While the number of companies that focus solely on IT in our region is not high compared to other regions, when looking at demand for workers across industries, it is our fastest growing regional occupation cluster. In fact, based on job postings, Southeast Michigan has seen some of the fastest growth in information technology occupational demand in the nation, nearly 55 percent in five years. This outpaces growth in well-known tech hubs like Silicon Valley (San Jose), Austin, Boston and others.

One critical asset that is helping to drive the growth of occupational demand for IT jobs in our region is the automotive industry. This is because today's vehicles embed more technology than ever before. In fact, there are roughly 100 million lines of code involved in producing a modern car, more than in some jet fighters. This is not like having one computer on wheels, but thirty. As a result, when we look at the top 10 manufacturing job postings in the region, almost a third are related to IT and include positions like software developers, computer programmers and systems analysts.

Advanced manufacturing occupations are not alone in their increasing need for information technology skills.

For example, the health care industry is deploying electronic medical records, high-tech pharmaceutical tracking systems, and cloud analytics to predict disease and treatment patterns. The logistics industry requires use of electronic manifests to track shipments, and extensive technology exists along the border to ensure the security of cargo. Even fields like hospitality and customer service are relying more heavily than ever before on data systems that can track customer relationships and satisfaction and help enhance service experiences.

While growth in regional IT occupational demand is outpacing other major national technology hubs, we are disadvantaged in the relative proportion of workers we have employed in these fields today. Of those currently working in Southeast Michigan, only 2.6% are in IT occupations, compared to 6.1% in Silicon Valley or 5.9% in Washington, D.C. There are higher concentrations of these workers in Southeast Michigan counties like Washtenaw, but there is work to do.

Last year there were more than 40,000 postings for IT talent in Southeast Michigan, but we graduate only about 3,000 a year with related education from our regional institutions. Many of these lack the skills and expertise (generally three to five years) that most companies desire.

Initiatives like IT in the D (provides hands-on, on-site job experience in a real company job setting) and Shifting Code (provides short-term training to get workers up to speed quickly) are doing their part to prepare the needed labor pool. However, we need more of both types of efforts and at much broader scale to meet growing demand. Moreover, it is important to address factors like the digital divide to ensure that all of our region's talent base is ready for technology demands in jobs of today and tomorrow.

When it comes to tech talent, we can leave no stone unturned, whether this means combining digital literacy with reading literacy, opening our doors to give experience to college students and transitioning workers, or finding new, more rapid ways to deliver skills to a range of workers. In the field of IT, the mantra is "go boom or go bust." We must take the same approach with our regional tech talent.

The Workforce Intelligence Network for Southeast Michigan (WIN) is a collaborative effort between eight community colleges, seven Michigan Works![LA1] Agencies, and various other academic, economic development, and other partners. Its mission is to help Southeast Michigan businesses find the talent they need for success.
Go boom or go bust: The need for tech talent in Southeast Michigan | Crain's Detroit Business

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