

# Industry/Occupation Outlook to 1995

by Brynn Keith and Dean Rasmussen

Occupational and industry information is required to minimize the mismatch between the skills Alaska workers possess and the skills required by Alaska employers. To help Alaska's workers and employers make the best match in the labor market, the Alaska Department of Labor annually publishes a comprehensive report on the subject. This article highlights some of the information in *Alaska Industry/Occupation Outlook to 1995*. The industry and occupation forecasts used in this analysis are based on 1990 data.

## Alaska economic overview

Overall, a 1.8% average annual employment growth rate is expected from 1990 to 1995. Total employment is projected to grow by approximately 20,000 workers during this five-year period. Growth will be unevenly distributed throughout the economy. Some industries will experience sustained and controlled growth. In contrast, other industry sectors will see a decline in employment. The majority of employment declines should occur in 1991, followed by four years of stagnant or very slow growth.

Due to the number of industry sectors that depend upon the price of oil or the tax revenue it generates (oil industry, oil field services, construction, state and local government and trade sectors) the five-year forecast of oil prices and production is critical. With this in mind, the Alaska Department of Revenue's most current oil price forecast was used in this analysis.

Brynn Keith and Dean Rasmussen are labor economists with the Research & Analysis Section, Administrative Services Division, Alaska Department of Labor. They are based in Juneau.

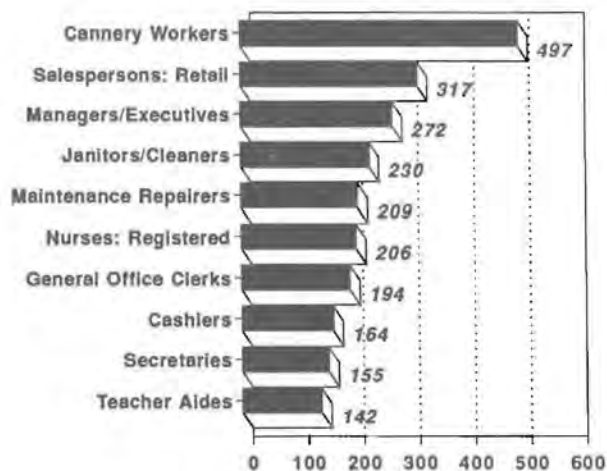
## General industry trends summarized

The opening of the Greens Creek and the Red Dog mines contributed to the surge in hard rock mining employment in recent years. The future of the industry will depend on the development of additional mining ventures over the next five years. Such projects may include the Kensington mining venture north of Juneau, Fort Knox near Fairbanks, and the AJ mine in Juneau. Employment gains resulting from mining development are initially felt in industries such as construction and transportation.

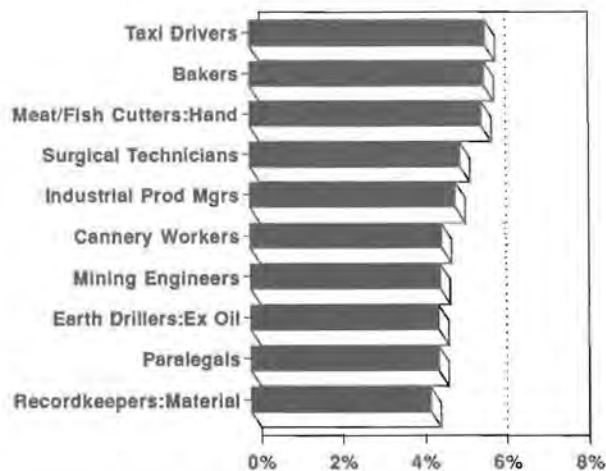
Figure • 1

### Top 10 Alaska Occupations 1990-1995

#### Most Job Openings



#### Fastest Growing



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

The decline in Prudhoe Bay production and the development of new fields are two factors affecting employment trends in Alaska's oil and gas mining industry. Recovering oil from a declining field requires more effort than tapping a new field. If oil prices jump up and stay high for an extended period, pressure to develop the Arctic National Wildlife Refuge and other potential fields will increase. Conversely, lower prices could postpone development until after the forecast period.

Employment in the oil and gas mining industry will also be affected by internal management decisions. In an effort to increase productivity and profitability, oil companies are cutting staff and overhead by contracting out key services such as technical and engineering support. Should this trend continue, employment in the oil and gas industrial sector could decline during the forecast period.

A rebound in real estate markets combined with a greater emphasis on capital projects should help offset decreases in oil and gas related construction activity. Several hundred construction workers could be employed if any of the major hard rock mining projects are developed. Building activity was up in 1991, as investors absorbed the commercial property surplus throughout the state. Construction activity is expected to remain stable for the next several years.

The health of the service-producing industries coincides with the health of the goods-producing industries. Profitability for service-producing companies corresponds to the amount of disposable income of community

members. Medical services and food are necessary expenses. Companies providing luxury or nonessential services are likely to see business decline if local incomes decrease. The service sector has grown faster than the overall economy during the last several years. Through the forecast period, it is expected that service-producing industries will continue to grow steadily.

Public employment will stagnate during the forecast period, with federal and state government sectors showing anemic growth. Declining oil revenues will force efficiencies in government programs. As a result, state government spending and employment will not keep pace with Alaska's increasing population. Similarly, increases in federal government employment will be hindered by the growing budget deficit and the need to cut federal spending. Federal employment in Alaska will remain flat during the forecast period.

As in state government, declining oil revenues will put a cap on local government growth. Although some local communities are looking to other revenue sources, downsizing will be required. Fueled by increased enrollment, the education segment of local government, however, is expected to grow during the forecast period.

### Occupational employment and openings to 1995

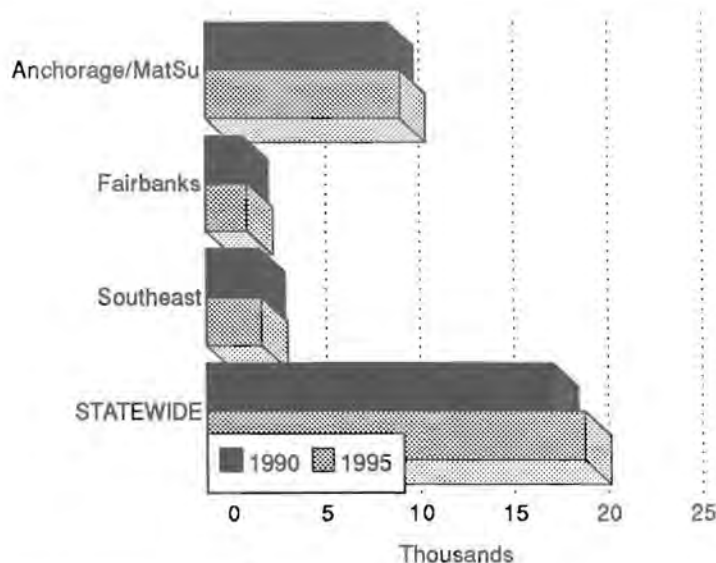
Alaska occupational employment is projected to increase at an annual average rate of 1.8%, from 250,925 to 273,089, between 1990 to 1995. Approximately 9,800 job openings are projected annually during this five-year period. Replacement needs are expected to account for 55% of the projected number of openings with industry growth accounting for the remainder. Projected annual job openings do not include jobs resulting from employee turnover (those who are promoted or leave one occupation for another).

Better than average employment opportunities are in large or fast growing occupations. Many sales, service, clerical, and craft, operator, and laborer occupations are large and provide numerous job opportunities for qualified applicants. Most job openings, however, will be a result of replacement needs rather than from industry growth. Large occupations tend to employ a larger proportion of young and part-time workers. Alaska's list of the ten largest occupations, however, includes two occupations held by established highly skilled workers: nurses and managers/executives.

Fast growing occupations are often small in size and generally require specific vocational or professional levels of education and skills. Most job openings result from industry growth rather than from replacement needs. Fast growing occupations may employ more prime-working age, full-time workers. A fast growing

Figure • 2

### Officers and Managers Average Annual Job Openings 1990-1995



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

occupation can generally offer higher pay, more benefits and better career advancement opportunities. A few fast growing occupations in Alaska, such as meat/fish cutters and cannery workers, are also large in size and these characteristics may not apply. Many of Alaska's fast growing occupations are found within the professional and technical, and craft, operator and laborer occupational categories.

Not all occupations will show positive employment growth. A number of agriculture and forestry occupations especially in the wood processing industry are expected to lose employment during this forecast. Growth for several other clerical and labor occupations is projected to be minimal or static.

### Regional outlooks

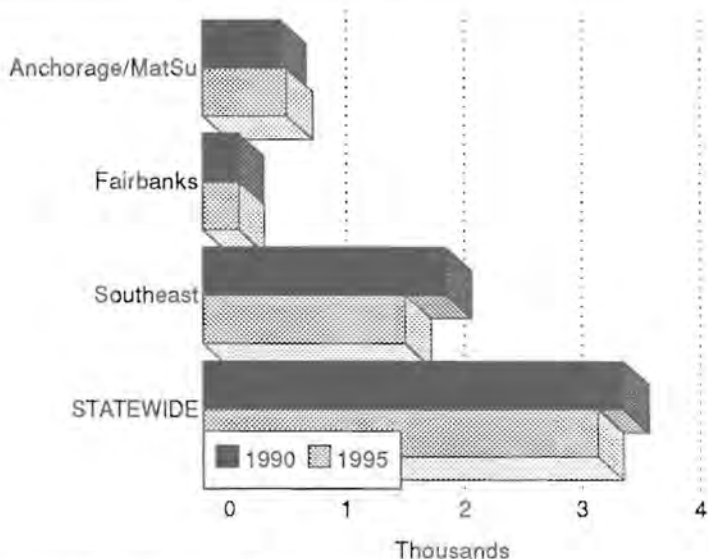
Anchorage/MatSu, the largest urban area in Alaska, includes approximately 50 percent of all occupational employment in the state. During this outlook, nearly 4,300 annual job openings are projected within this region. Most of Alaska's officers and managers, professional and technical, sales, and clerical workers work in these fields. The Anchorage/MatSu area also employs one-half of all service workers. No significant changes to this labor force distribution is expected during the next five years. Occupational employment is projected to grow at an average rate of 1.3% annually between 1990-95.

Fairbanks will remain a major service center for many interior and outlying locations. About 11.5 percent of all occupational employment can be found here. Most employment is within professional and technical, service or clerical types of occupations. This area is expected to produce approximately 1,200 jobs annually during this forecast. More than 50% of these jobs are expected to result from industry growth. Because of the influx in large retail stores, opportunity for sales related employment should be good. Overall, occupational employment is expected to grow at an average rate of 2.0% annually during this forecast.

Southeast Alaska supports approximately 15 percent of the state's occupational employment. Employment is projected to remain essentially stable during this forecast. Employment growth will be slowed by the decline in the timber cutting and wood processing industries and the slow growth in government employment. This region is projected to produce an average of 950 jobs annually. Most of these job openings will be due to replacement needs rather than industry growth. One-in-four jobs are currently in the craft, operator, laborer occupational category. Professional and technical workers, clerical workers and service workers are other major categories of occupations in this area.

Figure • 3

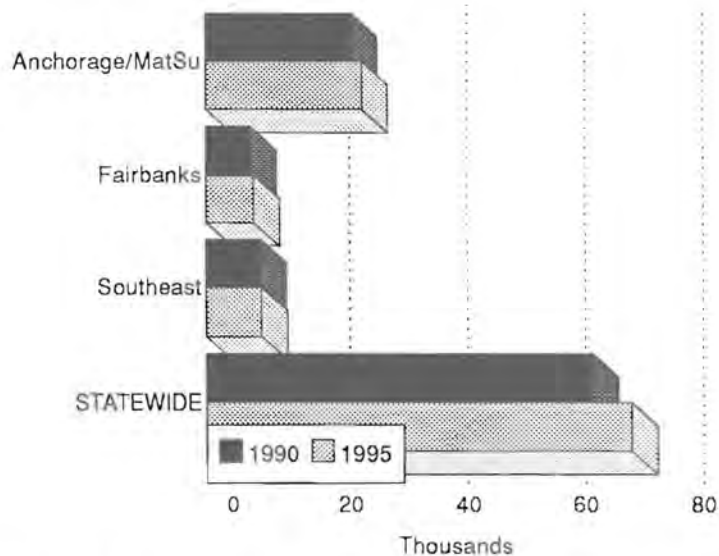
### Professional & Technical Average Annual Job Openings 1990-1995



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

Figure • 4

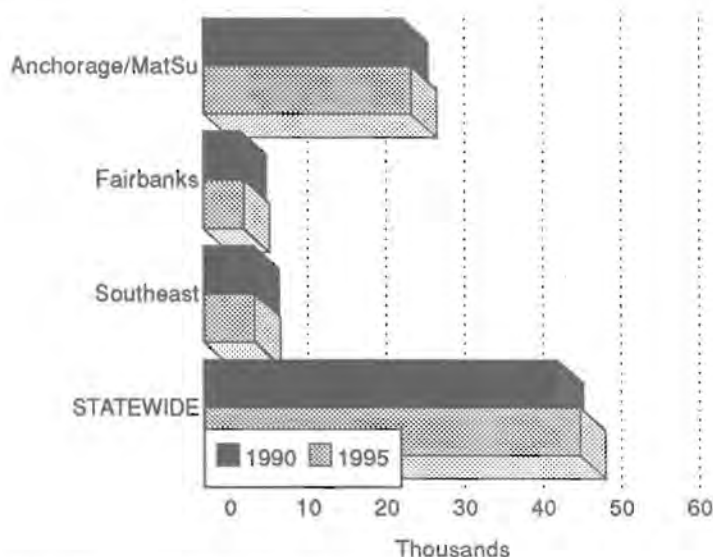
### Sales Average Annual Job Openings 1990-1995



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

Figure • 5

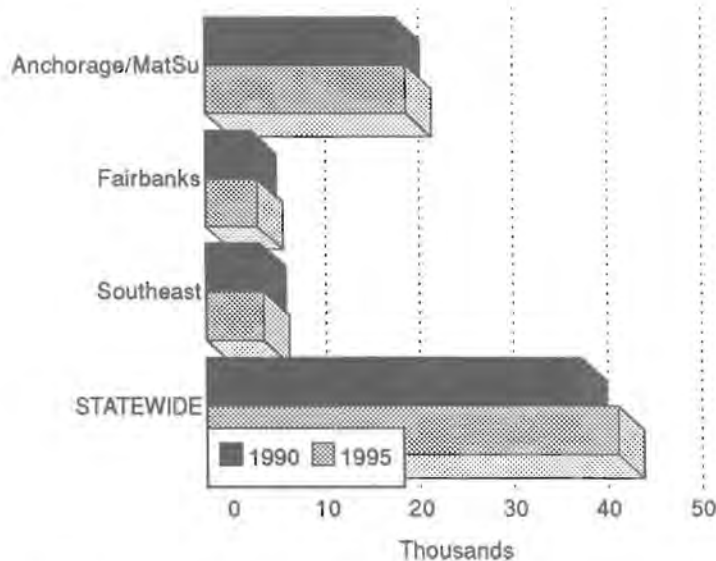
### Clerical Average Annual Job Openings 1990-1995



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

Figure • 6

### Services Average Annual Job Openings 1990-1995



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

## Occupational trends

For discussion purposes, the labor market is divided into seven major occupational categories within the nonmilitary component of the economy. These projections are based on 1990 data, reflecting the economic assumptions made at the time of this forecast.

### Officers and managers

Employment is expected to increase at an average rate of 1.9% annually, from 18,408 to 20,122, during this outlook. Officers and managers make up 7.3% of the total statewide occupational employment in Alaska and projections indicate that little change in this figure is expected through 1995. This occupational category is projected to produce 272 annual job openings per year during this forecast period; 111 jobs will result from actual job growth, and 161 jobs will result from replacement needs. Approximately 52 percent of officer and manager occupations are located in the Anchorage/MatSu region.

### Professional and technical

In 1990, 21% of Alaska's labor force was employed in this occupational category. Employment in professional and technical occupations is projected to increase from 53,578 to 58,343 between 1990 to 1995. This is an average annual increase of 1.8%. Slightly more than 2,100 jobs are expected annually during this outlook period; 947 will result from industry growth and 1,182 through attrition. The Anchorage/MatSu area has 53% of the professional and technical occupations in the state. Fairbanks and Southeast have 13 and 14% respectively. No significant changes in these shares of employment are expected during the course of this outlook.

### Sales

People in sales related occupations include approximately 10 percent of Alaska's work force. Overall, employment in sales is projected to increase by an average of 1.9% annually, from 24,835 to 27,180 jobs, during this outlook. An average of 1,042 annual job openings are projected to occur in sales of which 572 are expected to result from replacement needs and 470 are expected due to industry growth. In 1990, 64% of all sales related employment occurred in the Anchorage/MatSu area. Sales employment in Fairbanks accounted for 12% and Southeast had 11%. No significant change is expected in the statewide distribution of sales occupations during this outlook.

### Clerical

Clerical occupations accounted for 18% of all employment in Alaska in 1990 and is expected to grow modestly



at an average annual rate of 1.3%, from 45,107 to 48,041, during this projection period. Clerical occupations will offer good employment opportunities for qualified job seekers. More than 80 percent of clerical employment can be found within the Anchorage/Mat-Su, Fairbanks, and Southeast areas of the state. No significant change to this distribution is expected during the next five years.

### Service

Employment is expected to grow at an average annual rate of 2.0% between 1990 to 1995. This projected growth will boost employment in service occupations from 39,847 to 43,811 workers during the course of this outlook. About 50 percent of all service jobs are located in the Anchorage/MatSu area. An additional 12% of service employment occurs in the Fairbanks region, and roughly 14% can be found in Southeast. The remaining 24% of all service occupations can be found throughout the remaining areas of the state.

### Agriculture and Forestry

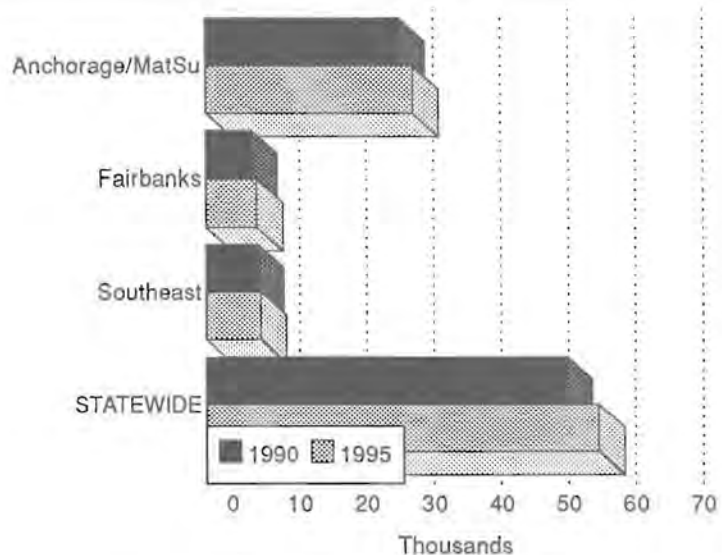
Agriculture and forestry occupations in Alaska during 1990 totaled 3,576 workers. The outlook for timber occupations in Southeast and Southcentral Alaska is not favorable. The Anchorage/MatSu area is projected to produce an average of 34 annual job openings and Fairbanks is expected to average 11 annual openings. Replacement will account for 70%; industry growth, 30% of the projected annual number of job openings in these two areas. Southeast Alaska had about 60 percent of the agriculture and forestry employment in 1990. During this outlook an average of 23 jobs are forecast to be lost annually within the region. This is an average annual 3.3% decline in employment through this projection period. As a result, southeast Alaska's share of employment in this occupational category is expected to decrease from 2,060 to 1,717 workers between 1990 to 1995.

### Crafts, Operators, Laborers

Crafts, operators, laborers is the largest occupational category in the state and accounts for more than 26 percent of statewide employment. Employment is expected to increase from 65,583 to 72,239 workers during the next five years, an average annual increase of 2.0% during this projection period. Approximately 2,700 annual job openings are expected between 1990 to 1995, divided between industry growth and replacement needs. The Anchorage/MatSu, Fairbanks and Southeast areas account for nearly 63 percent of the total employment in this occupational category. The remaining 37% of these workers are employed throughout other areas in the state, across many different industries.

Figure • 7

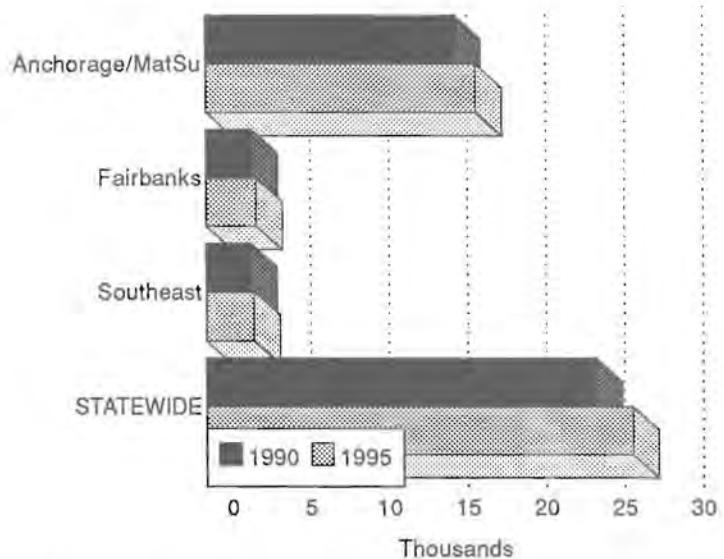
### Agriculture & Forestry Average Annual Job Openings 1990-1995



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

Figure • 8

### Crafts, Operators & Laborers Average Annual Job Openings 1990-1995



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