Alaska Economic Trends

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Residency and the Alaska Fisheries

Alaska Department of Labor
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Frank H. Murkowski
Governor of Alaska

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Contents:

Alaska's fishing industry: meeting the challenges

From the Governor

By Governor Frank H. Murkowski

Fishing remains the economic foundation of coastal Alaska. Fisheries have kept Alaska at the forefront of productivity among the world's fishing fleets. In addition to salmon, Alaska benefits from the world's largest groundfish fishery and healthy halibut, crab, shrimp, and shellfish fisheries.

Regaining a higher share of the economic benefits from these fisheries for Alaskans is an important state priority. It will take a united effort among Alaska's fishermen, processors, communities, government agencies, and leadership here and in Washington, D.C.

This month, *Alaska Economic Trends* reports on activities throughout Alaska's commercial fishing industry. The authors' research included examining individual fishery values and harvest shares taken by residents and non-residents.

Fisheries will continue to see changes in markets, catches and values. Potential federal legislation resulting from the U.S. Commission on Ocean Policy report, reauthorization of the Magnuson-Stevens Act, and the possibility of federal ocean aquaculture in the 3 to 200 mile Exclusive Economic Zone all have the potential to affect Alaska's fisheries in the near future.

We are in position to affect the development of these changes in Washington, D.C. while we also work here at home to improve opportunities for Alaska's fishermen.

Alaska's congressional delegation was instrumental in supporting and funding new seafood marketing programs. The delegation obtained assistance to fishermen through the federal departments of labor, agriculture and commerce including increased purchases of Alaska seafood in government aid programs.

With our team in the U.S. Congress, we are continuing our determined efforts to establish country of origin labeling for Alaska's seafood and competing imports.

Here in the state, I assembled a program of matching grants to businesses, communities, and individuals for salmon marketing, infrastructure and product development. We achieved legislation to allow loans for community purchase of halibut and sablefish fishing quota shares to keep these revenue producing assets within the coastal communities.

We have reduced the tax burden on small independent fishermen who sell their own catch. And, our marketing efforts are beginning to show results with higher prices in some of our salmon fisheries this year.

We also recognize and are meeting the challenge of competing in the global food economy. Word of sustainable and well-managed salmon fisheries is reaching more consumers and we can gain and hold a place in the market with all of our fisheries. …Good news for consumers who recognize and prefer the premium seafood harvested in the pristine waters of Alaska.

However, high energy and transportation costs continue to hinder the growth of fish being processed in and shipped from Alaska. By uniting the industries and communities that share the common transportation and infrastructure needs and with our effective congressional team, we can make positive steps to increase the value of all our fisheries to Alaskans.

The Alaska Constitution states that resources must be developed and managed for the benefit of Alaskans. Interstate commerce law restricts the state's ability to favor residents, but I strongly believe that we are in an era of opportunity to make positive progress in creating more favorable business conditions for the Alaska fleet.

It will take continued effort in developing infrastructure and transportation to reduce costs, streamlining regulations to enable innovation and investment in new product ideas with the marketing effort to help sell them to the world.

By working together we can create jobs for Alaskans and make a real difference in the lives of Alaska's fishermen and their families.

Let's get to work, together.

Residency[1] and the Alaska Fisheries

by
Neil Gilbertsen
Economist

Events have greatly diminished participation by Alaskans in the fisheries

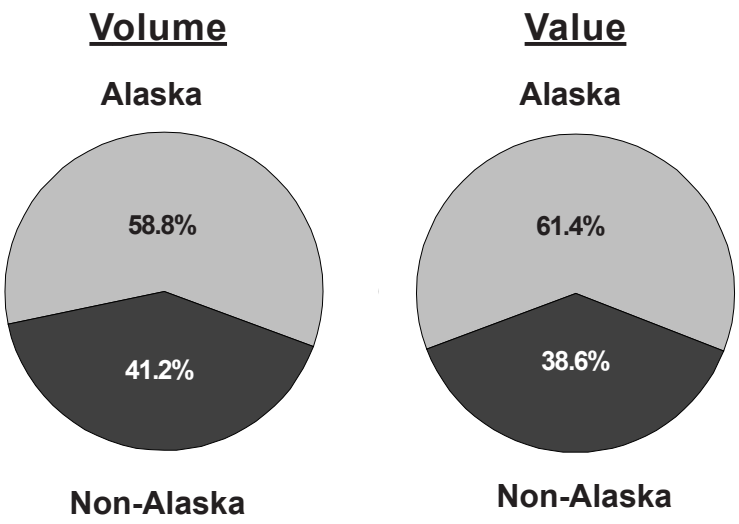
In many ways the term "Alaska fisheries" is both vague and misleading. It is vague in the sense that these fisheries include both small-scale ventures such as clam digging and the industrial levels of investment and organization required of modern factory trawlers. The former are often sources of supplemental 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.

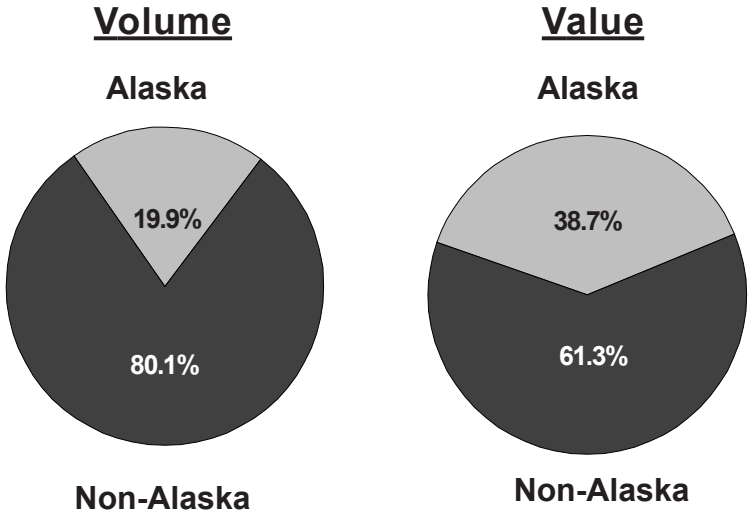
Summary of events

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

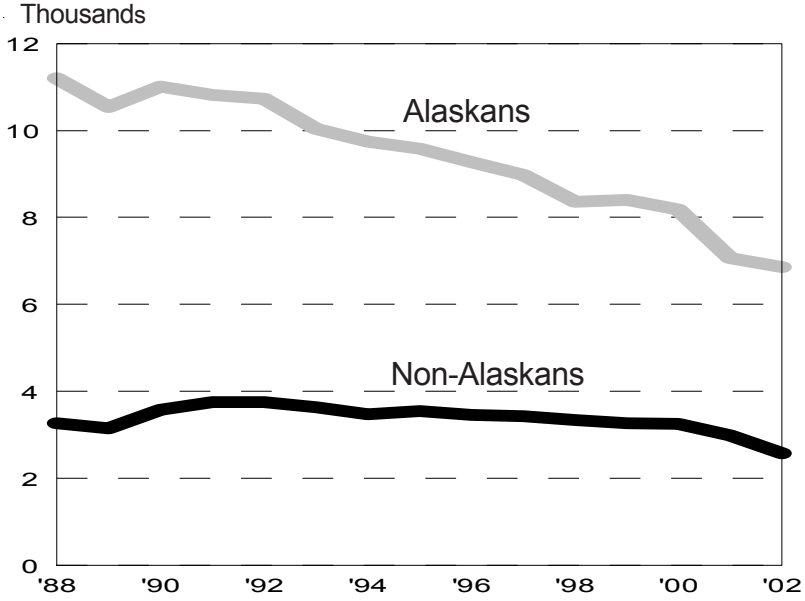
Harvest value $772M in CPI 2002 $



Source: Commercial Fisheries Entry Commission (CFEC)

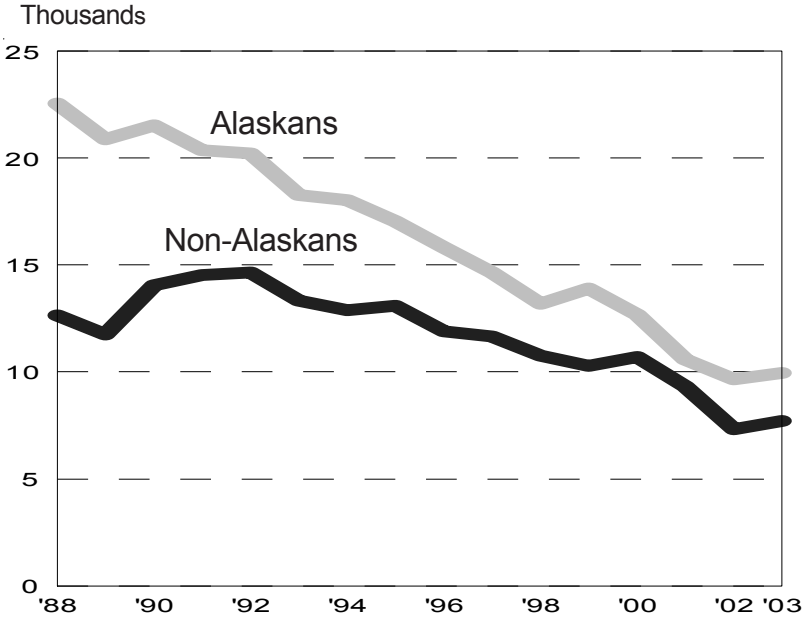
(IFQ). As the economic heart of the small boat fishery was cut out, the relative value of the large vessel crab fishery increased. Finally, the Americanization of the Gulf of Alaska and Bering Sea-Aleutian Island (BSAI) groundfish industry added a huge new component to fisheries located in Alaska, a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

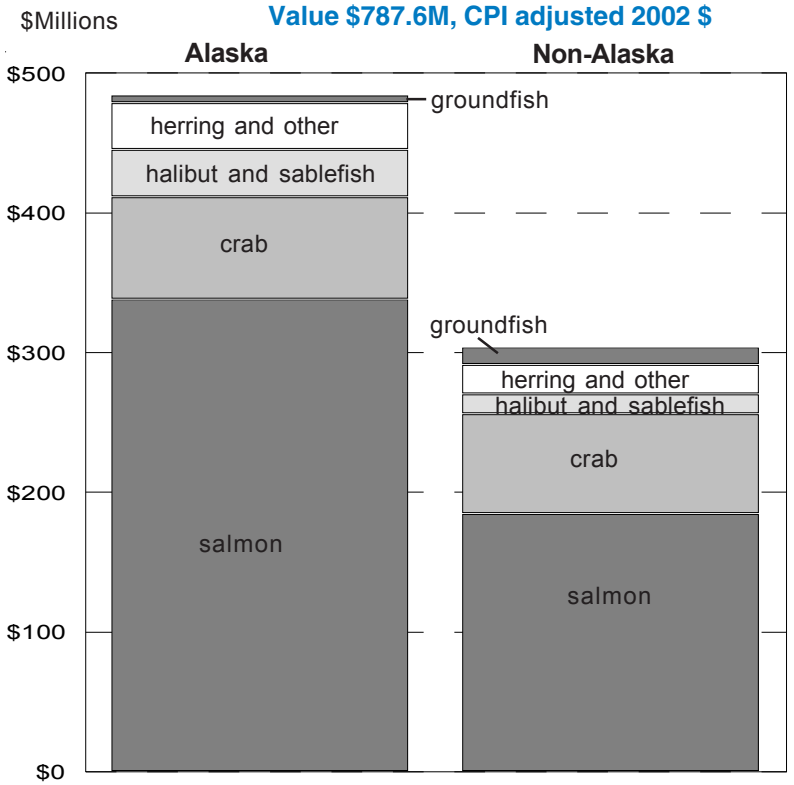
By 2002, the total Alaska fishery harvest value had fallen to $772 million, or only $1 million more than the resident Alaska salmon fleet alone had harvested in 1988. Almost all this decline was attributable to the collapse in salmon prices. The 2002 harvest of 524 million pounds of salmon generated 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

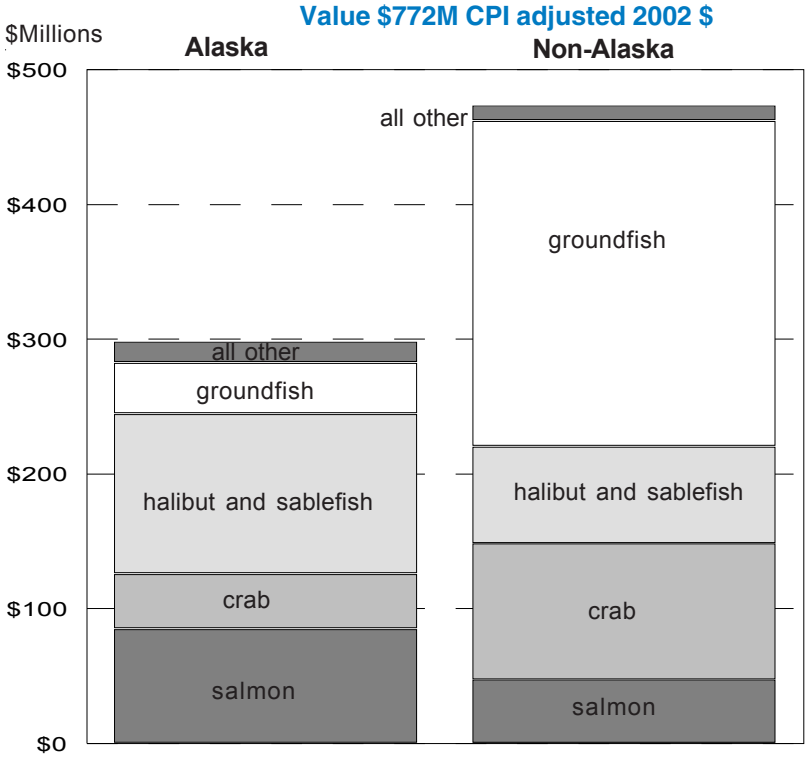
The Alaska salmon industry contains a large group of set net and hand troll fishermen. While many of these participate in low-investment, low-return fisheries, they play a vital role in their local economies. This is especially true in Western Alaska and other rural communities where

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 $

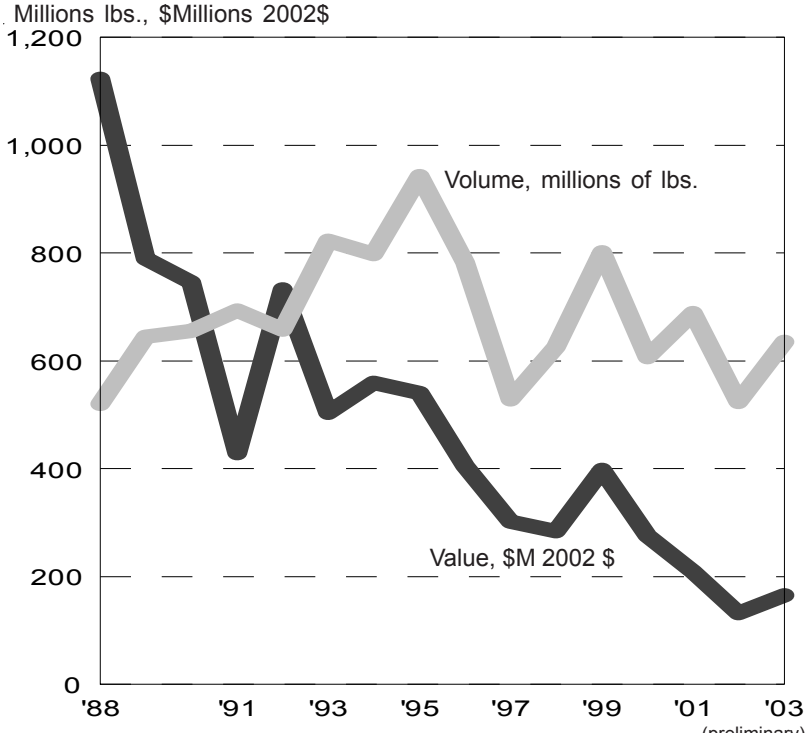


Source: Commercial Fisheries Entry Commission (CFEC)

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.)

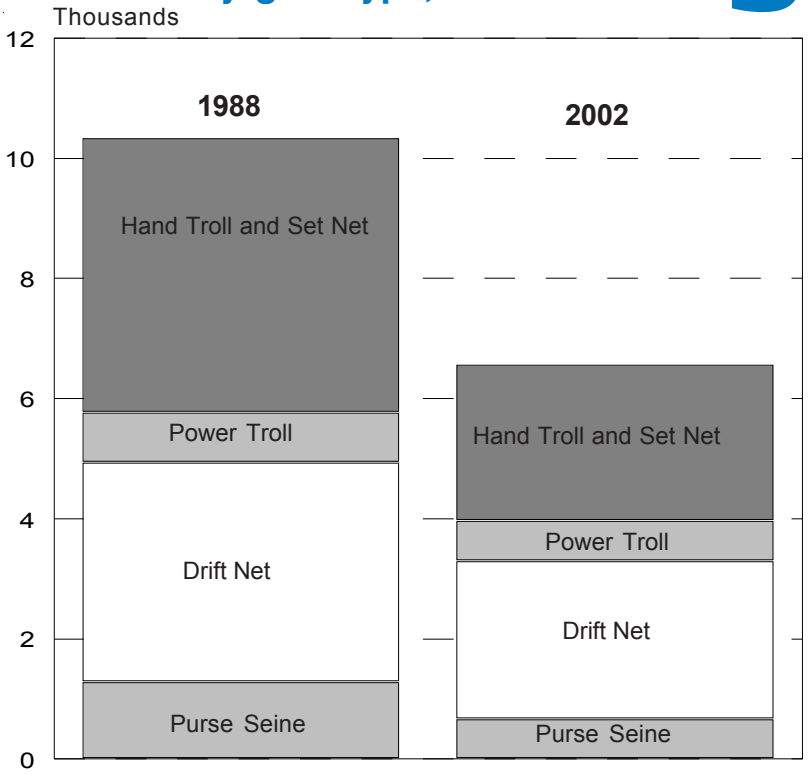
Herring collapse

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



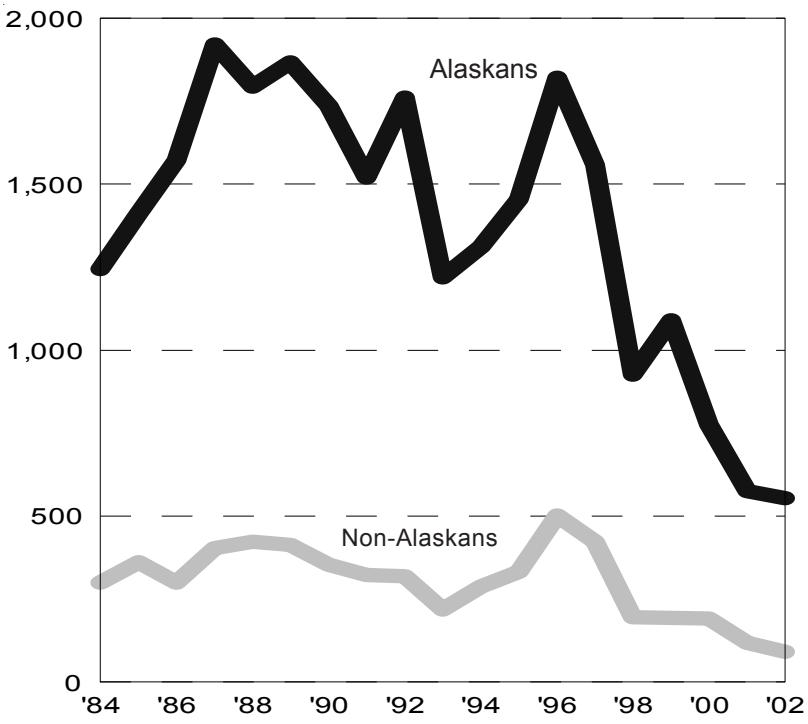
Source: Commercial Fisheries Entry Commission (CFEC)

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.

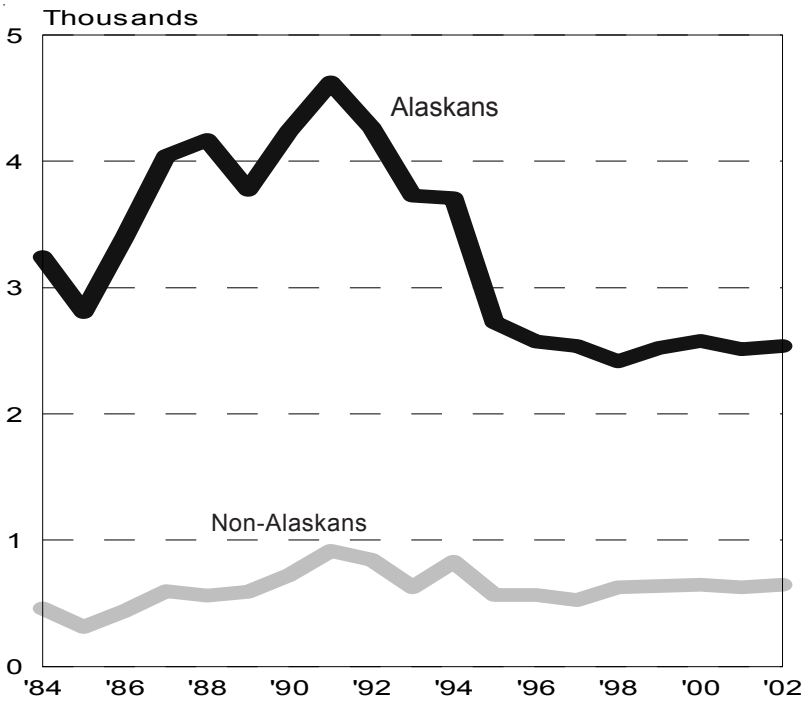
When the IFQ program was adopted, Alaska residents received 63.7 percent of the total halibut allocation, but the average Alaska quota share was less than half that received by the average non-resident fishermen. In a similar way, although

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.

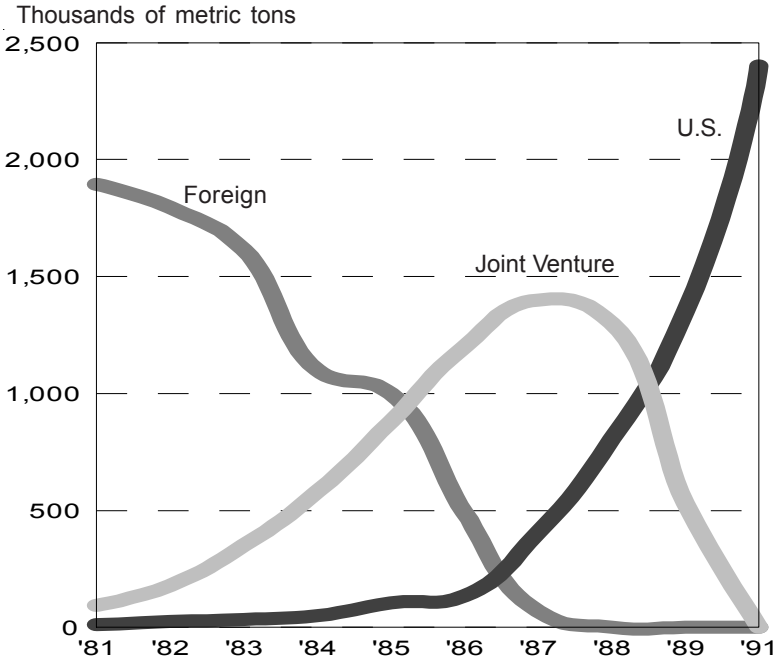
Source: National Marine Fisheries Service (NMFS)

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.

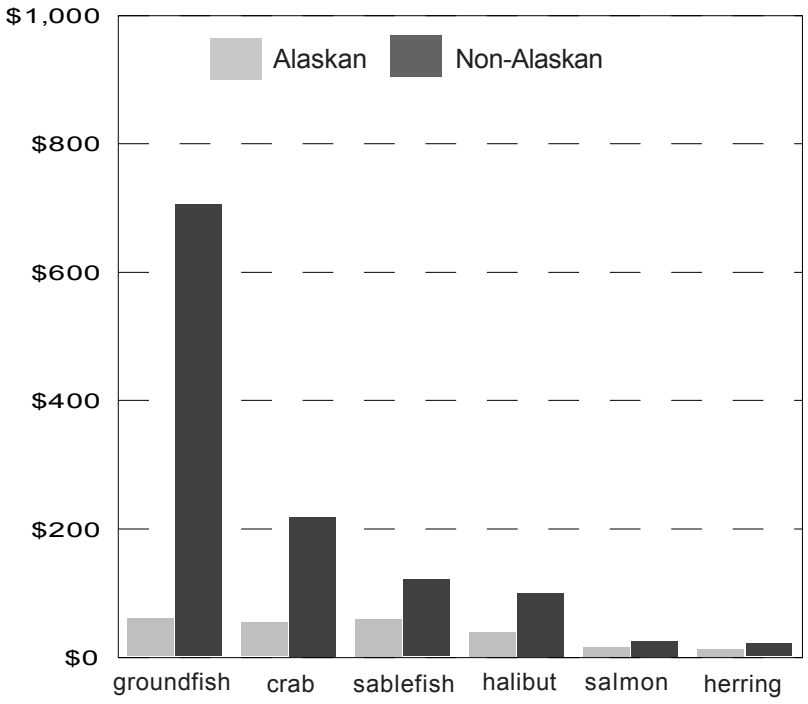
The 1998 American Fisheries Act included a provision for the Western Alaska Community Development Quota program, better known as CDQs. Ten percent of the pollock available in the eastern Bering Sea was allocated to local communities. While most actual harvests have been contracted to non-resident fishermen, 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.

Employment in the Alaska Fisheries

by Paul Olson and Dan Robinson
Economists

A special project estimates fish harvesting jobs

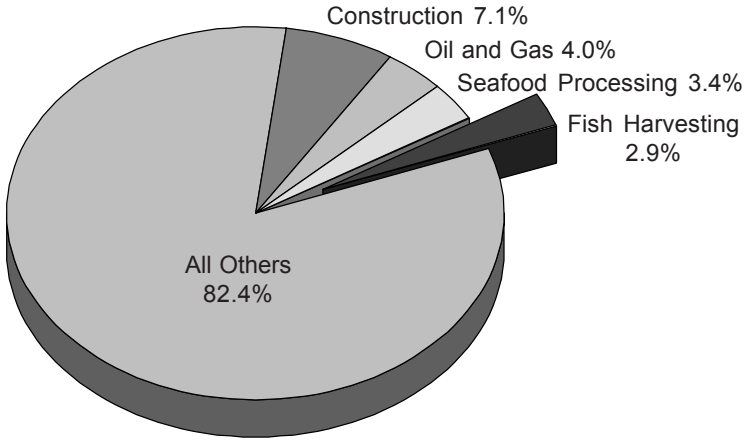
Despite the importance of the fishing industry to Alaska's economy, fishermen are excluded from the monthly employment estimates published in *Alaska Economic Trends*. Fishing is defined as an agricultural activity, and all agricultural employment is excluded from wage and salary employment estimates published by the federal and state departments of labor. Unlike seafood processing workers, who are paid a wage or salary, the men and women engaged in the actual harvest are either self employed or paid a share of the harvest value. As a result, their employment does not generate payroll records that could be used as a basis for estimating employment in this segment of Alaska's economy. This article discusses the preliminary results of a special project to estimate the number of fish harvesting jobs using a methodology different from that used in wage and salary employment estimates.

It is important at the outset to note how the employment estimates presented in this article differ from existing information about Alaska's fisheries. The Alaska Department of Fish and Game (ADF&G) publishes the number of commercial fishing crew licenses purchased each year. The Commercial Fisheries Entry Commission (CFEC) publishes the total number of fishing permits and the number of these permits fished each year. From these data sets, it can be determined how many individuals participated in Alaska's fisheries in a given year.

The number of fish harvesting jobs is different from the number of individuals who participated in Alaska's fisheries, in much the same way that a list of all the people who worked in a fast food restaurant over the course of a year is different from the number of jobs provided by the fast food restaurant. The difference becomes more obvious when monthly job counts are averaged over a year, as is done routinely with wage and salary estimates. The fast food restaurant might provide an average of 30 jobs a month over the course of a year, but unless they have no turnover and no seasonal variation in employment, the list of people who worked there in that same year will be much longer. In the same way, the number of individuals participating in Alaska's fisheries in a specific year is certain to be much larger than the average number of jobs provided each month of that year.

One final distinction is that the existing ADF&G and CFEC data on individuals participating in Alaska's fisheries can be used to examine residency issues as is done in the lead article of this issue of

Private Sector Employment 1
2002



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, and U.S. Bureau of Labor Statistics

Trends. The fish harvesting job estimates presented here do not provide insight into the residency of the job holders because the jobs are counted by place of work and the focus is on the number of workers employed during a given time period rather than the identity or characteristics of the workers themselves.

Methodology

In devising a methodology for estimating fish harvesting employment, the Department of Labor and Workforce Development (DOLWD) adhered, as much as possible, to the same concepts it uses (in cooperation with the U.S. Bureau of Labor Statistics) to estimate nonfarm wage and salary employment. The advantage of this approach is that it allows for meaningful comparisons between the fish harvesting industry and Alaska's wage and salary industries.

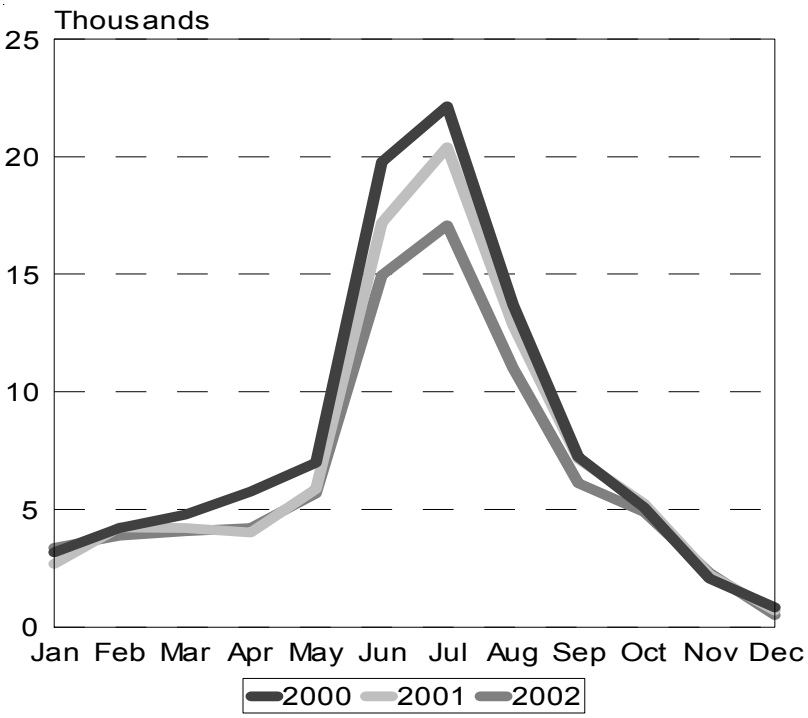
A fundamental point regarding state and national industry employment data is that they assign employment by place of work, rather than by the residence of employees. Also, wage and salary employment estimates do not differentiate between part- and full-time work and do not attempt to create full-time equivalency job counts.

The calculation of fish harvesting job estimates relies on landings made by individual permit holders in Alaska's fisheries[1]. Permit holders are considered to be the employers, and records of their landings indicate employment activity by month in specific fisheries, much like payroll records indicate employment activity in wage and salary industries. Unlike payroll records, however, records of landings do not indicate the number of jobs or people involved in harvesting the fish.

To create employment estimates from landing records, DOLWD developed "crew factors" which attempt to quantify the labor needed to fish specific permits and their associated region, species, and gear type. When a permit holder, or employer, makes one or several landings in a given month, the permit indicates which crew factor is required, thus generating employment for that fishery in that month. The crew factor is applied only once in a single month, regardless of the number of landings made. In instances where individuals own and make landings using multiple permits in any one month, the permit associated with the greatest harvest value determines which crew factor is activated.

The development of crew factors relied on numerous sources, including earlier estimates from similar studies, conversations with fishermen and processors, and a broad familiarity with the fisheries by staff in this and other departments. Additionally, DOLWD surveyed a stratified sample of some 5,000 permit holders in 117 different fisheries, receiving just over 1,000 surveys in reply. Information gleaned from all of these sources helped to inform and ultimately determine the final crew factors.

2 Fish Harvesting Jobs 2000–2002



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Fish harvesting jobs statewide

In 2002, the most recent year for which data is available, the fish harvesting industry provided a monthly average of 6,510 jobs statewide, or an

estimated 2.9 percent of all private sector jobs.[2] (See Exhibit 1.) When the fishing industry is defined to include both harvesting and seafood processing, it accounts for 6.3 percent of private sector jobs, more than the oil and gas industry and nearly as many as the construction industry.

As is the case with many Alaska industries, fish harvesting employment is highly seasonal. Employment typically reaches its peak in July before declining to the seasonal low point in December. (See Exhibit 2.) In 2002, July's job count of 17,090 was more than three times the monthly average for the year. Note, however, that July employment in 2002 was more than 5,000 jobs lower than in 2000, hinting at the challenges faced by the industry in recent years.

Salmon still provides the most jobs

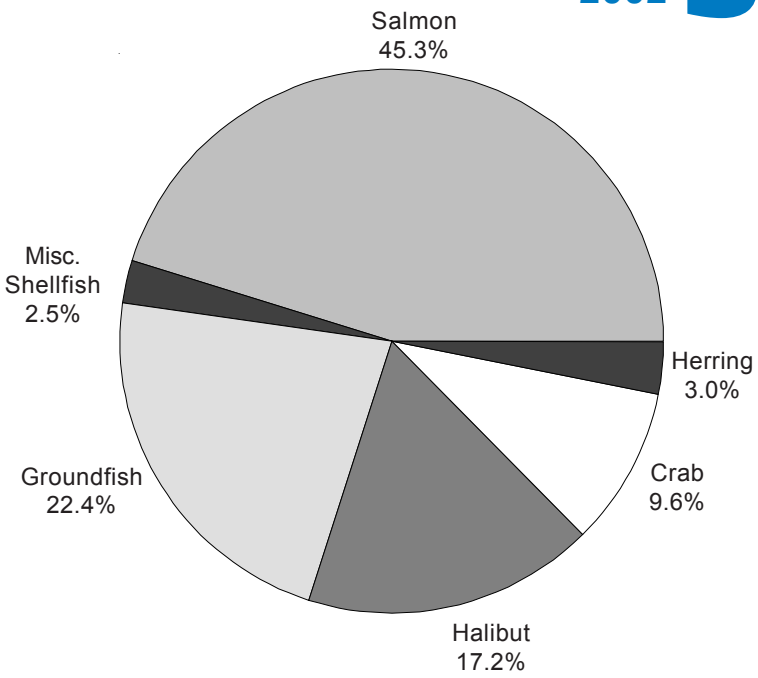
Despite the much discussed contraction of the salmon fishery in Alaska, evident even in the limited time span of these estimates, commercial salmon fishing accounted for nearly half of all harvesting jobs in 2002. (See Exhibit 3.) Two years earlier, in 2000, salmon provided 52 percent of all harvesting jobs, and the decline in total fish harvesting jobs seen in Exhibit 2 is due almost entirely to a loss of jobs in the salmon fishery.

The highly seasonal salmon fishery provides significant employment from May through September in each of the three major regions of the state, led by the Bristol Bay gillnet fishery in the Southwest. (See Exhibit 4.) This fishery accounted for about 30 percent of all salmon harvesting jobs in 2002, though participation dropped by nearly one-third compared to 2000.

Groundfish leads employment among other species

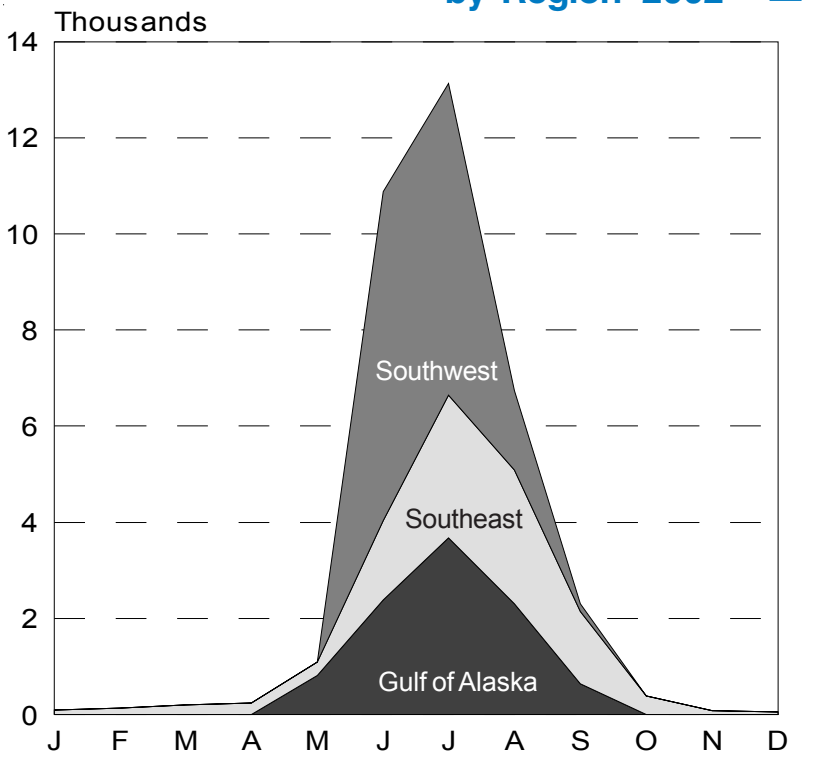
In contrast to the highly seasonal salmon fishery, Alaska's various groundfish fisheries provide a more constant number of jobs month to month. (See Exhibit 5.) With some exceptions, such as the sablefish fishery in Southeast, the groundfish fisheries are managed by the North Pacific Fishery Management Council, which has primary responsibility for the 900,000 square mile

Percent of Jobs by Species 2002 3



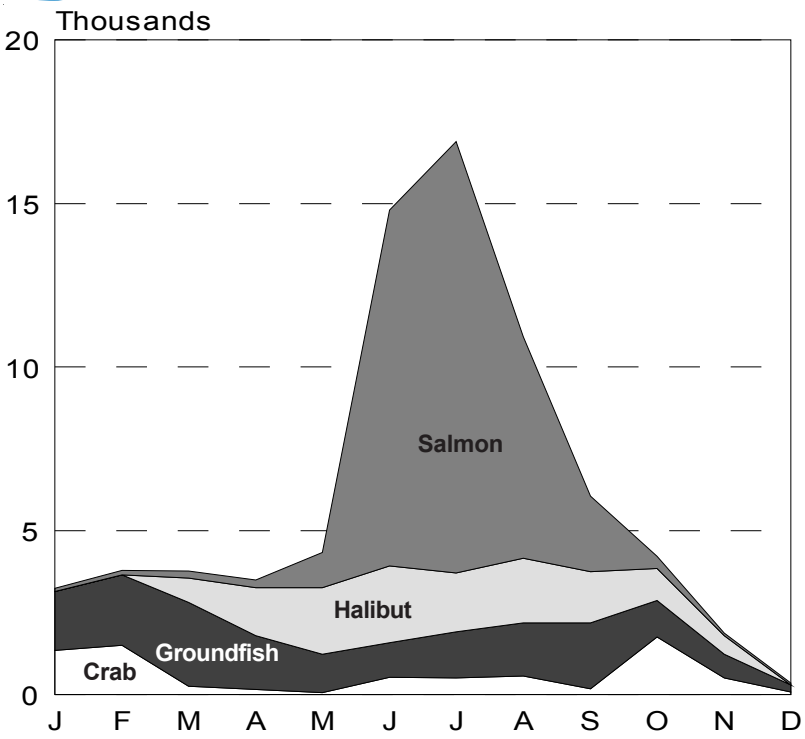
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Salmon Harvesting Jobs by Region 2002 4



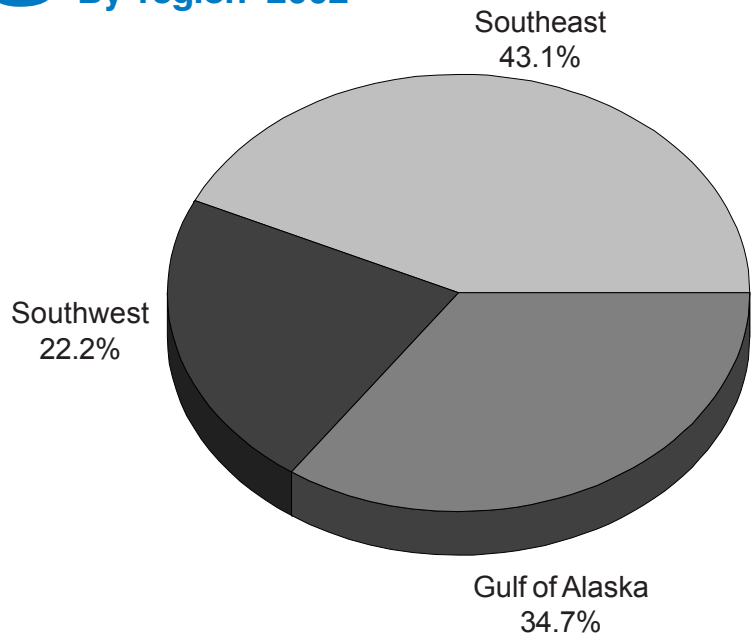
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

5 Jobs by Major Species
2002



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

6 Halibut Harvesting Jobs
By region 2002



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Exclusive Economic Zone (EEZ) beyond state waters.

Employment generated by groundfish harvesting in Alaska is dominated by the massive Bering Sea and Aleutian Island pollock fishery in the Southwest. Here factory trawlers, some larger than 300 ft., run crews around the clock, harvesting pollock, cod, and other species that are then processed onboard. Statewide, harvesting of groundfish created a monthly average of 1,455 jobs in 2002.

While salmon and groundfish harvesting jobs are most numerous in the waters of Southwest Alaska, halibut provides the greatest proportion of harvesting employment in Southeast. (See Exhibit 6.) With a 2002 statewide monthly average of 1,120 jobs, commercial halibut fishing provided just over 17 percent of all fish harvesting employment in that year.

Unlike employment in the salmon fishery, the peak months for jobs in the crab fishery occur in the decidedly less hospitable winter months. (See Exhibit 7.) Responsible for about one-in-ten harvesting jobs in 2002, the crab fishery starts the year strong with the Bering Sea opilio fishery, while the Bristol Bay red king crab fishery ramps up jobs in the late fall. The summer months in-between concentrate jobs primarily in the dungeness crab fishery in Southeast.

Harvesting jobs in the herring and various shellfish fisheries accounted for just over five percent of all fish harvesting employment in 2002. Shellfish jobs, with a monthly average of 163 jobs in 2002, spike in October with the shrimp pot fishery in Southeast providing over 400 jobs. Harvesting in Alaska's sac-roe herring fisheries occurs in the spring with peak employment in May spread out in all regions of the state.

Three regions depend on fishing

The fish harvesting estimates are aggregated into essentially the same regions as those used for wage and salary employment numbers, making industry comparisons possible. Three of the

state's six economic regions are heavily dependent on commercial fishing: Southeast, Gulf Coast, and Southwest. Most dramatic is the Southwest region where in 2002 the 2,820 fish harvesting jobs made up 21 percent of all private sector employment.[2] (See Exhibit 8.) When the region's 3,900 seafood processing jobs are included, the fishing industry provided 49 percent of private sector jobs, making it easily Southwest's biggest private employer.

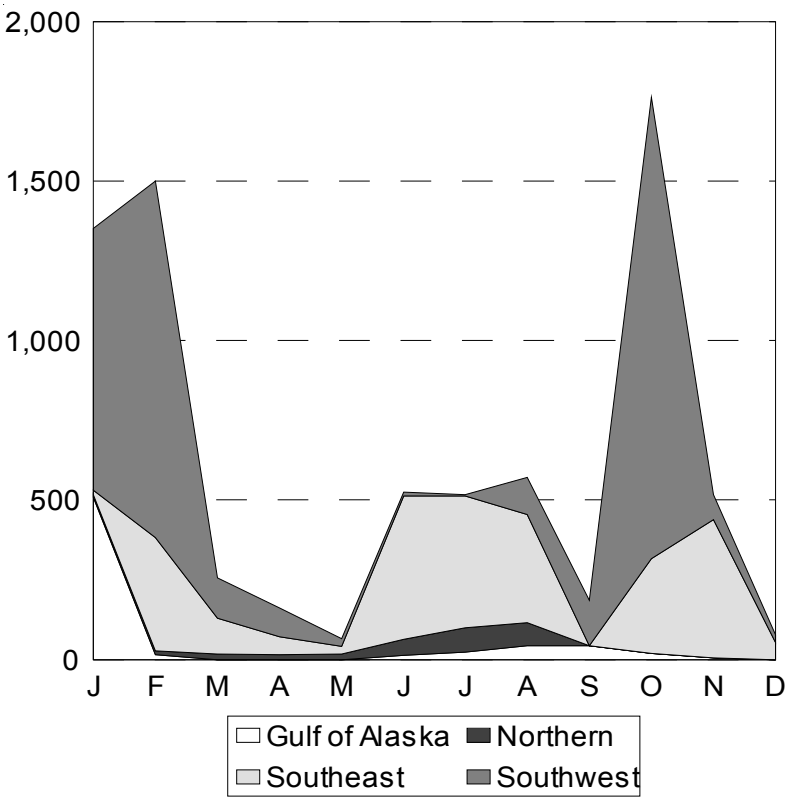
In the Gulf Coast region, fish harvesting employment plays an important, though less dominant role in the economy. Fish harvesting's 1,660 jobs in the Gulf made up about 7.4 percent of the region's 22,400 private sector jobs in 2002. When the 2,250 seafood processing jobs are added, the fishing industry made up 17 percent of private sector employment. For perspective, the fishing industry generated about 650 more jobs than retail trade, 650 more than the entire leisure & hospitality sector, and more than double the 1,850 jobs in health care & social services. As it was in Southwest, the fishing industry was the largest private sector employer in the Gulf Coast by a comfortable margin in 2002.

In Southeast, the 1,990 fish harvesting jobs in 2002 amounted to 8.2 percent of all private sector jobs. When added to the approximately 1,350 seafood processing jobs for the region in 2002, the fishing industry generated 13.8 percent of all private sector employment. The only two private employers that provided more jobs were retail trade with 4,350 jobs and leisure & hospitality with 3,750.

Southwest gets largest share of harvesting jobs

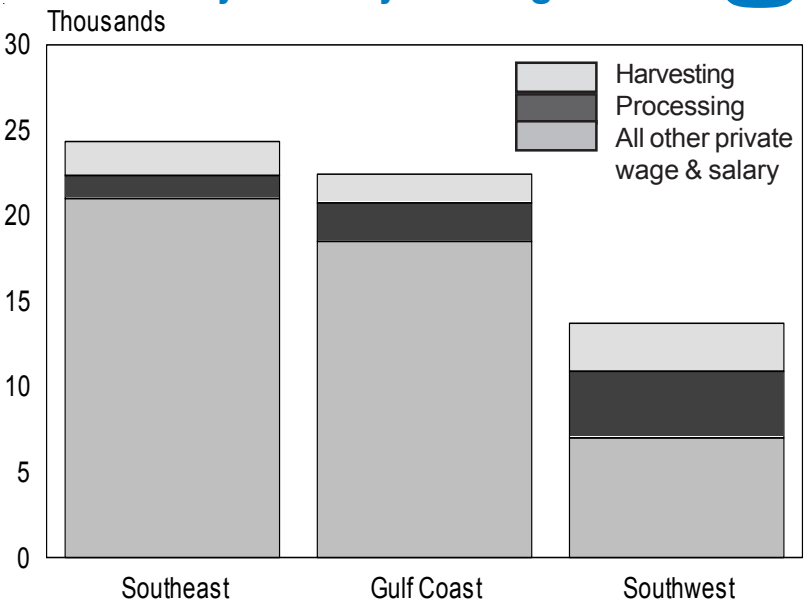
Of the state's 6,510 fish harvesting jobs in 2002, 43.3 percent were in the Southwest region. (See Exhibit 10.) The next largest share went to Southeast with 30.6 percent, followed by the Gulf of Alaska with 25.5 percent. The remaining 0.6 percent of harvesting jobs came from a relatively small amount of crab, herring, and salmon fishing in the Northern region.

Crab Harvesting Jobs 7
By region 2002



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Private Sector Employment[2] 8
By industry and region 2002



Source: Alaska Department of Labor and Workforce Development,Research and Analysis Section

Conclusion

The fish harvesting employment estimates presented in this article fill a gap in the employment data provided in *Trends* and elsewhere by the Alaska Department of Labor and Workforce Development. Historically, the fishing industry has played a crucial role in Alaska's economy and, despite current challenges in some fisheries, continues to do so, as evidenced by these employment estimates.

This project is the first attempt in more than 15 years to produce fish harvesting employment estimates. Because the numbers are still considered preliminary, changes to the methodology and estimates are possible. In general, the estimates should be viewed as conservative. The decision to apply only one set of crew factors to an individual permit holder who had landings in the same month under two different permits is one reason for this. Another is that no jobs were allocated to months when permit holders undoubtedly spent time preparing for the fishing season.

The detailed tables of fish harvesting job estimates and the crew factors used to generate the estimates are available at almis.labor.state.ak.us/

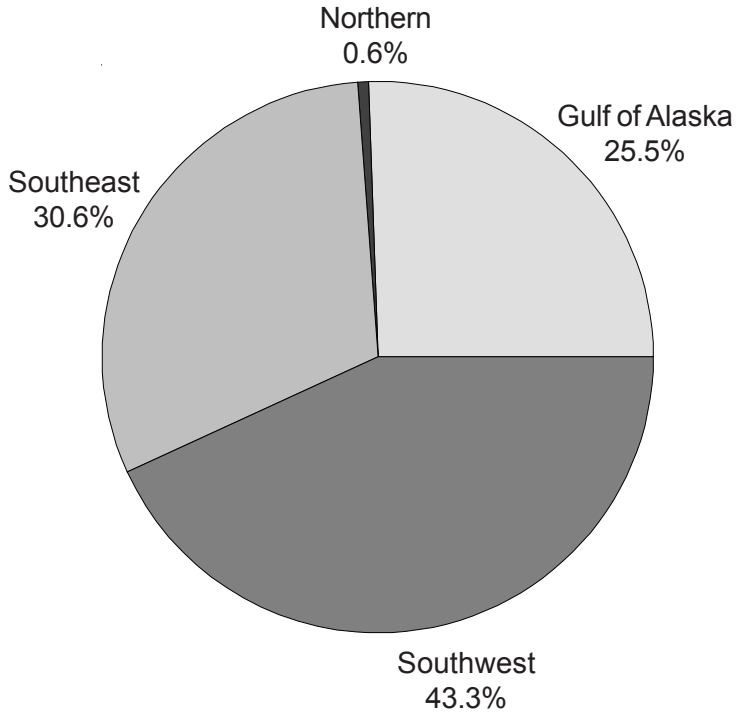
9 Fish Harvesting Job Estimates 2000–2002

All Regions and Species

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Monthly Average
2000	3,190	4,220	4,790	5,760	6,980	19,760	22,150	13,690	7,240	5,070	2,070	830	7,980
2001	2,690	4,220	4,210	4,020	5,870	17,190	20,400	12,830	7,140	5,250	2,230	700	7,230
2002	3,370	3,900	4,070	4,210	5,670	14,960	17,090	11,010	6,100	4,900	2,320	510	6,510
Gulf of Alaska Fishery													
2000	1,110	1,320	1,560	1,480	2,580	4,080	5,380	3,770	2,020	900	510	140	2,070
2001	1,090	900	1,070	1,310	2,160	4,140	5,060	3,540	1,790	960	440	80	1,880
2002	980	610	1,010	1,250	2,150	3,330	4,450	3,200	1,530	790	480	130	1,660
Northern Fishery													
2000	10	20	10	20	10	280	220	290	20	0	0	0	70
2001	0	10	10	10	10	180	300	270	0	0	0	0	60
2002	10	10	20	20	130	70	130	100	0	0	0	0	40
Southeast Fishery													
2000	330	730	1,270	1,530	2,070	3,500	4,700	4,710	3,200	1,870	1,140	420	2,120
2001	300	640	1,300	1,590	2,020	3,790	4,690	4,620	3,310	2,040	1,280	300	2,150
2002	340	640	1,210	2,060	1,950	3,380	4,130	3,920	2,780	1,860	1,340	300	1,990
Southwest Fishery													
2000	1,740	2,160	1,950	2,730	2,320	11,910	11,850	4,920	2,010	2,300	430	270	3,720
2001	1,310	2,680	1,840	1,120	1,680	9,080	10,350	4,400	2,030	2,250	520	310	3,130
2002	2,040	2,630	1,840	890	1,440	8,170	8,390	3,790	1,800	2,250	500	80	2,820

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

10 Harvesting Jobs by Region
2002



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Footnotes

[1] The majority of landing data comes from mandatory fish ticket reporting by shoreside, mothership, and in-shore floating processors. Landing data for groundfish catcher processors is provided by National Marine Fisheries Service (NMFS) as compiled by the Alaska Fisheries Information Network (AKFIN). These estimates utilize data from 2000 to 2002.

[2] Private sector jobs is defined here to mean all private wage and salary jobs combined with fish harvesting jobs. All other agricultural jobs and self-employment are excluded.

Trends Index 2004

Two Sets of Numbers

Household survey and payroll survey provide different employment numbers

Alaska Employment Scene

by
Dan Robinson
Economist

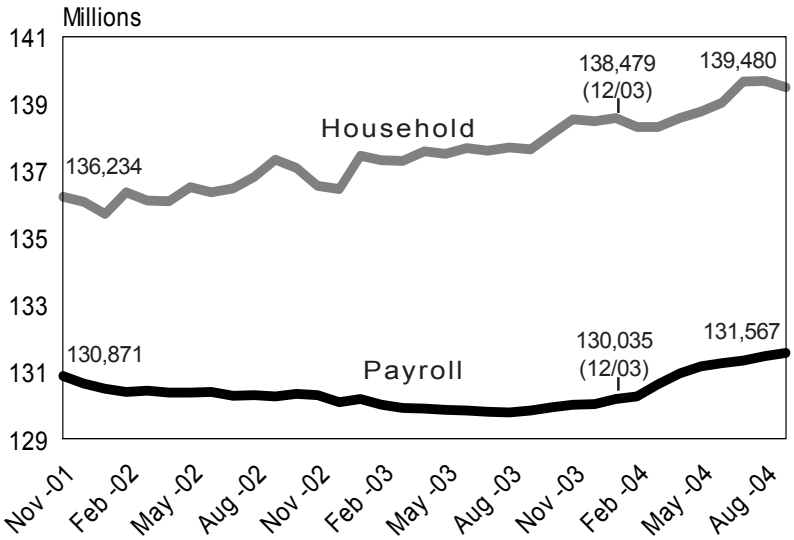
The Alaska Department of Labor and Workforce Development participates with the U.S. Bureau of Labor Statistics in two monthly surveys used to estimate employment levels and trends: the Current Population Survey, also known as the "household survey," used as an input to the Local Area Unemployment Statistics program, and the "payroll survey" which is part of the Current Employment Statistics Program.

Despite the fact that both surveys produce employment numbers, an important economic indicator, there are significant differences between them. These differences partly explain why the surveys occasionally give contradictory signals about the economy.

The household survey, with the principal objective of producing unemployment rates, counts the number of working people age 16 and over by where they live. The survey includes business owners, the self-employed, unpaid family workers, and workers who earn a wage or salary. A person with more than one job is counted only once.

The payroll survey counts only wage and salary workers. It does not count business owners, the self-employed, unpaid family workers, or private household workers. Someone who holds more than one job will be counted more than once since they are on more than one establishment's payroll. The payroll survey is therefore more of a job count while the household survey is a count of individuals working.

1 U.S. Employment 11/01–09/04
Household and payroll surveys



Sources: U.S. Bureau of Labor Statistics and Alaska Department of Labor and Workforce Development, Research and Analysis Section

Surveys can produce conflicting numbers

Comparing the employment data produced by the two surveys, one expects the level to be higher in the household survey because it counts the self-employed and generally has a broader definition of employment. A problem arises, however, when the two surveys tell different stories about whether the nation is adding or losing jobs, as was the case throughout 2003.

From the end of the national recession in November 2001 to December 2003, the

household survey showed employment growth of 2.2 million while the payroll survey showed a loss of more than 800,000 jobs. (See Exhibit 1.) Then, from December 2003 to September 2004, the payroll survey showed that the nation added 1.5 million jobs, while the household survey showed slower growth of about one million. These kinds of differences during critical periods for the national economy raised questions about which survey is more accurate and reliable.

Alaska numbers over the same period also show differences. (See Exhibit 2.) From November 2001 to September 2002, the household survey shows an employment loss of about 1,450; over the same period the payroll survey showed that Alaska added 5,400 jobs. (See Exhibit 2.) The sudden jump in employment in the household survey in January 2004 is almost certainly due to the way the numbers are calculated, rather than real economic change. In recent years Alaska has had large downward year-end revisions for the most current year, making over-the-year comparisons very misleading.

Payroll survey has several advantages

For several reasons, the payroll survey is likely to be a more accurate measure of month-to-month job growth. Nationally, the payroll survey samples about 400,000 business establishments of all sizes, representing about one-third of total wage and salary employment. The household survey is much smaller at 60,000 households, covering only a small fraction of the total number of employed persons. At the national level, the household survey is subject to a sampling error about three times that of the payroll survey on a monthly basis.

Another factor that works in favor of the payroll survey is that estimates made from the payroll survey are benchmarked once a year against a full universe count of wage and salary employment taken from unemployment insurance tax records. Through that process, the employment estimates are converted to an actual count of payroll jobs. The household survey uses population counts from the decennial census and other population data from the U.S. Census Bureau to revise its estimates, but the process is more complicated and less reliable.

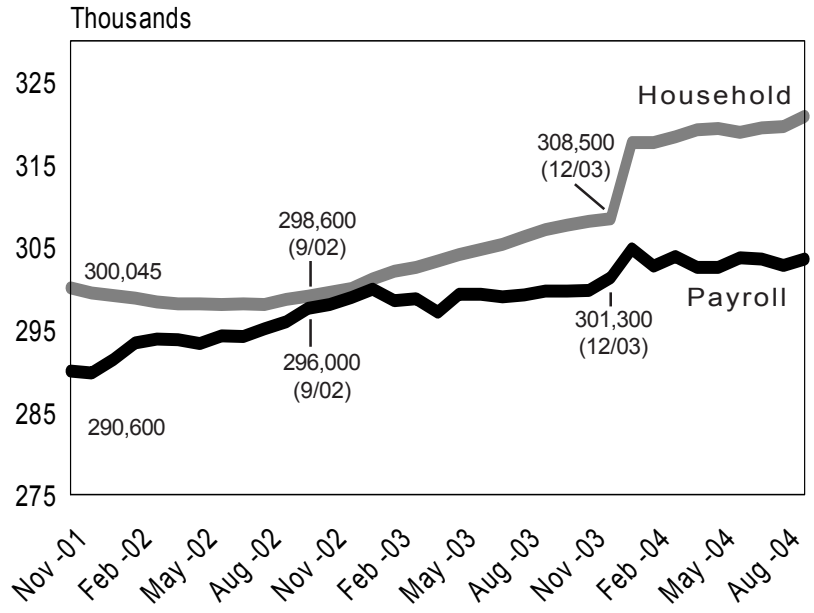
When asked about the two different surveys and the contradictory information they were providing at the time, Alan Greenspan, chairman of the Federal Reserve Board, said, "We have concluded that the data on so-called payrolls survey is surely the most accurate of the two and our suspicion is that at the end of the day there will be revisions to the household data." (Testimony before the House of Representatives Budget Committee, February 25, 2004.)

Both surveys are useful

Both the payroll and household surveys provide useful information and together they produce a more complete picture of the labor market than either one could do alone. The payroll survey provides a reliable gauge of monthly change in

(continued on page 26)

Alaska Employment 11/01–09/04 2
Household and payroll surveys



Sources: U.S. Bureau of Labor Statistics and Alaska Department of Labor and Workforce Development, Research and Analysis Section

3 Nonfarm Wage and Salary Employment
By place of work

Alaska	preliminary 9/04	revised 8/04	9/03	Changes from: 8/04	9/03
Total Nonfarm Wage & Salary[1]	**317,400**	**323,400**	**313,300**	**-6,000**	**4,100**
Goods Producing	45,300	50,400	44,100	-5,100	1,200
Services Providing	272,100	273,000	269,200	-900	2,900
Natural Resources & Mining	**10,500**	**10,800**	**10,200**	**-300**	**300**
Logging	500	500	700	0	-200
Mining	9,900	10,000	9,600	-100	300
Oil & Gas Extraction	8,400	8,500	8,100	-100	300
Construction	**21,200**	**21,600**	**20,200**	**-400**	**1,000**
Manufacturing	**13,600**	**17,900**	**13,700**	**-4,300**	**-100**
Wood Products Manufacturing	300	300	300	0	0
Seafood Processing	9,600	13,900	9,800	-4,300	-200
Trade, Transportation, Utilities	**65,000**	**66,800**	**63,800**	**-1,800**	**1,200**
Wholesle Trade	6,300	6,600	6,300	-300	0
Retail Trade	36,200	36,900	35,100	-700	1,100
Food & Beverage Stores	6,100	6,300	6,100	-200	0
General Merchandise Stores	9,000	9,400	8,500	-400	500
Trans/Warehousing/Utilities	22,500	23,400	22,300	-900	200
Air Transportation	6,900	7,000	6,600	-100	300
Truck Transportation	3,000	3,100	2,800	-100	200
Information	**7,000**	**7,000**	**6,900**	**0**	**100**
Telecommunications	4,100	4,100	4,100	0	0
Financial Activities	**14,800**	**15,200**	**14,700**	**-400**	**100**
Professional & Business Svcs	**23,600**	**24,800**	**23,600**	**-1,200**	**0**
Educational & Health Services	**34,900**	**35,100**	**32,900**	**-200**	**2,000**
Health Care/Social Assistance	32,800	33,100	30,700	-300	2,100
Ambulatory Health Care	13,900	13,700	12,700	200	1,200
Hospitals	8,600	8,600	8,400	0	200
Leisure & Hospitality	**33,700**	**36,100**	**33,300**	**-2,400**	**400**
Accommodation	9,700	10,900	9,400	-1,200	300
Food Svcs & Drinking Places	19,800	20,700	19,600	-900	200
Other Services	**11,000**	**10,700**	**11,400**	**300**	**-400**
Government[2]	**82,100**	**77,400**	**82,700**	**4,700**	**-600**
Federal Government[3]	17,700	18,000	17,700	-300	0
State Government	24,600	23,100	24,700	1,500	-100
State Education	7,300	5,300	7,400	2,000	-100
Local Government	39,800	36,400	40,300	3,400	-500
Local Education	21,900	17,800	22,200	4,100	-300
Tribal Government	4,100	4,300	3,900	-200	200

Municipality of Anchorage	preliminary 9/04	revised 8/04	9/03	Changes from: 8/04	9/03
Total Nonfarm Wage & Salary[1]	**148,100**	**147,000**	**146,000**	**1,100**	**2,100**
Goods Producing	14,800	15,200	14,200	-400	600
Services Providing	133,300	131,900	131,800	1,400	1,500
Natural Resources & Mining	**2,300**	**2,300**	**2,200**	**0**	**100**
Mining	2,200	2,200	2,100	0	100
Oil & Gas Extraction	2,000	2,000	1,900	0	100
Construction	**10,700**	**11,000**	**10,100**	**-300**	**600**
Manufacturing	**1,800**	**1,900**	**1,900**	**-100**	**-100**
Trade, Transportation, Utilities	**34,200**	**34,300**	**33,700**	**-100**	**500**
Wholesale Trade	4,700	4,800	4,700	-100	0
Retail Trade	18,000	18,100	17,700	-100	300
Food & Beverage Stores	2,500	2,500	2,500	0	0
General Merchandise Stores	4,400	4,300	4,300	100	100
Trans/Warehousing/Utilities	11,400	11,500	11,300	-100	100
Air Transportation	3,700	3,700	3,500	0	200
Information	**4,500**	**4,400**	**4,500**	**100**	**0**
Telecommunications	2,600	2,600	2,700	0	-100
Financial Activities	**9,100**	**9,100**	**8,900**	**0**	**200**
Professional & Business Svcs	**16,100**	**16,400**	**16,100**	**-300**	**0**
Educational & Health Services	**18,800**	**18,700**	**17,400**	**100**	**1,400**
Health Care/Social Assistance	17,600	17,500	16,300	100	1,300
Ambulatory Health Care	6,900	6,900	6,200	0	700
Hospitals	5,300	5,300	5,200	0	100
Leisure & Hospitality	**15,300**	**15,500**	**15,100**	**-200**	**200**
Accommodation	3,200	3,300	3,200	-100	0
Food Svcs & Drinking Places	10,300	10,400	10,200	-100	100
Other Services	**5,300**	**5,300**	**5,600**	**0**	**-300**
Government[2]	**30,000**	**28,000**	**30,300**	**2,000**	**-300**
Federal Government[3]	9,800	9,900	9,800	-100	0
State Government	9,700	9,100	9,700	600	0
State Education	2,400	1,600	2,500	800	-100
Local Government	10,500	8,900	10,700	1,600	-200
Local Education	7,100	5,500	7,400	1,600	-300
Tribal Government	300	300	300	0	0

Notes to Exhibits 3, 4, 5, & 7—*[1]Nonfarm excludes self-employed workers, fishermen, domestics, and unpaid family workers as well as agricultural workers. [2]Includes employees of public school systems and the University of Alaska. [3]Excludes uniformed military.*
Exhibits 3 & 4—Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.
Exhibits 5 & 7—Prepared in part with funding from the Employment Security Division.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

4 Hours and Earnings
For selected industries

	Average Weekly Earnings preliminary 9/04	revised 8/04	revised 9/03	Average Weekly Hours preliminary 9/04	revised 8/04	revised 9/03	Average Hourly Earnings preliminary 9/04	revised 8/04	revised 9/03
Mining	$1,438.69	$1,511.59	$1,298.06	45.1	47.4	44.9	$31.90	$31.89	$28.91
Construction	$1,266.88	$1,196.66	$1,319.36	42.8	40.8	44.8	$29.60	$29.33	$29.45
Manufacturing	$614.99	$637.75	$527.14	47.6	49.4	46.2	$12.92	$12.91	$11.41
Seafood Processing	$653.11	$612.44	$611.11	54.2	50.2	56.9	$12.05	$12.20	$10.74
Trade, Transportation, Utilities	$540.46	$554.05	$560.55	33.3	35.0	35.1	$16.23	$15.83	$15.97
Retail Trade	$435.02	$443.85	$467.50	31.8	33.0	34.0	$13.68	$13.45	$13.75
Financial Activities	$692.57	$727.82	$730.11	34.1	36.3	36.8	$20.31	$20.05	$19.84

Average hours and earnings estimates are based on data for full-time and part-time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing). Averages are for gross earnings and hours paid, including overtime pay and hours.
Benchmark: March 2003
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

5 Nonfarm Wage and Salary Employment
By place of work

Fairbanks North Star Borough

	preliminary 9/04	revised 8/04	9/03	Changes from: 8/04	9/03
Total Nonfarm Wage & Salary[1]	38,350	38,500	37,650	-150	700
Goods Producing	4,700	5,000	4,800	-300	-100
Services Providing	33,600	33,500	32,800	100	800
Natural Resources & Mining	850	1,000	1,000	-150	-150
Mining	850	1,000	1,000	-150	-150
Construction	3,300	3,400	3,250	-100	50
Manufacturing	550	600	550	-50	0
Trade, Transportation, Utilities	7,450	7,700	7,200	-250	250
Wholesale Trade	600	600	600	0	0
Retail Trade	4,350	4,450	4,000	-100	350
Trans/Warehousing/Utilities	2,500	2,600	2,600	-100	-100
Information	550	550	600	0	-50
Financial Activities	1,550	1,550	1,400	0	150
Professional & Business Svcs	2,200	2,400	2,100	-200	100
Educational & Health Services	4,200	4,200	4,000	0	200
Health Care/Social Assistance	4,050	4,050	3,850	0	200
Leisure & Hospitality	4,350	4,700	4,300	-350	50
Accommodation	1,300	1,500	1,250	-200	50
Food Svcs & Drinking Places	2,550	2,650	2,550	-100	0
Other Services	1,300	1,400	1,350	-100	-50
Government[2]	11,950	11,000	11,800	950	150
Federal Government[3]	3,400	3,500	3,450	-100	-50
State Government	5,500	4,900	5,250	600	250
Local Government	3,100	2,600	3,100	500	0
Tribal Government	0	0	0	0	0

Southeast Region

	preliminary 9/04	revised 8/04	9/03	Changes from: 8/04	9/03
Total Nonfarm Wage & Salary[1]	39,250	41,650	39,400	-2,400	-150
Goods Producing	5,350	7,000	5,350	-1,650	0
Services Providing	33,900	34,700	34,050	-800	-150
Natural Resources & Mining	650	700	750	-50	-100
Logging	350	400	450	-50	-100
Mining	300	300	300	0	0
Construction	2,250	2,350	2,100	-100	150
Manufacturing	2,400	3,900	2,500	-1,500	-100
Wood Products Mfg.	150	150	150	0	0
Seafood Processing	2,000	3,500	2,100	-1,500	-100
Trade, Transportation, Utilities	8,150	8,750	8,150	-600	0
Retail Trade	4,800	5,050	4,850	-250	-50
Trans/Warehousing/Utilities	2,900	3,200	2,850	-300	50
Information	500	500	500	0	0
Financial Activities	1,250	1,350	1,300	-100	-50
Professional & Business Svcs	1,550	1,600	1,550	-50	0
Educational & Health Services	3,500	3,500	3,400	0	100
Health Care/Social Assistance	3,300	3,350	3,250	-50	50
Leisure & Hospitality	4,350	4,850	4,300	-500	50
Accommodation	1,650	1,850	1,600	-200	50
Food Svcs & Drinking Places	1,850	2,050	1,850	-200	0
Other Services	1,200	1,100	1,150	100	50
Government[2]	13,450	13,150	13,700	300	-250
Federal Government[3]	2,100	2,150	2,100	-50	0
State Government	5,500	5,350	5,700	150	-200
Local Government	5,850	5,650	5,900	200	-50
Tribal Government	900	850	800	50	100

Interior Region

	preliminary 9/04	revised 8/04	9/03	Changes from: 8/04	9/03
Total Nonfarm Wage & Salary[1]	45,850	46,400	45,350	-550	500
Goods Producing	5,250	5,650	5,400	-400	-150
Services Providing	40,650	40,700	39,900	-50	750
Natural Resources & Mining	1,000	1,150	1,100	-150	-100
Mining	950	1,100	1,100	-150	-150
Construction	3,600	3,800	3,650	-200	-50
Manufacturing	650	700	650	-50	0
Trade, Transportation, Utilities	8,800	9,250	8,600	-450	200
Information	600	600	650	0	-50
Financial Activities	1,650	1,650	1,550	0	100
Professional & Business Svcs	2,600	2,800	2,550	-200	50
Educational & Health Services	4,400	4,350	4,200	50	200
Leisure & Hospitality	6,300	6,900	6,250	-600	50
Accommodation	1,950	2,300	1,900	-350	50
Food Svcs & Drinking Places	3,750	3,900	3,750	-150	0
Other Services	1,500	1,500	1,550	0	-50
Government[2]	14,750	13,650	14,550	1,100	200
Federal Government[3]	4,050	4,150	4,100	-100	-50
State Government	5,750	5,200	5,500	550	250
Local Government	4,950	4,300	4,950	650	0
Tribal Government	400	450	400	-50	0

Anchorage/Mat-Su Region

	preliminary 9/04	revised 8/04	9/03	Changes from: 8/04	9/03
Total Nonfarm Wage & Salary[1]	165,300	164,450	162,000	850	3,300
Goods Producing	17,200	17,600	16,300	-400	900
Services Providing	148,100	146,850	145,700	1,250	2,400
Natural Resources & Mining	2,400	2,400	2,250	0	150
Construction	12,700	13,050	11,950	-350	750
Manufacturing	2,100	2,200	2,100	-100	0
Trade, Transportation, Utilities	37,750	38,300	37,150	-550	600
Information	5,000	5,000	5,050	0	-50
Financial Activities	9,900	9,950	9,600	-50	300
Professional & Business Svcs	17,150	17,600	16,950	-450	200
Educational & Health Services	21,300	21,250	19,700	50	1,600
Leisure & Hospitality	17,500	17,850	17,200	-350	300
Other Services	5,850	5,850	6,150	0	-300
Government[2]	33,650	31,050	33,950	2,600	-300
Federal Government[3]	10,050	10,150	10,050	-100	0
State Government	10,650	10,050	10,750	600	-100
Local Government	12,900	10,850	13,150	2,050	-250
Tribal Government	350	400	300	-50	50

Gulf Coast Region

	preliminary 9/04	revised 8/04	9/03	Changes from: 8/04	9/03
Total Nonfarm Wage & Salary[1]	30,050	33,200	29,700	-3,150	350
Goods Producing	6,400	8,200	6,300	-1,800	100
Services Providing	23,700	24,950	23,350	-1,250	350
Natural Resources & Mining	1,200	1,300	1,150	-100	50
Oil & Gas Extraction	1,100	1,150	1,000	-50	100
Construction	1,850	1,900	1,850	-50	0
Manufacturing	3,350	5,050	3,300	-1,700	50
Seafood Processing	2,650	4,350	2,600	-1,700	50
Trade, Transportation, Utilities	5,950	6,450	5,750	-500	200
Retail Trade	3,500	3,750	3,350	-250	150
Trans/Warehousing/Utilities	2,050	2,250	2,050	-200	0
Information	450	450	450	0	0
Financial Activities	750	900	750	-150	0
Professional & Business Svcs	1,450	1,500	1,400	-50	50
Educational & Health Services	2,350	2,400	2,250	-50	100
Health Care/Social Assistance	2,300	2,350	2,150	-50	150
Leisure & Hospitality	3,950	4,650	3,900	-700	50
Accommodation	1,450	1,750	1,400	-300	50
Food Svcs & Drinking Places	2,050	2,400	2,050	-350	0
Other Services	1,200	1,250	1,300	-50	-100
Government[2]	7,650	7,400	7,600	250	50
Federal Government[3]	950	950	950	0	0
State Government	1,750	1,600	1,750	150	0
Local Government	4,950	4,850	4,900	100	50
Tribal Government	350	350	350	0	0

6 Unemployment Rates
By region and census area

Not Seasonally Adjusted	preliminary 9/04	revised 8/04	9/03
United States	**5.1**	**5.4**	**5.8**
Alaska Statewide	**6.7**	**6.6**	**6.9**
Anchorage/Mat-Su Region	**5.5**	**5.5**	**5.8**
Municipality of Anchorage	5.1	5.0	5.4
Mat-Su Borough	7.1	7.2	7.6
Gulf Coast Region	**9.0**	**8.3**	**9.4**
Kenai Peninsula Borough	9.4	8.2	10.5
Kodiak Island Borough	7.7	9.7	5.9
Valdez-Cordova	8.6	6.7	8.8
Interior Region	**5.7**	**5.6**	**6.1**
Denali Borough	5.5	2.1	6.7
Fairbanks North Star Borough	5.1	5.1	5.6
Southeast Fairbanks	10.0	9.6	8.6
Yukon-Koyukuk	13.4	12.8	13.6
Northern Region	**16.7**	**17.0**	**17.1**
Nome	16.3	16.5	14.7
North Slope Borough	14.2	15.5	17.3
Northwest Arctic Borough	20.9	19.9	20.2
Southeast Region	**6.1**	**5.9**	**6.4**
Haines Borough	6.5	5.8	7.8
Juneau Borough	5.6	5.2	5.5
Ketchikan Gateway Borough	6.1	5.8	5.9
Prince of Wales-Outer Ketchikan	10.3	10.9	12.9
Sitka Borough	4.1	3.9	5.2
Skagway-Hoonah-Angoon	7.1	6.5	6.8
Wrangell-Petersburg	7.5	7.0	7.5
Yakutat Borough	9.3	10.7	6.8
Southwest Region	**14.3**	**14.2**	**12.8**
Aleutians East Borough	4.4	4.1	4.0
Aleutians West	8.3	7.5	6.1
Bethel	16.5	16.5	14.4
Bristol Bay Borough	10.7	8.2	9.1
Dillingham	13.0	11.0	10.5
Lake & Peninsula Borough	13.4	14.9	12.0
Wade Hampton	24.0	26.1	24.8
Seasonally Adjusted			
United States	5.4	5.4	6.1
Alaska Statewide	7.6	7.6	8.0

2003 Benchmark

Comparisons with previous year's numbers are of very limited use because of the magnitude of year-end revisions. The current, official definition of unemployment excludes anyone who has not made an active attempt to find work in the four-week period up to and including the week that includes the 12th of the reference month. Due to the scarcity of employment opportunities in rural Alaska, many individuals do not meet the official definition of unemployed because they have not conducted an active job search.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

(continued from page 23)

wage and salary employment. It also provides industry and geographic information at detailed levels. (See Exhibits 3, 5, and 7.) The employment numbers published monthly in *Trends* come from the payroll survey.

The household survey provides a broader picture of employment that includes the self-employed and other segments of the labor market left out of the payroll survey. The household survey has more short-term volatility due to a smaller sample and a less reliable revision or benchmark process. Although the employment numbers from the household survey are not published monthly in *Trends*, they are one of the inputs used to generate the monthly unemployment rates seen in Exhibit 6. The employment numbers from the household survey are at: http://www.labor.state.ak.us/research/emp_ue/fall.htm. National and Alaska employment numbers from both surveys can also be found at www.bls.gov.

7 Nonfarm Wage/Salary Employment
By place of work

Northern Region

	preliminary 9/04	revised 8/04	Changes from: 9/03	8/04	9/03
Total Nonfarm Wage & Salary[1]	16,250	16,150	16,050	100	200
Goods Producing	5,600	5,600	5,350	0	250
Services Providing	10,600	10,550	10,700	50	-100
Oil & Gas Extraction	4,850	4,800	4,600	50	250
Government[2]	5,150	4,950	5,150	200	0
Federal Government[3]	200	200	150	0	50
State Government	350	350	350	0	0
Local Government	4,600	4,400	4,650	200	-50
Tribal Government	550	600	550	-50	0

Southwest Region

Total Nonfarm Wage & Salary[1]	20,500	21,450	20,750	-950	-250
Goods Producing	5,450	6,450	5,550	-1,000	-100
Services Providing	15,050	15,000	15,250	50	-200
Seafood Processing	4,900	5,900	5,000	-1,000	-100
Government[2]	7,500	7,300	7,600	200	-100
Federal Government[3]	400	400	400	0	0
State Government	550	550	550	0	0
Local Government	6,550	6,350	6,650	200	-100
Tribal Government	1,550	1,650	1,600	-100	-50

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Employer Resources

Employer tax credits are an important part of the diverse strategies designed to help people gain on-the-job experience and acquire better employment. The federal Work Opportunity Tax Credit (WOTC) and Welfare-to-Work (WtW) programs offer federal tax credits to employers that help defray payroll expenses as an incentive to hire people in several specific target groups who traditionally have difficulty finding work.

Job seekers who qualify as a member of a specific target group can gain an advantage in the job market. WOTC and WtW have been reauthorized through December 31, 2005. They are based upon a minimum of hours worked and earnings in the first and/or second year of employment. The Employment Security Division administers WOTC and WtW. For more information, go to http://www.jobs.state.ak.us/wotc.htm