

WORKforce

Washington

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 Washington, the demand for well-educated employees will only increase over the next several years. In the decade leading up to 2012, healthcare occupations will see growth of 20 percent. Teachers will be in demand: nearly 9,000 new elementary and middle-school educators will need to be hired. Computer fields will undergo growth of 24 percent, while managers will see their ranks swell by 17 percent – over 20,000 new managerial openings will need to be filled in all. The growth of these sectors is good news for Washington’s citizens, since wages for jobs in these areas are significantly higher than the average for Washington in general. 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 Washington 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.

Washington’s Occupational Outlook

Employment in Washington (including hourly and salaried jobs and self-employment) is projected to grow by 17 percent from 2002 to 2012, adding some 525,100 new jobs to the state’s economy and growing the workforce from 3,039,510 to 3,564,610. The rate of growth is higher than the 15 percent increase projected for the nation as a whole.

Growth will occur in most sectors of Washington’s economy, with the largest number of new jobs being generated in lower-paying fields such as retail sales, cashing, and food preparation and service. However, Washington’s “top jobs” – those with the strongest employment outlook and high earnings – are all professional positions (see Table 1).

Table 1. Washington’s Top Jobs*

Medical Scientists	Architects
Veterinarians	Multimedia Artists
Computer Scientists	Mechanical Engin. Techs.
General Managers	Nuclear Medical Techs.
Technical Writers	Dental Hygienists

* Jobs with the strongest employment outlook (2002-12) and strong wages.

Source: Washington State Employment Security.

All of the top jobs listed on Table 1 require considerable education and training. Three of them (mechanical engineer technician, nuclear medical technician, and dental hygienist) require an associate's degree, while all the rest demand a bachelor's degree or higher.

Washington will see strong growth in a variety of sectors in the decade leading up to 2012. Computer-related jobs are expected to see significant growth. Overall, the state is projected to add over 23,000 new jobs in this area.

Healthcare will also see big increases: nearly 18,000 new jobs will be created in a variety of fields, from dentistry to nursing, and about the same number will be hired to replace those who leave their fields. The demand for registered nurses will see a 20 percent increase: about 20,000 R.N.s will need to be hired for new and replacement posts. And Washington will see strong competition for those nurses: the top five states needing the largest numbers of nurses are all in the West. Physicians and surgeons will hire some 4,400 practitioners. Physical therapists will see a 22 percent increase, with some 1,300 being hired for new and replacement positions. And some 2,000 pharmacists will need to be hired. Washington will also experience a strong demand for new dentists and occupational therapists. One reason for the increase: the aging of the state's population. Between 2000 and 2004, the number of the state's population that's over 65 increased by 6 percent, to over 700,000.

Two other essential professionals, managers and teachers, will also see a large number of hires in the decade leading up to 2012, due to new job creation and the need for replacement workers. Almost 21,000 new jobs will be created for managers of all types – from CEOs and operations managers to supervisors. Large numbers of teachers at every level from kindergarten through college will be needed. At the elementary school level, over 6,000 new jobs will be created, along with 2,770 jobs for middle school teachers. Over 13,000 new and replacement slots in postsecondary education are projected to open up during the decade.

As Washington's economy changes, so do the kinds of jobs available to Washingtonians. The projections indicate that plenty of jobs will be available for those without formal training beyond high school. However, wages in the sectors hiring those workers – retail sales, cashing and food service will be top employers – fall significantly below the statewide mean (\$40,320 a year), and many positions don't provide even 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
Washington Professional Employment Projections, 2002-2012

Profession	Number		% Change	Total Openings*
	2002	2012		
All professions	3,039,510	3,564,610	17%	1,295,900
Architects	3,610	4,690	30%	1,550
Dentists	4,858	5,916	22%	1,950
Librarians	4,056	4,790	18%	1,780
Occupational Therapists	2,118	2,580	22%	780
Optometrists	598	724	21%	310
Pharmacists	5,020	5,920	18%	2,000
Physical Therapists	3,890	4,730	22%	1,300
Physician Assistants	1,680	2,010	20%	600
Physicians and Surgeons	12,870	15,390	20%	4,400
Podiatrists	311	396	27%	85
Registered Nurses	45,930	55,260	20%	19,800
Veterinarians	1,210	1,640	36%	800

* Includes new jobs and replacements, rounded.

Source: Washington State Employment Security Department and the U.S. Department of Labor.

Washington & WICHE's Student Exchange

In 2002, 44 percent of Washington's new high school grads enrolled in college — and 21 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). Over 2,900 Washington students enrolled in WUE in 2005, saving over \$16.7 million and working toward degrees in fields that are essential to Washington's economy. Some of the most popular fields of study for Washington's students: communications, education, engineering, biology, business, hotel/restaurant management, 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 Washington, employment projections in all these fields are on the rise (see Table 2). Through PSEP, Washington students are studying to be optometrists and osteopathic physicians. In general, at least 60 percent of PSEP students return to their home state to practice.

Washington 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 Washington & the Nation

From 2002 to 2012, the economy in Washington 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 Washington's — and the nation's — fast growing professions.

Registered Nurses. Nursing is #1 in terms of growth among occupations requiring some postsecondary education: it will make 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 45,930 jobs in 2002 in Washington; that number will grow to 55,260 by 2012, a 20 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 Washington's registered nurses were \$59,370 in 2004; the top 10 percent earned \$80,410 and up (nationally, that number was \$77,170).

Veterinarians. Veterinarian is the third fastest growing job in Washington among occupations requiring a bachelor's degree or higher. Veterinarians held 1,210 jobs in 2002 in Washington; that number will grow to 1,640 by 2012, a 36 percent increase. Demand for vets will be strong across the country (the nation will see a 26 percent increase in hires), especially as older vets retire and as the household pet population increases. Median annual earnings of veterinarians in Washington were \$70,810 in 2004; the top 10 percent earned \$103,380 and up (nationally, that figure was \$120,150).

Pharmacists. In Washington, some 2,000 pharmacists will have to be hired to fill new and replacement positions in the decade leading up to 2012. Pharmacists held 5,020 jobs in 2002, a number slated to jump to 5,920 in 2012, an 18 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 Washington's pharmacists in 2004 were \$84,690; the top 10 percent earned \$106,450 and up (nationally, that figure was \$112,530).

Tech Professions. In Washington, computer-related occupations are some of the fastest growing in the state; among occupations requiring a college education, they're also at the top of the list of those adding the highest number of new jobs. Occupations like computer software engineer and computer programmer will see growth in the decade leading up to 2012 of 27 percent and higher; In addition to a fast growth rate, there will also be a large number of jobs: between new and replacement positions, some 14,400 computer professionals will need to be hired. Nationally, those with strong computer skills will also be in high demand: the number of software engineers is expected to grow by 46 percent. Median annual earnings in 2004 in Washington were \$77,300 for programmers and \$84,230 for systems software engineers; the top 10 percent earned \$120,150 and \$117,900 and up, respectively (nationally, those figures were \$100,980 and \$119,150).

Physical Therapists. Washington will increase the number of its physical therapists by 22 percent in the decade leading up to 2012. Physical therapists held 3,890 jobs in 2002, a number that will climb to 4,730 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 PT.s will be strong throughout the 2002-12 decade. Nationally, the number of physical therapists is expected to grow by 36 percent. In Washington, median annual earnings of physical therapists were \$61,890 in 2004; the top 10 percent earned \$78,610 and up (nationally, that number was \$89,830).

Teachers. When it comes to the number of new hires, teaching is one of the top professions among occupations requiring a bachelor's. K-12 teachers held some 70,000 jobs in 2002 in Washington; that number will grow to over 80,000 by 2012, a 16 percent increase. In the decade leading up to 2012, Washington will also have to find almost 4,200 postsecondary teachers for its colleges and universities to cover new jobs, retirements, and separations. Every year, in other words, about 1,400 new and replacement teachers will need

to be hired in Washington. Nationally, the demand for teachers will vary, ranging from 38 percent for postsecondary teachers down to 9 percent for middle school teachers. Median annual earnings ranged from \$41,800 for the state's primary teachers to \$41,130 for middle school in 2004; the top 10 percent earned \$55,060 and \$54,830 and up, respectively (nationally, those figures were \$68,930 and \$69,960).

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 Washington State Employment Security Department (www.workforceexplorer.com) 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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