1.1%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Seward								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Wasilla								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.3%	0.3%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	1.1%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		South-Central Total								
		Bristol Bay Red King	*15.6%*	*14.8%*	*14.3%*	*14.5%*	*12.9%*	*7.2%*	*10.2%*	*14.4%*
		Bering Sea Snow	*16.4%*	*18.6%*	*17.6%*	*15.5%*	*20.0%*	*8.1%*	*12.1%*	*17.6%*
		EAI Golden King	*33.3%*	*33.3%*	*33.3%*	*33.3%*	*33.3%*	*5.8%*	*9.5%*	*33.3%*
		WAI Golden King	*50.0%*	*50.0%*	*66.7%*	*50.0%*	*66.7%*	*4.8%*	*8.3%*	*57.1%*
		EBS Tanner	*CLOSED*	*CLOSED*	*CLOSED*	*20.7%*	*20.5%*	*NA*	*6.6%*	*20.6%*
		WBS Tanner	*CLOSED*	*CLOSED*	*CLOSED*	*15.2%*	*20.0%*	*NA*	*10.5%*	*16.5%*
		St. Matthew Island Blue	*27.3%*	*21.1%*	*29.4%*	*CLOSED*	*0.0%*	*NA*	*0.0%*	*23.5%*
	Southeast	Ketchikan								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.5%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.6%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	2.2%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	1.3%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Pelican								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
		Petersburg								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Sitka								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Yakutat								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Southeast Total								
		Bristol Bay Red King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*2.9%*	*0.5%*	*0.0%*
		Bering Sea Snow	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*3.4%*	*0.6%*	*0.0%*
		EAI Golden King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		WAI Golden King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		EBS Tanner	*CLOSED*	*CLOSED*	*CLOSED*	*0.0%*	*0.0%*	*NA*	*2.2%*	*0.0%*
		WBS Tanner	*CLOSED*	*CLOSED*	*CLOSED*	*0.0%*	*0.0%*	*NA*	*1.3%*	*0.0%*
		St. Matthew Island Blue	*0.0%*	*0.0%*	*0.0%*	*CLOSED*	*0.0%*	*NA*	*0.0%*	*0.0%*
	Aleutian/Pribilof	Akutan								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		King Cove								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	1.3%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	1.1%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
		Sand Point								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Unalaska/Dutch Harbor								
		Bristol Bay Red King	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%
		Bering Sea Snow	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.3%	0.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	0.0%	NA	0.0%	0.0%
		St. Matthew Island Blue	0.0%	0.0%	0.0%	CLOSED	0.0%	NA	0.0%	0.0%
		Aleutian/Pribilof Total								
		Bristol Bay Red King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*2.5%*	*1.3%*	*0.0%*
		Bering Sea Snow	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*1.8%*	*0.3%*	*0.0%*
		EAI Golden King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		WAI Golden King	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
		EBS Tanner	*CLOSED*	*CLOSED*	*CLOSED*	*0.0%*	*0.0%*	*NA*	*1.1%*	*0.0%*
		WBS Tanner	*CLOSED*	*CLOSED*	*CLOSED*	*0.0%*	*0.0%*	*NA*	*0.0%*	*0.0%*
		St. Matthew Island Blue	*0.0%*	*0.0%*	*0.0%*	*CLOSED*	*0.0%*	*NA*	*0.0%*	*0.0%*
	All Regions (non-Kodiak)	*All Regions (non-Kodiak)*								
		Bristol Bay Red King	*15.6%*	*14.8%*	*14.3%*	*14.5%*	*12.9%*	*12.6%*	*12.0%*	*14.4%*
		Bering Sea Snow	*16.4%*	*18.6%*	*17.6%*	*15.5%*	*17.6%*	*13.3%*	*13.0%*	*17.6%*
		EAI Golden King	*33.3%*	*33.3%*	*33.3%*	*33.3%*	*33.3%*	*5.8%*	*9.5%*	*33.3%*
		WAI Golden King	*50.0%*	*50.0%*	*66.7%*	*50.0%*	*66.7%*	*4.8%*	*8.3%*	*57.1%*
		EBS Tanner	*CLOSED*	*CLOSED*	*CLOSED*	*20.7%*	*20.5%*	*NA*	*9.9%*	*20.6%*
		WBS Tanner	*CLOSED*	*CLOSED*	*CLOSED*	*15.2%*	*20.0%*	*NA*	*11.8%*	*16.5%*
		St. Matthew Island Blue	*27.3%*	*21.1%*	*29.4%*	*CLOSED*	*0.0%*	*NA*	*0.0%*	*23.5%*
	Kodiak	Kodiak								
		Bristol Bay Red King	10.9%	13.1%	12.7%	12.9%	12.9%	13.9%	13.5%	12.5%
		Bering Sea Snow	11.9%	11.4%	11.8%	11.3%	11.8%	13.4%	13.6%	11.6%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	13.3%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	10.3%	5.1%	NA	12.1%	7.4%
		WBS Tanner	CLOSED	CLOSED	CLOSED	12.1%	4.0%	NA	12.4%	9.9%
		St. Matthew Island Blue	9.1%	10.5%	5.9%	CLOSED	0.0%	NA	14.3%	7.8%
	Alaska Total	**Alaska Total**								
		Bristol Bay Red King	**26.6%**	**27.9%**	**27.0%**	**27.4%**	**25.8%**	**26.5%**	**25.5%**	**26.9%**
		Bering Sea Snow	**28.4%**	**30.0%**	**29.4%**	**26.8%**	**31.4%**	**26.7%**	**26.6%**	**29.2%**
		EAI Golden King	**33.3%**	**33.3%**	**33.3%**	**33.3%**	**33.3%**	**19.2%**	**9.5%**	**33.3%**
		WAI Golden King	**50.0%**	**50.0%**	**66.7%**	**50.0%**	**66.7%**	**15.9%**	**8.3%**	**57.1%**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**31.0%**	**25.6%**	**NA**	**22.0%**	**27.9%**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**27.3%**	**24.0%**	**NA**	**24.2%**	**26.4%**
		St. Matthew Island Blue	**36.4%**	**31.6%**	**35.3%**	**CLOSED**	**0.0%**	**NA**	**14.3%**	**31.4%**

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Washington	Seattle MSA	Seattle MSA								
		Bristol Bay Red King	57.8%	59.0%	58.7%	53.2%	54.8%	56.5%	56.8%	56.7%
		Bering Sea Snow	58.2%	58.6%	55.9%	52.1%	55.9%	55.4%	58.5%	56.1%
		EAI Golden King	66.7%	66.7%	66.7%	66.7%	66.7%	75.8%	90.5%	66.7%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	60.3%	33.3%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	51.7%	48.7%	NA	61.5%	50.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	51.5%	48.0%	NA	56.9%	50.5%
		St. Matthew Island Blue	45.5%	47.4%	47.1%	CLOSED	75.0%	NA	71.4%	49.0%
	Other Washington	Other Washington								
		Bristol Bay Red King	3.1%	3.3%	3.2%	4.8%	3.2%	6.9%	5.2%	3.5%
		Bering Sea Snow	3.0%	1.4%	2.9%	2.8%	2.9%	7.4%	2.3%	2.6%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	3.4%	5.1%	NA	3.3%	4.4%
		WBS Tanner	CLOSED	CLOSED	CLOSED	3.0%	0.0%	NA	1.3%	2.2%
		St. Matthew Island Blue	0.0%	5.3%	5.9%	CLOSED	0.0%	NA	0.0%	3.9%
	Washington Total	**Washington Total**								
		Bristol Bay Red King	**60.9%**	**62.3%**	**61.9%**	**58.1%**	**58.1%**	**63.4%**	**62.0%**	**60.3%**
		Bering Sea Snow	**61.2%**	**60.0%**	**58.8%**	**54.9%**	**58.8%**	**62.8%**	**60.7%**	**58.4%**
		EAI Golden King	**66.7%**	**66.7%**	**66.7%**	**66.7%**	**66.7%**	**77.5%**	**90.5%**	**66.7%**
		WAI Golden King	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**60.3%**	**33.3%**	**0.0%**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**55.2%**	**53.8%**	**NA**	**64.8%**	**54.4%**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**54.5%**	**48.0%**	**NA**	**58.2%**	**52.7%**
		St. Matthew Island Blue	**45.5%**	**52.6%**	**52.9%**	**CLOSED**	**75.0%**	**NA**	**71.4%**	**52.9%**
Oregon	**Oregon Total**	**Oregon Total**								
		Bristol Bay Red King	**10.9%**	**8.2%**	**9.5%**	**12.9%**	**12.9%**	**7.8%**	**10.9%**	**10.9%**
		Bering Sea Snow	**9.0%**	**8.6%**	**10.3%**	**11.3%**	**10.3%**	**8.2%**	**11.0%**	**9.8%**
		EAI Golden King	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.3%**	**0.0%**	**0.0%**
		WAI Golden King	**50.0%**	**50.0%**	**33.3%**	**25.0%**	**33.3%**	**23.8%**	**41.7%**	**35.7%**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**10.3%**	**12.8%**	**NA**	**13.2%**	**11.8%**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**10.6%**	**24.0%**	**NA**	**16.3%**	**14.3%**
		St. Matthew Island Blue	**18.2%**	**15.8%**	**11.8%**	**CLOSED**	**25.0%**	**NA**	**14.3%**	**15.7%**
Other U.S.	**Other U.S. Total**	**Other U.S. Total**								
		Bristol Bay Red King	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**3.2%**	**2.3%**	**1.6%**	**1.9%**
		Bering Sea Snow	**1.5%**	**1.4%**	**1.5%**	**7.0%**	**1.5%**	**2.4%**	**1.7%**	**2.6%**
		EAI Golden King	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
		WAI Golden King	**0.0%**	**0.0%**	**0.0%**	**25.0%**	**0.0%**	**0.0%**	**16.7%**	**7.1%**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**3.4%**	**7.7%**	**NA**	**0.0%**	**5.9%**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**7.6%**	**4.0%**	**NA**	**1.3%**	**6.6%**
		St. Matthew Island Blue	**0.0%**	**0.0%**	**0.0%**	**CLOSED**	**0.0%**	**NA**	**0.0%**	**0.0%**
All States	**All States Total**	**All States Total**								
		Bristol Bay Red King	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		Bering Sea Snow	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		EAI Golden King	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		WAI Golden King	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
		EBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**100.0%**	**100.0%**	**NA**	**100.0%**	**100.0%**
		WBS Tanner	**CLOSED**	**CLOSED**	**CLOSED**	**100.0%**	**100.0%**	**NA**	**100.0%**	**100.0%**
		St. Matthew Island Blue	**100.0%**	**100.0%**	**100.0%**	**CLOSED**	**100.0%**	**NA**	**100.0%**	**100.0%**

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
Source: ADFG 2015; CFEC 2015

Table A1-3a. BSAI Crab Catcher Vessel Harvest Volume by Community

State	Region	Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Alaska	All non-Kodiak	Bristol Bay Red King	1,792,102	1,397,002	1,239,342	881,719	1,015,098	1,235,484	1,362,932	NA	1,124,109	1,312,674	3,835,071	2,989,421	1,904,291
	Alaska Regions	Bering Sea Snow	37,140,331	23,203,155	3,854,814	2,298,590	3,109,422	2,286,083	2,118,063	1,699,836	2,252,932	6,920,750	10,968,227	9,373,507	8,336,329
		EAI Golden King	**	**	**	**	**	**	**	NA	0	0	0	**	**
		WAI Golden King	**	0	**	**	0	0	0	0	0	0	0	0	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	**	***	**	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	**	***	32,800	1,530	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0
	Kodiak	Bristol Bay Red King	1,792,309	1,451,605	962,367	1,050,569	1,182,725	1,539,454	1,378,634	NA	1,433,219	1,431,215	2,335,680	2,933,453	2,194,405
		Bering Sea Snow	31,865,737	25,383,812	4,006,819	2,883,708	3,339,846	2,757,942	2,303,769	2,934,070	2,424,275	3,405,863	8,979,047	7,675,935	4,453,189
		EAI Golden King	**	**	**	**	**	**	**	NA	0	0	0	0	0
		WAI Golden King	**	**	**	**	**	0	0	0	0	0	0	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	***	**	***	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	129,441	**	63,394	179	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
	Alaska Total	Bristol Bay Red King	3,584,411	2,848,607	2,201,709	1,932,288	2,197,823	2,774,938	2,741,566	NA	2,557,328	2,743,889	6,170,751	5,922,874	4,098,696
		Bering Sea Snow	69,006,068	48,586,967	7,861,633	5,182,298	6,449,268	5,044,025	4,421,832	4,633,906	4,677,207	10,326,613	19,947,274	17,049,442	12,789,518
		EAI Golden King	**	**	**	**	538,132	611,809	670,433	NA	0	0	0	**	**
		WAI Golden King	**	**	**	**	**	0	0	0	0	0	0	0	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	165,686	374,642	224,970	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	172,148	99,256	96,194	1,709	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
Washington	Washington Total	Bristol Bay Red King	9,295,164	7,308,615	4,711,746	5,185,633	5,485,080	9,937,680	9,157,359	NA	12,330,418	10,038,973	10,811,348	11,368,515	9,830,178
		Bering Sea Snow	155,232,705	120,481,441	18,329,573	12,893,488	18,570,786	16,762,144	14,442,480	15,022,355	22,988,904	17,471,029	31,436,655	32,000,673	29,647,397
		EAI Golden King	2,156,692	2,191,633	2,036,841	2,429,739	2,283,719	2,365,246	2,216,384	NA	2,847,104	2,971,368	**	**	**
		WAI Golden King	560,177	**	782,523	582,116	774,455	**	331,959	**	**	**	**	0	0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	NA	699,379	***	***	685,238
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	376,835	281,709	42,680	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	324,597
Oregon and	Oregon and	Bristol Bay Red King	1,410,696	1,005,300	560,322	564,599	946,026	1,911,146	1,607,471	NA	2,394,868	1,994,298	2,533,890	2,246,049	1,501,263
Other U.S.	Other U.S. Total	Bering Sea Snow	19,011,427	15,625,377	3,249,640	2,155,511	3,492,280	3,735,099	2,639,811	2,933,784	5,984,815	4,680,151	6,096,037	4,674,107	3,923,965
		EAI Golden King	**	**	**	**	0	0	0	NA	0	0	0	0	0
		WAI Golden King	**	**	**	**	**	**	**	**	**	**	**	**	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	448,411	**	**	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	67,088	194,568	101,149	64,861	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
All States	All States Total	Bristol Bay Red King	14,290,271	11,162,522	7,473,777	7,682,520	8,628,929	14,623,764	13,506,396	NA	17,282,614	14,777,160	19,515,989	19,537,438	15,430,137
		Bering Sea Snow	243,250,200	184,693,785	29,440,846	20,231,297	28,512,334	25,541,268	21,504,123	22,590,045	33,650,926	32,477,793	57,479,966	53,724,222	46,360,880
		EAI Golden King	3,247,863	3,069,886	3,134,079	3,178,653	2,821,851	2,977,055	2,886,817	NA	2,847,104	2,971,368	**	**	**
		WAI Golden King	2,444,628	**	2,112,052	1,970,243	1,890,710	1,797,103	2,046,123	1,920,930	**	**	**	**	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	1,313,476	1,316,327	1,807,344	1,314,924
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	926,882	670,659	479,052	109,250	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	460,859

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data are suppressed due to confidentiality.
***Computation is suppressed to protect confidentiality of primary data.
Note: "Oregon" and "Other U.S." combined to allow for display of otherwise confidential data for Bristol Bay red king crab and Bering Sea snow crab.
Source: ADFG 2015; CFEC 2015

Table A1-3a (continued). BSAI Crab Catcher Vessel Harvest Volume by Community

State	Region	Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Alaska	All non-Kodiak Alaska Regions	Bristol Bay Red King	2,376,410	1,218,212	1,302,181	1,621,318	1,825,596	1,274,811	2,233,113	1,668,743
		Bering Sea Snow	9,178,107	14,345,874	11,093,516	9,375,412	14,064,067	9,463,787	7,570,349	11,611,395
		EAI Golden King	**	**	**	**	**	***	***	***
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	***	***	NA	***	***
		WBS Tanner	CLOSED	CLOSED	CLOSED	165,311	***	NA	***	***
		St. Matthew Island Blue	**	346,085	393,730	CLOSED	0	NA	0	***
	Kodiak	Bristol Bay Red King	1,582,531	956,713	956,898	1,001,175	1,065,493	1,336,809	2,065,594	1,112,562
		Bering Sea Snow	6,045,435	10,001,244	7,152,671	5,732,828	6,928,537	9,434,463	5,387,662	7,172,143
		EAI Golden King	0	0	0	0	0	***	0	0
		WAI Golden King	0	0	0	0	0	***	0	0
		EBS Tanner	CLOSED	CLOSED	CLOSED	**	**	NA	***	***
		WBS Tanner	CLOSED	CLOSED	CLOSED	143	**	NA	***	***
		St. Matthew Island Blue	**	**	**	CLOSED	0	NA	***	***
	Alaska Total	Bristol Bay Red King	3,958,941	2,174,925	2,259,079	2,622,493	2,891,089	2,611,620	4,298,708	2,781,305
		Bering Sea Snow	15,223,542	24,347,118	18,246,187	15,108,240	20,992,604	18,898,250	12,958,011	18,783,538
		EAI Golden King	**	**	**	**	**	***	***	***
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	365,238	1,580,952	NA	***	973,095
		WBS Tanner	CLOSED	CLOSED	CLOSED	165,454	856,568	NA	92,327	511,011
		St. Matthew Island Blue	371,980	471,433	488,507	CLOSED	0	NA	***	332,980
Washington	Washington Total	Bristol Bay Red King	8,931,817	4,646,373	4,552,583	4,682,354	5,550,923	7,297,325	10,875,886	5,672,810
		Bering Sea Snow	31,707,710	50,632,906	37,397,543	29,562,090	37,791,359	46,466,872	26,708,932	37,418,322
		EAI Golden King	**	**	**	**	**	2,240,036	***	***
		WAI Golden King	0	0	0	0	0	***	***	0
		EBS Tanner	CLOSED	CLOSED	CLOSED	612,680	3,853,665	NA	***	2,233,173
		WBS Tanner	CLOSED	CLOSED	CLOSED	324,192	2,195,456	NA	347,218	1,259,824
		St. Matthew Island Blue	587,189	948,947	819,691	CLOSED	**	NA	324,597	***
Oregon and Other U.S.	Oregon and Other U.S. Total	Bristol Bay Red King	1,475,792	779,191	804,485	1,036,292	1,384,871	1,143,651	2,134,074	1,096,126
		Bering Sea Snow	4,856,426	9,226,055	6,918,328	6,900,479	6,776,057	6,605,366	5,071,815	6,935,469
		EAI Golden King	0	0	0	0	0	***	0	0
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	441,226	2,652,722	NA	***	1,546,974
		WBS Tanner	CLOSED	CLOSED	CLOSED	375,559	1,445,816	NA	106,917	910,688
		St. Matthew Island Blue	**	**	**	CLOSED	**	NA	***	***
All States	All States Total	Bristol Bay Red King	14,366,550	7,600,489	7,616,147	8,341,139	9,826,883	11,052,597	17,308,668	9,550,242
		Bering Sea Snow	51,787,678	84,206,079	62,562,058	51,570,809	65,560,020	71,970,487	44,738,757	63,137,329
		EAI Golden King	**	**	**	**	**	3,045,172	***	***
		WAI Golden King	**	**	**	2,672,524	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	1,419,144	8,087,339	NA	1,438,018	4,753,242
		WBS Tanner	CLOSED	CLOSED	CLOSED	865,205	4,497,840	NA	546,461	2,681,523
		St. Matthew Island Blue	1,263,984	1,880,620	1,616,058	CLOSED	308,583	NA	460,859	1,267,311

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data are suppressed due to confidentiality.
***Computation is suppressed to protect confidentiality of primary data.
Note: "Oregon" and "Other U.S." combined to allow for display of otherwise confidential data for Bristol Bay red king crab and Bering Sea snow crab.
Source: ADFG 2015; CFEC 2015

Table A1-3b. BSAI Crab Catcher Vessel Harvest Volume Percentages by Community

State	Region	Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Alaska	Other Alaska (non-Kodiak)	Bristol Bay Red King	12.5%	12.5%	16.6%	11.5%	11.8%	8.4%	10.1%	NA	6.5%	8.9%	19.7%	15.3%	12.3%
		Bering Sea Snow	15.3%	12.6%	13.1%	11.4%	10.9%	9.0%	9.8%	7.5%	6.7%	21.3%	19.1%	17.4%	18.0%
		EAI Golden King	**	**	**	**	**	**	**	NA	0.0%	0.0%	0.0%	**	**
		WAI Golden King	**	0.0%	**	**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	**	***	**	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	**	***	6.8%	1.4%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
	Kodiak	Bristol Bay Red King	12.5%	13.0%	12.9%	13.7%	13.7%	10.5%	10.2%	NA	8.3%	9.7%	12.0%	15.0%	14.2%
		Bering Sea Snow	13.1%	13.7%	13.6%	14.3%	11.7%	10.8%	10.7%	13.0%	7.2%	10.5%	15.6%	14.3%	9.6%
		EAI Golden King	**	**	**	**	**	**	**	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	**	**	**	**	**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	***	**	***	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	14.0%	**	13.2%	0.2%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
	Alaska Total	Bristol Bay Red King	25.1%	25.5%	29.5%	25.2%	25.5%	19.0%	20.3%	NA	14.8%	18.6%	31.6%	30.3%	26.6%
		Bering Sea Snow	28.4%	26.3%	26.7%	25.6%	22.6%	19.7%	20.6%	20.5%	13.9%	31.8%	34.7%	31.7%	27.6%
		EAI Golden King	**	**	**	**	19.1%	20.6%	23.2%	NA	0.0%	0.0%	0.0%	**	**
		WAI Golden King	**	**	**	**	**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	12.6%	28.5%	12.4%	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	18.6%	14.8%	20.1%	1.6%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
Washington	Washington Total	Bristol Bay Red King	65.0%	65.5%	63.0%	67.5%	63.6%	68.0%	67.8%	NA	71.3%	67.9%	55.4%	58.2%	63.7%
		Bering Sea Snow	63.8%	65.2%	62.3%	63.7%	65.1%	65.6%	67.2%	66.5%	68.3%	53.8%	54.7%	59.6%	63.9%
		EAI Golden King	66.4%	71.4%	65.0%	76.4%	80.9%	79.4%	76.8%	NA	100.0%	100.0%	**	**	**
		WAI Golden King	22.9%	**	37.1%	29.5%	41.0%	**	16.2%	**	**	**	**	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	53.2%	***	***	52.1%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	74.2%	56.2%	58.8%	39.1%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	70.4%
Oregon and Other U.S.	Oregon and Other U.S. Total	Bristol Bay Red King	9.9%	9.0%	7.5%	7.3%	11.0%	13.1%	11.9%	NA	13.9%	13.5%	13.0%	11.5%	9.7%
		Bering Sea Snow	7.8%	8.5%	11.0%	10.7%	12.2%	14.6%	12.3%	13.0%	17.8%	14.4%	10.6%	8.7%	8.5%
		EAI Golden King	**	**	**	**	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	**	**	**	**	**	**	**	**	**	**	**	**	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	34.1%	**	**	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	7.2%	29.0%	21.1%	59.4%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
All States	All States Total	Bristol Bay Red King	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	NA	100.0%	100.0%	100.0%	100.0%	100.0%
		Bering Sea Snow	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		EAI Golden King	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	NA	100.0%	100.0%	**	**	**
		WAI Golden King	100.0%	**	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	**	**	**	**	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	100.0%	100.0%	100.0%	100.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	100.0%	100.0%	100.0%	100.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	100.0%

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data are suppressed due to confidentiality.
***Computation is suppressed to protect confidentiality of primary data.
Note: "Oregon" and "Other U.S." combined to allow for display of otherwise confidential data for Bristol Bay red king crab and Bering Sea snow crab.
Source: ADFG 2015; CFEC 2015

Table A1-3b (continued). BSAI Crab Catcher Vessel Harvest Volume Percentages by Community

State	Region	Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Alaska	Other Alaska (non-Kodiak)	Bristol Bay Red King	16.5%	16.0%	17.1%	19.4%	18.6%	11.5%	12.9%	17.5%
		Bering Sea Snow	17.7%	17.0%	17.7%	18.2%	21.5%	13.1%	16.9%	18.4%
		EAI Golden King	**	**	**	**	**	***	***	***
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	***	***	NA	***	***
		WBS Tanner	CLOSED	CLOSED	CLOSED	19.1%	***	NA	***	***
		St. Matthew Island Blue	**	18.4%	24.4%	CLOSED	0.0%	NA	0.0%	***
	Kodiak	Bristol Bay Red King	11.0%	12.6%	12.6%	12.0%	10.8%	12.1%	11.9%	11.6%
		Bering Sea Snow	11.7%	11.9%	11.4%	11.1%	10.6%	13.1%	12.0%	11.4%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	***	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	***	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	**	**	NA	***	***
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	**	NA	***	***
		St. Matthew Island Blue	**	**	**	CLOSED	0.0%	NA	***	***
	Alaska Total	Bristol Bay Red King	27.6%	28.6%	29.7%	31.4%	29.4%	23.6%	24.8%	29.1%
		Bering Sea Snow	29.4%	28.9%	29.2%	29.3%	32.0%	26.3%	29.0%	29.8%
		EAI Golden King	**	**	**	**	**	***	***	***
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	25.7%	19.5%	NA	***	20.5%
		WBS Tanner	CLOSED	CLOSED	CLOSED	19.1%	19.0%	NA	16.9%	19.1%
		St. Matthew Island Blue	29.4%	25.1%	30.2%	CLOSED	0.0%	NA	***	26.3%
Washington	Washington Total	Bristol Bay Red King	62.2%	61.1%	59.8%	56.1%	56.5%	66.0%	62.8%	59.4%
		Bering Sea Snow	61.2%	60.1%	59.8%	57.3%	57.6%	64.6%	59.7%	59.3%
		EAI Golden King	**	**	**	**	**	73.6%	***	***
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	***	***	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	43.2%	47.7%	NA	***	47.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	37.5%	48.8%	NA	63.5%	47.0%
		St. Matthew Island Blue	46.5%	50.5%	50.7%	CLOSED	**	NA	70.4%	***
Oregon and Other U.S.	Oregon and Other U.S. Total	Bristol Bay Red King	10.3%	10.3%	10.6%	12.4%	14.1%	10.3%	12.3%	11.5%
		Bering Sea Snow	9.4%	11.0%	11.1%	13.4%	10.3%	9.2%	11.3%	11.0%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	***	0.0%	0.0%
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	31.1%	32.8%	NA	***	32.5%
		WBS Tanner	CLOSED	CLOSED	CLOSED	43.4%	32.1%	NA	19.6%	34.0%
		St. Matthew Island Blue	**	**	**	CLOSED	**	NA	***	***
All States	All States Total	Bristol Bay Red King	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		Bering Sea Snow	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		EAI Golden King	**	**	**	**	**	100.0%	***	***
		WAI Golden King	**	**	**	100.0%	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	100.0%	100.0%	NA	100.0%	100.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	100.0%	100.0%	NA	100.0%	100.0%
		St. Matthew Island Blue	100.0%	100.0%	100.0%	CLOSED	100.0%	NA	100.0%	100.0%

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data are suppressed due to confidentiality.
***Computation is suppressed to protect confidentiality of primary data.
Note: "Oregon" and "Other U.S." combined to allow for display of otherwise confidential data for Bristol Bay red king crab and Bering Sea snow crab.
Source: ADFG 2015; CFEC 2015

Table A1-4a. BSAI Crab Catcher Vessel Harvest Value by Community

State	Region	Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Alaska	Other Alaska	Bristol Bay Red King	$4,690,345	$8,689,200	$5,806,196	$4,147,027	$6,207,685	$6,158,408	$6,290,567	NA	$4,938,169	$4,691,906	$16,384,470	$14,813,626	$8,726,335
	(non-Kodiak)	Bering Sea Snow	$20,779,096	$22,605,671	$7,024,009	$3,489,905	$4,199,195	$4,120,410	$4,301,769	$3,031,627	$2,574,459	$11,132,510	$18,526,496	$12,925,319	$10,819,860
		EAI Golden King	**	**	**	**	**	**	**	NA	$0	$0	$0	**	**
		WAI Golden King	**	$0	**	**	$0	$0	$0	$0	$0	$0	$0	$0	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	**	***	**	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	**	***	$53,779	$1,814	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	$0
	Kodiak	Bristol Bay Red King	$4,671,189	$9,008,396	$4,573,231	$4,905,921	$7,308,293	$7,712,814	$6,492,317	NA	$6,448,136	$5,384,367	$10,247,318	$14,540,295	$9,888,261
		Bering Sea Snow	$17,881,085	$24,770,473	$7,479,304	$4,426,833	$4,502,613	$4,665,518	$4,747,705	$5,265,123	$2,780,090	$5,412,634	$14,802,524	$10,456,428	$5,675,718
		EAI Golden King	**	**	**	**	**	**	**	NA	$0	$0	$0	$0	$0
		WAI Golden King	**	**	**	**	**	$0	$0	$0	$0	$0	$0	$0	$0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	***	**	***	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	$169,398	**	$109,353	$0	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
	Alaska Total	Bristol Bay Red King	$9,361,534	$17,697,596	$10,379,427	$9,052,947	$13,515,978	$13,871,222	$12,782,884	NA	$11,386,305	$10,076,273	$26,631,788	$29,353,921	$18,614,596
		Bering Sea Snow	$38,660,181	$47,376,143	$14,503,312	$7,916,738	$8,701,808	$8,785,927	$9,049,475	$8,296,750	$5,354,549	$16,545,144	$33,329,020	$23,381,748	$16,495,578
		EAI Golden King	**	**	**	**	$1,830,756	$2,131,549	$2,097,867	NA	$0	$0	$0	**	**
		WAI Golden King	**	**	**	**	**	$0	$0	$0	$0	$0	$0	$0	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	$268,565	$636,796	$344,548	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	$229,519	$159,594	$163,132	$1,814	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
Washington	Washington Total	Bristol Bay Red King	$24,266,529	$45,377,206	$22,091,907	$24,376,122	$33,577,562	$49,764,364	$42,516,948	NA	$53,806,672	$36,508,676	$46,458,180	$56,534,163	$44,671,101
		Bering Sea Snow	$86,501,482	$117,114,293	$33,471,594	$19,511,677	$25,068,479	$30,136,340	$29,273,387	$26,941,853	$26,353,343	$28,096,788	$52,997,512	$44,366,105	$38,526,337
		EAI Golden King	$3,998,176	$6,630,860	$6,967,955	$7,738,490	$7,780,872	$8,254,925	$6,968,816	NA	$7,604,877	$5,635,266	**	**	**
		WAI Golden King	$1,012,827	**	$2,359,147	$1,854,246	$2,490,340	**	$1,136,272	**	**	**	**	$0	$0
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	$1,086,236	***	***	$1,095,375
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	$1,027,032	$563,208	$469,555	$62,725	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	$701,904
Oregon and	Oregon and	Bristol Bay Red King	$3,685,700	$6,259,985	$2,657,728	$2,654,745	$5,873,462	$9,544,944	$7,471,043	NA	$10,568,836	$7,341,682	$10,821,630	$11,064,851	$6,766,131
Other U.S.	Other U.S. Total	Bering Sea Snow	$10,628,492	$15,239,082	$5,955,149	$3,284,097	$4,746,529	$6,753,920	$5,366,853	$5,253,908	$6,801,116	$7,404,240	$10,233,035	$6,450,853	$5,105,098
		EAI Golden King	**	**	**	**	$0	$0	$0	NA	$0	$0	$0	$0	$0
		WAI Golden King	**	**	**	**	**	**	**	**	**	**	**	**	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	$722,638	**	**	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	$84,910	$334,710	$172,260	$100,935	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
All States	All States Total	Bristol Bay Red King	$37,313,764	$69,334,788	$35,129,062	$36,083,814	$52,967,001	$73,180,530	$62,770,874	NA	$75,761,813	$53,926,631	$83,911,598	$96,952,935	$70,051,828
		Bering Sea Snow	$135,790,155	$179,729,517	$53,930,055	$30,712,512	$38,516,817	$45,676,188	$43,689,714	$40,492,511	$38,509,008	$52,046,172	$96,559,567	$74,198,705	$60,127,014
		EAI Golden King	$6,013,306	$9,308,659	$10,722,820	$10,116,883	$9,611,628	$10,386,474	$9,066,683	NA	$7,604,877	$5,635,266	**	**	**
		WAI Golden King	$4,671,104	**	$6,612,831	$6,379,813	$6,133,102	$6,119,689	$6,885,032	$5,912,523	**	**	**	**	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	$2,077,439	$2,170,119	$2,873,588	$2,164,989
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	$1,341,461	$1,057,512	$804,947	$165,474	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	$986,770

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data are suppressed due to confidentiality.
***Computation is suppressed to protect confidentiality of primary data.
Note: "Oregon" and "Other U.S." combined to allow for display of otherwise confidential data for Bristol Bay red king crab and Bering Sea snow crab.
Source: ADFG 2015; CFEC 2015

Table A1-4a (continued). BSAI Crab Catcher Vessel Harvest Value by Community

State	Region	Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Alaska	Other Alaska (non-Kodiak)	Bristol Bay Red King	$17,332,522	$13,112,072	$10,485,683	$10,894,914	$12,409,278	$5,998,490	$9,910,901	$12,846,894
		Bering Sea Snow	$23,151,103	$30,719,653	$25,252,579	$21,864,287	$23,186,778	$8,693,960	$11,195,729	$24,834,880
		EAI Golden King	**	**	**	**	**	***	***	***
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	***	***	NA	***	***
		WBS Tanner	CLOSED	CLOSED	CLOSED	$387,252	***	NA	***	***
		St. Matthew Island Blue	**	$1,584,090	$1,706,559	CLOSED	$0	NA	$0	***
	Kodiak	Bristol Bay Red King	$11,627,971	$10,332,361	$7,499,071	$6,681,328	$7,011,048	$6,381,737	$9,301,675	$8,630,356
		Bering Sea Snow	$15,200,200	$21,287,515	$16,359,607	$13,271,163	$11,369,533	$9,217,332	$7,825,479	$15,497,603
		EAI Golden King	$0	$0	$0	$0	$0	***	$0	$0
		WAI Golden King	$0	$0	$0	$0	$0	***	$0	$0
		EBS Tanner	CLOSED	CLOSED	CLOSED	**	**	NA	***	***
		WBS Tanner	CLOSED	CLOSED	CLOSED	$166	**	NA	***	***
		St. Matthew Island Blue	**	**	**	CLOSED	$0	NA	***	***
	Alaska Total	Bristol Bay Red King	$28,960,493	$23,444,433	$17,984,754	$17,576,242	$19,420,326	$12,380,227	$19,212,577	$21,477,250
		Bering Sea Snow	$38,351,303	$52,007,168	$41,612,186	$35,135,449	$34,556,311	$17,911,292	$19,021,208	$40,332,483
		EAI Golden King	**	**	**	**	**	***	***	***
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	$937,194	$3,792,636	NA	***	$2,364,915
		WBS Tanner	CLOSED	CLOSED	CLOSED	$387,418	$1,819,016	NA	$138,515	$1,103,217
		St. Matthew Island Blue	$1,835,290	$2,176,682	$2,113,601	CLOSED	$0	NA	***	$1,531,393
Washington	Washington Total	Bristol Bay Red King	$65,379,986	$50,047,937	$36,674,917	$32,057,367	$37,578,085	$34,567,234	$47,595,758	$44,347,658
		Bering Sea Snow	$80,044,909	$108,112,542	$85,506,417	$68,968,704	$62,443,156	$46,002,388	$38,068,017	$81,015,146
		EAI Golden King	**	**	**	**	**	$6,905,728	***	***
		WAI Golden King	$0	$0	$0	$0	$0	***	***	$0
		EBS Tanner	CLOSED	CLOSED	CLOSED	$1,526,877	$10,350,023	NA	***	$5,938,450
		WBS Tanner	CLOSED	CLOSED	CLOSED	$902,433	$4,898,765	NA	$530,630	$2,900,599
		St. Matthew Island Blue	$2,887,401	$4,435,303	$3,538,039	CLOSED	**	NA	$701,904	***
Oregon and Other U.S.	Oregon and Other U.S. Total	Bristol Bay Red King	$10,654,717	$8,288,940	$6,394,870	$6,995,562	$9,246,899	$5,449,658	$9,312,626	$8,316,197
		Bering Sea Snow	$12,205,087	$19,692,227	$15,552,275	$15,949,401	$11,152,869	$7,153,504	$7,198,868	$14,910,372
		EAI Golden King	$0	$0	$0	$0	$0	***	$0	$0
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	$1,015,427	$6,089,641	NA	***	$3,552,534
		WBS Tanner	CLOSED	CLOSED	CLOSED	$906,850	$3,076,193	NA	$173,204	$1,991,522
		St. Matthew Island Blue	**	**	**	CLOSED	**	NA	***	***
All States	All States Total	Bristol Bay Red King	$104,995,195	$81,781,309	$61,054,541	$56,629,172	$66,245,310	$52,397,119	$76,120,961	$74,141,105
		Bering Sea Snow	$130,601,299	$179,811,936	$142,670,877	$120,053,555	$108,152,337	$71,067,184	$64,288,093	$136,258,001
		EAI Golden King	**	**	**	**	**	$9,318,065	***	***
		WAI Golden King	**	**	**	$10,240,460	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	$3,479,499	$20,232,300	NA	$2,321,534	$11,855,899
		WBS Tanner	CLOSED	CLOSED	CLOSED	$2,196,701	$9,793,974	NA	$842,348	$5,995,338
		St. Matthew Island Blue	$6,225,905	$8,695,968	$6,966,710	CLOSED	$1,020,302	NA	$986,770	$5,727,221

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data are suppressed due to confidentiality.
***Computation is suppressed to protect confidentiality of primary data.
Note: "Oregon" and "Other U.S." combined to allow for display of otherwise confidential data for Bristol Bay red king crab and Bering Sea snow crab.
Source: ADFG 2015; CFEC 2015

Table A1-4b. BSAI Crab Catcher Vessel Harvest Value Percentages by Community

State	Region	Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Alaska	Other Alaska (non-Kodiak)	Bristol Bay Red King	12.6%	12.5%	16.5%	11.5%	11.7%	8.4%	10.0%	NA	6.5%	8.7%	19.5%	15.3%	12.5%
		Bering Sea Snow	15.3%	12.6%	13.0%	11.4%	10.9%	9.0%	9.8%	7.5%	6.7%	21.4%	19.2%	17.4%	18.0%
		EAI Golden King	**	**	**	**	**	**	**	NA	0.0%	0.0%	0.0%	**	**
		WAI Golden King	**	0.0%	**	**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	**	***	**	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	**	***	6.7%	1.1%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	0.0%
	Kodiak	Bristol Bay Red King	12.5%	13.0%	13.0%	13.6%	13.8%	10.5%	10.3%	NA	8.5%	10.0%	12.2%	15.0%	14.1%
		Bering Sea Snow	13.2%	13.8%	13.9%	14.4%	11.7%	10.2%	10.9%	13.0%	7.2%	10.4%	15.3%	14.1%	9.4%
		EAI Golden King	**	**	**	**	**	**	**	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	**	**	**	**	**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	***	**	***	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	12.6%	**	13.6%	0.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
	Alaska Total	Bristol Bay Red King	25.1%	25.5%	29.5%	25.1%	25.5%	19.0%	20.4%	NA	15.0%	18.7%	31.7%	30.3%	26.6%
		Bering Sea Snow	28.5%	26.4%	26.9%	25.8%	22.6%	19.2%	20.7%	20.5%	13.9%	31.8%	34.5%	31.5%	27.4%
		EAI Golden King	**	**	**	**	19.0%	20.5%	23.1%	NA	0.0%	0.0%	0.0%	**	CLOSED
		WAI Golden King	**	**	**	**	**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	12.9%	29.3%	12.0%	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	17.1%	15.1%	20.3%	1.1%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
Washington	Washington Total	Bristol Bay Red King	65.0%	65.4%	62.9%	67.6%	63.4%	68.0%	67.7%	NA	71.0%	67.7%	55.4%	58.3%	63.8%
		Bering Sea Snow	63.7%	65.2%	62.1%	63.5%	65.1%	66.0%	67.0%	66.5%	68.4%	54.0%	54.9%	59.8%	64.1%
		EAI Golden King	66.5%	71.2%	65.0%	76.5%	81.0%	79.5%	76.9%	NA	100.0%	100.0%	**	**	**
		WAI Golden King	21.7%	**	35.7%	29.1%	40.6%	**	16.5%	**	**	**	**	0.0%	0.0%
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	52.3%	***	***	50.6%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	76.6%	53.3%	58.3%	37.9%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	71.1%
Oregon and Other U.S.	Oregon and Other U.S. Total	Bristol Bay Red King	9.9%	9.0%	7.6%	7.4%	11.1%	13.0%	11.9%	NA	14.0%	13.6%	12.9%	11.4%	9.7%
		Bering Sea Snow	7.8%	8.5%	11.0%	10.7%	12.3%	14.8%	12.3%	13.0%	17.7%	14.2%	10.6%	8.7%	8.5%
		EAI Golden King	**	**	**	**	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%
		WAI Golden King	**	**	**	**	**	**	**	**	**	**	**	**	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	34.8%	**	**	**
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	6.3%	31.7%	21.4%	61.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	**
All States	All States Total	Bristol Bay Red King	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	NA	100.0%	100.0%	100.0%	100.0%	100.0%
		Bering Sea Snow	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		EAI Golden King	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	NA	100.0%	100.0%	**	**	**
		WAI Golden King	100.0%	**	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	**	**	**	**	**
		EBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	100.0%	100.0%	100.0%	100.0%
		WBS Tanner	NA	NA	NA	NA	NA	NA	NA	NA	100.0%	100.0%	100.0%	100.0%	CLOSED
		St. Matthew Island Blue	NA	NA	NA	NA	NA	NA	NA	NA	CLOSED	CLOSED	CLOSED	CLOSED	100.0%

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data are suppressed due to confidentiality.
***Computation is suppressed to protect confidentiality of primary data.
Note: "Oregon" and "Other U.S." combined to allow for display of otherwise confidential data for Bristol Bay red king crab and Bering Sea snow crab.
Source: ADFG 2015; CFEC 2015

Table A1-4b (continued). BSAI Crab Catcher Vessel Harvest Value Percentages by Community

State	Region	Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Alaska	Other Alaska (non-Kodiak)	Bristol Bay Red King	16.5%	16.0%	17.2%	19.2%	18.7%	11.4%	13.0%	17.3%
		Bering Sea Snow	17.7%	17.1%	17.7%	18.2%	21.4%	12.2%	17.4%	18.2%
		EAI Golden King	**	**	**	**	**	***	***	***
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	***	***	NA	***	***
		WBS Tanner	CLOSED	CLOSED	CLOSED	17.6%	***	NA	***	***
		St. Matthew Island Blue	**	18.2%	24.5%	CLOSED	0.0%	NA	0.0%	***
	Kodiak	Bristol Bay Red King	11.1%	12.6%	12.3%	11.8%	10.6%	12.2%	12.2%	11.6%
		Bering Sea Snow	11.6%	11.8%	11.5%	11.1%	10.5%	13.0%	12.2%	11.4%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	***	0.0%	0.0%
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	***	0.0%	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	**	**	NA	***	***
		WBS Tanner	CLOSED	CLOSED	CLOSED	0.0%	**	NA	***	***
		St. Matthew Island Blue	**	**	**	CLOSED	0.0%	NA	***	***
	Alaska Total	Bristol Bay Red King	27.6%	28.7%	29.5%	31.0%	29.3%	23.6%	25.2%	29.0%
		Bering Sea Snow	29.4%	28.9%	29.2%	29.3%	32.0%	25.2%	29.6%	29.6%
		EAI Golden King	**	**	**	**	**	***	***	***
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	26.9%	18.7%	NA	***	19.9%
		WBS Tanner	CLOSED	CLOSED	CLOSED	17.6%	18.6%	NA	16.4%	18.4%
		St. Matthew Island Blue	29.5%	25.0%	30.3%	NA	0.0%	NA	***	26.7%
Washington	Washington Total	Bristol Bay Red King	62.3%	61.2%	60.1%	CLOSED	56.7%	66.0%	62.5%	59.8%
		Bering Sea Snow	61.3%	60.1%	59.9%	57.4%	57.7%	64.7%	59.2%	59.5%
		EAI Golden King	**	**	**	**	**	74.1%	***	***
		WAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	***	***	0.0%
		EBS Tanner	CLOSED	CLOSED	CLOSED	43.9%	51.2%	NA	***	50.1%
		WBS Tanner	CLOSED	CLOSED	CLOSED	41.1%	50.0%	NA	63.0%	48.4%
		St. Matthew Island Blue	46.4%	51.0%	50.8%	CLOSED	**	NA	71.1%	***
Oregon and Other U.S.	Oregon and Other U.S. Total	Bristol Bay Red King	10.1%	10.1%	10.5%	12.4%	14.0%	10.4%	12.2%	11.2%
		Bering Sea Snow	9.3%	11.0%	10.9%	13.3%	10.3%	10.1%	11.2%	10.9%
		EAI Golden King	0.0%	0.0%	0.0%	0.0%	0.0%	***	0.0%	0.0%
		WAI Golden King	**	**	**	**	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	29.2%	30.1%	NA	***	30.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	41.3%	31.4%	NA	20.6%	33.2%
		St. Matthew Island Blue	**	**	**	CLOSED	**	NA	***	***
All States	All States Total	Bristol Bay Red King	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		Bering Sea Snow	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		EAI Golden King	**	**	**	**	**	100.0%	***	***
		WAI Golden King	**	**	**	100.0%	**	***	***	***
		EBS Tanner	CLOSED	CLOSED	CLOSED	100.0%	100.0%	NA	100.0%	100.0%
		WBS Tanner	CLOSED	CLOSED	CLOSED	100.0%	100.0%	NA	100.0%	100.0%
		St. Matthew Island Blue	100.0%	100.0%	100.0%	CLOSED	100.0%	NA	100.0%	100.0%

*Pre-rationalization averages include years through 2004 for the Bristol Bay red king crab and EAI golden king crab fisheries and through 2005 for the Bering Sea snow crab and WAI golden king crab fisheries.
**Data are suppressed due to confidentiality.
***Computation is suppressed to protect confidentiality of primary data.
Note: "Oregon" and "Other U.S." combined to allow for display of otherwise confidential data for Bristol Bay red king crab and Bering Sea snow crab.
Source: ADFG 2015; CFEC 2015

Table A1-5a. BSAI Crab Vessel Harvest Diversity by Volume

State	Region	Species	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alaska	Other Alaska (non-Kodiak)	Rationalized Crab	39,287,494	24,746,880	5,257,862	3,460,700	4,296,172	3,715,069	3,662,607	2,823,945	3,419,786	9,743,100	12,739,604	10,509,485	10,054,557
		Non-Rationalized Crab	1,588,677	3,063,413	987,637	1,203,591	1,214,074	590,943	**	**	**	***	**	**	421,165
		Groundfish	14,121,173	13,342,395	16,820,273	10,660,673	9,676,260	8,484,117	7,050,947	10,401,336	11,030,491	10,275,691	6,121,611	9,252,089	15,867,141
		Other Species	2,940,572	3,353,836	1,653,256	1,407,584	1,101,810	2,580,970	***	***	***	***	***	***	2,090,964
	Kodiak	Rationalized Crab	35,160,378	28,265,310	5,403,201	4,361,169	4,774,204	4,715,703	4,171,224	4,442,953	3,807,002	5,784,719	12,291,297	10,099,225	6,253,570
		Non-Rationalized Crab	769,405	2,043,224	585,059	596,956	98,544	157,620	***	**	***	**	***	**	156,220
		Groundfish	42,822,468	45,502,125	45,393,649	52,302,515	57,157,416	59,768,766	66,365,842	60,283,107	58,513,850	50,127,985	41,052,834	35,599,500	46,745,462
		Other Species	2,765,288	2,693,997	2,699,612	2,782,356	2,653,440	2,415,516	***	***	***	***	***	***	1,726,176
	Alaska Total	Rationalized Crab	74,447,872	53,012,190	10,661,063	7,821,869	9,070,376	8,430,772	7,833,831	7,266,898	7,226,788	15,527,819	25,030,901	20,608,710	16,308,127
		Non-Rationalized Crab	2,358,082	5,106,637	1,572,696	1,800,547	1,312,618	748,563	133,639	286,806	319,794	595,868	97,218	655,160	577,385
		Groundfish	56,943,641	58,844,520	62,213,922	62,963,188	66,833,676	68,252,883	73,416,789	70,684,443	69,544,341	60,403,676	47,174,445	44,851,589	62,612,603
		Other Species	5,705,860	6,047,833	4,352,868	4,189,940	3,755,250	4,996,486	11,189,356	6,394,711	7,135,138	6,965,357	5,898,859	5,326,745	3,817,140
Washington Total	Washington Total	Rationalized Crab	166,694,772	130,044,010	25,308,678	21,091,476	26,732,547	28,389,781	26,145,667	28,608,396	32,776,097	28,509,504	40,906,372	40,375,290	37,002,046
		Non-Rationalized Crab	5,319,271	***	***	1,062,915	2,051,656	1,829,984	3,160,461	***	220,924	***	168,350	164,282	214,416
		Groundfish	484,871,983	501,188,481	599,429,943	664,837,850	690,986,940	674,745,914	699,944,987	704,028,330	737,259,696	645,499,209	499,605,570	418,708,388	410,234,655
		Other Species	641,536	***	***	1,097,291	636,376	773,098	3,346,169	***	2,185,431	***	2,586,859	2,645,342	1,781,292
Oregon and Other U.S. Total	Oregon and Other U.S. Total	Rationalized Crab	21,494,994	17,711,119	5,440,965	4,167,322	5,606,299	7,470,387	6,255,627	6,180,193	8,882,656	8,472,589	9,903,012	8,046,792	7,319,426
		Non-Rationalized Crab	356,051	**	**	75,628	569,977	172,841	204,220	**	399,421	**	977,723	443,896	848,923
		Groundfish	39,530,453	46,398,528	49,121,700	58,172,546	62,117,617	67,903,654	72,607,424	74,705,560	69,403,423	54,046,537	49,328,800	35,879,924	48,977,337
		Other Species	1,332,739	***	***	2,063,629	2,279,122	2,586,934	2,321,382	***	1,720,858	***	1,081,222	1,311,666	1,425,227
All States Total	All States Total	Rationalized Crab	262,637,638	200,767,319	41,410,706	33,080,667	41,409,222	44,290,940	40,235,125	42,055,487	48,885,541	52,509,912	75,840,285	69,030,792	60,629,599
		Non-Rationalized Crab	8,033,404	11,004,449	3,529,173	2,939,090	3,934,251	2,751,388	3,498,320	2,365,921	940,139	1,201,248	1,243,291	1,263,338	1,640,724
		Groundfish	581,346,077	606,431,529	710,765,565	785,973,584	819,938,233	810,902,451	845,969,200	849,418,333	876,207,460	759,949,422	596,108,815	499,439,901	521,824,595
		Other Species	7,680,135	7,831,624	6,508,677	7,350,860	6,670,748	8,356,518	16,856,907	11,824,666	11,041,427	11,256,310	9,566,940	9,283,753	7,023,659

*Note: data are only available for 4 years of this period at present.
**Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Source: ADFG 2015; CFEC 2015

Table A1-5a (continued). BSAI Crab Vessel Harvest Diversity by Volume

State	Region	Species	2011	2012	2013	2014	Pre-Rationalization Annual Average (1998–2004)	First 5 Years Post-Rationalization Annual Average (2006–2010)	Second 5 Years* Post-Rationalization Annual Average (2011–2014)
Alaska	Other Alaska (non-Kodiak)	Rationalized Crab	9,965,813	14,431,668	13,091,217	11,965,910	12,060,969	9,293,306	12,363,652
		Non-Rationalized Crab	224,801	108,932	**	**	***	***	***
		Groundfish	21,408,778	14,631,851	9,853,515	12,379,405	11,450,834	10,509,405	14,568,387
		Other Species	2,631,787	1,748,972	***	***	***	***	***
	Kodiak	Rationalized Crab	7,127,884	11,053,092	8,155,631	6,969,000	12,407,313	7,647,163	8,326,402
		Non-Rationalized Crab	135,976	357,595	**	**	***	***	***
		Groundfish	56,638,470	55,587,396	49,800,494	75,220,792	52,758,969	46,407,926	59,311,788
		Other Species	1,467,849	1,211,808	***	***	***	***	***
	Alaska Total	Rationalized Crab	17,093,697	25,484,760	21,246,848	18,934,910	24,468,282	16,940,469	20,690,054
		Non-Rationalized Crab	360,777	466,527	354,810	329,101	1,861,826	449,085	377,804
		Groundfish	78,047,248	70,219,247	59,654,009	87,600,197	64,209,803	56,917,331	73,880,175
		Other Species	4,099,636	2,960,780	3,885,517	3,024,978	5,748,228	5,828,648	3,492,728
Washington Total	Washington Total	Rationalized Crab	35,399,975	52,600,943	40,244,314	37,920,461	60,629,562	35,913,862	41,541,423
		Non-Rationalized Crab	261,605	***	***	398,464	***	***	***
		Groundfish	621,494,643	619,983,311	681,733,748	678,736,091	616,572,300	542,261,504	650,486,948
		Other Species	3,360,921	***	***	3,332,423	***	***	***
Oregon and Other U.S. Total	Oregon and Other U.S. Total	Rationalized Crab	7,170,388	11,069,975	8,853,596	11,319,957	9,735,245	8,524,895	9,603,479
		Non-Rationalized Crab	730,094	**	**	183,013	***	***	***
		Groundfish	61,418,802	62,259,644	47,286,506	43,536,055	56,550,275	51,527,204	53,625,252
		Other Species	1,276,942	***	***	1,055,460	***	***	***
All States Total	All States Total	Rationalized Crab	59,664,060	89,155,678	70,344,758	68,175,328	94,833,088	61,379,226	71,834,956
		Non-Rationalized Crab	1,352,476	1,719,549	1,622,698	910,578	5,098,582	1,257,748	1,401,325
		Groundfish	760,960,693	752,462,202	788,674,263	809,872,343	737,332,377	650,706,039	777,992,375
		Other Species	8,737,499	7,409,563	8,304,695	7,412,861	8,750,781	9,634,418	7,966,155

*Note: data are only available for 4 years of this period at present.
**Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Source: ADFG 2015; CFEC 2015

Table A1-5b. BSAI Crab Vessel Harvest Diversity Volume Percentages

State	Region	Species	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alaska	Other Alaska (non-Kodiak)	Rationalized Crab	67.8%	55.6%	21.3%	20.7%	26.4%	24.2%	23.2%	16.0%	19.6%	38.3%	55.1%	43.7%	35.4%
		Non-Rationalized Crab	2.7%	6.9%	4.0%	7.2%	7.5%	3.8%	**	**	**	***	**	**	1.5%
		Groundfish	24.4%	30.0%	68.0%	63.7%	59.4%	55.2%	44.7%	58.9%	63.2%	40.4%	26.5%	38.4%	55.8%
		Other Species	5.1%	7.5%	6.7%	8.4%	6.8%	16.8%	***	***	***	***	***	***	7.4%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Kodiak	Rationalized Crab	43.1%	36.0%	10.0%	7.3%	7.4%	7.0%	5.4%	6.6%	5.7%	10.0%	22.3%	21.3%	11.4%
		Non-Rationalized Crab	0.9%	2.6%	1.1%	1.0%	0.2%	0.2%	***	**	***	**	***	**	0.3%
		Groundfish	52.5%	58.0%	83.9%	87.1%	88.4%	89.1%	86.4%	90.0%	87.6%	86.3%	74.5%	75.2%	85.2%
		Other Species	3.4%	3.4%	5.0%	4.6%	4.1%	3.6%	***	***	***	***	***	***	3.1%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Alaska Total	Rationalized Crab	53.4%	43.1%	13.5%	10.2%	11.2%	10.2%	8.5%	8.6%	8.6%	18.6%	32.0%	28.8%	19.6%
		Non-Rationalized Crab	1.7%	4.2%	2.0%	2.3%	1.6%	0.9%	0.1%	0.3%	0.4%	0.7%	0.1%	0.9%	0.7%
		Groundfish	40.8%	47.8%	79.0%	82.0%	82.5%	82.8%	79.3%	83.5%	82.6%	72.3%	60.3%	62.8%	75.2%
		Other Species	4.1%	4.9%	5.5%	5.5%	4.6%	6.1%	12.1%	7.6%	8.5%	8.3%	7.5%	7.5%	4.6%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Washington Total	Washington Total	Rationalized Crab	25.4%	20.4%	4.0%	3.1%	3.7%	4.0%	3.6%	3.9%	4.2%	4.2%	7.5%	8.7%	8.2%
		Non-Rationalized Crab	0.8%	***	***	0.2%	0.3%	0.3%	0.4%	***	0.0%	***	0.0%	0.0%	0.0%
		Groundfish	73.7%	78.7%	95.6%	96.6%	95.9%	95.6%	95.5%	95.4%	95.4%	95.3%	92.0%	90.7%	91.3%
		Other Species	0.1%	***	***	0.2%	0.1%	0.1%	0.5%	***	0.3%	***	0.5%	0.6%	0.4%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oregon and Other U.S. Total	Oregon and Other U.S. Total	Rationalized Crab	34.3%	26.8%	9.6%	6.5%	7.9%	9.6%	7.7%	7.4%	11.0%	13.2%	16.2%	17.6%	12.5%
		Non-Rationalized Crab	0.6%	**	**	0.1%	0.8%	0.2%	0.3%	**	0.5%	**	1.6%	1.0%	1.4%
		Groundfish	63.0%	70.1%	86.8%	90.2%	88.0%	86.9%	89.2%	89.8%	86.3%	84.4%	80.5%	78.5%	83.6%
		Other Species	2.1%	***	***	3.2%	3.2%	3.3%	2.9%	***	2.1%	***	1.8%	2.9%	2.4%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All States Total	All States Total	Rationalized Crab	30.6%	24.3%	5.4%	4.0%	4.7%	5.1%	4.4%	4.6%	5.2%	6.4%	11.1%	11.9%	10.3%
		Non-Rationalized Crab	0.9%	1.3%	0.5%	0.4%	0.5%	0.3%	0.4%	0.3%	0.1%	0.1%	0.2%	0.2%	0.3%
		Groundfish	67.6%	73.4%	93.3%	94.8%	94.0%	93.6%	93.3%	93.8%	93.5%	92.1%	87.3%	86.3%	88.3%
		Other Species	0.9%	0.9%	0.9%	0.9%	0.8%	1.0%	1.9%	1.3%	1.2%	1.4%	1.4%	1.6%	1.2%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Note: data are only available for 4 years of this period at present.
**Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Source: ADFG 2015; CFEC 2015

Table A1-5b (continued). BSAI Crab Vessel Harvest Diversity Volume Percentages

State	Region	Species	2011	2012	2013	2014	Pre-Rationalization Annual Average (1998–2004)	First 5 Years Post-Rationalization Annual Average (2006–2010)	Second 5 Years* Post-Rationalization Annual Average (2011–2014)
Alaska	Other Alaska (non-Kodiak)	Rationalized Crab	29.1%	46.7%	50.2%	45.1%	44.1%	39.2%	42.0%
		Non-Rationalized Crab	0.7%	0.4%	**	**	***	***	***
		Groundfish	62.5%	47.3%	37.8%	46.7%	41.9%	44.3%	49.5%
		Other Species	7.7%	5.7%	***	***	***	***	***
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Kodiak	Rationalized Crab	10.9%	16.2%	13.8%	8.4%	18.0%	13.6%	12.1%
		Non-Rationalized Crab	0.2%	0.5%	**	**	***	***	***
		Groundfish	86.6%	81.5%	84.3%	90.2%	76.5%	82.2%	86.0%
		Other Species	2.2%	1.8%	***	***	***	***	***
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Alaska Total	Rationalized Crab	17.2%	25.7%	25.0%	17.2%	25.4%	21.1%	21.0%
		Non-Rationalized Crab	0.4%	0.5%	0.4%	0.3%	1.9%	0.6%	0.4%
		Groundfish	78.4%	70.8%	70.1%	79.7%	66.7%	71.0%	75.1%
		Other Species	4.1%	3.0%	4.6%	2.8%	6.0%	7.3%	3.5%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Washington Total	Washington Total	Rationalized Crab	5.4%	7.8%	5.5%	5.3%	8.9%	6.2%	6.0%
		Non-Rationalized Crab	0.0%	***	***	0.1%	***	***	***
		Groundfish	94.1%	91.6%	93.9%	94.2%	90.5%	93.4%	93.5%
		Other Species	0.5%	***	***	0.5%	***	***	***
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oregon and Other U.S. Total	Oregon and Other U.S. Total	Rationalized Crab	10.2%	14.8%	15.4%	20.2%	14.2%	13.7%	14.8%
		Non-Rationalized Crab	1.0%	**	**	0.3%	***	***	***
		Groundfish	87.0%	83.1%	82.0%	77.6%	82.5%	83.1%	82.7%
		Other Species	1.8%	***	***	1.9%	***	***	***
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All States Total	All States Total	Rationalized Crab	7.2%	10.5%	8.1%	7.7%	11.2%	8.5%	8.4%
		Non-Rationalized Crab	0.2%	0.2%	0.2%	0.1%	0.6%	0.2%	0.2%
		Groundfish	91.6%	88.4%	90.8%	91.4%	87.2%	90.0%	90.5%
		Other Species	1.1%	0.9%	1.0%	0.8%	1.0%	1.3%	0.9%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Note: data are only available for 4 years of this period at present.
**Data are suppressed due to confidentiality.
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Source: ADFG 2015; CFEC 2015

Table A1-6a. BSAI Crab Vessel Harvest Diversity by Value

State	Region	Species	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alaska	Other Alaska	Rationalized Crab	$26,109,738	$31,736,902	$13,481,014	$8,525,988	$10,989,232	$10,958,820	$11,167,887	$7,969,796	$6,934,030	$24,427,089	$32,508,811	$20,312,540	$28,240,427
	(non-Kodiak)	Non-Rationalized Crab	$2,409,053	$3,847,095	$2,150,358	$2,372,997	$3,785,897	$1,457,081	**	**	**	***	**	**	$991,385
		Groundfish	$1,758,629	$2,496,806	$4,401,029	$1,959,004	$2,032,127	$1,994,342	$1,733,555	$2,132,660	$3,274,050	$4,325,318	$5,035,733	$4,529,874	$6,091,964
		Other Species	$1,348,132	$2,361,424	$1,890,101	$1,548,727	$1,805,773	$1,674,796	***	***	***	***	***	***	$5,540,242
	Kodiak	Rationalized Crab	$25,357,259	$38,187,248	$13,486,215	$10,682,207	$12,816,431	$13,829,878	$12,762,338	$11,802,019	$7,939,919	$15,544,446	$30,001,715	$20,512,392	$18,095,901
		Non-Rationalized Crab	$1,466,917	$2,782,610	$1,453,706	$1,669,143	$484,206	$521,638	***	**	***	**	***	**	$397,348
		Groundfish	$5,903,408	$9,683,446	$9,573,544	$7,625,498	$8,355,699	$9,006,071	$10,116,402	$11,857,704	$13,232,276	$11,657,444	$13,225,367	$7,627,932	$10,313,911
		Other Species	$3,221,573	$5,455,290	$6,671,528	$5,413,694	$5,737,123	$6,682,575	***	***	***	***	***	***	$5,891,902
	Alaska Total	Rationalized Crab	$51,466,997	$69,924,151	$26,967,229	$19,208,195	$23,805,663	$24,788,698	$23,930,225	$19,771,815	$14,873,949	$39,971,535	$62,510,526	$40,824,932	$46,336,329
		Non-Rationalized Crab	$3,850,347	$6,399,689	$3,604,064	$4,041,790	$4,270,104	$1,978,719	$166,560	$477,040	$489,839	$1,424,479	$207,366	$1,395,147	$1,388,734
		Groundfish	$7,662,037	$12,180,253	$13,974,573	$9,584,502	$10,387,826	$11,000,413	$11,849,957	$13,990,364	$16,506,326	$15,982,763	$18,261,100	$12,157,805	$16,405,875
		Other Species	$4,569,705	$7,816,714	$8,561,629	$6,962,422	$7,542,896	$8,357,372	$9,018,793	$7,722,201	$8,824,642	$10,070,844	$12,209,331	$7,779,628	$11,432,144
Washington Total	Washington Total	Rationalized Crab	$115,122,125	$168,794,167	$63,107,998	$53,189,000	$67,535,049	$84,992,245	$79,785,960	$81,925,955	$61,808,912	$73,098,773	$105,188,987	$86,180,289	$102,939,085
		Non-Rationalized Crab	$7,310,029	***	***	$2,641,759	$6,217,784	$4,563,940	$9,140,151	***	$982,542	***	$903,592	$964,637	$107,490
		Groundfish	$33,895,898	$54,604,824	$78,757,074	$68,293,492	$79,826,804	$81,110,363	$79,755,827	$92,784,851	$108,397,941	$100,791,907	$115,676,054	$76,527,010	$70,704,860
		Other Species	$81,781	***	***	$195,863	$313,396	$795,139	$1,125,746	***	$1,941,842	***	$2,333,313	$1,817,312	$2,363,534
Oregon and	Oregon and	Rationalized Crab	$16,271,089	$24,786,679	$14,193,523	$10,543,757	$14,866,039	$22,577,291	$19,124,099	$18,004,284	$15,867,692	$20,569,135	$25,048,087	$17,151,745	$22,827,347
Other U.S. Total	Other U.S. Total	Non-Rationalized Crab	$705,326	**	**	$336,589	$1,258,431	$689,171	$385,116	**	$798,160	**	$2,420,015	$756,020	$2,369,816
		Groundfish	$4,272,012	$6,080,059	$7,882,509	$7,512,879	$8,356,658	$10,754,837	$10,290,946	$12,667,456	$13,410,334	$11,644,255	$14,995,851	$7,497,249	$10,775,030
		Other Species	$1,509,820	***	***	$3,651,659	$4,859,517	$6,826,529	$6,181,776	***	$5,702,713	***	$4,047,936	$2,935,277	$4,506,342
All States Total	All States Total	Rationalized Crab	$182,860,211	$263,504,997	$104,268,750	$82,940,952	$106,206,751	$132,358,235	$122,840,285	$119,702,054	$92,550,552	$133,639,443	$192,747,600	$144,156,966	$172,102,761
		Non-Rationalized Crab	$11,891,325	$15,403,004	$8,819,099	$7,020,487	$11,746,319	$7,231,831	$9,691,827	$5,975,595	$2,270,541	$3,289,306	$3,530,973	$3,115,804	$3,866,039
		Groundfish	$45,829,947	$72,865,136	$100,614,155	$85,390,874	$98,571,288	$102,865,613	$101,896,730	$119,442,671	$138,314,600	$128,418,925	$148,933,005	$96,182,064	$97,885,765
		Other Species	$6,161,307	$11,198,610	$13,624,555	$10,809,944	$12,715,809	$15,979,040	$16,326,315	$14,594,265	$16,469,198	$18,441,277	$18,590,580	$12,532,217	$18,302,021

*Note: data are only available for 4 years of this period at present.
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Source: ADFG 2015; CFEC 2015

Table A1-6a (continued). BSAI Crab Vessel Harvest Diversity by Value

State	Region	Species	2011	2012	2013	2014	Pre-Rationalization Annual Average (1998–2004)	First 5 Years Post-Rationalization Annual Average (2006–2010)	Second 5 Years* Post-Rationalization Annual Average (2011–2014)
Alaska	Other Alaska (non-Kodiak)	Rationalized Crab	$36,550,562	$40,299,875	$39,509,002	$37,957,710	$16,138,512	$22,484,579	$38,579,287
		Non-Rationalized Crab	$1,153,008	$251,428	**	**	***	***	***
		Groundfish	$12,163,818	$7,663,282	$4,850,632	$5,439,452	$2,339,356	$4,651,388	$7,529,296
		Other Species	$8,203,123	$3,812,502	***	***	***	***	***
	Kodiak	Rationalized Crab	$26,125,153	$29,193,627	$23,044,020	$20,793,277	$18,160,225	$18,418,875	$24,789,019
		Non-Rationalized Crab	$555,497	$912,758	**	**	***	***	***
		Groundfish	$13,193,352	$13,219,832	$9,493,937	$13,269,205	$8,609,153	$11,211,386	$12,294,082
		Other Species	$5,678,145	$3,551,543	***	***	***	***	***
	Alaska Total	Rationalized Crab	$62,675,715	$69,493,502	$62,553,022	$58,750,987	$34,298,737	$40,903,454	$63,368,306
		Non-Rationalized Crab	$1,708,505	$1,164,186	$1,854,026	$1,542,658	$3,473,039	$981,113	$1,567,344
		Groundfish	$25,357,170	$20,883,114	$14,344,569	$18,708,657	$10,948,509	$15,862,774	$19,823,378
		Other Species	$13,881,268	$7,364,044	$5,472,001	$4,871,409	$7,547,076	$10,063,318	$7,897,181
Washington Total	Washington Total	Rationalized Crab	$129,375,387	$140,830,926	$114,366,265	$116,088,012	$90,360,935	$85,843,209	$125,165,148
		Non-Rationalized Crab	$980,303	***	***	$1,848,797	***	***	***
		Groundfish	$106,590,369	$117,242,794	$105,831,840	$109,237,742	$68,034,898	$94,419,554	$109,725,686
		Other Species	$2,452,957	***	***	$1,220,594	***	***	***
Oregon and Other U.S. Total	Oregon and Other U.S. Total	Rationalized Crab	$27,167,739	$30,101,706	$25,374,244	$34,415,319	$17,480,354	$20,292,801	$29,264,752
		Non-Rationalized Crab	$2,473,414	**	**	$360,172	***	***	***
		Groundfish	$13,588,157	$14,470,731	$9,791,069	$9,258,002	$7,878,557	$11,664,544	$11,776,990
		Other Species	$4,827,104	***	***	$1,255,875	***	***	***
All States Total	All States Total	Rationalized Crab	$219,218,840	$240,426,134	$202,293,531	$209,254,318	$142,140,026	$147,039,464	$217,798,206
		Non-Rationalized Crab	$5,162,223	$6,270,342	$5,918,001	$3,751,627	$10,257,699	$3,214,533	$5,275,548
		Groundfish	$145,535,696	$152,596,639	$129,967,479	$137,204,402	$86,861,963	$121,946,872	$141,326,054
		Other Species	$21,161,329	$11,933,874	$9,452,929	$7,347,878	$12,402,226	$16,867,058	$12,474,003

*Note: data are only available for 4 years of this period at present.
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Source: ADFG 2015; CFEC 2015

Table A1-6b. BSAI Crab Vessel Harvest Diversity Value Percentages

State	Region	Species	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alaska	Other Alaska (non-Kodiak)	Rationalized Crab	82.6%	78.5%	61.5%	59.2%	59.0%	68.1%	76.9%	65.5%	55.4%	72.2%	75.3%	67.1%	69.1%
		Non-Rationalized Crab	7.6%	9.5%	9.8%	16.5%	20.3%	9.1%	**	**	**	***	**	**	2.4%
		Groundfish	5.6%	6.2%	20.1%	13.6%	10.9%	12.4%	11.9%	17.5%	26.1%	12.8%	11.7%	15.0%	14.9%
		Other Species	4.3%	5.8%	8.6%	10.8%	9.7%	10.4%	***	***	***	***	***	***	13.6%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Kodiak	Rationalized Crab	70.5%	68.1%	43.2%	42.1%	46.8%	46.0%	41.9%	39.6%	28.2%	46.2%	60.0%	64.4%	52.2%
		Non-Rationalized Crab	4.1%	5.0%	4.7%	6.6%	1.8%	1.7%	***	**	***	**	***	**	1.1%
		Groundfish	16.4%	17.3%	30.7%	30.0%	30.5%	30.0%	33.2%	39.8%	47.0%	34.7%	26.4%	23.9%	29.7%
		Other Species	9.0%	9.7%	21.4%	21.3%	20.9%	22.2%	***	***	***	***	***	***	17.0%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Alaska Total	Rationalized Crab	76.2%	72.6%	50.8%	48.3%	51.7%	53.7%	53.2%	47.1%	36.6%	59.3%	67.1%	65.7%	61.3%
		Non-Rationalized Crab	5.7%	6.6%	6.8%	10.2%	9.3%	4.3%	0.4%	1.1%	1.2%	2.1%	0.2%	2.2%	1.8%
		Groundfish	11.3%	12.6%	26.3%	24.1%	22.6%	23.8%	26.4%	33.3%	40.6%	23.7%	19.6%	19.6%	21.7%
		Other Species	6.8%	8.1%	16.1%	17.5%	16.4%	18.1%	20.1%	18.4%	21.7%	14.9%	13.1%	12.5%	15.1%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Washington Total	Washington Total	Rationalized Crab	73.6%	72.8%	42.9%	42.8%	43.9%	49.6%	47.0%	45.2%	35.7%	41.0%	46.9%	52.1%	58.4%
		Non-Rationalized Crab	4.7%	***	***	2.1%	4.0%	2.7%	5.4%	***	0.6%	***	0.4%	0.6%	0.1%
		Groundfish	21.7%	23.5%	53.6%	54.9%	51.9%	47.3%	47.0%	51.2%	62.6%	56.6%	51.6%	46.2%	40.1%
		Other Species	0.1%	***	***	0.2%	0.2%	0.5%	0.7%	***	1.1%	***	1.0%	1.1%	1.3%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oregon and Other U.S. Total	Oregon and Other U.S. Total	Rationalized Crab	71.5%	71.8%	52.3%	47.8%	50.7%	55.3%	53.1%	49.3%	44.3%	53.8%	53.9%	60.5%	56.4%
		Non-Rationalized Crab	3.1%	**	**	1.5%	4.3%	1.7%	1.1%	**	2.2%	**	5.2%	2.7%	5.9%
		Groundfish	18.8%	17.6%	29.0%	34.1%	28.5%	26.3%	28.6%	34.7%	37.5%	30.4%	32.2%	26.5%	26.6%
		Other Species	6.6%	***	***	16.6%	16.6%	16.7%	17.2%	***	15.9%	***	8.7%	10.4%	11.1%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All States Total	All States Total	Rationalized Crab	74.1%	72.6%	45.9%	44.6%	46.3%	51.2%	49.0%	46.1%	37.1%	47.1%	53.0%	56.3%	58.9%
		Non-Rationalized Crab	4.8%	4.2%	3.9%	3.8%	5.1%	2.8%	3.9%	2.3%	0.9%	1.2%	1.0%	1.2%	1.3%
		Groundfish	18.6%	20.1%	44.3%	45.9%	43.0%	39.8%	40.6%	46.0%	55.4%	45.3%	40.9%	37.6%	33.5%
		Other Species	2.5%	3.1%	6.0%	5.8%	5.5%	6.2%	6.5%	5.6%	6.6%	6.5%	5.1%	4.9%	6.3%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Note: data are only available for 4 years of this period at present.
**Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Source: ADFG 2015; CFEC 2015

Table A1-6b (continued). BSAI Crab Vessel Harvest Diversity Value Percentages

State	Region	Species	2011	2012	2013	2014	Pre-Rationalization Annual Average (1998–2004)	First 5 Years Post-Rationalization Annual Average (2006–2010)	Second 5 Years* Post-Rationalization Annual Average (2011–2014)
Alaska	Other Alaska (non-Kodiak)	Rationalized Crab	62.9%	77.5%	81.4%	80.7%	71.7%	70.0%	75.0%
		Non-Rationalized Crab	2.0%	0.5%	**	**	***	***	***
		Groundfish	20.9%	14.7%	10.0%	11.6%	10.4%	14.5%	14.6%
		Other Species	14.1%	7.3%	***	***	***	***	***
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Kodiak	Rationalized Crab	57.4%	62.3%	64.5%	56.5%	53.7%	51.6%	60.1%
		Non-Rationalized Crab	1.2%	1.9%	**	**	***	***	***
		Groundfish	29.0%	28.2%	26.6%	36.0%	25.5%	31.4%	29.8%
		Other Species	12.5%	7.6%	***	***	***	***	***
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Alaska Total	Rationalized Crab	60.5%	70.3%	74.3%	70.0%	61.0%	60.3%	68.4%
		Non-Rationalized Crab	1.6%	1.2%	2.2%	1.8%	6.2%	1.4%	1.7%
		Groundfish	24.5%	21.1%	17.0%	22.3%	19.5%	23.4%	21.4%
		Other Species	13.4%	7.4%	6.5%	5.8%	13.4%	14.8%	8.5%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Washington Total	Washington Total	Rationalized Crab	54.0%	53.6%	51.0%	50.8%	54.8%	46.8%	52.4%
		Non-Rationalized Crab	0.4%	***	***	0.8%	***	***	***
		Groundfish	44.5%	44.6%	47.2%	47.8%	41.2%	51.5%	46.0%
		Other Species	1.0%	***	***	0.5%	***	***	***
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oregon and Other U.S. Total	Oregon and Other U.S. Total	Rationalized Crab	56.5%	60.8%	64.6%	76.0%	57.5%	53.6%	64.3%
		Non-Rationalized Crab	5.1%	**	**	0.8%	***	***	***
		Groundfish	28.3%	29.2%	24.9%	20.4%	25.9%	30.8%	25.9%
		Other Species	10.0%	***	***	2.8%	***	***	***
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All States Total	All States Total	Rationalized Crab	56.1%	58.5%	58.2%	58.5%	56.5%	50.9%	57.8%
		Non-Rationalized Crab	1.3%	1.5%	1.7%	1.0%	4.1%	1.1%	1.4%
		Groundfish	37.2%	37.1%	37.4%	38.4%	34.5%	42.2%	37.5%
		Other Species	5.4%	2.9%	2.7%	2.1%	4.9%	5.8%	3.3%
		TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Note: data are only available for 4 years of this period at present.
**Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Source: ADFG 2015; CFEC 2015

Table A1-7. BSAI Crab Processor Count by Community

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Alaska	South-Central	Cordova													
		Bristol Bay Red King	0	0	0	0	0	0	0	--	0	0	0	0	0
		Bering Sea Snow	0	0	0	1	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
		Ninilchik													
		Bristol Bay Red King	0	0	0	0	0	0	0	--	0	0	0	0	0
		Bering Sea Snow	1	0	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
		Wasilla													
		Bristol Bay Red King	0	0	0	0	0	0	0	--	0	0	0	0	0
		Bering Sea Snow	1	0	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
		South-Central Total													
		Bristol Bay Red King	0	0	0	0	0	0	0	--	0	0	0	0	0
		Bering Sea Snow	2	0	0	1	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
	Southeast	Sitka													
		Bristol Bay Red King	0	0	0	0	0	0	0	--	1	0	0	0	0
		Bering Sea Snow	0	0	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
		Southeast Total													
		Bristol Bay Red King	0	0	0	0	0	0	0	--	1	0	0	0	0
		Bering Sea Snow	0	0	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
	Aleutian/	Adak													
	Pribilof	Bristol Bay Red King	0	0	0	1	0	0	0	--	0	0	0	0	0
		Bering Sea Snow	0	0	1	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	1	1	1	2	1	--	0	0	0	0	0
		WAI Golden King	0	0	2	4	3	1	3	2	2	1	1	2	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
		Akutan													
		Bristol Bay Red King	1	1	1	1	1	1	1	--	1	1	2	1	2
		Bering Sea Snow	1	1	1	1	0	1	1	1	1	1	2	1	1
		EAI Golden King	0	1	0	0	0	0	0	--	0	1	0	1	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	1	1	1	1
		WBS Tanner	--	--	--	--	--	--	--	--	1	1	1	1	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
		King Cove													
		Bristol Bay Red King	1	1	1	1	2	3	1	--	1	3	1	2	2
		Bering Sea Snow	1	1	2	1	1	1	1	1	1	1	1	1	1
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	1	1	2	2
		WBS Tanner	--	--	--	--	--	--	--	--	1	1	1	1	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
		Sand Point													
		Bristol Bay Red King	0	0	0	0	1	1	1	--	0	0	0	0	0
		Bering Sea Snow	0	0	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
		St. Paul													
		Bristol Bay Red King	1	1	0	0	0	1	0	--	1	1	2	1	2
		Bering Sea Snow	2	2	2	2	2	2	2	2	2	1	8	6	4
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	1	0
		WBS Tanner	--	--	--	--	--	--	--	--	2	0	5	6	4
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	5
		Unalaska/Dutch Harbor													
		Bristol Bay Red King	7	7	6	6	6	7	6	--	4	5	7	7	4
		Bering Sea Snow	9	9	6	6	5	6	6	6	7	8	6	5	4
		EAI Golden King	6	4	3	3	3	3	3	--	3	4	4	4	6
		WAI Golden King	4	2	4	4	3	2	2	2	2	2	2	5	4
		EBS Tanner	--	--	--	--	--	--	--	--	--	6	5	5	5
		WBS Tanner	--	--	--	--	--	--	--	--	5	5	3	4	3
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	1

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
		Aleutian/Pribilof Total													
		Bristol Bay Red King	10	10	8	9	10	13	9	--	7	10	12	11	10
		Bering Sea Snow	13	13	12	10	8	10	10	10	11	11	17	13	10
		EAI Golden King	6	5	4	4	4	5	4	--	3	5	4	5	6
		WAI Golden King	4	2	6	8	6	3	5	4	4	3	3	7	4
		EBS Tanner	--	--	--	--	--	--	--	--	--	8	7	9	8
		WBS Tanner	--	--	--	--	--	--	--	--	9	7	10	12	7
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	6
	Kodiak	Kodiak													
		Bristol Bay Red King	1	3	8	8	3	4	4	--	3	3	4	4	4
		Bering Sea Snow	2	1	3	1	4	1	2	1	2	2	3	2	1
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	1	1
		WBS Tanner	--	--	--	--	--	--	--	--	1	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
	Alaska Total	Alaska Total													
		Bristol Bay Red King	11	13	16	17	13	17	13	--	11	13	16	15	14
		Bering Sea Snow	17	14	15	12	12	11	12	11	13	13	20	15	11
		EAI Golden King	6	5	4	4	4	5	4	--	3	5	4	5	6
		WAI Golden King	4	2	6	8	6	3	5	4	4	3	3	7	4
		EBS Tanner	--	--	--	--	--	--	--	--	--	8	7	10	9
		WBS Tanner	--	--	--	--	--	--	--	--	10	7	10	12	7
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	6
Floating Catcher Processors		Floating Catcher Processors Total													
		Bristol Bay Red King	0	0	6	6	10	8	8	--	4	3	3	3	2
		Bering Sea Snow	0	0	9	7	8	5	6	6	4	4	4	4	2
		EAI Golden King	0	0	0	0	0	0	0	--	1	1	1	0	0
		WAI Golden King	0	0	1	1	1	2	1	1	1	1	1	1	1
		EBS Tanner	--	--	--	--	--	--	--	--	--	3	1	1	1
		WBS Tanner	--	--	--	--	--	--	--	--	1	2	1	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
Inshore Stationary Floating Processors		Inshore Stationary Floating Processors Total													
		Bristol Bay Red King	0	0	3	3	3	5	4	--	1	1	0	0	2
		Bering Sea Snow	0	0	8	6	6	6	6	3	4	9	2	2	4
		EAI Golden King	0	0	0	0	0	0	0	--	1	0	0	0	0
		WAI Golden King	0	0	0	0	0	0	0	0	3	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	2	3
		WBS Tanner	--	--	--	--	--	--	--	--	3	1	0	1	1
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
Floating Domestic Mothership		Floating Domestic Mothership Total													
		Bristol Bay Red King	0	0	0	0	0	0	0	--	0	0	0	0	0
		Bering Sea Snow	0	0	1	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	0	0	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	0	0	0	0	1	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0

State	Region	Community/Species	1998	1999	2000	2001	2002	2003	2004	2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Unknown		Unknown													
		Bristol Bay Red King	18	11	0	0	0	0	0	--	0	0	0	0	0
		Bering Sea Snow	36	28	0	0	0	0	0	0	0	0	0	0	0
		EAI Golden King	1	2	0	0	0	0	0	--	0	0	0	0	0
		WAI Golden King	4	1	2	0	0	0	0	0	0	0	0	0	0
		EBS Tanner	--	--	--	--	--	--	--	--	--	0	0	0	0
		WBS Tanner	--	--	--	--	--	--	--	--	0	0	0	0	0
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	0
All Processors		All Processors Total													
		Bristol Bay Red King	29	24	25	26	26	30	25	--	16	17	19	18	18
		Bering Sea Snow	53	42	33	25	26	22	24	20	21	26	26	21	17
		EAI Golden King	7	7	4	4	4	5	4	--	5	6	5	5	6
		WAI Golden King	8	3	9	9	8	5	6	5	8	4	4	8	5
		EBS Tanner	--	--	--	--	--	--	--	--	--	11	8	13	13
		WBS Tanner	--	--	--	--	--	--	--	--	14	10	11	13	8
		St. Matthew Island Blue	--	--	--	--	--	--	--	--	--	--	--	--	6

Note: Presence of a processor in the community is based on recorded gross wholesale value for that year.
Source: ADFG 2015; CFEC 2015.

Table A1-7 (continued). BSAI Crab Processor Count by Community

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Alaska	South-Central	Cordova								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.1	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
		Ninilchik								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.1	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
		Wasilla								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.1	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
		South-Central Total								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.4	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
	Southeast	Sitka								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.2	0.0
		Bering Sea Snow	0	0	0	0	0	0.0	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
		Southeast Total								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.2	0.0
		Bering Sea Snow	0	0	0	0	0	0.0	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
	Aleutian/	Adak								
	Pribilof	Bristol Bay Red King	0	0	0	0	0	0.1	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.1	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.9	0.0	0.0
		WAI Golden King	0	2	3	0	1	1.9	1.2	1.2
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
		Akutan								
		Bristol Bay Red King	2	3	2	2	3	1.0	1.4	2.4
		Bering Sea Snow	1	3	3	1	3	0.9	1.2	2.2
		EAI Golden King	0	2	3	3	2	0.1	0.4	2.0
		WAI Golden King	0	3	2	3	4	0.0	0.0	2.4
		EBS Tanner	0	--	1	2	3	--	1.0	1.5
		WBS Tanner	1	2	1	1	3	--	0.8	1.6
		St. Matthew Island Blue	1	2	3	--	0	--	0.0	1.5
		King Cove								
		Bristol Bay Red King	2	2	2	2	2	1.4	1.8	2.0
		Bering Sea Snow	1	1	1	1	1	1.1	1.0	1.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	2	2	--	1.5	1.0
		WBS Tanner	0	0	1	2	2	--	0.8	1.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
		Sand Point								
		Bristol Bay Red King	0	0	0	0	0	0.4	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.0	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
		St. Paul								
		Bristol Bay Red King	2	2	2	2	2	0.4	1.4	2.0
		Bering Sea Snow	4	7	7	7	7	2.0	4.2	6.4
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	1	1	--	0.3	0.5
		WBS Tanner	4	3	6	6	1	--	3.4	4.0
		St. Matthew Island Blue	6	6	6	--	6	--	5.0	6.0
		Unalaska/Dutch Harbor								
		Bristol Bay Red King	4	6	7	7	6	6.4	5.4	6.0
		Bering Sea Snow	5	7	6	6	6	6.6	6.0	6.0
		EAI Golden King	6	7	9	7	6	3.6	4.2	7.0
		WAI Golden King	6	3	3	4	5	2.9	3.0	4.2
		EBS Tanner	3	--	1	6	5	--	5.3	3.8
		WBS Tanner	3	5	4	8	5	--	4.0	5.0
		St. Matthew Island Blue	3	4	4	--	0	--	1.0	2.8

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
		Aleutian/Pribilof Total								
		Bristol Bay Red King	10	13	13	13	13	9.9	10.0	12.4
		Bering Sea Snow	11	18	17	15	17	10.8	12.4	15.6
		EAI Golden King	6	9	12	10	8	4.6	4.6	9.0
		WAI Golden King	6	8	8	7	10	4.8	4.2	7.8
		EBS Tanner	3	--	2	11	11	--	8.0	6.8
		WBS Tanner	8	10	12	17	11	--	9.0	11.6
		St. Matthew Island Blue	10	12	13	--	6	--	6.0	10.3
	Kodiak	Kodiak								
		Bristol Bay Red King	5	4	3	3	3	4.4	3.6	3.6
		Bering Sea Snow	3	2	2	1	1	1.9	2.0	1.8
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		EBS Tanner	0	--	0	1	0	--	0.5	0.3
		WBS Tanner	0	0	0	0	0	--	0.2	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
	Alaska Total	Alaska Total								
		Bristol Bay Red King	15	17	16	16	16	14.3	13.8	16.0
		Bering Sea Snow	14	20	19	16	18	13.0	14.4	17.4
		EAI Golden King	6	9	12	10	8	4.6	4.6	9.0
		WAI Golden King	6	8	8	7	10	4.8	4.2	7.8
		EBS Tanner	3	--	2	12	11	--	8.5	7.0
		WBS Tanner	8	10	12	17	11	--	9.2	11.6
		St. Matthew Island Blue	10	12	13	--	6	--	6.0	10.3
Floating Catcher Processors		Floating Catcher Processors Total								
		Bristol Bay Red King	2	2	2	2	2	5.4	3.0	2.0
		Bering Sea Snow	2	2	2	2	2	5.1	3.6	2.0
		EAI Golden King	0	0	0	0	0	0.0	0.6	0.0
		WAI Golden King	1	1	1	0	0	0.9	1.0	0.6
		EBS Tanner	0	--	0	1	1	--	1.5	0.5
		WBS Tanner	0	0	0	1	1	--	0.8	0.4
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
Inshore Stationary Floating Processors		Inshore Stationary Floating Processors Total								
		Bristol Bay Red King	2	1	0	0	0	2.6	0.8	0.6
		Bering Sea Snow	3	3	2	2	2	4.4	4.2	2.4
		EAI Golden King	1	1	0	0	0	0.0	0.2	0.4
		WAI Golden King	0	0	0	0	0	0.0	0.6	0.0
		EBS Tanner	0	--	0	0	0	--	1.3	0.0
		WBS Tanner	1	3	2	2	1	--	1.2	1.8
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
Floating Domestic Mothership		Floating Domestic Mothership Total								
		Bristol Bay Red King	0	0	0	0	0	0.0	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	0.1	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.0	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.1	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0

State	Region	Community/Species	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Pre-Rationalization Annual Average* 1998–2004/2005	First 5 Years Post-Rationalization Annual Average 2005/2006–2009/2010	Second 5 Years Post-Rationalization Annual Average 2010/2011–2014/2015
Unknown		Unknown								
		Bristol Bay Red King	0	0	0	0	0	4.1	0.0	0.0
		Bering Sea Snow	0	0	0	0	0	8.0	0.0	0.0
		EAI Golden King	0	0	0	0	0	0.4	0.0	0.0
		WAI Golden King	0	0	0	0	0	0.9	0.0	0.0
		EBS Tanner	0	--	0	0	0	--	0.0	0.0
		WBS Tanner	0	0	0	0	0	--	0.0	0.0
		St. Matthew Island Blue	0	0	0	--	0	--	0.0	0.0
All Processors		All Processors Total								
		Bristol Bay Red King	19	20	18	18	18	26.4	17.6	18.6
		Bering Sea Snow	19	25	23	20	22	30.6	22.2	21.8
		EAI Golden King	7	10	12	10	8	5.0	5.4	9.4
		WAI Golden King	7	9	9	7	10	6.6	5.8	8.4
		EBS Tanner	3	--	2	13	12	--	11.3	7.5
		WBS Tanner	9	13	14	20	13	--	11.2	13.8
		St. Matthew Island Blue	10	12	13	--	6	--	6.0	10.3

Note: Presence of a processor in the community is based on recorded gross wholesale value for that year.
Source: ADFG 2015; CFEC 2015.

Table A1-8. Catcher Vessel Owner Shares - Initial Allocation, 2010–2011, and 2015–2016 Quota Shareholders

				Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
State	Community	Species	Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
Alaska	Anchorage	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	1	670,809	7.1%
			S	8	11,675,744	3.2%	8	32,038,630	8.8%	12	41,442,123	11.5%
			Either	8	11,675,744	3.1%	8	32,038,630	8.6%	12	42,112,932	11.4%
		Bering Sea Snow	N	8	11,479,448	2.8%	10	25,151,420	6.0%	10	38,140,197	9.2%
			S	8	12,955,234	2.7%	9	56,459,825	11.9%	9	68,079,642	14.5%
			Either	8	24,434,682	2.8%	10	81,611,245	9.2%	10	106,219,839	12.0%
		Bering Sea Tanner	U	8	2,666,137	1.5%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	2	2,425,000	26.3%	2	2,425,000	26.3%
		WAI Golden King	U	0	0	0.0%	2	2,484,898	23.8%	2	2,863,716	27.5%
			W	0	0	0.0%	1	2,179,568	20.9%	1	2,665,988	25.5%
			Either	0	0	0.0%	2	4,664,466	22.4%	2	5,529,704	26.5%
		EBS Tanner	U	6	2,374,161	1.3%	8	16,266,057	9.0%	11	19,358,288	10.7%
		WBS Tanner	U	6	2,374,161	1.3%	8	16,266,056	9.0%	11	19,358,288	10.7%
		Pribilof Is. Blue & Red King	N	4	1,080,368	5.5%	6	1,240,283	6.4%	9	2,802,644	14.5%
			S	3	383,306	4.0%	4	829,985	8.6%	9	1,958,428	20.6%
			Either	4	1,463,674	5.0%	6	2,070,268	7.1%	9	4,761,072	16.5%
		St. Matthew Is. Blue King	N	2	514,558	2.3%	4	1,281,486	5.7%	7	2,181,738	9.8%
			S	2	363,005	5.8%	4	1,149,432	18.3%	4	1,263,650	20.4%
			Either	3	877,563	3.0%	5	2,430,918	8.4%	7	3,445,388	12.1%
		WAI Red King	S	2	848,618	2.4%	4	1,810,956	5.1%	8	6,149,667	17.3%
		Total	--	8	46,714,740	2.4%	10	159,583,596	9.1%	15	209,360,178	12.1%
	Dillingham	Bristol Bay Red King	N	0	0	0.0%	1	50,330	0.5%	1	50,330	0.5%
			S	1	3,307,771	0.9%	1	5,104,532	1.4%	1	9,560,494	2.7%
			Either	1	3,307,771	0.9%	1	5,154,862	1.4%	1	9,610,824	2.6%
		Bering Sea Snow	N	1	7,561,480	1.8%	1	10,376,802	2.5%	1	13,747,584	3.3%
			S	1	700,244	0.1%	1	2,828,554	0.6%	1	12,546,767	2.7%
			Either	1	8,261,724	0.9%	1	13,205,356	1.5%	1	26,294,351	3.0%
		Bering Sea Tanner	U	1	1,551,453	0.9%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	1,832,451	1.0%	1	2,033,379	1.1%	1	2,516,932	1.4%
		WBS Tanner	U	1	1,832,451	1.0%	1	2,033,379	1.1%	1	2,516,931	1.4%
		Pribilof Is. Blue & Red King	N	1	701,376	3.6%	1	701,376	3.6%	1	701,376	3.6%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	1	701,376	2.4%	1	701,376	2.4%	1	701,376	2.4%
		St. Matthew Is. Blue King	N	1	189,939	0.8%	1	212,921	0.9%	1	523,175	2.4%
			S	0	0	0.0%	1	26,758	0.4%	1	82,639	1.3%
			Either	1	189,939	0.7%	1	239,679	0.8%	1	605,814	2.1%
		WAI Red King	S	1	57,776	0.2%	1	57,776	0.2%	1	639,881	1.8%
		Total	--	1	17,734,941	0.9%	1	23,425,807	1.3%	1	42,886,109	2.5%
	Homer	Bristol Bay Red King	N	1	765,462	8.1%	1	574,097	6.1%	0	0	0.0%
			S	3	4,904,358	1.4%	4	9,301,320	2.6%	4	8,665,075	2.4%
			Either	3	5,669,820	1.5%	5	9,875,417	2.7%	4	8,665,075	2.3%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
		Bering Sea Snow	N	3	12,744,558	3.1%	5	19,167,990	4.6%	5	18,192,313	4.4%
			S	3	2,590,592	0.5%	5	5,370,561	1.1%	5	5,370,561	1.1%
			Either	3	15,335,150	1.7%	5	24,538,551	2.8%	5	23,562,874	2.7%
		Bering Sea Tanner	U	3	2,922,441	1.6%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	4	3,571,507	1.9%	4	3,401,456	1.9%	4	5,146,971	2.8%
		WBS Tanner	U	4	3,571,507	1.9%	4	3,401,456	1.9%	4	5,146,971	2.8%
		Pribilof Is. Blue & Red King	N	3	1,982,206	10.2%	5	2,332,303	12.0%	5	2,332,303	12.1%
			S	3	129,696	1.3%	6	609,290	6.3%	6	609,290	6.4%
			Either	3	2,111,902	7.3%	6	2,941,593	10.1%	6	2,941,593	10.2%
		St. Matthew Is. Blue King	N	0	0	0.0%	2	342,734	1.5%	2	342,734	1.5%
			S	0	0	0.0%	1	78,839	1.3%	1	78,839	1.3%
			Either	0	0	0.0%	2	421,573	1.5%	2	421,573	1.5%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	4	33,182,327	1.7%	6	44,580,046	2.6%	7	45,885,057	2.6%
	Juneau	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	N	0	0	0.0%	0	0	0.0%	1	860,708	0.2%
			S	0	0	0.0%	0	0	0.0%	1	1,104,866	0.2%
			Either	0	0	0.0%	0	0	0.0%	1	1,965,574	0.2%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	1	184,614	0.1%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	1	184,614	0.1%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	0	0	0.0%	1	2,334,802	0.1%
	Kenai	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	1	412,739	2.1%	0	0	0.0%
			S	0	0	0.0%	1	27,010	0.3%	0	0	0.0%
			Either	0	0	0.0%	1	439,749	1.5%	0	0	0.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	1	439,749	0.0%	0	0	0.0%
	King Cove	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	927,155	0.3%	1	211,808	0.1%	0	0	0.0%
			Either	1	927,155	0.2%	1	211,808	0.1%	0	0	0.0%
		Bering Sea Snow	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	614,388	0.1%	1	289,396	0.1%	0	0	0.0%
			Either	1	614,388	0.1%	1	289,396	0.0%	0	0	0.0%
		Bering Sea Tanner	U	1	494,659	0.3%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	494,659	0.3%	1	135,228	0.1%	1	135,228	0.1%
		WBS Tanner	U	1	494,659	0.3%	1	135,228	0.1%	1	135,228	0.1%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	2	119,394	1.2%	2	119,394	1.2%	1	32,053	0.3%
			Either	2	119,394	0.4%	2	119,394	0.4%	1	32,053	0.1%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	3	3,144,914	0.2%	3	891,054	0.1%	2	302,509	0.0%
	Kodiak	Bristol Bay Red King	N	1	536,268	5.7%	5	768,603	8.1%	4	735,513	7.8%
			S	20	30,912,004	8.5%	30	36,355,655	10.0%	25	28,551,374	7.9%
			Either	20	31,448,272	8.5%	31	37,124,258	10.0%	26	29,286,887	7.9%
		Bering Sea Snow	N	19	44,041,099	10.6%	30	56,468,450	13.6%	24	41,991,533	10.2%
			S	14	33,748,914	7.1%	22	36,086,090	7.6%	18	31,424,486	6.7%
			Either	19	77,790,013	8.8%	30	92,554,540	10.4%	24	73,416,019	8.3%
		Bering Sea Tanner	U	20	18,771,645	10.3%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	1	200,725	2.2%	1	200,725	2.2%	1	200,725	2.2%
		WAI Golden King	U	1	212,781	2.0%	1	212,781	2.0%	1	212,781	2.0%
			W	1	406,407	3.9%	1	406,407	3.9%	1	406,407	3.9%
			Either	1	619,188	3.0%	1	619,188	3.0%	1	619,188	3.0%
		EBS Tanner	U	21	20,025,021	10.9%	28	22,769,578	12.5%	23	18,023,136	9.9%
		WBS Tanner	U	21	20,025,021	10.9%	29	22,769,578	12.5%	24	18,023,136	9.9%

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		Pribilof Is. Blue & Red King	N	7	1,216,535	6.2%	7	521,972	2.7%	6	476,455	2.5%
			S	5	523,982	5.5%	9	646,053	6.7%	7	562,842	5.9%
			Either	8	1,740,517	6.0%	12	1,168,025	4.0%	10	1,039,297	3.6%
		St. Matthew Is. Blue King	N	12	3,252,826	14.4%	18	3,358,893	14.9%	13	2,791,380	12.6%
			S	4	417,563	6.7%	11	436,537	7.0%	8	424,326	6.8%
			Either	12	3,670,389	12.7%	19	3,795,430	13.2%	14	3,215,706	11.3%
		WAI Red King	S	3	1,077,201	3.0%	3	1,077,201	3.0%	3	1,077,201	3.0%
		Total	--	23	175,367,992	9.1%	36	182,078,523	10.4%	32	144,901,295	8.3%
	Petersburg	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	2	3,068,068	0.8%	1	1,319,391	0.4%	1	1,319,391	0.4%
			Either	2	3,068,068	0.8%	1	1,319,391	0.4%	1	1,319,391	0.4%
		Bering Sea Snow	N	3	4,505,115	1.1%	4	4,505,115	1.1%	2	4,544,111	1.1%
			S	3	5,815,152	1.2%	4	5,815,152	1.2%	2	1,368,335	0.3%
			Either	3	10,320,267	1.2%	4	10,320,267	1.2%	2	5,912,446	0.7%
		Bering Sea Tanner	U	3	1,221,640	0.7%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	3	1,221,640	0.7%	4	1,221,640	0.7%	3	1,069,622	0.6%
		WBS Tanner	U	3	1,221,640	0.7%	4	1,221,640	0.7%	3	1,069,622	0.6%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue King	N	1	272,359	1.2%	2	272,359	1.2%	2	272,359	1.2%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	1	272,359	0.9%	2	272,359	0.9%	2	272,359	1.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	3	17,325,614	0.9%	4	14,355,297	0.8%	4	0	0.0%
	St. Paul	Bristol Bay Red King	N	0	0	0.0%	1	738,746	7.8%	0	0	0.0%
			S	0	0	0.0%	1	4,273,268	1.2%	1	23	0.0%
			Either	0	0	0.0%	1	5,012,014	1.3%	1	23	0.0%
		Bering Sea Snow	N	0	0	0.0%	1	843,061	0.2%	1	1	0.0%
			S	0	0	0.0%	1	11,074,229	2.3%	1	65	0.0%
			Either	0	0	0.0%	1	11,917,290	1.3%	1	66	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	1	355,392	3.8%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	1	243,658	2.3%	0	0	0.0%
			W	0	0	0.0%	1	224,836	2.2%	0	0	0.0%
			Either	0	0	0.0%	1	468,494	2.2%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	1	1,613,224	0.9%	1	11	0.0%
		WBS Tanner	U	0	0	0.0%	1	1,613,224	0.9%	1	11	0.0%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	1	262,622	2.7%	0	0	0.0%
			Either	0	0	0.0%	1	262,622	0.9%	0	0	0.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	1	457,184	2.0%	0	0	0.0%
			S	0	0	0.0%	1	256,097	4.1%	0	0	0.0%

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			Either	0	0	0.0%	1	713,281	2.5%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	1	395,110	1.1%	0	0	0.0%
		Total	--	0	0	0.0%	1	22,350,651	1.3%	1	111	0.0%
	Sand Point	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	312,244	0.2%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	1	312,244	0.2%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	N	1	208,284	1.1%	1	208,284	1.1%	1	208,284	1.1%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	1	208,284	0.7%	1	208,284	0.7%	1	208,284	0.7%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	2	832,772	0.0%	1	208,284	0.0%	1	208,284	0.0%
	Seldovia	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	1,138,742	0.3%	1	1,138,742	0.3%	1	1,138,742	0.3%
			Either	1	1,138,742	0.3%	1	1,138,742	0.3%	1	1,138,742	0.3%
		Bering Sea Snow	N	1	964,144	0.2%	1	964,144	0.2%	1	964,144	0.2%
			S	1	3,139,028	0.7%	1	3,139,028	0.7%	1	3,139,028	0.7%
			Either	1	4,103,172	0.5%	1	4,103,172	0.5%	1	4,103,172	0.5%
		Bering Sea Tanner	U	1	894,475	0.5%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	894,475	0.5%	1	894,475	0.5%	1	894,475	0.5%
		WBS Tanner	U	1	894,475	0.5%	1	894,475	0.5%	1	894,475	0.5%
		Pribilof Is. Blue & Red King	N	1	518,547	2.7%	1	518,547	2.7%	1	518,547	2.7%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	1	518,547	1.8%	1	518,547	1.8%	1	518,547	1.8%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	1	8,443,886	0.4%	1	7,549,411	0.4%	1	7,549,411	0.4%
	Soldotna	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	1	455,687	0.1%	0	0	0.0%

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			Either	0	0	0.0%	1	455,687	0.1%	0	0	0.0%
		Bering Sea Snow	N	0	0	0.0%	1	843,164	0.2%	0	0	0.0%
			S	0	0	0.0%	1	308,398	0.1%	0	0	0.0%
			Either	0	0	0.0%	1	1,151,562	0.1%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	1	209,314	0.1%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	1	209,314	0.1%	0	0	0.0%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	1	16,934	0.1%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	1	16,934	0.1%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	1	55,246	0.2%	0	0	0.0%
		Total	--	0	0	0.0%	1	2,098,057	0.1%	0	0	0.0%
	Unalaska/Dutch Harbor	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	2	1,904,867	0.5%	2	1,904,867	0.5%	2	1,904,867	0.5%
			Either	2	1,904,867	0.5%	2	1,904,867	0.5%	2	1,904,867	0.5%
		Bering Sea Snow	N	1	1,389,562	0.3%	1	1,389,562	0.3%	1	1,389,562	0.3%
			S	1	914,644	0.2%	1	914,644	0.2%	1	914,644	0.2%
			Either	1	2,304,206	0.3%	1	2,304,206	0.3%	1	2,304,206	0.3%
		Bering Sea Tanner	U	2	308,106	0.2%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	2	308,106	0.2%	2	308,106	0.2%	2	308,106	0.2%
		WBS Tanner	U	2	308,106	0.2%	2	308,106	0.2%	2	308,106	0.2%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	2	474,530	4.9%	2	474,530	4.9%	2	474,530	5.0%
			Either	2	474,530	1.6%	2	474,530	1.6%	2	474,530	1.6%
		St. Matthew Is. Blue King	N	1	21,065	0.1%	1	21,065	0.1%	1	21,065	0.1%
			S	1	17,026	0.3%	1	17,026	0.3%	1	17,026	0.3%
			Either	1	38,091	0.1%	1	38,091	0.1%	1	38,091	0.1%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	2	5,646,012	0.3%	2	5,337,906	0.3%	2	5,337,906	0.3%
	Wasilla	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	1	738,746	7.9%
			S	0	0	0.0%	1	346,801	0.1%	2	9,386,999	2.6%
			Either	0	0	0.0%	1	346,801	0.1%	2	10,125,745	2.7%
		Bering Sea Snow	N	0	0	0.0%	1	349,001	0.1%	2	5,051,853	1.2%
			S	0	0	0.0%	0	0	0.0%	1	15,945,830	3.4%
			Either	0	0	0.0%	1	349,001	0.0%	2	20,997,683	2.4%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%

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		EAI Golden King	S	0	0	0.0%	0	0	0.0%	1	268,986	2.9%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	1	243,658	2.3%
			W	0	0	0.0%	0	0	0.0%	1	224,836	2.2%
			Either	0	0	0.0%	0	0	0.0%	1	468,494	2.2%
		EBS Tanner	U	0	0	0.0%	1	133,850	0.1%	2	3,663,216	2.0%
		WBS Tanner	U	0	0	0.0%	1	133,850	0.1%	2	3,663,216	2.0%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	1	105,415	0.5%	2	481,243	2.5%
			S	0	0	0.0%	1	74,124	0.8%	2	336,746	3.5%
			Either	0	0	0.0%	1	179,539	0.6%	2	817,989	2.8%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	1	656,393	3.0%
			S	0	0	0.0%	0	0	0.0%	1	256,097	4.1%
			Either	0	0	0.0%	0	0	0.0%	1	912,490	3.2%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	1	395,110	1.1%
		Total	--	0	0	0.0%	1	1,143,041	0.1%	2	41,312,929	2.4%
	Yakutat	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	921,242	0.3%	1	460,621	0.1%	1	460,621	0.1%
			Either	1	921,242	0.2%	1	460,621	0.1%	1	460,621	0.1%
		Bering Sea Snow	N	1	1,483,952	0.4%	1	1,483,952	0.4%	1	1,483,952	0.4%
			S	1	1,061,753	0.2%	1	1,061,753	0.2%	1	1,061,753	0.2%
			Either	1	2,545,705	0.3%	1	2,545,705	0.3%	1	2,545,705	0.3%
		Bering Sea Tanner	U	1	377,241	0.2%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	377,241	0.2%	1	377,241	0.2%	1	377,241	0.2%
		WBS Tanner	U	1	377,241	0.2%	1	377,241	0.2%	1	377,241	0.2%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue King	N	1	244,120	1.1%	1	244,120	1.1%	1	244,120	1.1%
			S	1	9,921	0.2%	1	9,921	0.2%	1	9,921	0.2%
			Either	1	254,041	0.9%	1	254,041	0.9%	1	254,041	0.9%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	1	4,852,711	0.3%	1	4,014,849	0.2%	1	4,014,849	0.2%
	Alaska Total	Bristol Bay Red King	N	2	1,301,730	13.8%	8	2,131,776	22.6%	7	2,195,398	23.4%
			S	39	58,759,951	16.2%	52	92,911,322	25.6%	50	102,429,709	28.4%
			Either	39	60,061,681	16.1%	54	95,043,098	25.5%	51	104,625,107	28.3%
		Bering Sea Snow	N	37	84,169,358	20.2%	56	121,542,661	29.2%	49	126,365,958	30.6%
			S	33	61,539,949	13.0%	47	123,347,630	26.1%	41	140,955,977	30.0%
			Either	38	145,709,307	16.4%	57	244,890,291	27.6%	49	267,321,935	30.3%
		Bering Sea Tanner	U	40	29,207,797	16.1%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	1	200,725	2.2%	4	2,981,117	32.3%	4	2,894,711	31.4%
		WAI Golden King	U	1	212,781	2.0%	4	2,941,337	28.2%	4	3,320,155	31.9%
			W	1	406,407	3.9%	3	2,810,811	26.9%	3	3,297,231	31.6%
			Either	1	619,188	3.0%	4	5,752,148	27.6%	4	6,617,386	31.7%
		EBS Tanner	U	41	31,411,505	17.1%	53	49,363,548	27.2%	51	51,677,840	28.5%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
		WBS Tanner	U	41	31,411,505	17.1%	54	49,363,547	27.2%	52	51,677,839	28.5%
		Pribilof Is. Blue & Red King	N	17	5,707,316	29.3%	23	6,040,919	31.0%	25	7,520,852	39.0%
			S	15	1,630,908	17.0%	26	3,043,008	31.7%	27	3,973,889	41.9%
			Either	22	7,338,224	25.2%	34	9,083,927	31.2%	33	11,494,741	39.9%
		St. Matthew Is. Blue King	N	18	4,494,867	19.9%	31	6,207,696	27.5%	28	7,032,964	31.6%
			S	8	807,515	12.9%	20	1,974,610	31.5%	17	2,132,498	34.4%
			Either	19	5,302,382	18.4%	33	8,182,306	28.4%	29	9,165,462	32.2%
		WAI Red King	S	6	1,983,595	5.6%	10	3,396,289	9.6%	13	8,261,859	23.3%
		Total	--	48	313,245,909	16.2%	69	468,056,271	26.8%	70	513,736,880	29.6%
Washington	Washington Total	Bristol Bay Red King	N	18	6,683,270	70.8%	20	6,136,931	65.0%	19	5,131,892	54.6%
			S	158	251,116,943	69.3%	165	226,922,071	62.6%	161	219,868,957	61.0%
			Either	158	257,800,213	69.3%	165	233,059,002	62.6%	161	225,000,849	60.8%
		Bering Sea Snow	N	127	259,891,511	62.5%	133	240,161,329	57.8%	144	230,388,808	55.8%
			S	144	341,611,087	72.3%	142	300,662,762	63.6%	149	283,822,795	60.5%
			Either	149	601,502,598	67.7%	149	540,824,091	60.9%	163	514,211,603	58.3%
		Bering Sea Tanner	U	163	125,736,784	69.3%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	11	7,694,171	83.4%	9	3,967,052	43.0%	12	4,256,362	46.1%
		WAI Golden King	U	10	4,593,571	44.1%	6	1,865,015	17.9%	4	795,943	7.6%
			W	6	3,491,863	33.4%	3	1,087,459	10.4%	3	601,039	5.8%
			Either	10	8,085,434	38.8%	6	2,952,474	14.2%	4	1,396,982	6.7%
		EBS Tanner	U	163	128,522,282	70.0%	149	110,832,799	61.0%	150	109,212,770	60.3%
		WBS Tanner	U	163	128,522,282	70.0%	149	110,832,800	61.0%	150	109,212,770	60.3%
		Pribilof Is. Blue & Red King	N	50	9,843,073	50.5%	52	9,533,908	48.9%	47	7,750,023	40.2%
			S	44	6,105,894	63.5%	43	5,070,321	52.8%	39	3,957,147	41.7%
			Either	66	15,948,967	54.8%	66	14,604,229	50.2%	59	11,707,170	40.7%
		St. Matthew Is. Blue King	N	81	14,659,734	65.0%	81	13,167,922	58.4%	81	12,068,355	54.3%
			S	56	5,271,980	84.1%	60	4,165,884	66.5%	60	4,006,983	64.6%
			Either	90	19,931,714	69.2%	90	17,333,806	60.1%	89	16,075,338	56.5%
		WAI Red King	S	20	20,824,471	58.7%	19	19,411,777	54.7%	16	14,378,292	40.5%
		Total	--	181	1,314,568,916	68.0%	179	1,053,818,030	60.3%	194	1,005,452,136	57.9%
Oregon	Oregon Total	Bristol Bay Red King	N	7	880,690	9.3%	3	557,136	5.9%	4	1,545,620	16.4%
			S	35	43,214,469	11.9%	23	27,120,822	7.5%	22	29,878,698	8.3%
			Either	35	44,095,159	11.9%	23	27,677,958	7.4%	22	31,424,318	8.5%
		Bering Sea Snow	N	35	62,139,357	14.9%	20	36,832,069	8.9%	21	44,380,069	10.8%
			S	30	55,072,368	11.7%	18	26,710,452	5.7%	19	29,430,900	6.3%
			Either	37	117,211,725	13.2%	21	63,542,521	7.2%	23	73,810,969	8.4%
		Bering Sea Tanner	U	37	23,142,651	12.7%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	1	1,336,124	14.5%	2	2,282,851	24.7%	3	2,076,506	22.5%
		WAI Golden King	U	2	5,616,213	53.9%	2	5,616,213	53.9%	3	6,306,467	60.5%
			W	2	6,543,992	62.7%	2	6,543,992	62.7%	2	6,543,992	62.7%
			Either	2	12,160,205	58.3%	2	12,160,205	58.3%	3	12,850,459	61.6%
		EBS Tanner	U	34	20,057,204	10.9%	22	14,217,272	7.8%	22	14,415,736	8.0%
		WBS Tanner	U	34	20,057,204	10.9%	22	14,217,272	7.8%	22	14,415,737	8.0%
		Pribilof Is. Blue & Red King	N	15	3,596,942	18.5%	13	3,381,337	17.4%	13	3,228,136	16.7%
			S	13	1,337,579	13.9%	8	911,935	9.5%	10	868,682	9.2%
			Either	19	4,934,521	17.0%	14	4,293,272	14.8%	14	4,096,818	14.2%
		St. Matthew Is. Blue King	N	18	3,104,472	13.8%	12	2,104,277	9.3%	10	2,507,253	11.3%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
			S	16	158,674	2.5%	10	83,343	1.3%	9	56,525	0.9%
			Either	18	3,263,146	11.3%	12	2,187,620	7.6%	10	2,563,778	9.0%
		WAI Red King	S	3	12,679,971	35.7%	3	12,679,971	35.7%	6	12,754,307	35.9%
		Total	--	41	258,937,910	13.4%	31	153,258,942	8.8%	34	168,408,628	9.7%
Other U.S.	Other U.S. Total	Bristol Bay Red King	N	1	578,220	6.1%	2	620,946	6.6%	2	524,801	5.6%
			S	9	9,519,762	2.6%	13	15,654,031	4.3%	10	8,555,272	2.4%
			Either	9	10,097,982	2.7%	13	16,274,977	4.4%	11	9,080,073	2.5%
		Bering Sea Snow	N	6	9,681,159	2.3%	11	17,190,860	4.1%	12	11,613,254	2.8%
			S	7	14,382,856	3.0%	11	21,885,416	4.6%	13	15,037,482	3.2%
			Either	7	24,064,015	2.7%	12	39,076,276	4.4%	14	26,650,736	3.0%
		Bering Sea Tanner	U	8	3,467,227	1.9%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	1	3,441	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	8	3,518,567	1.9%	13	7,155,939	3.9%	13	5,924,796	3.3%
		WBS Tanner	U	8	3,518,567	1.9%	13	7,155,939	3.9%	13	5,924,796	3.3%
		Pribilof Is. Blue & Red King	N	2	330,216	1.7%	2	521,383	2.7%	2	786,753	4.1%
			S	4	534,595	5.6%	4	583,712	6.1%	5	692,896	7.3%
			Either	4	864,811	3.0%	4	1,105,095	3.8%	5	1,479,649	5.1%
		St. Matthew Is. Blue King	N	4	297,872	1.3%	8	1,077,050	4.8%	3	615,293	2.8%
			S	3	28,245	0.5%	5	42,577	0.7%	1	9,051	0.1%
			Either	4	326,117	1.1%	8	1,119,627	3.9%	3	624,344	2.2%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	1	93,579	0.3%
		Total	--	10	45,857,286	2.4%	14	71,887,853	4.1%	19	49,781,414	2.9%
Total	Total	Bristol Bay Red King	N	28	9,443,910	100.0%	33	9,446,789	100.0%	32	9,397,711	100.0%
			S	241	362,611,125	100.0%	253	362,608,246	100.0%	243	360,732,636	100.0%
			Either	241	372,055,035	100.0%	255	372,055,035	100.0%	245	370,130,347	100.0%
		Bering Sea Snow	N	205	415,881,385	100.0%	220	415,726,919	100.0%	226	412,748,089	100.0%
			S	214	472,606,260	100.0%	218	472,606,260	100.0%	222	469,247,154	100.0%
			Either	231	888,487,645	100.0%	239	888,333,179	100.0%	249	881,995,243	100.0%
		Bering Sea Tanner	U	248	181,554,459	100.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	13	9,231,020	100.0%	15	9,231,020	100.0%	20	9,231,020	100.0%
		WAI Golden King	U	13	10,422,565	100.0%	12	10,422,565	100.0%	11	10,422,565	100.0%
			W	9	10,442,262	100.0%	8	10,442,262	100.0%	8	10,442,262	100.0%
			Either	13	20,864,827	100.0%	12	20,864,827	100.0%	11	20,864,827	100.0%
		EBS Tanner	U	246	183,509,558	100.0%	237	181,569,558	100.0%	236	181,231,142	100.0%
		WBS Tanner	U	246	183,509,558	100.0%	238	181,569,558	100.0%	237	181,231,142	100.0%
		Pribilof Is. Blue & Red King	N	84	19,477,547	100.0%	90	19,477,547	100.0%	87	19,285,764	100.0%
			S	76	9,608,976	100.0%	81	9,608,976	100.0%	81	9,492,614	100.0%
			Either	111	29,086,523	100.0%	118	29,086,523	100.0%	111	28,778,378	100.0%
		St. Matthew Is. Blue King	N	121	22,556,945	100.0%	132	22,556,945	100.0%	122	22,223,865	100.0%
			S	83	6,266,414	100.0%	95	6,266,414	100.0%	87	6,205,057	100.0%
			Either	131	28,823,359	100.0%	143	28,823,359	100.0%	131	28,428,922	100.0%
		WAI Red King	S	29	35,488,037	100.0%	32	35,488,037	100.0%	36	35,488,037	100.0%
		Total	--	272	1,932,610,021	100.0%	293	1,747,021,096	100.0%	317	1,737,379,058	100.0%

Source: National Marine Fisheries Service Alaska Regional Office 2008, 2015.

Table A1-9. Catcher Vessel Crew Shares - Initial Allocation, 2010–2011, and 2015–2016 Quota Shareholders

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
Alaska	Anchorage	Bristol Bay Red King	N	1	32,600	10.9%	0	0	0.0%	0	0	0.0%
			S	9	495,239	4.4%	4	334,484	3.0%	5	446,692	4.0%
			Either	9	527,839	4.6%	4	334,484	2.9%	5	446,692	3.9%
		Bering Sea Snow	N	7	661,665	4.9%	4	750,907	5.5%	6	962,565	7.1%
			S	6	354,039	2.4%	4	276,795	1.9%	6	496,048	3.3%
			Either	7	1,015,704	3.6%	4	1,027,702	3.6%	6	1,458,613	5.1%
		Bering Sea Tanner	U	7	156,589	2.8%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	1	6,962	2.3%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	6	99,903	1.8%	2	105,259	1.9%	4	144,227	2.6%
		WBS Tanner	U	6	99,903	1.8%	2	105,259	1.9%	4	144,227	2.6%
		Pribilof Is. Blue & Red King	N	2	50,841	8.1%	0	0	0.0%	1	23,725	4.0%
			S	1	2,828	1.0%	0	0	0.0%	1	2,252	0.8%
			Either	2	53,669	5.9%	0	0	0.0%	1	25,977	3.0%
		St. Matthew Is. Blue King	N	5	51,850	7.0%	3	31,673	4.3%	0	0	0.0%
			S	1	2,252	1.3%	1	2,828	1.6%	0	0	0.0%
			Either	5	54,102	5.9%	3	34,501	3.8%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	11	2,014,671	3.3%	7	1,607,205	2.9%	8	2,219,736	4.0%
	Cordova	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	1	58,658	0.5%	0	0	0.0%
			Either	0	0	0.0%	1	58,658	0.5%	0	0	0.0%
		Bering Sea Snow	N	0	0	0.0%	1	134,373	1.0%	0	0	0.0%
			S	0	0	0.0%	1	92,177	0.6%	0	0	0.0%
			Either	0	0	0.0%	1	226,550	0.8%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	1	42,669	0.8%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	1	42,669	0.8%	0	0	0.0%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	1	11,551	1.6%	0	0	0.0%
			S	0	0	0.0%	1	325	0.2%	0	0	0.0%
			Either	0	0	0.0%	1	11,876	1.3%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	1	382,422	0.7%	0	0	0.0%
	Homer	Bristol Bay Red King	N	1	30,454	10.2%	1	30,454	10.2%	0	0	0.0%
			S	5	338,183	3.0%	6	632,562	5.6%	4	511,951	4.5%
			Either	5	368,637	3.2%	6	663,016	5.7%	4	511,951	4.4%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
		Bering Sea Snow	N	6	944,549	7.0%	6	1,060,161	7.8%	5	962,553	7.1%
			S	5	210,493	1.4%	6	575,791	3.9%	5	655,846	4.4%
			Either	6	1,155,042	4.1%	6	1,635,952	5.8%	5	1,618,399	5.7%
		Bering Sea Tanner	U	4	143,044	2.6%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	5	207,378	3.8%	6	217,354	3.9%	4	182,698	3.4%
		WBS Tanner	U	5	207,378	3.8%	6	217,354	3.9%	4	182,698	3.4%
		Pribilof Is. Blue & Red King	N	3	70,084	11.2%	4	83,630	13.3%	3	70,084	11.8%
			S	3	5,332	1.9%	4	18,154	6.5%	3	5,332	2.0%
			Either	3	75,416	8.3%	4	101,784	11.3%	3	75,416	8.7%
		St. Matthew Is. Blue King	N	1	17,002	2.3%	2	20,833	2.8%	2	20,833	3.0%
			S	0	0	0.0%	1	3,867	2.2%	1	3,867	2.3%
			Either	1	17,002	1.9%	2	24,700	2.7%	2	24,700	2.8%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	7	2,173,897	3.6%	6	2,860,160	5.2%	6	2,595,862	4.7%
	Kenai	Bristol Bay Red King	N	1	18,809	6.3%	0	0	0.0%	0	0	0.0%
			S	1	18,594	0.2%	0	0	0.0%	0	0	0.0%
			Either	1	37,403	0.3%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	N	1	136,608	1.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	1	136,608	0.5%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	1	28,957	0.5%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	18,207	6.5%	1	18,207	6.5%	1	18,207	6.8%
			Either	1	18,207	2.0%	1	18,207	2.0%	1	18,207	2.1%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	2	221,175	0.4%	1	18,207	0.0%	1	18,207	0.0%
	King Cove	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	4	182,340	1.6%	2	90,638	0.8%	1	54,367	0.5%
			Either	4	182,340	1.6%	2	90,638	0.8%	1	54,367	0.5%
		Bering Sea Snow	N	3	215,341	1.6%	1	47,708	0.4%	1	47,708	0.4%
			S	3	230,772	1.5%	1	77,785	0.5%	1	77,785	0.5%
			Either	3	446,113	1.6%	1	125,493	0.4%	1	125,493	0.4%
		Bering Sea Tanner	U	4	142,853	2.6%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%

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		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	3	100,184	1.8%	2	63,422	1.1%	3	100,184	1.8%
		WBS Tanner	U	3	100,184	1.8%	2	63,422	1.1%	3	100,184	1.8%
		Pribilof Is. Blue & Red King	N	2	23,886	3.8%	1	10,392	1.7%	2	23,886	4.0%
			S	2	4,618	1.7%	1	2,275	0.8%	2	4,618	1.7%
			Either	2	28,504	3.1%	1	12,667	1.4%	2	28,504	3.3%
		St. Matthew Is. Blue King	N	2	18,008	2.4%	1	6,457	0.9%	1	6,457	0.9%
			S	1	325	0.2%	0	0	0.0%	0	0	0.0%
			Either	2	18,333	2.0%	1	6,457	0.7%	1	6,457	0.7%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	4	1,018,511	1.7%	2	362,099	0.7%	3	415,189	0.8%
	Kodiak	Bristol Bay Red King	N	3	52,366	17.5%	2	48,858	16.4%	2	48,858	16.4%
			S	20	970,798	8.6%	15	1,105,363	9.8%	15	1,143,798	10.1%
			Either	20	1,023,164	8.8%	15	1,154,221	10.0%	15	1,192,656	10.3%
		Bering Sea Snow	N	17	2,134,613	15.8%	12	1,760,574	13.0%	12	1,760,574	13.0%
			S	11	836,236	5.6%	9	605,513	4.1%	9	605,513	4.1%
			Either	17	2,970,849	10.4%	12	2,366,087	8.3%	12	2,366,087	8.3%
		Bering Sea Tanner	U	20	663,021	12.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	20	640,663	11.6%	16	638,998	11.6%	14	645,529	11.9%
		WBS Tanner	U	20	640,663	11.6%	16	638,998	11.6%	14	645,529	11.9%
		Pribilof Is. Blue & Red King	N	4	52,796	8.4%	4	62,114	9.9%	3	37,291	6.3%
			S	3	15,430	5.5%	3	23,551	8.5%	3	23,551	8.8%
			Either	4	68,226	7.5%	4	85,665	9.5%	3	60,842	7.1%
		St. Matthew Is. Blue King	N	9	111,995	15.2%	9	123,323	16.7%	7	104,124	14.9%
			S	6	14,334	8.3%	6	8,069	4.7%	5	8,231	4.9%
			Either	9	126,329	13.9%	9	131,392	14.4%	7	112,355	13.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	30	6,132,915	10.1%	24	5,015,361	9.0%	20	5,022,998	9.1%
	Petersburg	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	51,340	0.5%	2	109,509	1.0%	1	58,169	0.5%
			Either	1	51,340	0.4%	2	109,509	0.9%	1	58,169	0.5%
		Bering Sea Snow	N	1	153,059	1.1%	2	236,920	1.8%	1	83,861	0.6%
			S	1	96,183	0.6%	2	219,756	1.5%	1	123,573	0.8%
			Either	1	249,242	0.9%	2	456,676	1.6%	1	207,434	0.7%
		Bering Sea Tanner	U	1	18,973	0.3%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	18,973	0.3%	2	51,043	0.9%	1	32,070	0.6%
		WBS Tanner	U	1	18,973	0.3%	2	51,043	0.9%	1	32,070	0.6%

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		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	1	8,118	1.1%	1	8,118	1.2%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	1	8,118	0.9%	1	8,118	0.9%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	1	357,501	0.6%	2	676,389	1.2%	1	337,861	0.6%
	Sand Point	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	36,820	0.3%	1	36,820	0.3%	0	0	0.0%
			Either	1	36,820	0.3%	1	36,820	0.3%	0	0	0.0%
		Bering Sea Snow	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	N	1	8,465	1.4%	1	8,465	1.4%	1	8,465	1.4%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	1	8,465	0.9%	1	8,465	0.9%	1	8,465	1.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	2	45,285	0.1%	2	45,285	0.1%	1	8,465	0.0%
	Sitka	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	42,669	0.8%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	1	42,669	0.8%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%

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			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	1	85,338	0.1%	0	0	0.0%	0	0	0.0%
	Soldotna	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	45,874	0.4%	1	56,995	0.5%	0	0	0.0%
			Either	1	45,874	0.4%	1	56,995	0.5%	0	0	0.0%
		Bering Sea Snow	N	1	43,126	0.3%	1	131,066	1.0%	0	0	0.0%
			S	1	140,410	0.9%	1	32,081	0.2%	0	0	0.0%
			Either	1	183,536	0.6%	1	163,147	0.6%	0	0	0.0%
		Bering Sea Tanner	U	1	33,887	0.6%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	1	6,962	2.3%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	33,887	0.6%	2	37,797	0.7%	1	6,909	0.1%
		WBS Tanner	U	1	33,887	0.6%	2	37,797	0.7%	1	6,909	0.1%
		Pribilof Is. Blue & Red King	N	1	23,500	3.8%	1	23,725	3.8%	0	0	0.0%
			S	0	0	0.0%	1	2,252	0.8%	0	0	0.0%
			Either	1	23,500	2.6%	1	25,977	2.9%	0	0	0.0%
		St. Matthew Is. Blue King	N	0	0	0.0%	1	4,783	0.6%	1	4,783	0.7%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	1	4,783	0.5%	1	4,783	0.6%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	1	354,571	0.6%	2	333,458	0.6%	1	18,601	0.0%
	Unalaska/Dutch Harbor	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	57,493	0.5%	1	57,493	0.5%	1	57,493	0.5%
			Either	1	57,493	0.5%	1	57,493	0.5%	1	57,493	0.5%
		Bering Sea Snow	N	1	62,932	0.5%	1	62,932	0.5%	1	62,932	0.5%
			S	1	41,423	0.3%	1	41,423	0.3%	1	41,423	0.3%
			Either	1	104,355	0.4%	1	104,355	0.4%	1	104,355	0.4%
		Bering Sea Tanner	U	1	11,572	0.2%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	2	27,644	0.5%	1	11,572	0.2%	1	11,572	0.2%
		WBS Tanner	U	2	27,644	0.5%	1	11,572	0.2%	1	11,572	0.2%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	1	14,059	2.4%
			S	1	11,654	4.2%	1	11,654	4.2%	2	21,794	8.1%
			Either	1	11,654	1.3%	1	11,654	1.3%	2	35,853	4.2%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	2	240,362	0.4%	1	196,646	0.4%	2	220,845	0.4%
	Valdez	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	27,581	0.2%	0	0	0.0%	1	126,664	1.1%

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			Either	1	27,581	0.2%	0	0	0.0%	1	126,664	1.1%
		Bering Sea Snow	N	0	0	0.0%	0	0	0.0%	1	185,657	1.4%
			S	0	0	0.0%	0	0	0.0%	1	121,286	0.8%
			Either	0	0	0.0%	0	0	0.0%	1	306,943	1.1%
		Bering Sea Tanner	U	1	28,533	0.5%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	28,533	0.5%	0	0	0.0%	1	52,645	1.0%
		WBS Tanner	U	1	28,533	0.5%	0	0	0.0%	1	52,645	1.0%
		Pribilof Is. Blue & Red King	N	0	0	0.0%	0	0	0.0%	1	13,546	2.3%
			S	0	0	0.0%	0	0	0.0%	1	12,822	4.8%
			Either	0	0	0.0%	0	0	0.0%	1	26,368	3.1%
		St. Matthew Is. Blue King	N	1	8,951	1.2%	1	8,951	1.2%	1	11,551	1.7%
			S	0	0	0.0%	0	0	0.0%	1	325	0.2%
			Either	1	8,951	1.0%	1	8,951	1.0%	1	11,876	1.4%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	1	122,131	0.2%	1	8,951	0.0%	1	577,141	1.0%
	Wasilla	Bristol Bay Red King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	1	54,984	0.5%	1	54,984	0.5%	1	54,984	0.5%
			Either	1	54,984	0.5%	1	54,984	0.5%	1	54,984	0.5%
		Bering Sea Snow	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	1	33,978	0.6%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	33,978	0.6%	1	33,978	0.6%	1	33,978	0.6%
		WBS Tanner	U	1	33,978	0.6%	1	33,978	0.6%	1	33,978	0.6%
		Pribilof Is. Blue & Red King	N	1	8,488	1.4%	1	8,488	1.4%	1	8,488	1.4%
			S	1	7,772	2.8%	1	7,772	2.8%	1	7,772	2.9%
			Either	1	16,260	1.8%	1	16,260	1.8%	1	16,260	1.9%
		St. Matthew Is. Blue King	N	0	0	0.0%	0	0	0.0%	0	0	0.0%
			S	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	1	173,178	0.3%	1	139,200	0.3%	1	139,200	0.3%
	Alaska Total	Bristol Bay Red King	N	6	134,229	45.0%	3	79,312	26.6%	2	48,858	16.4%
			S	45	2,279,246	20.2%	34	2,537,506	22.5%	29	2,454,118	21.8%
			Either	45	2,413,475	20.8%	34	2,616,818	22.6%	29	2,502,976	21.6%
		Bering Sea Snow	N	37	4,351,893	32.1%	28	4,184,641	30.9%	27	4,065,850	30.0%
			S	28	1,909,556	12.8%	25	1,921,321	12.9%	24	2,121,474	14.2%
			Either	37	6,261,449	22.0%	28	6,105,962	21.5%	27	6,187,324	21.8%
		Bering Sea Tanner	U	41	1,261,407	22.9%	0	0	0.0%	0	0	0.0%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
		EAI Golden King	S	1	6,962	2.3%	1	6,962	2.3%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
			W	0	0	0.0%	0	0	0.0%	0	0	0.0%
			Either	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	41	1,233,812	22.3%	33	1,202,092	21.8%	30	1,209,812	22.2%
		WBS Tanner	U	41	1,233,812	22.3%	33	1,202,092	21.8%	30	1,209,812	22.2%
		Pribilof Is. Blue & Red King	N	14	238,060	38.0%	12	196,814	31.4%	13	199,544	33.6%
			S	12	65,841	23.6%	12	83,865	30.2%	14	96,348	35.9%
			Either	16	303,901	33.6%	14	280,679	31.0%	15	295,892	34.3%
		St. Matthew Is. Blue King	N	18	207,806	28.2%	19	215,689	29.2%	13	155,866	22.3%
			S	8	16,911	9.9%	9	15,089	8.8%	7	12,423	7.3%
			Either	18	224,717	24.7%	19	230,778	25.4%	13	168,289	19.4%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	62	12,939,535	21.2%	50	11,645,383	21.0%	45	11,574,105	21.0%
Washington	Washington Total	Bristol Bay Red King	N	5	130,750	43.8%	8	185,667	62.2%	10	219,143	73.4%
			S	105	7,181,960	63.7%	80	6,963,437	61.7%	74	7,027,211	62.3%
			Either	105	7,312,710	63.2%	80	7,149,104	61.7%	74	7,246,354	62.6%
		Bering Sea Snow	N	82	7,451,887	55.0%	66	7,082,919	52.3%	64	7,190,985	53.1%
			S	88	10,496,610	70.5%	71	10,671,265	71.6%	67	9,882,814	66.4%
			Either	89	17,948,497	63.1%	71	17,754,184	62.4%	68	17,073,799	60.1%
		Bering Sea Tanner	U	97	3,284,299	59.6%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	9	204,859	68.3%	8	194,876	65.0%	8	226,447	75.5%
		WAI Golden King	U	3	84,585	23.8%	3	84,585	23.8%	4	93,660	26.4%
			W	3	81,288	24.3%	3	81,288	24.3%	4	99,198	29.6%
			Either	3	165,873	24.0%	3	165,873	24.0%	4	192,858	28.0%
		EBS Tanner	U	92	3,408,883	61.7%	81	3,179,047	57.5%	77	3,224,884	59.2%
		WBS Tanner	U	92	3,408,883	61.7%	81	3,179,047	57.5%	77	3,224,884	59.2%
		Pribilof Is. Blue & Red King	N	12	266,684	42.6%	13	294,360	47.0%	12	278,694	46.9%
			S	12	150,361	54.0%	11	144,583	52.0%	9	139,270	51.9%
			Either	15	417,045	46.1%	16	438,943	48.5%	14	417,964	48.5%
		St. Matthew Is. Blue King	N	39	421,288	57.1%	33	391,738	53.1%	33	387,582	55.5%
			S	30	145,692	84.9%	26	146,545	85.1%	26	143,428	84.8%
			Either	46	566,980	62.3%	39	538,283	59.1%	39	531,010	61.2%
		WAI Red King	S	3	1,200,156	77.2%	3	1,200,156	77.2%	3	1,200,156	77.2%
		Total	--	136	37,918,185	62.2%	110	33,799,513	61.0%	102	33,338,356	60.4%
Oregon	Oregon Total	Bristol Bay Red King	N	1	13,489	4.5%	1	13,489	4.5%	1	30,454	10.2%
			S	14	893,729	7.9%	11	865,815	7.7%	10	936,911	8.3%
			Either	14	907,218	7.8%	11	879,304	7.6%	10	967,365	8.4%
		Bering Sea Snow	N	13	988,385	7.3%	10	954,078	7.0%	10	1,216,119	9.0%
			S	12	1,097,316	7.4%	9	1,309,114	8.8%	10	1,847,930	12.4%
			Either	13	2,085,701	7.3%	10	2,263,192	8.0%	10	3,064,049	10.8%
		Bering Sea Tanner	U	17	506,887	9.2%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	2	76,104	25.4%	2	97,745	32.6%	2	73,542	24.5%
		WAI Golden King	U	3	185,562	52.3%	4	270,240	76.2%	3	261,165	73.6%
			W	3	205,069	61.2%	4	253,838	75.7%	4	235,928	70.4%
			Either	3	390,631	56.6%	4	524,078	76.0%	4	497,093	72.0%
		EBS Tanner	U	16	605,096	11.0%	14	634,453	11.5%	11	498,065	9.1%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
		WBS Tanner	U	16	605,096	11.0%	14	634,453	11.5%	11	498,065	9.1%
		Pribilof Is. Blue & Red King	N	4	52,401	8.4%	3	38,855	6.2%	1	12,067	2.0%
			S	4	30,932	11.1%	3	18,110	6.5%	1	9,616	3.6%
			Either	4	83,333	9.2%	3	56,965	6.3%	1	21,683	2.5%
		St. Matthew Is. Blue King	N	4	50,807	6.9%	4	60,142	8.1%	5	95,488	13.7%
			S	3	2,370	1.4%	3	3,915	2.3%	4	6,930	4.1%
			Either	4	53,177	5.8%	4	64,057	7.0%	5	102,418	11.8%
		WAI Red King	S	1	354,878	22.8%	1	354,878	22.8%	1	354,878	22.8%
		Total	--	23	5,668,121	9.3%	17	5,509,125	9.9%	19	6,077,158	11.0%
Other U.S.	Other U.S. Total	Bristol Bay Red King	N	1	19,987	6.7%	1	19,987	6.7%	0	0	0.0%
			S	14	925,214	8.2%	12	913,391	8.1%	12	861,909	7.6%
			Either	14	945,201	8.2%	12	933,378	8.1%	12	861,909	7.4%
		Bering Sea Snow	N	10	746,050	5.5%	14	1,316,577	9.7%	13	1,065,261	7.9%
			S	13	1,391,964	9.3%	12	993,746	6.7%	11	1,035,687	7.0%
			Either	13	2,138,014	7.5%	14	2,310,323	8.1%	13	2,100,948	7.4%
		Bering Sea Tanner	U	15	458,432	8.3%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	1	12,064	4.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	2	84,678	23.9%	0	0	0.0%	0	0	0.0%
			W	1	48,769	14.6%	0	0	0.0%	0	0	0.0%
			Either	2	133,447	19.3%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	11	277,870	5.0%	15	510,069	9.2%	15	514,457	9.4%
		WBS Tanner	U	11	277,870	5.0%	15	510,069	9.2%	15	514,457	9.4%
		Pribilof Is. Blue & Red King	N	4	69,435	11.1%	5	96,551	15.4%	5	103,681	17.5%
			S	4	31,447	11.3%	4	31,447	11.3%	4	23,181	8.6%
			Either	5	100,882	11.1%	6	127,998	14.1%	6	126,862	14.7%
		St. Matthew Is. Blue King	N	5	58,173	7.9%	6	70,505	9.6%	5	58,975	8.5%
			S	3	6,704	3.9%	3	6,704	3.9%	2	6,324	3.7%
			Either	5	64,877	7.1%	6	77,209	8.5%	5	65,299	7.5%
		WAI Red King	S	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	21	4,408,657	7.2%	22	4,469,046	8.1%	20	4,183,932	7.6%
Total	Total	Bristol Bay Red King	N	13	298,455	100.0%	13	298,455	100.0%	13	298,455	100.0%
			S	178	11,280,149	100.0%	137	11,280,149	100.0%	125	11,280,149	100.0%
			Either	178	11,578,604	100.0%	137	11,578,604	100.0%	125	11,578,604	100.0%
		Bering Sea Snow	N	142	13,538,215	100.0%	118	13,538,215	100.0%	114	13,538,215	100.0%
			S	141	14,895,446	100.0%	117	14,895,446	100.0%	112	14,887,905	100.0%
			Either	152	28,433,661	100.0%	123	28,433,661	100.0%	118	28,426,120	100.0%
		Bering Sea Tanner	U	170	5,511,025	100.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	S	13	299,989	100.0%	11	299,583	100.0%	10	299,989	100.0%
		WAI Golden King	U	8	354,825	100.0%	7	354,825	100.0%	7	354,825	100.0%
			W	7	335,126	100.0%	7	335,126	100.0%	8	335,126	100.0%
			Either	8	689,951	100.0%	7	689,951	100.0%	8	689,951	100.0%
		EBS Tanner	U	160	5,525,661	100.0%	143	5,525,661	100.0%	133	5,447,218	100.0%
		WBS Tanner	U	160	5,525,661	100.0%	143	5,525,661	100.0%	133	5,447,218	100.0%
		Pribilof Is. Blue & Red King	N	34	626,580	100.0%	33	626,580	100.0%	31	593,986	100.0%
			S	32	278,581	100.0%	30	278,005	100.0%	28	268,415	100.0%
			Either	40	905,161	100.0%	39	904,585	100.0%	36	862,401	100.0%
		St. Matthew Is. Blue King	N	66	738,074	100.0%	62	738,074	100.0%	56	697,911	100.0%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
			S	44	171,677	100.0%	41	172,253	100.0%	39	169,105	100.0%
			Either	73	909,751	100.0%	68	910,327	100.0%	62	867,016	100.0%
		WAI Red King	S	4	1,555,034	100.0%	4	1,555,034	100.0%	4	1,555,034	100.0%
		Total	--	242	60,934,498	100.0%	199	55,423,067	100.0%	186	55,173,551	100.0%

Note: Catcher vessel crew shares are not currently (2016) subject to regional landing requirements, nor have they been at any time during the BSAI crab rationalization program to date, but regionalization designations applied during the initial allocation process are still associated with these shares.
Source: National Marines Fisheries Service Alaska Regional Office 2008, 2010, 2015

Table A1-10. Catcher Processor Owner Shares - Initial Allocation, 2010–2011, and 2015–2016 Quota Shareholders

				Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
State	Community	Species	Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
Alaska	Anchorage	Bristol Bay Red King	U	1	777,429	4.4%	2	2,022,487	11.4%	3	5,542,322	31.3%
		Bering Sea Snow	U	1	3,494,652	3.9%	2	16,171,435	18.2%	3	31,685,269	35.7%
		Bering Sea Tanner	U	1	460,039	3.5%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	1	17,742,670	98.9%
		EBS Tanner	U	1	460,039	3.5%	2	2,227,580	17.0%	3	7,135,305	54.6%
		WBS Tanner	U	1	460,039	3.5%	2	2,227,580	17.0%	3	7,135,305	54.6%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	2	579,116	100.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	1	21,999,156	96.9%
		Total	--	1	5,652,198	3.0%	2	22,649,082	13.0%	4	91,819,143	52.7%
	Kodiak	Bristol Bay Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	2	500,383	0.6%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	1	33,960	7.2%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	0	0	0.0%	3	534,343	0.3%
	St. Paul	Bristol Bay Red King	U	0	0	0.0%	1	1,883,177	10.6%	0	0	0.0%
		Bering Sea Snow	U	0	0	0.0%	1	8,593,014	9.7%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	1	1,371,158	10.5%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	1	1,371,158	10.5%	0	0	0.0%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	1	13,218,507	7.6%	0	0	0.0%
	Wasilla	Bristol Bay Red King	U	0	0	0.0%	0	0	0.0%	1	1,883,177	10.6%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	1	8,593,014	9.7%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	1	1,371,158	10.5%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	1	1,371,158	10.5%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	0	0	0.0%	1	13,218,507	7.6%
	Alaska Total	Bristol Bay Red King	U	1	777,429	4.4%	3	3,905,664	22.1%	4	7,425,499	42.0%
		Bering Sea Snow	U	1	3,494,652	3.9%	3	24,764,449	27.9%	6	40,778,666	46.0%
		Bering Sea Tanner	U	1	460,039	3.5%	0	0	0.0%	0	0	0.0%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	1	33,960	7.2%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	1	17,742,670	98.9%
		EBS Tanner	U	1	460,039	3.5%	3	3,598,738	27.5%	4	8,506,463	65.0%
		WBS Tanner	U	1	460,039	3.5%	3	3,598,738	27.5%	4	8,506,463	65.0%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	2	579,116	100.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	1	21,999,156	96.9%
		Total	--	1	5,652,198	3.0%	3	35,867,589	20.6%	8	105,571,993	60.5%
Washington	Washington Total	Bristol Bay Red King	U	12	16,921,219	95.6%	8	13,792,984	77.9%	5	10,273,149	58.0%
		Bering Sea Snow	U	13	85,185,819	96.1%	11	63,916,022	72.1%	15	47,901,805	54.0%
		Bering Sea Tanner	U	13	12,617,209	96.5%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	2	469,136	100.0%	2	469,136	100.0%	4	435,176	92.8%
		WAI Golden King	U	2	17,935,173	100.0%	3	17,935,173	100.0%	1	1,646	0.0%
		EBS Tanner	U	12	12,617,209	96.5%	10	9,478,510	72.5%	5	4,570,785	35.0%
		WBS Tanner	U	12	12,617,209	96.5%	10	9,478,510	72.5%	5	4,570,785	35.0%
		Pribilof Is. Blue & Red King	U	1	151,568	100.0%	1	151,568	100.0%	1	151,568	100.0%
		St. Matthew Is. Blue	U	5	579,116	100.0%	5	579,116	100.0%	0	0	0.0%
		WAI Red King	U	2	22,713,377	100.0%	2	22,713,377	100.0%	1	714,221	3.1%
		Total	--	14	181,807,035	97.0%	15	138,514,396	79.4%	19	68,619,135	39.3%
Oregon	Oregon Total	Bristol Bay Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	1	190,857	1.1%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	0	0	0.0%	1	190,857	0.1%
Other U.S.	Other U.S. Total	Bristol Bay Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	0	0	0.0%	0	0	0.0%
Total	Total	Bristol Bay Red King	U	13	17,698,648	100.0%	11	17,698,648	100.0%	9	17,698,648	100.0%
		Bering Sea Snow	U	14	88,680,471	100.0%	14	88,680,471	100.0%	21	88,680,471	100.0%
		Bering Sea Tanner	U	14	13,077,248	100.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	2	469,136	100.0%	2	469,136	100.0%	5	469,136	100.0%
		WAI Golden King	U	2	17,935,173	100.0%	3	17,935,173	100.0%	3	17,935,173	100.0%
		EBS Tanner	U	13	13,077,248	100.0%	13	13,077,248	100.0%	9	13,077,248	100.0%
		WBS Tanner	U	13	13,077,248	100.0%	13	13,077,248	100.0%	9	13,077,248	100.0%
		Pribilof Is. Blue & Red King	U	1	151,568	100.0%	1	151,568	100.0%	1	151,568	100.0%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
		St. Matthew Is. Blue	U	5	579,116	100.0%	5	579,116	100.0%	2	579,116	100.0%
		WAI Red King	U	2	22,713,377	100.0%	2	22,713,377	100.0%	2	22,713,377	100.0%
		Total	--	15	187,459,233	100.0%	18	174,381,985	100.0%	28	174,381,985	100.0%

Note: Not all percentages add up due to rounding introduced in computing pre- and post-rationalization averages.
Source: National Marine Fisheries Service Alaska Regional Office 2008, 2015.

Table A1-11. Catcher Processor Crew Shares - Initial Allocation, 2010–2011, and 2015–2016 Quota Shareholders

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
Alaska	Anchorage	Bristol Bay Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	25,739	5.2%	0	0	0.0%	1	25,739	5.2%
		WBS Tanner	U	1	25,739	5.2%	0	0	0.0%	1	25,739	5.2%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	1	51,478	1.2%	0	0	0.0%	1	51,478	1.3%
	Homer	Bristol Bay Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	1	35,351	7.2%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	1	35,351	7.2%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	0	0	0.0%	1	70,702	1.8%
	Kodiak	Bristol Bay Red King	U	2	1,184	0.3%	2	1,184	0.3%	2	1,184	0.3%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	1	71,261	4.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	2	1,184	0.0%	2	1,184	0.0%	3	72,445	1.8%
	Alaska Total	Bristol Bay Red King	U	2	1,184	0.3%	2	1,184	0.3%	2	1,184	0.3%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	1	71,261	4.0%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	1	25,739	5.2%	0	0	0.0%	2	61,090	12.4%
		WBS Tanner	U	1	25,739	5.2%	0	0	0.0%	2	61,090	12.4%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	3	52,662	1.2%	2	1,184	0.0%	5	194,625	4.9%

State	Community	Species	Region	Initial Allocation			2010–2011 Quota Shareholders			2015–2016 Quota Shareholders		
				Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region	Unique Holders	Quota Units	Percent of Total Quota Units for Species/Region
Washington	Washington Total	Bristol Bay Red King	U	4	210,926	50.0%	4	210,926	50.0%	3	159,029	37.7%
		Bering Sea Snow	U	6	1,230,257	69.3%	6	1,540,610	86.8%	4	1,268,313	71.5%
		Bering Sea Tanner	U	12	408,191	82.8%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	1	500,850	98.2%	1	500,850	98.2%	1	500,850	98.2%
		EBS Tanner	U	11	376,882	76.4%	12	402,621	81.6%	10	331,559	67.2%
		WBS Tanner	U	11	376,882	76.4%	12	402,621	81.6%	10	331,559	67.2%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	1	245,011	100.0%	1	245,011	100.0%	1	245,011	100.0%
		Total	--	18	3,348,999	75.6%	18	3,302,639	83.9%	16	2,836,321	72.0%
Oregon	Oregon Total	Bristol Bay Red King	U	0	0	0.0%	0	0	0.0%	2	51,897	12.3%
		Bering Sea Snow	U	0	0	0.0%	0	0	0.0%	1	201,036	11.3%
		Bering Sea Tanner	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	0	0	0.0%	1	9,257	1.8%	1	9,257	1.8%
		EBS Tanner	U	0	0	0.0%	0	0	0.0%	2	24,052	4.9%
		WBS Tanner	U	0	0	0.0%	0	0	0.0%	2	24,052	4.9%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	0	0	0.0%	1	9,257	0.2%	4	310,294	7.9%
Other U.S.	Other U.S. Total	Bristol Bay Red King	U	2	209,621	49.7%	2	209,621	49.7%	2	209,621	49.7%
		Bering Sea Snow	U	2	543,814	30.7%	1	233,461	13.2%	1	233,461	13.2%
		Bering Sea Tanner	U	3	84,982	17.2%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	1	9,257	1.8%	0	0	0.0%	0	0	0.0%
		EBS Tanner	U	3	90,552	18.4%	3	90,552	18.4%	2	76,472	15.5%
		WBS Tanner	U	3	90,552	18.4%	3	90,552	18.4%	2	76,472	15.5%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		Total	--	7	1,028,778	23.2%	4	624,186	15.9%	7	596,026	15.1%
Total	Total	Bristol Bay Red King	U	8	421,731	100.0%	8	421,731	100.0%	9	421,731	100.0%
		Bering Sea Snow	U	8	1,774,071	100.0%	7	1,774,071	100.0%	7	1,774,071	100.0%
		Bering Sea Tanner	U	15	493,173	100.0%	0	0	0.0%	0	0	0.0%
		EAI Golden King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Golden King	U	2	510,107	100.0%	2	510,107	100.0%	2	510,107	100.0%
		EBS Tanner	U	15	493,173	100.0%	15	493,173	100.0%	16	493,173	100.0%
		WBS Tanner	U	15	493,173	100.0%	15	493,173	100.0%	16	493,173	100.0%
		Pribilof Is. Blue & Red King	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		St. Matthew Is. Blue	U	0	0	0.0%	0	0	0.0%	0	0	0.0%
		WAI Red King	U	1	245,011	100.0%	1	245,011	100.0%	1	245,011	100.0%
		Total	--	28	4,430,439	100.0%	25	3,937,266	100.0%	28	3,937,266	100.0%

Note: Not all percentages add up due to rounding introduced in computing pre- and post-rationalization averages.
Source: National Marine Fisheries Service Alaska Regional Office 2008, 2015.

Table A1-12a. Comparison of Harvests of BSAI Crab Vessels* Participating and Not Participating in Rationalized Crab Fisheries Post-2005: Kodiak and State of Alaska

Kodiak										
	Crab Vessels in Rationalized Crab After 2005				Crab Vessels Not in Rationalized Crab After 2005				All Crab Vessels	
		Total Value (dollars)				Total Value (dollars)				Total Value (dollars)
Year	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	All Species
1998	22	$18,147,641	$2,957,973	$21,105,614	23	$7,209,617	$7,633,926	$14,843,543	45	$35,949,158
1999	21	$26,915,411	$6,695,395	$33,610,805	24	$11,271,838	$11,225,952	$22,497,790	45	$56,108,595
2000	20	$9,684,122	$7,634,406	$17,318,527	21	$3,802,094	$10,064,372	$13,866,465	41	$31,184,993
2001	20	$7,608,733	$5,631,537	$13,240,270	23	$3,073,474	$9,076,798	$12,150,272	43	$25,390,542
2002	14	$7,294,786	$4,442,464	$11,737,250	21	$5,521,644	$10,134,565	$15,656,209	35	$27,393,459
2003	14	$8,490,766	$5,430,500	$13,921,266	19	$5,339,112	$10,779,785	$16,118,897	33	$30,040,163
2004	14	$7,420,642	$4,760,758	$12,181,399	21	$5,341,696	$12,928,080	$18,269,776	35	$30,451,175
2005	16	$10,452,550	$5,104,994	$15,557,544	18	$1,349,468	$12,878,144	$14,227,612	34	$29,785,157
2006	15	$7,939,919	$5,929,081	$13,869,000	16	--	$14,302,499	$14,302,499	31	$28,171,499
2007	12	$15,544,446	$4,442,529	$19,986,976	16	--	$13,636,445	$13,636,445	28	$33,623,421
2008	12	$30,001,715	$3,861,590	$33,863,304	13	--	$16,167,692	$16,167,692	25	$50,030,997
2009	12	$20,512,392	$2,295,690	$22,808,082	12	--	$9,058,210	$9,058,210	24	$31,866,292
2010	9	$18,095,901	$4,529,322	$22,625,223	10	--	$12,073,840	$12,073,840	19	$34,699,063
2011	9	$26,125,153	$4,300,486	$30,425,638	10	--	$15,126,507	$15,126,507	19	$45,552,146
2012	10	$29,193,627	$3,092,090	$32,285,718	10	--	$14,592,042	$14,592,042	20	$46,877,760
2013	9	$23,044,020	$2,092,583	$25,136,603	10	--	$10,571,515	$10,571,515	19	$35,708,118
2014	9	$20,793,277	$2,265,119	$23,058,396	10	--	$13,771,343	$13,771,343	19	$36,829,738
All Other Alaska Regions (non-Kodiak)										
	Crab Vessels in Rationalized Crab After 2005				Crab Vessels Not in Rationalized Crab After 2005				All Crab Vessels	
		Total Value (dollars)				Total Value (dollars)				Total Value (dollars)
Year	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	All Species
1998	18	$12,529,248	$2,302,244	$14,831,492	30	$13,580,490	$3,213,570	$16,794,059	48	$31,625,552
1999	15	$15,732,125	$4,040,341	$19,772,465	25	$16,004,778	$4,664,985	$20,669,762	40	$40,442,228
2000	14	$6,187,986	$3,469,868	$9,657,855	24	$7,293,027	$4,971,620	$12,264,647	38	$21,922,502
2001	13	$4,747,006	$2,944,637	$7,691,643	19	$3,778,982	$2,936,091	$6,715,072	32	$14,406,715
2002	13	$5,881,050	$4,600,174	$10,481,224	18	$5,108,182	$3,023,623	$8,131,805	31	$18,613,029
2003	10	$5,264,086	$2,477,696	$7,741,783	18	$5,694,733	$2,648,523	$8,343,256	28	$16,085,039
2004	11	$5,258,639	$1,125,515	$6,384,155	16	$5,909,248	$2,220,958	$8,130,206	27	$14,514,360
2005	8	$6,062,207	$1,506,259	$7,568,466	15	$1,907,589	$2,700,208	$4,607,797	23	$12,176,263
2006	12	$6,934,030	$2,503,707	$9,437,737	7	--	$3,085,520	$3,085,520	19	$12,523,257
2007	15	$24,427,089	$4,226,498	$28,653,587	9	--	$5,172,613	$5,172,613	24	$33,826,200
2008	17	$32,508,811	$4,697,243	$37,206,054	6	--	$5,951,272	$5,951,272	23	$43,157,326
2009	17	$20,312,540	$4,128,652	$24,441,191	8	--	$5,850,029	$5,850,029	25	$30,291,220
2010	19	$28,240,427	$5,933,863	$34,174,290	8	--	$6,689,729	$6,689,729	27	$40,864,019
2011	18	$36,550,562	$11,520,080	$48,070,642	8	--	$9,999,870	$9,999,870	26	$58,070,512
2012	20	$40,299,875	$5,869,077	$46,168,951	6	--	$5,858,135	$5,858,135	26	$52,027,087
2013	19	$39,509,002	$5,410,268	$44,919,270	5	--	$3,596,231	$3,596,231	24	$48,515,501
2014	18	$37,957,710	$5,229,953	$43,187,664	7	--	$3,856,310	$3,856,310	25	$47,043,973

Alaska Total										
	Crab Vessels in Rationalized Crab After 2005				Crab Vessels Not in Rationalized Crab After 2005				All Crab Vessels	
		Total Value (dollars)				Total Value (dollars)				Total Value (dollars)
Year	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	All Species
1998	40	$30,676,890	$5,260,217	$35,937,106	53	$20,790,107	$10,847,496	$31,637,603	93	$67,574,709
1999	36	$42,647,536	$10,735,735	$53,383,271	49	$27,276,615	$15,890,937	$43,167,552	85	$96,550,823
2000	34	$15,872,108	$11,104,274	$26,976,382	45	$11,095,121	$15,035,991	$26,131,112	79	$53,107,494
2001	33	$12,355,739	$8,576,174	$20,931,913	42	$6,852,455	$12,012,889	$18,865,345	75	$39,797,258
2002	27	$13,175,836	$9,042,638	$22,218,474	39	$10,629,826	$13,158,188	$23,788,014	66	$46,006,488
2003	24	$13,754,852	$7,908,196	$21,663,048	37	$11,033,846	$13,428,307	$24,462,153	61	$46,125,201
2004	25	$12,679,281	$5,886,273	$18,565,554	37	$11,250,944	$15,149,038	$26,399,982	62	$44,965,536
2005	24	$16,514,757	$6,611,253	$23,126,010	33	$3,257,058	$15,578,352	$18,835,409	57	$41,961,420
2006	27	$14,873,949	$8,432,789	$23,306,738	23	--	$17,388,018	$17,388,018	50	$40,694,756
2007	27	$39,971,535	$8,669,028	$48,640,563	25	--	$18,809,058	$18,809,058	52	$67,449,621
2008	29	$62,510,526	$8,558,833	$71,069,359	19	--	$22,118,964	$22,118,964	48	$93,188,323
2009	29	$40,824,932	$6,424,342	$47,249,274	20	--	$14,908,239	$14,908,239	49	$62,157,513
2010	28	$46,336,329	$10,463,184	$56,799,513	18	--	$18,763,569	$18,763,569	46	$75,563,082
2011	27	$62,675,715	$15,820,566	$78,496,280	18	--	$25,126,377	$25,126,377	45	$103,622,657
2012	30	$69,493,502	$8,961,167	$78,454,669	16	--	$20,450,177	$20,450,177	46	$98,904,846
2013	28	$62,553,022	$7,502,851	$70,055,873	15	--	$14,167,746	$14,167,746	43	$84,223,619
2014	27	$58,750,987	$7,495,072	$66,246,059	17	--	$17,627,652	$17,627,652	44	$83,873,712

*Includes any vessel listed as fishing over the period 1998–2004 for crab species that were later rationalized.
**Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Note: Since 2005 was a transition year, pre- and post-rationalization averages do not include 2005.
Source: ADFG 2015; CFEC 2015

Table A1-12b. Comparison of Harvests of BSAI Crab Vessels* Participating and Not Participating in Rationalized Crab Fisheries Post-2005: Seattle-Tacoma-Bellevue Metropolitan Statistical Area and State of Washington

Seattle-Tacoma-Bellevue MSA										
	Crab Vessels in Rationalized Crab After 2005				Crab Vessels Not in Rationalized Crab After 2005				All Crab Vessels	
		Total Value (dollars)				Total Value (dollars)				Total Value (dollars)
Year	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	All Species
1998	63	***	***	***	95	***	***	***	158	$144,155,914
1999	67	$75,356,555	$15,985,674	$91,342,229	98	$77,246,453	$42,395,570	$119,642,023	165	$210,984,253
2000	65	***	***	***	86	***	***	***	151	$138,012,056
2001	65	$29,074,785	$16,508,450	$45,583,235	85	$19,690,379	$53,665,903	$73,356,282	150	$118,939,517
2002	66	$34,819,480	$22,720,389	$57,539,870	78	$26,969,224	$62,585,947	$89,555,171	144	$147,095,040
2003	71	$43,704,569	$23,983,792	$67,688,361	81	$32,000,688	$59,361,237	$91,361,924	152	$159,050,285
2004	67	$39,312,524	$24,166,592	$63,479,116	81	$31,818,550	$62,342,576	$94,161,126	148	$157,640,242
2005	70	$64,596,861	$27,182,951	$91,779,813	64	$10,702,776	$70,071,851	$80,774,627	134	$172,554,439
2006	59	***	***	***	34	--	***	***	93	$165,704,617
2007	53	***	***	***	35	--	***	***	88	$171,248,515
2008	57	***	***	***	35	--	***	***	92	$215,765,102
2009	55	***	***	***	32	--	***	***	87	$160,102,898
2010	50	***	***	***	30	--	***	***	80	$171,161,309
2011	51	***	***	***	32	--	***	***	83	$231,820,517
2012	49	***	***	***	34	--	***	***	83	$256,287,990
2013	47	***	***	***	34	--	***	***	81	$212,138,096
2014	46	***	***	***	34	--	***	***	80	$216,807,988
All Other Washington Regions (non Seattle-Tacoma-Bellevue MSA)										
	Crab Vessels in Rationalized Crab After 2005				Crab Vessels Not in Rationalized Crab After 2005				All Crab Vessels	
		Total Value (dollars)				Total Value (dollars)				Total Value (dollars)
Year	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	All Species
1998	3	**	**	**	17	***	***	***	20	$12,253,920
1999	4	$3,759,760	$653,245	$4,413,005	15	$12,431,399	$4,081,438	$16,512,836	19	$20,925,841
2000	3	**	**	**	14	***	***	***	17	$9,058,161
2001	4	$773,267	$179,451	$952,718	12	$3,650,569	$777,310	$4,427,879	16	$5,380,597
2002	4	$1,426,075	$436,436	$1,862,511	12	$4,320,269	$615,213	$4,935,482	16	$6,797,993
2003	6	$4,125,792	$1,853,981	$5,979,772	13	$5,161,197	$1,270,434	$6,431,631	19	$12,411,403
2004	7	$3,360,207	$2,649,544	$6,009,751	13	$5,294,679	$863,012	$6,157,691	20	$12,167,442
2005	5	$4,387,268	$1,530,988	$5,918,256	8	$2,239,051	$513,000	$2,752,051	13	$8,670,307
2006	5	***	***	***	3	--	**	**	8	$7,426,619
2007	4	***	***	***	2	--	**	**	6	$6,828,884
2008	3	**	**	**	3	--	**	**	6	$8,336,844
2009	4	***	***	***	2	--	**	**	6	$5,386,350
2010	3	**	**	**	3	--	**	**	6	$4,953,660
2011	4	***	***	***	3	--	**	**	7	$7,578,500
2012	3	**	**	**	3	--	**	**	6	$6,517,842
2013	4	***	***	***	2	--	**	**	6	$12,021,387
2014	4	***	***	***	2	--	**	**	6	$11,587,158

Washington Total										
	Crab Vessels in Rationalized Crab After 2005				Crab Vessels Not in Rationalized Crab After 2005				All Crab Vessels	
		Total Value (dollars)				Total Value (dollars)				Total Value (dollars)
Year	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	All Species
1998	66	$53,288,086	$10,097,191	$63,385,277	112	$61,834,040	$31,190,517	$93,024,557	178	$156,409,834
1999	71	$79,116,315	$16,638,919	$95,755,234	113	$89,677,852	$46,477,008	$136,154,860	184	$231,910,094
2000	68	$33,084,244	$21,832,413	$54,916,657	100	$30,023,754	$62,129,806	$92,153,560	168	$147,070,217
2001	69	$29,848,052	$16,687,901	$46,535,953	97	$23,340,948	$54,443,213	$77,784,161	166	$124,320,114
2002	70	$36,245,556	$23,156,825	$59,402,381	90	$31,289,493	$63,201,160	$94,490,653	160	$153,893,034
2003	77	$47,830,361	$25,837,773	$73,668,134	94	$37,161,885	$60,631,670	$97,793,555	171	$171,461,689
2004	74	$42,672,731	$26,816,136	$69,488,867	94	$37,113,229	$63,205,588	$100,318,818	168	$169,807,684
2005	75	$68,984,129	$28,713,940	$97,698,068	72	$12,941,826	$70,584,851	$83,526,678	147	$181,224,746
2006	64	$61,808,912	$31,472,955	$93,281,867	37	--	$79,849,370	$79,849,370	101	$173,131,236
2007	57	$73,098,773	$32,432,417	$105,531,191	37	--	$72,546,208	$72,546,208	94	$178,077,398
2008	60	$105,188,987	$32,853,681	$138,042,668	38	--	$86,059,278	$86,059,278	98	$224,101,946
2009	59	$86,180,289	$18,765,815	$104,946,104	34	--	$60,543,144	$60,543,144	93	$165,489,248
2010	53	$102,939,085	$19,697,263	$122,636,348	33	--	$53,478,621	$53,478,621	86	$176,114,969
2011	55	$129,375,387	$31,258,779	$160,634,166	35	--	$78,764,850	$78,764,850	90	$239,399,016
2012	52	$140,830,926	$31,017,435	$171,848,361	37	--	$90,957,471	$90,957,471	89	$262,805,832
2013	51	$114,366,265	$26,098,019	$140,464,285	36	--	$83,695,198	$83,695,198	87	$224,159,483
2014	50	$116,088,012	$26,604,854	$142,692,865	36	--	$85,702,280	$85,702,280	86	$228,395,146

*Includes any vessel listed as fishing over the period 1998–2004 for crab species that were later rationalized.
**Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Note: Since 2005 was a transition year, pre- and post-rationalization averages do not include 2005.
Source: ADFG 2015; CFEC 2015

Table A1-12c. Comparison of Harvests of BSAI Crab Vessels* Participating and Not Participating in Rationalized Crab Fisheries Post-2005: Oregon and Other U.S. and All States Total

Oregon and Other U.S. Total (non-Alaska and non-Washington)

	Crab Vessels in Rationalized Crab After 2005				Crab Vessels Not in Rationalized Crab After 2005				All Crab Vessels	
		Total Value (dollars)				Total Value (dollars)				Total Value (dollars)
Year	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	All Species
1998	9	$8,379,421	$1,954,759	$10,334,180	15	$7,891,668	$4,532,399	$12,424,067	24	$22,758,247
1999	9	$11,869,290	$3,062,260	$14,931,550	17	$12,917,389	$6,661,891	$19,579,281	26	$34,510,830
2000	11	$6,699,437	$4,128,526	$10,827,962	16	$7,494,086	$8,826,799	$16,320,885	27	$27,148,848
2001	12	$5,604,955	$4,181,872	$9,786,826	13	$4,938,802	$7,319,256	$12,258,058	25	$22,044,884
2002	16	$8,590,739	$5,436,010	$14,026,749	14	$6,275,301	$9,038,596	$15,313,897	30	$29,340,645
2003	18	$12,656,219	$7,970,618	$20,626,838	17	$9,921,072	$10,299,919	$20,220,991	35	$40,847,829
2004	18	$11,730,872	$6,883,705	$18,614,578	15	$7,393,227	$9,974,132	$17,367,359	33	$35,981,937
2005	18	$17,270,965	$6,408,772	$23,679,737	10	$733,319	$12,115,364	$12,848,683	28	$36,528,420
2006	14	$15,867,692	$8,093,913	$23,961,605	7	--	$11,817,294	$11,817,294	21	$35,778,899
2007	13	$20,569,135	$7,072,724	$27,641,859	7	--	$10,620,073	$10,620,073	20	$38,261,932
2008	11	$25,048,087	$8,266,808	$33,314,895	6	--	$13,196,994	$13,196,994	17	$46,511,889
2009	12	$17,151,745	$2,514,124	$19,665,869	7	--	$8,674,421	$8,674,421	19	$28,340,290
2010	12	$22,827,347	$6,976,393	$29,803,740	6	--	$10,674,794	$10,674,794	18	$40,478,535
2011	11	$27,167,739	$7,789,316	$34,957,055	6	--	$13,099,359	$13,099,359	17	$48,056,414
2012	11	$30,101,706	$6,502,729	$36,604,434	6	--	$12,911,876	$12,911,876	17	$49,516,310
2013	21	$25,374,244	$5,200,879	$30,575,123	5	--	$8,673,717	$8,673,717	26	$39,248,840
2014	16	$34,415,319	$2,967,946	$37,383,266	7	--	$7,906,103	$7,906,103	23	$45,289,368

All States Total

	Crab Vessels in Rationalized Crab After 2005				Crab Vessels Not in Rationalized Crab After 2005				All Crab Vessels	
		Total Value (dollars)				Total Value (dollars)				Total Value (dollars)
Year	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	Rationalized Crab Species	Other Species	All Species	Unique Vessels	All Species
1998	115	$92,344,396	$17,312,167	$109,656,563	180	$90,515,815	$46,570,412	$137,086,227	295	$246,742,790
1999	116	$133,633,140	$30,436,914	$164,070,054	179	$129,871,856	$69,029,836	$198,901,692	295	$362,971,747
2000	113	$55,655,788	$37,065,213	$92,721,001	161	$48,612,961	$85,992,596	$134,605,558	274	$227,326,559
2001	114	$47,808,746	$29,445,947	$77,254,693	152	$35,132,206	$73,775,358	$108,907,563	266	$186,162,256
2002	113	$58,012,131	$37,635,472	$95,647,603	143	$48,194,620	$85,397,944	$133,592,564	256	$229,240,167
2003	119	$74,241,432	$41,716,587	$115,958,020	148	$58,116,802	$84,359,897	$142,476,699	267	$258,434,719
2004	117	$67,082,884	$39,586,114	$106,668,998	146	$55,757,400	$88,328,758	$144,086,159	263	$250,755,157
2005	117	$102,769,851	$41,733,964	$144,503,815	115	$16,932,203	$98,278,567	$115,210,770	232	$259,714,585
2006	105	$92,550,552	$47,999,657	$140,550,209	67	--	$109,054,682	$109,054,682	172	$249,604,891
2007	97	$133,639,443	$48,174,169	$181,813,612	69	--	$101,975,339	$101,975,339	166	$283,788,951
2008	100	$192,747,600	$49,679,322	$242,426,922	63	--	$121,375,236	$121,375,236	163	$363,802,158
2009	100	$144,156,966	$27,704,281	$171,861,247	61	--	$84,125,804	$84,125,804	161	$255,987,051
2010	93	$172,102,761	$37,136,841	$209,239,601	57	--	$82,916,984	$82,916,984	150	$292,156,586
2011	93	$219,218,840	$54,868,661	$274,087,502	59	--	$116,990,586	$116,990,586	152	$391,078,088
2012	93	$240,426,134	$46,481,331	$286,907,464	59	--	$124,319,524	$124,319,524	152	$411,226,989
2013	100	$202,293,531	$38,801,749	$241,095,280	56	--	$106,536,661	$106,536,661	156	$347,631,941
2014	93	$209,254,318	$37,067,872	$246,322,190	60	--	$111,236,035	$111,236,035	153	$357,558,226

*Includes any vessel listed as fishing over the period 1998–2004 for crab species that were later rationalized.
**Data are suppressed due to confidentiality.
***Data are suppressed to protect confidentiality of other data.
Note: Since 2005 was a transition year, pre- and post-rationalization averages do not include 2005.
Source: ADFG 2015; CFEC 2015

ATTACHMENT 2

MUNICIPAL REVENUE DATA,
SELECTED ALASKA COMMUNITIES

Table A2-1. City of Unalaska Selected Fisheries-Related General Fund Revenues (in dollars), Fiscal Years 1991–2016

Fiscal Year	Selected Fishery Revenue Source			Three Source Total
	Local Raw Fish Sales Tax	State Fisheries Business Tax	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
FY 1996	$2,212,833	$2,828,570	$2,637,708	$7,679,111
FY 1997	$2,641,645	$2,071,914	$3,015,804	$7,729,363
FY 1998	$2,641,124	$2,424,747	$2,604,706	$7,670,577
FY 1999	$2,513,500	$2,424,787	$2,739,821	$7,678,108
FY 2000	$3,410,717	$2,483,670	$2,224,903	$8,119,290
FY 2001	$3,065,220	$3,249,218	$2,813,250	$9,127,688
FY 2002	$3,329,131	$3,179,799	$3,000,184	$9,509,114
FY 2003	$3,662,646	$2,838,537	$4,183,140	$10,684,323
FY 2004	$4,190,128	$3,272,188	$2,598,108	$10,060,424
FY 2005	$3,873,868	$3,659,452	$3,876,283	$11,409,603
FY 2006	$4,188,063	$3,446,660	$3,736,810	$11,371,533
FY 2007	$4,076,762	$4,281,211	$4,357,759	$12,715,732
FY 2008	$4,689,810	$3,909,016	$4,362,451	$12,961,277
FY 2009	$4,619,222	$3,877,701	$5,200,897	$13,697,820
FY 2010	$3,594,173	$4,547,084	$4,676,603	$12,817,860
FY 2011	$5,371,768	$3,199,290	$3,531,739	$12,102,797
FY 2012	$5,260,999	$4,143,777	$3,469,263	$12,874,039
FY 2013	$4,784,198	$4,398,441	$4,898,543	$14,081,182
FY 2014	$4,449,921	$4,377,934	$6,974,887	$15,802,742
FY 2015*	$4,632,791	$3,639,448	$5,014,309	$13,286,548
FY 2016**	$5,074,200	$3,806,700	$5,800,000	$14,680,900

* FY 2015 is YTD as of 5/31/2015.

** FY 2016 is proposed budget.

Note: An earlier version of the table appeared as Table 2.1-22 in the BSAI crab rationalization program 5-year review SIA.

Source: City of Unalaska Finance Department spreadsheet originally supplied in 2001 and updated December 2004, May 2008, and September 2010; Alaska Department of Commerce, Community, and Economic Development, 2015.[129]

[129] Community and Regional Affairs Financial Documents Delivery System: Annual Municipal Budgets. https://www.commerce.alaska.gov/dcra/dcrarepoext/Pages/FinancialDocumentsLibrary.aspx. Accessed 3/16/16.

Table A2-2. City of Unalaska General Fund Revenue and Direct Fishery Revenue as a Percentage of Total General Fund Revenues, Fiscal Years 1998–2016

Fiscal Year	Grand Total All Revenue	Direct Fishery Revenue Total*	Direct Fishery Revenue as a Percent of All Revenue
FY 1998	$19,422,869	$7,670,577	39.5%
FY 1999	$19,079,204	$7,678,108	40.2%
FY 2000	$19,413,548	$8,119,290	41.8%
FY 2001	$22,170,480	$9,127,688	41.2%
FY 2002	$22,852,455	$9,509,114	41.6%
FY 2003	$24,387,238	$10,684,323	43.8%
FY 2004	$21,723,394	$10,060,424	46.3%
FY 2005	$28,279,878	$11,409,603	40.4%
FY 2006	$26,238,173	$11,371,533	43.3%
FY 2007	$30,791,407	$12,715,732	41.3%
FY 2008	$32,900,676	$12,961,277	39.4%
FY 2009	$38,855,095	$13,697,820	35.3%
FY 2010	$30,914,418	$12,817,860	41.5%
FY 2011	$33,957,677	$12,102,797	35.6%
FY 2012	$32,835,918	$12,874,039	39.2%
FY 2013	$34,423,906	$14,081,182	40.9%
FY 2014	$36,282,469	$15,802,742	43.6%
FY 2015**	$30,366,509	$13,286,548	43.8%
FY 2016***	$32,005,354	$14,680,900	45.9%

* For this table, "Direct Fishery Revenue" is defined as being composed of Unalaska municipal raw seafood tax and intergovernmental revenues accruing to Unalaska from the state fisheries business tax and the state fisheries resource landing taxes (see Table A2-1). It does not include any fisheries influence on other revenue sources.

** FY 2015 is YTD as of 5/31/2015.

*** FY 2016 is proposed budget.

Note: An earlier version of the table appeared as Table 2.1-23 in the BSAI crab rationalization program 5-year review SIA.

Source: Derived from City of Unalaska Finance Department spreadsheets supplied December 2004, May 2008, September 2010, and October 2010; Alaska Department of Commerce, Community, and Economic Development 2015.

Table A2-3. City of Unalaska Ports Revenue Fiscal Years 2000–2016

Fiscal Year	Unalaska Marine Center Dock	Spit Dock	Small Boat Harbor	Cargo Dock	Other Revenue & Fees	Total
FY 2000	$2,325,996	$489,130	$91,349		$120,827	$3,027,302
FY 2001	$2,616,894	$539,429	$88,714	$77,212	$92,915	$3,415,164
FY 2002	$2,884,269	$496,508	$87,889	$57,270	$116,273	$3,642,209
FY 2003	$3,090,519	$553,386	$90,663	$104,832	$23,253	$3,862,653
FY 2004	$3,361,385	$552,891	$102,901	$68,692	$30,284	$4,116,153
FY 2005	$3,335,908	$588,934	$112,003	$173,325	$39,011	$4,249,181
FY 2006	$3,399,500	$460,141	$118,261	$473,302	$59,607	$4,510,811
FY 2007	$3,731,656	$332,233	$102,014	$226,035	$33,366	$4,425,304
FY 2008	$3,871,742	$582,444	$102,974	$284,315	$10,748	$4,852,223
FY 2009	$2,781,874	$619,219	$100,346	$198,376	$52,300	$3,752,114
FY 2010	$3,136,473	$599,696	$107,748	$87,655	$75,962	$4,004,534
FY 2011	$4,616,912	$580,174	$117,933	$124,853	-$300,704	$5,139,168
FY 2012	$4,131,575	$553,375	$147,947	$143,930	$481,921	$5,458,748
FY 2013	$4,201,014	$528,852	$86,955	$87,897	$880,206	$5,784,924
FY 2014	$4,856,082	$544,247	$94,126	$104,387	$862,092	$6,460,934
FY 2015*	$3,892,809	$386,922	$65,418	$128,102	$695,356	$5,168,607
FY 2016**	$5,063,700	$499,658	$91,494	$136,400	$2,253,022	$8,044,274

* FY 2015 is YTD as of 3/31/2015; the Unalaska fiscal year ends June 30 of each year.
** FY 2016 is proposed budget.
Note (1): All docks and the small boat harbor revenues include docking/moorage and utility fees. The Unalaska Marine Center dock and cargo dock also include wharfage fees and rental fees.
Note (2): An earlier version of the table appeared as Table 2.1-24 in the BSAI crab rationalization program 5-year review SIA.
Source: City of Unalaska Finance Department spreadsheets supplied May 2008, September 2010, and October 2010; Alaska Department of Commerce, Community, and Economic Development 2015.

Table A2-4. Selected King Cove Harbor Revenues, Fiscal Years 2002–2016 (Finance Department Statistics)

Year	Moorage	Pot Storage	All Other	Total
FY02	$150,458	$16,536	$85,756	$252,750
FY03	$151,003	$16,678	$97,859	$265,540
FY04	$98,771	$29,610	$92,233	$220,614
FY05	$124,422	$30,269	$90,815	$245,506
FY06	$170,167	$11,645	$117,167	$298,979
FY07	$138,282	$10,883	$108,407	$257,572
FY08	$194,568	$19,927	$167,061	$381,556
FY09	$180,805	$23,735	$147,361	$351,901
FY10	$193,547	$23,888	$203,599	$421,034
FY11	$193,316	$33,039	$235,069	$461,424
FY12	$178,022	$28,416	$271,040	$477,478
FY13	$170,880	$3,688	$258,252	$432,820
FY14	$149,975	$7,993	$247,586	$405,554
FY15	$120,000	$22,000	$202,654	$344,654
FY16*	$125,000	$22,000	$217,654	$364,654

* FY 2016 figures are "2nd Read" totals

Note: An earlier version of the table appeared as Table 2.3-15 in the BSAI crab rationalization program 5-year review SIA.

Source: Revenue and expenditure spreadsheets provided by King Cove Finance Department, June 2008 and August 2010; Alaska Department of Commerce, Community, and Economic Development 2015.

Table A2-5. Kodiak Municipal Revenues, Fiscal Years 2000–2016

Year	General Fund Total (Revenues Only)	General Fund Total Revenues (Revenues and Transfers)	State Raw Fish and Fisheries Business Tax Revenues	Fisheries-Related Revenues as Percentage of Revenues Only
FY 2000	$11,072,334	$11,308,785	$618,504	5.6%
FY 2001	$10,985,567	$11,242,664	$667,927	6.1%
FY 2002	$10,991,434	$11,277,871	$889,316	8.1%
FY 2003	$10,874,498	$11,055,692	$627,719	5.8%
FY 2004	$10,851,715	$11,608,886	$825,995	7.6%
FY 2005	$11,297,725	$12,824,655	$643,559	5.7%
FY 2006	$12,086,812	$12,356,911	$712,424	5.9%
FY 2007	$12,923,817	$13,848,613	$828,773	6.4%
FY 2008	$15,318,695	$24,905,824	$885,678	5.8%
FY 2009*	$12,881,085	$13,437,024	$863,000	6.7%
FY 2010	$15,136,421	$15,168,291	$1,116,943	7.4%
FY 2011	$14,709,850	$14,806,138	$828,039	5.6%
FY 2012	$16,472,416	$16,965,105	$1,244,027	7.6%
FY 2013	$17,633,770	$17,765,616	$1,342,889	7.6%
FY 2014	$18,098,214	$18,098,215	$1,296,186	7.2%
FY 2015	$20,111,889	$20,111,889	$1,254,497	6.2%
FY 2016*	$19,205,369	$22,551,710	$1,358,000	7.1%

* Budgeted years.
Note: An earlier version of the table appeared as Table 2.4-23 in the BSAI crab rationalization program 5-year review SIA.
Source: Alaska Department of Commerce, Community, and Economic Development 2015.

Table A2-6. Kodiak Island Borough Fish Tax Revenue Sharing, Fiscal Years 1976–2015

Fiscal Year	Raw Fish Tax
1976	$54,039
1977	$66,709
1978	$79,834
1979	$251,716
1980	$182,348
1981	$452,802
1982	$428,924
1983	$828,783
1984	$884,740
1985	$709,477
1986	$651,383
1987	$647,057
1988	$871,703
1989	$875,085
1990	$2,044,881
1991	$1,082,779
1992	$1,295,921
1993	$1,005,664
1994	$1,244,127
1995	$997,032
1996	$1,077,121
1997	$1,349,834
1998	$994,768
1999	$918,010
2000	$833,980
2001	$1,006,947
2002	$1,364,248
2003	$840,768
2004	$649,928
2005	$773,290
2006	$802,313
2007	$958,965
2008	$1,059,161
2009	$1,288,927
2010	$1,339,575
2011	$1,026,385
2012	$1,405,360
2013	$1,647,025
2014	$1,546,308
2015*	$1,550,000

* FY 2015 is estimated budget "Level 6"

Note: An earlier version of the table appeared as Table 2.4-24 in the BSAI crab rationalization program 5-year review SIA.

Source: 1976–2007 Kodiak Island Borough spreadsheet; 2008–2010 K. Short, Kodiak Island Borough Finance Department, May 12, 2010; Alaska Department of Commerce, Community, and Economic Development 2015.

Table A2-7. City of Kodiak Boat Harbor Enterprise Fund Revenues, Fiscal Years 2000–2016

Year	Boat Harbor Enterprise Fund (Revenues Only)	Boat Harbor Enterprise Fund (Revenues and Transfers)
FY 2000	$1,249,297	$5,445,938
FY 2001	$1,263,714	$2,825,505
FY 2002	$1,249,390	$1,845,614
FY 2003	$1,262,255	$1,762,255
FY 2004	$1,138,534	$1,138,534
FY 2005	$1,548,336	$1,548,336
FY 2006	$1,739,024	$1,739,024
FY 2007	$2,101,887	$2,101,887
FY 2008	$2,297,812	$2,297,812
FY 2009*	$2,104,540	$2,633,640
FY 2010	--	--
FY 2011	--	--
FY 2012	$2,586,308	$2,586,308
FY 2013	$2,708,599	$2,933,374
FY 2014	$2,453,744	$2,453,744
FY 2015	$2,677,935	$2,677,935
FY 2016*	$2,432,405	$3,605,033

* Budgeted years.
Note: An earlier version of the table appeared as Table 2.4-26 in the BSAI crab rationalization program 5-year review SIA.
Source: Alaska Department of Commerce, Community, and Economic Development 2015.

Table A2-8. St. Paul Municipal Revenues, Fiscal Years 2000–2015

Year	Total General Fund Revenue	Fish Tax	State Fisheries Revenue Sharing	Fisheries Landing Tax	Fisheries Revenue Source Total	Percentage of Fisheries Sources as Percentage of Total General Fund
FY 2000*	$2,969,936	$573,544	$1,200,000	$0	$1,773,544	59.7%
FY 2001*	$2,507,126	$444,600	$150,000	$0	$594,600	23.7%
FY 2002*	$2,200,873	$340,200	$289,000	$0	$629,200	28.6%
FY 2003*	$3,069,067	$500,000	$10,000	$0	$510,000	16.6%
FY 2004*	$2,474,482	$482,640	$275,000	$20,000	$777,640	31.4%
FY 2005	$2,286,487	$562,490	$362,056	$12,111	$936,657	41.0%
FY 2006	$1,886,789	$575,397	$305,889	$18,659	$899,945	47.7%
FY 2007	$2,836,968	$685,607	$437,169	$30,678	$1,153,454	40.7%
FY 2008	$3,921,201	$1,349,981	$524,034	$172,020	$2,046,035	52.2%
FY 2009	$4,265,351	$1,154,002	$1,008,914	$374,906	$2,537,822	59.5%
FY 2010	$4,044,101	$1,146,552	$655,739	$102,600	$1,904,891	47.1%
FY 2011	$4,666,190	$2,228,024	$736,836	$51,437	$3,016,297	64.6%
FY 2012	$5,478,393	$2,348,570	$1,135,628	$34,504	$3,518,702	64.2%
FY 2013	$5,202,054	$2,061,513	$1,278,016	$12,697	$3,352,226	64.4%
FY 2014	$4,437,635	$1,801,163	$1,183,913	$26,210	$3,011,286	67.9%
FY 2015*	$4,381,484	$1,950,000	$1,100,000	$12,000	$3,062,000	69.9%

* Budgeted years.
Note: An earlier version of the table appeared as Table 2.2-15 in the BSAI crab rationalization program 5-year review SIA.
Source: Alaska Department of Commerce, Community, and Economic Development 2015.

ATTACHMENT 3

BSAI CRAB CREW LICENSE AND GEAR OPERATOR PERMIT HOLDERS BY REGION AND COMMUNITY, 2006–2014

Table A3-1. BSAI Crab Crew License and Gear Operator Permit Holders by Region by Year: 2006–2014

State	Region	Position	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average 2006–2010	Annual Average 2011–2014
Alaska	Aleutian/Pribilof	Crew	43	42	56	39	30	26	26	22	29	42.0	25.8
		Captain	9	7	7	5	2	1	4	3	7	6.0	3.8
	Bering Sea	Crew	2	8	9	11	10	17	21	15	11	8.0	16.0
		Captain	0	0	2	3	0	0	0	2	2	1.0	1.0
	Kodiak Island Borough	Crew	49	57	60	58	50	55	57	55	66	54.8	58.3
		Captain	16	16	21	17	18	18	18	18	15	17.6	17.3
	South-Central Alaska	Crew	73	79	85	75	67	68	81	69	66	75.8	71.0
		Captain	22	19	19	17	15	14	17	17	22	18.4	17.5
	Southeast Alaska	Crew	14	15	10	3	4	3	5	5	6	9.2	4.8
		Captain	0	1	0	0	1	2	3	1	2	0.4	2.0
	Other Alaska*	Crew	1	1	2	3	0	3	4	2	2	1.4	2.8
		Captain	0	1	1	1	0	0	0	0	0	0.3	0.0
	Total Alaska	Crew	182	202	222	189	161	172	194	168	180	191.2	178.5
		Captain	47	44	50	43	36	35	42	41	48	44.0	41.5
Washington	Seattle MSA	Crew	101	116	133	113	110	102	108	104	97	114.6	102.8
		Captain	55	48	55	46	46	43	55	48	45	50.0	47.8
	Other Washington	Crew	83	82	87	84	70	81	83	73	72	81.2	77.3
		Captain	28	22	31	22	25	21	22	19	22	25.6	21.0
	Total Washington	Crew	184	198	220	197	180	183	191	177	169	195.8	180.0
		Captain	83	70	86	68	71	64	77	67	67	75.6	68.8
Oregon	Total Oregon	Crew	29	37	67	57	47	46	56	55	60	47.4	54.3
		Captain	10	11	11	15	14	13	13	13	15	12.2	13.5
Other US and Canada	Total Other US and Canada	Crew	146	93	126	125	108	111	123	127	120	119.6	120.3
		Captain	12	12	17	18	19	17	25	18	17	15.6	19.3
All States and Canada	Grand Total	Crew	541	530	635	568	496	512	564	527	529	554.0	533.0
		Captain	152	137	164	144	140	129	157	139	147	147.4	143.0

*The five "Other Alaska" communities with crew members represented in the data were: Bethel (1 AK resident crew member 2007; 2 AK resident crew members in 2008; 1 AK resident crew member in 2009 and 2012), Fairbanks (1 AK resident crew member in 2006; 2 AK resident crew members in 2011 and 2013; 3 AK resident crew members in 2012; 1 AK non-resident crew member in 2009), Kobuk (2 AK resident crew members in 2014), North Pole (1 AK resident crew member in 2009 and 2011), and Ruby (1 AK resident captain in 2007-2009).
Notes: (1) "Crew" refers to distinct ADFG Commercial Crew license holders and "Captain" refers to distinct CFEC Gear Operator permit numbers, respectively, as reported in EDR records. "Crew" includes non-captain crew members only; "Captain" counts include crab vessel captains, but may also include crew members who hold a CFEC permit in lieu of an ADFG crew license but did not act as captain of the crab vessel. In other words, crew may be under-counted and captains may be over-counted, but when added together, the total number of fishing personnel on the vessels should be accurate.
Source: NMFS AFSC BSAI Crab Economic Data Report database, ADF&G fish tickets, ADF&G commercial crewmember license files, CFEC permit registry, eLandings.

Table A3-2. BSAI Crab Crew License and Gear Operator Permit Holders by Community by Year, Aleutian/Pribilof Region: 2006–2014

Community	Alaska Residency Status	Position	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average 2006–2010	Annual Average 2011–2014
Adak	Resident	Crew	0	0	1	0	0	0	0	0	1	0.2	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	0	1	0	0	0	0	0	1	0.2	0.3
Akutan	Resident	Crew	2	4	2	1	3	1	0	2	1	2.4	1.0
		Captain	0	0	1	1	0	0	1	0	1	0.4	0.5
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	2	4	3	2	3	1	1	2	2	2.8	1.5
King Cove	Resident	Crew	8	2	10	5	1	1	3	1	3	5.2	2.0
		Captain	4	4	3	1	1	0	1	1	1	2.6	0.8
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	1	0.0	0.3
	Total	Combined	12	6	13	6	2	1	4	2	5	7.8	3.0
Sand Point	Resident	Crew	1	6	4	2	1	1	0	1	3	2.8	1.3
		Captain	0	0	0	0	0	0	0	0	1	0.0	0.3
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	1	6	4	2	1	1	0	1	4	2.8	1.5
St. George	Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	0	0	0	0	0	0	0	0	0.0	0.0
St. Paul	Resident	Crew	0	0	0	0	0	0	0	0	3	0.0	0.8
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	1	0	0	0	0	0.2	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	0	0	0	1	0	0	0	3	0.2	0.8
Unalaska/Dutch Harbor	Resident	Crew	24	20	30	29	21	21	21	12	12	24.8	16.5
		Captain	4	3	3	3	1	1	1	1	3	2.8	1.5
	Non-Resident	Crew	8	10	9	2	3	2	2	6	6	6.4	4.0
		Captain	1	0	0	0	0	0	1	1	0	0.2	0.5
	Total	Combined	37	33	42	34	25	24	25	20	21	34.2	22.5
Other Aleutian/Pribilof Region	Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	0	0	0	0	0	0	0	0	0.0	0.0

Community	Alaska Residency Status	Position	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average 2006–2010	Annual Average 2011–2014
Aleutian/Pribilof Region Total	Resident	Crew	35	32	47	37	26	24	24	16	23	35.4	21.8
		Captain	8	7	7	5	2	1	3	2	6	5.8	3.0
	Non-Resident	Crew	8	10	9	2	4	2	2	6	6	6.6	4.0
		Captain	1	0	0	0	0	0	1	1	1	0.2	0.8
	Total	Combined	52	49	63	44	32	27	30	25	36	48.0	29.5

Notes: (1) "Crew" refers to distinct ADFG Commercial Crew license holders and "Captain" refers to distinct CFEC Gear Operator permit numbers, respectively, as reported in EDR records. "Crew" includes non-captain crew members only; "Captain" counts include crab vessel captains, but may also include crew members who hold a CFEC permit in lieu of an ADFG crew license but did not act as captain of the crab vessel. In other words, crew may be under-counted and captains may be over-counted, but when added together, the total number of fishing personnel on the vessels should be accurate. (2) "Non-Resident" crew license does not necessarily mean that the holder is not an Alaska resident, but it does mean that whoever paid for the permit didn't claim residency in the application and therefore paid the substantially higher non-resident license fee. (3) Anecdotal information would suggest that in some cases, skippers/vessel owners buy crew permits for some or all of their crew rather than leave the responsibility with the crew members, which may affect the address on the crew license (e.g., it could be the port where the permits are purchased and the crew joins the vessel), but the prevalence of this type of purchase is unknown. (4) Address information for CFEC permits is considered to be much better than ADFG crew licenses given the durability of the permits, and the CFEC counts are thus considered more accurate than the ADFG counts.
Source: NMFS AFSC BSAI Crab Economic Data Report database, ADF&G fish tickets, ADF&G commercial crewmember license files, CFEC permit registry, eLandings.

Table A3-3. BSAI Crab Crew License and Gear Operator Permit Holders by CDQ Area by Year, Bering Sea Region: 2006–2014

CDQ Area*	Alaska Residency Status	Position	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average 2006–2010	Annual Average 2011–2014
BBEDC	Resident	Crew	1	2	3	4	2	3	2	3	4	2.4	3.0
		Captain	0	0	1	1	0	0	0	1	0	0.4	0.3
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	1	1	0.0	0.5
	Total	Combined	1	2	4	5	2	3	2	5	5	2.8	3.8
CVRF	Resident	Crew	1	5	5	5	7	11	16	8	6	4.6	10.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	1	2	0	0.0	0.8
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	1	5	5	5	7	11	17	10	6	4.6	11.0
NSEDC	Resident	Crew	0	0	1	2	1	2	2	2	1	0.8	1.8
		Captain	0	0	1	1	0	0	0	0	1	0.4	0.3
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	1	0	0	0	0	0	0.2	0.0
	Total	Combined	0	0	2	4	1	2	2	2	2	1.4	2.0
YDFDA	Resident	Crew	0	1	0	0	0	1	0	0	0	0.2	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	1	0	0	0	1	0	0	0	0.2	0.3
Bering Sea Region Total	Resident	Crew	2	8	9	11	10	17	20	13	11	8.0	15.3
		Captain	0	0	2	2	0	0	0	1	1	0.8	0.5
	Non-Resident	Crew	0	0	0	0	0	0	1	2	0	0.0	0.8
		Captain	0	0	0	1	0	0	0	1	1	0.2	0.5
	Total	Combined	2	8	11	14	10	17	21	17	13	9.0	17.0

*BBEDC= Bristol Bay Economic Development Corporation; CVRF = Coastal Villages Region Fund; NSEDC = Norton Sound Economic Development Corporation; YDFDA = Yukon Delta Fisheries Development Association. BBEDC communities with crew members represented in the data are: Dillingham, King Salmon, Levelock, Manokotak, Naknek, and Port Heiden. CVRF communities with crew members in the data are: Chevak, Eek, Hooper Bay, Kipnuk, Kongiganak, Kwigillingok, Mekoryuk, Napakiak, Newtok, Quinhagak, Scammon Bay, Toksook Bay, and Tuntutuliak. NSEDC communities with crew members in the data are: Brevig Mission, Nome, Shaktoolik, Unalakleet, and White Mountain. YDFDA communities in the data are: Alakanuk and Kotlik. Captains in the data were from Dillingham, Naknek, and Nome.

Notes: (1) "Crew" refers to distinct ADFG Commercial Crew license holders and "Captain" refers to distinct CFEC Gear Operator permit numbers, respectively, as reported in EDR records. "Crew" includes non-captain crew members only; "Captain" counts include crab vessel captains, but may also include crew members who hold a CFEC permit in lieu of an ADFG crew license but did not act as captain of the crab vessel. In other words, crew may be under-counted and captains may be over-counted, but when added together, the total number of fishing personnel on the vessels should be accurate. (2) "Non-Resident" crew license does not necessarily mean that the holder is not an Alaska resident, but it does mean that whoever paid for the permit didn't claim residency in the application and therefore paid the substantially higher non-resident license fee. (3) Anecdotal information would suggest that in some cases, skippers/vessel owners buy crew permits for some or all of their crew rather than leave the responsibility with the crew members, which may affect the address on the crew license (e.g., it could be the port where the permits are purchased and the crew joins the vessel), but the prevalence of this type of purchase is unknown. (4) Address information for CFEC permits is considered to be much better than ADFG crew licenses given the durability of the permits, and the CFEC counts are thus considered more accurate than the ADFG counts. (5) Bering Sea region excludes the APICDA and CBSFA CDQ groups, both of which include communities in the Aleutian/Pribilof region.

Source: NMFS AFSC BSAI Crab Economic Data Report database, ADF&G fish tickets, ADF&G commercial crewmember license files, CFEC permit registry, eLandings.

Table A3-4. BSAI Crab Crew License and Gear Operator Permit Holders by Community by Year, Kodiak Island Borough Region: 2006–2014

Community	Alaska Residency Status	Position	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average 2006–2010	Annual Average 2011–2014
Kodiak	Resident	Crew	48	54	52	52	49	52	53	54	62	51.0	55.3
		Captain	15	15	20	17	17	17	18	18	15	16.8	17.0
	Non-Resident	Crew	0	2	6	4	0	0	3	0	0	2.4	0.8
		Captain	1	1	1	0	1	1	0	0	0	0.8	0.3
	Total	Combined	64	72	79	73	67	70	74	72	77	71.0	73.3
Chiniak	Resident	Crew	0	0	0	0	0	1	1	1	2	0.0	1.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	0	0	0	0	1	1	1	2	0.0	1.3
Old Harbor	Resident	Crew	0	1	2	2	1	1	0	0	0	1.2	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	1	2	2	1	1	0	0	0	1.2	0.3
Other Kodiak Island Borough*	Resident	Crew	1	0	0	0	0	1	0	0	1	0.2	0.5
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	1	0.0	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	1	0	0	0	0	1	0	0	2	0.2	0.8
Kodiak Island Borough Total	Resident	Crew	49	55	54	54	50	55	54	55	65	52.4	57.3
		Captain	15	15	20	17	17	17	18	18	15	16.8	17.0
	Non-Resident	Crew	0	2	6	4	0	0	3	0	1	2.4	1.0
		Captain	1	1	1	0	1	1	0	0	0	0.8	0.3
	Total	Combined	65	73	81	75	68	73	75	73	81	72.4	75.5

*The three "Other Kodiak Island Borough" communities with crew members represented in the data were: Ouzinkie (1 AK resident crew member in 2014), Port Lions (1 AK resident crew member in 2011), and Seal Bay (1 AK resident crew member in 2006 and 1 AK non-resident crew member in 2014).

Notes: (1) "Crew" refers to distinct ADFG Commercial Crew license holders and "Captain" refers to distinct CFEC Gear Operator permit numbers, respectively, as reported in EDR records. "Crew" includes non-captain crew members only; "Captain" counts include crab vessel captains, but may also include crew members who hold a CFEC permit in lieu of an ADFG crew license but did not act as captain of the crab vessel. In other words, crew may be under-counted and captains may be over-counted, but when added together, the total number of fishing personnel on the vessels should be accurate. (2) "Non-Resident" crew license does not necessarily mean that the holder is not an Alaska resident, but it does mean that whoever paid for the permit didn't claim residency in the application and therefore paid the substantially higher non-resident license fee. (3) Anecdotal information would suggest that in some cases, skippers/vessel owners buy crew permits for some or all of their crew rather than leave the responsibility with the crew members, which may affect the address on the crew license (e.g., it could be the port where the permits are purchased and the crew joins the vessel), but the prevalence of this type of purchase is unknown. (4) Address information for CFEC permits is considered to be much better than ADFG crew licenses given the durability of the permits, and the CFEC counts are thus considered more accurate than the ADFG counts.

Source: NMFS AFSC BSAI Crab Economic Data Report database, ADF&G fish tickets, ADF&G commercial crewmember license files, CFEC permit registry, eLandings.

Table A3-5. BSAI Crab Crew License and Gear Operator Permit Holders by Community by Year, South-Central Alaska Region: 2006–2014

Community	Alaska Residency Status	Position	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average 2006–2010	Annual Average 2011–2014
Anchor Point	Resident	Crew	2	2	3	2	2	3	1	2	3	2.2	2.3
		Captain	0	0	0	0	0	0	1	0	1	0.0	0.5
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	2	2	3	2	2	3	2	2	4	2.2	2.8
Anchorage	Resident	Crew	22	30	40	38	27	27	34	35	31	31.4	31.8
		Captain	10	7	9	7	5	6	6	8	9	7.6	7.3
	Non-Resident	Crew	0	1	1	2	0	1	2	0	0	0.8	0.8
		Captain	0	0	0	1	0	0	0	0	0	0.2	0.0
	Total	Combined	32	38	50	48	32	34	42	43	40	40.0	39.8
Fritz Creek	Resident	Crew	1	1	0	1	1	1	0	0	0	0.8	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	1	1	0	1	1	1	0	0	0	0.8	0.3
Homer	Resident	Crew	24	23	21	20	19	21	26	14	13	21.4	18.5
		Captain	10	9	8	7	8	6	9	8	8	8.4	7.8
	Non-Resident	Crew	0	2	2	1	2	0	2	1	2	1.4	1.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	34	34	31	28	29	27	37	23	23	31.2	27.5
Kasilof	Resident	Crew	1	0	1	1	0	1	2	2	1	0.6	1.5
		Captain	0	1	0	0	0	0	0	0	1	0.2	0.3
	Non-Resident	Crew	0	1	0	0	0	1	0	0	1	0.2	0.5
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	1	2	1	1	0	2	2	2	3	1.0	2.3
Kenai	Resident	Crew	6	5	4	2	1	1	4	3	2	3.6	2.5
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	6	5	4	2	1	1	4	3	2	3.6	2.5
Seldovia	Resident	Crew	2	2	1	3	1	1	1	2	2	1.8	1.5
		Captain	0	1	1	1	1	0	0	0	0	0.8	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	2	3	2	4	2	1	1	2	2	2.6	1.5
Soldotna	Resident	Crew	3	2	5	1	5	5	4	4	5	3.2	4.5
		Captain	1	1	1	1	1	1	1	1	1	1.0	1.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	4	3	6	2	6	6	5	5	6	4.2	5.5

Community	Alaska Residency Status	Position	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average 2006–2010	Annual Average 2011–2014
Sterling	Resident	Crew	3	2	3	2	3	1	0	2	0	2.6	0.8
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	3	2	3	2	3	1	0	2	0	2.6	0.8
Wasilla	Resident	Crew	5	5	2	2	5	4	2	4	5	3.8	3.8
		Captain	0	0	0	0	0	1	0	0	2	0.0	0.8
	Non-Resident	Crew	0	0	0	0	1	0	0	0	0	0.2	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	5	5	2	2	6	5	2	4	7	4.0	4.5
Other South-Central*	Resident	Crew	4	3	2	0	0	1	2	0	1	1.8	1.0
		Captain	1	0	0	0	0	0	0	0	0	0.2	0.0
	Non-Resident	Crew	0	0	0	0	0	0	1	0	0	0.0	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	5	3	2	0	0	1	3	0	1	2.0	1.3
South-Central Region Total	Resident	Crew	73	75	82	72	64	66	76	68	63	73.2	68.3
		Captain	22	19	19	16	15	14	17	17	22	18.2	17.5
	Non-Resident	Crew	0	4	3	3	3	2	5	1	3	2.6	2.8
		Captain	0	0	0	1	0	0	0	0	0	0.2	0.0
	Total	Combined	95	98	104	92	82	82	98	86	88	94.2	88.5

*The nine "Other South-Central" communities with crew members represented in the data were: Big Lake (1 AK resident crew member in 2006, 2007 and 2012), Chignik (1 AK resident crew member in 2007), Chignik Lake (1 AK resident crew member in 2011), Chugiak (1 AK resident crew member in 2006–2008), Cooper Landing (1 AK resident crew member in 2006 and 2008), Ninilchik (1 AK resident crew member in 2006 and 1 AK non-resident crew member in 2012), Talkeetna (1 AK resident crew member in 2014), Tatitlik (1 AK resident captain in 2006), and Valdez (1 AK resident crew member in 2012).

Notes: (1) "Crew" refers to distinct ADFG Commercial Crew license holders and "Captain" refers to distinct CFEC Gear Operator permit numbers, respectively, as reported in EDR records. "Crew" includes non-captain crew members only; "Captain" counts include crab vessel captains, but may also include crew members who hold a CFEC permit in lieu of an ADFG crew license but did not act as captain of the crab vessel. In other words, crew may be under-counted and captains may be over-counted, but when added together, the total number of fishing personnel on the vessels should be accurate. (2) "Non-Resident" crew license does not necessarily mean that the holder is not an Alaska resident, but it does mean that whoever paid for the permit didn't claim residency in the application and therefore paid the substantially higher non-resident license fee. (3) Anecdotal information would suggest that in some cases, skippers/vessel owners buy crew permits for some or all of their crew rather than leave the responsibility with the crew members, which may affect the address on the crew license (e.g., it could be the port where the permits are purchased and the crew joins the vessel), but the prevalence of this type of purchase is unknown. (4) Address information for CFEC permits is considered to be much better than ADFG crew licenses given the durability of the permits, and the CFEC counts are thus considered more accurate than the ADFG counts.

Source: NMFS AFSC BSAI Crab Economic Data Report database, ADF&G fish tickets, ADF&G commercial crewmember license files, CFEC permit registry, eLandings.

Table A3-6. BSAI Crab Crew License and Gear Operator Permit Holders by Community by Year, Southeast Alaska Region: 2006–2014

Community	Alaska Residency Status	Position	2006	2007	2008	2009	2010	2011	2012	2013	2014	Annual Average 2006–2010	Annual Average 2011–2014
Juneau	Resident	Crew	0	1	1	0	1	0	1	0	0	0.6	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	1	1	0	1	0	1	0	0	0.6	0.3
Ketchikan	Resident	Crew	3	1	2	0	0	0	1	0	0	1.2	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	1	0	0	0	0	0	0	0	0	0.2	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	4	1	2	0	0	0	1	0	0	1.4	0.3
Petersburg	Resident	Crew	3	0	1	1	0	0	0	0	1	1.0	0.3
		Captain	0	0	0	0	0	1	0	0	0	0.0	0.3
	Non-Resident	Crew	0	1	1	0	0	0	0	0	0	0.4	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	3	1	2	1	0	1	0	0	1	1.4	0.5
Sitka	Resident	Crew	7	9	4	1	3	3	3	4	4	4.8	3.5
		Captain	0	1	0	0	1	1	3	1	2	0.4	1.8
	Non-Resident	Crew	0	1	0	1	0	0	0	1	0	0.4	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	7	11	4	2	4	4	6	6	6	5.6	5.5
Other Southeast*	Resident	Crew	0	2	1	0	0	0	0	0	1	0.6	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Non-Resident	Crew	0	0	0	0	0	0	0	0	0	0.0	0.0
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	0	2	1	0	0	0	0	0	1	0.6	0.3
Southeast Region Total	Resident	Crew	13	13	9	2	4	3	5	4	6	8.2	4.5
		Captain	0	1	0	0	1	2	3	1	2	0.4	2.0
	Non-Resident	Crew	1	2	1	1	0	0	0	1	0	1.0	0.3
		Captain	0	0	0	0	0	0	0	0	0	0.0	0.0
	Total	Combined	14	16	10	3	5	5	8	6	8	9.6	6.8

*The three "Other Southeast" communities with crew members represented in the data were: Haines (1 AK resident crew member in 2007 and 2014), Kake (1 AK resident crew member in 2007), and Wrangell (1 AK resident crew member in 2008).
Notes: (1) "Crew" refers to distinct ADFG Commercial Crew license holders and "Captain" refers to distinct CFEC Gear Operator permit numbers, respectively, as reported in EDR records. "Crew" includes non-captain crew members only; "Captain" counts include crab vessel captains, but may also include crew members who hold a CFEC permit in lieu of an ADFG crew license but did not act as captain of the crab vessel. In other words, crew may be under-counted and captains may be over-counted, but when added together, the total number of fishing personnel on the vessels should be accurate. (2) "Non-Resident" crew license does not necessarily mean that the holder is not an Alaska resident, but it does mean that whoever paid for the permit didn't claim residency in the application and therefore paid the substantially higher non-resident license fee. (3) Anecdotal information would suggest that in some cases, skippers/vessel owners buy crew permits for some or all of their crew rather than leave the responsibility with the crew members, which may affect the address on the crew license (e.g., it could be the port where the permits are purchased and the crew joins the vessel), but the prevalence of this type of purchase is unknown. (4) Address information for CFEC permits is considered to be much better than ADFG crew licenses given the durability of the permits, and the CFEC counts are thus considered more accurate than the ADFG counts.
Source: NMFS AFSC BSAI Crab Economic Data Report database, ADF&G fish tickets, ADF&G commercial crewmember license files, CFEC permit registry, eLandings.