17 Computer and Mathematical Occupations
in Chicago-Naperville-Elgin, IL-IN-WI

Contents

What is Emsi Data?

Emsi data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Emsi data is frequently cited in major publications such as *The Atlantic*, *Forbes*, *Harvard Business Review*, *The New York Times*, *The Wall Street Journal*, and *USA Today*.

Report Parameters

17 Occupations

15-1211	Computer Systems Analysts
15-1221	Computer and Information Research Scientists
15-1231	Computer Network Support Specialists
15-1232	Computer User Support Specialists
15-1212	Information Security Analysts

15-1241	Computer Network Architects
15-1244	Network and Computer Systems Administrators
15-1245	Database Administrators and Architects
15-1257	Web Developers and Digital Interface Designers

1 MSA

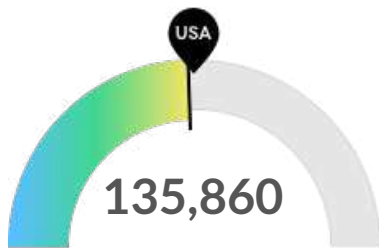|	
16980	Chicago-Naperville-Elgin, IL-IN-WI

Class of Worker

QCEW Employees

The information in this report pertains to the chosen occupations and geographical area.

Executive Summary

## Aggressive Job Posting Demand Over an Average Supply of Regional Jobs

135,860

Jobs (2021)

Chicago-Naperville-Elgin, IL-IN-WI is about average for this kind of job. The national average for an area this size is 140,153* employees, while there are 135,860 here.

$92,258

Compensation

Earnings are about average in Chicago-Naperville-Elgin, IL-IN-WI. The national median salary for your occupations is $91,392, compared to $92,258 here.
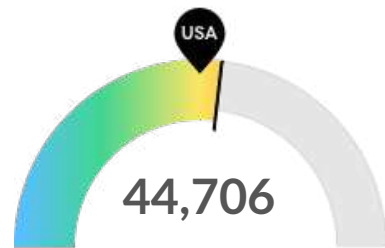
44,706

Job Posting Demand

Job posting activity is high in Chicago-Naperville-Elgin, IL-IN-WI. The national average for an area this size is 40,192* job postings/mo, while there are 44,706 here.

*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and Chicago-Naperville-Elgin, IL-IN-WI. In other words, the values represent the national average adjusted for region size.

Jobs

Regional Employment Is About Equal to the National Average

An average area of this size typically has 140,153* jobs, while there are 135,860 here.
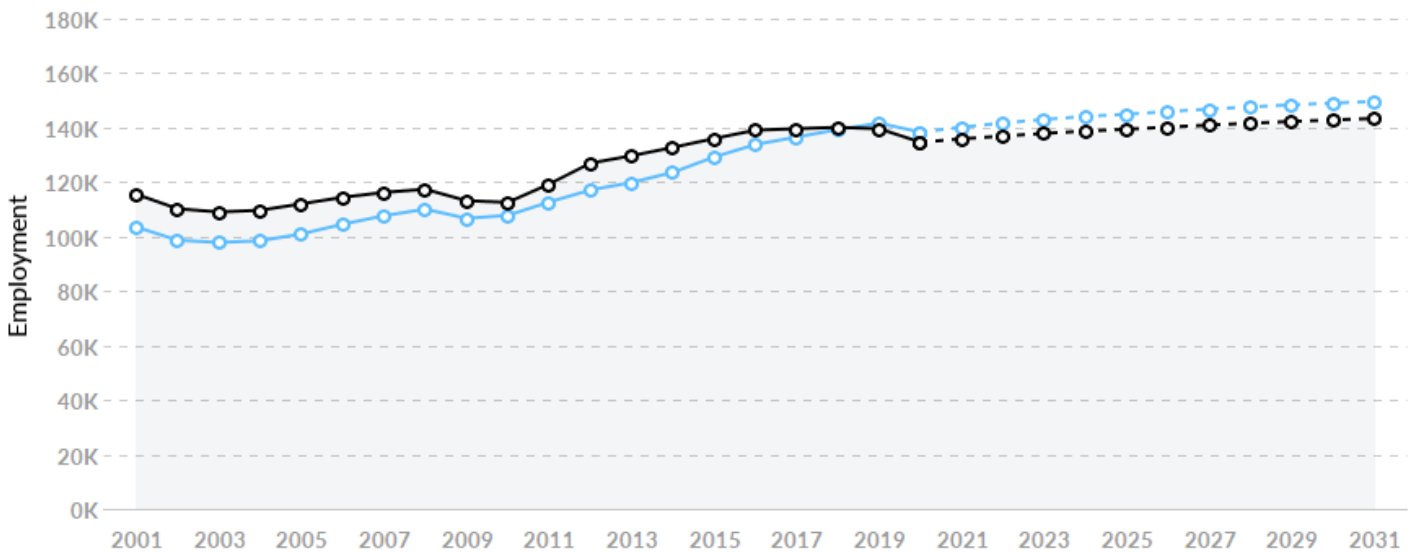
	Region	2021 Jobs	2026 Jobs	Change	% Change
●	Chicago-Naperville-Elgin, IL-IN-WI	135,860	140,193	4,334	3.2%
●	National Average	140,153	145,907	5,753	4.1%

*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and Chicago-Naperville-Elgin, IL-IN-WI. In other words, the values represent the national average adjusted for region size.

Regional Breakdown

County	2021 Jobs
Cook County, IL	83,552
DuPage County, IL	26,135
Lake County, IL	11,129
Will County, IL	4,474
Kane County, IL	4,372

## Most Jobs are Found in the Computer Systems Design and Related Services Industry Sector
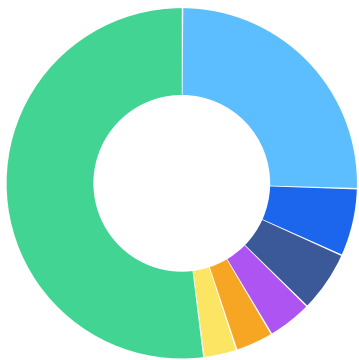
Industry	% of Occupation in Industry (2021)
Computer Systems Design and Related Services	25.4%
Management, Scientific, and Technical Consulting Services	6.2%
Management of Companies and Enterprises	5.6%
Employment Services	4.1%
Depository Credit Intermediation	3.5%
Insurance Carriers	3.1%
Other	52.1%

Compensation

Regional Compensation Is the Same Cost as the Nation

For your occupations, the 2020 median wage in Chicago-Naperville-Elgin, IL-IN-WI is $92,258, while the national median wage is $91,392.
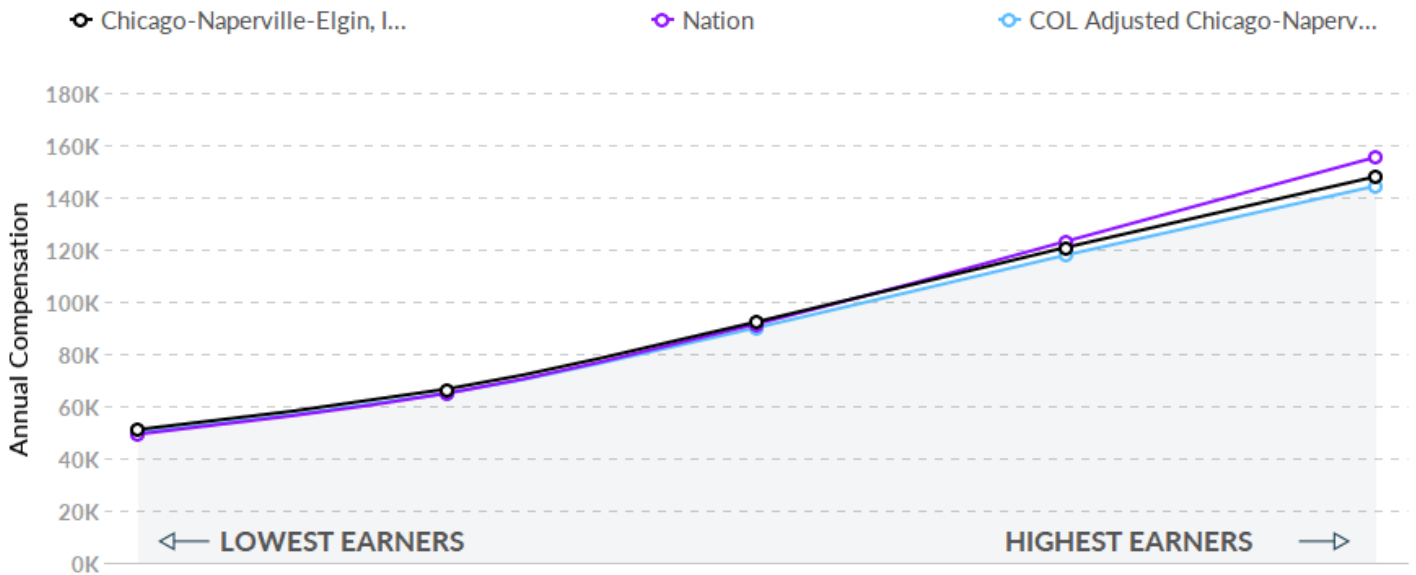
Job Posting Activity

157,327 Unique Job Postings

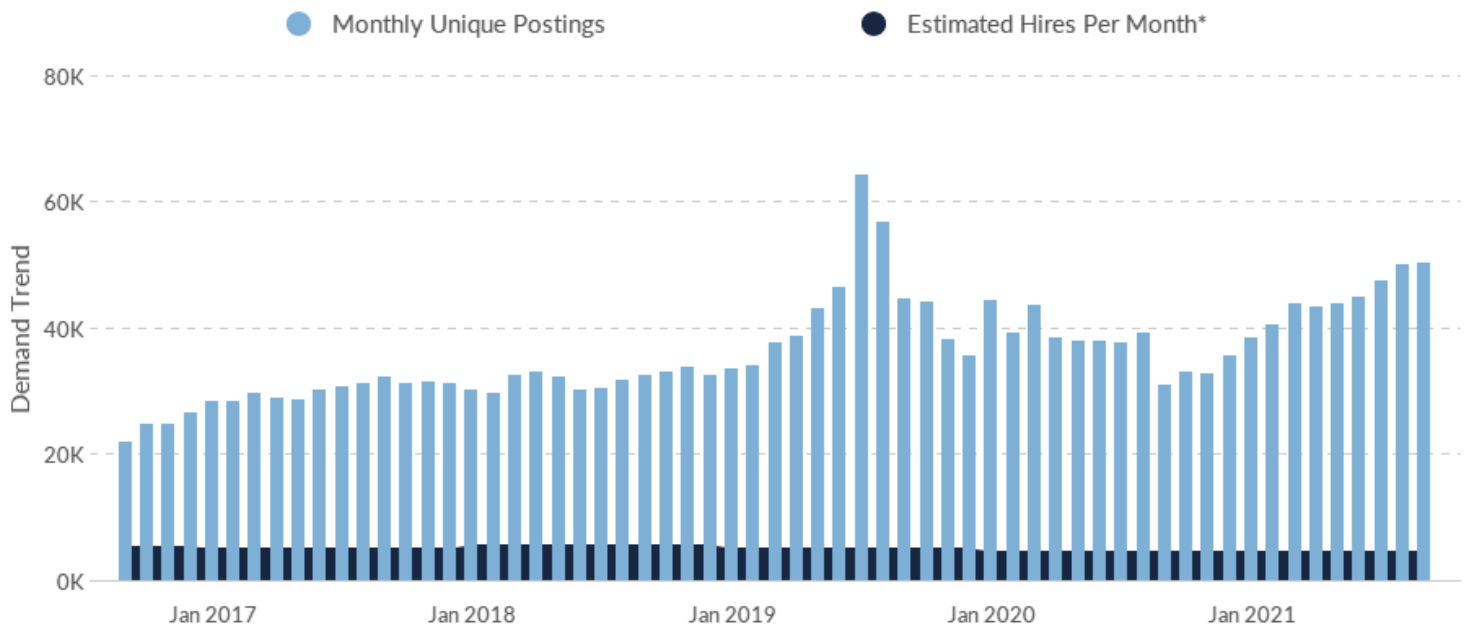The number of unique postings for this job from Jan 2021 to Sep 2021.

12,710 Employers Competing

All employers in the region who posted for this job from Jan 2021 to Sep 2021.

30 Day Median Duration

Posting duration is 1 day longer than what's typical in the region.

● Monthly Unique Postings   ● Estimated Hires Per Month*

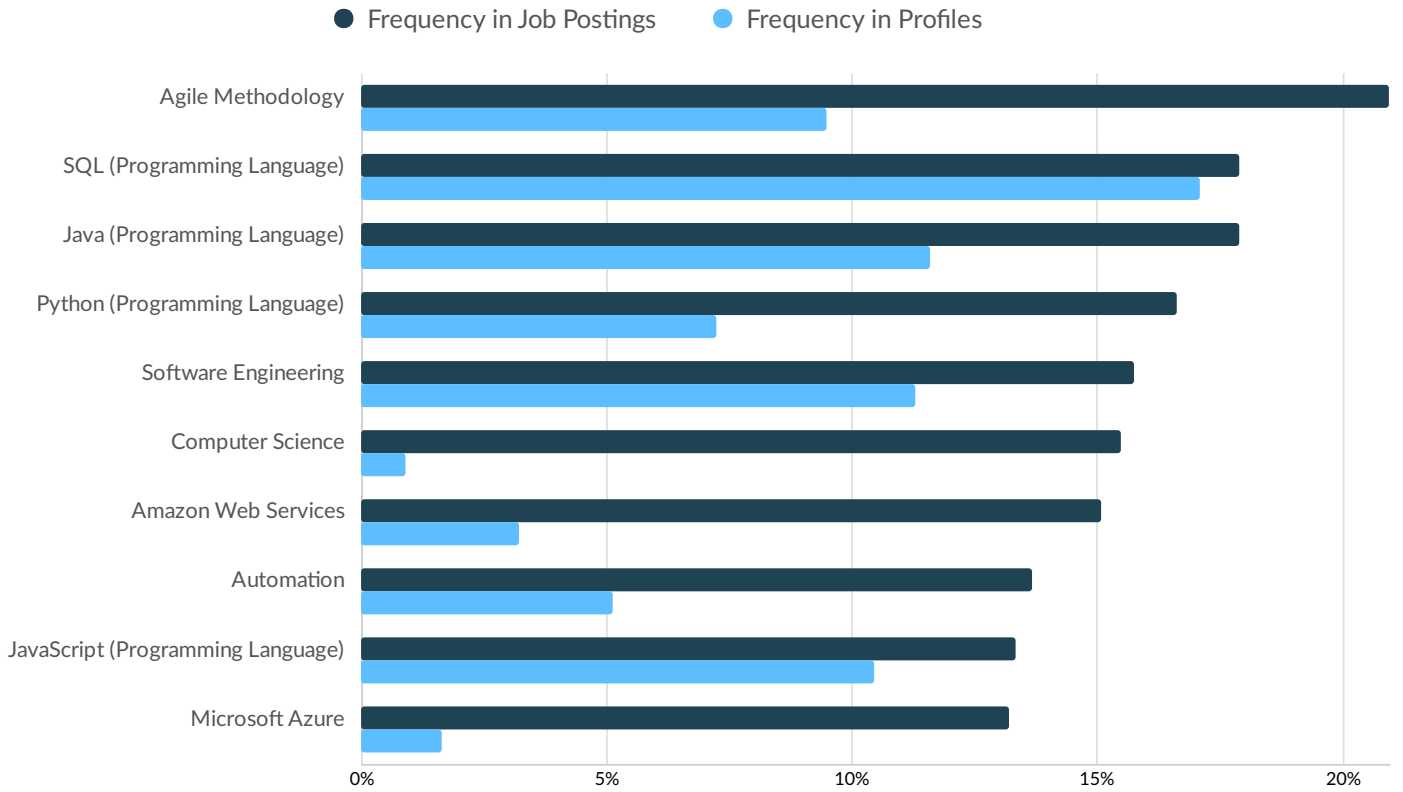| Occupation	Avg Monthly Postings (Jan 2021 - Sep 2021)	Avg Monthly Hires (Jan 2021 - Sep 2021)
Software Developers and Software Quality Assurance Analysts and Testers	14,469	1,511
Computer Occupations, All Other	8,934	287
Computer User Support Specialists	4,196	584
Computer Systems Analysts	4,122	620

*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Emsi hires are calculated using a combination of Emsi jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.

Occupation	Avg Monthly Postings (Jan 2021 - Sep 2021)	Avg Monthly Hires (Jan 2021 - Sep 2021)
Web Developers and Digital Interface Designers	3,107	167
Network and Computer Systems Administrators	3,337	246
Information Security Analysts	2,216	126
Computer Programmers	1,042	150
Database Administrators and Architects	682	137
Operations Research Analysts	838	99
Computer and Information Research Scientists	852	14
Actuaries	311	45
Computer Network Architects	217	137
Statisticians	318	56
Computer Network Support Specialists	62	302
Mathematicians	3	3
Data Scientists and Mathematical Science Occupations, All Other	0	103

Top Companies	Unique Postings		Top Job Titles	Unique Postings	
Oracle Corporation	5,384		Software Engineers	3,813	
Capital One Financial Corporation	2,125		DevOps Engineers	1,517	
Hired	2,042		Software Developers	1,338	
The Judge Group Inc	2,001		Full Stack Software Engineers	1,298	
Accenture PLC	1,905		Solutions Architects	1,200	
Deloitte LLP	1,572		Java Developers	1,152	
Pricewaterhousecoopers LLP	1,416		Project Managers	1,064	
Kpmg LLP	1,316		.NET Developers	973	
Cynet Systems Inc.	1,297		Systems Engineers	940	
Robert Half International Inc.	1,172		Data Engineers	854	

Top Hard Skills

● Frequency in Job Postings   ● Frequency in Profiles

| Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Agile Methodology	32,963	21%	20,887	9%
SQL (Programming Language)	28,180	18%	37,663	17%
Java (Programming Language)	28,156	18%	25,573	12%
Python (Programming Language)	26,134	17%	15,964	7%
Software Engineering	24,767	16%	24,888	11%
Computer Science	24,389	16%	1,966	1%
Amazon Web Services	23,751	15%	7,057	3%
Automation	21,499	14%	11,325	5%
JavaScript (Programming Language)	20,993	13%	23,002	10%
Microsoft Azure	20,755	13%	3,634	2%

Demographics

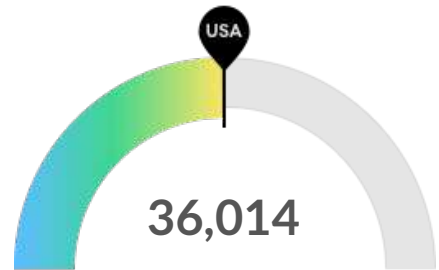## Retirement Risk Is About Average, While Overall Diversity Is About Average
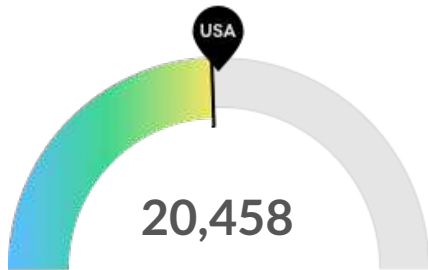
20,458

Retiring Soon

Retirement risk is about average in Chicago-Naperville-Elgin, IL-IN-WI. The national average for an area this size is 21,098* employees 55 or older, while there are 20,458 here.
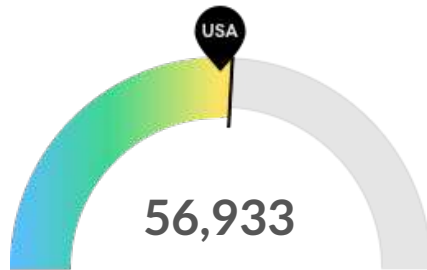
56,933

Racial Diversity

Racial diversity is about average in Chicago-Naperville-Elgin, IL-IN-WI. The national average for an area this size is 54,080* racially diverse employees, while there are 56,933 here.
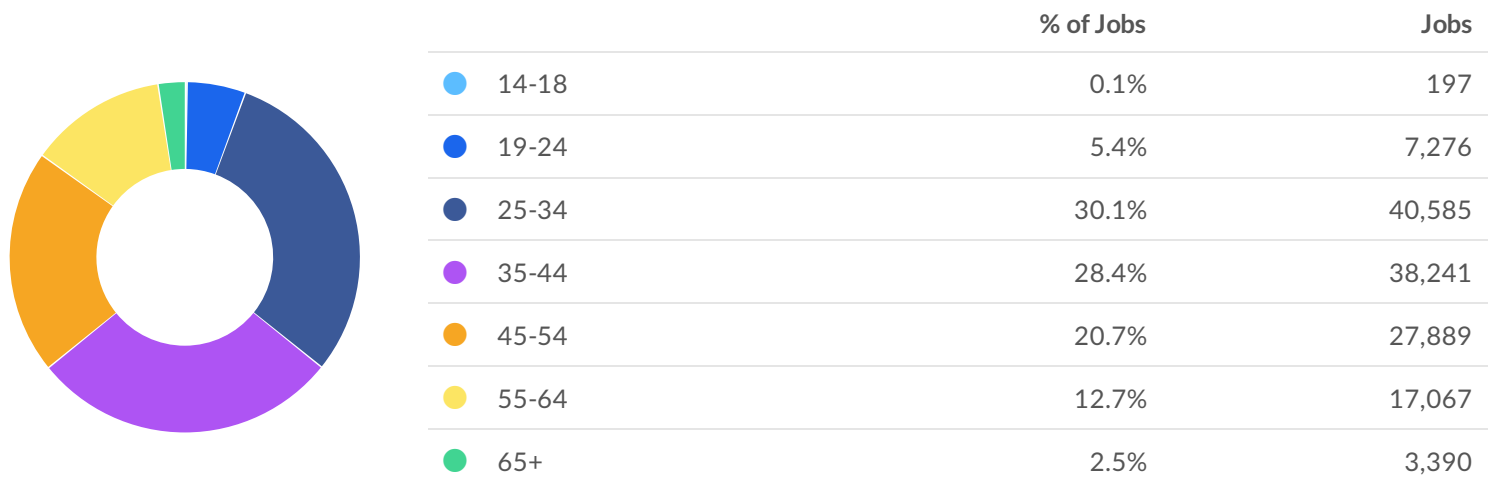
36,014

Gender Diversity

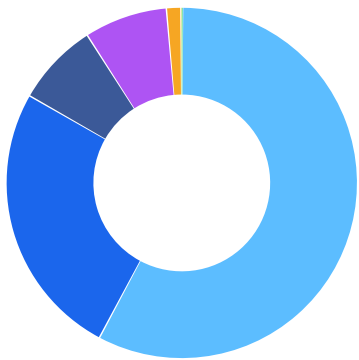Gender diversity is about average in Chicago-Naperville-Elgin, IL-IN-WI. The national average for an area this size is 36,139* female employees, while there are 36,014 here.

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Occupation Age Breakdown

		% of Jobs	Jobs
●	14-18	0.1%	197
●	19-24	5.4%	7,276
●	25-34	30.1%	40,585
●	35-44	28.4%	38,241
●	45-54	20.7%	27,889
●	55-64	12.7%	17,067
●	65+	2.5%	3,390

Occupation Race/Ethnicity Breakdown

	% of Jobs	Jobs
● White	57.7%	77,712
● Asian	25.5%	34,319
● Hispanic or Latino	7.7%	10,318
● Black or African American	7.7%	10,308
● Two or More Races	1.3%	1,790
● American Indian or Alaska Native	0.1%	123
● Native Hawaiian or Other Pacific Islander	0.1%	75

Occupation Gender Breakdown

	% of Jobs	Jobs
● Males	73.3%	98,631
● Females	26.7%	36,014

Occupational Programs

124 Programs

Of the programs that can train for this job, 124 have produced completions in the last 5 years.

50,424 Completions (2020)

The completions from all regional institutions for all degree types.

9,951 Openings (2020)

The average number of openings for an occupation in the region is 593.

CIP Code	Top Programs	Completions (2020)	
24.0101	Liberal Arts and Sciences/Liberal Studies	15,849	
52.0201	Business Administration and Management, General	6,005	
52.1301	Management Science	2,310	
26.0101	Biology/Biological Sciences, General	1,994	
11.0701	Computer Science	1,936	
24.0102	General Studies	1,822	
52.0101	Business/Commerce, General	1,775	
51.0707	Health Information/Medical Records Technology/Technician	1,672	
52.1401	Marketing/Marketing Management, General	1,467	
52.0299	Business Administration, Management and Operations, Oth...	1,070	

Top Schools	Completions (2020)	
DeVry University-Illinois	4,696	
Northwestern University	3,224	
University of Chicago	3,004	
University of Illinois Chicago	2,721	
DePaul University	2,596	
College of Lake County	2,321	
William Rainey Harper College	2,036	
Loyola University Chicago	1,773	
City Colleges of Chicago-Harold Washington College	1,587	
Moraine Valley Community College	1,578	

Appendix A (Occupations)

Code	Description
15-1211	Computer Systems Analysts
15-1221	Computer and Information Research Scientists
15-1231	Computer Network Support Specialists
15-1232	Computer User Support Specialists
15-1212	Information Security Analysts
15-1241	Computer Network Architects
15-1244	Network and Computer Systems Administrators
15-1245	Database Administrators and Architects
15-1257	Web Developers and Digital Interface Designers

Code	Description
15-1256	Software Developers and Software Quality Assurance Analysts and Testers
15-1251	Computer Programmers
15-1299	Computer Occupations, All Other
15-2011	Actuaries
15-2021	Mathematicians
15-2031	Operations Research Analysts
15-2041	Statisticians
15-2098	Data Scientists and Mathematical Science Occupations, All Other