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IT Labor Market Analysis: Higher Education vs. All Other Industries

Canada National Report

Region in Focus: Canada

- Unless stated otherwise, this report analyzes online job postings from July 2021 to June 2022.

Key Takeaways

- **Remote Work:** Job postings advertising remote work account for 7.53% of postings in the higher education industry compared to 16.15% of postings in all other industries.

- **In-Demand Titles and Skills:** The higher education industry demonstrates greater demand for "Systems Administrators" and "Analysts" while other industries are recruiting more "Engineers" and "Developers". The most frequently advertised job title is "Systems Administrators" in the higher education industry and "Software Developers" in all other industries. Additionally, the higher education industry requests the skill "information systems" at over double the rate of all other industries (11.92% compared to 4.79% of postings, respectively).

- **Technical Support:** The higher education industry more heavily emphasizes technical support roles in job postings compared to all other industries. While employers in the higher education industry request the skills "technical support" and "help desk support" in 13.37% and 6.15% of all postings on average monthly, respectively, employers in all other industries request the skill "technical support" in 7.51% of postings on average monthly. The skill "help desk support" is not among the top 50 skills requested by all other industries.

- **Skill Specificity:** Programming languages are highly demanded skills in both industry groups. However, all other industries more frequently advertise specific programming and software tools, such as "Docker (software)," "React.js," "Jenkins," "JIRA," and "RESTful API," while the higher education industry more frequently advertises non-technical IT skills, such as "finance," "business process," "Microsoft SharePoint," and "data management."

- **Experience Levels:** Employers in all other industries generally request slightly greater years of experience in job postings than employers in the higher education industry. In all other industries, the median years of experience requested is four years for all postings and remote postings. In the higher education industry, the median years of experience requested is three years for all postings and four years for remote postings.

- **Education Levels:** The higher education industry more frequently advertises desired education levels in job postings compared to all other industries. While the higher education industry lists desired education levels in 67.98% of all postings, all other industries list desired education levels in 45.52% of all postings.

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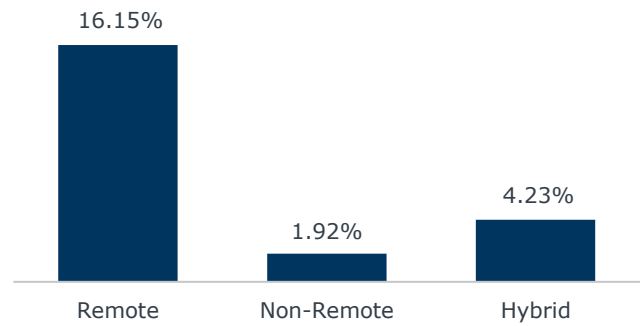
State of IT Jobs in Higher Education vs. All Other Industries

Percentage of Job Postings Advertised by *Remote* Status (Higher Education)[1]
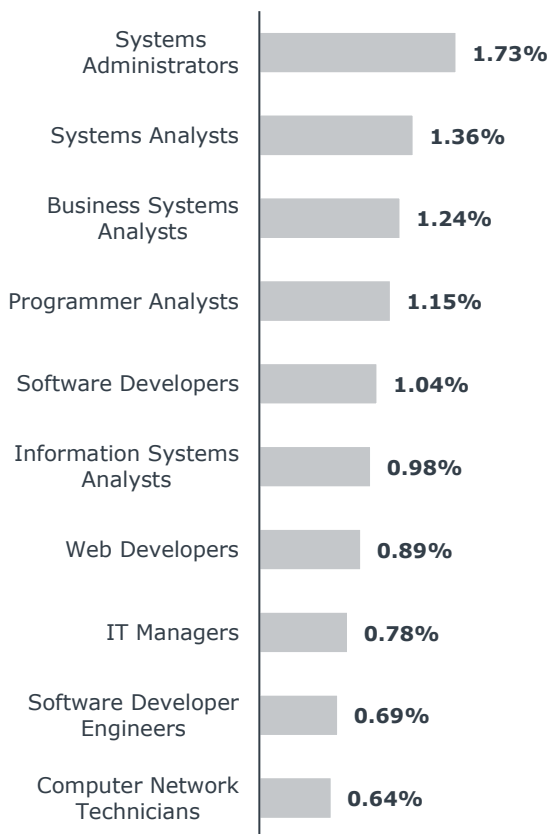
n = 3,464 job postings (261 remote postings)

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7.53%     1.41%     1.76%
Remote   Non-Remote  Hybrid
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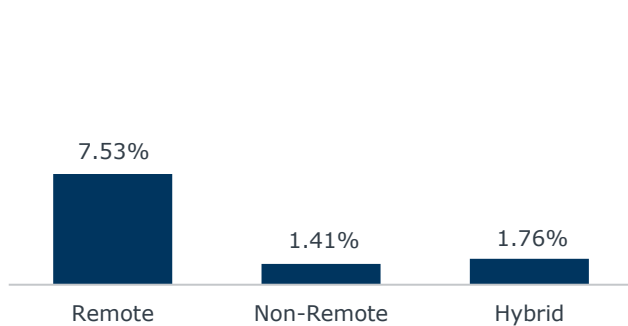
Percentage of Job Postings Advertised by *Remote* Status (All Other Industries)[1]
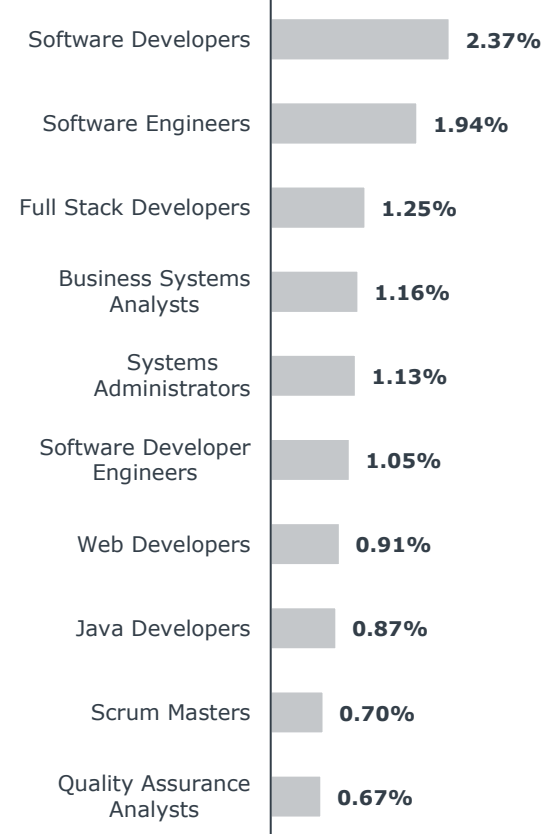
n = 169,134 job postings (27,321 remote postings)

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16.15%     1.92%     4.23%
Remote   Non-Remote  Hybrid
```

Most Commonly Advertised Job Titles for IT Professionals (Higher Education)

n = 3,464 job postings

Job Title	Percentage
Systems Administrators	1.73%
Systems Analysts	1.36%
Business Systems Analysts	1.24%
Programmer Analysts	1.15%
Software Developers	1.04%
Information Systems Analysts	0.98%
Web Developers	0.89%
IT Managers	0.78%
Software Developer Engineers	0.69%
Computer Network Technicians	0.64%

Most Commonly Advertised Job Titles for IT Professionals (All Other Industries)

n = 169,134 job postings

Job Title	Percentage
Software Developers	2.37%
Software Engineers	1.94%
Full Stack Developers	1.25%
Business Systems Analysts	1.16%
Systems Administrators	1.13%
Software Developer Engineers	1.05%
Web Developers	0.91%
Java Developers	0.87%
Scrum Masters	0.70%
Quality Assurance Analysts	0.67%

1) All other job postings are not tagged by remote status.
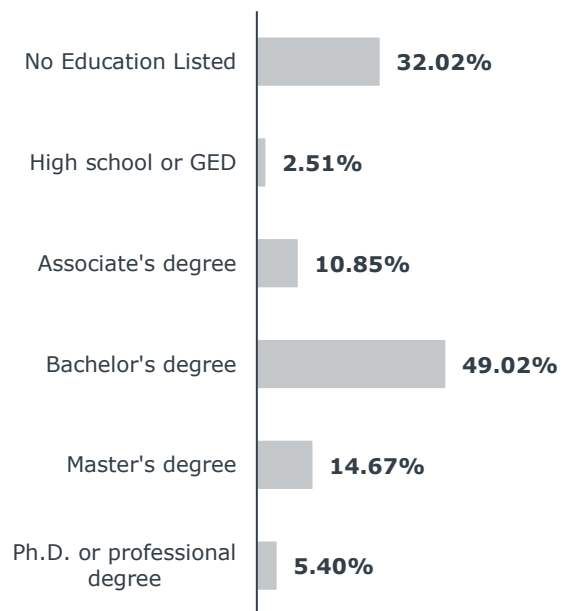
Source: Emsi Burning Glass; EAB interviews and analysis.

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Median Years of Experience Requested of IT Applicants (Higher Education)

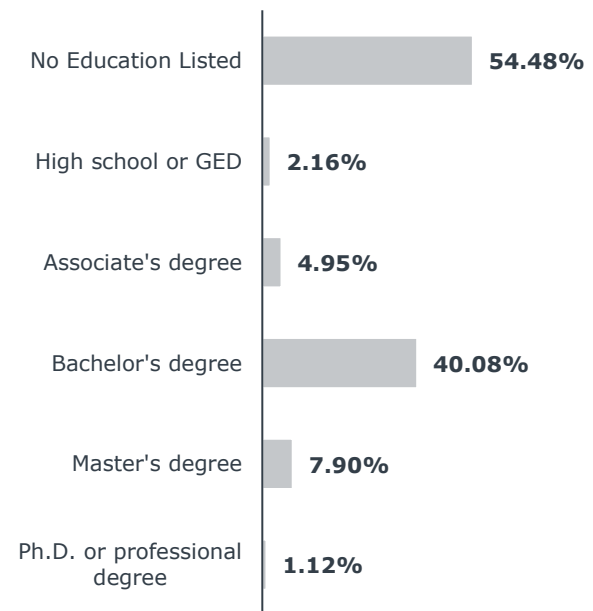n = 3,464 job postings

3 Years

Median Years of Experience Requested of IT Applicants (All Other Industries)

n = 169,134 job postings

4 Years

Education Levels Requested of IT Applicants (Higher Education)

n = 3,464 job postings

No Education Listed	**32.02%**
High school or GED	**2.51%**
Associate's degree	**10.85%**
Bachelor's degree	**49.02%**
Master's degree	**14.67%**
Ph.D. or professional degree	**5.40%**

Education Levels Requested of IT Applicants (All Other Industries)

n = 169,134 job postings

No Education Listed	**54.48%**
High school or GED	**2.16%**
Associate's degree	**4.95%**
Bachelor's degree	**40.08%**
Master's degree	**7.90%**
Ph.D. or professional degree	**1.12%**

Source: Emsi Burning Glass; EAB interviews and analysis.
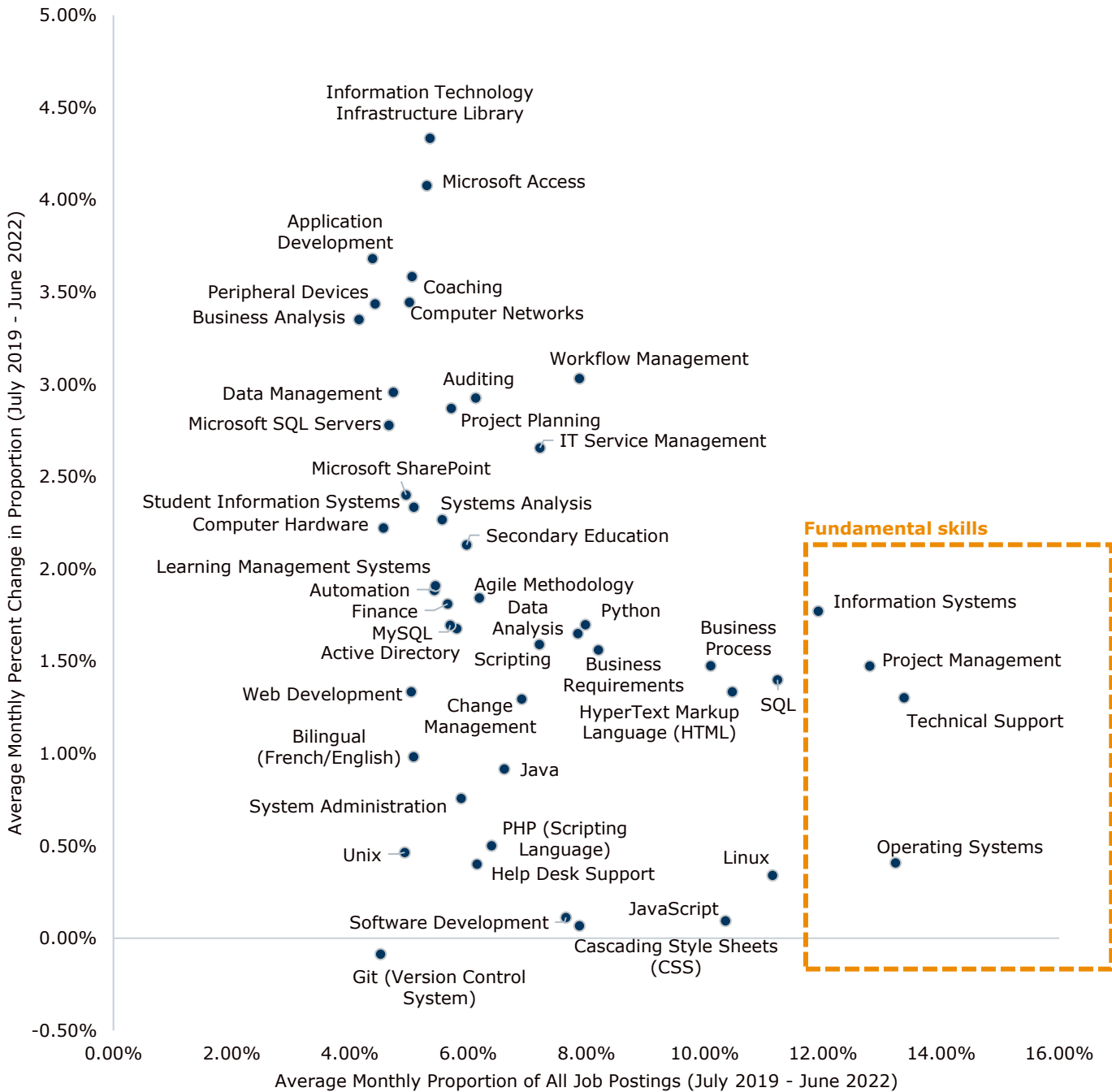
Top 50 Skills Requested of IT Professionals (Higher Education)

n = 6,562 job postings

July 2019 – June 2022

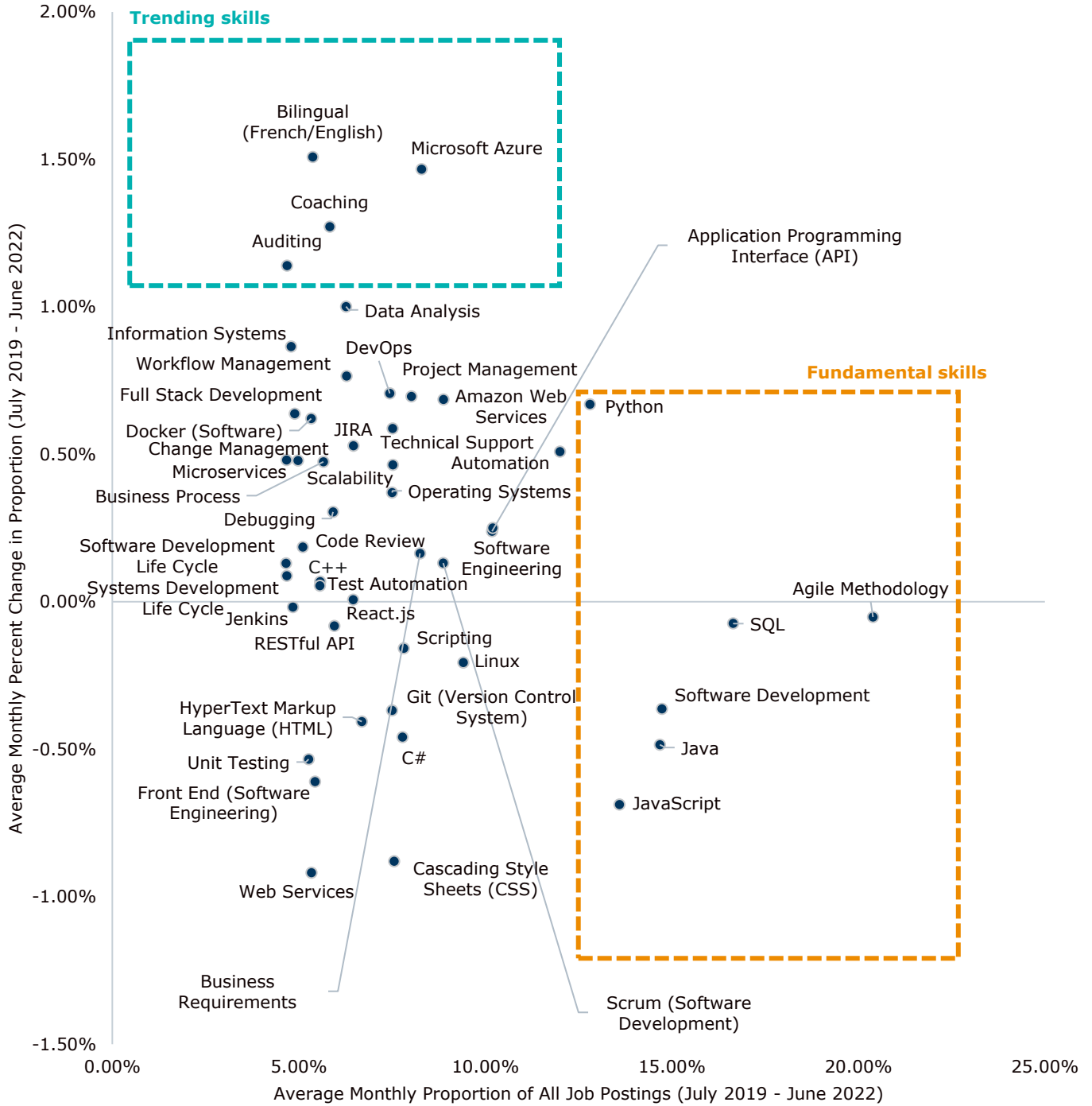The skills "computer science" (29.38%, 0.04%) and "strategic planning" (6.22%, 6.19%) were excluded from the graph to improve readability.

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Top 50 Skills Requested of IT Professionals (All Other Industries)

n = 349,192 job postings
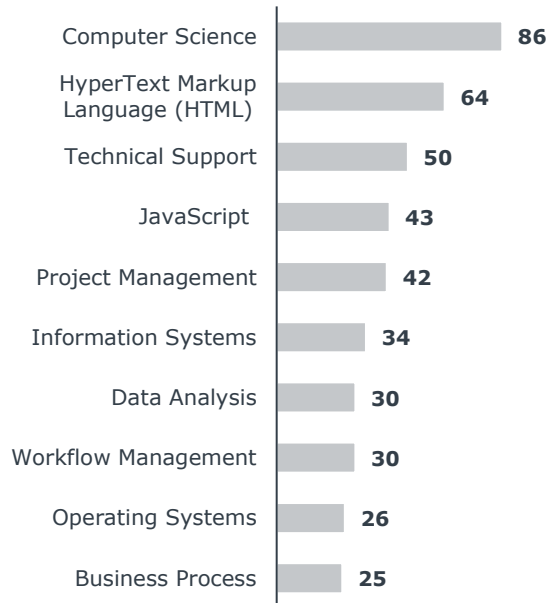
July 2019 – June 2022

The skills "computer science" (27.06%, 0.15%) and "Angular (web framework)" (6.12%, -1.21%) were excluded from the graph to improve readability.

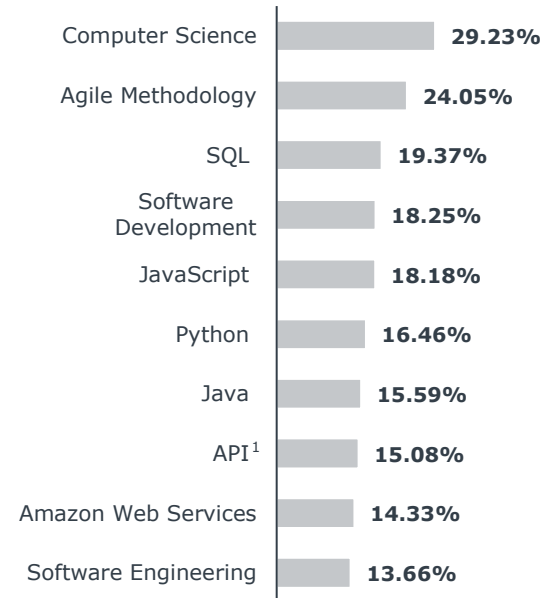# Comparison of Remote Work in Higher Education vs. All Other Industries

Most Commonly Requested Skills of *Remote* IT Applicants (Higher Education)
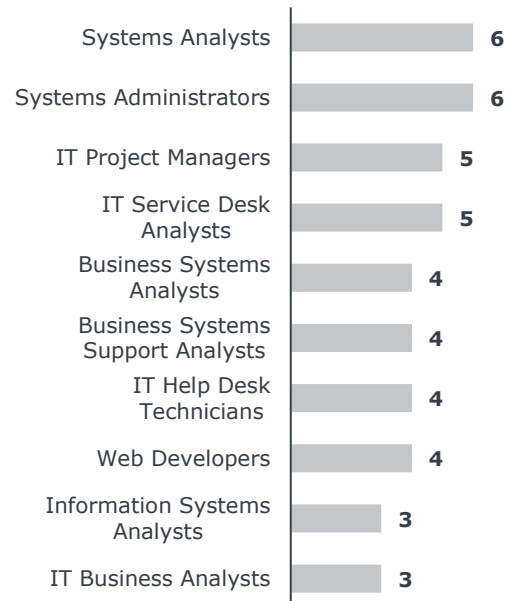
n = 261 job postings

Skill	Count
Computer Science	86
HyperText Markup Language (HTML)	64
Technical Support	50
JavaScript	43
Project Management	42
Information Systems	34
Data Analysis	30
Workflow Management	30
Operating Systems	26
Business Process	25

Most Commonly Requested Skills of *Remote* IT Applicants (All Other Industries)

n = 27,321 job postings

Skill	Percentage
Computer Science	29.23%
Agile Methodology	24.05%
SQL	19.37%
Software Development	18.25%
JavaScript	18.18%
Python	16.46%
Java	15.59%
API[1]	15.08%
Amazon Web Services	14.33%
Software Engineering	13.66%

Most Commonly Advertised Job Titles for *Remote* IT Applicants (Higher Education)

n = 261 job postings

Job Title	Count
Systems Analysts	6
Systems Administrators	6
IT Project Managers	5
IT Service Desk Analysts	5
Business Systems Analysts	4
Business Systems Support Analysts	4
IT Help Desk Technicians	4
Web Developers	4
Information Systems Analysts	3
IT Business Analysts	3

Most Commonly Advertised Job Titles for *Remote* IT Applicants (All Other Industries)

n = 27,321 job postings

Job Title	Percentage
Software Developers	3.69%
Software Engineers	2.21%
Full Stack Developers	1.68%
Full Stack Software Developers	1.17%
Software Developer Engineers	1.04%
DevOps Engineers	1.01%
Systems Administrators	0.90%
Business Systems Analysts	0.88%
Web Developers	0.87%
Java Developers	0.79%

The charts for the higher education industry visualize the actual number of job postings rather than the percentage of postings due to a low number of overall postings in the higher education industry. While the charts provide examples of the types of remote jobs higher education advertises and the education levels and years of experience it requests, they do not provide a significant point of comparison against job postings for all industries.

1) Application Programming Interface.

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Median Years of Experience Requested of *Remote* IT Applicants (**Higher Education**)

n = 261 job postings

4 Years

Education Levels Requested of *Remote* IT Applicants (**Higher Education**)

n = 261 job postings

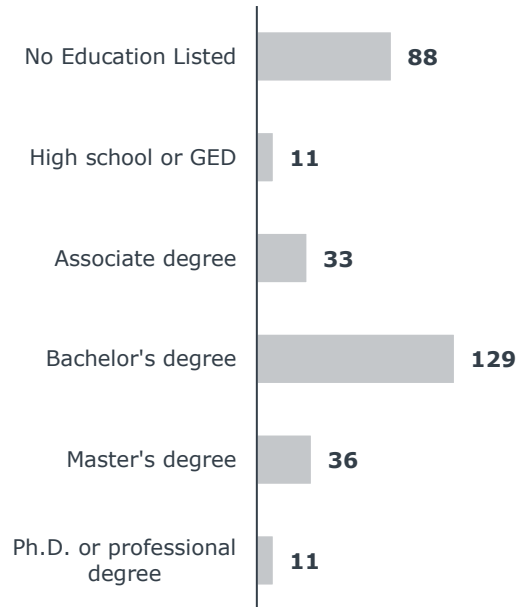| Education Level	Count
No Education Listed	88
High school or GED	11
Associate degree	33
Bachelor's degree	129
Master's degree	36
Ph.D. or professional degree	11

Median Years of Experience Requested of *Remote* IT Applicants (**All Other Industries**)

n = 27,321 job postings

4 Years

Education Levels Requested of *Remote* IT Applicants (**All Other Industries**)

n = 27,321 job postings

Education Level	Percentage
No Education Listed	55.36%
High school or GED	1.58%
Associate's degree	4.23%
Bachelor's degree	40.06%
Master's degree	7.91%
Ph.D. or professional degree	0.95%

Source: Emsi Burning Glass; EAB interviews and analysis.

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