Economic and Social Impacts of BSAI Crab Rationalization 
on the Aleutians East Borough Communities of 
False Pass, King Cove and Akutan

EXECUTIVE SUMMARY OF PRELIMINARY ANALYSIS

Prepared by

Marie Lowe
Assistant Professor of Anthropology
Institute of Social and Economic Research
University of Alaska Anchorage

and

Gunnar Knapp
Professor of Economics
Institute of Social and Economic Research
University of Alaska Anchorage

Prepared for

Aleutians East Borough
May 2006

Contact Information:
Marie Lowe: 907-786-7710; Marie.Lowe@uaa.alaska.edu
Gunnar Knapp: 907-786-7717; Gunnar.Knapp@uaa.alaska.edu
Introduction

The University of Alaska Institute of Social and Economic Research (ISER) is working on a study for the Aleutians East Borough and the City of King Cove of economic and social impacts of BSAI crab rationalization on the Aleutians East Borough communities of False Pass, King Cove and Akutan. This document summarizes our research findings to date. This study is still in progress and we are continuing to collect and analyze additional data and information. We expect to complete our final report in July 2006.

Methodology

Our analysis to date is based on a literature review, analysis of federal and state data for crab fisheries, and information collected during one visit to each study community. During the community visits, information was collected by means of:

- Structured interviews with key informants from each community who are involved in the fishing industry
- Unstructured interviews with plant managers and an outside crab boat owner/skipper
- Informal conversations with residents
- Informal conversations with processing workers
- Focus group interviews with community youth
- Participant observation at community events, gatherings, workplaces and homes

Overview of False Pass, King Cove and Akutan Communities

There are significant differences between the three study communities of False Pass, King Cove, and Akutan. These differences extend to the nature of these communities’ involvement with crab fishing and processing, and the resulting implications of crab rationalization for the communities.

All three study communities were historically established as commercial trading posts at the end of the 19th century and beginning of the 20th century primarily because of their geographically advantageous positions as fish processing centers. However, they differ greatly in their demography and economies, and in their relationships to the processing industry.

False Pass is a very small community of about 40 residents. Akutan has about 80 residents. King Cove is the largest community with almost 500 residents.

Ethnically, most residents of all three communities are of mixed Alaska Native and Euro-American ancestry. A small portion of the population came from elsewhere and has settled in the communities. Many of these individuals were attracted to the area through fishing or processing jobs and some have married into the community.
Community Involvement with Fisheries

All three communities rely on fisheries resources via participation in both commercial and subsistence fisheries. False Pass and Akutan are designated Community Development Quota (CDQ) communities and therefore have economic protections that King Cove lacks. King Cove, however, has a viable fishing fleet and a strong sense of community identity which is centered around a fishing lifestyle.¹

King Cove and Akutan both have fish processing plants owned by major seafood companies. Peter Pan Seafoods (PPSF) operates a plant in King Cove. Trident Seafoods operates a very large plant in Akutan. Historically, both of these facilities have processed BSAI crab as well as many other species. False Pass had not had a seafood plant since a 1981 fire. There are plans to build a small CDQ processor in False Pass in 2006.

Historically, Trident Seafood’s crab processing operations at Akutan have been more vertically integrated than those of Peter Pan Seafoods at King Cove. Many of the boats delivering crab to the Trident plant in Akutan have been company owned, while most of those delivering to the Peter Pan Seafoods plant in King Cove have been independently owned.

Historically residents of these three communities held more crab fishing permits than recently. There was a high level of participation by community residents in crab fisheries from the 1950s until the early 1980s when king crab stocks crashed.

The small boat fleets of the Aleutians have difficulty competing with offshore crabbing operations from outside Alaska. They have, however, participated in the (currently non-rationalized) local bairdi crab fisheries whenever they have been open and have traditionally worked as crewmen in the BSAI rationalized fisheries.

Prior to rationalization, about twenty-five King Cove residents and about five Akutan residents worked regularly in the Bristol Bay Red King Crab and Bering Sea Snow Crab fisheries as crew on crab fishing vessels. Many of these individuals were the second or third generations of their family participating in these fisheries. No residents of False Pass were regularly employed in these two fisheries.

In 2004, immediately prior to rationalization, four King Cove residents held permits in the Bristol Bay Red King crab fishery and the Bering Sea Snow crab fishery; no residents of Akutan or False Pass held permits in these two rationalized crab fisheries.

Several businesses in King Cove, and to a lesser extent False Pass and Akutan, have historically provided services to fishing fleets, benefiting from their proximity to fishing grounds. In King Cove these have included crab pot storage and hauling, harbor services, groceries, taxis, restaurants, bars and hotels.

King Cove has a new harbor which was built specifically to be able to accommodate large vessels such as those used in BSAI crab fisheries. Akutan and False Pass currently have no harbor facilities at present to be able to accommodate large boats (vessels delivering to the Akutan processing facility utilize the Trident dock). However, a new harbor is to be built in False Pass during the summer of 2006 and there are plans to construct a new harbor in Akutan as well in the near future.

**General Economic Impacts of Crab Rationalization**

In its first year, crab rationalization brought major changes in BSAI crab fishing fleets, jobs, and earnings. These changes affected many residents of many communities in Alaska and the Pacific Northwest who participated in the crab fisheries. They also affected businesses in communities where crab fishing vessels were home-ported, purchased supplies and services, or delivered crab. As discussed below, of our three study communities, King Cove experienced these effects to a much greater degree.

In the first year of crab rationalization, dramatic consolidation occurred in BSAI crab fishing fleets. Between the 2004/05 and 2005/06 seasons, vessel registration declined by about two-thirds for the Bristol Bay Red King Crab (BBR) fishery and by about one-half for the Bering Sea Snow Crab (BSS) fishery.

<table>
<thead>
<tr>
<th>Changes in the Bristol Bay Red King Crab Fishery Between the 2005 and 2005/06 Seasons</th>
<th>2005</th>
<th>2005/06</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvest (000 pounds)</td>
<td>14,112</td>
<td>16,467</td>
<td>2,355</td>
<td>17%</td>
</tr>
<tr>
<td>Assumed ex-vessel price ($/lb)</td>
<td>$4.71</td>
<td>$4.30</td>
<td>-0.41</td>
<td>-9%</td>
</tr>
<tr>
<td>Estimated ex-vessel value ($ million)</td>
<td>$65.7</td>
<td>$70.5</td>
<td>$4.8</td>
<td>7%</td>
</tr>
<tr>
<td>Number of pots pulled</td>
<td>90,972</td>
<td>103,337</td>
<td>12,365</td>
<td>14%</td>
</tr>
<tr>
<td>Number of landings</td>
<td>270</td>
<td>263</td>
<td>-7</td>
<td>-3%</td>
</tr>
<tr>
<td>Average pots pulled per vessel</td>
<td>197</td>
<td>177</td>
<td>-21</td>
<td>-10%</td>
</tr>
<tr>
<td>Catch per unit of effort (CPUE)</td>
<td>23</td>
<td>24</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Number of vessels registered</td>
<td>251</td>
<td>89</td>
<td>-162</td>
<td>-65%</td>
</tr>
<tr>
<td>Number of pots registered</td>
<td>49,506</td>
<td>15,713</td>
<td>-33,793</td>
<td>-68%</td>
</tr>
<tr>
<td>Average pots pulled per vessel</td>
<td>362</td>
<td>1,161</td>
<td>799</td>
<td>220%</td>
</tr>
<tr>
<td>Estimated avg. days fished per vessel</td>
<td>3</td>
<td>26</td>
<td>23</td>
<td>767%</td>
</tr>
<tr>
<td>Average landings per vessel</td>
<td>1.1</td>
<td>3.0</td>
<td>1.9</td>
<td>175%</td>
</tr>
<tr>
<td>Average harvest per vessel (pounds)</td>
<td>56,225</td>
<td>185,024</td>
<td>128,799</td>
<td>229%</td>
</tr>
<tr>
<td>Average ex-vessel value per vessel ($)</td>
<td>$261,806</td>
<td>$791,858</td>
<td>$530,052</td>
<td>202%</td>
</tr>
</tbody>
</table>

Information on general economic effects of crab rationalization is also included, in greater detail, in *Economic Impacts of BSAI Crab Rationalization on Kodiak Fishing Employment and Earnings and Kodiak Businesses: A Preliminary Analysis*, prepared by Gunnar Knapp for the City of Kodiak, May 2006.
### Changes in the Bering Sea Snow Crab Fishery Between the 2005 and 2005/06 Seasons

<table>
<thead>
<tr>
<th>Type of measure</th>
<th>Measure</th>
<th>2004</th>
<th>2005/06</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total catch and effort</td>
<td>Harvest (000 pounds)</td>
<td>23,036</td>
<td>30,840</td>
<td>7,803</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Number of pots pulled</td>
<td>69,617</td>
<td>114,161</td>
<td>44,544</td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>Number of landings</td>
<td>196</td>
<td>274</td>
<td>78</td>
<td>40%</td>
</tr>
<tr>
<td>Use of vessels and pots in fishing</td>
<td>Average pots registered per vessel</td>
<td>79</td>
<td>172</td>
<td>93</td>
<td>118%</td>
</tr>
<tr>
<td></td>
<td>Catch per unit of effort (CPUE)</td>
<td>240</td>
<td>180</td>
<td>-60</td>
<td>-25%</td>
</tr>
<tr>
<td>Vessel participation</td>
<td>Number of vessels registered</td>
<td>164</td>
<td>80</td>
<td>-84</td>
<td>-51%</td>
</tr>
<tr>
<td></td>
<td>Number of pots registered</td>
<td>12,930</td>
<td>13,734</td>
<td>804</td>
<td>6%</td>
</tr>
<tr>
<td>Average effort, harvest and value per vessel</td>
<td>Average pots pulled per vessel</td>
<td>424</td>
<td>1,427</td>
<td>1,003</td>
<td>236%</td>
</tr>
<tr>
<td></td>
<td>Estimated avg. days fished per vessel</td>
<td>5</td>
<td>42</td>
<td>37</td>
<td>740%</td>
</tr>
<tr>
<td></td>
<td>Average landings per vessel</td>
<td>1.2</td>
<td>3.4</td>
<td>2.2</td>
<td>187%</td>
</tr>
<tr>
<td></td>
<td>Average harvest per vessel (pounds)</td>
<td>140,465</td>
<td>385,495</td>
<td>245,030</td>
<td>174%</td>
</tr>
</tbody>
</table>

There was a corresponding dramatic decline in the number of crab fishing jobs, with a decline of about 900 BBR jobs and about 450 BSS jobs. (Not all of the decline in vessel participation and jobs was due specifically to crab rationalization. About 15% of the 2005/06 decline for the BBR fishery was due to the crab vessel buyback program—which would have occurred even had the crab rationalization program not been implemented.)

Under rationalization, BSAI crab fishing jobs have changed. In general, those employed in the fishery are working longer seasons and earning more total income. However, with a significant portion of ex-vessel value going to royalty payments for leased quota, the share of ex-vessel value going to crew has declined. Put differently, total crew earnings in the BSAI crab fisheries have declined, because the increase in earnings per job has not been sufficient to offset the decline in the number of jobs.

Rationalization has cut into sales of some businesses which sell to crab boats and crab fishermen—particularly those whose sales depend on the number of boats and people fishing, such pot storage, welding, marine supplies, hotels, and taxis.

We have not analyzed general economic effects of crab rationalization on crab processors. These effects are complex. In general, processors have benefited from greater certainty of supply but some face higher operating costs from extended operating seasons.

We have not analyzed general economic effects of crab rationalization on crab markets or ex-vessel prices paid to crab fishermen. These effects are complex, partly because relationships between processors and fishermen have changed, and also because numerous market factors unrelated to rationalization also affect crab prices.

After only one season, it far too early to know what the long-term economic effects of crab rationalization will be on crab fishing fleets, on crab fishing jobs and earnings, on quota lease rates, on crab markets and prices, on processors, and on communities. Among the most important long-term effects may be changes in the options available to individuals and communities to participate in crab fisheries.

More generally, fishermen, processors and communities depend on many fisheries, including not just crab but also salmon, halibut, herring and multiple groundfish species. Changes in any
single fishery affect other fisheries in multiple, complex ways. Ultimately, the economic and social effects of crab rationalization will affect, and be affected by, what happens in other fisheries, including potential changes in the management of other fisheries.

**Direct Economic Impacts of Crab Rationalization on Study Communities**

BSAI crab rationalization has had only a minor direct economic impact on the community of False Pass, because residents of this community have not been involved in fishing or processing for the rationalized crab fisheries in recent years. A pot storage facility located in False Pass reported a decline in revenues.

The major direct economic impact of BSAI crab rationalization on the community of Akutan has come through the loss of about four crab fishing jobs, resulting in the an approximate total loss of fishing income of $120,000 (assuming approximate annual average income of $30,000 from working in both fisheries. (In our further analysis we will work to develop a more precise estimate of this income loss.) In addition, one fishing services business located in Akutan also indicated that it had experienced a decline in sales.

BSAI crab rationalization has had more significant direct economic impacts on the community of King Cove, because of the larger historical employment of King Cove residents on crab fishing boats and the historical use of the King Cove harbor by crab fishing boats.

Negative impacts on King Cove include:

- A loss of approximately 20 crab fishing jobs, resulting in an approximate total loss of fishing income of $600,000 for King Cove residents, again assuming approximate annual average income of $30,000 from working in both fisheries.

- The number of crab boats delivering to King Cove fell from about 65 to 14. This resulted in a large decline in revenue for several King Cove businesses directly servicing the crab fleet, including businesses involved in crab pot storage and filter sales, and a bar.

- Harbor moorage fees collected by the City of King Cove declined by more than 30%.

Not all King Cove businesses have experienced declining sales since crab rationalization. A general fleet service business operated by the processor in King Cove experienced an increase in sales revenues (compared with the previous year) during both major BSAI crab seasons. However, much of this business’ sales derive from other fisheries.

We have not yet analyzed whether or not there have been changes in the share of the BSAI crab harvests delivered to the processing facilities in King Cove and Akutan. Discussions with managers of these facilities suggest that crab rationalization has contributed to an increase in quality and efficiency in production.

In 2005, raw fish tax revenues for king crab increased by 78% in King Cove and by 27% in Akutan. By way of comparison, the preliminary estimated total ex-vessel value of the fishery
increased by only about 7%. We have not yet analyzed the reasons for these very significant increases in fish tax revenues for king crab, or the extent they may be due to changes in landings or changes in ex-vessel prices. In contrast, raw fish tax revenues for opilio crab in 2006 declined by 70% in King Cove and by 51% in Akutan, presumably in large part because of lower ex-vessel prices.

The short-term direct economic impacts listed above do not necessarily capture the most important potential economic impact of crab rationalization on these three communities. Historically, residents of these communities have taken advantage of the economic opportunities available to them, including participating in those fisheries for which resource conditions and markets were economically favorable. The economic viability of the communities has depended upon the ability of residents to participate in multiple local fisheries and to switch between fisheries as resource and market conditions change. Crab rationalization has restricted the ability of residents of these communities to continue to do this in the future.

**Community Perceptions of Crab Rationalization**

It is important to distinguish between the effects of crab rationalization on communities and the effects of crab rationalization on specific individuals within communities. Residents sometimes distinguish between how crab rationalization affected their communities and how they themselves have been personally affected.

In formal and informal discussions, residents of False Pass indicated that a local crab pot storage business and a fuel sales business had been adversely affected, but that otherwise the community had not experienced significant effects of crab rationalization.

Residents of Akutan indicated that there had been relatively small impacts on the community, but that some community residents had been adversely affected through the loss of fishing jobs.

Most residents of King Cove indicated that their community had been significantly affected by crab rationalization, although only some—primarily those involved with fishing and or businesses serving the crab fishery—indicated that they had been personally affected.

In all three communities, residents indicated that the most important effects might be associated with a restriction on their option to participate in the crab fisheries in the future.

**Plans for Further Analysis**

In our further research we plan a more extensive analysis of data and information collected during field visits to the communities, as well as economic data for the fisheries which is only now becoming available. Specific issues which we plan to address include:

- Effects of crab rationalization on these communities within the longer historical trajectory of access restrictions in major fisheries of the region, including salmon limited entry, halibut and sablefish IFQ, BSAI pollock co-ops, and the CDQ program, as well as
potential future Gulf of Alaska groundfish rationalization. Among other effects, we will examine intergenerational impacts of these access restrictions.

- Effects to date of crab rationalization on the relationship between processors and fishermen and ultimately, communities. We will review available evidence on effects of processor quota share within the study communities and the various forms of processor control over their fleets and host communities.

- Effects to date of the “Community Protection Measures” including the “cooling off” period, right of first refusal, and community QS purchase—and the extent to which these measures appear to be adequate to address issues of concern to these communities.