In the last few years, Pratt & Whitney, like many other aerospace and defense companies, has contended with employee attrition and a dearth of qualified candidates to fill the spaces left by departing workers. To combat these factors, Pratt & Whitney’s Columbus, Georgia Engine Center has partnered with the Muscogee County and Harris County School Districts and Columbus Technical College to identify high school students interested in aerospace and manufacturing careers and administer a program that allows these students to work as Gas Turbine Engine Mechanic Apprentices and become Certified Manufacturing Specialists (CMS).

The Story

In the fall of 2009, Tom Bode, Director of Pratt & Whitney’s Columbus Engine Center, Victor Morales, Training Coordinator at the Center, Jamie Loyd, Vice-President of Economic Development for Columbus Technical College, and Tim Vinson, Youth Apprenticeship Coordinator for the Muscogee County School District, met to discuss strategies to encourage more students to pursue manufacturing careers. The answer they devised was the “Flight Plan to Success,” a program through which these three organizations collaborate to give students the education and on-the-job experience that will prepare them for careers in aerospace and manufacturing at Pratt & Whitney or elsewhere.
How It Works

First, high school students in the Muscogee County and Harris County School Districts, who have taken career and technical education courses and shown interest in pursuing postsecondary education along this path, are recommended by their teachers to participate in this program. These students, most in their first semester of senior year, take a Certified Manufacturing course at Columbus Technical College where they learn relevant industry skills, organizational principles, and workplace safety. Students receive one high school elective credit for this class. Students then take the Georgia Work Ready Assessment (ACT Workkeys), and must receive at least a silver level certificate to be eligible to intern at Pratt & Whitney.

In the five year history of this program, almost all participants have exceeded expectations and earned a gold level certificate. Students also learn interview skills and practice them in mock interviews before interviewing with Pratt & Whitney’s Human Resources Department for the paid internship that is the next step in this program.

This internship is competitive and only six students are selected per semester. Those selected obtain valuable workplace experience by working at Pratt & Whitney’s Columbus Engine Center for 19 hours each week (3:45-8:45 pm Monday through Thursday). Students work on the various sections of the gas turbine rebuilding line and collaborate with a mentor who provides instruction and feedback.

At the conclusion of the program students receive CMS Certification and can apply for full time jobs at Pratt & Whitney or elsewhere. If they are applying at Pratt & Whitney, their eligibility is determined by their performance evaluations during their internship. The majority of the students who complete this internship do end up working for Pratt & Whitney, and these hires tend to stick around because of their experience and knowledge of the company. Morales notes that only one of the interns who became a full-time employee has left Pratt & Whitney, and that was to go to college.

If students from the program work for Pratt & Whitney for 12 months, they may pursue a bachelor’s or master’s degree at Pratt & Whitney’s expense through the company’s Employee Scholar Program. They also have the option to work through the FAA’s Power Plant Licensing Curriculum, under which they will receive instruction from South Georgia Technical College, Embry-Riddle School of Aviation, and Pratt & Whitney’s training staff. Upon completion of this instruction, employees take a test to obtain their license.

The Business Case

This program creates a network of suitable candidates to fill high-skilled aerospace manufacturing positions and allows Pratt & Whitney to operate at maximum efficiency while giving students the chance to become qualified for exciting positions that lead to long term careers. To date, Pratt & Whitney has hired 27 program graduates as full-time employees.

Additionally, this program offers Pratt & Whitney an opportunity to grow by solidifying their local presence and establishing a pipeline of local talent. “One of our big challenges as we’ve gone through growth is to find local talent,” comments Bode. “It’s been a great help for us. Now, when we go to ask for expansions, it gives us the ability to say we have local talent we developed, a workforce here that’s willing to step up and become part of the aviation business. It’s really been phenomenal.”

Finally, the program has gained recognition from external sources, being named a finalist for the 2012 Georgia STEM Partnership of the Year Award and being recognized in July 2013 as a Georgia Youth Apprenticeship Unique Public-Private-Public Partnership of the Year. This program benefits students, employers, and the economy, and provides a template for how successful work-based learning programs may look in aerospace and other fields characterized by rapid technological change.

STUDENT SUCCESS STORY

Justin Wilson

Justin was one of the first participants in the program, graduating from Hardaway High in Columbus in 2010 and securing employment with Pratt & Whitney shortly thereafter. Wilson emphasizes how the program provides valuable opportunities for students to take postsecondary classes and receive on-the-job training simultaneously. “We come here with limited schooling right out of high school, but they give you an opportunity to excel,” he remarked. “It’s a great program.”

Wilson also appreciates the responsibility that the position requires. “I always think about there being a couple hundred people on this plane, so you have to make sure you go over your work,” he stated, describing the engines he assists in producing. Wilson plans to enter college soon.

Students, educators and administrators in the program gather to celebrate recognition by the Muscogee School District

LEARN MORE

http://www.pw.utc.com/Home
http://www.columbustech.edu/2013/09/30/pratt_mcsd_partnership_recognized/
Tim Vinson at vinson.timothy.g@muscogee.k12.ga.us
Kevin Oshinskie at koshinskie@acteonline.org
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