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Meet a millennial mom who resurrected her career with a 10-day crash course on semiconductors. She landed a new job, learned new skills, and says the pay outweighs long hours.

Jacob Zinkula Aug 6, 2023, 4:15 AM MST

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Lisa Strothers in a "bunny suit" Tennessee Promise

Lisa Strothers, 36, was laid off from her job last April.

She enrolled in a 10-day semiconductor training course and landed a new job at Intel soon after.

Schools across the country are working with chipmakers to meet their growing demand for workers.

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When Lisa Strothers, 36, was laid off from her mortgage industry job in April of last year, the Arizona-based single mom wasn't sure what to do next.

A few weeks later, she told Insider, she received an email about the "Quick Start" program — a 10-day crash course on how to be a semiconductor processing technician. The program, the product of a new partnership between major semiconductor companies — notably Intel and Taiwan Semiconductor Manufacturing Company — and three community colleges in Arizona's Maricopa County, was looking for applicants to take part in a test pilot version of the program that June.

Strothers, who has a Bachelor's degree in film and media studies and a Master's in human services, said she wasn't very familiar with the semiconductor industry at the time. She decided to apply because the program appeared to be open to a wide range of candidates, and she was guaranteed an interview with a semiconductor company if she successfully completed the course. It was also convenient that the program was set to be held at Mesa

Community College (only a 15-minute drive from her home) and she wasn't working, which made the two-week, four-hours-per-day commitment feel manageable.

"They let you know in that email, 'You do not have to have experience. We're going to train you. We're going to provide you with the basics that you need,'" she said. "So that's what intrigued me and made me move forward, because it was like, 'Okay, this is a chance to get into the tech field without having any experience.'"

She applied, went through a virtual interview process, learned she had been selected, and started soon after. Since officially kicking off in July, over 600 students have taken part in the program at one of three Maricopa County community colleges (MCCC).

The program's recent origins — and brevity — reflect the growing demand for US workers in the semiconductor industry. Last summer, President Biden signed into law the Chips and Science Act, which included over $52 billion in semiconductor subsidies to bolster supply chains and reduce the US's dependence on China and Taiwan.

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The legislation has helped spur the building of US factories that produce the semiconductor chips that power everything from iPhones to cars to washing machines. But in the US, the center of

the industry is Arizona, the nation's leader in semiconductor investment and the home to two of the three largest semiconductor manufacturers in the world: Intel and TSMC. Since February of 2021, 24 semiconductor-related companies have announced plans to expand or relocate their operations in Arizona, per Axios.

Programs like the one enrolled in by Strothers are designed to address a shortage of skilled workers. Deloitte estimates that the industry could face a shortfall of 70,000 to 90,000 workers over the next few years — something that's already caused the opening of a TSMC facility to be delayed until 2025.

On cue, community colleges and universities across the country are partnering with chipmakers like Intel, TSMC, Micron, and GlobalFoundries to try and close the gap. The Quick Start program's website says that semiconductor companies will hire over 20,000 workers in Arizona in the coming years.

A Quick Start program class Cesar Becerra

How to become a semiconductor technician in 10 days

In addition to a $15 registration fee, the tuition for the 10-day MCCC course is $291. But the tuition isn't paid up front, and any Arizona resident who successfully passes the course has their tuition fully covered by grant funding — non-residents are partially covered. Costs are subject to changes in future grant funding, an MCCC representative noted.

Strothers said that most of the 15 to 20 students in her class — which consisted entirely of women — didn't have any tech background. The test pilot group was sourced by Fresh Start Women's Foundation, a Phoenix-based nonprofit, in collaboration with MCCC.

As of June, 66% of students who enrolled in the program have been people of color, one-third have been women, and nearly half have been between the ages of 18 and 29, according to MCCC data.

Strothers said the 10-day course consisted of a mix of lecturing and hands-on experience, and that all of her instructors were Intel employees, which provided valuable firsthand knowledge of what it's like to work in the semiconductor industry.

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In lectures, she said she learned about the specific role semiconductor processing technicians play in the manufacturing process. During the hands-on portion, students put on "bunny suits" — garments used to minimize contaminants — and practiced performing troubleshooting on a variety of tools in a simulation fab.

Lisa Strothers Lisa Strothers

The course concluded at the end of the two weeks with a final exam, which Strothers said had written and hands-on components. She passed the exam and received her program certificate — a semiconductor pre-apprentice credential. Among students who attempted the full program, 93% of them earned the final certification as of June, according to MCCC.

Less than a week later, Strothers began interviewing for new roles — the interviews are typically set up at job fairs on MCCC's campuses. She ultimately landed a semiconductor processing technician role at Intel's Ocotillo factory, which she began last August — just four months after she'd been laid off.

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Of 240 former Quick Start students who filled out an employment outcome form as of June 30th, 75, or 31%, said they had been "hired in field," per MCCC. The others were either still looking for employment, 58%, or not looking for work, 8%.

Despite the program's strong connection to Intel, an MCCC representative told Insider that all the area's semiconductor companies are part of an advisory board that oversees the program and that the goal is to funnel students to all of these employers.

The 12-hour shifts are tough, but the job is "never boring"

Strothers said there are pros and cons to the job.

Pros: She's earning a bit more than she did at her previous role and said Intel has a solid benefits program.

Strothers declined to provide her income for privacy reasons, but the average annual income of Quick Start graduates is roughly $43,000, according to Fresh Start. The MCCC website says entry-level technicians earn $20 to $25 per hour depending on their experience. The Bureau of Labor Statistics lists the median annual income for semiconductor processing technicians at roughly $45,000.

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Another positive: The job is "never boring."

"Every day you come to work, you are going to learn something different," she said. "I like that this job keeps my interest. I'm constantly learning and I'm constantly in training here."

Cesar Becerra Cesar Becerra

Strothers described her position as a "point of contact" role — a middle person between the techs who physically work on the tools and the engineers, which they call "tool owners."

She said most days consist of a few morning meetings, and then she is given a list of tasks that are typically related to troubleshooting or maintenance on a tool. She said most of her work is done on a computer, but that some of the "health checks" on tools are more hands-on.

She also said she really likes her team. Even though she's the only one without any prior background in the field, she said they are all very patient and help her learn.

The biggest downside to her job, Strothers said, is her schedule, which consists of 12-hour shifts three-to-four days per week — the number of days changes each week.

"I start work at 5:45 AM, and I get off at 6:15 PM," she said. "So, having that type of schedule, and obviously being a single mom, that's been a little difficult."

Strothers has two pieces of advice for anyone considering enrolling in MCCC's Quick Start course — where there's currently a lengthy waiting list — or a similar program.

First, be open to learning.

"Regardless of what you know and what you feel like you think you know, I felt like that you just need to be teachable, open-minded, willing to learn and willing to take constructive criticism," she said.

Second, be patient with yourself.

"It's overwhelming when you do not know this information, and you're new to the field," she said. "But as long as you're patient with yourself, and you're paying attention, and coming to class, and believing in yourself you'll be fine."

Going forward, she said she plans to stay at Intel because there could be a variety of opportunities for her — she said no one on her team is in the same role they started in. She said she hopes to eventually find a position with a schedule that will allow her to spend more time with her nine-year-old daughter.

"We are a semiconducting company, but we also need people who can do this and do that," she said. "We have to have a legal team. We have to have a media team. They're letting you know this is a step in the door, but there are so many different places you can go with it."

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