

Choosing the Right School and Major

DEED's Graduate Employment Outcomes (GEO) tool provides data on jobs and earnings outcomes for students who attended post-secondary schools in Minnesota.

Going to college represents a major financial and time investment, whether students go straight out of high school, as working adults with families, or in any other life circumstance. Prospective college students wrestle with questions like: Which schools have the most appealing programs? Does it make sense to relocate for college or choose a school close to home? Will I be able to find a job after college that allows me to pay back my student loans and support myself and my family?

The Minnesota Department of Employment and Economic Development (DEED) has just released data on job and earnings outcomes for students who attended 128 post-secondary schools in Minnesota.¹ The information, which can be accessed through the GEO tool at mn.gov/deed/geo, is being made public for the first time thanks to a new law calling for the public disclosure of the employment outcomes of graduates for each institution of higher education in Minnesota.

Thanks to the new information, students can:

- Explore educational options that have a record of labor market performance. Choosing a school based only on reputation without analyzing the school's record in preparing students for jobs in their field can lead families to overstretch their finances and students to learn skills that are no longer in demand or do not lead to a career that fits their interests.
- Know what to expect in terms of earnings after graduation, both in the short and the long term. This can help students decide how much they can afford to borrow and how long it might take to pay back student loans.
- Learn in what regions and industries recent graduates found jobs. This can help prospective students decide which schools and programs are more likely to lead to a job near home or what types of work settings they prefer. For



¹Outcomes by individual school are only available for the 128 institutions that are still active in Minnesota. However, aggregate results displayed in the tool represent data from all 160 post-secondary institutions in Minnesota including those that have closed or are closing in 2016.

example, individuals pursuing STEM degrees can benefit from knowing that most STEM graduates ended up working in the Twin Cities, where most job opportunities are concentrated. Sociology majors may want to know that 15 percent of recent graduates found jobs in health care, while 14.6 percent ended up working in social assistance two years after graduation. This knowledge should not discourage individuals from pursuing their interests, but it can help them compare educational options, supplement their major with relevant courses in college and target their job search after graduation.

Although this tool does not cover all information needs, it reduces the risks and uncertainties involved in the decision to go to college, and it narrows the list of questions to ask on a college visit. If there are strong differences in what students have been able to do with the same degree attained at different schools, perhaps the difference is tied to tuition prices, selectivity in admissions, difficulty of the course work or characteristics of the student body at each school. These are good questions to ask college representatives to help decide what programs at what schools provide the best fit.

Not Your Usual College Ranking Website

College rankings websites have proliferated in the last few years, rating schools on all sorts of things. For example, Collegescorecard of the U.S. Department of Labor discloses important information on tuition costs, graduation rates and post-graduation earnings of recent graduates.

Collegescorecard has two important limitations, however. First, the information is based on data from a limited subset of students. Second, it presents a single number for an entire school

without providing a detailed breakdown by field of study and degree. Straight comparisons can be misleading because they do not take into account what students study in each school. For example, vocational schools that put a student on track for a specific job and two-year liberal arts schools that prepare for transferring to four-year programs will obviously have lower earnings outcomes compared with large public universities offering bachelor's, master's and Ph.D. degrees.

The Graduate Employment Outcomes tool offers a more complete picture of the returns to education, including:

- Employment and earnings outcomes for all graduates who completed a degree in a post-secondary institution in Minnesota and are employed in businesses covered by the Minnesota Unemployment Insurance (UI) Program. Although some exclusions apply,² this data source – based on employer payroll and tax reporting systems – is significantly more reliable than self-reported data collection methods such as graduate surveys.
- Information on long-term employment and earnings history, not just year-after-graduation results.
- Outcomes carefully parsed out by degree level and major.
- A variety of success measures besides just financial returns. For example, how many graduates found full-time jobs after graduation? How many found jobs in the same region where they attended school? In what industries were they employed? How many re-enrolled in school to continue their education?

²The UI data cover 97 percent of non-agricultural wage and salary employment in Minnesota. The data exclude small agricultural businesses that employ fewer than four people, military employment, and some categories of self-employment and federal civilian employment.

What You Study is More Important Than Where

People who complete degrees at certain colleges tend to have higher earnings than others, not necessarily because of differences in the quality of instruction. Differences in student demographics and in the mix of academic programs offered also affect earnings, as illustrated in Figure 1 for bachelor's degree majors in selected schools located in the Twin Cities area.

In this table we observe that:

- Choice of major has the biggest impact on labor market outcomes. Majors designed to prepare for high-demand, high-pay careers such as registered nursing led to higher wages both 12 months and 48 months after graduation.
- Differences in wages 12 months after graduation across majors are much more pronounced than across schools. For example, wage outcomes in visual and performing

arts were similar regardless of school.

- Initial wages for graduates in business ranged from \$18.88 at the University of St. Thomas in St. Paul to \$26.99 at Concordia University in St. Paul. This large differential is mainly driven by the students' average age at completion, which was 23 at St. Thomas versus 35 at Concordia. Programs that serve traditional students (younger than 26) seeking their first career-focused jobs after graduation have lower earnings outcomes compared with programs serving mid-career individuals who went back to school to brush up their skills. Higher wages at Concordia University reflect the higher concentration of students who already had jobs in their field prior to graduation.
- Wage growth from 12 to 48 months after graduation is also affected by the cohort's age mix. Younger cohorts, like those at the Minneapolis College of Art and Design and the St. Paul-based McNally Smith College of Music, started from low wages and experienced

FIGURE 1 Wage Trends for Completers of Bachelor's Degree Programs by School, Twin Cities Metro Area, Class of 2011

Institution Name	Largest Bachelor-Level Major Offered	Share of Graduates in Largest Major	Median Wage 12 Months After Graduation	Median Wage 48 Months After Graduation	Three-Year Wage Growth	Average Age at Graduation in Major
Minneapolis College of Art and Design	Visual and performing arts	82.2%	\$12.09	\$17.32	43.3%	24
McNally Smith College of Music	Visual and performing arts	88.1%	\$12.82	\$19.30	50.5%	23
University of Minnesota Twin Cities	Social sciences	13.1%	\$16.13	\$21.13	31.0%	24
Macalester College	Social sciences	29.6%	\$17.23	\$21.15	22.8%	22
University of St. Thomas	Business, management, marketing	43.2%	\$18.88	\$27.18	44.0%	23
St. Mary's University of Minnesota	Business, management, marketing	46.6%	\$23.89	\$29.92	25.2%	32
Concordia University-St. Paul	Business, management, marketing	52.0%	\$26.99	\$32.42	20.1%	35
St. Catherine University	Registered nursing	24.0%	\$32.74	\$38.61	17.9%	27
Bethel University	Registered nursing	18.8%	\$34.83	\$39.98	14.8%	32

Source: DEED, Workforce Data Quality Initiative (WDQI)

All wage figures are inflation-adjusted.



43 and 50 percent wage growth, respectively, compared with older cohorts at Concordia, St. Catherine University (St. Paul) and Bethel University (St. Paul) that started above \$26 an hour and grew at a rate of 20 percent or slower.

These examples demonstrate how comparisons of outcomes at the detailed degree and major level are more meaningful than school rankings. Families often focus too much on pursuing the best college and not enough on choosing fields of study that fit best with a student's career goals and academic strengths, as well as the market demand for the skills acquired at school.

How Can Schools Benefit From This Information?

To keep talented workers in Minnesota, businesses must provide jobs that offer living wages and schools must align program offerings and curricula with business needs. Market alignment can be measured in two main ways:

1. Share of graduates who managed to land a job in the region of schooling. Low shares of graduates working in the region indicate insufficient local job opportunities in their field or unattractive wage offers for similar work relative to other regions.
2. Share of graduates employed in industry sectors related to their field of study and wage levels in each industry. Low wages and/or high concentrations of graduates in unrelated industries indicate an over-supply of workforce skills in the specific disciplinary area relative to employer demand.

Both of these measures are accessible through the Graduate Employment Outcomes tool. Figures 2 and 3 offer an example for bachelor's and above programs in architecture at the University of Minnesota (UMN) Twin Cities campus. As shown in Figure 2, the overwhelming majority of graduates (90.3 percent) were employed in the Twin Cities 24 months after graduation and earned a median wage of \$20.64. By and large, the program met the recruitment needs of local employers. This does not tell us, however, if graduates were in architecture-related jobs. Figure 3 answers that question.

Among 2010-2013 completers, 35.8 percent of employed graduates held jobs in professional and technical services, an industry that includes architectural, landscape architectural and building inspection services. Median wages of \$20.74 in this

industry suggest that graduates, for the most part, were working in jobs related to their educational program.

The second and third industries of employment, construction and public administration, are also an excellent fit with an educational background in architecture. Median wages of \$20.77 and \$22.55 further confirm that jobs held in these industries were aligned with the field of study. This stands in stark contrast with a median wage of \$12.47 earned by graduates employed in retail trade. Wages this low indicate employment in jobs that did not require a bachelor's degree. We can conclude that

at least 60 percent of employed UMN architecture graduates in school years 2010–2013 succeeded in finding jobs that reward their academic credentials, while 6.1 percent were employed in jobs for which they are over-qualified.

Interestingly, when we go back in time to school years 2007–2009, we find only 5.6 percent of UMN architecture graduates employed in the construction industry. More graduates were employed in unrelated, lower-wage industries such as retail and accommodation and food services (see Figure 3). Programs in architecture were impacted by the housing market collapse that caused huge job losses

**Regions of Employment 24 Months After Graduation,
Graduates in Architecture, University of Minnesota Twin Cities,
Classes of 2010, 2011, 2012, 2013**

FIGURE 2

Region of Employment	Percent Employed in Region	Median Hourly Wage
Twin Cities	90.3%	\$20.64
Central	1.7%	\$15.64
Southeast	1.6%	\$20.91

Source: DEED, Workforce Data Quality Initiative (WDQI)

**Top 7 Industries of Employment and Wages 24 Months after Graduation,
Graduates in Architecture, University of Minnesota Twin Cities**

FIGURE 3

Classes of 2010, 2011, 2012, 2013			Classes of 2007, 2008, 2009		
Industry of Employment	Percent Employed	Median Hourly Wage	Industry of Employment	Percent Employed	Median Hourly Wage
Professional & Technical Services	35.8%	\$20.74	Professional & Technical Services	35.3%	\$22.11
Construction	8.7%	\$20.77	Retail Trade	9.8%	\$13.69
Public Administration	8.3%	\$22.55	Educational Services	9.3%	\$20.76
Educational Services	6.1%	\$21.85	Public Administration	7.3%	\$21.72
Retail Trade	6.1%	\$12.47	Administrative & Waste Services	6.9%	\$17.92
Administrative & Waste Services	5.5%	\$16.59	Accommodation & Food Services	6.2%	\$18.29
Other Services	4.5%	\$19.85	Construction	5.6%	\$21.68

Source: DEED, Workforce Data Quality Initiative (WDQI)

in the construction industry during the Great Recession. Thanks to the recovery of the housing market in 2012, architecture-related skills became more marketable and more graduates were able to find employment in industries well aligned with their field of study.

Clearly these data reveal as much about Minnesota's economic opportunities for college graduates as they do about the schools themselves. Schools offering programs that feed into highly cyclical industries such as construction are well advised to engage in rigorous review processes that help them respond quickly to changing labor market conditions either by appropriately scaling the size of the program or modifying program curriculum.

Conclusions

Post-secondary educational institutions are being held accountable not only for how many students go through their programs and obtain a credential, but also for how graduates fare in the labor market post-graduation. Students and families need this transparency because it provides necessary



information to research higher education options. It is critical for students to focus not only on where to study but even more importantly on what to study to ensure that their educational investments equip them with skills in demand by employers.

The GEO tool is also an essential source of intelligence for schools to identify which programs and academic specialties are in highest demand locally and decide how program offerings can be improved. Schools can and should learn from the experience of their graduates. They can

also use this evidence to demonstrate their contribution to the local economy and to build connections with regional partners, including employers, workforce investment boards, workforce program administrators and policymakers who share the common goal of building the workforce skills of the future. **T**