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Job Training in Aerospace Takes Flight at Community College in Washington

By Collin Eaton

Aerospace companies in Washington State have found a new way to replenish their aging work force with young, high-skilled factory workers: Look to Edmonds Community College.

The college, in Lynnwood, Wash., offers an intensive 12-week course that teaches students how to drill into metals like titanium and other skills connected with building aerospace products. Students who pass the course get an automatic interview with the Boeing Company, a major employer in the state and one of the world's biggest airplane makers. So far, 424 of Edmonds's students have passed the course—that's a 90 percent graduation rate—and more than three out of four of them have found jobs at Boeing.

Edmonds teamed up with the Aerospace Futures Alliance of Washington, the trade association for Washington's fleet of aircraft makers, last spring to create an industry-driven education program responsive to the needs of aerospace companies. Their top need: young, high-skilled workers. The average age of an aerospace-factory worker is 48. Twenty five percent of aerospace-factory workers are eligible for retirement, another 25 percent will be eligible in five years, and a total of 75 percent will be eligible in the next 10 to 15 years.

The alliance had sought an educational partnership with a community college for at least six years, but after shopping the idea of an outside training center to several such colleges in Washington, it found no takers, in part because the industry is a high-maintenance partner, driven by quarterly results and tight deadlines. Edmonds was the first to sign up.

"We have to be quick and industry-responsive," says Cyndi Schaeffer, executive director of Edmonds's Business Training Center. "That means we have to hire subject-matter experts to develop curriculum immediately. We don't have a couple of quarters to develop curriculum, and it has to be

done right, validated not only by the large aerospace companies but by the small and medium-sized companies as well."

Teaching Multiple Skills

Edmonds had to think creatively to make the partnership work, says Larry D. Cluphf, director of the Washington Aerospace Training and Research Center, where the hands-on portion of the course takes place. When Edmonds opened the doors in June 2010, the course enrolled 19 students. Since then, after the company developed an online portion of the curriculum, the course has grown from serving 20 to 40 students in a three-month period, to serving 180 people in a one-month period, if the need arises. Students read about three chapters a day during the online portion, and Mr. Cluphf happily rattles off the skills students learn in the course: riveting, torquing, wing-structure projects, fuselage-skin assembly, and drilling into titanium, just to name a few.

Meanwhile, aerospace companies are saving by not having to hire their own instructors, pay trainees, provide building space, and supply materials. Boeing donated \$2.5-million in drills, metals, and other tools and equipment for the course, and an industry-heavy advisory board helped create the curriculum. The aerospace companies have openings for high-skilled jobs that pay \$14 or \$15 per hour.

But the industry faces challenges. Aerospace companies will hire or lay off hundreds of workers in cycles every few years as airplane production drops off or picks up, and technology has evolved much faster than aerospace companies can train workers in new skills. Before Edmonds, that made for awkward timing in forging a partnership with a community college, says Linda G. Lanham, the alliance's president and executive director.

"We had talked to all kinds of community colleges," Ms. Lanham says. When the industry hit a high in hiring, "the education community would step up to the plate, but when it started to drop, they walked away. So when we started building up the cycles, no one was really ready to meet the needs again."

No one, that is, besides Edmonds. After the program began, other challenges remained. Finding the money to run the program is always an obstacle, but even more fundamental is finding students with high motivation and strong work ethics, Ms. Lanham says. Companies will fire lazy workers, so the course also teaches students about getting to their jobs on time, conflict resolution, accountability, team building, and the like.

"We don't want people to graduate and miss their interview or be late every day for work," Ms. Schaeffer says. "Industry across the board said we've got to teach our students work ethics, work standards, and soft skills. If they're bad workers, then industry isn't going to want them."

But so far, that issue is being dealt with, and the industry's needs are well met, Ms. Lanham says. When she approached Edmonds, "I thought, yeah, right, this isn't going to work," she says. "But every time I drive up there, I'm blown away."