Alaska Seafood Processing—A Growing Job Source?

by Neal Fried

Seafood processing is one of Alaska's earliest industries. Alaskan Natives processed fish and traded their surplus with other tribes. The first commercial fish canning operations opened in 1878, and by the turn of the century almost 50 canneries operated in the Alaska territory. At one time, about 75 percent of taxes from the Territory of Alaska came from canned salmon.

Despite its long history, the processing side of Alaska's fishing industry operates in relative obscurity. One reason is that many industry operators are nonresidents. Another is the attention focused on the harvesting segment of the industry. Although both halves of this industry depend on each other, the money and romance favor the harvesting side. However, as employment opportunities in Alaska become less plentiful, interest may turn to the state's fish processing industry as an important source of jobs for Alaskans.

Fish processing is a big employer

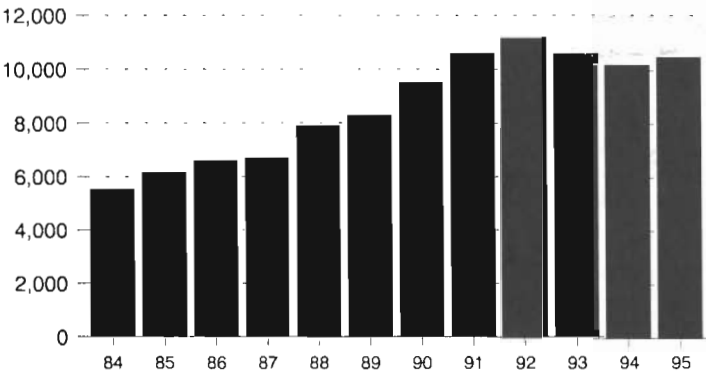
Seafood processing is the leading manufacturer in the state. In 1995, Alaska's 197 seafood processing plants accounted for about 64 percent of all manufacturing employment. No other state in the U.S. approached this level of industry concentration. Seafood processing provided an average of 11,000 jobs with a total payroll of more than $240 million. (See Figure 1.) In July, the number of processing jobs climbed to 19,300. (See Figure 2.) Over 25,000 people held fish processing jobs at some time during the year. These numbers exclude most of the factory trawler fleet and other off-shore processing vessels because much of their employment occurs outside the state's jurisdiction. Including factory trawlers, employment could add another 5,000 workers to the fish processing work force.

Employment doubled in the past decade

After the collapse of the king crab fishery in the early 1980s, processing employment slid for three years and then changed little for the next five. But, in 1988, the Americanization of the groundfish resource along the state's coastal waters began to turbo-charge Alaska's fish processing industry. (See Figure 3.) The next year, the volume of groundfish processed surpassed salmon production for the first time in history. During the past decade, employment in the processing industry grew

Figure • 1

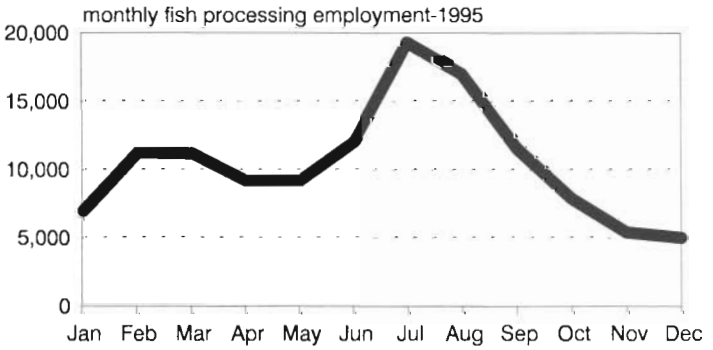
Alaska Seafood Processing Employment Stable During Past Five Years



Source: Alaska Department of Labor, Research & Analysis Section.

Figure • 2

Industry Undergoes Incredible Seasonality



Source: Alaska Department of Labor, Research & Analysis Section.

About the author: Neal Fried is a labor economist with the Research & Analysis Section, Administrative Services Division, Alaska Department of Labor. He is located in Anchorage.

much more rapidly than total wage and salary employment. (See Figure 4.) From 1991 to 1995, processing employment, also boosted by strong salmon harvests, surpassed 10,000. Employment peaked in 1992 at 11,200.

These figures tell only part of the story because the non-Alaskan factory trawler fleet harvests more than half of the groundfish. When this fleet's activity is included, the growth becomes even more impressive. In 1986, only 12 trawlers were fishing in Alaska's waters, but by 1992 the trawler fleet had grown to 75. (See Figure 5.) Including processing on the factory trawlers, Alaska's fish processing employment more than doubled in less than five years—a feat few other large industries have ever managed.

Table • 1

Alaska's Biggest Fish Processing Areas in 1995

	Annual Employment *
Aleutians East Borough	2,175
Kodiak Island Borough	2,034
Aleutians West	1,142
Kenai Peninsula Borough	953
Petersburg	419
Ketchikan Island Borough	412
Cordova	289

*Represents employment during July 1994-June 1995.
Source: Alaska Department of Labor, Research & Analysis Section.

Processing dominates some regions

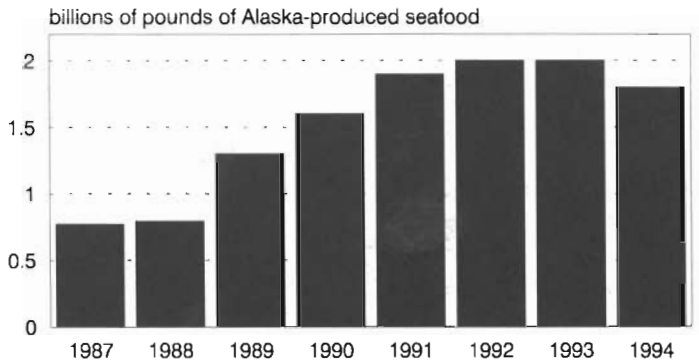
Though statewide fish processing employment, excluding most factory trawlers, accounts for about 4 percent of all wage and salary employment, in many coastal areas fish processing reigns king. (See Table 1.) In two boroughs and one census area, processing provides over one-third of the area's wage and salary employment. (See Figures 6 and 7.) Kodiak, with 11 processors, is home to the largest number of plants in the state, while Dutch Harbor has the largest processing work force. Approximately 57 percent of Dutch Harbor's wage and salary employment is seafood processing. For many other communities, the story is similar. In remote sites like Port Bailey in Kodiak, fish processing represents the only economic activity in the area. In fact, several communities in the state exist because someone located a cannery at that site.

Diversified fisheries reduce seasonality

Except for the visitor industry, fish processing is Alaska's most seasonal industry. In 1995, employment varied by more than four-fold from the peak month to the trough. (See Figure 2.) For many individual regions, the seasonality is far more dramatic. Processing employment in the Lake and Peninsula Borough goes from nearly zero in March to 600 in July.

Figure • 3

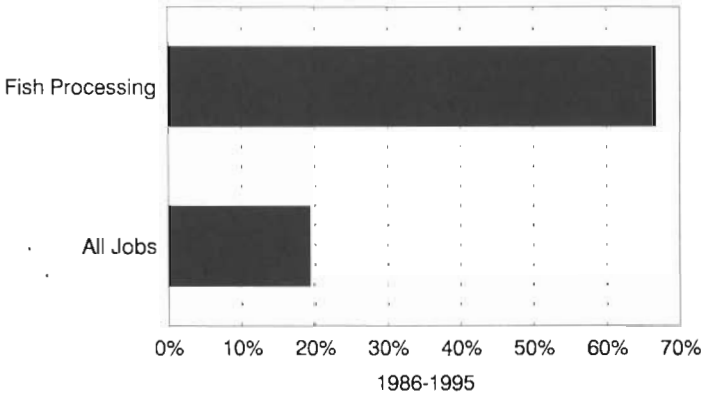
Since 1989, Processors Have Gained Boost From Groundfishery



Source: Alaska Department of Fish and Game.

Figure • 4

Fish Processing Jobs Have Grown Faster Than Overall Economy in Past Decade



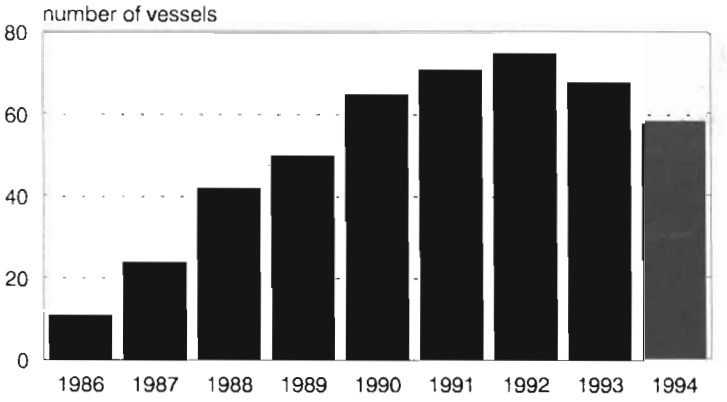
Source: Alaska Department of Labor, Research & Analysis Section.

While seasonality is a constant influence in this industry, its magnitude varies with the length and diversity of the fisheries. (See Figure 8.) In the late 1970s and early 1980s, the king crab winter harvests boosted employment during traditionally low months. After the crash of the king crab fishery, seasonality increased dramatically. In 1985, a seven-fold difference between the high and low months occurred.

The advent of the huge harvest of groundfish during the non-summer months raised hopes for more year-round employment. These expectations were met—at least temporarily. For example, during the late 1980s and early 1990s, nearly all of Kodiak's processors operated through the winter months. Because of the increased groundfish harvest and some strong crab harvests, in 1990, processing's highest monthly employment was only three times that of the lowest. That year, for the first time in the industry's history, employment crested the 10,000 mark during a non-summer month. In 1992, when processing reached its historical peak, employment fell below 10,000 for only four months. But then, as in other Alaska fisheries, so many new players entered the fishery that the length of the harvests began to shrink. In 1989, the Bering Sea pollock season was opened the entire year. By 1995, it was split into two distinct seasons for a combined length of 110 days.

F i g u r e • 5

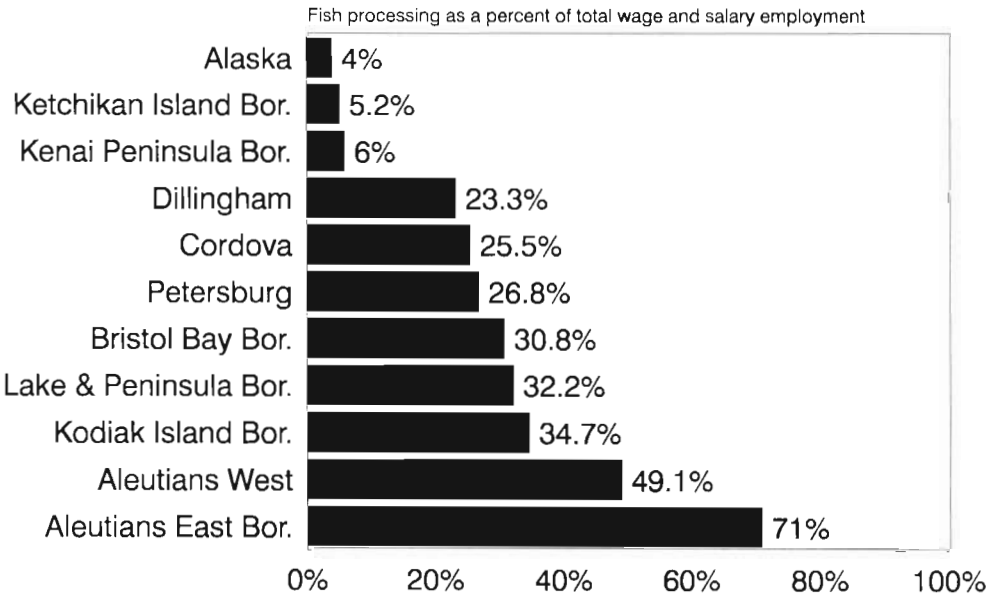
Factory Trawler Fleet Created Thousands of Jobs Starting in Late 1980s



Source: Impact Assessment, Inc., for the North Pacific Fishery Management Council.

F i g u r e • 6

Places Where Fish Processing Employment is Big



Source: Alaska Department of Labor, Research & Analysis Section.

Compensation is generally low

In 1995, the average hourly wage for jobs in the fish processing industry was $8.51. (See Figure 9.) This figure covers all non-supervisory workers in the industry and all gross earnings, including overtime. Compensation has changed little over time; when adjusted for inflation, it has actually declined. (See Figure 10.) Why wages have stagnated is not clear. During the past five years, pay scales for processing workers showed little or no movement. Working long hours can boost earnings. A processing worker earning $6 per hour earns $9 per hour after eight hours per day and\or 40 hours

Tables • 2 & 3

Fish Processing Wages Not Lowest 1994's Average Monthly Wage

Statewide Average	$2,689
FISH PROCESSING	**$1,953**
Timber	$3,421
Construction	$3,833
Retail Trade	$1,463
Hotels	$1,375
Services	$2,024
Government	$3,146

Source: Alaska Department of Labor, Research & Analysis Section.

The Salary Range of Some Positions on the Seattle Factory Trawler Fleet

Occupational Title	Average Annual Wage Rate
Captains	$100,000-$200,000
Engineers	$100,000 plus
Mates	$55,000-$117,000
Deck Hands	$44,000-$90,000
Stewards/Chefs	$56,000-$80,000
Factory Forepersons	$96,000-$128,000
Processors	$24,000-$35,000

Source: Impact Assessment, Inc., for the North Pacific Fishery Management Council. Information provided by the trawlers.

per week. During July of 1995, the average seafood processing employee worked 57.7 hours per week. Room and board can also boost total compensation, particularly for workers on factory trawlers.

The average monthly or annual wage for this industry also remains relatively low. In 1994, the average monthly wage for seafood processing was $1,953, only about 73 percent of the statewide average for all industries. (See Table 2.) These figures cover all workers in the industry from management to the "slime line."

While fish processors, due to their number, dominate these average wages, other jobs in this industry pay considerably more. (See Table 3 and Figure 11.) Wages in a plant may range from $5.85 to $18 per hour.

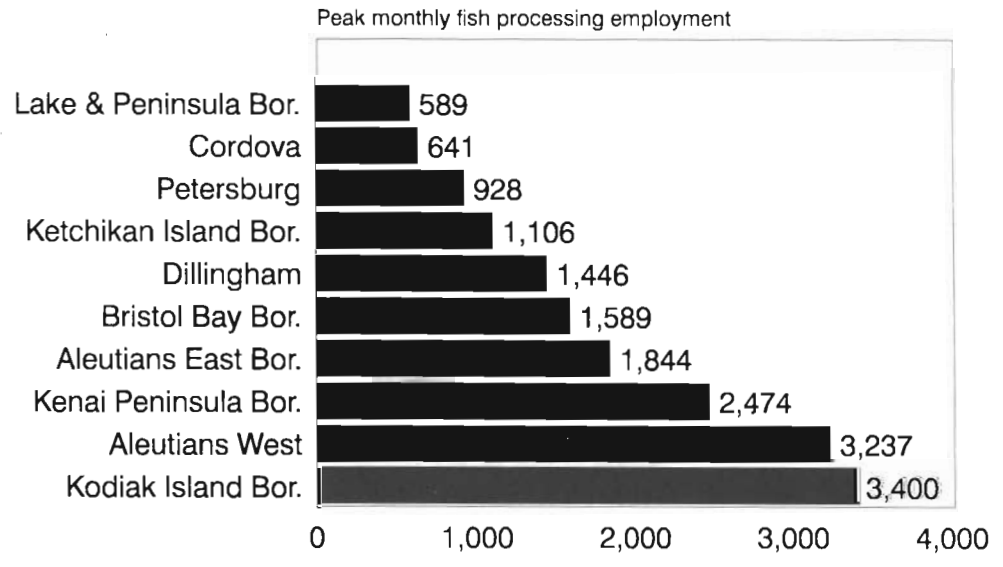
Cannery workers not only seafood occupation

The first occupation that comes to mind when discussing this industry is the cannery worker (processor) and for good reason—almost two-thirds of the workforce are cannery workers. (See Figure 11.) A myriad of other occupations is also represented. (See Table 4.) According to the industry, many of the individuals holding the better jobs today began their careers on the "slime line."

Most processing workers receive on-the-job training but even some of these jobs, such as trimmers and hand filleters, require much more experience. Compensation for these jobs is higher. Many fish processing occupations are highly skilled and well compensated, such as roe technicians who grade the salmon roe and oversee its packing. The majority of these positions are presently held by foreign nationals. Machine maintenance occupations, such as Baader filleting machine technician and surimi technician, also are highly skilled. These technicians are among the highest paid processing workers. There are dozens of other career quality occupations including refrigeration mechanics, quality control technicians, fore persons, machinists, maintenance repairers, graders, engineers.

Figure • 7

Peak Monthly Employment in Places Where Fish Processing is Big



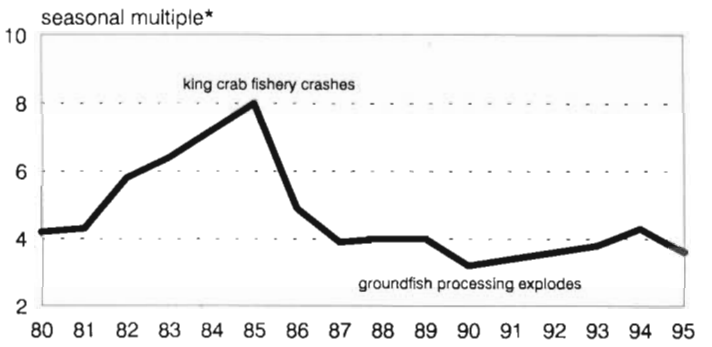
Source: Alaska Department of Labor, Research & Analysis Section.

Few residents are employed in the industry

Although Alaska's fish processing industry generates thousands of jobs, it does not employ many residents. According to the latest data, in 1994, over three-quarters of all workers in this industry were not residents of Alaska—the largest nonresident fish processing work force recorded since the statistics have been kept. (See Figures 12 and 13.) This proportion is much greater than in other industries. (See Figure 14.)

Figure • 8

Seasonality in Seafood Processing Has Varied Over Time



**Seasonal multiple equals peak processing monthly employment divided by the lowest month.*
Source: Alaska Department of Labor, Research & Analysis Section.

An itinerant work force has been a common feature of this industry throughout its history. According to the author of a PhD thesis on the salmon canning industry written in 1939, 75% of its work force was imported. In most areas of the state where fish processing is big, the nonresident work force is large. For example, in 1994 over 80 percent of the Aleutians East Borough's private sector wage and salary work force were nonresidents. (See Figure 15.) A majority of these nonresidents were fish processing workers.

Why are so few residents processing fish?

There are many reasons and theories to explain this huge nonresident work force. They include a combination of seasonality, low wages, low status, lack of housing, harsh working conditions, remote work sites with no or only a small local labor force and a long tradition of processors hiring their work force out of state.

As a result, most residents seek other economic opportunities that can sustain them year round. In Alaska's recent history, a buoyant economy has provided many alternatives. But, if the economy slows as predicted, employment options may not remain as plentiful. In the future, more residents may be seeking employment in the state's fish processing sector.

A look at the past illustrates this effect. Nonresident employment in the industry fell dramatically between the years 1986-1988. (See Figure 12.) In 1987, less than half of this employment was nonresident. These years coincided with the state's worst recession. Therefore,

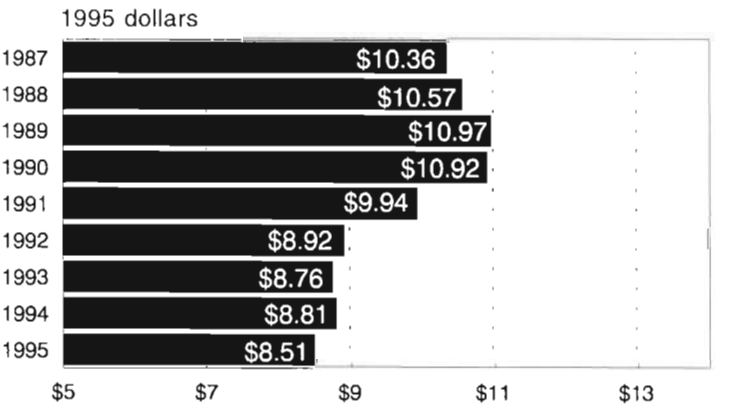
Figure • 9

Hourly Wage for Fish Processing Industry Has Changed Little...

Source: Alaska Department of Labor, Research & Analysis Section.

Figure • 10

After Adjustment for Cost-of-Living Hourly Wage Has Fallen



Source: Alaska Department of Labor, Research & Analysis Section.

one explanation for this change was that, as employment opportunities disappeared, more state residents turned to the fish processing industry for employment. These years also corresponded with the strong growth in the groundfish fishery which provided more sustained year-round employment. When the economy began to recover, nonresident employment climbed to new highs.

In areas of the state where a larger, more permanent labor force exists, the proportion of nonresidents is not as dominant. Kodiak offers a good example. This relatively large community provides housing, although expensive and scarce, and other services. Throughout the year, Kodiak maintains a high level of processing employment that enables some individuals to earn a year-round living in seafood processing. Recently, there is concern in Kodiak that, as the groundfish seasons become shorter, its resident processing work force may not be able to sustain itself. If this scenario develops, the number of nonresidents working in Kodiak could rise.

In spite of the itinerant nature of this work force, many processors now report that most of their workers are experienced and have worked for the processors for several seasons. This holds true for both the factory trawler fleet and shore-based processors. Some of these employers report turnover rates of less than 10 percent. Unlike in previous times where transients made up the bulk of the processing crew, today they may only fill in during peak periods. The processors can increasingly depend on a trained, seasoned, and available cadre of workers. This could be because, nationally, finding better job alternatives is no longer as easy as it was once. The growing immigrant work force may also help explain this availability.

T a b l e • 4

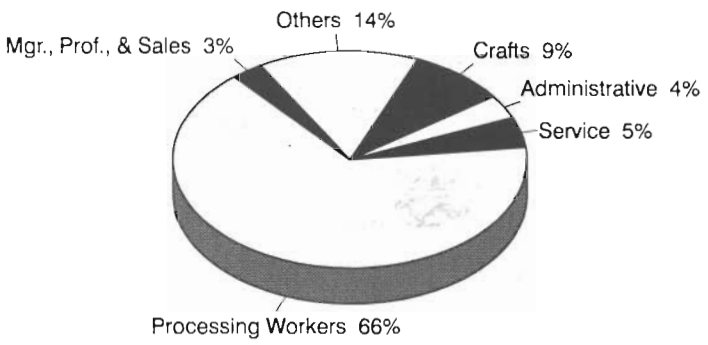
The Crew Composition of a Surimi and Fillet Factory Trawler

Occupational Title	Number of Positions
Captains	1
First Mate/Mates	3
Chief Engineers	1
Assistant Engineers	1
Electricians	4
Boatswains	2
Deck Hands	2
Galley	5
Factory Managers	1
Factory Engineers	2
Forepersons	2
Quality Control Technicians	8
Processors	98
Total	132

Source: Impact Assessment, Inc., for the North Pacific Fishery Management Council.

F i g u r e • 1 1

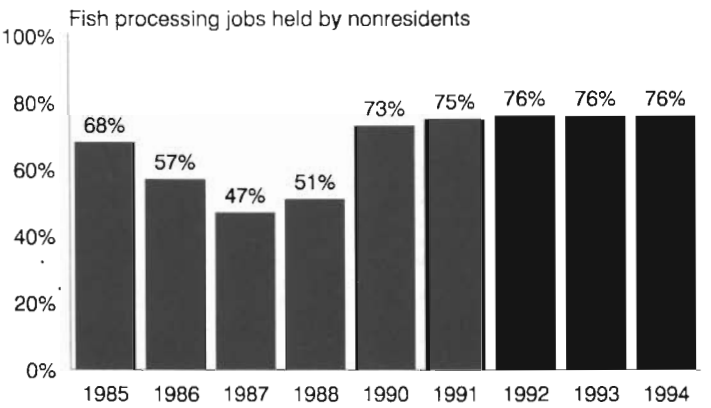
The Industry Employs More Than Fish Processors



Source: Alaska Department of Labor, Research & Analysis Section, 1994.

F i g u r e • 1 2

Not Many Alaskans Are Processing Fish



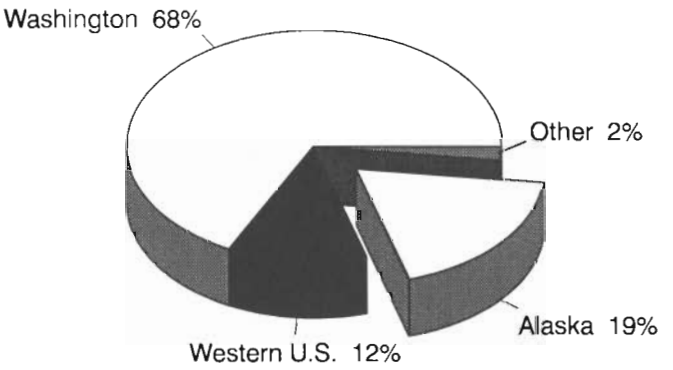
Source: Alaska Department of Labor, Research & Analysis Section.

The Future?

Many reasons exist for optimism, and some for concern, for the future of Alaska's seafood industry. Presently, processors and the rest of the industry are under tremendous financial stress. Low prices, particularly for salmon, but for other species as well, are creating a tough marketplace. In the near future, an increase in bankruptcies among processors could occur.

Figure • 13

Trawler Fleet Not Yet Employing Many Alaskans



Source: Impact Assessment, Inc., for the North Pacific Fishery Management Council. Based on a survey of trawlers in 1993.

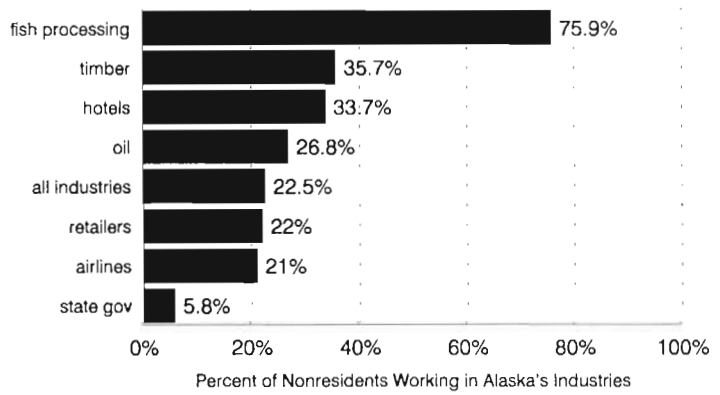
The biggest positive is the industry's long-term potential for growth. Value-added processing in Alaska remains rudimentary at best—and even a great deal of primary processing takes place out of state. Most of the secondary processing and wholesaling are performed elsewhere. In 1994, the Pacific Seafood Processors Association commissioned a study titled, "Impacts of Washington's Inshore Seafood Processing Industry on the Washington State Economy." They found that Washington's 147 seafood processing and 139 seafood wholesaling plants manufactured $2.13 billion worth of seafood products and generated 23,490 full-time-equivalent jobs. Alaska contributed 85% of the harvest for this processed seafood, valued at $1.8 billion. These numbers exclude the Seattle-based factory trawler fleet and the processing of Alaska harvested fish that takes place elsewhere in the world.

One benefit from more value added activity obviously is more jobs. Possibly more important is that the work force associated with the management, wholesaling and secondary processing parts of the industry tends to be better paid and less seasonal. This may help explain why the average weekly wage for processing in Washington was $635 versus $438 in Alaska.

Historically, the higher cost of doing business in Alaska was cited as the chief reason for the lack of secondary processing. However, during the past decade, this argument has become less persuasive. Billions of dollars have built new and expanded airports and harbors. The size and availability of the state's work force have grown tremendously. The cost of living in road and marine accessed areas of Alaska, compared with that of the Pacific Northwest, has narrowed (See the June 1995 issue of *Alaska Economic Trends*.), as have wages and income.

Figure • 14

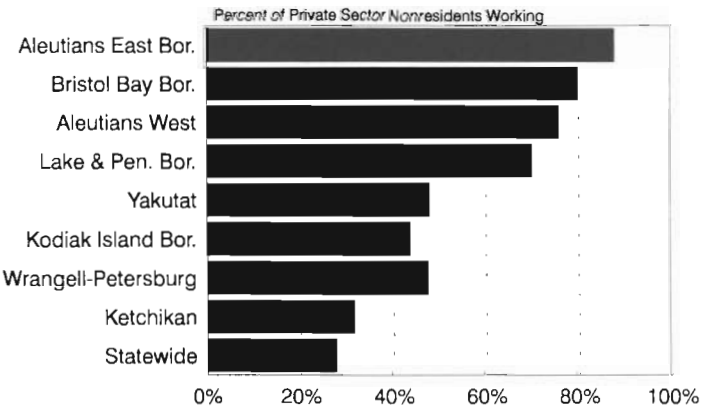
More Nonresidents Employed in Fish Processing than in any Other Industry



Source: Alaska Department of Labor, Research & Analysis Section.

Figure • 15

More Nonresidents Tend to be Employed in Alaska's Fishing Communities



Source: Alaska Department of Labor, Research & Analysis Section.

Several more immediate positives also exist for the industry. A growing number of processors are experimenting with value added products—some quite successfully. The Fish Tech Center in Kodiak is working on new products and technology. Another recent positive development was the creation of the Community Development Quota program, or CDQs. This program allocated 7.5% of the Bering Sea and Aleutian Island pollock catch to six groups representing 56 western coastal communities in Alaska. As a result, all of these groups are partnering with shore-based processors or trawlers. One of the many benefits these residents reap from CDQs is employment with the processors.

State Seafood Link May Increase Alaska's Job Catch

With over 75 percent of the state's seafood processing jobs filled by non-residents annually, the seafood industry is a good potential source of employment for many Alaskans. Governor Knowles in 1995 directed the Alaska Department of Labor (AKDOL) to work with this industry to increase Alaska hire.

In August 1995, AKDOL created a Seafood Unit led by a statewide coordinator to advance the Governor's plan. The unit is responsible for building partnerships between the seafood processing industry and Alaska. The emphasis is on employment of Alaskans, particularly rural Alaskans, and on removing barriers to local hire, both for the industry and for Alaska's workers. The state seafood coordinator leads a staff of 17 community coordinators in Alaska Employment Service offices located where the seafood industry maintains a strong presence. Theirs is a grass roots effort to generate enthusiasm for seafood work, and to help processors overcome obstacles to local hire.

The work of community seafood coordinators ranges widely. They recruit; screen, rank, and in some cases, hand-deliver applications to employers; negotiate transportation and housing arrangements with employers for the well being of industry workers; schedule job interviews, often providing office space for interviewing; conduct worker orientation sessions on transportation, safety, wages, drug testing, overtime, and benefits; and, most importantly, they work with employers and job seekers to break down stereotypes each group may hold about the other. Over 40 major seafood processing companies have been contacted personally by the seafood coordinators to establish vital industry and agency networks and to explain the benefit of local hire.

The industry appears responsive. Only six months since the Seafood Unit's inception, in-state hiring already is enhanced. Outcomes include an unprecedented number of seafood companies recruiting for the first time in Alaska for the 1996 pollock "A" season, which begins in mid-January and lasts six weeks to three months. Figures are not conclusive, but an encouraging trend is evident—over 100 Alaskans were hired in Kodiak, and more than 200 in the Anchorage area. A significant recruitment effort was based out of Bethel for the "A" season. Fliers were printed in English and Yupik and distributed to 52 villages. The National Guard established a pilot program for members to work as a team for a Dutch Harbor processor.

Seafood coordinators are working with the Department of Community and Regional Affairs (DCRA) to develop State Training and Employment Program grant funds for employers to recruit in rural Alaska. Focus in rural Alaska has resulted in joint recruitment programs between AKDOL's Employment Security Division, the Cook Inlet Tribal Council and the Tanana Chiefs. The DCRA, Coastal Village Fishing Cooperative and AKDOL are working together to place a Bethel vocational counselor to work in 17 villages. The counselor will give villagers information on job opportunities and prepare them for work in the processing industry.

A significant factor in the local hire challenge, the need for training in the seafood work force, is being addressed in a number of ways. The Alaska Department of Education's School-to-Work program is providing students an opportunity to learn more about the seafood industry. Students in Seward will job shadow at processing plants, and six Chugach School District students will intern with a value-added processor. Local seafood coordinators are networking with school counselors and industry representatives to stage job fairs. A special seafood recruitment is scheduled at the University of Alaska Fairbanks campus in April 1996. In Sitka, Sheldon Jackson College is working with roe technician trainers and employers to design two-year and four-year certified roe processing programs.

Momentum generated for the Governor's seafood initiative appears strong. The interest of both industry and potential workers, particularly in rural areas of the state, has been captured, and the effort shows promise for what may become a source of steady, skilled employment for Alaskans.

(Questions regarding Governor Knowles' seafood initiative may be directed to Virginia Klepser, State Seafood Coordinator, at (907) 465-5947, or email Virginia_Klepser@labor.state.ak.us.)