Tech firms scrounging for skilled workers training their own (Update)

November 23 2017, by Emery P. Dalesio

Some information technology companies are growing so concerned about their inability to find enough digital talent that they're training their own.

IBM, Amazon and Microsoft all now have apprenticeship programs that pay workers while they train for jobs demanding hard-to-find IT skills. Tech companies view apprenticeships—a staple of European labor for centuries and common in the U.S. for trades like welding and carpentry—as addressing the shortage of workers trained in skills that growing companies need.

It's a problem that the U.S. Labor Department identified 20 years ago. And it persists even though the median pay last year for computer and information technology occupations was about $83,000, compared to $37,000 for all jobs, with demand growing rapidly over the next decade, the Bureau of Labor Statistics said.

IBM now has several hundred open jobs in the U.S. for people early in their IT careers—a number expected to grow over time—and is tackling the vacancies with its new apprenticeship program, vice president for talent Joanna Daly said.

"It's not just IBM," Daly said. "When you look at nationally, there's a half-million open technology jobs in this country and we're only producing 50,000 computer science graduates each year. So for the industry, we have a technology skills gap."

IBM has long had apprenticeships at its operations in Germany, the United Kingdom and Australia, Daly said. The tech giant hired hundreds of people who've completed those apprenticeships, but hasn't pinpointed if the program is mainly responsible for greater talent supply, she said.

Industry coalitions as well as states like Minnesota and Washington have invested in encouraging IT apprenticeships. Trade groups including the Information Technology Industry Council and the Telecommunications Industry Association say more federal funding is needed. On Tuesday, President Donald Trump signed into law legislation increasing access to apprenticeship programs which train veterans.

But individual companies too are launching apprenticeship programs—a mix of classroom and paid on-the-job training to master skills—that cost them tens of thousands of dollars per person.

Carousel Industries, which integrates and maintains communications and data networks, spends about $54,000, including salary, for each of the apprentices in its year-long program, Chief Client Officer Tim Hebert said Wednesday.

"Finding good talent today is really hard, especially at entry levels," where searching can take months, Hebert said. "We feel that the amount of money we're saving in the recruiting process helps offset some of the expense that we have, but it also gives us better-quality candidates."

In the decade since Hebert started the apprenticeships at a company that Exeter, Rhode Island-based Carousel bought last year, 90 percent of the more than 320 workers who completed the program remain, he said.

Last month, IBM enrolled its first U.S.-based group of seven apprentices working at the company's sprawling North Carolina campus. All will spend a year learning software engineering, including working in teams

on actual tasks IBM needs to be accomplished, while earning benefits and a starting paycheck about 40 percent below the position's regular salary. Several are shifting from other careers.

One is Tara Welch, 43, who was a licensed practical nurse for 23 years but had to quit due to chronic pain. She said she always had an interest in computers, as a child programming on her old, basic Commodore and as an adult teaching herself coding languages in her free time.

"When you're in a career and you have bills to pay—especially as you're getting older and have a house and car payment—changing careers because you're really interested is not always an option. But then when I got sick, I had no choice," Welch said.

Her earlier dabbling led her to enroll in community college to study programming and software development.

There she heard about IBM's new apprenticeship program, which wanted a high school diploma or equivalency and some familiarity with coding, but didn't require any formal certifications or hands-on experience.

After the new year, IBM plans to add another 100 apprentices in Research Triangle Park; Cambridge, Massachusetts; Dallas, Texas; and Emeryville, California. They'll also start training workers in mainframe system administration and project management, later adding roles in data analytics and cybersecurity.