

WORKforce

BRIEF

California

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 California, the nation's most populous state, 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 28 percent; over 157,000 new practitioners and technicians will be needed. Teachers will be in high demand: over a quarter million new educators (including librarians) will need to be hired. Managers will see their ranks swell by 21 percent; when you add in retirements, over 31,000 openings will need to be filled each year. The growth of these sectors is good news for California's citizens, since wages for jobs in these areas are higher than the average for California 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 California 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.

California's Occupational Outlook

Employment in California (including hourly and salaried jobs and self-employment) is projected to grow by 19 percent from 2002 to 2012, adding some 2.7 million new jobs to the state's economy and growing the workforce from 14,457,800 to 17,149,500. The rate of growth is higher than the increase projected for the nation as a whole (15 percent).

Growth will occur in most sectors of California's economy (some exceptions: mining and certain manufacturing sectors), with the largest number of new jobs occurring in lower-paying fields such as retail sales and food service. However, all of California's "top jobs" – those with the fastest growth rate and highest earnings – are professional positions (see Table 1).

Table 1. California's Top Jobs*

Network Systems Analysts	Physical Therapists
Database Administrators	Personal Fin. Advisors
Respiratory Therapists	Epidemiologists
Computer Software Engineers	Dental Hygienists
Environmental Engineers	Occupational Therapists
Physician Assistants	Chiropractors

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

Source: California Employment Development Department.

All the top jobs listed on Table 1 demand considerable education and training. Two (dental hygienist and respiratory therapist) require an A.A.; the remainder (network system analyst, epidemiologist, computer software engineer, environmental engineer, database administrator, occupational therapist, physical therapist, physician assistant, chiropractor, and personal financial advisor) demand a bachelors or advanced degree.

One quarter of California's top jobs are in a field related to computers: computer specialists' ranks are slated to grow by 34 percent, with nearly 130,000 new hires anticipated. Strikingly, more than half of California's top jobs are health related. Some 92,700 new M.D.s, dentists, veterinarians, and other health practitioners will need to be hired. The demand for registered nurses will see a 28 percent increase – about 56,800 new R.N.s will be needed in the state; when retirements and other separations are factored in, that number grows to a whopping 99,000. Physician assistants will see a 41 percent increase in their ranks, with some 180 being hired every year to fill new positions. Physical therapists will experience a 43 percent increase, while occupational therapists' numbers will grow by 41 percent. Pharmacists will log growth of 33 percent – 6,800 new pharmacist positions will open up. Dental hygienists, whose ranks are the second fastest growing in the state, will see a 58 percent boost in their numbers. One reason for the increase: the aging of the population. California is seeing significant growth in its older population: in 2003,

14 percent of its citizens were over 60 – over 5 million in all, more than in any other state.

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. Over 67,000 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 California. At the primary and secondary levels, over 62,000 new jobs will be created, with the biggest chunk (over 31,300) slated for elementary school teachers. Over 63,000 new slots in postsecondary education are projected to open up during the decade.

As California's economy changes, so do the kinds of jobs available to Californians. 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 (\$15.91, or \$33,091 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
California Professional Employment Projections, 2002-2012

Profession	Number		% Change	Total New Openings
	2002	2012		
All professions	14,457,800	17,149,500	19%	2,691,700
Architects	11,100	13,800	24%	2,700
Dentists	10,400	12,400	19%	2,000
Librarians	11,800	13,500	14%	1,700
Occupational Therapists	6,100	8,600	41%	2,500
Optometrists	1,900	2,400	26%	500
Pharmacists	20,700	27,500	33%	6,800
Physical Therapists	11,200	16,000	43%	4,800
Physician Assistants	4,400	6,200	41%	1,800
Physicians and Surgeons	68,700	83,200	21%	14,500
Registered Nurses	201,600	258,400	28%	56,800
Veterinarians	4,100	4,700	15%	600

Source: California Employment Development Department.

CALIFORNIA & WICHE's Student Exchange

In 2002, over 50 percent of California's new high school grads enrolled in college; and more than 15,000 of them (8 percent) 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). More than 1,900 California students enrolled in WUE in 2005, saving over \$8.7 million and working toward degrees in fields that are essential to California's economy. Some of the most popular fields of study for California students: biology, business, liberal arts, psychology, and political 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 California, employment projections in all these fields are on the rise (see Table 2). California students do not currently participate in this program.

The Western Regional Graduate Program (WRGP) offers students the chance to engage in graduate studies and includes 175 distinctive programs in 14 states, such as education, construction management, 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. California students do not currently participate in this program.

Six Fast-Track Fields

The Outlook for California & the Nation

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

Registered Nurses. When it comes to occupations with the largest growth, nursing is number four in California; but among occupations requiring some postsecondary education, it's number one. Working in the largest healthcare profession, registered nurses held 201,600 jobs in 2002 in California; that number will grow to 258,400 by 2012, a 28 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 27 percent in the decade leading up to 2012. Median annual earnings of registered nurses were \$67,660 in 2004; the top 10 percent earned \$93,260 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 451,000 jobs in 2002 in California; that number will grow to 539,700 by 2012, a 20 percent increase. In the decade leading up to 2012, California will also have to find 63,200 new postsecondary teachers for its colleges and universities. In addition, it will have to hire almost 135,900 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. Median annual earnings ranged from \$51,920 for the state's primary teachers to \$55,990 for secondary in 2004; the top 10 percent earned \$72,190 and \$79,780 and up, respectively (nationally, those figures were \$68,930 and \$72,110).

Physical Therapists. This is the fifth fastest growing profession among all occupations requiring a bachelor's degree or higher in California. Physical therapists held 11,200 jobs in 2002, a number that

will climb 43 percent to 16,000 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 P.T.s will be strong throughout the 2002-12 decade. Nationally, the number of physical therapists is expected to grow by 36 percent. In California, median annual earnings of physical therapists were \$68,600 in 2004; the top 10 percent earned \$92,420 and up (nationally, that number was \$89,830).

Occupational Therapists. Occupational therapy is the eighth fastest growing profession in California among all occupations requiring a bachelor's degree or higher. O.T.s held 6,100 jobs in 2002 in California; that number is projected to grow to 8,600 by 2012, a 41 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 California were \$68,320 in 2004; the top 10 percent earned \$90,150 and up (nationally, that figure was \$83,150).

Physician Assistants. This is the 10th fastest growing profession in California among all occupations requiring a bachelor's degree or higher. Physician assistants held 4,400 jobs in 2002; that number is projected to grow to 6,200 in 2012, a 41 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 49 percent: over 4,000 new physician assistants will be needed each year. Median annual earnings of physician assistants in California were \$80,450 in 2004; the top 10 percent earned \$113,040 and up (nationally, that figure was \$94,840).

Pharmacists. In California, pharmacists held 20,700 jobs in 2002, a number slated to jump to 27,500 in 2012, a 33 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 California's pharmacists in 2004 were \$103,110; the top 10 percent earned \$120,720 and up (nationally, that figure was \$112,530).

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 California Employment Development Department (www.labormarketinfo.edd.ca.gov/) 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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