

Building a Skilled Workforce

Manufacturers and school districts work together to give students a pathway to success.

GORDON OLIVER

In Clark County, manufacturers and school districts are taking the long view as they work to give young people the skills they need to succeed in the modern workforce.



At A Glance

In Southwest Washington, manufacturers and school districts are working together to address worker shortages by introducing students to manufacturing.

The partnership helps students by giving them high school and college credit and it helps employers by helping them attract potential workers.

Emily Lovato was in familiar territory when she showed up June 15 for her first day of work at Columbia Machine, a Vancouver manufacturer of

machinery used to create concrete products. She'd been there this spring as a high school intern, learning about manufacturing and realizing that this work could possibly be for her.

Lovato, 18, was one of seven students from the Evergreen School District's Legacy High School who'd completed an internship at Columbia Machine under a program gaining traction across Clark County. Now she had returned, flush with excitement, for a summer job and her first paycheck. She doesn't have work plans beyond summer but says, "I would like to have a job like this."

As industry struggles statewide with worker shortages in a booming economy, manufacturers and school districts in Clark County are taking a long view on how to build a skilled workforce. Working with the Southwest Washington STEM Learning Network and Clark College, they've developed a program that introduces students like Lovato to manufacturing, while helping them gain soft skills to succeed in any workplace.

"I had never thought of it for myself, but I'm definitely thinking about it now."

— EMILY LOVATO, 18



Everyone stands to gain from what some call the worksite learning internship program. Students without immediate college plans discover new job and career possibilities while earning both high school and college credits. Manufacturers draw potential employees while connecting to broader networks of family and friends to dispel old beliefs that manufacturing is a dirty, undesirable profession.

“We have this history of thinking of those as bad jobs. They’re actually good jobs,” said Scott Culbertson, a math instructor at Hayes Freedom High School in the Camas School District, which this year launched an internship program with WaferTech. “They give students a pathway for success, and they don’t have to incur a lot of debt.”

The Evergreen and Camas school districts have established programs with local manufacturers SEH America, Karcher, WaferTech, and Columbia Machine. The Vancouver Public Schools will launch manufacturing internships next school year and new companies including Silicon Forest Electronics, Frito Lay, and Kyocera are coming on board.

The program’s growth has an organic, bottom-up feel, with districts and employers adapting to satisfy the needs of students within the resource constraints of businesses. The programs include a total of 90 hours of training at school and/or at the job site, although some districts are now offering a “remote” classroom version with fewer worksite hours due to logistics issues or restrictions on access to a worksite.

The interns aren’t assigned make-work tasks, nor are they taking on duties of paid employees. Rather, their learning begins with how to apply for jobs and extends into the fundamentals of Lean manufacturing, statistical product control and safety using the online Certified Production Technician curriculum. Employers typically assign interns



“We think it is replicable in any community that has industry and is interested in workforce development.”

— TED FELLER, EXECUTIVE DIRECTOR, SOUTHWEST WASHINGTON STEM NETWORK

to work on real problems or look for inefficiencies in their manufacturing operations and ask them to offer possible solutions. It’s not uncommon for the employers to implement the intern recommendations.

Ted Feller, executive director of the Southwest Washington STEM Network, believes the fast-growing program can be a model for other communities.

“We think it is replicable in any community that has industry and is interested in workforce development,” he said. Regardless of the types of businesses in a community, “the constant is that the need for 21st Century skill development is universal to industry and the need for job readiness is universal to youth.”

FROM INTERNSHIP TO EMPLOYMENT

The program began in 2011 as a partnership between Vancouver silicon wafer manufacturer SEH America and Evergreen Public Schools. The company, one of Clark County's largest employers, wanted to increase its pool of machine operators and the 26,000-student school

"We have this history of thinking of those jobs as bad jobs. They're actually good jobs."

— SCOTT CULBERTSON, MATH INSTRUCTOR, HAYES FREEDOM HIGH SCHOOL
IN THE CAMAS SCHOOL DISTRICT



district wanted to make sure it was offering options for students not going to college, says Natalie Pacholl, Training Program Specialist at SEH America.

The need for skilled manufacturing employees has only grown since then. Clark County was home to 13,500 manufacturing jobs in 2016, an increase of 2,000 from the recession's low point in 2010, according to the Washington Employment Security Department. And with the Clark County unemployment rate hovering at 5 percent, competition for workers is tight.

SEH remains one of the largest partners in the program, hosting about 40 interns per year. "I try to find things that will be value-added and not too difficult to manage," Pacholl says. Those include using Google Tools and learning how to gather and organize data. The

students earn a half-credit from their high school and three from Clark College, a two-year college that offers dozens of technical training programs.

SEH America has hired about one-third of the approximately 200 students who have gone through the internship program. Breanna Reeves, 21, was an intern there as a student at the Evergreen district's Heritage High School. She's now a production operator at SEH.

"They offered me the job two weeks before I graduated," Reeves said. "I had the orientation at 6 a.m. the day of my graduation, and the graduation was at 8 p.m. that night."

In her three years there, Reeves has earned four promotions. She earns enough to live on her own and has good benefits, including an opportunity for tuition funding if she decides to go to school.

"SEH will constantly move you up," said Reeves, who's disappointed that she's one of just a few women machine operators. "They will train you for every job you want." Feller encourages school districts to try to achieve a balance of boys and girls that matches the school's demographic and to make sure the program doesn't fill up only with college-bound students. But college-bound interns also find their internships valuable for their future careers.

Owen Stuber, a graduating senior at Hayes Freedom High School in Camas, is headed to Washington State University in Pullman next fall. But he said his internship at WaferTech gives him a backup plan, particularly since WaferTech would help pay for his college in some fields if he agreed to work for the company after graduation.

In her internship at Columbia Machine, Lovato worked with other interns on improving efficiencies at the heavy manufacturing company. They created a "spaghetti diagram" of worker movements and came up with ways ideas for reorganizing a materials storage area to improve efficiency.

This summer she and the other former interns will work primarily on plant maintenance. But they'll also look for ways to improve one small area of the production plant as a model work area using Lean principles, said Kris Langdon, Continuous Improvement Manager at Columbia Machine.

Before her internship, Lovato thought she would work in an office or as a barista, but her experience at Columbia Machine now has her considering manufacturing.

"I had never thought about it for myself, but I'm definitely thinking about it now," she said. ☰