

WORKforce

North Dakota

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.

Between 2002 and 2012, the rate of job growth in North Dakota will be modest: under 1 percent annually. However, a large number of positions – close to a quarter of all jobs in the state – will open up for hiring due to retirements and separations. In addition, 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 14 percent. Educators will be in demand: some 7,000 new teachers, librarians, and trainers will need to be hired. Computer-related professions will see their ranks swell by 25 percent. The growth of these sectors is good news for North Dakota’s citizens, since wages for jobs in these areas are significantly higher than the average for North Dakota 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 North Dakota 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.

North Dakota’s Occupational Outlook

Employment in North Dakota (including hourly and salaried jobs and self-employment) is projected to grow by 8 percent from 2002 to 2012, adding some 33,000 new jobs to the state’s economy, and growing the workforce from 389,457 to 422,185. The rate of growth is slightly more than half the 15 percent increase projected for the nation as a whole.

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

Table 1. North Dakota’s Top Jobs*

Industrial Engineers	Financial Analysts
Management Analysts	Database Administrators
Network/Comm. Analysts	Sales Managers
Dental Hygienists	Computer Syst. Managers
Computer Systems Analysts	Radiation Therpists

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

Source: North Dakota Department of Labor.

All of the top jobs listed on Table 1 require considerable education and training. Two (dental hygienist and radiation therapist) require an associate's degree, while all the rest demand a bachelor's degree or higher.

North Dakota will see growth in a variety of sectors in the decade leading up to 2012. Four of the state's top jobs are in the computer field: network and computer analysts, computer systems analyst, database administrator, and computer systems manager. Overall, the state is projected to add nearly 2,000 new jobs in these and other technical fields.

In healthcare, though a number of professions will see declines in their numbers, there will still be a significant number of hires to be made due to retirements and separations. And overall, there will be modest increases: more than 6,600 new jobs will be created in a variety of health fields. The demand for registered nurses — one of the state's top jobs — will see a 22 percent increase: over 2,600 R.N.s will need to be hired for new posts and to replace those who leave the field. And North Dakota will see strong competition for those nurses: the top five states needing the largest numbers of nurses are all in the West. Physician assistants will see a 36 percent increase in their ranks, with some 100 being hired for new and replacement positions. Pharmacists will log growth of 17 percent, while physical therapists will experience a 19 percent increase. One reason for increases in these fields: the number of older people living in the state. In 2004, it is estimated that about 15 percent of North Dakota's population was over 65 — more than 93,000

people in all.

Two other essential professionals, managers and teachers, will also see small increases in hires in the decade leading up to 2012, due to new job creation and, especially, the need for replacement workers. While the number of managers overall is expected to decline, certain jobs — including CEO, as well as managerial positions in finance, sales, health and industrial production — will see a significant boost in their numbers. A sizable number of teachers at every level from kindergarten through college will be needed. At the primary and secondary levels, close to 2,400 jobs will need to be filled, with the biggest chunk (over 1,400) slated for elementary school teachers. Some 2,100 slots in postsecondary education are projected to open up during the decade. In all, about 450 hires will have to be made each year to cover all of education's new job openings and retirements.

As North Dakota's economy changes, so do the kinds of jobs available to North Dakotans. 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 (\$30,620 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
North Dakota Professional Employment Projections, 2002-2012

Profession	Number		% Change	Total Openings*
	2002	2012		
All professions	389,457	422,185	8%	122,020
Architects	251	273	9%	50
Dentists	510	440	-13%	100
Librarians	495	505	2%	130
Occupational Therapists	359	416	16%	106
Optometrists	270	250	-9%	100
Pharmacists	546	636	17%	200
Physical Therapists	460	546	19%	130
Physician Assistants	191	290	36%	110
Physicians and Surgeons	1,510	1,513	.2%	250
Registered Nurses	6,206	7,563	22%	2,660
Veterinarians	340	320	-6%	100

* Includes new jobs and replacements, rounded.

Source: North Dakota Department of Labor and U.S. Department of Labor's Bureau of Labor Statistics.

NORTH DAKOTA & WICHE's Student Exchange

In 2002, 73 percent of North Dakota's new high school grads enrolled in college – and 27 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 400 North Dakota students enrolled in WUE in 2005, saving almost \$2 million and working toward degrees in fields that are essential to North Dakota's economy. Some of the most popular fields of study for North Dakota's students: education, engineering, 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 North Dakota, employment projections in a number of these fields are on the rise (see Table 2). Through PSEP, North Dakota students are studying to be dentists, veterinarians, and optometrists. In general, at least 60 percent of PSEP students return to their home state to practice.

North Dakota 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 North Dakota & the Nation

From 2002 to 2012, the economy in North Dakota 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 North Dakota'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 6,206 jobs in 2002 in North Dakota; that number will grow to 7,563 by 2012, a 22 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 \$44,650 in 2004; the top 10 percent earned \$58,850 and up (nationally, that number was \$77,170).

Physician Assistants. This is one of the fastest growing professions in North Dakota among all occupations requiring a bachelor's degree or higher. Physician assistants held 191 jobs in 2002; that number is projected to grow to 290 in 2012, a 36 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 North Dakota were \$60,090 in 2004 (nationally, that figure was \$69,250).

Physical Therapists. Physical therapist ranks in the top 25 fastest growing professions among all occupations requiring a bachelor's degree or higher in North Dakota. Physical therapists held 460 jobs in

2002, a number that will climb 19 percent to 546 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 North Dakota, median annual earnings of physical therapists were \$54,130 in 2004; the top 10 percent earned \$71,060 and up (nationally, that number was \$89,830).

Pharmacists. North Dakota will increase the number of its pharmacists by 17 percent in the decade leading up to 2012. Pharmacists held 546 jobs in 2002, a number slated to jump to 636 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 North Dakota's pharmacists in 2004 were \$77,490; the top 10 percent earned \$93,930 and up (nationally, that figure was \$112,530).

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 8,984 jobs in 2002 in North Dakota; that number will grow to 9,694 by 2012, an 8 percent increase. In the decade leading up to 2012, North Dakota will also have to fill about 2,100 postsecondary slots at its colleges and universities. 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 \$35,050 for the state's primary teachers and \$33,460 for its secondary teachers in 2004; the top 10 percent earned \$46,730 and \$45,810 and up, respectively (nationally, those figures were \$68,930 and \$72,110).

Tech Professions. In North Dakota, computer-related occupations are some of the fastest growing in the state among occupations requiring a college education. Occupations like network systems/data communications analyst and computer systems engineer will see growth in the decade leading up to 2012 of 25 percent and up. In addition to a fast growth rate, there will also be a sizable number of jobs: between new and replacement positions, some 1,910 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 North Dakota were \$45,500 for network systems analysts and \$69,130 for systems software engineers; the top 10 percent earned \$69,180 and \$101,690 and up, respectively (nationally, those figures were \$95,510 and \$119,750).

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 North Dakota Department of Labor (www.jobsnd.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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