Robots Are Coming and Oregon Community Colleges Are Trying to Deal with It

By JACOB LEWIN (PEOPLE/JACOB-LEWIN) • MAY 9, 2017

Oregon may have record low unemployment, but the jobs added recently have been at the top or the bottom of the pay scale. Some of those at the bottom may be eaten up by automation in the future. Economists think these trends will make Oregon's 17 community colleges critical to the state's success in filling so-called middle-wage jobs.

These days you never know where you'll find robots on the job:

At Darlene Sichley's dairy farm near Silverton a robot i-d's the cows, feeds them, and milks them:

Even scratches the cows' backs. According to a study by McKinsey Consulting, existing technology could automate 45-percent of the activities that people are paid to do. That poses a challenge for community colleges. How to train Oregonians for jobs that pay relatively well, won't be automated, and won't go overseas:

"A lot of the jobs that community colleges are training Oregonians for you can't outsource. Some of your folks working in advanced manufacturing, firefighters, law enforcement, nurses."

Patrick Crane with the state Higher Education Coordinating Commission, says those are also jobs not likely to be replaced by technology. Take a field you may never have heard of: mechatronics, offered at Linn-Benton Community College:

"Mechatronics is a type of advanced manufacturing. You're still making things. You're just not making them only with your hands. You're using your hands, your mind, your computers."

Thirty students in that field will have jobs in a local food processing plant, running and repairing high tech equipment with a median pay of $27 dollars an hour. Meanwhile Columbia Gorge Community College is training wind technicians, Blue Mountain teaches students how to use drones to make irrigation efficient, and Lane Community College has a national model energy management program.

The McKinsey report says jobs less likely to go away involve managing others and doing what it calls unpredictable physical work, which could mean a craft. ECONorthwest economist John Tapogna says what jobs seekers need:

"Good analytic skills combined with social skills and you can see it over the course of the last century. The
occupations that combined math and social skills have grown and those that didn’t have declined.

It's bottling time at some Oregon wineries. There are more than seven hundred of them. Jessica Sandrock directs the wine studies program at Chemeketa Community College:

"The winemakers in Oregon are producing very high quality pinot noir because of the location, the specific regions within the Willamette Valley, within the Columbia Valley, in southern Oregon. It's all very site specific.

Chemeketa, along with a program at Umpqua Community College, teaches vineyard management and wine making.

James Brown is a student at Chemeketa:

"I want to be part of this industry that still's got some growth left in it. It's not slowing down, and at some point I'll be able to have my bottle of wine to share with my family. That's kind of the dream."

John Tapogna says to get a job that pays relatively well, some kind of post-secondary education is critical:

"Community colleges are right at the center of what has to be a transformation in the U.S. education system. In essence, what they are is an important piece of a talent supply chain."

But Tapogna sees a lot of churn in the system:

"You see an awful lot of enrollment and not a tremendous amount of tangible degree or certificate productivity way too many students coming in without as much initial guidance or direction as they should have."

In fact, community colleges don't know the graduation rates for career-tech programs overall. They say such number might not be meaningful. The joke at college welding programs is that no one graduates...because they get jobs first. But the schools have trouble tracking what jobs students do get. The other criticism is that community colleges are not responsive enough. Portland Community College has six-hundred applicants for its registered nursing program and sixty-four openings. There are twelve-hundred high-paying nurses' jobs open in Portland and nearly five-thousand around the state. Lane faces a similar situation. The state's Patrick Crane says that's not a flexibility problem. It's a money problem, and with a state budget shortfall, it may get worse for community colleges:

"A lot of them will have to close programs that have high cost of delivery and many of those are in the career technical education areas."

Crane says there are so few slots for students at community college nursing programs because it costs so much to hire experienced nurses to teach.
Both Crane and Tapogna agree that community colleges are improving at identifying local needs. One of the examples might be found at an Astoria cemetery where stained glass windows are being restored at a mausoleum.

Astoria is one of the oldest cities on the West Coast and the Historic Restoration program at Clatsop Community College is thriving:

"We teach stained glass window repair, woodworking skills, faux finishing. We do blacksmithing."

Instructor Lucien Swerdloff. The high-paying jobs his students get won't be automated and won't be offshore.

"Historic preservation by its nature is local because you are working on a building that exists in a certain place, it's labor intensive. It's really providing jobs for the local economy."

And the robots at Oregon dairies need folks to repair them with skills they can now get at community college.

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