

# WORKforce

## Hawaii

### 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 Hawaii, 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 21 percent: 900 new and replacement positions will have to be filled each year. Teachers will be in high demand: over 15,000 educators (including librarians) will need to be hired. Computer-related job openings will increase by 28 percent; when you add in retirements, some 280 openings will need to be filled each year. The growth of these sectors is good news for Hawaii's citizens, since wages for jobs in these areas are significantly higher than the average for Hawaii 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 Hawaii 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.

### Hawaii's Occupational Outlook

Employment in Hawaii (including hourly and salaried jobs and self-employment) is projected to grow by 14 percent from 2002 to 2012, adding over 78,000 new jobs to the state's economy and growing the workforce from 558,220 to 636,480. The rate of growth is slightly lower than the 15 percent increase projected for the nation as a whole.

Growth will occur in virtually all sectors of Hawaii's economy, with the largest number of new jobs being generated in lower-paying fields such as retail sales and food preparation and serving. However, Hawaii's "top jobs" – those with the strongest employment outlook and high earnings – are professional positions (see Table 1).

**Table 1. Hawaii's Top Jobs\***

Ship Engineers	Comp. Sftw. Engineers
Postsecondary Teachers	Personal Fin. Advisors
Environmental Engineers	Network/Comm. Anal.
Network/Comm. Admins.	Database Admins.
Technical Writers	Comp. Syst. Managers

\* Jobs with the strongest employment outlook (2002-12) and high earnings.

**Source:** Hawaii Department of Labor and Industrial Relations.

All of the top jobs listed on Table 1 require considerable education and training. One of them (ship engineer) requires an associate's degree, while all the rest demand a bachelor's degree or higher.

Many of the states top jobs are in fields related to computers: software engineers, computer and network administrators and managers, and database administrators. Overall, the state is projected to add 8200 jobs in these and other computer-related fields.

The demand for registered nurses will see a 24 percent increase: about 3,400 R.N.s will need to be hired for new posts and to replace those who leave the field. And Hawaii 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 see 17 percent growth and will hire 600 health practitioners for new and replacement positions. Pharmacists will log growth of 24 percent, and will hire 500 in the decade leading up to 2012. Physical therapists will see a 31 percent increase in their ranks, with some 200 being hired for new and replacement positions. Hawaii will also experience increased demand for new occupational therapists and other health practitioners. One reason for the increase: the aging of the state's population. Hawaii is seeing rapid growth in its older population: in 2003, 18 percent, or over 224,000, of its citizens were over 60.

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. Some 4,500 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 primary and secondary levels, over 3,100 new jobs will be created, with the biggest chunk (1,210) slated for elementary school teachers. Over 2,000 new slots in postsecondary education are projected to open up during the decade. In all, some 10,700 hires will have to be made to cover all of education's new job openings and retirements.

As Hawaii's economy changes, so do the kinds of jobs available to Hawaiians. 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 and food service will be top employers – fall significantly below the statewide mean (\$37,400 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**  
**Hawaii Professional Employment Projections, 2002-2012**

Profession	Number		% Change	Total Openings*
	2002	2012		
All professions	558,220	636,480	14%	218,900
Architects	980	1,140	16%	300
Dentists	540	510	-6%	100
Librarians	700	790	13%	300
Occupational Therapists	210	260	24%	100
Optometrists	180	200	11%	100
Pharmacists	1,070	1,330	24%	500
Physical Therapists	390	510	31%	200
Physicians and Surgeons	1,880	2,190	17%	600
Registered Nurses	7,700	9,550	24%	3,400
Veterinarians	150	180	20%	100

\*Includes new jobs and replacements, rounded.

**Source:** Hawaii Department of Labor and Industrial Relations.

## Hawaii & WICHE's Student Exchange

In 2002, 52 percent of Hawaii's new high school grads enrolled in college — and 34 percent of them went to school out of state, according to WICHE's Policy Indicators for Higher Education ([www.wiche.edu/Policy/FactBook](http://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 1,300 Hawaii students enrolled in WUE in 2005, saving over \$9.4 million and working toward degrees in fields that are essential to Hawaii's economy. Some of the most popular fields of study for Hawaii students: communications, education, engineering, hotel and restaurant management, biology, and business.

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 Hawaii, employment projections in almost all these fields are on the rise (see Table 2). Through PSEP, Hawaii's students are studying to be dentists, veterinarians, physical therapists, occupational therapists, optometrists, and pharmacists. In general, at least 60 percent of PSEP students return to their home state to practice.

Hawaii 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 Hawaii & the Nation

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

**Registered Nurses.** Nursing will make more new hires in the decade leading up to 2012 than any other occupation requiring some postsecondary education; it is also among the top 20 fastest growing fields in Hawaii. Working in the largest healthcare profession, registered nurses held 7,700 jobs in 2002 in Hawaii; that number will grow to 9,550 by 2012, a 24 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 registered nurses were \$64,700 in 2004; the top 10 percent earned \$81,360 and up (nationally, that number was \$77,170).

**Tech Occupations.** In Hawaii, computer-related occupations are some of the fastest growing in the state among occupations requiring a college education; they're also adding a high number of new jobs. Occupations like network systems/data communications analysts, computer software engineers, and database administrators will see growth in the decade leading up to 2012 of 40 percent and more. 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 Hawaii were \$53,160 for network systems analysts and \$80,760 for software engineers; the top 10 percent earned \$75,660 and \$108,670 and up, respectively (nationally, those figures were \$95,510 and \$119,750).

**Pharmacists.** In Hawaii, the ranks of pharmacists will grow by 24 percent in the decade leading up to 2012. Pharmacists held 1,070 jobs in 2002, a number slated to jump to 1,330 in 2012. 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 Hawaii's pharmacists in 2004 were \$81,370; the top 10 percent earned \$104,340 and up (nationally, that figure was \$112,530).

**Teachers.** When it comes to the number of new hires, teaching at the postsecondary level is the top profession among occupations requiring a bachelor's degree or higher in Hawaii; it is also the fastest growing occupation in that category. Postsecondary educators held 5,850 jobs in 2002 in Hawaii; that number will grow to 7,930 by 2012, a 36 percent increase. In the decade leading up to 2012, Hawaii will also have to hire over 3,100 new primary, secondary and special ed teachers (who held 19,390 jobs in 2002 in Hawaii, set to grow to 22,520 by 2012, a 16 percent increase). In addition, it will have to hire some 5,600 educators at all levels to cover retirements and separations. Every year, in other words, almost 1,100 new and replacement teachers will need to be hired in Hawaii. 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 were \$60,120 for the state's postsecondary teachers; median wages ranged from \$39,900 for primary teachers to \$42,810 for secondary teachers in 2004; the top 10 percent earned \$57,550 and \$67,010, respectively (nationally, those figures were \$68,930 and \$72,110).

**Physical Therapists.** The number of physical therapists will grow by 31 percent in the decade leading up to 2012 in Hawaii. Physical therapists held 390 jobs in 2002, a number that will climb to 510 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 Hawaii, median annual earnings of physical therapists were \$56,830 in 2004; the top 10 percent earned \$73,370 and up (nationally, that number was \$89,830).

**Occupational Therapists.** Occupational therapy will see growth of 24 percent in the decade leading up to 2012. O.T.s held 210 jobs in 2002 in Hawaii; that number is projected to grow to 260 by

2012. 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 Hawaii were \$51,330 in 2004; the top 10 percent earned \$68,000 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 Hawaii Department of Labor and Industrial Relations ([www.hiwi.org](http://www.hiwi.org)) and the U.S. Department of Labor's Bureau of Labor Statistics ([www.bls.gov/emp](http://www.bls.gov/emp)).

## WICHE

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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.

For more information on WICHE's Student Exchange Programs, contact Margo Schultz at 303-541-0214 or [mschultz@wiche.edu](mailto:mschultz@wiche.edu) or write to:

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