Residency[1] and the Alaska Fisheries

by
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Events have greatly diminished participation by Alaskans in the fisheries

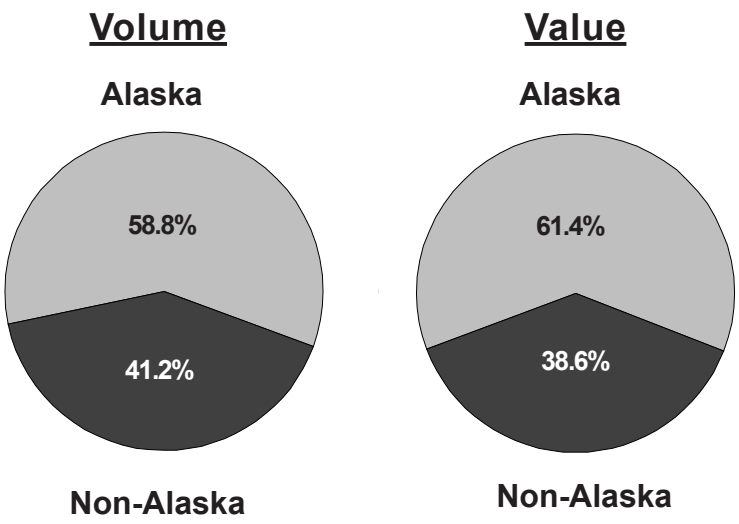
In many ways the term "Alaska fisheries" is both vague and misleading. It is vague in the sense that these fisheries include both small-scale ventures such as clam digging and the industrial levels of investment and organization required of modern factory trawlers. The former are often sources of supplemental income, while the latter involve the financial complexities of corporate owned fleets of high volume catcher-processors. This disparity in scale is much like comparing the production and sales of home gardeners with the economic activities of multinational agribusiness.

The term is misleading in the sense that the majority of Alaska's fishery harvest now takes place beyond state waters in the federally controlled Extended Economic Zone (EEZ). Most of these "Alaska" fisheries fall under the jurisdiction of federal or international bodies such as the North Pacific Fishery Management Council (NPFMC), the National Marine Fisheries Service (NMFS), or the International Pacific Halibut Commission (IPHC). The term is also misleading in the sense that most of the Alaska harvest is taken by non-residents. This has not always been the case.

1 1984 Alaska Fish Harvest

Percent by residency

Harvest value $787.7M in CPI 2002 $



Source: Commercial Fisheries Entry Commission (CFEC)

Background

Alaska was the only U.S. territory never to exercise control over its fishery resource. Instead, non-resident processors used their considerable political influence to shape and direct federal fisheries management that permitted the use of fish traps. These devices provided an assured supply of salmon that allowed companies great latitude in setting the prices paid to independent fishermen. The Alaska statehood movement was based in large part on the efforts of territorial residents to eliminate fish traps and to end the economic paradigm of "outside exploitation" they supported.

When Alaska gained statehood in 1959, the use of traps was prohibited and the state embarked on a course of rebuilding depleted salmon stocks. It also adopted policies that were intended to transfer economic benefits from out-of-state processors to Alaska fishermen. Perhaps the most important of these was the passage of the limited entry program, which conveyed the right of fishery access to the gear operator rather than to the vessel owner. This provision ultimately resulted in salmon canneries' divesting themselves of their corporate owned fishing fleets, and provided fishermen increased bargaining power. The state also developed a loan program for resident fishermen that assisted them in financing limited entry permits and vessels.

By 1984, a year after the constitutionality of Alaska's limited entry program was affirmed in the Ostrosky case, the state seemed well on its way to realizing the goal of a healthy, resident dominated fishery. In that year resident fishermen harvested 58.8 percent of the 1 billion pounds landed in the fishery and captured 61.4 percent, or $484 million of the $787.7 million total harvest value, as stated in Consumer Price Index-Anchorage (CPI) adjusted constant 2002 dollars. (See Exhibit 1.)

Less than twenty years later in a much larger 2002 fishery that produced 3.7 billion pounds, Alaska residents accounted for 771 million pounds or just 19.9 percent of the volume. Their share of the earnings had also fallen to $299 million, or only 38.7 percent of the $772 million total harvest value. (See Exhibit 2.)[2]

In spite of the growth in production levels, the last fifteen years have seen a dramatic decline in the numbers of people engaged in the Alaska fisheries. In 1988, the year of peak salmon earnings, at least 49,665 individuals were directly involved in the Alaska fishery harvest. 14,458 of these individuals fished permits, while an additional 35,207 purchased crewmember licenses. By 2002, only 27,101 people were still fishing. Of the 5,014 permit operators who had exited the fisheries, 4,336 or 86 percent were Alaska residents. Similarly, 12,604 fewer Alaskans purchased crewmember licenses in 2002; Alaskans represented 72 percent of the 17,550 overall decline in license sales.

With fewer Alaskans taking an ever smaller percentage of expanded fisheries, it would seem logical to suggest that non-residents have simply displaced Alaska harvesters. A closer examination of the data points out the flaws in this logic. While it is true that large numbers of Alaska fishermen have been displaced, non-resident participation has also declined. From 1988 to 2002 the number of non-residents who fished permits fell by 20.7 percent, while non-resident crew license sales declined by 39.1 percent. (See Exhibits 3 and 4.) The actual explanation of increased non-resident domination of Alaska's harvest is far more complex and involves some rapid and far-reaching changes that have recently impacted the nature and composition of Alaska's fisheries.

Why did Alaskans suffer more?

Resident Alaska fishermen have suffered a greater displacement than non-residents for two reasons. The first is related to a series of events that transpired in the 1990s that altered the basic economic structure of Alaska's fisheries. The second is related to the differences in the fleet profiles of resident and non-resident fishermen, and explains why non-resident fishermen as a group were better adapted to the new economic realities.

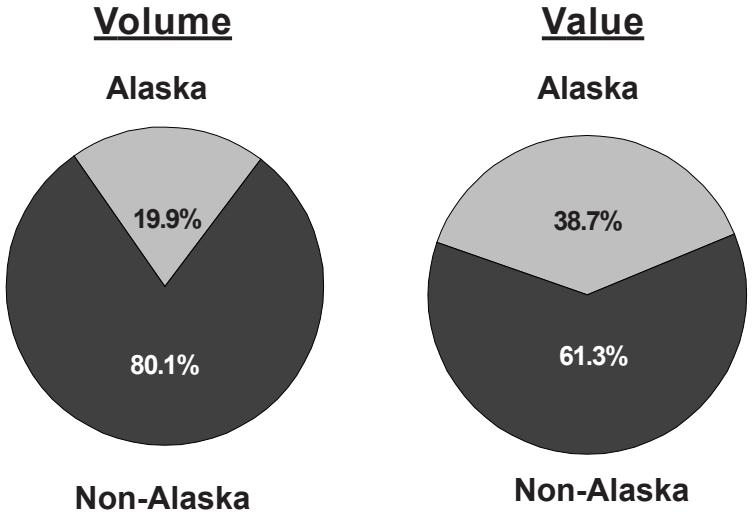
Summary of events

The major events that led to the redistribution of Alaska's fishery income center on the dramatic decline in salmon prices and resulting economic crisis in the state's largest and traditionally most lucrative fishery. A similar decline in ex-vessel prices paid to fishermen simultaneously affected the once prosperous herring fisheries. While these important fisheries were experiencing growing economic distress, access to the increasingly valuable alternative fisheries of halibut and sablefish was at first encouraged and then curtailed by the consideration and eventual adoption in 1995 of Individual Fishing Quotas

2002 Alaska Fish Harvest 2

Percent by residency

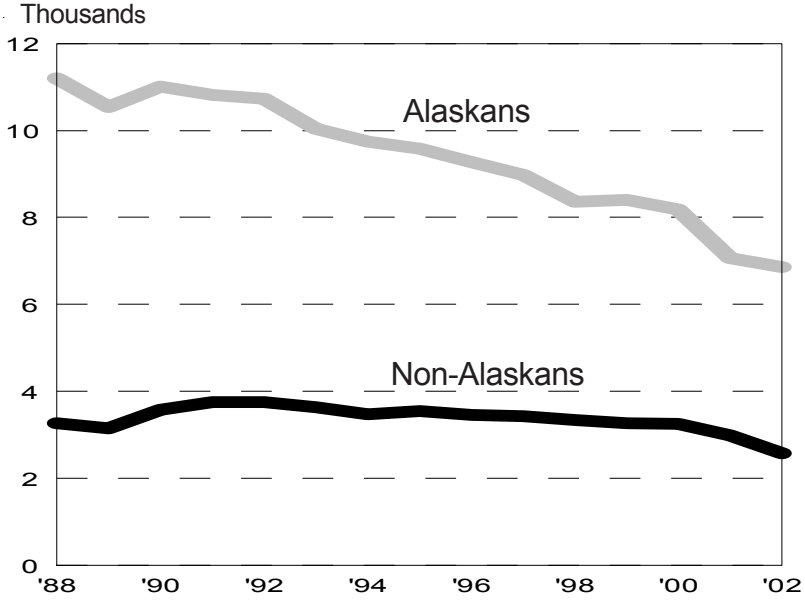
Harvest value $772M in CPI 2002 $



Source: Commercial Fisheries Entry Commission (CFEC)

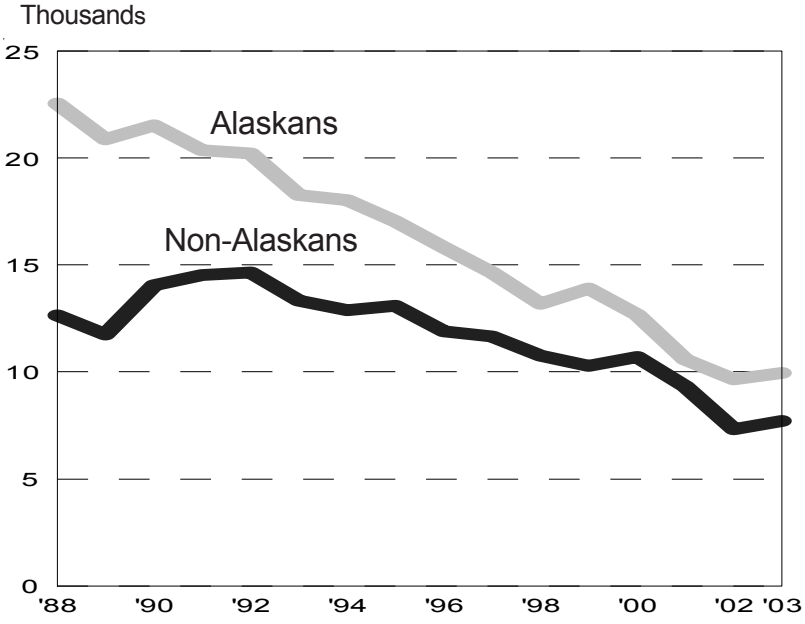
(IFQ). As the economic heart of the small boat fishery was cut out, the relative value of the large vessel crab fishery increased. Finally, the Americanization of the Gulf of Alaska and Bering Sea-Aleutian Island (BSAI) groundfish industry added a huge new component to fisheries located in Alaska, a component that was almost entirely non-Alaskan.

3 Individual Fishing Permits
By residency



Source: Commercial Fisheries Entry Commission (CFEC)

4 Unduplicated Crew Licenses
By residency



Source: Alaska Department of Fish and Game

These changes in the relative economic importance of the various fisheries had the effect of transferring the major share of gross earnings from the resident dominated skiff and small boat fisheries, to the non-resident dominated large vessel fisheries. (See Exhibits 5 and 6.)

Fleet profiles

The Alaska fishing fleet contains three major components. The "mosquito fleet" of small, mostly open vessels is primarily utilized in the salmon set net and hand troll fisheries. The small boat fleet is largely comprised of vessels designed for the salmon drift net, power troll and purse seine fisheries, but that are also utilized in the harvest of other species such as halibut, herring, groundfish, and near-shore crab. A much smaller but highly productive fleet of large specialized vessels targets the offshore crab and groundfish. Some of these large vessels also participate in the halibut and sablefish fisheries.

Salmon dictates vessel capabilities

In 1984, more than 80 percent of all individuals who fished permits spent part of the year fishing salmon. The fact that this species has traditionally provided the centerpiece of the Alaska fisheries has influenced the type of vessels most fishermen have acquired. Set net fishermen for the most part utilize open skiffs, while most drift net fishermen, power trollers, and seiners rely upon vessels that range from 30 to 58 feet in length. The type of fishing gear employed imposes practical constraints on the design and size of fishing vessels, but legislation has also played a role. Vessels larger than 32 feet are not allowed in the Bristol Bay drift net fishery, and through 2004, vessels larger than 58 feet could not be used in the salmon purse seine fishery.

These natural requirements of gear operation, as well as the legislated inefficiencies limit realistic options in terms of alternative fisheries. Most "limit seiners," for example, are simply too small to engage in the crab or trawl fisheries of the Bering Sea, while the carrying capacity of gillnet and troll vessels constrained their historical harvests in the truncated halibut seasons of the 1980s, hence their current allocations of individual quota shares.

The collapse of salmon prices, and its impact

In 1988, the year of peak salmon value, 72 percent of both residents and non-residents who fished permits spent at least some time fishing salmon. In that year, 8,111 Alaska resident salmon fishermen accounted for $771 million or 36.5 percent of the $2.1 billion total fisheries value, (CPI adjusted 2002 dollars) while 2,377 non-resident salmon fishermen contributed another $352.7 million, or 16.7 percent.

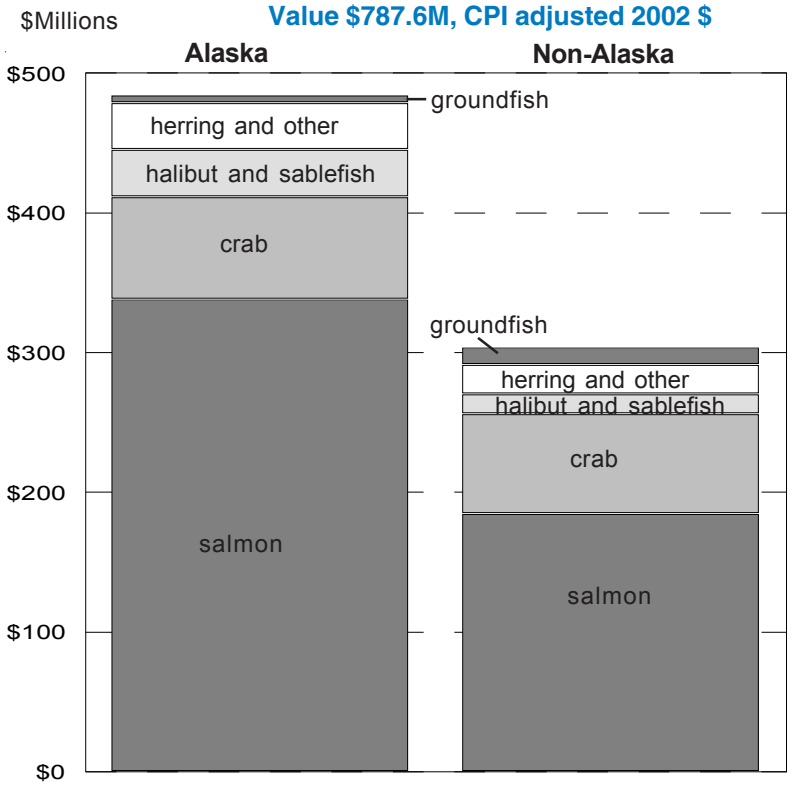
By 2002, the total Alaska fishery harvest value had fallen to $772 million, or only $1 million more than the resident Alaska salmon fleet alone had harvested in 1988. Almost all this decline was attributable to the collapse in salmon prices. The 2002 harvest of 524 million pounds of salmon generated only $131 million, a mere 17 percent of the overall Alaska fishery value. Compared to the 1988 salmon fishery, which had produced a nearly identical 520 million pounds, the value of the salmon catch had fallen over 88 percent from that year's $1,123 million harvest (in constant CPI adjusted 2002 dollars). Simply stated, a salmon fishery of the same volume produced only 12 percent of the value it had yielded fifteen years previously. (See Exhibit 7.)

This precipitous decline in value was driven by the exponential growth of the global farmed salmon industry. As pen reared salmon replaced Alaska's wild product in both foreign and domestic markets, prices paid to Alaska's salmon fishermen collapsed. (See *Alaska Economic Trends*, October 2003.) While this negatively impacted both resident and non-resident salmon fishermen, certain segments of the industry were more severely affected than others, and these were fisheries upon which Alaskans were more heavily dependent. (See Exhibits 8 and 9.)

Mosquito fleet

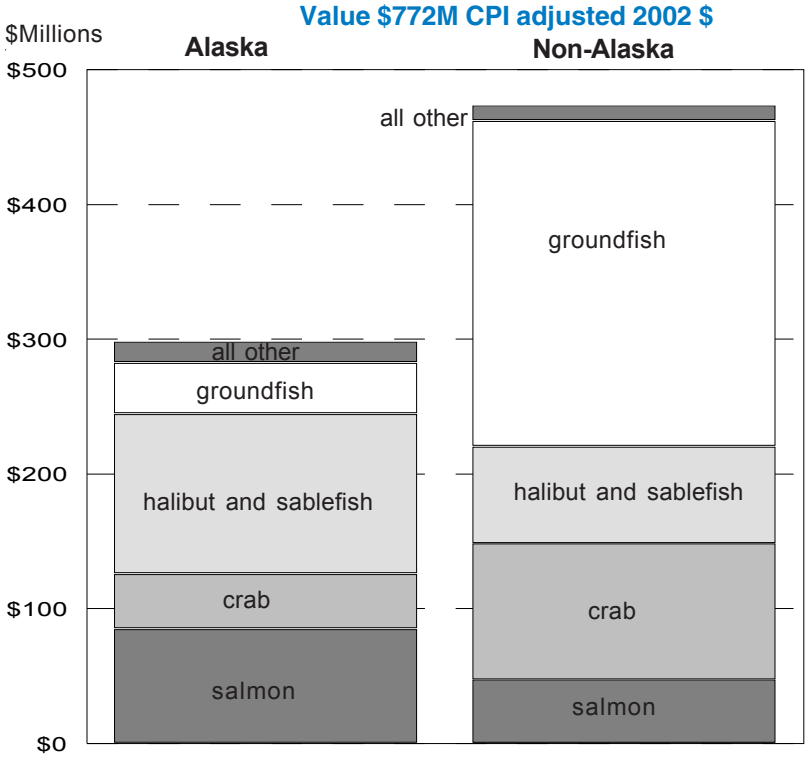
The Alaska salmon industry contains a large group of set net and hand troll fishermen. While many of these participate in low-investment, low-return fisheries, they play a vital role in their local economies. This is especially true in Western Alaska and other rural communities where

1984 Harvest Value by Species 5
Alaska and non-resident fleet
Value $787.6M, CPI adjusted 2002 $



Source: Commercial Fisheries Entry Commission (CFEC)

2002 Harvest Value by Species 6
Alaska and non-resident fleet
Value $772M CPI adjusted 2002 $

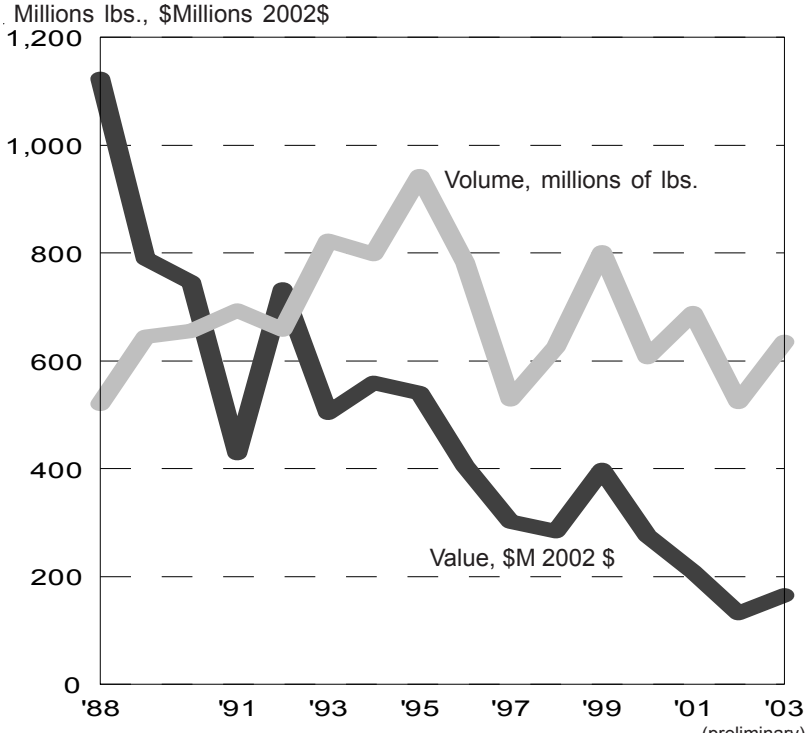


Source: Commercial Fisheries Entry Commission (CFEC)

7 Alaska Salmon Harvest

Value and volume

Value in constant CPI adjusted 2002 $



Source: Commercial Fisheries Entry Commission (CFEC)

8 Individuals Fishing Salmon

Permits by gear type, 1988 and 2002

	1988	2002	Decline	Percent Decline in Fleet Size	Percent of Overall Decline
All Individuals					
Purse Seine	1,281	657	624	48.7%	16.0%
Drift Net	3,651	2,640	1,011	27.7%	25.9%
Power Troll	837	669	168	20.1%	4.3%
Set Net & HT	4,573	2,605	1,968	43.0%	50.4%
Other	146	12	134	91.8%	3.4%
Total	10,488	6,583	3,905	37.2%	100.0%
Alaska Residents					
Purse Seine	867	437	430	49.6%	11.0%
Drift Net	2,286	1,606	680	29.7%	17.4%
Power Troll	685	559	126	18.4%	3.2%
Set Net & HT	4,128	2,236	1,892	45.8%	48.5%
Other	145	12	133	91.7%	3.4%
Total	8,111	4,850	3,261	40.2%	83.5%
Non-Residents					
Purse Seine	414	220	194	46.9%	5.0%
Drift Net	1,365	1,034	331	24.2%	8.5%
Power Troll	152	110	42	27.6%	1.1%
Set Net & HT	445	369	76	17.1%	1.9%
Other	1	0	1	100.0%	0.0%
Total	2,377	1,733	644	27.1%	16.5%

Source: Commercial Fisheries Entry Commission (CFEC)

summer salmon harvests are often the only available source of income. Of the 11,193 Alaskans who fished permits in 1988, 4,128 or 37 percent were engaged in salmon hand troll or set net operations. By 2002, the number of Alaskans participating in all fisheries had declined by 39 percent, leaving only 6,857 participants. Of this number, 2,236 or 33 percent were still engaged in the "mosquito fleet".

This segment of the Alaska salmon fleet has been particularly vulnerable to the downturn in salmon prices, in large part because the catches of most participants tend to be relatively small. The 1,968 individuals who exited the mosquito fleet from 1988 to 2002 represented 50.4 percent of the overall decline in participation in the salmon fisheries. The 1,892 Alaskans who left these fisheries represented 48.5 percent of the overall decline in the resident salmon fleet.

The purse seine fleet

If the mosquito fleet represents the low end of investment and production in the salmon fisheries, the purse seine fleet represents the high end. The vessels utilized in this fishery generally range from 45 to 58 feet in length, and often represent investments of a half million dollars or more. It is somewhat ironic therefore, that the seine fleet has suffered the greatest percentage decline in terms of participation. While 1,281 individuals operated seine vessels in the salmon fisheries of 1988, only 657 were fishing in 2002. This represented a 48.7 percent contraction in fleet size. Of the 624 individuals who had exited the industry, 430 or 69 percent were Alaska residents.

Much of the salmon purse seine fleet targets the lower valued species of pink and chum salmon. In 1988, pink salmon commanded a price of $1.20 per pound in CPI adjusted 2002 dollars, while chum salmon brought $1.31. By 2002, pink salmon prices had fallen to $.06 and chum salmon to $.16. The large investments required could no longer be justified, and many participants simply exited the fisheries. Contributing to this decline has been the fact that many processors have limited the number of vessels they will service. Preference has been given to those seiners who can also provide processors with

halibut, sablefish, herring or other desired species.

The decline of the seine fleet has had another consequence, in that purse seiners generally carry the largest crews in the salmon fishery. As the number of individuals fishing has withered, rural communities have been especially hard hit. In 1980, 37 seine vessels, or 11 percent of the active regional fleet, were based in the small Southeast Alaska communities of Hoonah, Kake, Angoon, and Hydaburg. By 2003, only nine vessels remained, which represented only 3.8 percent of a much smaller active fleet. The approximate number of crew jobs had fallen from 185 to 45, a significant reduction in relation to the size of the communities.

Drift net

The drift net fleet has contracted by a much smaller percentage than either the mosquito fleet or the seine fisheries; still the numerical decline has been significant. From 1988 to 2002, the number of individuals fishing permits fell by 1,011. Alaska residents represented 67.2 percent of this overall decline, that amounted to just over a quarter of the total losses in salmon fishery participation.

Power troll

The power troll fisheries have suffered the least displacement, shrinking by just 20.1 percent over this time period. Of the 168 individuals who exited the industry, 42 were non-residents. The remaining fleet is overwhelmingly (83.5 percent) composed of Alaska residents. Because the troll fleet targets the higher priced fresh fish market, and delivers higher valued king and coho salmon, it has been better able to avail itself of the recent increased demand for high-end Alaska wild salmon.

Salmon summary

In spite of the dramatic declines in both earnings and participation, salmon fisheries remain Alaska's most important in terms of employment. In 2002, 71 percent of all residents and 67 percent of all non-residents who fished permits continued to fish for salmon. The configuration of the fleet has changed, as proportionately more seiners, set net and hand troll fishermen have exited the fisheries, but this has done little to relieve the economic distress that continues to characterize the industry. (See Exhibit 9.)

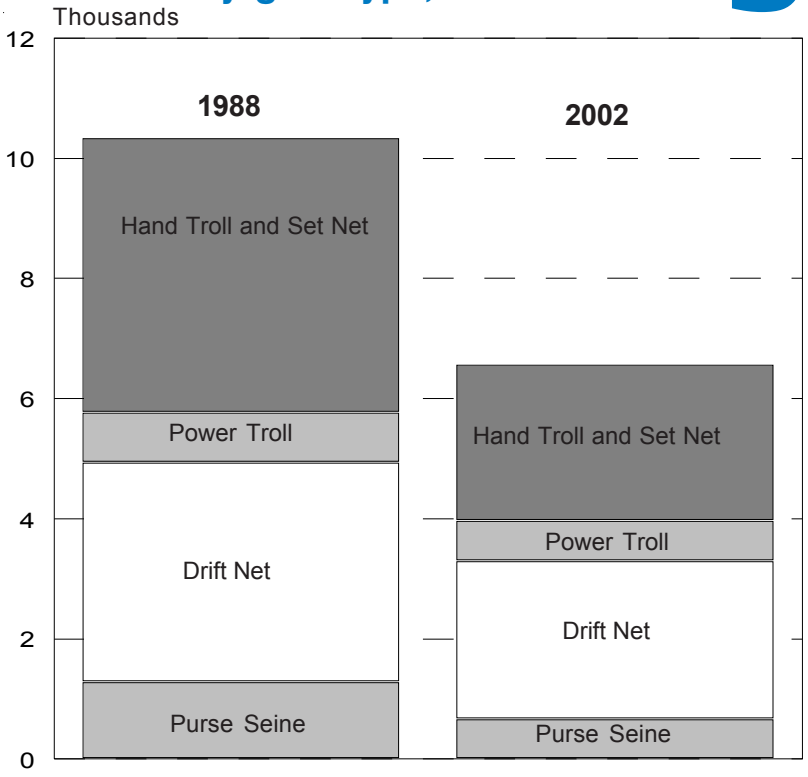
Herring collapse

The relatively rapid rise and fall of Alaska's herring fisheries were largely driven by events elsewhere in the world. The booming Japanese economy and strong yen of the 1980s created a demand for herring roe, which was a prized holiday food. A shortage in traditional supplies of herring caused Japanese buyers to seek alternative sources. The Alaska fishery expanded rapidly to fill this demand, and by 1988 the herring fishery produced a record $78.4 million harvest in 2002 CPI adjusted dollars.

The opportunities to enter these fisheries strongly favored Alaskans. Most herring fisheries are of very short duration, and fewer non-residents were willing to travel to Alaska for such limited

Individuals Fishing Salmon 9

Permits by gear type, 1988 and 2002



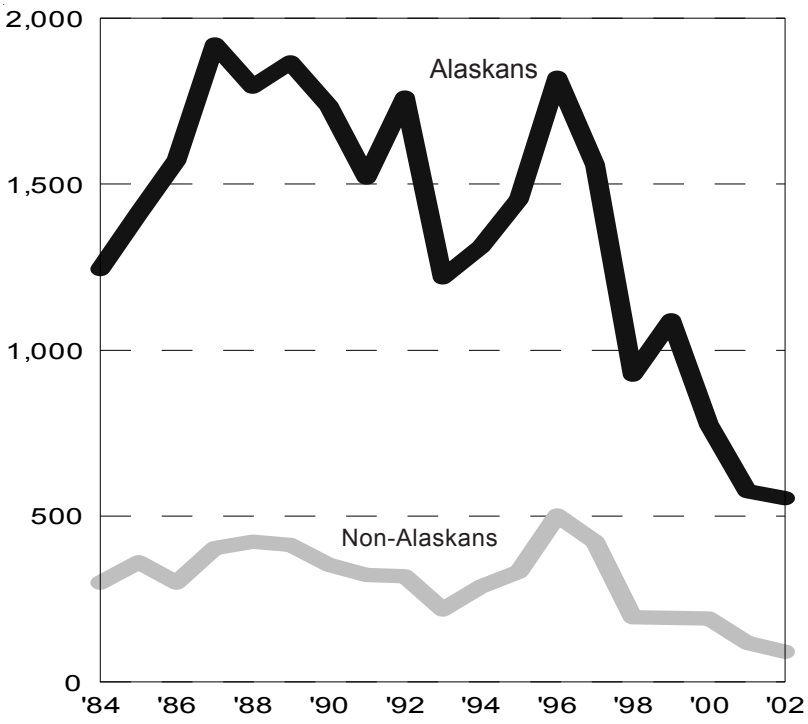
Source: Commercial Fisheries Entry Commission (CFEC)

opportunities. Moreover, many herring fisheries were rapidly included in Alaska's limited entry program, and this raised the costs of participation. As a result, 81 percent of the individuals fishing herring permits in 1988 were Alaska residents.

By the 1990s worldwide conditions had changed. The Japanese economy was in deep recession, the yen had weakened and the dietary habits of the younger generation were moving away from many traditional foods. As a result, both demand and ex-vessel prices fell. In addition several of Alaska's herring stocks showed declines that required fishery closures.

As a result, by 2002 the value of the herring fisheries had fallen to $11.7 million, and far fewer fishermen were fishing. Of the 1,571 individuals who exited the industry, 1,240 or 78.9 percent were Alaska residents. This percentage nearly matched the proportion of resident and non-residents involved in the fishery. The decline of a fishery so dominated by residents contributed to the reduction Alaska's overall share of total fisheries value. (See Exhibit 10.)

10 Individuals Fishing Herring
Alaskans and non-Alaskans



Source: Commercial Fisheries Entry Commission (CFEC)

Enclosure halibut and sablefish

The decade of the 1980s saw increasing numbers of fishermen entering the halibut fisheries. For the most part, these new entrants were Alaska residents who were trying to establish production records in anticipation of a limited entry program. Because no moratorium was imposed, increased participation led to ever-shorter openings. These shorter openings discouraged new entrants from the non-resident fleet who were unwilling to gear up and travel to Alaska for a truncated fishery. Still, the race for fish between those already in the fishery and the new entrants led to over-capitalization and increased effort.

By the early 1990s, the "derby"-style openings had created a dangerous and inefficient fishery. Since the season was often limited to 24-hour periods, fishermen sometimes faced hazardous fishing conditions. Because the entire annual production was harvested and processed in the space of a few days, poor quality led to poor ex-vessel prices. Prices were also lower because the processors' frozen halibut could not command the market price of fresh fish.

When the IFQ program was finally adopted in 1995, only fishermen who had landed halibut in 1988, 1989, or 1990 were allowed quota shares. These shares were based on the individual's production in the 1984-1990 period. Under these terms, many new or one-time participants were excluded, and this exclusion led to a dramatic decrease in resident participation. (See Exhibit 11.) Still, many Alaska resident fishermen received halibut IFQs.

While most Alaska fishermen have traditionally focused on salmon and viewed other fisheries as supplemental, a highly productive group of non-residents has traditionally eschewed salmon and instead focused on the longline fisheries. By doing so they established a history of production that resulted in far larger individual allocations in the halibut and sablefish fisheries.

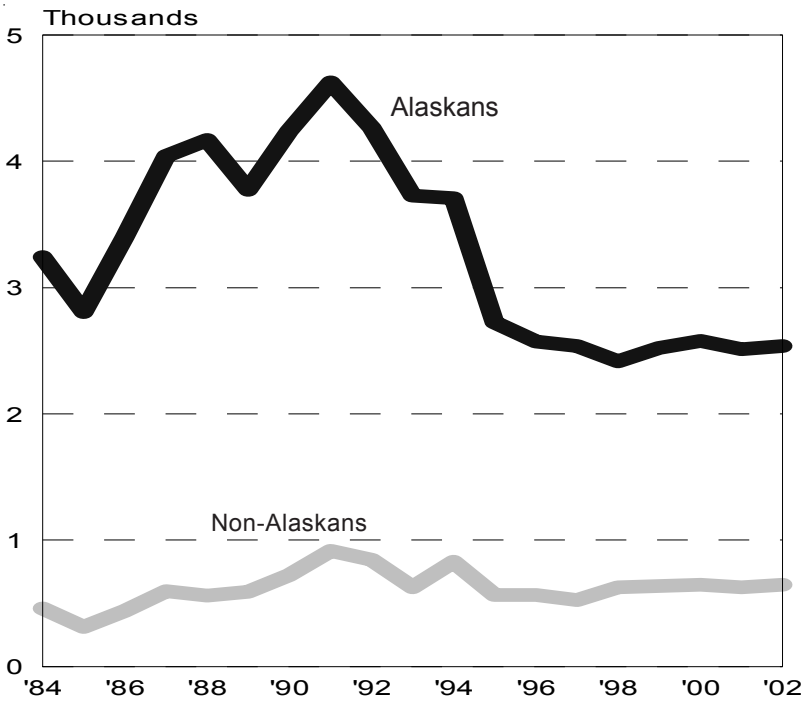
When the IFQ program was adopted, Alaska residents received 63.7 percent of the total halibut allocation, but the average Alaska quota share was less than half that received by the average non-resident fishermen. In a similar way, although

Alaskans received 40 percent of the total sablefish allocation, individual Alaskans' shares were less than a third as large as non-residents' shares. (See Exhibit 12.)

Because many Alaska quota shares were quite small, a natural consolidation took place as small shareholders sold to larger producers. While this did not significantly affect the distribution between residents and non-residents, it did impact many rural communities as their small boat halibut and sablefish quota shares migrated to more populated centers.

1,522 Alaska residents have sold or transferred their quota shares of halibut and sablefish since 1995. By comparison, only 287 non-residents have divested themselves of their quota shares. Still, the greatly extended seasons, improved quality, and near year-round fresh fish availability, have led to much higher ex-vessel prices for fishermen. As a result, the resident longline fisheries have played an increasingly important role in Alaska's fishery economy.

Halibut & Sablefish Fishermen 11
Alaskans and non-Alaskans



Source: Commercial Fisheries Entry Commission (CFEC)

Crab fisheries

Non-resident fishermen have always dominated the offshore, large-vessel crab fishery. Seattle based processing firms and fishermen simply had greater access to the required capital as this fishery developed, and they have dominated the fishery since its inception. In 1988, the 301 non-resident individuals fishing crab landed $224.8 million (in CPI 2002 dollars) or 66 percent of total crab landings. The average gross stock (gross earnings per vessel) of $746,800 was nearly six times larger than the $128,400 average of the Alaska crab fleet. Total landings of the 916 Alaskans fishing crab amounted to $117.6 million, or just 34 percent of all crab landings.

By 2002, only 277 non-residents were fishing crab, harvesting only $101.1 million or 71 percent of the much-reduced $142.2 million total harvest. The average gross stock of $365,000 was less than half of the 1988 average, but still five times larger than the average Alaska crab harvest of $69,611. The total resident harvest of $41.1 million now represented only 29 percent of the total crab landings. Small as this decrease was, it contributed

Longline Quota Shares 12
Changes 1995 to 2004

	HALIBUT			
	Alaska Residents		Non-Residents	
	QS 1995	QS 2004	QS 1995	QS 2004
Total Quota Share	215,209,741	200,678,327	122,783,912	131,536,928
Individuals	3,976	2,643	854	656
QS per individual	54,127	75,928	143,775	200,514
Percent total quota	63.7%	60.4%	36.3%	39.6%

	SABLEFISH			
	Alaska Residents		Non-Residents	
	QS 1995	QS 2004	QS 1995	QS 2004
Total Quota Share	127,388,031	129,355,759	190,210,411	188,408,962
Individuals	720	531	332	243
QS per individual	176,928	243,608	572,923	775,346
Percent total quota	40.1%	40.7%	59.9%	59.3%

1995 data may include results of adjudicated appeals.

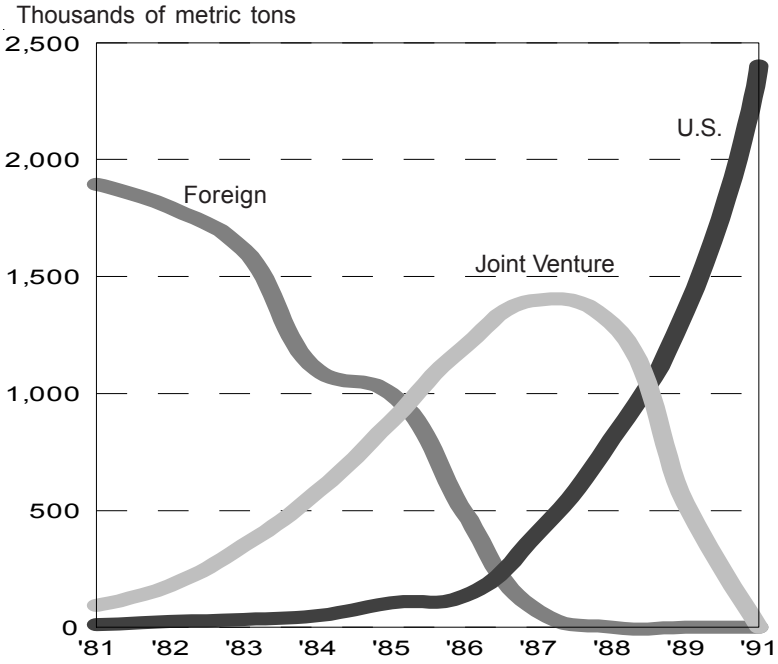
Source: National Marine Fisheries Service (NMFS)

to the overall decline in the percentage of earnings retained by residents.

The major reason underlying the disparity in harvest values derives from the fact that much of the Alaska crab fleet consists of salmon vessels targeting near-shore crab. The non-resident fleet, by contrast, is almost entirely composed of large vessels that target the offshore king and opilio crab resources of Kodiak, the Aleutian Islands and the Bering Sea. The disparity in gross earnings does not justify an assumption of greater profitability in the offshore industry, in as much as the expenses incurred are also much greater.

Although the crab fishery has increased in relative economic importance, it has actually seen a significant decline in adjusted earnings. This decline has led to a proposed rationalization plan that involves a vessel buy-back program, as well as the more controversial creation of processor quota shares. The proposed program will be submitted to a vote of the stakeholders later this year.

13 Alaska Groundfish Harvest
By sector



Foreign harvest estimated 1981–1983. Alaska harvest estimated 1982 & 1983. Data for 1990 missing.

Source: National Oceanographic and Atmospheric Administration (NOAA)

Bottomfish and industrial trawl

In 1984 the domestic fisheries of Alaska were largely based on the harvest of salmon. But just offshore another large harvest was taking place. Foreign flagged vessels were catching and processing huge quantities of groundfish. Efforts to capture this resource domestically were underway, and these efforts would eventually result in the economic transformation of Alaska's fisheries.

In 1980, the American Fisheries Promotion Act passed Congress, and the NPFMC began to aggressively pursue the concept of "Americanizing" what had been a foreign monopoly. Over the next seven years joint venture harvests, based on American catcher vessels delivering to foreign processing ships, took an ever-larger share of the groundfish harvest. The 1981 joint venture harvest of 95,000 metric tons grew to 1.4 million metric tons by 1987, while the estimated foreign harvest fell from approximately 1.9 million metric tons in 1981, to 70,000 metric tons in 1987, the last year of foreign harvests. During the same period, domestic production dramatically increased from 12,000 metric tons in 1981 to 407,000 metric tons in 1987. Domestic production continued to grow, while the joint venture fisheries rapidly contracted. By 1991, both foreign fleets and joint venture fisheries had disappeared, and the newly "Americanized" Alaska trawl industry was accounting for landings of 2.4 million metric tons. (See Exhibit 13.) In less than a decade, the largest food fishery in the nation had been added to Alaska's already impressive fisheries harvest. But while the fishery had been wrested from foreign flagged fleets, Alaskans had not captured it.

It is this newly Americanized groundfish industry that is responsible for much of the disparity between resident and non-resident fishery harvest shares. While the groundfish industry contains a significant number of pot and longline fishermen, the trawl fishery dominates production. In 2002, groundfish trawlers accounted for 67 percent of the total fisheries volume landed in Alaska. They also accounted for 28.5 percent of total fisheries value. 196 non-resident fishermen landed 91 percent of the 2.7 billion pounds taken in the trawl fishery, earning $220 million of the $241 million total gross value. This harvest accounted for 85 percent of the

total non-resident Alaska fishery harvest by volume, and nearly 47 percent of the total value taken by non-resident fishermen.

By contrast, 66 Alaska fishermen harvested only 241 million pounds valued at $21 million. The average Alaska trawler catch of 3.6 million pounds produced a gross stock of $323,711. The average non-resident trawler catch of 12.6 million pounds was valued at $1,122,804. The difference in scale is largely explained by the fact that the Alaska trawl fleet includes smaller vessels with limited carrying capacities, which tends to confine their activities to near-shore waters.

Huge as the disparity in harvest is, it actually understates the amount and value of fish harvested by the non-resident trawl fleet. As noted earlier, the NMFS recorded a 2002 harvest 1.4 billion pounds and approximately $200 million larger than that monitored by Alaska's CFEC. This component of the at-sea catch which was not reported to the CFEC is nearly double the entire resident harvest of 771 million pounds, and approaches two thirds of the value of $298 million taken by all Alaska residents in all fisheries combined.

Some Alaska benefits

While relatively few Alaska fishermen participate in the groundfish fishery, the industry has made Dutch Harbor the largest U.S. fishery port in terms of volume. In addition to this contribution, many rural Alaska communities have benefited from the fisheries.

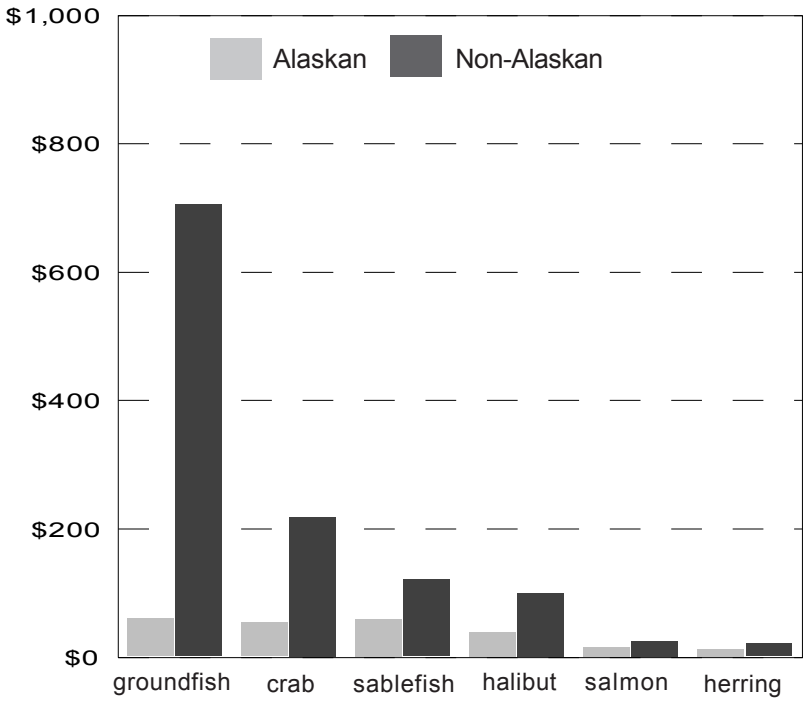
The 1998 American Fisheries Act included a provision for the Western Alaska Community Development Quota program, better known as CDQs. Ten percent of the pollock available in the eastern Bering Sea was allocated to local communities. While most actual harvests have been contracted to non-resident fishermen, the CDQ program has provided community revenues and employment opportunities. (The CDQ program also includes allocations of other species, including crab.)

And some barriers

The same American Fisheries Act that created the CDQ program also allocated the Bering Sea Aleutian Island (BSAI) groundfish harvest between the on-shore and offshore segments of the industry. Onshore harvesters were allowed 50 percent of the total allowable catch (TAC) after CDQ allowances had been subtracted. The offshore sector provided 10 percent to the small mother-ship fleet, 36.6 percent to the catcher processor fleet, and 3.4 percent to the at-sea catcher fleet.

In 1999, the eight companies that operated catcher processor vessels in the BSAI offshore trawl industry formed the Pollock Conservation Cooperative. This private agreement allocated the offshore allocation of the total allowable harvest (TAC) among their 19 vessels. The seven at-sea catcher vessels followed this lead by forming the High Seas Catcher Cooperative. These arrangements have proven highly effective in ending the "race for fish," and have resulted in a safer and more efficient harvest. However, by their very success, these measures make it unlikely that this at-sea industry will be "Alaskanized" in the foreseeable future.

Gross Earnings 14
Per permit fished 2002



Source: Commercial Fisheries Entry Commission (CFEC)

Summary—the impact of large vessels

In 2002, 473 non-resident individuals in the trawl and large vessel crab fisheries accounted for $321.2 million of the $772 million landed in all Alaska fisheries. This meant that 5 percent of the fishermen in Alaska, all of them non-resident, garnered 42 percent of the total value. The other 8,971 fishermen representing 95 percent of the active permit holders, shared the remaining 58 percent. The 6,857 Alaska residents who fished in all fisheries landed a total of only $299 million, while the once dominant salmon fisheries, with 6,664 residents and non-residents participating, produced a meager $131 million. The 4,852 Alaskan permit holders who harvested salmon in 2002 received only $85.2 million for their share of this catch.

Conclusion

The transformation of Alaska's fisheries is largely the result of two unrelated events. The displacement of the Alaska wild harvest by farmed salmon led to a collapse in ex-vessel prices that drove many fishermen from the industry. The non-resident capture of Alaska's offshore groundfish resources simply coincided with the decline of the resident dominated small boat fisheries. Nevertheless there are some important economic implications for the state.

The earnings of resident fishermen are largely retained within the Alaska economy, while most earnings of non-residents are transferred out of state. The decline of the small boat fisheries has especially impacted the struggling economies of rural and coastal Alaska. While state sponsored efforts to promote wild salmon seem to be having some results, the availability of inexpensive farmed salmon will probably keep ex-vessel prices well below historical levels. Moreover, lacking a rationalization scheme or buy-back program such as Canada's Mifflin plan, any significant increase in ex-vessel value will be dissipated as displaced salmon fishermen re-enter the industry. The Canadian program, it should be noted, had the added benefit of cushioning the economic shock to rural communities as well as the province of British Columbia.

The transformation of Alaska's fisheries may be a continuing process. Not only are low wage countries competing for surimi markets, but the global aquaculture industry has increasingly focused its attention on new species. The recent merger of Nutreco and Stolt to form Marine Harvest, the largest aquaculture company in the world, was accompanied by an announcement that the new firm plans to increase its production of farm raised halibut and cod. Projects involving sablefish aquaculture are underway in British Columbia. Even the NMFS is supporting research and promoting the concept of offshore fish farming in U.S. territorial waters. Should any of these projects enjoy a degree of success approaching that of the farmed salmon industry, the Alaska fisheries will soon face further painful adjustments.

Notes

[1] Residency as defined by the Commercial Fisheries Entry Commission and set forth in regulation 20 AAC 05.290.

[2] For the past decade, the National Marine Fisheries Service has recorded Alaska fishery harvests around 1.5 billion pounds larger than those posted by Alaska's Commercial Fisheries Entry Commission. The estimated value of this additional catch in 2002 was approximately $200 million. These discrepancies arise in large part because a significant quantity of fish is harvested and processed at sea and not reported to the state agency. Because the at-sea sector is almost entirely non-resident, consideration of this additional catch would further reduce Alaska's share of the fisheries harvest.