

Communities Research at the Alaska Fisheries Science Center Economic and Social Sciences Research Program



Managing Fisheries, Empowering Communities Conference
Anchorage, Alaska, April 21, 2005

Communities Research Projects

- MSA Fishing Communities Identification
- Fishing Community Profiles
- Other Projects
 - Alaska Native TEK
 - Commercial Fishing Crews
 - IFQ and small GOA communities
 - GIS Fisheries Data



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Magnuson-Stevens Fishery Conservation and Management Act

National Standard 8 of MSFCMA:

“Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to **fishing communities** in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities. “

MSFCMA defines a fishing community as:

“a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community.”



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MSA Fishing Community Identification

- Process is under development
- Will use quantitative indicators
- Data will be presented to Council with recommendations
- May eventually be an annual process
- Implications of designation as an MSA FC are as yet unclear
- Currently using results to select communities for profiling



MSA Fishing Community Identification

- 2003: Independent Indicator Model
 - 8 indicators from Alaska
 - Threshold of $>15\%$ or $>$ the mean
- 2004: DEA Model
 - 16 indicators from AK, WA, OR, & CA
 - Threshold of $>1SD$ above the mean
 - Dependent/Engaged treated separately
 - North Pacific, West Coast, and combined
- 2005: Other Models
 - In development with national staff



Example indicators

- Landings in tons
- Landings by value
- Number of processors
- Number of vessels delivering
- Number of vessels owned by residents
- Number of crew licenses
- Number of Federal Permits
- Number of State Permits
- Recreational Licenses
- Number of Vessels Homeported



Kodiak, Alaska



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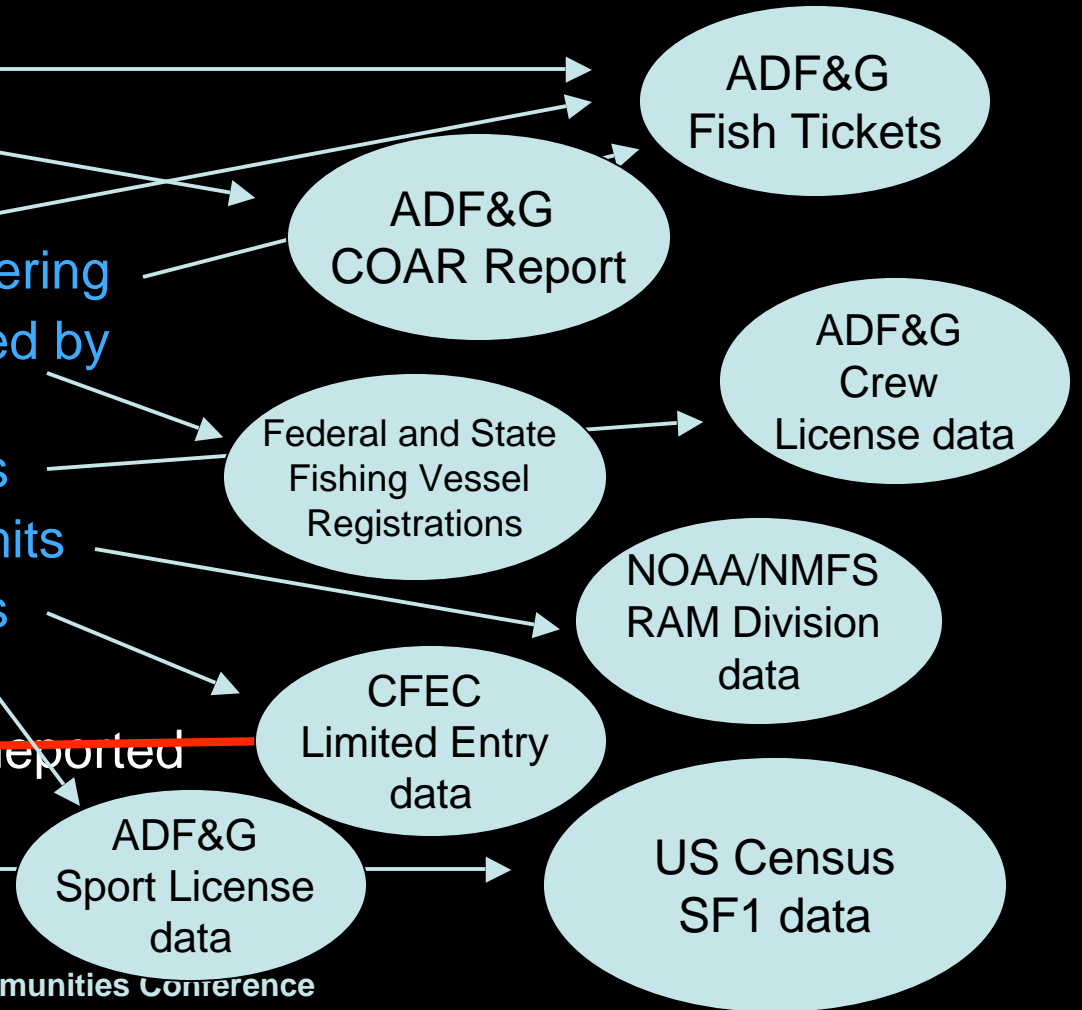
/ population



Multiple Data Sources

- Landings in tons
- Landings by value
- Number of processors
- Number of vessels delivering
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- Number of crew licenses
- Number of Federal Permits
- Number of State Permits
- Recreational Licenses
- ~~Number of Vessels Homeported~~

and community population



Aggregate Indicators

- Sum indicators (as appropriate) to find communities with participation in many categories.
- Evaluate indicators across regions (west Coast and North Pacific) to find communities with participation in both regions.



Dependence vs. Engagement

MSFCMA defines a fishing community as:

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The difference between Dependence and Engagement *

- **Dependence** is a measure of a community's participation in fisheries relative to other community activities.
- **Engagement** is a measure of a community's participation in a particular fishery relative to the overall level of participation in that fishery.

* Not official NOAA interpretation, yet.



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Complex indicators

- Indicator II, 4aR Counts of Distinct Permits:
 - AFACPPCT = AFA catcher/processor permits
 - AFACVPCT = AFA catcher vessel permits
 - HSFCAPCT = high-seas fishing compliance act permits
 - CRLLPPCT = Crab LLP permits
 - FFP_FRAC = federal fisheries permits
 - GFLLPPCT = groundfish LLP permits
 - SCLLPPCT = scallop LLP permits
 - HALIQPCT = halibut IFQ quota shares
 - SABIQPCT = sablefish IFQ quota shares
 - CRABPPCT = CFEC crab permits
 - OFINPPCT = CFEC other finfish permits
 - GGNDPPCT = CFEC GOA groundfish permits
 - BGNDPPCT = CFEC BSAI groundfish permits
 - HLBTTPCT = CFEC halibut permits
 - HERRPPCT = CFEC herring permits
 - SALMPPCT = CFEC salmon permits
 - SCALPPCT = CFEC scallop permits
 - SHELPPCT = CFEC shellfish permits



Indicator Criteria for MSA Fishing Communities

- Should indicate something about involvement in fisheries (commercial, recreational or subsistence)
- Must be available at the community level
- Must be available for all or almost all communities potentially involved in North Pacific fisheries
- Must be quantitative



Fishing Community Profiles



Anchorage, Alaska

- Short Form Profiles
 - 136 in Alaska
 - 129 in other states
- Long Form Profiles
 - Involves ethnographic fieldwork in selected communities
 - On hold until Short Form Profiles are complete



136 Selected Communities in Alaska

Adak, Akhiok, Akiachak, Akutan, Aleknagik, Alitak Bay , Anchor Point, Anchorage, Angoon, Atka, Auke Bay, Bethel, Chefornak, Chignik (Bay), Chignik Lagoon, Chignik Lake, Chugiak, Clam Gulch, Clark's Point, Cordova, Craig, Dillingham, Douglas, Eagle River, Edna Bay, Eek, Egegik, Ekuk, Ekwok, Elfin Cove, Elim, Emmonak, Excursion Inlet, Fairbanks, False Pass, Fritz Creek, Galena, Girdwood, Goodnews Bay, Gustavus, Haines, Halibut Cove, Hobart Bay, Homer, Hoonah, Hooper Bay, Hydaburg, Igiugig, Iliamna, Ivanof Bay, Juneau, Kake, Karluk, Kasilof, Kenai, Ketchikan, King Cove, King Salmon, Kipnuk, Klawock, Kodiak, Kokhanok, Koliganek, Kongiganak, Kotlik, Kwillingok, Larsen Bay, Levelock, Manokotak, Marshall, Mekoryuk, Metlakatla, Meyers Chuck, Naknek, Napakiak, Nelson Lagoon, New Stuyahok, Newhalen, Newtok, Nightmute, Nikiski, Nikolaevsk, Ninilchik, Nome, Old Harbor, Ouzinkie, Palmer, Pedro Bay, Pelican, Perryville, Petersburg, Pilot Point, Pilot Station, Platinum, Point Baker, Port Alexander, Port Alsworth, Port Graham, Port Heiden, Port Lions, Port Moller, Port Protection, Portage Creek, Prudhoe Bay, Quinhagak, Saint George, Saint Mary's, Saint Paul, Sand Point, Scammon Bay, Seldovia, Seward, Shaktoolik, Sitka, Skwentna, Soldotna, South Naknek, Sterling, Tenakee Springs, Thorne Bay, Togiak, Toksook Bay, Tuntutuliak, Tununak, Twin Hills, Ugashik, Unalakleet, Unalaska/Dutch Harbor, Valdez, Ward Cove, Wasilla, Whale Pass, Whittier, Willow, Wrangell, Yakutat



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Content of AFSC Short Form Profiles

- 1) People and Place
- 2) Infrastructure
- 3) Involvement in the
North Pacific
Fisheries

*This section of presentation put together by Christina Package, AFSC



People and Place

- Location
- Demographic profile
- History

figures: population pyramid, racial structure, ethnicity, group quarters

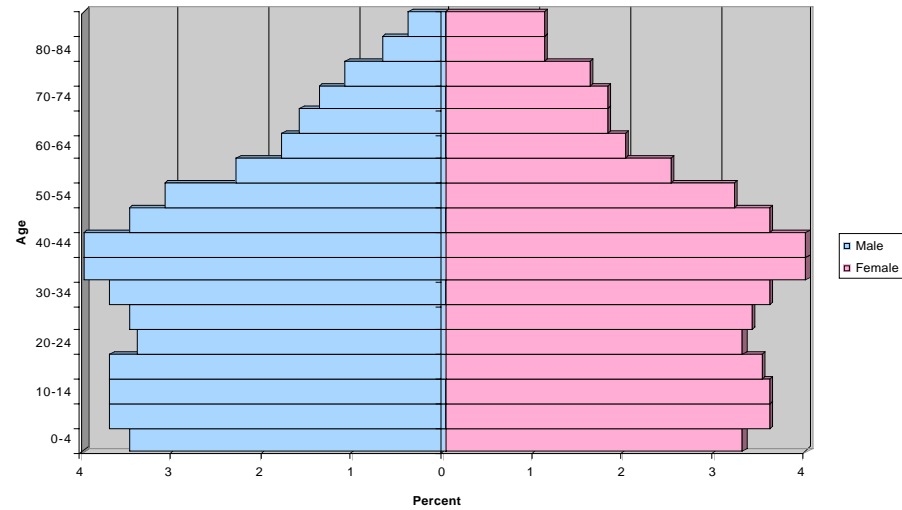


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Population structure

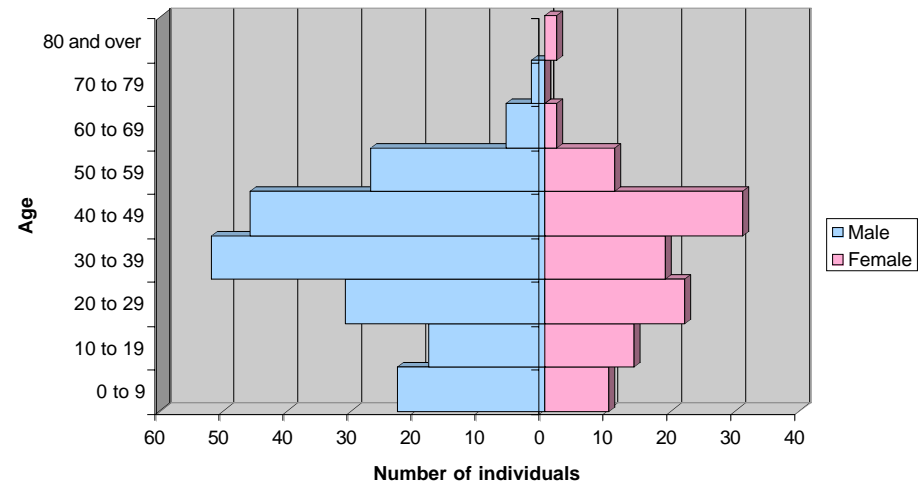
2000 Population Structure
USA

Data source: US Census



2000 Population Structure
Adak

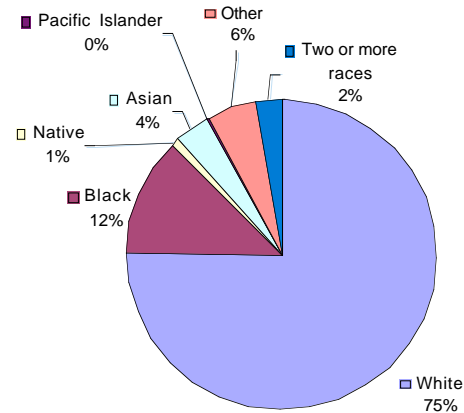
Data source: US Census



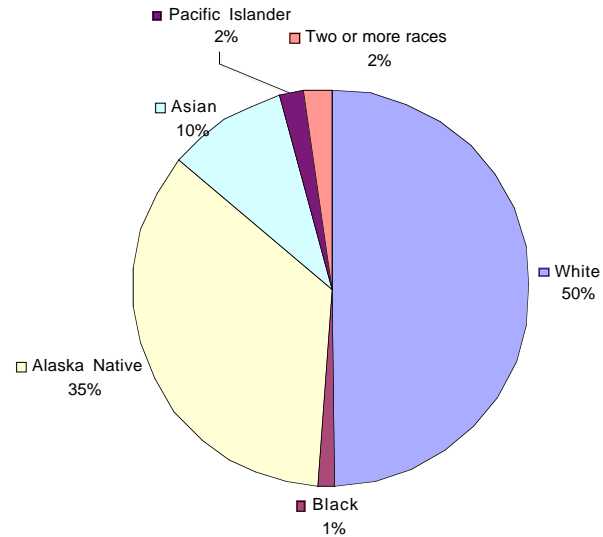
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Racial structure

2000 Racial Structure
United States
Data source: US Census

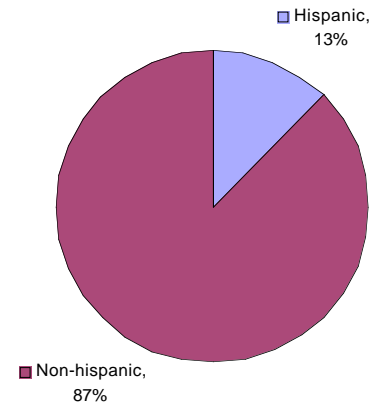


2000 Racial Structure
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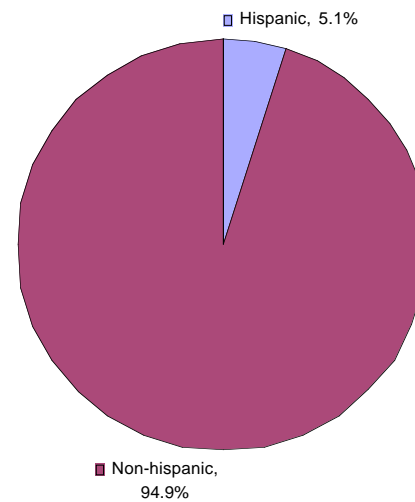


Ethnicity

2000 Hispanic Ethnicity
United States
Data source: US Census

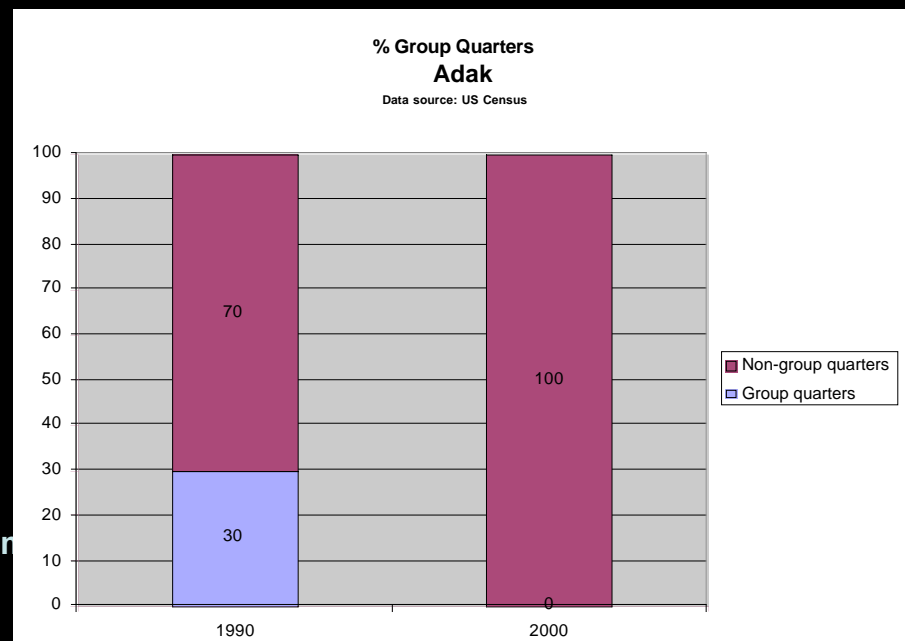
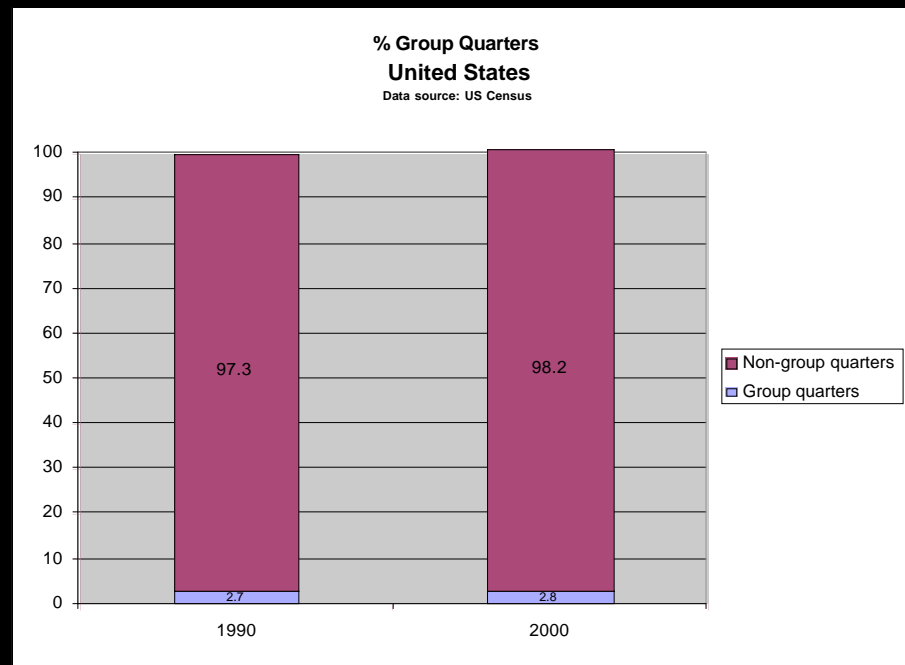


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Group quarters



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Infrastructure

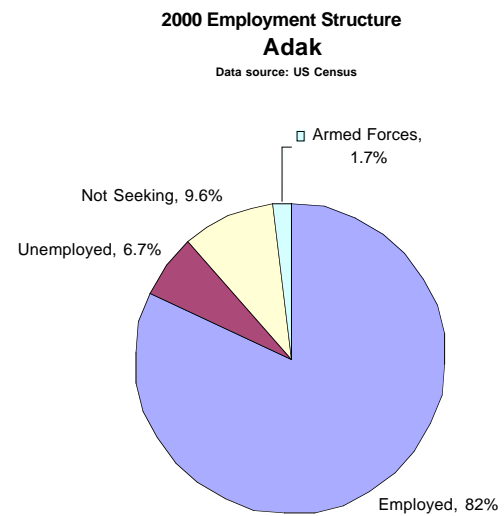
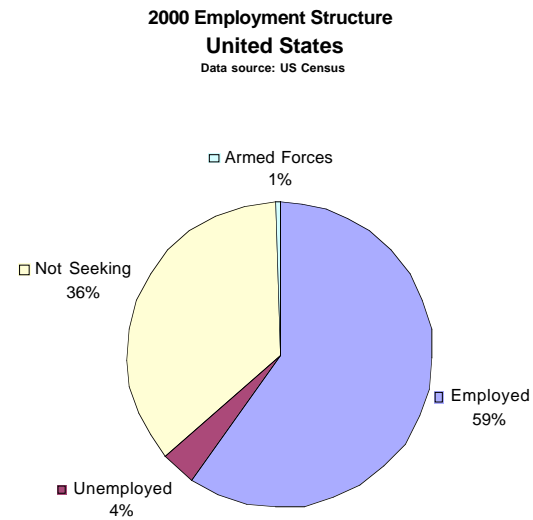
- Current economy
- Governance
- Facilities

figures: employment



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Employment structure



Involvement in North Pacific Fisheries

- Commercial fishing
- Sport fishing
- Subsistence

Involvement in North Pacific Fisheries

Commercial Fishing

Since Aleut Corporation acquired the land on Adak there has been an attempt to turn the village into a fishing center for the area. In the year 2000 there were four commercial fishing permits issued to residents of Adak. There was one community member who owned a vessel participating in federal commercial fisheries who was a resident of Adak and according to the Commercial Fisheries Entry Commission there were two licensed crew members from Adak in the year 2000.

Of the four commercial fishing permits issued to residents of the community all were issued for the harvesting of groundfish. Of those four, one was issued for miscellaneous salt water finfish using a hand troll, one was for miscellaneous salt water finfish using a mechanical jig, one was for demersal shelf rockfish with a longline vessel under 60' in the southeast, and one permit was for demersal shelf rockfish using a mechanical jig in the southeast, although this last permit was not actually fished during that particular year. There were 49 vessels which delivered 'Other Groundfish' landings in Adak, 24 which delivered sablefish, 32 which delivered halibut, and 12 vessels which delivered Bering Sea and Aleutian Islands (BSAI) crab landings to the community. In accordance with confidentiality regulations, data for fish landings in the community is unavailable. There is one land-based processing plant, Norquest-Adak Seafood Co., located in the community of Adak which processes BSAI crab, groundfish, halibut, and sablefish. The plant has been in operation as Norquest since the year 2000 and the land for the plant is leased from Aleut Corporation.

The City of Adak was recently granted \$88,548 by the Southwest Alaska Municipal Conference as part of the Steller Sea Lion Mitigation program "in recognition of the negative economic impacts of federal measures to protect the Steller sea lion" with money which had been allocated by the United States government (Southwest Alaska Municipal Conference 2003).



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Involvement in North Pacific Fisheries

- Commercial fishing
- Sport fishing
- Subsistence

Involvement in North Pacific Fisheries

Sport Fishing

The tourism industry in Adak is currently made up of visitors attracted by sightseeing on cruise vessels, but there is no recent evidence of sport fishing. It is expected that tourism will grow in Adak in the next few years and the accommodations facilities exist to make the sport fishing industry a possibility in the future. No sport fishing permits were sold in the year 2000 in Adak.



Involvement in North Pacific Fisheries

- Commercial fishing
- Sport fishing
- Subsistence

Involvement in North Pacific Fisheries

Subsistence Fishing

In recent history Adak has been considered a Federal Non-rural area because of the naval base which was present on the island and the larger population on the island at that time. As recently the establishment of the 2003-2004 Federal Subsistence Fishery Regulations, Adak was still considered a non-rural area in regards to Federal subsistence. In order to have the right to harvest subsistence wildlife, fish, and shellfish on Federal land a status of rural must be granted. Rural status has been requested by Adak, but has not been granted. Therefore, residents of Adak are not allowed to harvest resources for subsistence on Federal lands. However, Adak is considered rural by the State of Alaska and residents are thus eligible to harvest subsistence resources on State lands. Based on the island's location, history, isolation, ethnic make-up, and salmon harvests, it may be surmised that Adak residents are engaging in a variety of subsistence activities. However, there is no information available from the Alaska Department of Fish and Game for any species other than salmon because of the non-rural designation.

Regarding salmon subsistence, prior to the year 1988, the non-commercial salmon net fishery at Adak was classified as a subsistence fishery. In 1988 it became a personal use fishery, but was reclassified as a subsistence fishery again in 1998 (Division of Subsistence ADF&G 2001). In 1999, all fresh water on Adak Island and all salt waters within 100 yards of a stream terminus were closed to subsistence fishing for salmon because of the federal position on non-rural subsistence. In the Adak district in 1999 it is estimated that five subsistence salmon permits were issued in the area by the State and that 164 sockeye and four chum were harvested. In the community of Adak itself, one household salmon permit was issued in the year of 1999.

In 2003, NOAA began a program to distribute subsistence halibut permits to certain rural residents in Alaska. Because the NOAA program uses the State designations of rural and non-rural, residents of Adak were classified as rural for the purposes of this program and have been eligible to apply for permits. The application process for this fishery began in May 2003 and is ongoing.



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Other

- A category at the end of the profiles for important information that does not fit in any of the given headings
- Allows for flexibility within a standardized structure



Applications of Community Profiles

- Social Impact Analysis
 - Provides baseline data
- NEPA
 - Provides first draft for Affected (Human) Environment sections
- National Database of Communities Involved in Fishing
 - In development
- Outreach
 - Feedback received from many communities



Primary Benefits of Large Scale Approach

- Provides data on many communities
 - Many communities were profiled that have never been formally assessed by NMFS before
 - Such broad coverage is not possible during issue-driven assessments written under extreme time pressure
- Provides uniform assessments
 - Enables comparisons within region and nationally



Primary Drawbacks of Large Scale Approach

- Absence of fieldwork in communities
 - Profiles sent to communities for feedback, but without ground-truthing, the profiles are likely to contain some inaccuracies
 - Without significant interaction in the community, profiles lack ethnographic depth
- Reliance on large scale databases
 - Census population data is a prime example of data that many feel is not accurate enough
 - Definitions of community and community boundaries used by large databases are not always equivalent



Current status of profiles projects



Chignik Lagoon, Alaska

Community Profiles for North Pacific Fisheries – Alaska

Anticipated publication in 2005



Moss Landing, California

Community Profiles for West Coast and North Pacific Fisheries – Washington, Oregon, California and Other States.

Anticipated publication in 2006



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Other Non-Economic Social Science Projects at AFSC

- Alaska Native Traditional Knowledge
- Commercial Fishing Crew Demographics
- IFQ emigration from small, remote fishing communities in the GOA
- GIS and Fisheries Data



Acknowledgements

- Alaska Profiling Team
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- Other data providers
 - Alaska Department of Fish and Game, Alaska Department of Community and Economic Development, Commercial Fisheries Entry Commission, NMFS RAM Division, US Census Bureau, Southwest Alaska Municipal Conference
- Community Members from many many Alaska and West Coast Communities

In special memory of Bobby Storrs



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