

A look at industries, 2008 to 2018

Between 2008 and 2018, Alaska is projected to recover from the aftermath of the recent recession and add 33,670 jobs, an increase of 10.5 percent. (See Exhibits 1, 2 and 3.) This compares to a 10.1 percent gain for the United States as a whole.

Alaska's industry forecast is the result of varying rates of growth in different industries. Relatively slow growth is expected in most of the largest sectors including government, retail trade, finance, and education. Somewhat stronger growth is expected in small to medium size industries such as metal mining; utilities; and professional, scientific, and technical services. Exceptional growth is forecasted for health care related industries.

Health care and social assistance expected to grow

Health care and social assistance is expected to experience the largest amount of growth of any industry over the projection period, up 9,400 jobs or 26.5 percent. (See Exhibit 1.) This sector alone will be responsible for about 28 percent of the state's total projected employment gains.

Many health care related industries are strongly influenced by changes in the population of older Alaskans. The population of Alaskans age 65 and above is expected to rise by at least 50 percent during the projection period. Consequently, there will be exceptional job growth in doctors' and health care providers' offices, hospitals, nursing and residential care facilities, and among providers of social services for the elderly.

In 2009, while other industries suffered significant job losses, health care employment actually grew by about 4 percent. Further employment gains will follow new construction and expansions of health care facilities. These include Norton Sound Health Corporation's new hospital in Nome; new health care centers in Willow, Chistochina, and Hoonah; and the expansion of Providence Medical Center in Anchorage. Perhaps this is a harbinger for what is to come.

Construction will likely recover and add jobs

From 2008 to 2018, Alaska's construction industry is projected to increase by 1,960 jobs or 11.3 percent. Construction is more cyclical than most industries and ups and downs can be expected during any ten year period. But 2009 was more than a typical bump in the road, and average construction employment dropped by 6.4 percent in 2009 as a result of the recession.

Projected growth in construction will be broad-based with moderate employment gains in the construction of buildings, heavy and civil engineering projects, and specialty trade construction. Federal stimulus money and the growing need for new infrastructure may spur some projects, and the recovery of industries that fell off in 2009 may trigger pent-up demand for construction that was put on hold.

Slower growth expected for retail, wholesale, and leisure and hospitality

Retail trade is expected to rise by 2,970 jobs or 8.2 percent. (See Exhibit 1.) This modest growth is a little under Alaska's projected growth in population over the period. When the setback

of the recession is considered, the retail employment projection falls closely in line with population growth. Retail trade is expected to grow more than wholesale trade over the period, primarily because it will be the first to recover from the recession.

Industries that rely heavily on tourism have experienced large losses as a result of the recession. As the economies in the lower 48 recover, the number of tourists coming to Alaska is expected to bounce back.

Moderate growth in Alaska's resident population plus a bit of a boost from the return of tourists will allow the leisure and hospitality industry – which includes accommodations, restaurants, bars, and tourist attractions – to overcome the recession and eke out a modest 6 percent gain during the projection period.

Metal and coal mining jobs likely to increase

Employment in Alaska's mines is projected to grow by 360 jobs or 17 percent. (See Exhibit 1.)

The Kensington Gold Mine, near Juneau, will be increasing employment as it shifts from construction to mining. The Red Dog Mine in Northwestern Alaska is set to meet the end of its life during the projection period, but it has applied for permits to mine the adjacent Aqqa-luk deposit. This would extend the life of the mine through 2030.

Additional employment may come from other promising projects which include the Chuitna Coal Mine, Donlin Creek Mine, Livengood Mine, Nixon Fork Gold Mine, and Rock Creek/Big Hurrah Mine.¹

¹ The employment projection does not assume any employment gains from the proposed Pebble Mine.

Statewide Employment Forecast by Industry 2008 to 2018, Alaska

| | 2008 | 2018 | Change from 2008 to 2018 | Total Percentage Change ² |
|--|---------|---------|--------------------------|--------------------------------------|
| Total Employment ¹ | 321,770 | 355,440 | 33,670 | 10.5% |
| Natural Resources and Mining | 15,940 | 17,410 | 1,470 | 9.2% |
| Mining | 15,160 | 16,680 | 1,520 | 10.0% |
| Oil and Gas Extraction | 3,520 | 3,720 | 200 | 5.7% |
| Mining (except Oil and Gas) | 2,120 | 2,480 | 360 | 17.0% |
| Support Activities for Mining | 9,520 | 10,480 | 960 | 10.1% |
| Construction | 17,260 | 19,220 | 1,960 | 11.3% |
| Manufacturing | 12,990 | 13,600 | 610 | 4.7% |
| Seafood Product Preparation and Packaging | 9,030 | 9,320 | 290 | 3.2% |
| Trade, Transportation, and Utilities | 68,790 | 74,850 | 6,060 | 8.8% |
| Wholesale Trade | 6,540 | 6,880 | 340 | 5.2% |
| Retail Trade | 36,230 | 39,200 | 2,970 | 8.2% |
| Transportation and Warehousing ³ | 24,130 | 26,620 | 2,490 | 10.3% |
| Utilities | 1,890 | 2,150 | 260 | 13.8% |
| Information | 7,000 | 7,250 | 250 | 3.7% |
| Financial Activities | 14,840 | 16,190 | 1,350 | 9.1% |
| Finance and Insurance | 8,960 | 9,810 | 850 | 9.5% |
| Real Estate and Rental and Leasing | 5,880 | 6,380 | 500 | 8.5% |
| Professional and Business Services | 26,220 | 29,230 | 3,010 | 11.5% |
| Professional, Scientific, and Technical Services | 13,180 | 14,810 | 1,630 | 12.3% |
| Management of Companies and Enterprises | 1,210 | 1,340 | 130 | 10.9% |
| Administrative and Support and Waste Management and Remediation Services | 11,830 | 13,090 | 1,260 | 10.6% |
| Education and Health Services | 64,360 | 75,910 | 11,550 | 17.9% |
| Educational Services, Public and Private ⁴ | 28,880 | 31,020 | 2,140 | 7.4% |
| Health Care and Social Assistance, Public and Private ⁵ | 35,490 | 44,890 | 9,400 | 26.5% |
| Leisure and Hospitality | 32,180 | 34,120 | 1,940 | 6.0% |
| Arts, Entertainment, and Recreation | 4,510 | 4,700 | 190 | 4.1% |
| Accommodation and Food Services | 27,670 | 29,430 | 1,760 | 6.3% |
| Other Services (Except Government) | 11,710 | 12,950 | 1,240 | 10.6% |
| Government | 50,490 | 54,720 | 4,230 | 8.4% |
| Federal Government ⁶ | 15,100 | 16,230 | 1,130 | 7.5% |
| State Government ⁷ | 17,030 | 18,700 | 1,670 | 9.8% |
| Local Government ⁸ | 18,350 | 19,790 | 1,440 | 7.8% |

Note: Excludes self-employed workers, fishermen, domestic workers, unpaid family workers and nonprofit volunteers

¹ Industry sector numbers do not sum to total employment because of rounding.

² Percentage change may be inconsistent with employment change due to rounding of the employment numbers.

³ Includes U.S. Postal Service and railroad employment

⁴ Includes both public schools and the University of Alaska

⁵ Includes public-sector hospital employment

⁶ Excludes uniformed military, postal service, and hospital employment

⁷ Excludes university, railroad, and hospital employment

⁸ Excludes public school and hospital employment

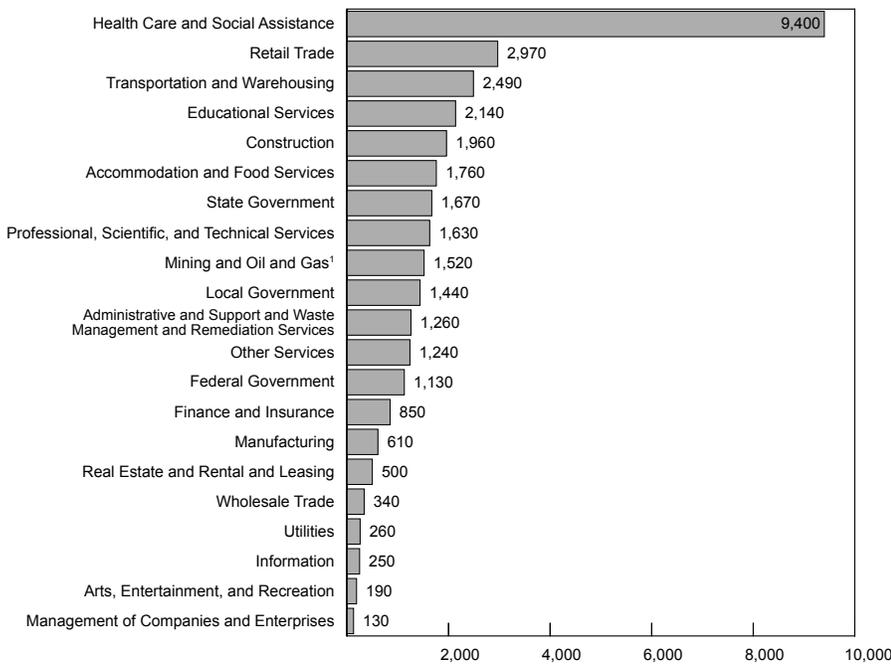
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Oil and gas employment will grow slowly

Oil and gas is an integral part of Alaska's economy. Only about 4 percent of Alaska's total employment is in the oil and gas industry,² but

² Including support activities

2 Projected Changes in Employment By select industry sector in Alaska, 2008 to 2018



¹ Includes oil and gas extraction, mining, and support services

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

revenue generated from oil and gas royalties and taxes filters through the rest of the economy and has a huge impact on Alaska's overall employment.

The Alaska Department of Revenue projects a steady decline in oil production, but oil and gas employment is projected to grow slightly. Growth is possible because future production will likely be more labor intensive as oil companies pursue methods to get at oil that is more difficult to reach. A ramping up of exploration is also expected.³

Seafood processing and packaging employment will be up and down

Seafood preparation and packaging is one of Alaska's most cyclical industries, since it mostly follows the changes in fish harvesting from season to season and year to year. Trying to pinpoint where in the cycle employment will be at the end of a specific ten-year period would require the forecaster to guess what fish populations will be like in ten years – a tall order.

³ The employment projection does not assume the construction and operation of a natural gas pipeline.

For long-term projections, it makes more sense to focus instead on other long-term factors such as consumer demand and competition from farmed fish and other sources of wild fish.

Asian demand for seafood products is expected to remain strong and concerns about farmed and tainted fish, as well as dwindling fish populations in other states, work in favor of Alaska's campaign to promote its wild salmon.⁴ Demand for fish that is rich in healthy oils (including Alaska salmon) and growing demand for convenient pre-cooked entrees are also positives.

On the other hand, worldwide farmed salmon production in 2007 was nearly double that of wild production.⁵ Problems with escapement of diseased fish that threaten wild stock have caused somewhat of a backlash among consumers, but Alaska's seafood industry is

likely to face continued strong competition from farmed fish.

Also, because the long-term projections do not assume any change in fish populations, there is only so much room for growth. All things considered, seafood processing is projected to grow by just 290 jobs, or 3.2 percent. (See Exhibit 1).

Transportation and warehousing growth will be lower than in recent years

On average, transportation and warehousing employment grew by a solid 2.7 percent a year from 2002 through 2008. This level of growth is not expected to continue in the years ahead. From 2008 to 2018, transportation and warehousing employment is projected to grow by 2,490 or 10.3 percent – an average annual growth rate of about 1 percent a year. (See Exhibits 2 and 3.)

⁴ In 1990, the Alaska Legislature passed a law banning fish farming in the State of Alaska and citing the risks to wild salmon involved with the industry. These risks include disease, pollution and genetic impacts, and competition from escaped fish.

⁵ According to the Food and Agriculture Organization of the United Nations

One of the drags on growth will be the U.S. Postal Service's goal to eliminate Saturday service and downsize employment. The recent recession also figures in. Air transportation employment was hit especially hard in 2009, dropping by 4.7 percent. Despite the slowdown in the rate of growth, transportation and warehousing is expected to grow at about the same rate as overall employment.

Education growth rate will be sub-par

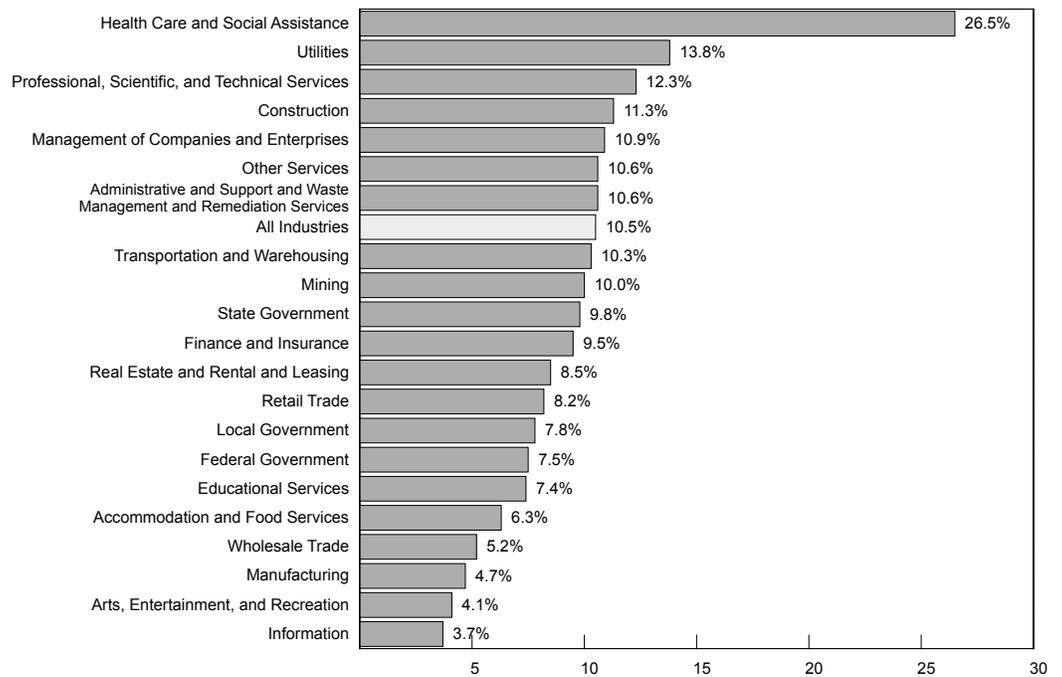
The education sector as a whole is projected to add over 2,100 jobs for an increase of 7.4 percent, which is lower than the 10.5 percent growth for all industries combined. (See Exhibits 2 and 3.)

Elementary and secondary education employment makes up about 75 percent of the education sector and is projected to add just over 1,600 jobs during the projection period.⁶ Elementary and secondary education is driven almost exclusively by changes in Alaska's school-age population. Over the forecast period, the middle school age group is expected to have the highest growth rate. The high school age cohort is expected to have very little growth, and the elementary age group is expected to fall somewhere in between.

Universities and colleges may face the greatest challenge in this sector. Alaska's resident population of 18 to 24 year olds is expected to drop during the projection period. Schools may have to compensate by attracting more out-of-state enrollees and expanding continuing education programs, master's degrees, and other curricula that appeal to non-traditional age groups. An improvement in Alaska's high school graduation rates could also potentially bolster enrollment numbers.

⁶ Includes middle schools

Projected Job Growth By select industry in Alaska, 2008 to 2018



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

Primarily vocational and business schools comprise the remainder of the education sector. The 18 to 24 year old group plays a part here as well, but the health of relevant industries is more important. Construction; oil and mining support services; administrative and management services; utilities; government; health care; and professional, scientific, and technical services all create demand for vocational and business school education.

Government estimated to grow by 8.4 percent

Public-sector jobs are projected to grow modestly during the forecast period.⁷ State government employment is anticipated to grow by approximately 9.8 percent, a little under the percentage change for all industries combined. Federal and local government jobs are forecasted to grow by 7.5 and 7.8 percent respectively. (See Exhibit 3.)

⁷ Excluding education, hospitals, railroad transportation, uniformed military, and the U.S. Postal Service

Growth in the government sector typically follows the change in Alaska's population, revenues from oil and gas production, and the health of the overall economy. Population growth will be modest, but oil and gas revenues are projected to decline. Federal stimulus dollars and matching funds for infrastructure projects may partially offset projected declines in oil and gas revenues, but this is hardly a sure thing.

Professional, scientific and technical services will outpace overall growth rate

Professional, scientific, and technical services jobs are projected to grow by 1,630 or 12.3 percent. (See Exhibits 2 and 3.) This industry includes law firms, accounting firms, and other professional services; architectural, engineering, and surveying services; and a wide range of computer, research, and other business services.

Architectural, engineering, and surveying employment should see healthy growth as a result of a rebound in construction and a period of increased mining, and oil and gas exploration. Other components of this industry will mostly follow population growth and the health of the overall economy.

Summary

Alaska is expected to recover from the recession and grow at a modest rate for the remainder of the forecast period. Health care related industries will benefit from the rapid growth in the population of older age Alaskans. An expansion of infrastructure, resumed construction growth, promising new mines, increased mining and oil exploration, and a gradual return of tourists will help Alaska maintain positive growth in the aftermath of the recession.

How are projections made?

Ten year industry and occupational forecasts for Alaska are created every other year by the Department of Labor and Workforce Development. The projections are the product of four steps:

Step 1: Project Industry Employment

Data from the Quarterly Census of Employment and Wages (QCEW) are used to determine the number of jobs for each industry during the first year (base year) of the projection period.¹ For the purposes of the projections, certain types of public-sector employment – education, hospitals, rail transportation, and U.S. Postal Service – are combined with employment in private-sector industries.

Projections are made for each industry based on historical trends and expected changes in important economic indicators, Alaska and U.S. population projections, and other industry-specific variables. Consideration is also given to knowledge of specific projects and observations of the current economic climate.

Step 2: Determine the occupational makeup, or “staffing pattern”, of each industry

In order to estimate base year employment for each occupation, the occupational “staffing pattern” of each industry must be determined. Most industries have a wide variety of occupations. The staffing pattern of an industry is the breakdown of each occupation’s share of the industry’s total employment (referred to as “staffing ratios”).

Employers in Alaska report the occupations of their workers when they submit their unemployment insurance quarterly contributions report.² The reported occupations are the basis of Alaska’s Occupational Database (ODB). An analysis of the three most recent years of ODB data are used to calculate occupational staffing ratios for each industry.

Step 3: Calculate base year and projected occupation employment

Each industry’s estimated base year employment is multiplied by the staffing ratio for each occupation. The results are then summed by each occupation to get the base year estimate.

For the projections, staffing ratios within an industry are adjusted using “change factors.” Change factors are multipliers that increase or decrease an occupation’s estimated share of industry employment based on factors other than an industry’s projected employment change. Some examples are changes in consumer demands, technology, or business practices.

Each industry’s projected employment is then multiplied by the adjusted staffing ratio for each occupation. The results are then summed by each occupation to get the projections.

Step 4: Estimate job openings

Job openings for an occupation result from both job growth and replacements of workers that leave the occupation. An occupation’s growth openings are equal to its positive change over the projection period. Replacement openings are estimated using a combination of BLS formulas and formulas derived from an analysis of historical ODB data.

More information on the methods and definitions can be found on the Alaska Department of Labor and Workforce Development’s Research and Analysis Section website (<http://laborstats.alaska.gov>).

¹ Estimates and projections do not include self-employed workers, private household workers, most agriculture workers and fishermen, and others who are not covered by the state’s unemployment insurance program.

² Since the ODB does not include federal government workers, OES survey data are used to determine federal government staffing ratios.