Executive Summary

Sourcing IT Talent – Challenges and Opportunities:

Key Findings from Northeast Ohio Employers

August 2020

Survey design and research provided by
Shanahan Resources, Inc.

This executive summary along with a full report and underlying employer survey was made possible with support from the City of Akron, County of Summit, Greater Akron Chamber, and Greater Cleveland Partnership, including Greater Cleveland Partnership Tech and the CIO Forum, along with other regional partners. We are also grateful to the 65 companies that contributed their time and feedback by filling out the employer survey. Their insights help to further convey the important challenges and opportunities facing current and future IT talent workforce needs in Northeast Ohio.

Project Partners

ConxusNEO is a workforce intermediary in Summit County, Ohio, building capacity and improving the performance of the regional talent ecosystem. Through its leadership and facilitation of industry sector partnerships in healthcare, information technology and manufacturing, ConxusNEO helps the Northeast Ohio community understand, improve and navigate the talent ecosystem. Companies have access to the right talent, at the right time, and in the right place. Educators can better align curriculum with relevant skills and workforce programs can better understand and connect residents with opportunities. Our community is mobilized to overcome real-life barriers to good jobs that lead to shared prosperity.

RITE is a leading industry-driven IT workforce alliance in Northeast Ohio and the tech talent arm of the Greater Cleveland Partnership. As the unifying force for IT talent development in the region, RITE provides a sustainable structure for industry, education, and workforce and economic development to work together to advance employer-driven education and workforce strategies. Since its inception in 2009, RITE has engaged more than 125 regional employers, 29 strategic alliances and program partners that include eight higher education institutions, and over 209 high schools, impacting nearly 6,000 students across the region.

Survey design and analysis provided by:

Shanahan Resources, Inc., led by James Shanahan, Ph.D., brings higher education and public workforce systems into collaboration with industry for talent development. This includes training and technical assistance to client staff that aspire to become 'power users' of economic and labor market information systems as well as facilitating partnerships among higher education institutions, workforce systems, and employers that address skill gaps in local or regional job markets.

Overview and Purpose

This executive summary distills four key findings from the survey sent to Northeast Ohio (NEO) employers of Information Technology workers during summer 2019. Our primary goal was to seek direct input from employers about current and forecasted IT projects, desired skills and hiring criteria from IT workforce, and channels and challenges to secure IT talent. This added insight lays out the ongoing challenges that NEO employers face when filling necessary and in-demand IT roles. Consequently, these findings present opportunities to evaluate and consider new and innovative approaches to address gaps in our regional IT talent workforce.

Survey Design and Distribution

The 2019 IT employer survey was designed to build upon what was already known from prior research initiatives co-funded by the partners of this report, informed by regional employers and educators, and other investigations into the demand and supply gaps for IT talent. Prior research initiatives have included the "Understanding the IT Skills Gap in Northeast Ohio" report (2017) and Team NEO's annually produced "Aligning Opportunities" report. The survey was distributed by this report's partners through an extended network across the NEO region, which included post-secondary institutions, industry associations and consortia, workforce development organizations, and local/regional government agencies.

The partners for this report plan to use these new insights to focus and refine strategies and action that will better prepare individuals for a broad spectrum of in-demand IT jobs in the NEO region.

COVID-19 Note: *The dissemination and analysis of survey results reflect employer responses prior to the COVID-19 pandemic and its subsequent impacts.*

Respondent Profile

The NEO IT Employer Survey was sent out to employers of IT workers in the greater NEO region during summer 2019. A total of 65 companies submitted responses, largely representing Manufacturing and IT Products and Services industries[1], accounting for 29% and 24%, respectively, of total respondents (see Figure 1). Followed closely were responses from companies in the Business and Financial Services industries representing 22% of respondents.

Figure 1: Survey respondent by industry
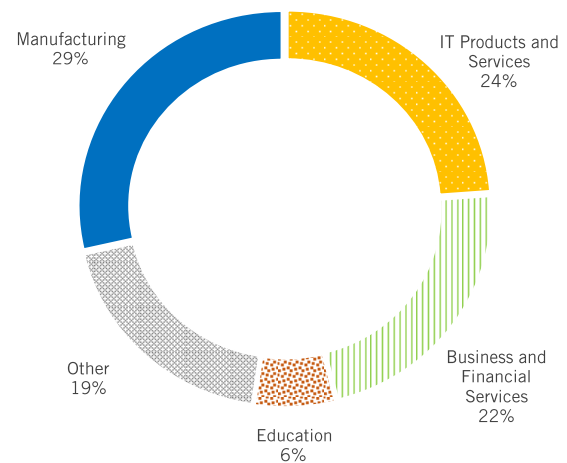
Location of IT operations and workers: Respondents represented companies with IT operations and workers based across eight NEO counties, with companies based in Cuyahoga and Summit Counties, representing 51% and 31%, respectively, of total respondents.

Size of company and years in operation: Well-established companies (greater than 16 years of operations) and larger-sized companies (with greater than 500 employees) led in survey submissions, accounting for 92% and 39%, respectively, of total respondents.

Survey response size: The 65 companies that responded to this survey represent about 12% of the total numbers of IT jobs in the region. The industries represented in the survey are ones with significant use and need for information technology and demand for any array of IT skills.

Finding 1: While employers of IT workers in NEO represent a rich set of industries that depend on information and operational technologies to compete and prosper, the region lacks the quantity and quality of candidates to meet the demand for IT talent across the most in-demand roles.

The top five roles from Table 1 account for nearly 70% of all IT workforce reported from survey respondents, with *Software Development & Engineering* accounting for over one in five IT roles.

Key hiring challenges cited by employers include *Insufficient technical skills* and *Lack of candidates* as the leading factors followed by *Local competitors* and *Insufficient soft skills* for securing needed IT talent.

Table 1: Current IT Workforce across 11 role categories

	Full-time Employees	
IT Role Category	Total	% of Total
Overall IT Workforce	6,391	100.0%
Software Development/Engineering	1,421	22.2%
Computer & Network Systems and Security	1,093	17.1%
Leadership & Management	860	13.5%
IT Support	557	8.7%
Business Solutions	465	7.3%
Data Systems & Management	175	2.7%
Computer & Data Science	145	2.3%
Web Design & Development	164	2.6%
User Interaction & Experiences	53	0.8%
Digital Media	21	0.3%
Health IT	5	0.1%
Other IT roles	1,432	22.4%

Finding 2: On top of an already tight market for IT resources, disruptive technologies and techniques are growing more complex, making the attraction and retention of requisite skills for these investments even more difficult to accomplish.

Survey respondents identified 15 IT projects that were underway and/or forecasted within the next five years. Across these project areas, companies indicated that they lack the necessary sufficient skilled IT workforce to deliver these projects (see Figure 2), especially for *Cybersecurity* and *Business Intelligence*, which are current project areas for over 75% of respondents. As anticipated, in emerging areas such as *IoT* and *Blockchain*, over 50% of the companies surveyed plan to launch these projects in the future, and currently indicate a lack of skilled workforce to deliver these projects.

Figure 2: Current and forecasted projects and sufficiency of skills (% of company respondents)
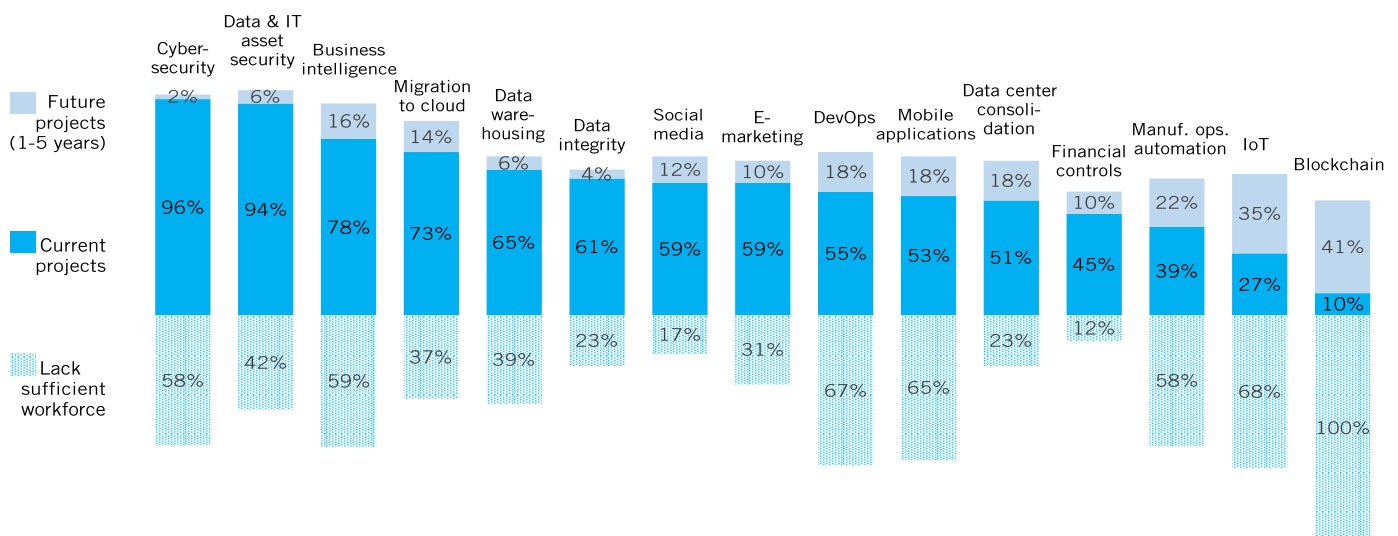
Finding 3: Sourcing for qualified IT talent and skills largely focus on the existing talent pool with preference for four-year degree credentials.

For minimum education criteria, 33 survey respondents indicated that while candidates with and/or in the pursuit of four-year degree continues to be important, they are willing to accept candidates with less than a four-degree credential in the majority of the 15 IT role categories outlined in the survey (see Table 1 for IT role categories). For overall IT workforce, 36% of respondents indicated that they require a four-year degree as a minimum requirement with 18% requiring a two-year degree, 36% requiring a minimum of a high school credential, and 18% of respondents indicating that industry certification(s) was sufficient.

Companies sourced talent through three main channels, finding candidates that: worked for another company, could be promoted from within, and/or were referred by current employees, regardless of education credential (see Figure 3). There was greater recruitment and talent sourcing activity for four-year degree candidates.

Figure 3: Top 5 sources for IT talent by education level
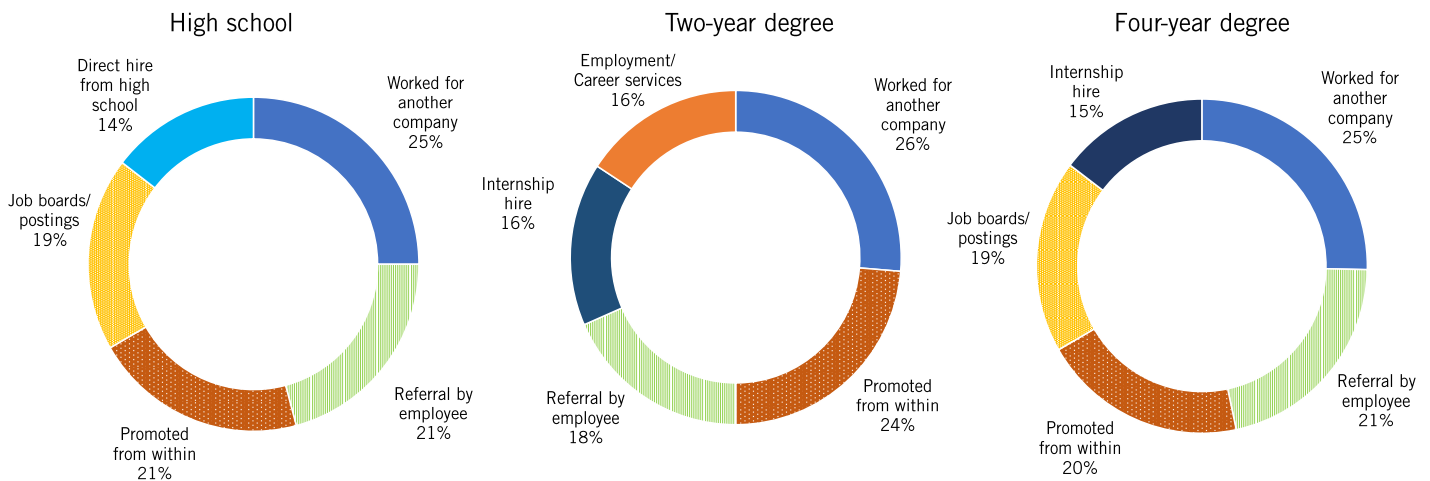
Finding 4: The primary challenge for fulfilling diversity and inclusion efforts for IT talent is the limited candidate pool and pipeline in the region.

When seeking female candidates and/or individuals from underrepresented race and/or ethnic groups for in-demand IT roles, 80% of survey respondents to this question cited *Lack of candidates* as the primary challenge, nearly four times more than other hiring factors. Figure 4 compares top hiring challenges for overall IT workforce with those for diverse candidates.

Strategies that companies utilized to increase diverse candidate pipeline included focused job and career fairs, specific processes for reviewing job descriptions to avoid bias, dedicated staff to diversity and inclusive recruitment efforts, and/or utilization of employee resource groups (ERGs)

Figure 4: Key hiring challenges for diverse IT candidates compared with overall IT workforce
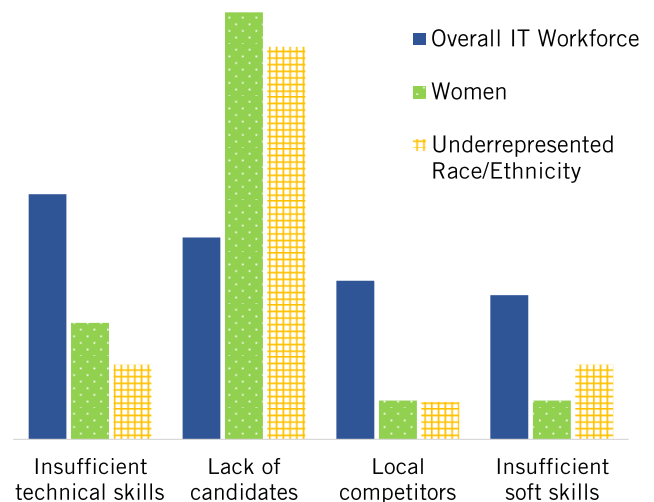
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