

Thank you for participating in this survey about your I.T. workforce needs. This survey is just one result of a long-standing partnership between RITE and ConxusNEO. RITE and ConxusNEO worked together to develop a tool that will provide our stakeholders deeper and more forward-looking insights into the roles, skills, knowledge and experience companies need in their IT workforce organizations. These insights will help focus and refine regional strategies to cultivate a high-performing IT talent system.

With support from the Greater Cleveland Partnership including OHTec, the Greater Akron Chamber, the City of Akron, and the County of Summit, and other regional partners, the survey is being distributed to IT leaders across the region and across industries.

In an effort to avoid multiple responses from each company, we ask that this survey be completed by or assigned to your highest IT leader in conjunction with your Human Resources leader. If you would like a summary of the responses, please provide your contact information at the end of the survey. We are willing to share aggregated results with respondents; however, confidential and individual information will not be shared beyond our two coordinating organizations.

For an optimized experience, please use a desktop monitor to complete survey.

At your company, who was involved in submitting the responses to this survey?

- President/CEO
- VP Information Technology/CIO
- IT Director
- HR Officer

Other (please specify)

Your responses to this survey should reflect your IT operations and workforce for northeast Ohio, but for this question, please indicate your primary location.

- | | | |
|----------------------------------|--------------------------------|-----------------------------------------|
| <input type="radio"/> Ashland | <input type="radio"/> Huron | <input type="radio"/> Stark |
| <input type="radio"/> Ashtabula | <input type="radio"/> Lake | <input type="radio"/> Summit |
| <input type="radio"/> Carroll | <input type="radio"/> Lorain | <input type="radio"/> Trumbull |
| <input type="radio"/> Columbiana | <input type="radio"/> Mahoning | <input type="radio"/> Tuscarawas |
| <input type="radio"/> Cuyahoga | <input type="radio"/> Medina | <input type="radio"/> Wayne |
| <input type="radio"/> Erie | <input type="radio"/> Portage | <input type="radio"/> None of the above |
| <input type="radio"/> Geauga | <input type="radio"/> Richland | |

Choose one of the following industries that best describes the primary nature of your business operations in northeast Ohio. (NAICS code included)

Other (please specify)

Choose one of the following industries that best describes the secondary nature of your business operations in northeast Ohio, if applicable. (NAICS code included)

Other (please specify)

How many years has your company been in operation?

- Less than 4 years
- 4-15 years
- 16 years or more

How many people does your company employ in all of its facilities in northeast Ohio?

- Less than 20
- 20-50
- 51-100
- 100-500
- 501-1000
- More than 1000

IT NEEDS AND YOUR BUSINESS

Please indicate which IT projects you are working on or plan to work on.

	Currently Working On	Plan to Work on in Next 1-2 Years	Plan to Work on in Next 3-5 Years
Sensor based applications (IoT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analytics to drive performance improvement (BI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E-marketing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cyber security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data and IT asset security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturing/distribution/operations automation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blockchain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data center consolidation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Migration to cloud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data warehousing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data integrity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobile applications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dev Ops improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

For the IT projects you are working on/plan to work on from above, please indicate which ones you have sufficient skilled IT workforce to carry them out.

	Sufficient # of Skilled Employees	Lack Workforce
Sensor based applications (IoT)	<input type="radio"/>	<input type="radio"/>
Analytics to drive performance improvement (BI)	<input type="radio"/>	<input type="radio"/>
E-marketing	<input type="radio"/>	<input type="radio"/>
Cyber security	<input type="radio"/>	<input type="radio"/>
Data and IT asset security	<input type="radio"/>	<input type="radio"/>
Manufacturing/distribution/operations automation	<input type="radio"/>	<input type="radio"/>
Social media	<input type="radio"/>	<input type="radio"/>
Blockchain	<input type="radio"/>	<input type="radio"/>
Data center consolidation	<input type="radio"/>	<input type="radio"/>
Migration to cloud	<input type="radio"/>	<input type="radio"/>
Data warehousing	<input type="radio"/>	<input type="radio"/>
Data integrity	<input type="radio"/>	<input type="radio"/>
Mobile applications	<input type="radio"/>	<input type="radio"/>
Dev Ops improvements	<input type="radio"/>	<input type="radio"/>
Financial controls	<input type="radio"/>	<input type="radio"/>

If you lack a skilled workforce, what are the specific skills you are seeking?

IN-HOUSE AND OUTSOURCED IT SOLUTIONS AND SERVICES

Do you outsource or contract out for the primary reason that you cannot find skilled workforce to perform these functions?

Check all that apply.

- E-marketing and website design
- Design, implementation and maintenance of computer systems and networks
- Business intelligence support
- Data storage, maintenance and retrieval
- Security of information and network systems
- Computer controls of operation, production and distribution systems, including logistics
- Software design and use to support automation projects
- Digital data systems development and management, including cloud systems
- Emerging technologies
- Leadership and direction, e.g. CIO or director level services

Other (please specify)

When hiring for a position that requires one of the skills below, how difficult is it to find a candidate with that skill?

	Very Difficult to Attract Candidates with These Skills	Difficult to Attract Candidates with These Skills	Not Difficult to Attract Candidates with These Skills	Do Not Require These Skills
Agile Development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coding in Legacy Languages (C, Cobol, Pearl, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coding in Newer Languages (Javascript, R, Python)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data Analysis and Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desktop (MS Office)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ERP (Oracle, SAP, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Network Infrastructure - Hardware	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Object-oriented Analysis and Design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Security/Cyber security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Solution Design/Architecture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Systems Engineering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please indicate skill and level of difficulty to attract candidates)

When hiring for a position that requires one of the skills below, how difficult is it to find a candidate with that skill?

	Very Difficult to Attract Candidates with These Skills	Difficult to Attract Candidates with These Skills	Not Difficult to Attract Candidates with These Skills	Do Not Require These Skills
Communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizational skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team work/Collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please indicate skill and level of difficulty to attract candidate)

CURRENT EMPLOYEES AND VACANT IT POSITIONS

Please indicate numbers below; estimates are acceptable.

Overall IT Workforce

FT Employees

Positions Filled in 2018

Current # of Openings

Current # Contracted

Average # Days to Fill

Leadership and Management (e.g., CIO, IT Director)

FT Employees

Positions Filled in 2018

Current # of Openings

Average # Days to Fill

Years of Experience Required

Computer and Data Science

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

Software Development (e.g. Computer Engineers, Software Developers)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

Computer & Network Systems and Security (e.g. System Analyst, Cyber Analyst)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

Data Systems and Management (e.g. Database Architect)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

Business Solutions (e.g. Business Analyst)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

Web Design and Development (e.g. Web Developer, Full-stack Developer)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

User Interaction and Experiences (e.g. UI/UX Designer)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

Digital Media (e.g. Multimedia Designer, Graphic Designer)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

IT Support (e.g. Computer Support Specialist)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

Health IT (e.g. Clinical Data Systems Specialist)

FT Employees	<input type="text"/>
Positions Filled in 2018	<input type="text"/>
Current # of Openings	<input type="text"/>
Average # Days to Fill	<input type="text"/>
Years of Experience Required	<input type="text"/>

Please indicate if you offer internships, apprenticeships, and/or co-ops for the following IT roles for each of these educational levels.

	High school	2-year college	4-year university	Other post-secondary/workforce
Overall IT Workforce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leadership & Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer & Data Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Software Development & Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer & Network Systems and Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data Systems and Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web Design and Development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Interaction and Experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital Media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health IT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments

What is your minimum requirement for education and training for each role/area.

	High school	2-year college	4-year university	Industry Certification
Overall IT Workforce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leadership & Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer & Data Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Software Development & Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer & Network Systems and Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data Systems and Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web Design and Development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Interaction and Experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital Media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health IT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If Industry Certification was checked, please list specifics

Please select challenges you have experienced when hiring local talent for the following IT roles. Check all that apply.

	Lack of Candidates	Insufficient Technical Skills	Insufficient Soft Skills	Lack Required Education	Lack Experience	Too Expensive to Relocate Candidate to Area	Local Competitors	Lack Brand Awareness as Tech Employer
Overall IT Workforce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leadership & Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer & Data Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Software Development & Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer & Network Systems and Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data Systems and Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web Design and Development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Interaction and Experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital Media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health IT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other hiring challenges (please specify)

Please select recruiting and hiring challenges you have experienced regarding diversity and inclusion. Check all that apply.

	Not Enough Candidates	Insufficient Technical Skills	Insufficient Soft Skills	Lack Required Education	Lack Experience	Local Competitors	Not a Priority
Underrepresented Race/Ethnicity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Women	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If diversity and inclusion is a priority but you are having challenges, what practices do you currently have in place to recruit from these groups?



WHERE DO YOU FIND QUALIFIED IT CANDIDATES?

For EACH column, please select the top 3 sources of where you find qualified talent.

	For jobs requiring a high school degree	For jobs requiring an associate's degree	For jobs requiring a bachelor's degree
Directly from high school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Directly from college	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked for another company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Promoted from within	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Referral by employee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job Board (LinkedIn, Indeed, etc...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hiring of prior intern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Military/vet group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OhioMeans Job Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employment services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

Please provide the names of institutions (high schools, colleges, workforce programs, career education programs, etc) that provide you with the best qualified candidates.

For IT hires where you require a bachelor's degree, how important is it that it is a specific degree in computer science/information technology/computer engineering?

- Very important
- Somewhat important
- Not so important

What other majors are considered?

CHALLENGES TO IDENTIFYING SKILLED IT WORKFORCE

Are you:

- Increasingly recruiting new IT workers from outside of northeast Ohio?
- Promoting from within the company, especially for mid-level positions in IT?
- Offering/providing hiring bonuses to new hires?
- Outsourcing to other companies at least some the work that new hires would have done?
- Hiring temporary workers to get project work done and/ or used this as a trial period to determine if they prove to be potential hires in the future?
- Adjusting your hiring strategies to be more flexible (e.g. preferring or not requiring a degree vs. requiring a degree)?
- Establishing full-time remote positions (which may be most considered when new hire lives outside the region or to achieve diversity hire)?
- Offering more flexible work hours to top candidates in order to hire them?
- Re-training current IT employees chosen for promotion from within the company?
- Re-training current employees from departments outside the IT area (Accounting, Supply Chain, etc.) to work in IT?

Other (please specify)

CONTACT INFORMATION

Please provide the following information so we can share a copy of report findings.

Name	<input type="text"/>
Company	<input type="text"/>
Address	<input type="text"/>
Address 2	<input type="text"/>
City/Town	<input type="text"/>
State/Province	<input type="text"/>
ZIP/Postal Code	<input type="text"/>
County	<input type="text"/>
Email Address	<input type="text"/>
Title	<input type="text"/>

Would you be interested in working with organizations to develop the IT talent pipeline? (e.g. exposing people to IT by inviting them on a company tour, participating on an industry panel)?

- Yes
- No