

[ CONNECTING EMPLOYERS, EDUCATIONAL INSTITUTIONS, AND WORKERS ]

# Building a Pipeline of IT Talent in Northeast Ohio:



*Regional Information Technology Engagement (RITE) Board*



CASE STUDY 2

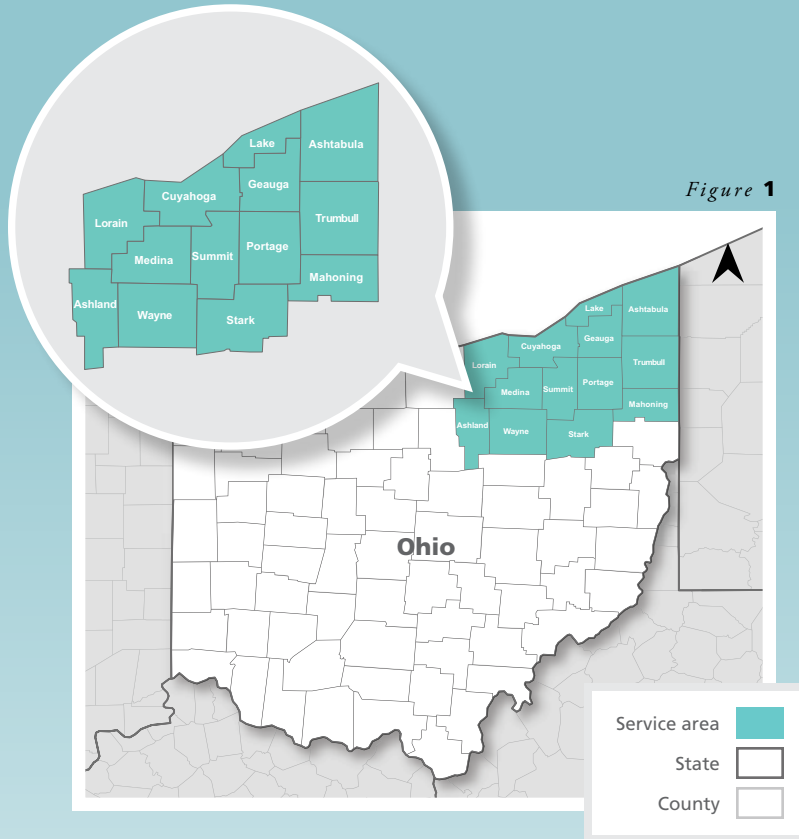


# Overview

In Northeast Ohio, large gaps between the supply of and demand for Information Technology (IT) talent drove the establishment of the Regional Information Technology Engagement (RITE) Board in 2009. A December 2007 report commissioned by NorTech—a Cleveland technology-based economic development organization—found thousands of unfilled IT positions in Northeast Ohio<sup>1</sup> in industries that range from manufacturing and health care to banking and insurance. According to the report, these vacancies were the result not only of an insufficient supply of IT workers, but also of a lack of IT workers with specific skill sets employers were seeking. These challenges in the region's IT workforce prompted the Ohio Skills Banks (OSB)—an initiative established in 2009 under former Ohio Governor Ted Strickland—to include IT in its efforts to promote regional collaboration among educational institutions and employers.

<sup>1</sup>Northeast Ohio Information Technology Workforce Report. Prepared for NorTech (Elyria, OH: Joint Center for Policy Research Public Services Institute at Lorain County Community College, 2007). Report can be accessed at <https://www.lorainccc.edu/NR/rdonlyres/EF925A35-4DF6-4FD0-822E-8D14DBF04E11/2842/NortheastOhioITWorkforceReport1.pdf>.

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Under the guidance of the OSB, a series of meetings was held in the summer of 2009. Lorain County Community College (LCCC) brought together regional employers of IT workers to discuss gaps in critical occupations and skill sets and identify ways to respond to these gaps. In the room were executives from Eaton Corporation, Sherwin-Williams, Hyland Software, Progressive Insurance, Cleveland Clinic, and American Greetings, among others. Similarly, institutions of higher education—including Baldwin Wallace University, Cuyahoga Community College, Lakeland Community College, Lorain County Community College, and the University of Akron—met to discuss the content of their IT programs and how the coursework aligned with employers’ needs. The intent of these meetings was to identify more specificity around employers’ IT skills needs and to create a process to better inform educational institutions about these needs.

Following these convenings, an employer-led group agreed it was important to continue working together with a focus on developing solutions to the skills gap, and the RITE Board was established in November 2009. Membership is comprised mainly of employers, with representation from higher education and administrative support provided by LCCC. As a regional collaboration, the RITE Board engages with high schools, economic and workforce development entities, and community-based organizations, which serve as conduits for information and programming related to opportunities in IT. The RITE Board has evolved since its inception, but its purpose remains the same: to develop a pipeline of IT talent that meets the needs of the region’s employers.

## Partnership Structure

The RITE Board membership comprises senior IT executives from 13 companies; one higher education representative; a representative from OHTec, a membership organization of employers of IT talent across the region; and LCCC, which serves as the fiscal agent and coordinator of the Board’s activities. In addition to the community colleges and universities mentioned earlier, Case Western Reserve University, Cleveland State University, and Kent State University are also partners and regularly attend and engage in RITE Board meetings, programs, and initiatives. The work of the RITE Board is accomplished through program action teams and ad hoc committees comprised of employers, educators, and LCCC. The Board provides overall strategic direction for the program and initiatives undertaken by the action teams and committees. With guidance from the executive committee, members of the action teams are responsible for the planning and execution of programs designed to both engage high school students in IT career exploration and connect college students to experiential learning opportunities with the region’s employers. Activities and programs of the RITE Board are funded through membership dues from employers, program sponsorships, some philanthropic dollars for targeted efforts, and significant in-kind support.

Since its inception, the RITE Board has instituted a strategic framework called the “APP”—short for Attract–Prepare–Place—which guides Board members’ efforts to build the pipeline of IT talent in Northeast Ohio. Engagement with

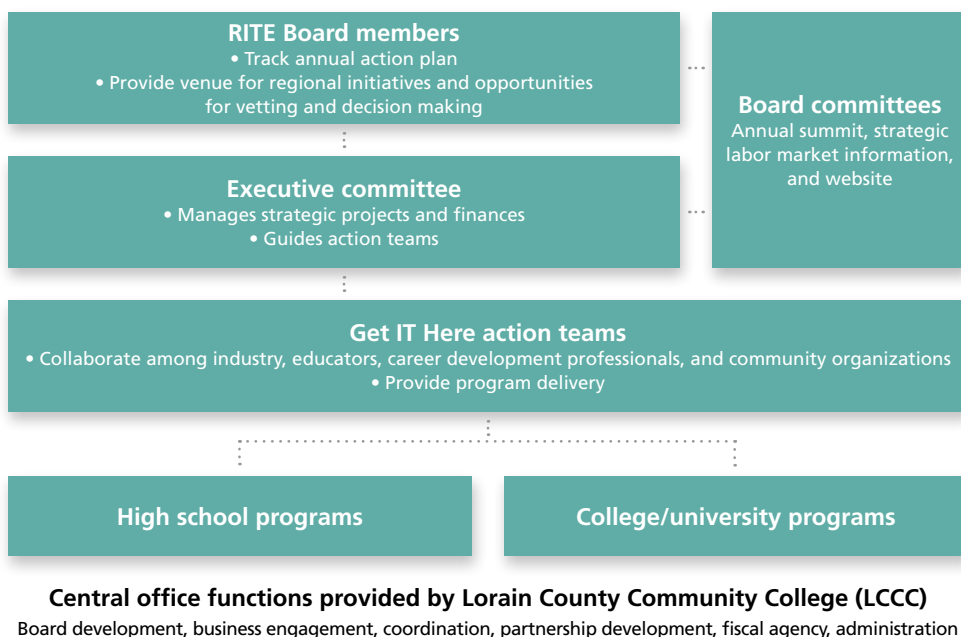
a broad range of IT employers, educational institutions, high schools, economic development organizations, and funders who work with the RITE Board to implement the programs and activities aimed at increasing the supply of IT talent in the region plays an integral role in the success of this framework (see **Figure 2**).

## Attract–Prepare–Place

The “attract” component of the APP strategy is geared toward promoting engagement among high school students, employers, and educators from regional colleges and universities. Programs expose high school students to the many opportunities in the IT field throughout the region and what pathways are available to prepare them for entry into the field. During the annual *Get IT Here* summit, which began in 2013, high school students hear directly from employers about IT career choices, college and university IT-related programs, and IT job prospects. RITE employers also host site visits and go into classrooms to talk about the employment opportunities in their companies and what the jobs entail. In 2015, RITE launched a joint program with TECH CORPS, another effort that exposes high school students to the possibilities in the IT field through summer coding camps.

Similarly, RITE cross-promotes programs organized by other partners that engage with high school students through events aimed at growing interest and excitement in the IT field. For example, Hyland Software hosts an annual Innovation Showdown in which teams of high school students from Northeast Ohio work with an IT

*Figure 2*  
*Regional Information Technology Engagement Board*



professional to develop an original application or product, present it to a panel of judges, and compete for a prize. Similarly, the CoolTech challenge, an OHTec-sponsored event, encourages students from local high schools to develop a web app or website geared toward addressing a specific need or topic; scholarships are awarded to winners.

The “prepare” component of the strategy focuses on ensuring individuals are acquiring the necessary skills to meet demands in the IT field. Critical to this effort is engagement with the institutions of higher learning in the region. To better inform educators about employers’ needs during the formative stages of the Board, employers utilized the Skills Framework for the Information Age (SFIA), a globally recognized framework for identifying the skill sets and competencies necessary for specific IT roles, in developing detailed job profiles. Employers and university faculty then matched information from the job profiles to curriculum and coursework being taught, with the goal of identifying gaps.

These discussions—which provided universities with additional insights into the skills and competencies employers are looking for in their employees—were not simply focused on alignment and reviewing curriculum. Central to the discussion was the fact that *being prepared* encompasses a range of things, according to Courtney DeOreo of LCCC, including “engaged learning, technical skills, 21st century skills, business acumen, applied work-based learning, experience, and informed career decision making.” Dr. Jodi Tims, Chair of the Computer Science and Mathematics Department at Baldwin Wallace and a RITE Board member, explained, “There was no sweeping change around curriculum; employers trust us with the technical skills. But listening to them was instructive—hearing things like, ‘the [graduates] don’t seem to have good communications or teamwork skills,’ so that I can bring some of that into our coursework.”

According to all we spoke with, engagement between employers and educators through university advisory councils is also critical to making sure educators are aware of the needs of industry. All colleges and universities are required through their by-laws to have industry advisory boards, which are designed to gather insights from employers about skill needs in specific fields. While the advisory boards of some Northeast Ohio colleges and universities were focused on the broader requirements of today’s roles, including but not limited to technical training, others were not as engaged or involved in the programs beyond reviewing curriculum.

The RITE Board encouraged a more engaged role for industry partners and recommended having a chief information officer (CIO) from a major IT employer from the regional Board on each advisory council as a way for universities to hear directly about specific IT skills in demand and which programs to leverage.

At LCCC, Tom Lucas, CIO of Sherwin-Williams, has served as such a link to the College’s RITE LCCC Council since its inception in 2012. Beyond advising on curriculum, this council actively works to engage local high school students and their parents in RITE-sponsored programming. IT professionals from companies that serve on the council serve as guest speakers to expose students to opportunities in the IT field. Several employers offer site visits where students can see firsthand IT jobs in action, as seeing rather than hearing about a job tends to be more compelling. The LCCC council has held two successful UpClose IT events that engage Lorain County 10th and 11th graders around IT education and career pathway opportunities. These efforts complement LCCC’s long-standing “Techno Fridays,” a signature program in which middle-school students can get hands-on learning opportunities in a variety of uses of technology across fields.

“Today, due to the strength of our partnerships with staff and faculty from all of our partners institutions, we are able to reach out and engage employers who serve on their boards and councils,” pointed out DeOreo; “All are encouraged to join RITE’s ProCorps, which is a volunteer program for IT professionals that include direct engagement with kids through such programs as the annual Passport to IT Careers. ProCorps thus enables IT leaders to engage their teams in more professional, community engagement work.”

Another “prepare” as well as a “place” component of the RITE Board strategy involves expanding and improving opportunities for experiential learning, such as through internships, for students and jobseekers. Some of the soft skills IT employers are seeking—for example, effective communication and project management—may be better learned through work-based learning than in the classroom. RITE Board Chair and Eaton Corp. CIO Bill Blausey pointed to increases in internships and co-ops since the RITE Board began. In fact, internships among RITE employers increased from 117 in 2009 to 194 in 2013. “Employers find benefits in having a connection to the pipeline of IT talent through our engagement with universities,” he stated.

Employers also benefit from the increased interaction with educators. Having a connection to the pipeline of talent in the region’s higher-education institutions is essential for them to be able to fill jobs.

### Successes and obstacles

Developing strategies to address the IT talent shortage requires relationship and trust building among employers, educators, and other key stakeholders in the region. The Attract–Prepare–Place framework facilitates this interaction and guides the RITE Board’s strategic direction. The sustained commitment and continued engagement of high-level professionals, who volunteer their time, is considered a successful element of this effort. The programming that has been developed to engage high school students is considered an achievement by both employers and educators alike. Challenges include the time commitment for Board members and funding.

### HIGH SCHOOL PROGRAMMING

Board members see engagement with high school students as critically important to growing the number of students interested in IT in the region. According to those we interviewed, the increased number of high schools and students participating in both RITE Board-sponsored and partner-sponsored events points to the success of this component of the program. The focus on high school

and even middle school students grew out of the realization that there appeared to be a lack of awareness about the myriad roles in the IT field, growing demand, and opportunity across all industry sectors, not just the technology sector. To get students excited about the IT field, the RITE Board focuses on providing opportunities for students to hear directly from employers about the many career options and job prospects.

Figure 3  
High-growth, High-wage IT Occupations in Northeast Ohio

	High-growth 2012–22	High-wage	
Computer and Information Systems Managers	12.1 %	\$ 53.00	
Computer Network Architects	12.9 %	\$ 47.29	
Computer Occupations, Other	2.6 %	\$ 37.98	
Computer Programmers	6.4 %	\$ 29.99	
Computer Systems Analysts	25.8 %	\$ 36.09	
Computer User Support Specialists	18.8 %	\$ 20.14	
Database Administrators	13.0 %	\$ 32.83	
Software Developers, Applications	21.2 %	\$ 35.33	
Software Developers, Systems Software	4.6 %	\$ 41.82	
Web Developers	14.7 %	\$ 27.85	
Network and Computer Systems Administrators	7.5 %	\$ 32.24	

**High-growth occupations** are those with annual statewide job growth ≥ 104 new job openings, or with annual total jobs openings (both growth and replacement) ≥ 264

**High-wage occupations** are those with annual earnings ≥ \$26,083 or hourly earnings of \$12.54 and up

Exceeds 104 annual job openings and annual new job openings exceeds replacement in Northeast Ohio

Sources: Ohio Department of Job and Family Services (August 2015); Economic Development and Employer Planning System (EDEPS), <http://www.edeps.org>.

Employers play an essential role in career exploration and recruitment. “It’s one thing if the president of LCCC tries to extol the values of career choices in IT, but it’s a very different message—and it’s received very differently—if Hyland Software does it,” noted Dr. Roy Church, president of LCCC. “As the users of IT talent, companies can help recruit people into these careers much better than higher education can.” According to those we spoke with, the enrollment in institutions of higher education is simply not enough to fill the demand for workers in IT. By working with the local school systems, the RITE Board is generating interest in IT jobs, with the ultimate goal of filling the pipeline of workers in the region in the longer term. This is an area where Board members believe they are getting some traction. They continue to engage with both schools and employers to expand their reach.

### RELATIONSHIP AND TRUST BUILDING

Relationships developed between employers and educational institutions through the regional board in entities like the RITE LCCC Council and the higher education advisory boards and committees are considered essential to enhancing the IT skills pipeline. One of the key benefits of this structure, according to Dr. Church, is that it “portends a long-term relationship between employers and educators.” Educators will change if they believe the change is warranted or necessary, he stated. “They want their students to succeed, but they need to hear from the users of IT talent [employers] on a regular, ongoing basis.”

Such relationship building does not happen overnight. Dr. Jodi Tims, from Baldwin Wallace University, described it this way: “Education [from a university standpoint] is not just about training someone for a job, but rather it’s about educating them for life and to be leaders.” Developing relationships with more employers in the region and understanding their needs and perspectives, she continued, “allowed us to devise ways to incorporate their needs [into the curriculum] while keeping with our mission.”

Employers also benefit from the increased interaction with educators. Having a connection to the pipeline of talent in the region’s higher-education institutions is essential for them to be able to fill jobs. “We need strong talent in the region,” Bill Blausey stated, “and we would like to hire locally and keep our graduates here. To do this there must be a strong connection between employers and educators in terms of understanding the skills needs in the field.” While there has been an increase in internships and experiential learning opportunities for college students, more are needed. However, these relationships have also

resulted in additional recruitment opportunities for employers looking to hire.

### TIME AND FUNDING

The time commitment was mentioned as a challenge for everyone involved. The RITE Board comprises senior-level executives in companies and universities across the region, and the work they do on behalf of the Board is voluntary. According to those we interviewed, RITE Board members are decision makers for a number of reasons: They oversee hiring and are aware of skill needs; they have access to resources; and they have relationships across the industry that can be leveraged to further the Board’s mission. Given members’ level of responsibility within their respective organizations, finding time to commit is an issue. Despite this challenge, the Board members we spoke with were clear that this work is important and they are seeing successes, particularly with high school students. DeOreo of LCCC—who is lauded by employers as the “glue” keeping the RITE Board on track—provides the backbone support to the effort, including administration, partnership development, coordination, and fiscal oversight. But she too has limited time given her other responsibilities at LCCC. To this point, everyone we interviewed believes it is important to move toward establishing an organization with dedicated staff.

Funding is an issue for this effort, too. Interviewees mentioned the need for increasing and diversifying the funding sources. Currently, the funding comes from employer member dues, some sponsorships, and occasional grants. Notably, the RITE Board’s success in engaging employers has led to additional opportunities for funding. The Board was named the IT lead for a federally funded sector partnership grant administered by the Cleveland–Cuyahoga County Workforce Investment Board (WIB). This job training grant will connect workers to businesses in the IT fields, furthering the RITE Board’s mission to help increase the skills of IT talent. With funding from the Fund for our Economic Future, the RITE Board has also taken a leadership role in implementing Talent NEO, a skills-based hiring pilot—which uses scores from an aptitude test rather than traditional educational credentials—to assess jobseekers’ skills. The RITE Board is engaging with some IT employers to determine whether the skills-based scoring can serve as a proxy for the more traditional education. Through this effort, employers may find additional IT talent. Engaging additional employers and developing partnerships were mentioned as opportunities to increase funding and the reach of the RITE Board’s programs.

# Conclusion



Robust employer participation in the RITE Board is helping this partnership increase the region's pipeline of IT talent.

What brought employers and educators together in 2009 was a critical shortage of IT talent coupled with an insufficient number of college students majoring in and graduating with degrees suited for employment in the high-demand IT field. What keeps them together today is the continued need for IT talent in the region and the recognition that progress has been made toward addressing this shortage through collective action and engaged interactions among all the stakeholders. Collaboration among many of the region's institutions of higher learning and employers has been strengthened through the RITE Board's efforts. The increase in high school students participating in the annual *Get IT Here* summit, the RITE Board's programs, and partner-sponsored events signals growing interest in the field.

Engaging with high school students is seen as critically important, with employers playing an instrumental role in sharing career possibilities. Most of the major employers of IT talent in the region are involved with the RITE Board. Eaton CIO Bill Blausey points to the passion among these employers. "There is tremendous demand for IT talent in the region—just look at the job boards—so spending time on increasing the pipeline and generating more capable students coming out of school is something we can all rally around," he noted. "But we must marshal our resources in a sensible way and focus on those skills most required by companies and organizations in the area."

The RITE Board's efforts require time and funding, both of which were mentioned as challenges. Nevertheless, Board members are committed to the sustainability of this initiative. Looking ahead, members hope to create an organization with dedicated staff that can focus on growing and scaling their efforts. As Dr. Roy Church, LCCC president, said, "Getting people to choose IT careers should start in middle school. We are not going to turn around the supply chain in a short period of time; this is a 10-year proposition." He credited employers with the progress that is underway: "The commitment and energy of IT leaders on this Board is exactly what's needed to accomplish this goal of increasing the supply chain."

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