



EDUCATION

## Micron wants lots of students trained in mechatronics. Boise School just cut its program due to lack of interest



By Margaret Carmel - BoiseDev Sr. Reporter

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The main building at Boise School District's Dennis Technical Education Center off of Victory Road. Photo: Margaret Carmel/BoiseDev

In booth after booth, the sound of burning metal fills the air and sparks fly behind heavy blue curtains.

Welders in coveralls stand side by side, wielding torches as they fuse metal pieces one after another. It might look and sound like a traditional fabrication shop, but this isn't a manufacturing operation. It's the Dennis Technical Education Center run by the Boise School District.



This school, commonly referred to as "D Tech," as shorthand for its acronym, has between 1,300 and 1,400 students on its roster who are bused in from the city's five high schools throughout the day. Students at the school pursue skills in more than a dozen career paths ranging from cosmetology to heavy-duty diesel repair. All of the programs are developed with industry input and approved by the State of Idaho, so they lead students into a career path or a higher education program after graduation to continue their studies.

Micron Technology is hoping some of those pathways will eventually lead students to its two new memory fabrication plants on [Federal Way](#). Since the company first announced its plans to build its first \$15 billion fab in 2022, the company and Idaho political officials of both parties have touted the thousands of jobs it's expected to create for Treasure Valley workers. But, exactly where those workers will come from is an ongoing question for the semiconductor industry nationwide after getting a big boost from the federal government in the [CHIPS and Science Act](#) under former President Joe Biden.

The Boise School District saw firsthand earlier this year the difficulties ahead to fill programs to power high-tech manufacturing operations like Micron. Several of DTEC's continuing programs, and a new one developed in response to the expansion in nanotechnology, could help students find a career as a technician at Micron. A new partnership with the company also helped expand the welding program in the hopes of filling jobs at the fab construction site, but uneven demand from students presents a challenge.



After four straight years of declining enrollment, DTEC shut down its mechatronics program and had to move students to other popular programs like precision machining or pre-engineering instead. Mechatronics combines electronics and mechanical engineering, which includes teaching skills like soldering that would train students for work on semiconductors.

Heading into the 2025-2026 school year, only nine students asked to register for the second year of the program, and three signed up for the third year. DTEC Principal Jeff Roberts said all of the students in the now-shuttered program were moved to other programs with components of what used to be taught in mechatronics so they could continue on toward graduation.

"Our challenge at DTEC is to pair industry demand with student interest," Roberts said. "Unfortunately, we had a very large disparity between student interest and industry demand. We just could not get students involved. In mechatronics, we just didn't have students interested and the program was not sustainable, which is very difficult."

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## Chip industry expects tens of thousands of jobs to be unfilled

It's not just Boise wondering who will fill the positions on the production lines of America's newly expanded semiconductor manufacturing facilities.

A [July 2023 report from the Semiconductor Industry Association](#) estimated the industry would add 115,000 new jobs by 2030, a more than 30% increase to the nation's chip-related workforce. The report estimated 67,000 of the new jobs risk going unfilled based on the completion rates at all degree levels. Just shy of 40% of those jobs are estimated to be technicians who require certificates or two-year degrees in programs like mechatronics or other subjects taught at DTEC. Another 35% of the jobs the semiconductor industry expects will be left unfilled will be engineers with four-year degrees.

The semiconductor industry has long relied on highly skilled foreign workers sponsored by companies like Micron, so they receive H1B visas from the federal government to work in the United States. Filling positions with these workers could become more complicated after President Donald Trump issued an executive order in September requiring companies to pay \$100,000 per visa in an attempt to keep these jobs open for Americans. A website [listing H1B jobs lists dozens of openings in Boise at Micron](#).



Progress on Micron's Boise expansion in June 2025. Photo: Courtesy Matt Roderick/Rapid Aerial-Special to BoiseDev

It's unknown exactly how the semiconductor industry will be impacted by the executive order. Last month, [Trump made waves with some of his most conservative supporters](#) for making comments in support of foreign workers to specifically work in the semiconductor industry to train American workers. The September executive order includes an exemption for employers, workers, or industries found by the Secretary of Homeland Security to be "in the nation's interest and does not pose a threat to the security or welfare of the United States."

"I love my conservative friends. I love (Make America Great Again)," Trump said, referencing the most conservative wing of the Republican party named after his famous campaign phrase from 2016. "But this is MAGA, and those people are going to teach our people how to make computer chips, and in a short period of time, our people are going to be doing great."

When asked about how Micron is preparing to staff local workers to fill positions at the fab, company spokesperson Aparna Rau said the company is making "significant" investments in Idaho's education system to grow the workforce pipeline. She said this includes partnerships with K-12 schools, nonprofits, community colleges, and universities, and establishing a [Boise Training Center](#) to prepare workers. She also pointed to federally registered apprenticeship programs with the College of Western Idaho, which currently offers an associate's degrees and technical certificates in Mechatronics and Semiconductor Manufacturing Technology, and the Idaho Manufacturing Alliance.



Rau said Micron is partnering with more than 15 local high schools to strengthen Career & Technical Education, but declined to name the specific schools.

Roberts said both the pre-engineering track and the precision machining programs at DTEC include elements of skills Micron needs, like computer-assisted design, programming, and robotics that prepare students to later work in nanotechnology.

"We have a huge amount of students from both of those programs who are trained with an understanding of the needs of the fab," he said. "They also need technicians and every one of our programs is steeped in the technical aspect of that. DTEC is very well positioned to help Micron in the future and continue to do that."



## A welding boom with a Micron boost

Despite the lack of interest in mechatronics, there is no shortage of students wanting to learn welding.

Roberts said DTEC has seen a growing demand for students to get into its three-year welding program. This sets up students who complete the program for work in apprenticeships in their senior year and could lead them to a job site, working at Micron or a manufacturing job in the Treasure Valley, soon after graduation.

Bryssa Beck, a second-year welding student at DTEC, said she hopes to land a summer job fixing farm equipment over the summer to test her skills. She's one of dozens of students at DTEC's recently expanded welding program.





Elia Wood welds at the Dennis Technical Education Center while Bryssa Beck observes. Photo: Margaret Carmel/BoiseDev

"I really liked the idea of being able to build something and knowing that you can build just about anything with metal and welding," she said.

Roberts said that Micron provided \$325,000 through a Workforce Development Grant. "This was a one-time grant to help pay for the costs of expanding the Welding program. We used the grant in part to convert the room you welded in, which was previously storage, and the other fabrication area we walked through."

"Our capacity before the expansion was 144 students. With the expansion, our total student capacity is 216," he said. "Even with the last expansion, we are not able to accommodate the number of requests for the class, but we hope to find ways to continue growing the program in the future."



Roberts said DTEC was able to use the grant to expand the spaces available in the program with more welding booth space and equipment, thanks to the partnership with Micron. The school has three full-time welding teachers and could easily add another if there were more space after all the slots for students are completely full.

He said the school heard from industry professionals advising DTEC on developing the welding program that there is a high need for welders right now to build the fab at Micron, which is still more than a year from the first chips rolling off the production line.

"We met with the welding technical advisory committee representative and said he could hire 3,000 welders right now if he had the ability to hire them for this project at Micron," he said.



