

WORKforce

Alaska

Higher Education & the Workforce

In 2006, a good education is no longer just a way for an individual to get ahead. It is also, and increasingly, the best way a state can get ahead – and therefore a real economic priority. A college degree confers specific, calculable benefits on a state's citizens: the average lifetime income of an individual with a bachelor's degree is \$2.1 million, compared to \$1.2 million for those with just a high school diploma. But the benefits realized by the state are just as impressive as those that an individual sees. Not only does a state with a well-educated populace see increased tax revenues from its (better-paid) citizens, it is also able to use the education level of its citizens as a powerful lure for business and industry – a way to build its economy overall.

For that to happen, however, a state must make sure that all of its citizens have access to a college education. Businesses are no longer simply looking for a small, well-educated elite but instead need to be able to draw upon a labor pool that's both broadly educated and diverse. In fact, a report from the Business-Higher Education Forum, a coalition that includes some of the country's top corporate CEOs, states that an educated and diverse population is an essential competitive asset in today's global economy.

In Alaska, the demand for well-educated employees will only increase over the next several years. In 2012, professional occupations will account for the largest share of the state's employment and the second largest number of new jobs, according to the Alaska Department of Labor and Workforce Development. The increase in this sector is good news for Alaska's citizens, since the median wage for professional jobs is 25 percent higher than for all other occupations. But entry into these jobs comes with a price tag: at least half of these new positions will require a bachelor's degree or higher. The question for Alaska and other states is how, in a time of tight budgets, to meet the increasing demands on higher education and thereby meet the needs of an increasingly sophisticated economy.

The Western Interstate Commission for Higher Education (WICHE) has had workforce issues at the top of its agenda since its creation in the 1950s. In fact, WICHE was launched specifically to address the shortage of workforce-training opportunities in medicine, dentistry, and other professional fields. Today, WICHE offers a slew of undergraduate, graduate, and professional options that help the West's states educate and train their citizens, building their economies in the process.

Alaska's Occupational Outlook

Employment in Alaska (including hourly and salaried jobs and self-employment) is projected to grow by 14 percent from 2002 to 2012, adding nearly 43,000 new jobs to the state's economy and growing the workforce from 313,540 to 356,951. The rate of growth is lower than the increase projected for the nation as a whole (15 percent).

Growth will occur in virtually all sectors of Alaska's economy, particularly in service occupations, Alaska's lowest-paying sector (median wage, \$12.20/hour). The "professional and related" occupational group, whose median wage is more than double that of service occupations, will see the second highest rate of growth and is expected to account for the biggest share of the state's employment. Many of Alaska's "top jobs" (see Table 1)

Table 1. Alaska's Top Jobs*

Pharmacists	Registered Nurses
Health Services Managers	Dental Hygienists
Diag. Med. Sonographers	Optometrists
Physical Therapists	Radiologic Techs
Physician Assistants	Network/Comm. Analysts

* Jobs with the strongest employment outlook (2002-12) and with earnings in the top quartile.

Source: Alaska Department of Labor and Workforce Development.

fall into this sector, which encompasses a great variety of vocations, from nursing and computer programming to law and zoology. Not only will this sector see the second fastest growth in terms of new jobs, it will also be second (again, after the service sector) in terms of replacement needs.

Many of the occupations in this sector require considerable education and training. Of the nearly 60,000 workers that composed this group in 2000, about two-thirds worked in an occupation requiring some education post high school, usually at least a bachelor's degree. That trend continues. Of the 10 "top jobs" listed in Table 1, all require some postsecondary education, and 60% demand a B.A. or higher. And if we look at projections for all of Alaska's top jobs – those that have above-average wages and are growing at a significant rate – over half require some form of postsecondary education and more than a third demand a bachelor's degree.

Over the decade leading up to 2012, the need for health care professionals will continue to rise in Alaska. The demand for registered nurses will see a 33 percent increase – another 1,600-plus new positions will be created in the state. Pharmacists' ranks will experience 49 percent growth, while physical therapists and physician assistants will see 36 percent. Alaska will also experience a strong demand for new respiratory therapists, dental hygienists, and rehabilitation counselors. One reason for the increase: the aging of the population.

The state expects to see a 40 percent increase in the 65-and-over age group in this decade.

Two other essential areas, business and education, will also be making a large number of hires in the decade leading up to 2012, due to new job creation and the need for replacement workers. Nearly 2,700 new general managers will be required to help run the state's varied businesses. Some 1,300 primary and secondary school teachers will be needed in the state's classrooms.

The area of mining and construction may experience a major increase in hires toward the end of this projection period if the gas pipeline project moves forward in a timely fashion. It's anticipated that 4,000 to 5,000 workers will be needed in these fields, as well as in engineering, transportation, warehousing, and others. Tourism is also expected to grow, further feeding the service and retail sectors.

As Alaska's economy changes, so do the kinds of jobs available to Alaskans. Over the next several years, workers who have the most education and training will have the best opportunity for high-paying jobs in growing sectors. Although the projections indicate that jobs will be available for those without formal training beyond high school, prospects for high-paying jobs will, increasingly, be much better for workers who get a college education. In addition, a number of professions requiring education beyond the bachelor's degree are expected to see moderate to strong growth (see Table 2).

Table 2
Alaska Professional Employment Projections, 2002-2012

Profession	Number		% Change	New Openings
	2002	2012		
All professions	313,540	356,491	14%	42,951
Architects	415	432	4%	17
Dentists	357	375	5%	18
Librarians	455	422	-5%	-23
Occupational Therapists	155	186	20%	31
Optometrists	93	118	27%	25
Pharmacists	364	541	49%	177
Physical Therapists	298	405	36%	107
Physician Assistants	185	251	36%	66
Physicians and Surgeons	1,214	1,415	17%	201
Registered Nurses	5,004	6,670	33%	1,666
Veterinarians	137	157	15%	20

Source: Alaska Department of Labor and Workforce Development.

ALASKA & WICHE's Student Exchange

In 2002, 47 percent of Alaska's new high school grads enrolled in college — and 44 percent of them went to school out of state, according to WICHE's just-updated Policy Indicators for Higher Education (www.wiche.edu/Policy/FactBook). One of the most economical ways for them to do that: our Western Undergraduate Exchange (WUE), which allows students to enroll in out-of-state institutions at a reduced tuition level (150 percent of resident tuition). Over 1,600 Alaska students enrolled in WUE in 2005, saving more than \$9.5 million and working toward degrees in fields that are essential to Alaska's economy. Some of the most popular fields of study for Alaska students: engineering, chemistry, nursing, business administration, elementary and secondary education, and computer science.

WICHE's Professional Student Exchange Program (PSEP) offers students opportunities to train outside of their home state in 14 highly competitive fields: architecture, dentistry, graduate library studies, medicine, nursing, occupational therapy, optometry, osteopathic medicine, pharmacy, physical therapy, physician assistant, podiatry, public health, and veterinary medicine. In Alaska, employment projections in almost all these fields are on the rise (see Table 2). Through PSEP, Alaska students are studying to be dentists, physical therapists, pharmacists, and optometrists. In general, at least 60 percent of PSEP students return to their home state to practice.

Alaska students also participate in the Western Regional Graduate Program (WRGP), which offers them the chance to engage in graduate studies and includes 175 distinctive programs in 14 states, such as mining and earth systems engineering, nursing, and human resource management. On the horizon is a distance learning option, NEON (the Northwest Educational Outreach Network), which will provide electronically delivered degree programs in high-demand disciplines, such as a Ph.D. in nursing and a graduate certificate in supply chain management.

Six Fast-Track Fields

The Outlook for Alaska & the Nation

From 2002 to 2012, the economy in Alaska and the nation will continue generating jobs for workers at all levels of education and training. But there will be an increasing demand for employees with at least some postsecondary education, preferably a bachelor's degree. Nationwide, during a decade that will witness large numbers of baby boomers moving into retirement, 21.4 million new jobs will be created, an increase of 15 percent. However, in some fields, the increase will be more than triple that. Across the country, competition will be especially stiff for physician assistants, who will see their ranks grow by 49 percent, as well as for physical and occupational therapists (whose fields will experience growth of 35 percent) and pharmacists (30 percent). More than 620,000 new nurses will be needed (an increase of 27 percent) and some 14,500 new veterinarians. Below is a debriefing that focuses on trends in some of Alaska's — and the nation's — fast growing professions.

Registered Nurses. Nursing is the fifth fastest growing field in Alaska among occupations requiring some postsecondary education, but it will require more new hires in the decade leading up to 2012 than any other job in that category. Working in the largest healthcare profession, registered nurses held 5,004 jobs in 2002 in Alaska; that number will grow to 6,670 by 2012, a 33 percent increase. Demand for R.N.s is expected to be high for a number of reasons, including the need to replace experienced nurses who leave the field, especially as the median age of the R.N. population continues to rise; a growing elderly population; and an imbalance between the supply of and demand for qualified R.N.s. Nationally, employment of registered nurses is expected to grow by 27 percent in the decade leading up to 2012. Median annual earnings of Alaska's registered nurses were more than \$60,000 in 2004; the top 10 percent earned \$79,000 and up (nationally, that number was \$77,100).

Pharmacists. In Alaska, this is the fastest growing profession among all occupations requiring a bachelor's degree or higher. Pharmacists held 364 jobs in 2002, a number slated to jump to 541 in 2012, a 49 percent increase. Competition for pharmacists is expected to be steep over the 2002-12 period due to the increased pharmaceutical needs of a larger and older population. In addition, the number of degrees granted in pharmacy is expected to be lower than the number of job openings created by employment growth and replacement needs. Nationally, the number of pharmacists is expected to grow by 30 percent. Median annual earnings of Alaska's pharmacists in 2004 were almost \$94,000; the top 10 percent earned \$115,000 and up (nationally, that figure was \$112,500).

Physical Therapists. This is the third fastest growing profession among all occupations requiring a bachelor's degree or higher in

Alaska. Physical therapists held 298 jobs in 2002, a number that will climb 36 percent to 405 in 2012. Thanks to a rapidly growing elderly population that's particularly vulnerable to chronic conditions requiring therapeutic services — as well as to the use of physical therapists at the workplace, to evaluate worksites, develop exercise programs, and teach safe work habits to employees — the demand for physical therapists will be strong throughout the 2002-12 decade. Nationally, the number of physical therapists is expected to grow by 36 percent. In Alaska, median annual earnings of physical therapists were \$66,000 in 2004. Nationally, the top 10 percent earned \$89,800 and up.

Physician Assistants. This is the fourth fastest growing profession in Alaska among all occupations requiring a bachelor's degree or higher. Physician assistants held 185 jobs in 2002; that number is projected to grow to 251 in 2012, a 36 percent increase. Demand will be strong for physician assistants, particularly in places that have difficulty attracting physicians, such as rural areas and inner city clinics. In addition, physicians and institutions are expected to employ more P.A.s to provide primary care and assist with medical and surgical procedures. Nationally, the number of physician assistants is expected to grow by 49 percent: over 4,000 new physician assistants will be needed each year. Median annual earnings of physician assistants in Alaska were \$82,700 in 2004. Nationally, the top 10 percent earned \$94,840.

Occupational Therapists. Occupational therapists held 155 jobs in 2002 in Alaska; that number is projected to grow to 186 by 2012, a 20 percent increase. The baby boom's movement into middle and old age and the resulting rise in the incidence of heart attack and stroke, as well as age-related disabilities, will increase the demand for therapeutic services. Nationally, the number of occupational therapists is expected to grow by 35 percent. Median annual earnings of occupational therapists in Alaska were \$57,500 in 2004; the top 10 percent earned \$73,500 and up (nationally, that figure was \$83,100).

Veterinarians. Veterinarians held 137 jobs in 2002 in Alaska; that number will grow to 157 by 2012, a 15 percent increase. Demand for vets will be strong across the country (the nation will see a 17 percent increase in hires), especially as older vets retire and as the household pet population increases. Median annual earnings of veterinarians were \$71,500 in 2004 in Alaska; the top 10 percent earned \$104,600 and up (nationally, that figure was \$120,100).

The Regional Outlook

Seven of the top 10 states in terms of projected job growth are in the West: Nevada, Utah, Idaho, Arizona, Colorado, New Mexico, and California. In the 15 WICHE states, an additional 5.9 million jobs will be added in the decade leading up to 2012. While California has the greatest numerical growth in the region, with some 270,000 new jobs being created each year, the states seeing the fastest job growth are Nevada (41 percent), Utah (31 percent), Idaho (24 percent), and Arizona and Colorado (23 percent). Most of the region's fastest growing professions are in the health and computer sectors.

Sources: Workforce Report Data

All information used in the text and tables of this report is available from the Alaska Department of Labor and Workforce Development (www.labor.state.ak.us) and the U.S. Department of Labor's Bureau of Labor Statistics (www.bls.gov/emp).

WICHE

WICHE and its 15 member states — Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming — work collaboratively to expand educational access and excellence for all citizens of the West. By promoting innovation, cooperation, resource sharing, and sound public policy among states and institutions, WICHE strengthens higher education's contributions to the region's social, economic, and civic life.

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