

WORKforce

Oregon

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 Oregon, a state recovering from the 2000-03 recession, the demand for well-educated employees will increase over the next several years. In the decade leading up to 2014, healthcare occupations will see growth of 25 percent: about 25,000 new positions will have to be filled. Overall, professional and related positions — especially in education and computer-related fields — will see a 13 percent increase and over 33,000 new jobs. There will be over 11,000 computer-related positions, including new and replacement openings, by 2014, growth of almost 19 percent. Architectural positions will see a 26 percent growth, adding almost 700 new positions over the decade. And the financial specialties, from accountants and auditors to personal financial advisors, will see an increase of almost 17 percent, adding over 4,000 new jobs. But entry into these jobs comes with a price tag: most positions in these fields will require a bachelor's degree or higher. The question for Oregon 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.

Oregon's Occupational Outlook

Employment in Oregon is projected to grow by 15 percent from 2004 to 2014, adding almost 245,000 new jobs to the state's economy and growing the workforce from 1,636,400 to 1,881,300. The rate of growth for the nation as a whole will be 13 percent (2004-14).

Growth will occur in all sectors of Oregon's economy, with the largest number of new jobs occurring in lower-paying fields such as retail sales, office support, and food service. However, all of Oregon's "top jobs" — those with the fastest growth rate and highest earnings — are professional positions (see Table 1).

Table 1. Oregon's Top Jobs*

Registered Nurses	Comp. Software Engs.
Dental Hygienists	Architects
Physical Therapists	Comp. Sys. Analysts
Health Services Mgrs.	Physicians/Surgeons
Elec. Engineering Techs	Pharmacists
Medical Lab Techs	Radiologic Techs

* Jobs with the strongest employment outlook (2004-14) and high earnings.

Source: Oregon Employment Department.

All the top jobs listed on Table 1 demand considerable education and training. Five (registered nurse, dental hygienist, radiological tech, medical lab tech, and electrical/electronic engineering tech) require an A.A.; the remainder demand a bachelor's or advanced degree.

Technical fields will see significant growth leading up to 2014. The ranks of computer software specialists will increase by more than 1,500 positions by 2014. Electrical and electronic engineering technicians will see their ranks grow by almost 1,200 positions. And more than 1,600 computer software analysts will be needed to fill new and replacement spots.

Two thirds of Oregon's top jobs are in fields related to health care. In terms of numbers of positions to be filled over the decade leading up to 2014, registered nurses lead the way with 5,600 new openings. More than 1,200 jobs will be available for pharmacists. The fields of physician assistant and occupational therapists will each see about 280 openings. One reason for the increase: the aging of the population. Oregon is seeing significant growth in its older population: in 2005, it is estimated that 17 percent of its citizens were over 60 – more than 632,000 people.

Two other essential professionals, managers and teachers, will also see a large number of hires in the decade leading up to 2014, due to new job

creation and the need for replacement workers. Over 28,000 new managers of all types – from CEOs and operations managers to supervisors – will be required to help run the state's various enterprises. Large numbers of teachers at every level from kindergarten through college will be needed in Oregon. At the primary and secondary levels, over 16,000 jobs will be available, with two thirds of those resulting from retirements. In addition, 7,200 slots in postsecondary education are projected to open up during the decade.

As Oregon's economy changes, so do the kinds of jobs available to Oregonians. The projections indicate that plenty of jobs will be available for those without formal training beyond high school. However, wages in most of the jobs in the sectors hiring those workers – retail sales and food service are two of the biggest – fall considerably below the statewide median (\$14.41 in 2004, or \$29,980 a year) and simply don't provide a living wage. 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. 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
Oregon Professional Employment Projections, 2004-2014

Profession	Number		% Change	Total Openings*
	2004	2014		
All professions	1,636,396	1,881,301	15%	663,424
Architects	1,441	1,848	28%	600
Dentists	557	726	30%	280
Librarians	1,601	1,807	13%	630
Occupational Therapists	781	944	21%	280
Optometrists	264	344	30%	160
Pharmacists	3,115	3,700	19%	1,260
Physical Therapists	1,579	2,000	27%	620
Physician Assistants	530	714	35%	280
Physicians and Surgeons	5,712	6,300	22%	1,926
Registered Nurses	26,976	32,397	21%	12,080
Veterinarians	634	812	28%	350

*Includes new jobs and replacements, rounded.

Source: Oregon Employment Department and State Occupational Projections (www.projectionscentral.com).

Oregon & WICHE's Student Exchange

In 2002, 50 percent of Oregon's new high school grads enrolled in college — and 28 percent of them went to school out of state, according to WICHE's 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). Some 1,400 Oregon students enrolled in WUE in 2005, saving over \$7.8 million and working toward degrees in fields that are essential to Oregon's economy. Some of the most popular fields of study for Oregon students: hotel, restaurant and travel industry management; biology; business; and psychology.

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 Oregon, employment projections in almost all these fields are on the rise (see Table 2). Oregon students do not currently participate in this program.

Oregon 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 education, nursing, and business. 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 Oregon & the Nation

The economy in Oregon and the nation will continue generating jobs for workers at all levels of education and training for the foreseeable future. But there will be an increasing demand for employees with at least some postsecondary education, preferably a bachelor's degree. Nationwide, during a decade (2004-14) that will witness large numbers of baby boomers moving into retirement, 18.9 million new jobs will be created, an increase of 13 percent. However, in some fields, the increase will be far more than that. Across the country, competition will be especially stiff for physician assistants, who will see their ranks grow by 50 percent, as well as for physical and occupational therapists (whose fields will experience growth of 37 and 34 percent, respectively) and pharmacists (25 percent). More than 703,000 new nurses will be needed (an increase of 29 percent) and some 11,000 new veterinarians. Below is a debriefing that focuses on trends in some of Oregon's — and the nation's — fast growing professions.

Registered Nurses. While other occupations may have a larger percentage growth, registered nurses tops the list in terms of the number of new jobs by 2014 among occupations requiring some postsecondary education. Working in the largest healthcare profession, registered nurses held 26,976 jobs in 2004 in Oregon; that number will grow to 32,397 by 2014, a 21 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 RN 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 29 percent in the decade leading up to 2014. Median annual earnings of registered nurses were \$57,930 in 2004; the top 10 percent earned \$73,220 and up (nationally, that number was \$77,170).

Teachers. When it comes to the number of new hires, teaching is one of the top professions among occupations requiring a bachelor's. Primary, secondary, and special ed teachers held 42,500 jobs in 2004 in Oregon; that number will grow to 48,400 by 2014, a 14 percent increase. In the decade leading up to 2014, Oregon will also have to find 2,200 postsecondary teachers to fill new positions in its colleges and universities. In addition, it will have to hire almost 23,800 educators at all levels to cover retirements and separations. Nationally, the demand for teachers will vary, ranging from 38 percent for postsecondary teachers down to 9 percent for middle school teachers (2002-12). Median annual earnings ranged from \$44,310 for the state's primary teachers to \$44,890 for secondary in 2004; the top 10 percent earned \$61,200 and \$55,310 and up, respectively (nationally, those figures were \$68,930 and \$72,110).

Physician Assistants. This is among the fastest growing professions in Oregon among all occupations requiring a bachelor's degree or

higher. Physician assistants held 530 jobs in 2004; that number is projected to grow to 714 in 2014, a 35 percent increase. Demand will be strong for P.A.s, 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 50 percent (2004-14): over 3,000 new physician assistants will be needed each year. Median annual earnings of physician assistants in Oregon were \$76,000 in 2004; the top 10 percent earned \$97,300 and up (nationally, that figure was \$94,840).

Pharmacists. In Oregon, pharmacists held more than 3,100 jobs in 2004, a number slated to jump to 3,700 in 2014, a 19 percent increase. Competition for pharmacists is expected to be steep over the 2004-14 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 25 percent (2004-14). Median annual earnings of Oregon's pharmacists in 2004 were \$87,120; the top 10 percent earned \$110,000 and up (nationally, that figure was \$112,530).

Physical Therapists. Physical therapist is among the top 10 fastest growing professions among all occupations requiring a bachelor's degree or higher in Oregon. Physical therapists held 1,579 jobs in 2004, a number that will climb 27 percent to 2,000 in 2014. 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 P.T.s will be strong throughout the 2004-14 decade. Nationally, the number of physical therapists is expected to grow by 37 percent (2004-14). In Oregon, median annual earnings of physical therapists were \$59,670 in 2004; the top 10 percent earned \$73,630 and up (nationally, that number was \$89,830).

Occupational Therapists. Occupational in great demand in Oregon. O.T.s held 781 jobs in 2004 in Oregon; that number is projected to grow to 944 by 2014, a 21 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 34 percent (2004-14). Median annual earnings of occupational therapists in Oregon were \$57,000 in 2004; the top 10 percent earned \$70,900 and up (nationally, that figure was \$83,150).

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 Oregon Employment Department (www.qualityinfo.org) 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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