

# **The Importance of the Bristol Bay Salmon Fisheries to the Region and its Residents: An Overview**

*Prepared for the*

**Bristol Bay Economic Development Corporation**

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## The Importance of the Bristol Bay Salmon Fisheries to the Region and its Residents

This document is an executive summary of a much more detailed examination of the importance of the harvesting of Bristol Bay Salmon to residents of the Bristol Bay Region. The larger study is available from the Bristol Bay Economic Development Corporation (BBEDC), the sponsors of this project.

In this very brief summary we will cover the following topics:

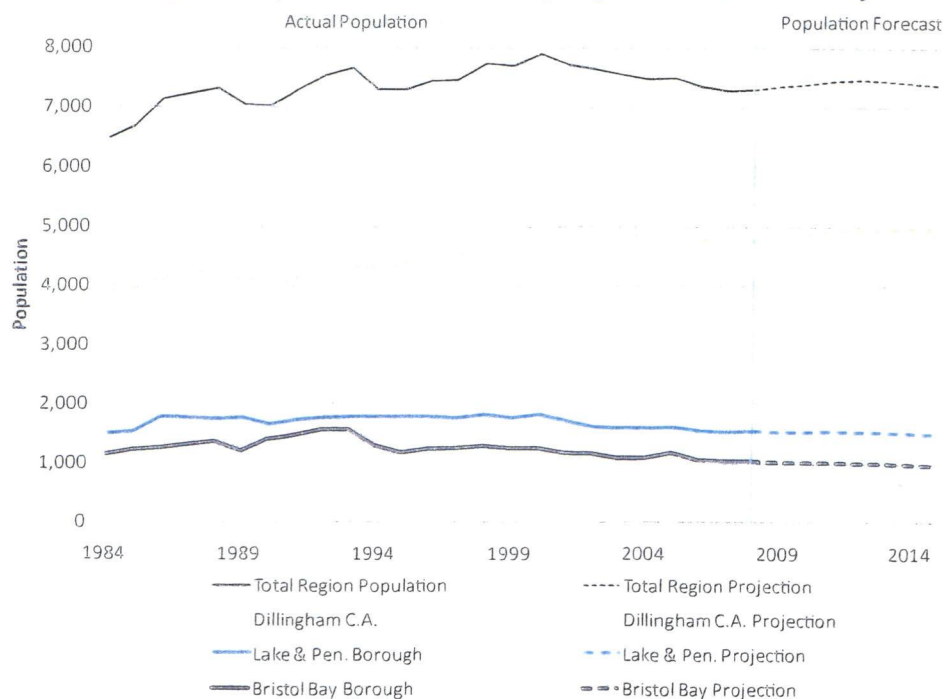
- Population in Bristol Bay
- Cost of Living in Bristol Bay
- The Drift Gillnet Fishery
- Capitalization of Drift Gillnet Vessels
- The Set Gillnet Fishery
- The Bottom Line

This summary as well as the larger document consists of a series of figures each with a paragraph or two of explanatory text. While we at Northern Economics developed the figures, the information is derived almost entirely from publically available data.

### Population in Bristol Bay

The total population in the Bristol Bay rose from 1984 through the turn of the century before slipping into a decade-long decline. The current population of the region is roughly the same as it was fifteen years ago and the 5-year forecast is basically flat. Population in the Dillingham Census Area increased in the 1990s's but has fallen slightly since then. Population in Bristol Bay Borough has declined steadily since 2000. Population in the Lake and Peninsula Borough dropped sharply in the early 90's but has been relatively stable since then.

**Figure 1. Population of the Bristol Bay Region 1984 – 2008 and Projections to 2014**



Source: Figure developed by Northern Economics based on data from AK Dept of Labor and Workforce Development (ADOLWD, 1990 - 2008) and Dr. Scott Goldsmith of ISER (Goldsmith, 2009).

Figure 3. Number of Drift Gillnet Permits Held By Residence, 1975 - 2008

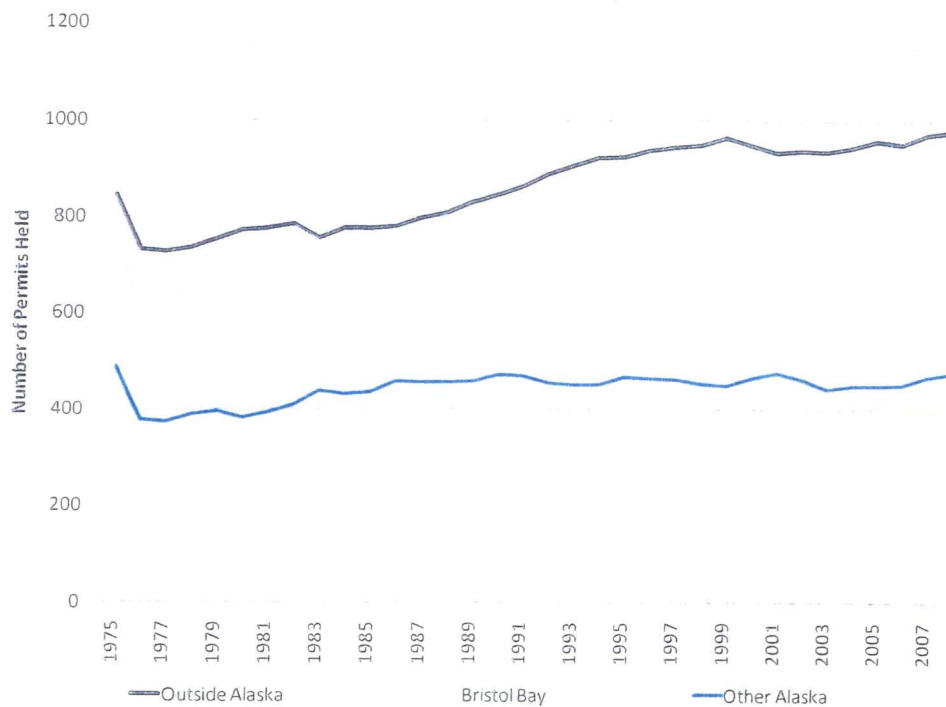
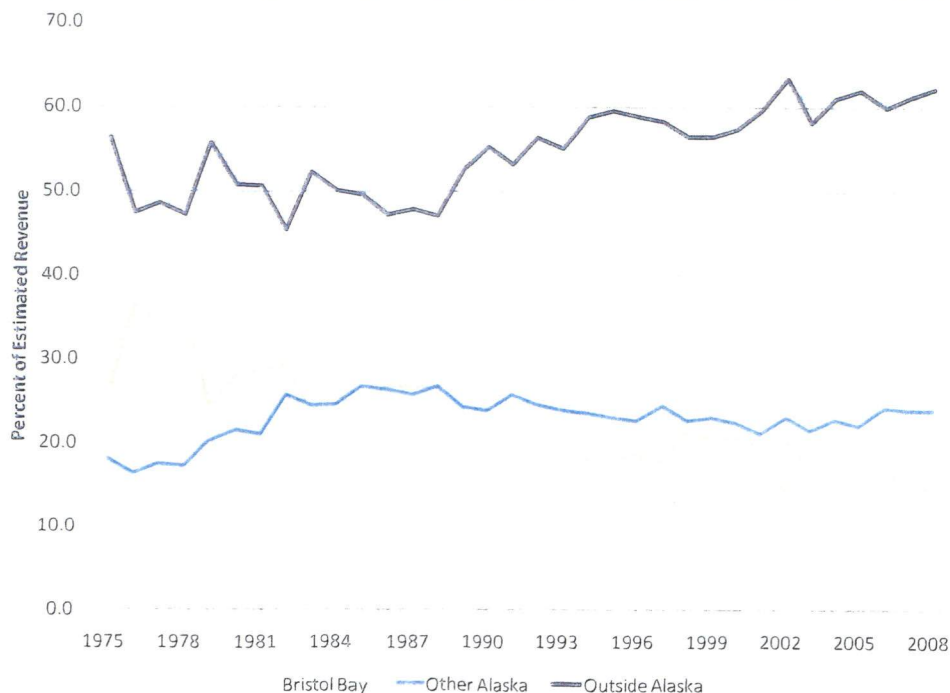


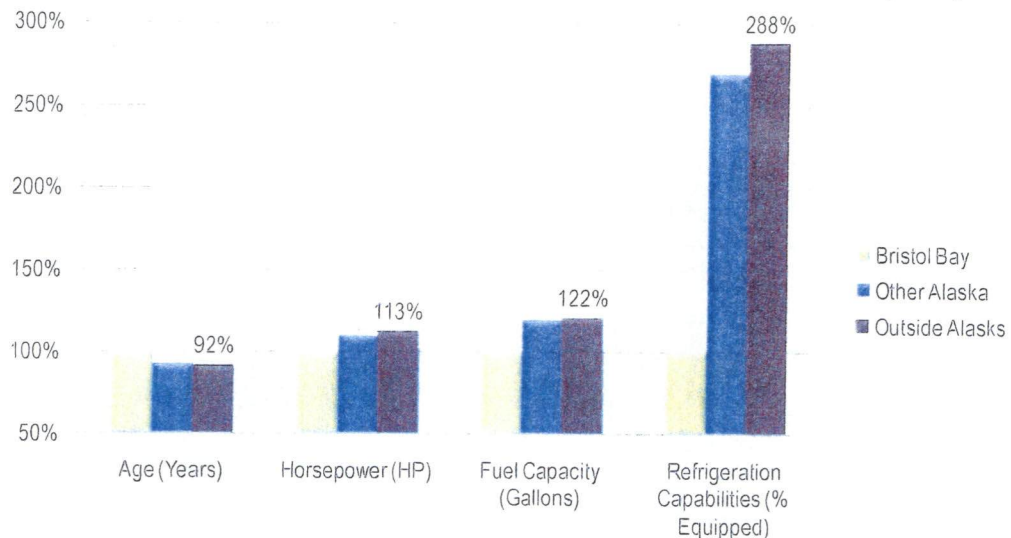
Figure 2 shows revenue for each group as a percent of total revenue. In part because of the out-migration of permits, gross revenue of local drift permit holders has fallen from over 30 percent of the total in the late 70's to about 15 percent in recent years.

Figure 4. Percent of Total Revenue in the Drift Gillnet Fishery by Residence, 1975 - 2008



Sources: Both Figure 1 and Figure 2 were developed by Northern Economics based on data from Commercial Fishery Entry Commission (CFEC, 1980 - 2008) and (CFEC, 2009).

**Figure 6. Comparison of 2008 Drift Gillnet Vessel Characteristics across Residency Groups**

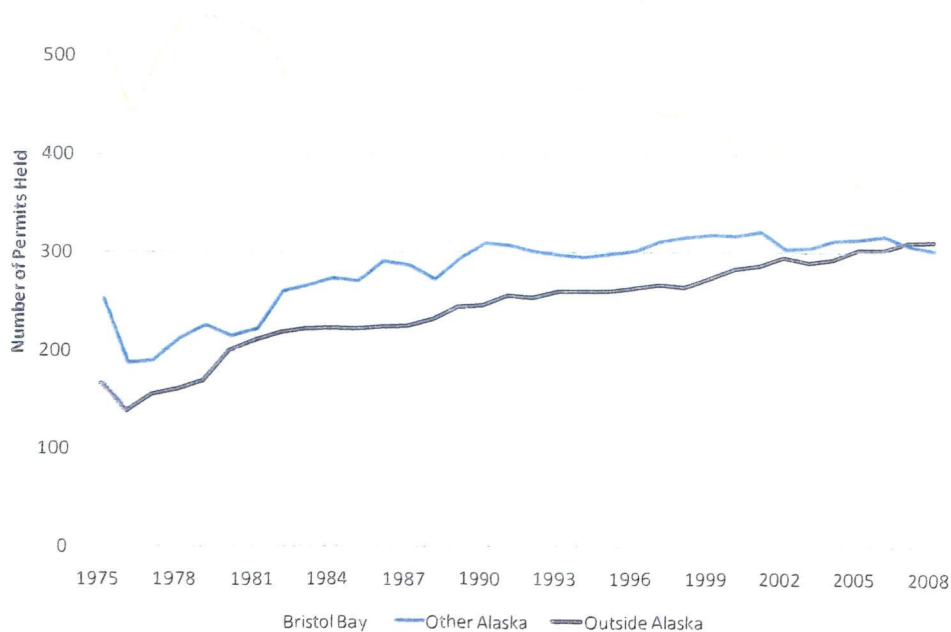


Source: Figure developed by Northern Economics based on data from Commercial Fishery Entry Commission (CFEC, 1983 - 2008)

### Set Gillnet Fishery

The next two figures examine the set gillnet fishery in Bristol Bay. In the Set Gillnet fishery the number of permits owned by watershed residents has stabilized at about 365 after a long period of decline about 37 percent of the total number of permits, the largest of the three groups. The out-migration of set net permits was nearly zero in 2002 and 2003 then increased significantly during 2003 to 2004, and has been relatively flat from 2006 to 2008. Also note that the destination of out-migrating permits has been roughly equally distributed between the "Other Alaska" and "Outside Alaska" groups.

**Figure 7. Number of Set Gillnet Permits by Residence**



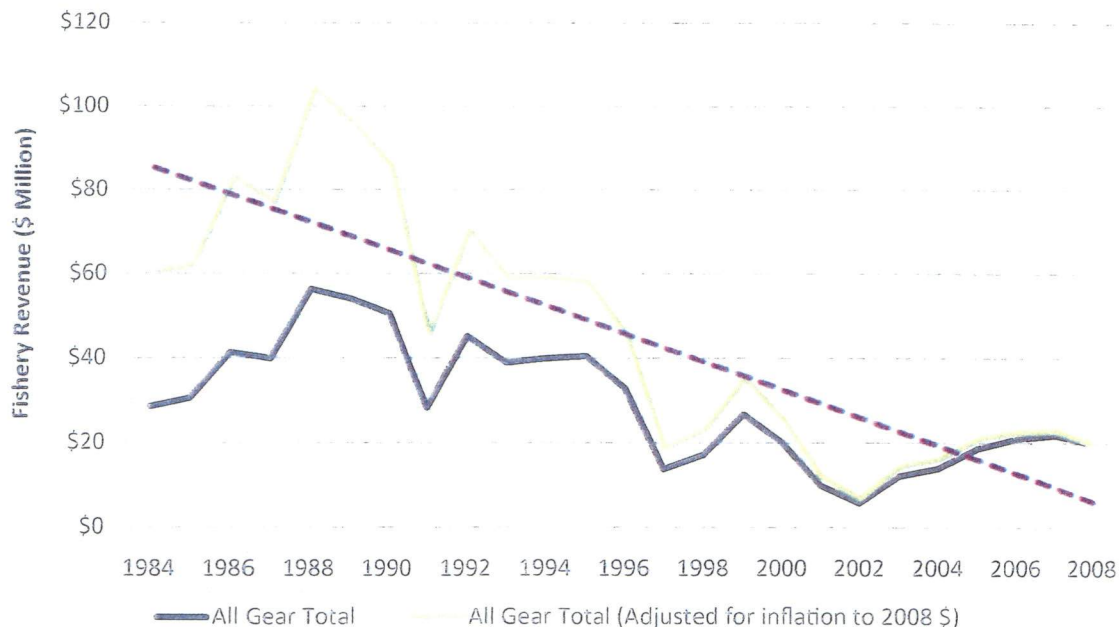
Source: Figure developed by Northern Economics based on data from Commercial Fishery Entry Commission (CFEC, 1980 - 2008) and (CFEC, 2009).



In Figure 10 we adjust the combined set and drift revenues of all watershed residents for inflation. The inflation adjustment shifts revenues from previous years upward because a dollar in earlier years would buy more goods than it does now. After adjusting for inflation the downward trend in revenues from the watershed (as shown in the dashed blue line) is very apparent.

Sensitivity testing on some of the factors contributing to this decline indicates that approximately 30 percent of the decline is due to the out-migration of permits, and another 60 percent is due to the fact that ex-vessel prices have not kept up with inflation. The remaining 10 percent of the decline is not explained by the variables that we examined.

**Figure 10. Inflation Adjusted Revenue of Watershed Permit Holders**



Sources: Figure developed by Northern Economics based on data from Commercial Fishery Entry Commission (CFEC, 1980 - 2008) and the US Bureau of Labor Statistics (US BLS, 1980 - 2008).

### The Bottom Line

We conclude with the following statements and a final figure.

- The decline in value derived from the fishery by watershed residents has had a significant impact on the region's economy.
- The decline however does necessarily diminish the fishery's overall importance to residents.

The final figure shows the inflation adjusted per capita revenue from the Bristol Bay drift and set gillnet fisheries of permit holders residing in the Watershed. Over the last 25 years per capita revenue from the Bristol Bay fisheries (in real dollars after adjusting for inflation) has fallen an average of \$516 per year.

In the 1980's per capita revenue was over \$10,000. However, since 2003 watershed permit holders have brought in an average of just \$2,700 per man, woman, and child living in the Region.