

Health Care to Lead Industry Growth

Alaska Industry Forecast, 2010 to 2020



Alaska is expected to add 38,749 jobs between 2010 and 2020, an increase of 12 percent. Health care and social assistance, which will benefit from the needs of an aging population, is projected to grow by about 31 percent — by far the highest of any industry. The second-highest growth will be in mining, minus oil and gas, at 19 percent.

The other industries expected to grow at a slightly higher rate than the overall economy are finance and the professional and business services sectors. In contrast, construction, utilities, and government are among those projected to grow at a slower pace.

Health care leads the way

Health care and social assistance jobs will be booming through 2020 as the population of Alaskans age 65 and up is expected to grow by 89 percent, fueling increased demand for services.

Ambulatory health care — which includes practitioners, outpatient care centers, and home health services — will gain 5,860 jobs, or 37 percent. Some of the growth in ambulatory health care will come from a shift in demand from higher-cost hospitals and long term care to more affordable home health care services. Even with this transition, hospital employment will grow by almost 3,600 jobs, or 28 percent, and nursing homes and community elder care facilities will also show strong growth.

The aging population will also boost social assistance, adding about 2,400 jobs — up 25 percent for the 10-year period. This industry includes a range of social services, most of which will grow at an average to above-average rate. But services for the elderly, including nonmedical home care and community food and housing for seniors, will drive social assistance job growth higher.

Aftermath of recession can skew perception of industry growth rates

The U.S. recession that officially ran from late 2007 through mid-2009 also affected Alaska, albeit less severely and for a shorter duration. The recession hit some Alaska industries harder than others, and some had not fully recovered by 2010 — therefore, comparing projected growth rates requires caution.

Industries that escaped the recession or regained any lost employment by 2010 started the forecast period at a level more in line with their long-term trend. In turn, their projected growth rates are representative of those long-term trends.

Industries that were hit hardest and failed to gain back lost jobs by 2010 started the forecast period in a recessionary trough, so part of their projected growth will reflect their recovery. This

Effect of the Recession on Select Industries' Cumulative Growth

| Example Industry | Pre-Recession 2007 jobs | Post-Recession 2010 jobs | Projected jobs, 2020 | Pct Chg 2007–2020 | Pct Chg 2010–2020 |
|------------------|-------------------------|--------------------------|----------------------|-------------------|-------------------|
| Oil and Gas | 3,246 | 3,551 | 3,737 | 15.1% | 5.2% |
| Construction | 17,509 | 15,998 | 17,604 | 0.5% | 10.0% |

means their 2010–2020 growth rates are higher than if they had been measured from a point prior to the recession.

The table above shows how differences in recovery times can skew perceptions when comparing the growth rates of industries. Oil and gas extraction added about 300 jobs from 2007 to 2010 and is expected to grow by 5.2 percent from 2010 to 2020. Construction, on the other hand, dropped by more than 1,500 jobs during the recession and sat at just under 16,000 in 2010. Starting from that

low point, construction is projected to grow 10 percent by 2020 — almost double the percent change for oil and gas.

This comparison may be deceptive because much of the projected construction growth is recovery of lost jobs, unlike oil and gas. If projected employment for the two industries were measured from 2007 instead of 2010, the picture would look dramatically different — oil and gas would grow by 15.1 percent and construction would grow by less than 1 percent.

1 Alaska Employment Forecast by Industry 2010 to 2020

| Industry Description | 2010 Estimated Employment ¹ | 2020 Projected Employment | Change from 2010 to 2020 | Total Percentage Change ² |
|--|--|---------------------------|--------------------------|--------------------------------------|
| Total Employment, All Jobs³ | 323,410 | 362,159 | 38,749 | 12.0% |
| Goods-Producing | 44,880 | 48,264 | 3,384 | 7.5% |
| Natural Resources and Mining | 16,140 | 17,478 | 1,338 | 8.3% |
| Mining | 15,162 | 16,474 | 1,312 | 8.7% |
| Oil and Gas Extraction | 3,551 | 3,737 | 186 | 5.2% |
| Mining (except Oil and Gas) | 2,251 | 2,687 | 436 | 19.3% |
| Support Activities for Mining | 9,360 | 10,050 | 690 | 7.4% |
| Construction | 15,998 | 17,604 | 1,606 | 10.0% |
| Manufacturing | 12,742 | 13,183 | 441 | 3.5% |
| Seafood Product Preparation and Packaging | 9,162 | 9,337 | 175 | 1.9% |
| Services-Providing | 278,283 | 313,648 | 35,366 | 12.7% |
| Trade, Transportation, and Utilities | 64,867 | 71,342 | 6,476 | 10.0% |
| Wholesale Trade | 6,276 | 6,866 | 590 | 9.4% |
| Retail Trade | 35,465 | 39,503 | 4,038 | 11.4% |
| Transportation and Warehousing ⁴ | 21,227 | 22,919 | 1,692 | 8.0% |
| Utilities | 1,899 | 2,054 | 155 | 8.2% |
| Information | 6,460 | 6,561 | 101 | 1.6% |
| Financial Activities (Including Real Estate) | 14,851 | 16,817 | 1,966 | 13.2% |
| Professional and Business Services | 26,264 | 29,607 | 3,343 | 12.7% |
| Professional, Scientific, and Technical Services | 13,809 | 15,724 | 1,915 | 13.9% |
| Administrative and Support and Waste Management and Remediation Services | 11,301 | 12,729 | 1,428 | 12.6% |
| Education and Health Services | 72,580 | 89,102 | 16,522 | 22.8% |
| Educational Services, Public and Private ⁵ | 31,110 | 34,692 | 3,582 | 11.5% |
| Elementary and Secondary Schools, Public and Private | 21,833 | 24,412 | 2,579 | 11.8% |
| Educational Services, Public and Private, All Other | 9,277 | 10,279 | 1,002 | 10.8% |
| Health Care and Social Assistance, Public and Private ⁶ | 41,470 | 54,410 | 12,940 | 31.2% |
| Ambulatory Health Care Services | 15,828 | 21,688 | 5,860 | 37.0% |
| Hospitals | 12,696 | 16,281 | 3,585 | 28.2% |
| Nursing and Residential Care Facilities | 3,429 | 4,544 | 1,115 | 32.5% |
| Social Assistance | 9,517 | 11,898 | 2,381 | 25.0% |
| Leisure and Hospitality | 31,516 | 35,446 | 3,930 | 12.5% |
| Arts, Entertainment, and Recreation | 4,414 | 4,949 | 535 | 12.1% |
| Accommodation and Food Services | 27,102 | 30,497 | 3,395 | 12.5% |
| Other Services (Except Government) | 11,403 | 12,467 | 1,064 | 9.3% |
| Total Government | 50,342 | 52,308 | 1,966 | 3.9% |
| Total Federal Government ⁷ | 15,982 | 15,555 | -428 | -2.7% |
| Total State Government ⁸ | 17,753 | 18,881 | 1,128 | 6.4% |
| Total Local Government ⁹ | 16,607 | 17,873 | 1,266 | 7.6% |

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

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

³Excludes self-employed workers, fishermen, domestic workers, unpaid family workers, and nonprofit volunteers

⁴Includes U.S. Postal Service employment and railroad employment

⁵Includes local and state government educational service employment

⁶Includes public sector hospital employment

⁷Excludes uniformed military, Postal Service, and hospital employment

⁸Excludes university, railroad, and hospital employment

⁹Excludes public school and hospital employment

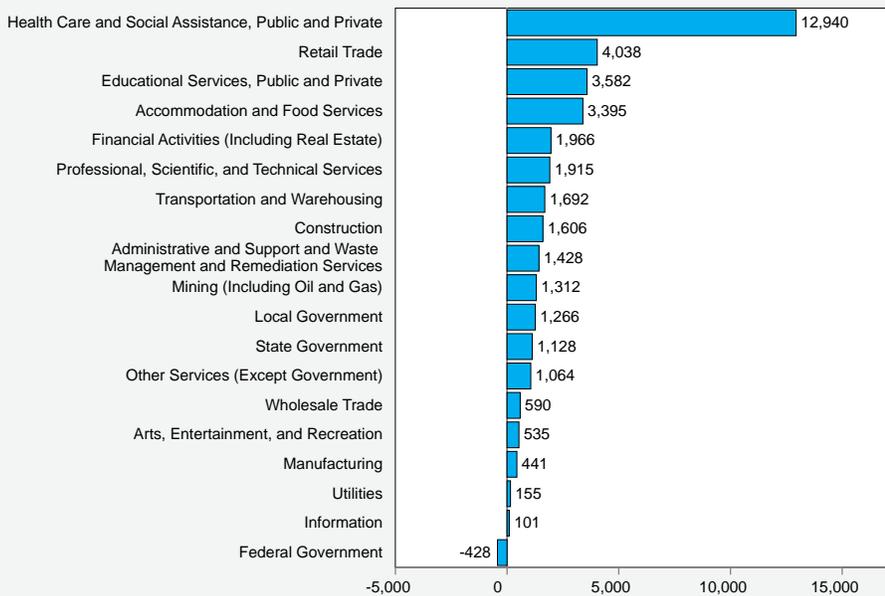
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

In all, health care and social assistance will be responsible for a third of the total added jobs over the projection period. It will also become a larger share of the state's total employment, growing from 12.8 percent in 2010 to 15 percent in 2020.

Metal and coal mining expand

Growth in the mining sector (excluding oil and gas) is estimated to increase by 19.3 percent from 2010 to 2020. Several mining operations anticipate fur-

2 Highest Projected New Jobs Are in Health Care Select Alaska industries, 2010 to 2020



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

ther expansion, and others are expanding now.

- Usibelli Coal Mine in Healy is expected to increase production after completing its Jumbo Dome development project.
- Recent discoveries in Pogo Mine in Interior Alaska will likely keep the mine in production past its previously published closure date of 2017.
- Red Dog Mine in Northwest Alaska received a permit for the Aqqaluk deposit and is now expected to continue operations until 2031.
- Additional exploration is underway in Greens Creek Mine in Southeast Alaska, which has begun the permitting process to increase its tailings capacity.
- International Tower Hills' Livengood Gold project or Barrick and NovaGold's Donlin Creek project may produce additional employment, assuming their permitting and construction can be completed.

Any unexpected large decline in mineral prices could, however, severely hinder industry growth.

Oil and gas to grow despite lower production

The oil and gas industry is of unique importance

to Alaska because of its direct relationship to the state's budget. Despite an ongoing decline in oil production, employment is not likely to drop over the projection period. The enhanced methods that are necessary to maintain production in later stages of oil fields' life cycles are generally more labor-intensive.

High oil prices will also drive employment growth, with firms exploring or producing in marginal areas that could become economically viable at higher prices. But, all things considered, employment is projected to grow at less than half the rate of the overall economy.

Construction will continue to recover

The construction industry is expected to grow by 10 percent, adding about 1,600 jobs over the projection

period. After declining by 7.9 percent between 2007 and 2010, this would be more than a full post-recession recovery. Some of this recovery has been due to the American Recovery and Reinvestment Act the U.S. Congress passed in 2009. After the stimulus funding is exhausted, pent-up demand from population growth, business expansion, and state-funded capital projects will drive growth in residential, nonresidential, and civil engineering construction.

Retail, leisure bounce back

Construction was not the only industry to suffer from the recession, which officially ended in mid-2009. Retail lost a modest number of jobs from 2007 to 2010, but diversity in the types of businesses softened the blow. Retail growth is projected to be roughly in line with the overall economy, growing by 11.4 percent, or more than 4,000 jobs.

Retail's ability to weather the recession is primarily due to demand for essential goods and services. During a recession, when budgets are tight, consumer spending on food, gasoline and other fuels, medicine, and clothing don't decrease as much as spending on travel, entertainment, and other nonessentials. Businesses selling essentials aren't invulnerable to recessions, but

How the Department of Labor creates these projections

The Department of Labor and Workforce Development creates 10-year industry and occupational forecasts for Alaska every other year. These projections are the product of four steps:

Step 1: Project industry employment

Data from the Quarterly Census of Employment and Wages are used to determine the number of jobs for each industry during the first year, or “base year,” of the projection period.¹ Certain types of public-sector employment — such as education, hospitals, rail transportation, and U.S. Postal Service — are combined with employment in private-sector industries.

The department creates projections for each industry based on historical trends and expected economic changes, Alaska and U.S. population projections, and other industry-specific variables. The projections also take into account any knowledge of specific projects and observations of the current economic climate.

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

To estimate base year employment for each occupation, the department determines the occupational “staffing pattern” of each industry. Most industries have a variety of occupations. The staffing pattern is the breakdown of each occupation’s share of the industry’s total employment, referred to as “staffing ratios.”

Employers in Alaska report their workers’ occupations when they submit unemployment insurance quarterly contributions reports, which form the basis of Alaska’s Occupational Database. The department uses an analysis of the three most recent years of ODB data to calculate occupational staffing ratios for the majority of industries. Because the ODB does not include federal workers, staffing ratios were developed using occupation data from public and private industries closely related to federal agencies. For example, for civilian employment from army commissaries, staffing patterns for “Other General Merchandise Stores” were used. The department also uses anecdotal information or survey data as available.

Step 3: Calculate base year and projected occupational employment

For each occupation, the department multiplies each industry’s estimated base year employment by the staffing ratio, then sums the results to get the base year estimate.

For the projections, adjustments to staffing ratios within an industry are called “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, with the results 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 who leave. An occupation’s growth openings are equal to its positive change over the projection period. Estimates of replacement openings use a combination of Bureau of Labor Statistics formulas and formulas derived from an analysis of historical ODB data.

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

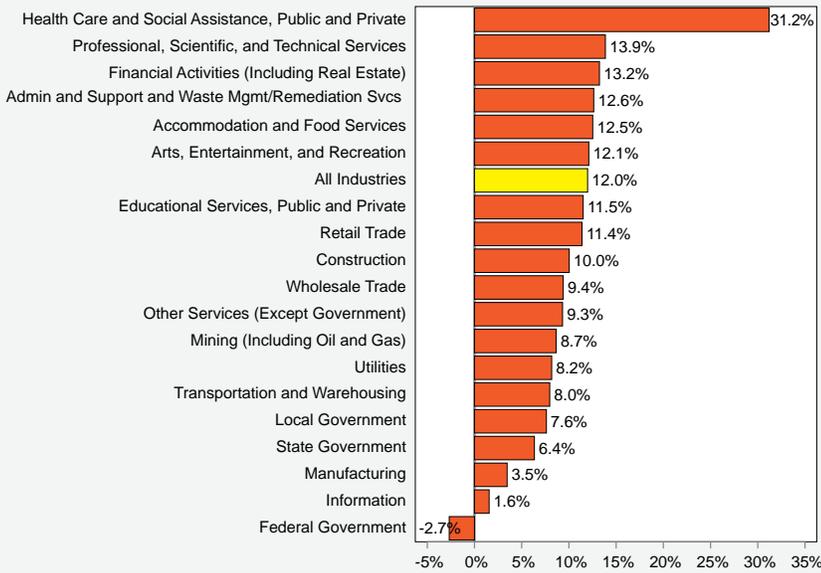
they are less vulnerable than other industries.

Wholesale trade felt the squeeze of the recession as well, losing 324 jobs from 2007 to 2010. Wholesalers dealing in durable goods such as home appliances were affected the most, with a 7.9 percent job loss from 2007 to 2010. Non-durable goods wholesalers — those dealing in clothes, groceries, and other short-lived prod-

ucts — declined by just 1.8 percent. Wholesale is projected to regain all of its recessionary employment losses and add more than 943 new jobs by 2020, a total increase of 9.4 percent from 2010.

The leisure and hospitality industry — which includes accommodations, restaurants, and bars — was hit hard by the recession, shedding al-

3 Highest Percent Increase is in Health Care Select Alaska industries, 2010 to 2020



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

most 1,500 jobs from 2007 to 2009, a 4.5 percent drop. Accommodations lost 879 of those jobs, or almost 11 percent of its employment.

Leisure and hospitality bounced back in 2010, though, recovering about half of the lost employment, and it is projected to add 3,930 jobs by 2020. Tourism is likely to increase with the U.S. easing out of the recession, and it's likely to drive demand for leisure and recreation in combination with a growing Alaska population, boosting job growth.

Transportation a mixed bag

The transportation and warehousing sector is projected to increase by 1,692 jobs — 8 percent — from 2010 to 2020. The recession also slowed this sector and especially the air transportation industry, which lost 571 jobs between 2008 and 2010 but is expected to recover. The same can't be said of the United States Postal Service, which started on a downward trend in 2005 that's expected to continue.

Rail transportation will also likely lose some jobs, but there are bright spots as well. Sightseeing transportation is estimated to grow by 12.4 percent, and growth in courier delivery services

is expected to offset some of the Postal Service's losses.

Education will mirror population trends

Nearly 3,600 new jobs are projected in public and private education, which equates to a growth rate of 11.5 percent. Elementary and secondary schools will provide 70 percent of the employment growth, adding almost 2,600 jobs. This will closely follow population growth among those age groups.

The remaining 30 percent will be spread across a variety of other education providers, including the University of Alaska. Its Anchorage campus projects average enrollment increases of 1.5 percent a year through 2030. A projected 5.4 percent reduction in Alaska's college-age population from 2010 to 2020 means enrollment gains will have to come from some other source, such as:

- Higher demand for well-trained health care workers such as nurses and health care technicians
- Training and education programs for other high-demand jobs
- Outreach to Alaska Natives and other under-represented populations
- Pursuit of out-of-state students
- Expansion of scientific research programs
- Efforts to increase Alaska's high school graduation rates

Rapid health care growth and outreach to rural areas could also boost private vocational and business schools. In a similar vein, other key industries' sustained requirements for well-trained workers may also contribute to employment growth, especially from industries that expect a higher-than-usual number of retirements.

Slow growth for government

Government employment is expected to grow slowly — just 3.9 percent from 2010 to 2020. State and local governments are expected to expand by 6.4 and 7.6 percent respectively, with federal employment estimated to decrease by 2.7 percent. Declining oil production will lead to lower state revenues, despite higher oil prices, which will

limit growth in state government. Departments that provide health and social services will likely grow more than others, due to expected increases in the number of older Alaskans.

Local government employment will continue to grow to meet increased demand for public services as Alaska's population increases. On the other side of the spectrum, federal employment will decline as federal spending in Alaska levels off after years of strong growth. Federal spending is not expected to decline significantly, however, because of the type of federal money that comes to Alaska. Specifically, a large military presence, extensive federal land holdings, federal health care and other programs for Alaska Natives, and the state's relatively undeveloped infrastructure will continue to draw federal dollars to Alaska.

Information is in flux

The information industry is expected to grow slowly, just 1.6 percent over the projection period, as a result of countervailing forces within and outside of the industry. For instance, publishing (predominately newspapers) will decline by 13.6 percent from 2010 to 2020, while wired and wireless telecommunications carriers are expected to increase by 5.6 percent. Increased consumer demand for digital media over print drives these crisscrossing trends. But competition for these digital services from firms outside of Alaska will likely put a cap on employment growth, because these services can often be provided remotely and at less cost.

Professional, scientific, and technical services

Professional, scientific, and technical services are expected to add 1,915 jobs, up 13.9 percent. The above-average growth in this industry is led by computer systems design; accounting, tax preparation, bookkeeping, and payroll services; and architectural and engineering services.

Legal services and scientific research and development services will lag behind the industry's overall growth rate, remaining relatively flat over the projection period. A portion of the employment in legal services is being consolidated into other industries, and federal spending reductions may inhibit funding of some research and development projects.