

High Wages, High Demand

The professional, scientific and technical services subsector is the fastest-growing industry in the Twin Cities.



With 10,472 establishments supplying nearly 125,000 jobs, professional, scientific and technical services (a subsector of professional and business services) is one of the largest and most highly-specialized industries in the Twin Cities. It also happens to be the region's fastest-growing industry, according to the most recent data available from 2012 to 2017. This article examines the professional, scientific and technical services subsector in the Metro Planning Region.

An Assortment of Specialized Industries

So what exactly is professional, scientific and technical services? According to the North American Industry Classification System, the subsector comprises businesses that specialize in a variety of activities, including legal advice and representation; accounting, bookkeeping and payroll; architectural, engineering and specialized design; computers; consulting; research; advertising; photography;

Table 1. Professional, Scientific and Technical Services in the Metro Area, 2017

Industry Title	Number of Establishments	Number of Jobs	Share of Minnesota Employment	Average Annual Wage
Total, All Industries	79,538	1,732,448	60.7%	\$62,816
Professional, Scientific and Technical Services	10,472	124,798	78.0%	\$96,720
Computer Systems Design and Related Services	2,109	28,723	78.4%	\$104,312
Management, Scientific and Technical Consulting Services	1,757	26,117	87.9%	\$111,540
Architectural, Engineering and Related Services	1,037	17,782	77.8%	\$87,984
Legal Services	1,580	14,993	82.2%	\$107,224
Accounting, Tax Preparation, Bookkeeping and Payroll Services	1,140	10,368	66.1%	\$79,612
Other Professional, Scientific and Technical Services	1,533	9,609	61.1%	\$58,604
Advertising and Related Services	666	9,421	81.0%	\$80,756
Scientific Research and Development Services	203	6,116	81.6%	\$118,976
Specialized Design Services	447	1,667	83.6%	\$69,472

Source: DEED Quarterly Census of Employment and Wages

translation and interpretation; and veterinary services.¹ Specific industries within professional, scientific and technical services include those listed in Table 1.

With over 28,700 jobs, computer systems design and related services is the largest-employing professional, scientific and technical services subsector in the Twin Cities. Jobs within this industry include

writing, modifying, testing and supporting software to meet customer needs; planning and designing computer systems that integrate computer hardware, software and communication technologies; providing on-site management and operation of client computer systems or data processing facilities; and installing software. This industry has the highest concentration of information technology jobs in

the Twin Cities and the state.

Over 26,000 jobs in the subsector are in management, scientific and technical consulting services. Typical occupations within this industry include management analysts, market research analysts, general and operations managers, customer service representatives and statisticians. These workers provide operating and financial

¹North American Industry Classification System, United States Census Bureau, Aug. 17, 2016, www.census.gov/eos/www/naics/. Accessed June 12, 2018.

Table 2. Top-Employing Occupations within Professional, Scientific, and Technical Services

Industry	Estimated Number of Jobs	Metro Share of MN Jobs (Percent)	Percentile Wage		Typical Education Required
			25th	75th	
Total, All Occupations	1,769,290	62.3	\$14.20	\$34.43	-
Accountants and Auditors	18,330	76.5	\$26.96	\$32.67	Bachelor’s degree
Lawyers	9,210	82.4	\$37.80	\$54.43	Graduate degree
Office Clerks, General	33,570	60.2	\$13.51	\$22.10	High School Diploma or Equivalent
Software Developers, Applications	15,190	87.7	\$34.28	\$56.13	Bachelor’s degree
Legal Secretaries	2,610	74.1	\$22.50	\$28.72	High School Diploma or Equivalent
Paralegals and Legal Assistants	4,310	85.9	\$20.07	\$34.35	Associate Degree
Computer Systems Analysts	14,670	88.2	\$34.47	\$43.77	Bachelor’s Degree
Management Analysts	12,090	88.4	\$28.60	\$49.14	Bachelor’s Degree
General and Operations Managers	29,620	65.2	\$34.19	\$73.53	Bachelor’s Degree
Bookkeeping, Accounting, and Auditing Clerks	19,000	59.2	\$17.98	\$25.27	High School Diploma or Equivalent
Sales Representatives, Services, All Other	16,550	77.4	\$20.42	\$39.04	No Typical Education Requirement
Customer Service Representatives	41,960	73.3	\$15.28	\$24.02	High School Diploma or Equivalent
Business Operations Specialists, All Other	18,630	80.2	\$25.37	\$42.96	No Typical Education Requirement
Software Developers, Systems Software	6,200	75.7	\$44.55	\$67.64	Bachelor’s Degree
Computer User Support Specialists	9,180	75.0	\$21.28	\$32.99	Associate Degree
Market Research Analysts and Marketing Specialists	12,230	83.6	\$25.77	\$43.62	Bachelor’s Degree
Executive Secretaries and Executive Administrative Assistants	9,090	73.8	\$22.87	\$32.86	High School Diploma or Equivalent
Civil Engineers	3,930	80.4	\$32.45	\$50.78	Bachelor’s Degree
Computer Programmers	3,700	74.7	\$28.49	\$48.35	Bachelor’s Degree
Computer and Information Systems Managers	7,930	83.0	\$55.04	\$82.17	Bachelor’s Degree

Source: DEED Occupational Employment Statistics (OES), Occupational Staffing Patterns, Educational Requirements for Occupations

advice to businesses, human resources assistance, marketing and sales forecasting, or environmental evaluations, among other services.

It should be noted that while the Metro accounts for 60.7 percent of Minnesota's total employment, it accounts for 87.9 percent of the state's employment within management, scientific and technical consulting services. Zooming out, the Metro Planning Region accounts for 78 percent of the state's professional, scientific and technical services employment (see Table 1).


Other high-employing industries include architectural, engineering and related services; legal services; accounting, tax preparation, bookkeeping and payroll services; and advertising and related services. The majority of occupations within these industries, whether it's a civil engineer or a lawyer, require higher education. In fact, DEED's fourth quarter 2017 job vacancy results reveal that 60 percent of professional and technical services job vacancies in the Metro require a bachelor's degree or more. By comparison, 19 percent of all job vacancies require a bachelor's degree or more.²

High Demand, High Wage

Between 2012 and 2017, professional, scientific and technical services added nearly 23,000 jobs, growing by 22.5 percent. This subsector grew 2.5 times as fast as total employment in the region, which expanded by 8.9 percent.

Adding just under 14,600 jobs, management, scientific and technical consulting services contributed the most to the subsector's growth during the five-year period, expanding by an incredible 126.7 percent. Computer systems design and related services and architectural, engineering and related services added 3,244 jobs and 2,932 jobs, respectively, during the period. Only legal services lost jobs, declining by 2.7 percent.

In addition to being large and fast-growing, professional, scientific and technical services is also high-paying. The average annual wage for the sector was \$96,720 in 2017, or 54 percent higher than wages for all industries combined in the Metro.

Common occupations within this subsector, such as software developers, accountants, engineers and lawyers, all have high median wages. Most of these occupations require a bachelor's degree or more (see Table 2). 



²North American Industry Classification System, United States Census Bureau, Aug. 17, 2016, www.census.gov/eos/www/naics/. Accessed June 12, 2018.