# Industrial Employment Forecasts for 2005

by Brian N. Rae

hroughout Alaska's history, resource development and extraction have been catalysts of the state's economy. Whether the resource was seafood, minerals, oil, or timber, firms associated with collecting and processing these naturally occurring assets have employed a significant share of the state's workforce.

Compared with other states, the health of these resource-based industries has had a disproportional influence on the health of Alaska's economy as a whole. However, Alaska's economy has matured over the last several decades, proving itself better able to withstand the economic shocks to which commodity-based extractive industries are prone. Between now and 2005, Alaska will continue to diversify. While extractive industries will still play an important role, the increasing pressures these industries face and the economic setbacks some will surely encounter in years to come-will no longer inflict the same degree of economic upheaval as in the past.

Using 1994 industry employment as a base, employment gains through 2005 will add only 35,700 jobs to the economy. (See Table 1.) This equates to an annual average growth rate of only 1.2%. By comparison, the Alaska economy grew nearly 2.7% per year between 1977 and 1994. (See Figure 1.)

#### Alaska's Changing Industrial Base

Not all of the resource-based industries are destined to decline by the year 2005. Mining employment gains will actually out-pace those of the economy as a whole, creating about 2,800 new jobs. The oil and gas sector of this industry, the backbone of the state's economy for more than two decades, will not be seeing strong growth. Although no attempt was made to forecast employment over the intervening years before 2005, expectations are for several years of declining employment during the period. High costs,

low prices and an oversupply of natural gas have all contributed to delaying construction of a gas pipeline in the state. The employment level presented in this forecast assumes the pipeline will not be constructed before 2005. In fact, recent technological advancements might allow for large scale, on-location conversion of natural gas into marketable products like fuel oil and diesel. Technological advancements have already reduced the numbers of persons required to maintain production levels at existing fields. Several recent finds should help reinvigorate employment in the industry, but this will probably take several years to come to fruition.

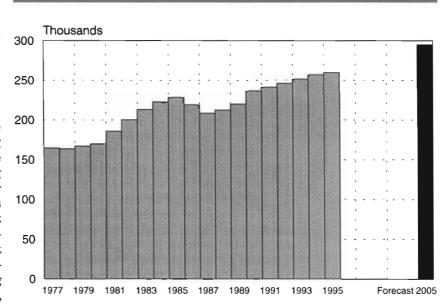
The new mining jobs will come mostly from a reviving hard rock mining industry, where employment is projected to grow from less than 900 to almost 2,500. These jobs, which are generally year round and well paid, will help create other support-sector jobs in their

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<sup>1</sup>The annual average growth rate is the percentage change a value in one period (the base period) would have to experience every year over a fixed number of years to reach a certain value at the end of the period. For example, an annual average growth rate of 10% applied to a base period employment level of 100 would yield 259 jobs after 10 years.

Figure • 1

Alaska Employment, 1977-95 and 2005



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

# Alaska Wage and Salary Employment 1994 and 2005

	1994	2005 (Projected)	Annual Average Growth Rate (%)
GOODS PRODUCING	39,600	43,400	0.8
Mining	10,700	13,100	1.9
Construction	12,300	14,400	1.4
Manufacturing	16,600	15,900	-0.4
Seafood Processing	10,300	9,500	-0.7
Forest Products <sup>1</sup>	2,800	2,600	-0.7
SERVICE PRODUCING	219,800	251,700	1.2
TCU	23,300	29,900	2.3
Wholesale	8,300	9,100	8.0
Retail	44,400	52,200	1.5
FIRE	11,900	11,500	-0.3
Services & Misc. <sup>2</sup>	58,000	76,800	2.6
Government	73,900	72,200	-0.2
Federal Govt	18,700	17,500	-0.6
State Govt	21,600	21,000	-0.3
Local Govt	33,500	33,700	0.1
TOTAL	259,400	295,100	1.2

<sup>&</sup>lt;sup>1</sup> Includes Pulp Mills as well as Lumber & Wood Products industries.

TCU = Transportation, Communications and Utilities

FIRE = Finance, Insurance and Real Estate

Source: Alaska Department of Labor, Research and Analysis Section areas. Growth should occur throughout the forecast period as current mining ventures come on line and new discoveries are developed. The pace of development and the duration of operations are closely tied to world metal prices, and like any commodity product, producers have little control over price. For this reason, some ventures may experience sporadic operations, closing when the markets are down and reopening when prices rebound. Others, however, will enjoy cost structures and markets that will allow for continuous operations until all commercially viable deposits are extracted.

Alaska's other resource-based industries, centered on seafood and timber, will not fare as well as mining over the forecast period. Dim projections for the seafood industry have been based mostly on recent rapid declines in the price of Alaska's salmon products and its market share. Price competition has been fierce for this product, with new

competitors constantly entering the market selling farm-reared products. While the increased competition has driven prices downward, these new entrants have also exacerbated the problem of an over-supplied market. Pink salmon in 1996 sold for one-sixteenth of their market price in 1988, and many processors already have more than one year's worth of inventory in storage. One must remember, however, that salmon is not the only product harvested in Alaska's waters, and the outlook for these products is much rosier than for salmon. Strong demand continues for many of Alaska's specialty products, and value-added processing opportunities are constantly being explored. Still, downward pressures on employment will continue to exist in the industry.

Similarly, many communities in Southeast Alaska have grown on the coattails of the timber industry, and those with the greatest dependence on this industry now face some difficult times. Most affected will be Ketchikan, where the state's only pulp mill seems poised to cease operations. When these industry employment forecasts were prepared, there was concern that the mill might not receive an extension of its timber supply contract and could close near the end of the forecast period. After finalizing these industry forecasts (which assumed that the mill would be operating in 2005 at a reduced level of employment), it became apparent that the mill would close.

The mill's closure will have a negative effect on manufacturing employment, but it will also affect other segments of the economy. The extent of the job losses associated with the mill closure is closely linked with any agreements the various parties involved in the timber supply negotiations might reach.

The future of the state's sawmills may be slightly brighter, particularly if an agreement is reached to divert some of the timber previously destined for the pulp mill to sawmills. Still, many of the most easily harvested, and most profitable, timber tracts have already been cut. In addition, there has been an increasing political drive to remove more public lands from the harvestable supplies and to reduce the subsidies paid to the

<sup>&</sup>lt;sup>2</sup> Includes Agricultural, Forestry & Fishing industry employees covered by workers' compensation insurance, as well as workers in undetermined industries

industry so that it can harvest economically marginal timber at a profit. These factors will continue to place additional pressures on industry employment. Geographically, the industry may spread for a few years as harvesters and mills search for new sources, providing some new employment opportunities for those who lost their jobs in the industry in Southeast.

### **Economic Maturation Apparent** Throughout the Forecast Period

The growth rate for Alaska's non-governmental service-producing industries will be twice as large as that of the goods-producing industries over the forecast period. Service-sector employment should expand by roughly 20 percent by 2005, adding another 30,000 jobs to the Alaska economy. The most impressive gains will take place in two major industry groups, the transportation, communications and utilities (TCU) industry and the services industry. (See Table 1 and Figure 2.)

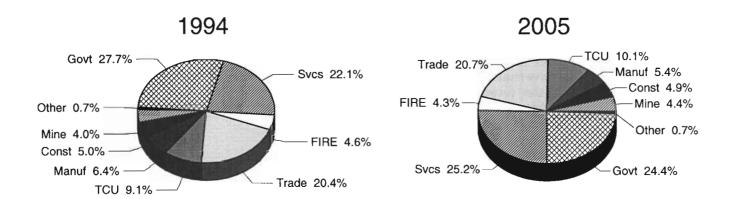
Before analyzing forecasts for individual food processing. Infrastructure development industries, an important trend affecting all for these same ventures boosted construc-

service-producing industries should be noted. Compared to the rest of the United States, much of Alaska is still very "young" in terms of its market and economic development. In the Lower 48, time has allowed local economies to achieve some degree of stability. reaching an equilibrium between the goodsproducing, service-producing, and government sectors. Occasionally, changing economic factors might shift the relative employment levels among the industries. Examples of such changes include the demise of the steel mills in the northeastern United States and the decline in automobile manufacturing in the Great Lakes region. Overall, however, these economies have had enough time to become relatively stable.

Many areas of Alaska are still in the early stages of reaching an equilibrium among the goods-producing, service-producing, and government sectors. Most of Alaska's recent economic growth has been resource driven, with workers locating wherever the resource was found. The majority of these jobs were in the goods-producing industries of petroleum or hard rock mining, timber, and seafood processing. Infrastructure development for these same ventures boosted construc-

Figure • 2

# Share of Alaska Wage and Salary Employment by Industry



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

tion employment, as did construction of housing for employees and their families. Conversely, residents often relied on imported goods and would travel to larger communities for personal services.

With time, the nature of these places changes. They go from being places of employment for the workers to being communities populated by families. With gains in both population and disposable income, many communities are seeing the emergence of new firms offering to provide locally what had previously been imported from other areas. This economic maturation will have a positive effect on all the service-producing industries.

## Service-producing Industries Lead Employment Growth

Overall, the category of service-producing industries (which includes trade; finance, insurance, and real estate (FIRE); TCU; and the services industries) will contribute over 30,000 additional jobs to the state's economy by 2005. Not surprisingly, the services industry will contribute the majority of these jobs. Continued increases in population and tourism activity will help create more than 17,000 additional jobs in the state. This is also the greatest percentage increase in employment for any industry over the 11-year period, up over 30 percent since 1994.

Leading the service industries in employment growth will be the health care industry. While population gains in general will increase the demand for health care services, it is the projected increase in the number of older Alaskans who choose to remain in the state that will affect employment levels. Over the forecast period, the number of Alaskans 65 years old and older is expected to increase by 50%.

The TCU industry will benefit from several different factors affecting the state's economy. Alaska continues to see larger-thanaverage population growth rates. These new citizens create more demand for transportation services to move themselves and the goods they consume, and also require more communications and utilities links. Expansion of the mining industry will also provide new customers for transportation providers. The greatest gains in the industry, however, will be the result of increased tourism activity and the expansion of tourism ventures and opportunities throughout a broader geographic region. Improved accessibility to remote locations and more competition among tourist service providers should force the cost of remote Alaska vacations downward. This will spur demand for less traditional Alaska vacations, and bolster transportation services employment throughout the state.

The trade industry will see modest growth over the period, but the increased number of jobs is not indicative of the changes that could occur over the decade. As has already occurred in some of the larger communities in the state, competitive forces will be at work that will lead to consolidations and the demise of some smaller trade venues within the state. As some of Alaska's smaller communities reach a critical size and stability with regard to population and consumption potential, larger chain retailers will enter the market. Their entrance into a community will have a dramatic impact on the smaller shops currently serving that market, which often have difficulty competing with larger chains. Overall, there should be a net increase in employment, but jobs created by new, larger firms may be partially offset by employment declines at current smaller outThe FIRE industry will experience slow growth over the period. This industry is already active throughout the state, so there are fewer growth opportunities available than for some other service-producing industries. The state's financial institutions should also parallel the national trend of consolidations, with the associated downsizing that soon follows.

# Government Employment Growth Slow, Shifting Among Players

Total government employment is forecast to experience a small decline over the period. Employment patterns among the three levels of government-federal, state and local-will see changes, with the first two posting employment declines while local government will show employment gains. This pattern should not be too surprising, for several reasons. First, there is a general political tendency to reduce the size of government at all levels, but particularly at the state and federal levels. Second, the responsibility for administering government programs is being shifted to the lowest possible level of government. The federal government's move to award block grants to states instead of administering programs on a national level exemplifies this trend.

Alaska is also the only state that has a significant share of its territory lacking any form of local government. For that reason, any local services provided (such as police protection or road maintenance) count as state employment. As more areas organize into cities or boroughs, there will be an employment shift from state to local government employment. Finally, the majority of the population growth will be in incorporated areas, and the task of providing public services to these new residents will fall on the localities.

#### Conclusion

The Alaska economy has been in a transition over the last several years. The state's traditional extractive and resource-dependent companies, which focused on mining and timber and seafood processing, are being joined by more services and trade companies. The latter are expected to become ever more important components of the state's economy. One dimension of this expansion will be an increase in the number of services and shops filling a broader spectrum of needs over a broader geographic area. The other dimension of growth will occur as increasing social pressures and decreasing resource supplies push extractive and resource-dependent industries out of the economic lime-