
Minnesota – The State of Tech Talent

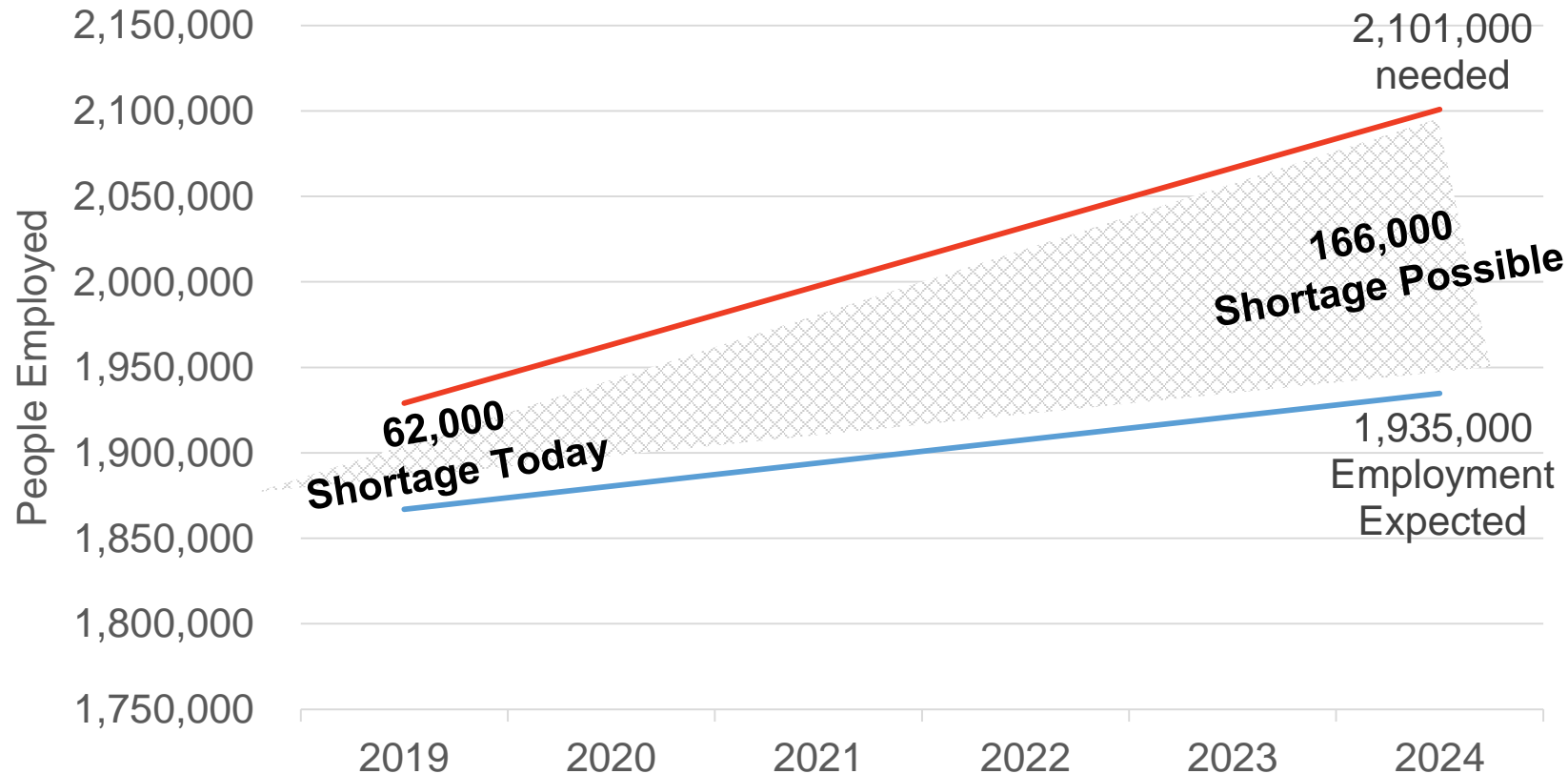
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RealTime Talent

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Xcel Energy



Our Region's Talent Shortage

Possible Talent Shortage in the Minneapolis-Saint Paul 7-County Metro Area, 2019-2024 (Q2)



— Estimated Employer Demand / Talent Shortage Based on Continued GDP Growth (1.8% Ann. Employment Growth)
— Expected Employment in Tight Market based on DEED EO (0.7% Ann. Employment Growth)

Rounded to the nearest thousand for simplicity. <http://www.realtimetalent.org/research/mnlaborshortage/>

Why?

Insufficient Labor Pool

- Not enough eligible workers to maintain economic growth
- Geographic mismatch of talent and opportunities
- Misalignment between supply and demand at the skills level

Inefficient Labor Market

- Persistent employment disparities
- Low job satisfaction and high turnover
- Ineffective means of finding talent

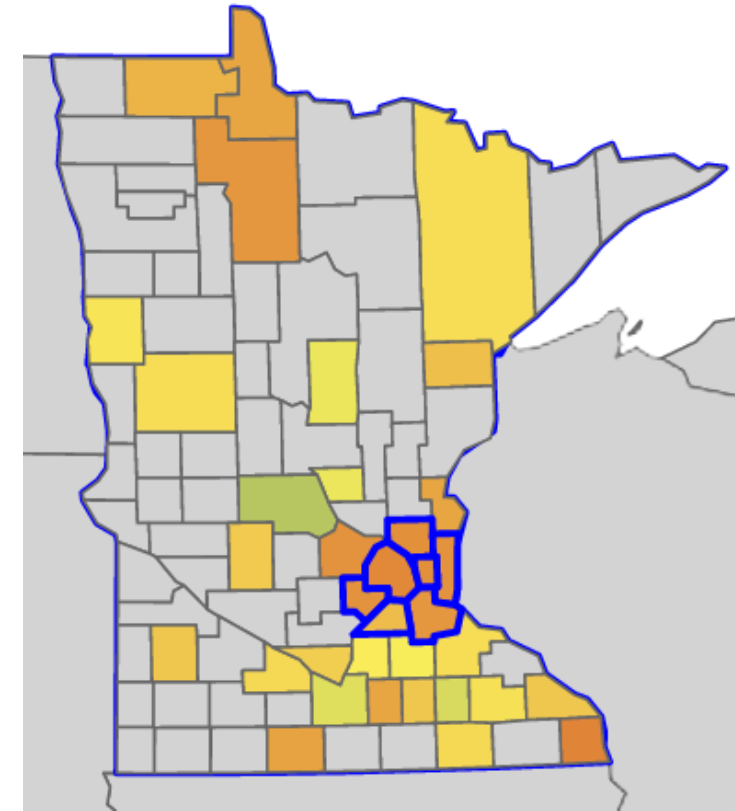
inspire > hire > retain

Increasing Difficulty Recruiting IT Talent

Metro Employment 2019Q2: 78,092
Unemployment: 1.5% (about 1,145 IT professionals)
Job Postings in 2019Q2: 40,857 (+10% from prior year)
Average Annual Wages (2018): \$94,800
Location Quotient: 1.36

10,500 POSSIBLE TALENT SHORTAGE BY 2024Q2

Potential Candidates in the workforce: **91,000**
Direct Employers currently competing: **1,482**
Open Jobs posted by Direct Employers: **9,053**



Greatest Challenges of the Tech Sector

▷ High Labor Shortage

- An estimated 20,000 Information Technology professionals short statewide by 2022, concentrated around metro areas but also growing into rural communities

▷ High Talent Misalignment

- Educational requirements of positions do not match local talent skills
- Rapid upskilling and reskilling is required to keep pace with sector innovation

▷ Low Sector Diversity

- Educational disparities are extreme
- Employers continue to use old recruitment practices and talent sources

IT Pathways in Minneapolis-Saint Paul

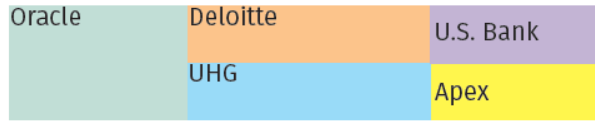
10,500 POSSIBLE TALENT SHORTAGE BY 2024Q2

Information Support & Services Pathway

9,623 job ads (+3% from prior year) 17,868 employed
 \$122,9550 median posted salary \$65,700 avg. salary

- LOW UNEMPLOYMENT
- AVERAGE GROWTH
- HIGH POSTING VOL
- BASE NEED NOT MET

Top Posting Employers



Top Hard Skills

- Technical Support
- Scrum Agile
- Systems Development Life Cycle
- Methodology
- Quality Assurance

Web & Digital Communications Pathway

2,665 job ads (-10% from prior year) 8,511 employed
 \$122,000 median posted salary \$80,900 avg. salary

- LOW UNEMPLOYMENT
- HIGH GROWTH
- AVERAGE POSTING VOL
- BASE NEED NOT MET

Top Posting Employers



Top Hard Skills

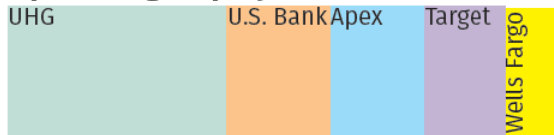
- JavaScript
- Java
- CSS
- jQuery
- HTML 5
- User Experience Design

Programming & Software Dev. Pathway

20,266 job ads (+17% from prior year) 32,398 employed
 \$143,950 median posted salary \$111,300 avg. salary

- LOW UNEMPLOYMENT
- HIGH GROWTH
- HIGH POSTING VOL
- BASE NEED NOT MET

Top Posting Employers



Top Hard Skills

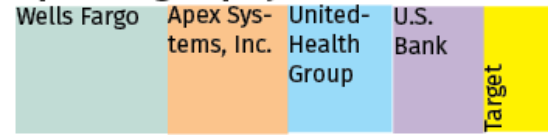
- Java
- JavaScript
- SQL
- Agile Software Dev.
- Quality Assurance
- C#

Network Systems Pathway

5,491 job ads (+7% from prior year) 11,744 employed
 \$102,200 median posted salary \$95,700 avg. salary

- LOW UNEMPLOYMENT
- HIGH GROWTH
- AVERAGE POSTING VOL
- BASE NEED NOT MET

Top Posting Employers

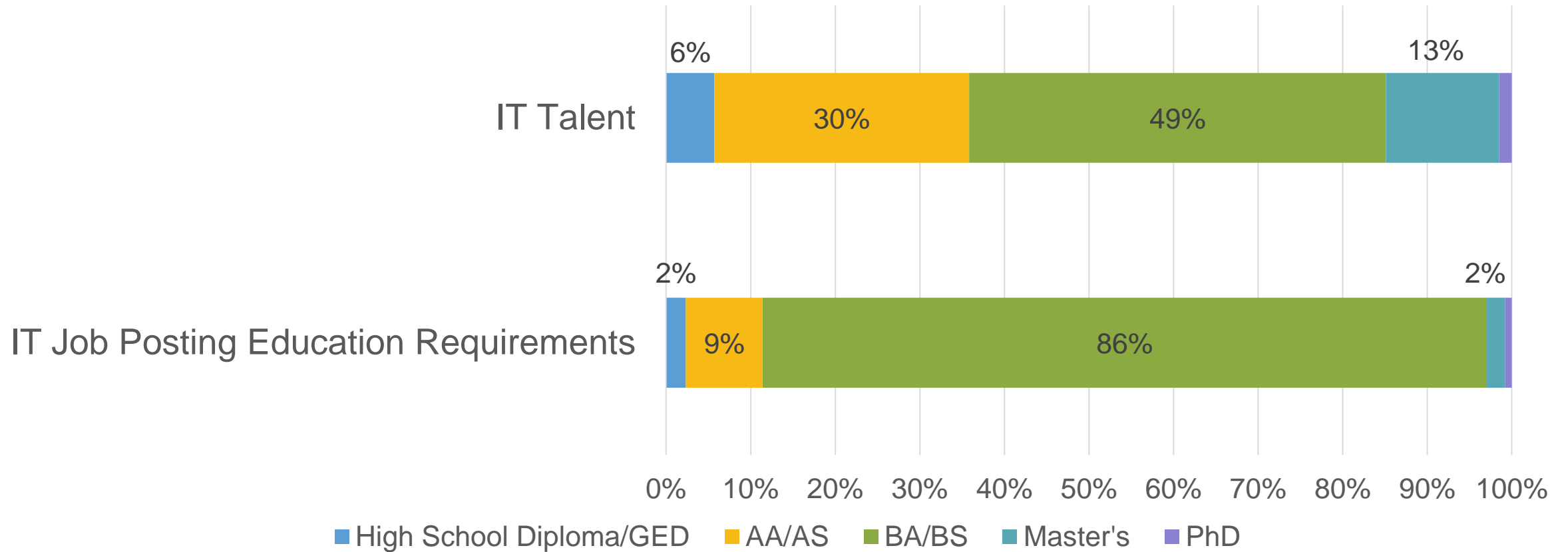


Top Hard Skills

- Linux
- Information Security
- Firewall
- Python
- UNIX
- SQL

Educational Misalignment in IT

Educational Attainment and Job Requirements,
Minneapolis-Saint Paul Metro Area, February 2020



Digital Skills Are More Important Than Ever

71%

of U.S. jobs require mid- or high-level digital skills.¹

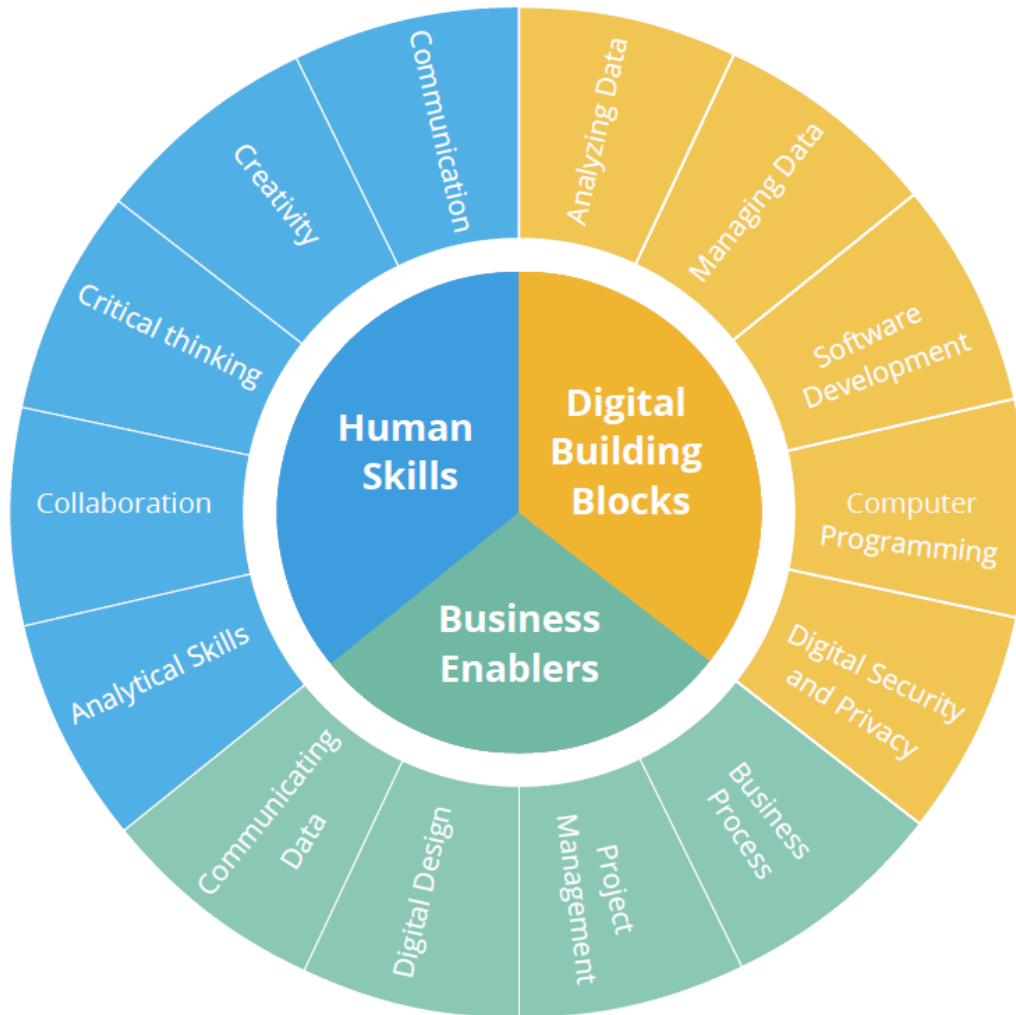
44%

of youth believe they are adequately prepared for the workforce.²

inspire > hire > retain

Tech: The New Essential Skills

The New Foundational Skills for the Digital Economy



These New Foundational Skills:

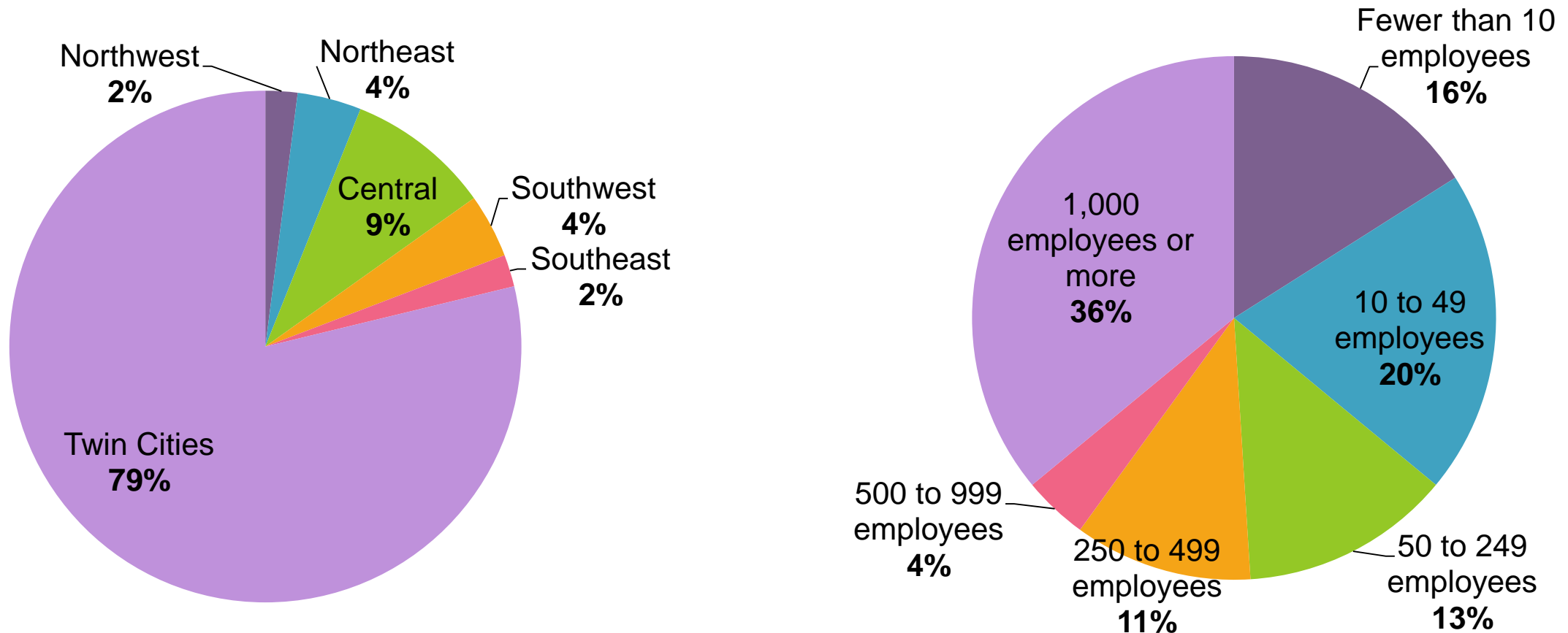
- Earn significantly more.
- Increase in value as careers advance.
- Span a continuum of ability levels, from baseline to expert
- Can be developed.

Top Certifications on the Rise

- ✓ Project Management Professional
- ✓ Certified Information Systems Security Professional
- ✓ Cisco Certifications (Network Associate most popular)
- ✓ Q/A Software Testing
- ✓ Certified Scrum Master
- ✓ ITIL v3 Foundations Certification
- ✓ Business Process Management Programming Languages
- ✓ Microsoft Certified Systems Engineer
- ✓ CompTIA A+ Certification

DEED Minnesota Tech Workforce Survey

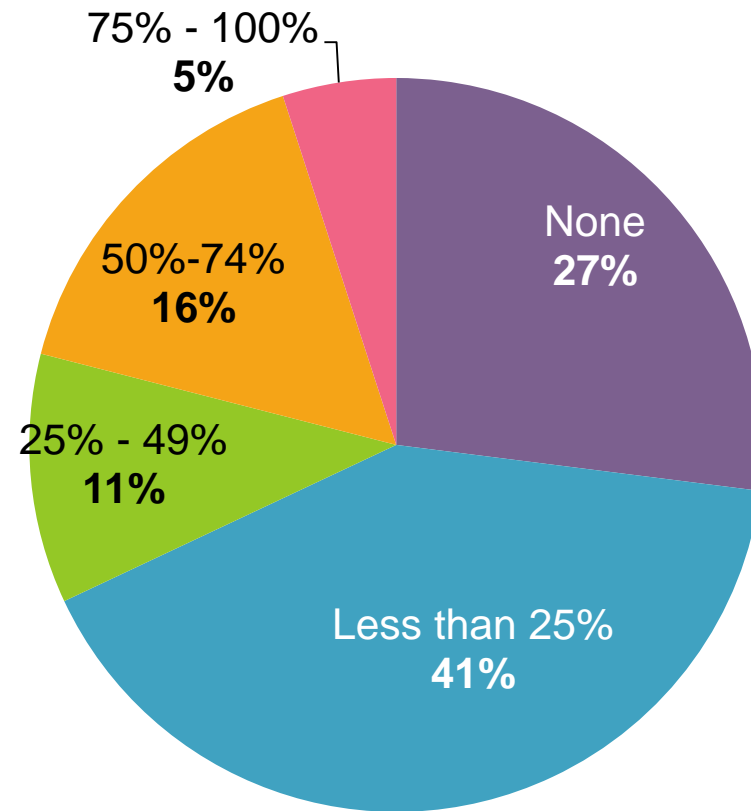
Profile of 91 Respondents to December 2019 Survey



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DEED Minnesota Tech Workforce Survey

Q: What percentage of tech talent in your organization is considered “contract employees”?



DEED Minnesota Tech Workforce Survey

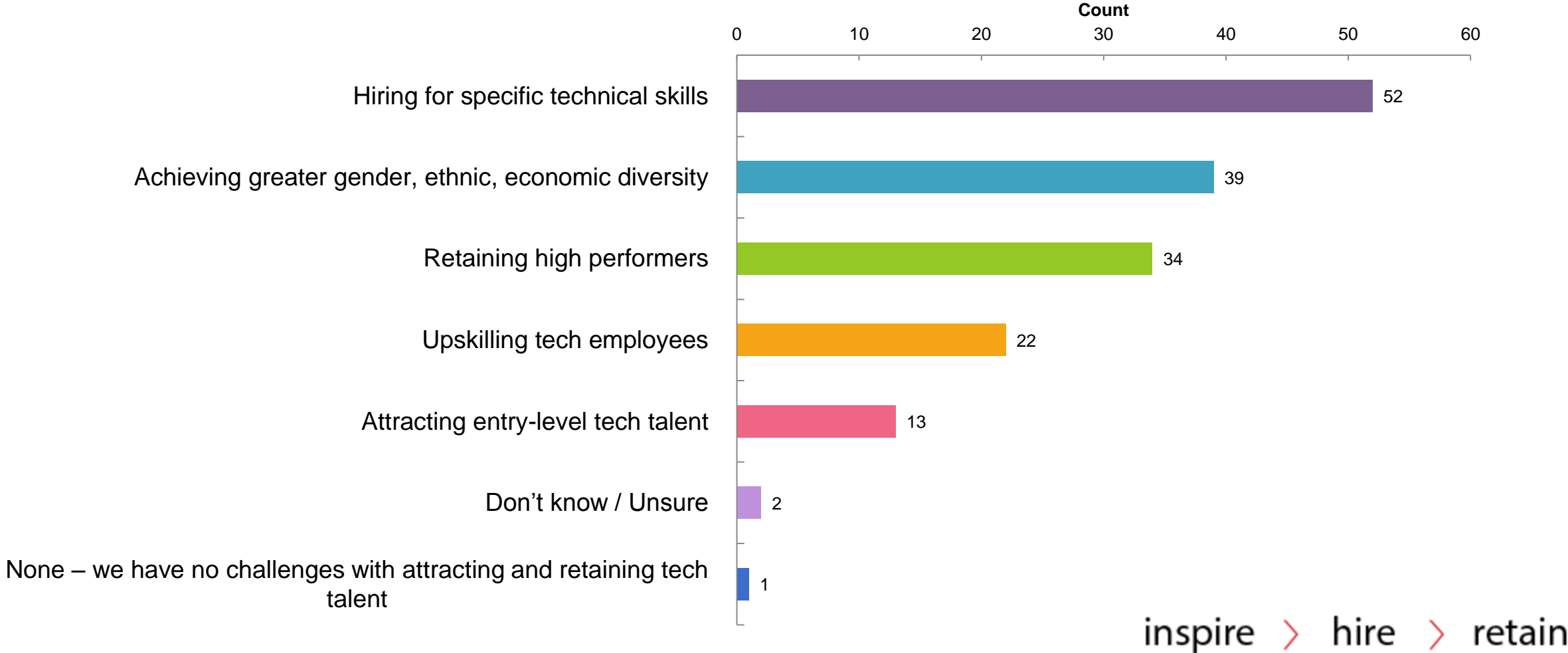
Q: On a scale of 1-5, how difficult is it for your organization to find tech talent for the following categories?

(1= Not Difficult, 5= Very Difficult)

Category of Job	1	2	3	4	5
Entry-Level (0 - 2 years of experience)	37%	32%	18%	8%	5%
Mid-Level (3 - 7 years of experience)	2%	11%	31%	33%	23%
Experienced (8+ years of experience)	2%	4%	15%	26%	52%

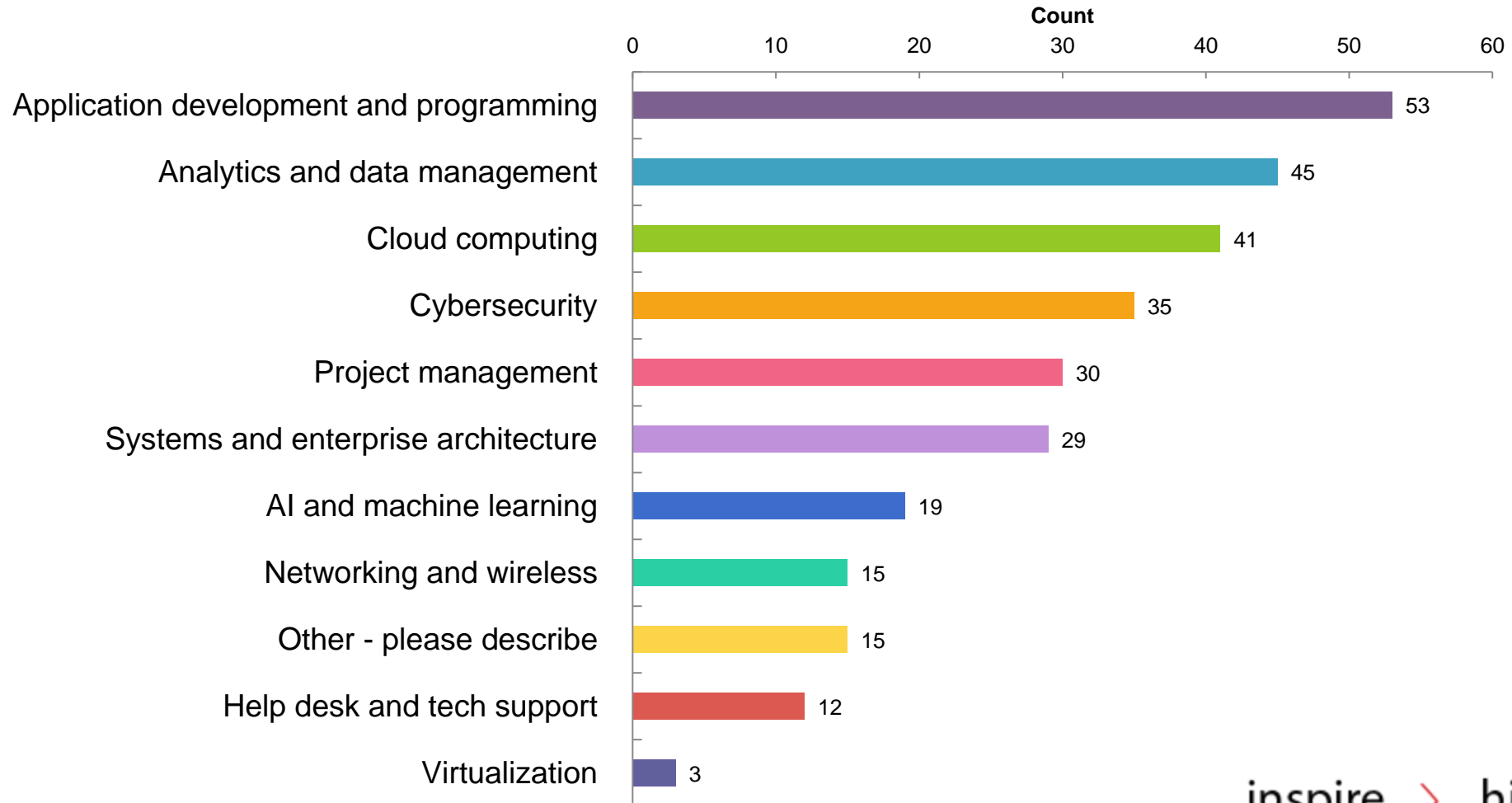
DEED Minnesota Tech Workforce Survey

Q: What are the most significant challenges for your organization in attracting and retaining tech talent?



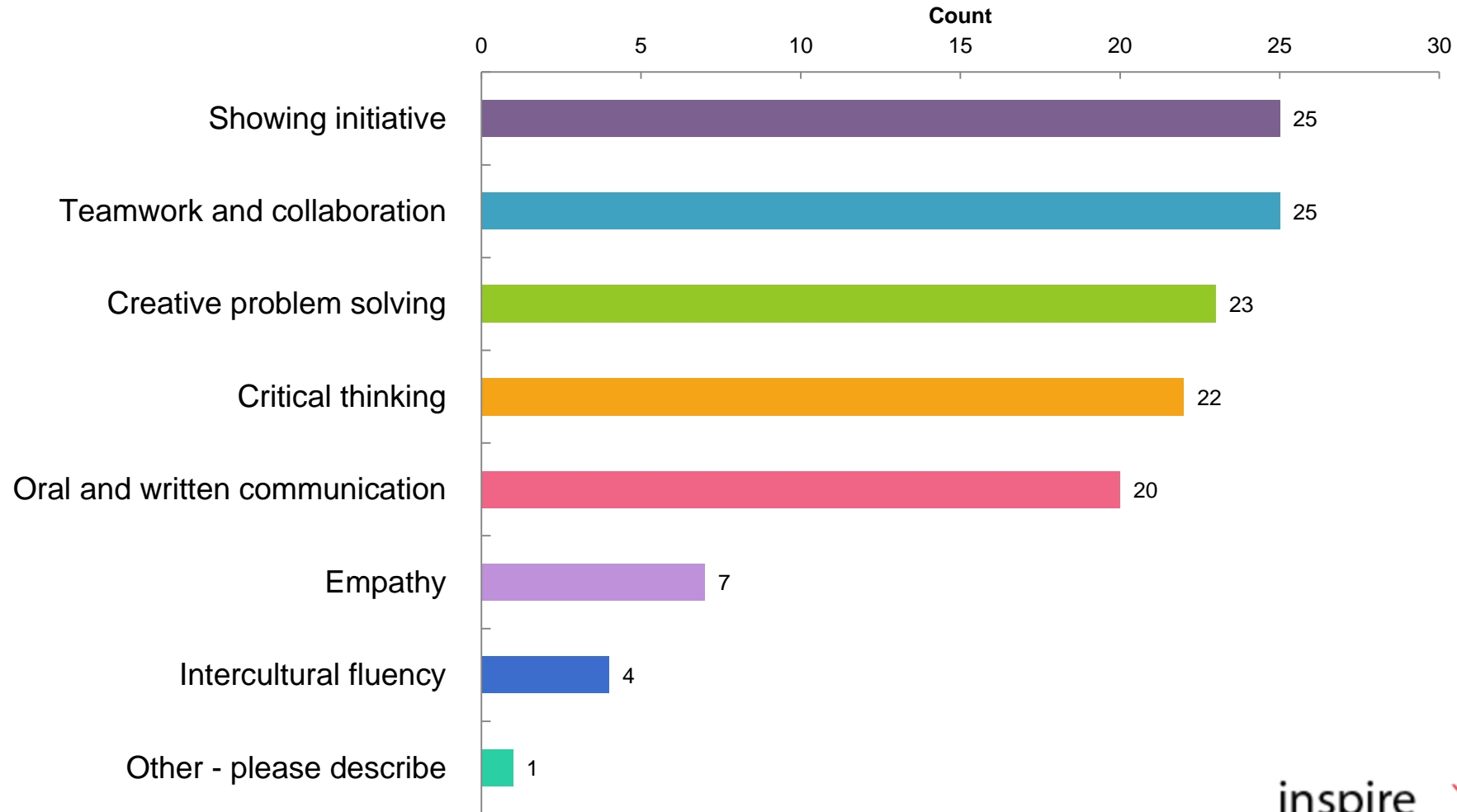
DEED Minnesota Tech Workforce Survey

Q: What are the most desired technical skills you're currently looking for in tech job applicants?



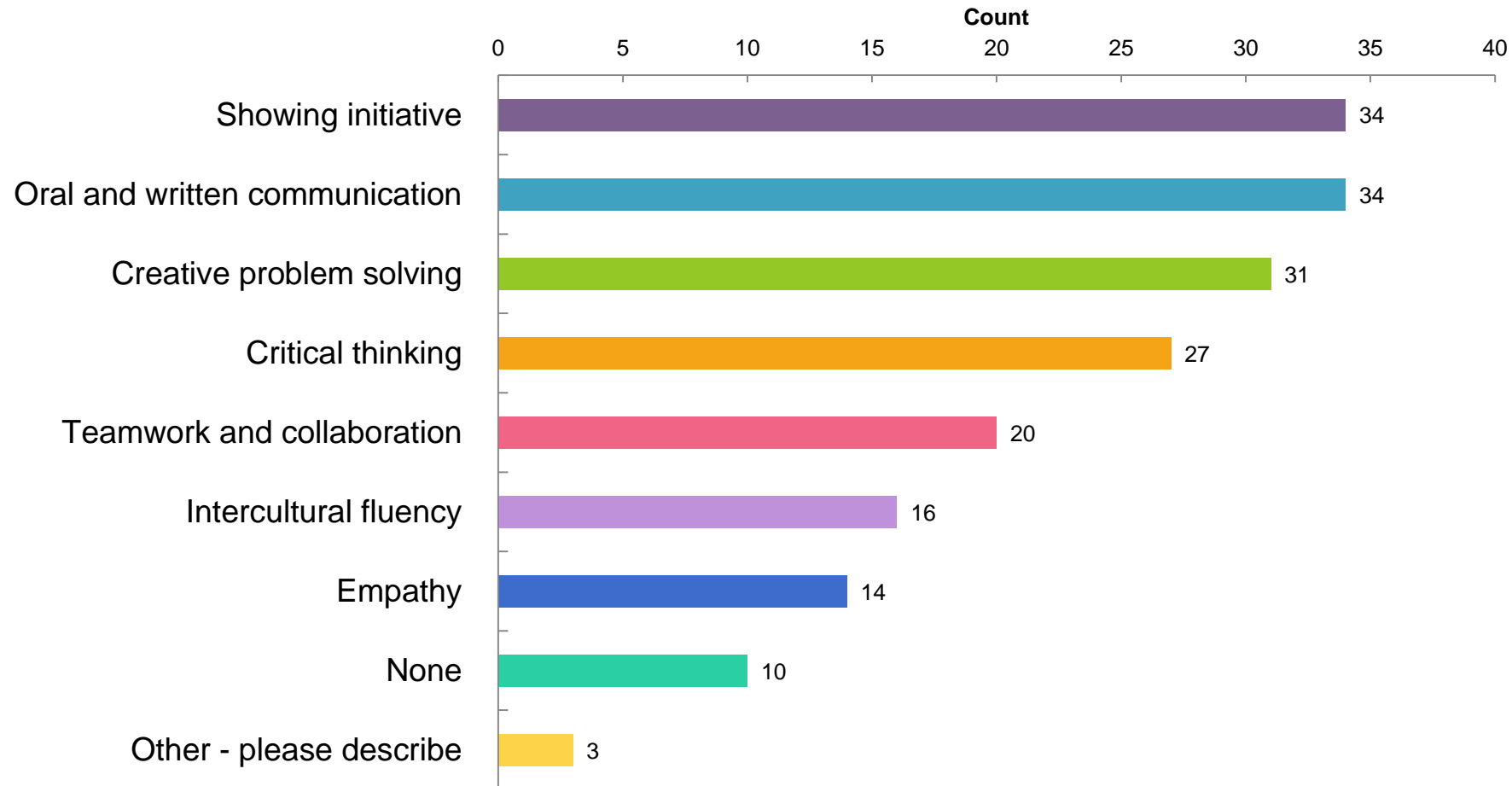
DEED Minnesota Tech Workforce Survey

Q: What are the top soft skills your organization looks for in a job applicant?



DEED Minnesota Tech Workforce Survey

Q: What soft skills do you find tech job applicants are lacking?



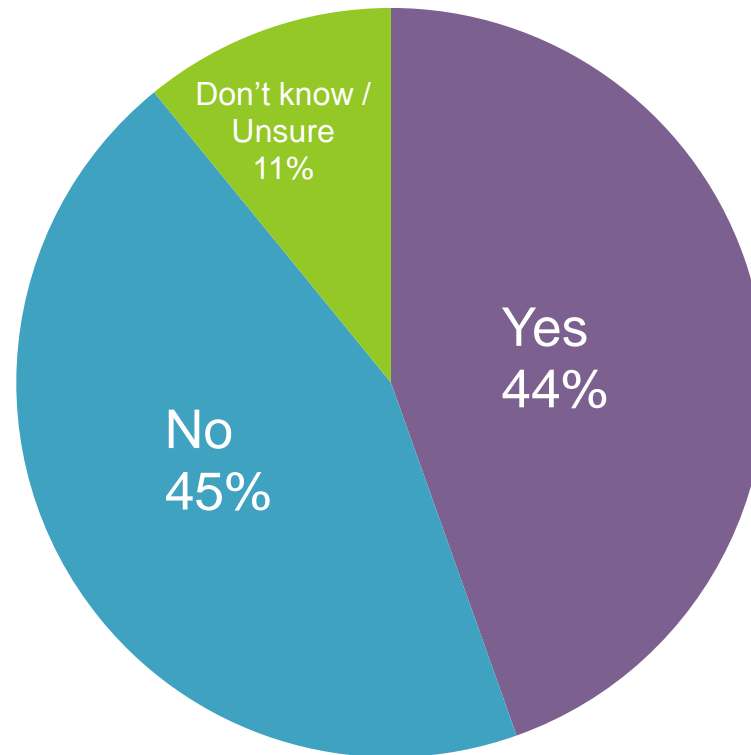
DEED Minnesota Tech Workforce Survey

Q: In 2020, do you expect the number of full-time tech employees in the listed categories below to increase, decrease, or stay the same?

Category	Increase	Stay the Same	Decrease
Entry level (0-2 years of experience)	47%	49%	4%
Mid-level (3-7 years of experience)	55%	42%	2%
Experienced (8 or more years)	46%	46%	7%
Women	61%	38%	1%
People of color	64%	35%	1%

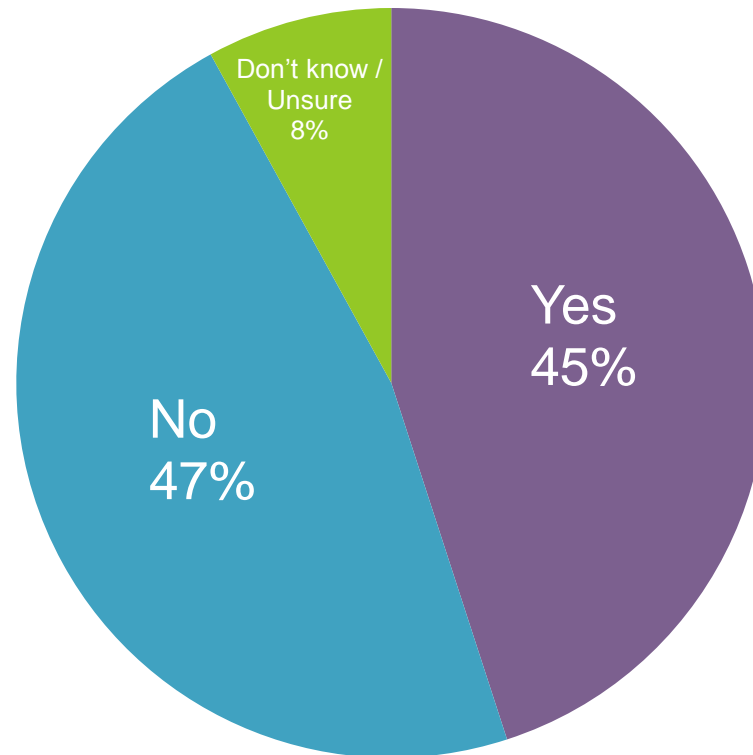
DEED Minnesota Tech Workforce Survey

Q: Does your organization have an overall tech talent **recruiting** strategy and plan?



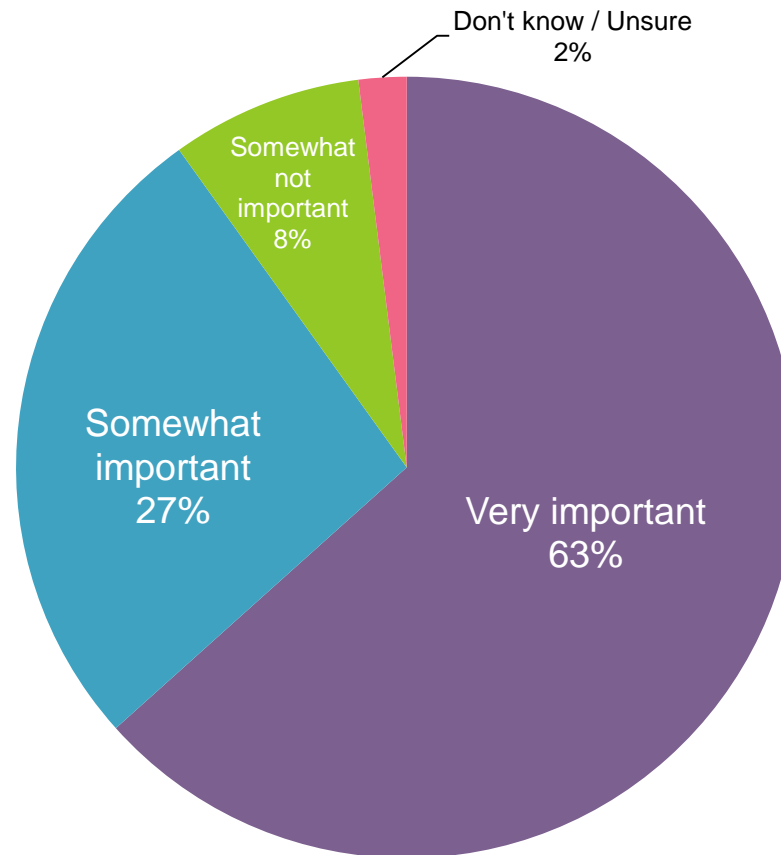
DEED Minnesota Tech Workforce Survey

Q: Does your organization have an overall tech talent **retention** strategy and plan?



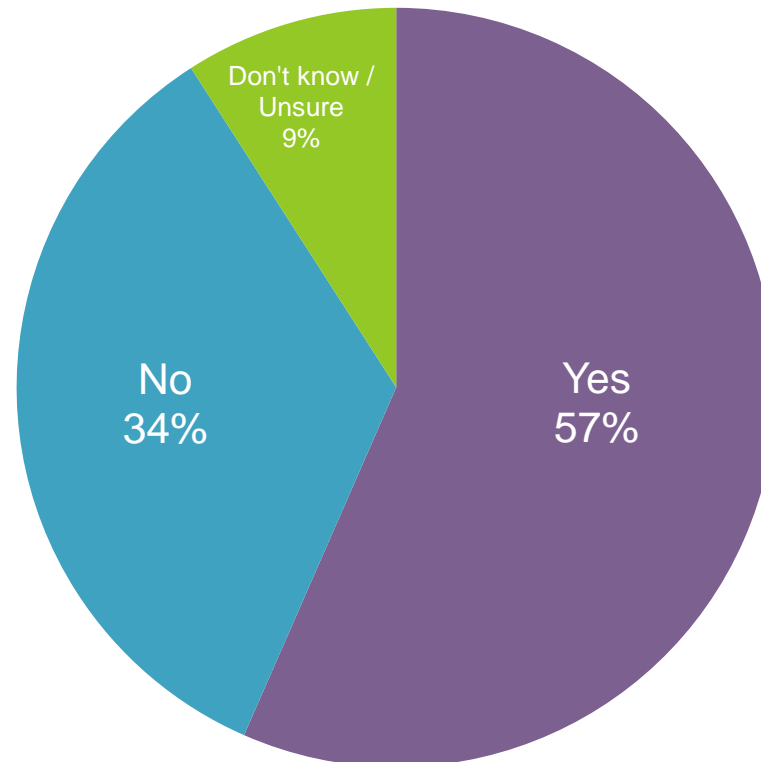
DEED Minnesota Tech Workforce Survey

Q: How important is it for your organization to increase the diversity and inclusive hiring for tech talent within the next year?



DEED Minnesota Tech Workforce Survey

Q: Is your organization currently engaged in any initiatives focused on diversity, equity, and inclusion?



Summary

- ▷ Tech talent supply/demand imbalance in Minnesota caused by insufficient labor pool and inefficient labor market
- ▷ Forecasted shortage of 10,500 IT professionals in 7 county metro area by Q2 2024
- ▷ Companies need to think differently about sourcing, developing, and retaining tech talent
- ▷ Job-seekers need to acquire and develop the foundational skills needed to succeed in a digital economy
- ▷ With shared goals, focused efforts, and innovative thinking, we can build the strong and inclusive talent pipeline we all aspire to see

Thank You!

