

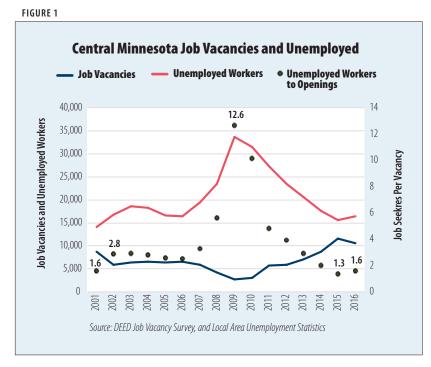
Tight Labor Market Tests Employers

Job vacancies in Central Minnesota were nearly 60 percent higher than average last year.

entral Minnesota businesses are searching for workers, which is good news for job seekers but creates challenges for employers. With just under 273,000 jobs reported in both the second and third quarters of 2016, Central Minnesota reached a new employment peak this year. The region has the most jobs of any region in Greater Minnesota.

Employment, however, slowed from 1.8 percent growth through the first three quarters of 2015 to just 0.8 percent growth in 2016 – and it's not clear why. One plausible explanation is employers are finding it increasingly difficult to fill job vacancies.

Job vacancy data seem to support this explanation, with employers posting about 10,000 job openings in the fourth quarter of 2016, the fifth-largest number dating back to 2001. In fact, four of the five highest vacancy counts have been posted in the past two years, with last year's count nearly 60 percent higher



than the average over the past 16 years.

Even more telling is the ratio of unemployed job seekers to available job vacancies. Prior to the recession, Central Minnesota had nearly three unemployed workers for every job opening. But as the recession took hold, layoffs coupled with decreasing job vacancies increased the ratio to nearly 13 job seekers per

vacancy. By last year, however, job seekers per job opening had dropped to just 1.6 in the region (see Figure 1).

Plenty of Options

For job seekers, the tight labor market allows greater job mobility and leverage to negotiate compensation packages. The openings require a variety of education levels, so job seekers have a good mix of options.

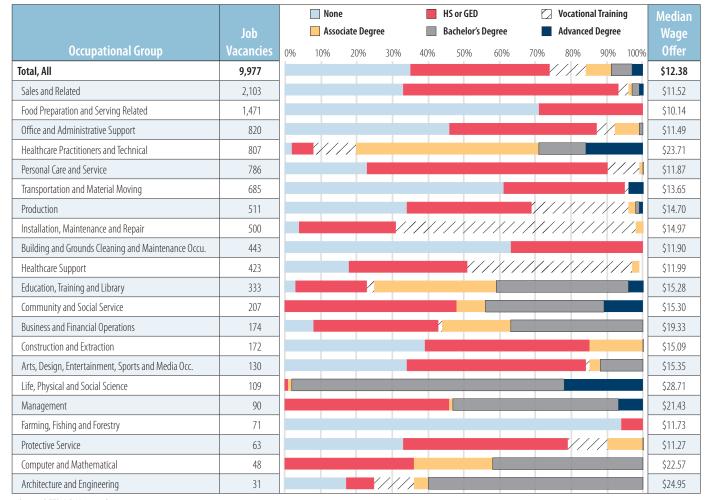
Overall, just 26 percent of openings in Central Minnesota required postsecondary education in the fourth quarter of 2016, while another 25 percent required a certificate or license. Like elsewhere in Minnesota, the occupations with the most openings were

primarily low-wage retail sales jobs and food and beverage positions. Combined, those two occupations accounted for 23.5 percent of all openings in the region, higher than the 17.1 percent statewide.

Despite the large number of jobs in those two occupations, not all openings are for low-wage jobs. In fact, Central Minnesota had 1,400 openings in occupations that had median wage offers of \$16 per hour or more. The majority of occupations with high starting wages require postsecondary education. Many of them were licensed health care positions. There were a number of occupations, however, with lower educational requirements that have median starting wages above \$16 per hour.

TABLE 1

Central Minnesota Job Opening Details, 4th Qtr. 2016



Source: DEED Job Vacancy Survey

Educational Requirements

Education is similar to other job requirements, in the sense that it is highly dependent on the specific type of occupation. Table 1 illustrates the different educational requirements for jobs. For instance, 92 percent of health care practitioner openings require postsecondary education, while no openings for occupations in food preparation and serving, building and grounds cleaning and maintenance, and farming require higher education.

Occupational groups that typically have a high share of openings requiring a bachelor's degree still have opportunities for high school graduates. For instance, 43 percent of business and financial operations job vacancies required no more than a high school diploma, as well as 36 percent of computer and mathematical vacancies. With 74 percent of job openings requiring nothing more than a high school diploma, nearly every type of occupational category has openings with low educational barriers.

Overall, just 10 percent of all openings required vocational training. Associate degrees were required for 7 percent of the openings in Central Minnesota in the fourth quarter of 2016, but over half (51 percent) of health

care practitioner and technical occupation vacancies required an associate degree. Many of these postings were for registered nurses and medical technicians.

While many job seekers set their sights on attaining a bachelor's degree, just 6 percent of openings in Central Minnesota required a bachelor's in 2016. Another 3 percent of openings required an advanced degree. Vacancies with a high likelihood of requiring a bachelor's degree were focused in life, physical and social science (76 percent), architecture and engineering (60 percent) and management (46 percent).

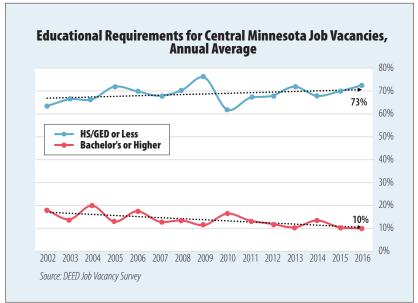
Interestingly, the share of job vacancies in Central Minnesota requiring higher education has remained mostly constant since at least 2002. If anything, the

trend appears to be toward an increasing share of vacancies that require a high school diploma or less (see Figure 2).

In fact, a higher proportion of vacancies required a high school diploma or less in the last three years of the survey than in the first three years (from 2002 to 2004). An important nuance is that even though the share of jobs requiring a bachelor's degree or more has declined slightly, the actual number of jobs requiring a bachelor's degree or more has increased in recent years. Since job vacancies are at record levels, the number requiring a high school diploma or less also has increased.

Another important nuance is that median wage offers tend to increase for occupations with

FIGURE 2



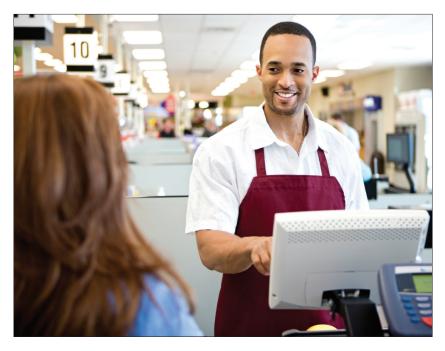


FIGURE 3 Central Minnesota Share of Occupations by Education, 2016 10,460 7,540 **High School or Less** 41,510 **Vocational Training** 14.5% **Associate Degree** 13,570 4.7% **Bachelor's Degree** 17,600 **Graduate Degree** 68.3% 195,080 No Assigned **Educational Requirement** Source: DEED Occupational Employment Statistics, Qtr.1 2016

higher educational requirements and for jobs requiring prior work experience. Although it is difficult to measure the value of experience over education, many job postings require a certain level of education or equivalent experience.

Breaking Down the Data

Occupations requiring vocational training or an associate degree accounted for 10.9 percent of total employment (31,170 jobs) in the region last year. Just over 17 percent of jobs required a bachelor's or graduate degree (49,050 jobs). Another 3.7 percent (10,460 jobs) had no consistent educational requirement (see Figure 3).

These educational requirements can be instructive for Central Minnesota institutions that are training people for jobs.

Occupations requiring a high school diploma often require basic skills such as communication, accountability, teamwork and problem-solving. Occupations that require vocational training or an associate degree often depend on technical and community colleges or apprenticeship programs to provide the skills necessary, in addition to what is learned in high school. Occupations with the highest educational requirements depend

on universities to offer relevant programs of study.

Each type of educational institution is important for Central Minnesota's economy to thrive and grow. In the grand scheme, learning isn't complete after graduating from high school or college. Rather, continual learning on the job is necessary to achieve success.

There are opportunities for workers of every educational background in the region to find good-paying jobs. Limited educational attainment doesn't necessarily limit income potential.

Understanding the quantity and quality of occupations by the amount of education needed can help guide the way the region addresses its already tight labor market. Educational and workforce data can guide resources, advise policy and inform a new generation of workers about opportunities in Central Minnesota (see Table 2).

TABLE 2
Highest Paying Occupations in Central Minnesota With Significant Employment by Educational Requirement, 2016

Educational Requirement	Occupation	Estimated Employment	Median Wage	Educational Requirement	Occupation	Estimated Employment	Median Wage
High School Diploma or Less	Electrical Power-Line Installers and Repairers	730	\$81,682	Bachelor's Degree	Chief Executives	750	\$139,518
	Supervisors/Managers of Construction Workers	660	\$68,039		Medical and Health Services Managers	670	\$93,295
	Loan Officers	710	\$63,614		Financial Managers	870	\$90,690
	Supervisors/Managers of Mechanics, Installers and Repairers	990	\$63,243		Sales Managers	950	\$88,330
	Sales Reps, Wholesale and Manufacturing, Except Technical/Scientific Products	3,090	\$58,147		Administrative Services Managers	520	\$87,811
Vocational Training	Electricians	1,180	\$54,386	Graduate Degree	Pharmacists	560	\$133,197
	Industrial Machinery Mechanics	760	\$48,419		Education Administrators, Elementary and Secondary School	480	\$104,650
	Machinists	1,720	\$47,749		Physical Therapists	450	\$81,338
	Licensed Practical and Licensed Vocational Nurses	2,870	\$41,215		Lawyers	510	\$69,360
	Automotive Service Technicians and Mechanics	1,770	\$35,572		Child, Family and School Social Workers	730	\$53,372
Associate Degree	Registered Nurses	7,120	\$75,522	No Clear Educational Requirement	Managers, All Other	780	\$91,639
	Radiologic Technologists and Technicians	440	\$61,719		Business Operations Specialists, All Other	1,260	\$54,289
	Police and Sheriff's Patrol Officers	1,210	\$53,586		Sales Representatives, Services, All Other	1,360	\$48,528
	Medical and Clinical Laboratory Technicians	440	\$44,938		Education, Training and Library Workers, All Other	420	\$39,729
	Computer User Support Specialists	950	\$42,282		Community and Social Service Specialists, All Other	500	\$39,699

Source: DEED Occupational Employment Statistics and Educational Requirements