Work Study: Leveraging Partnerships to Meet Industry Need

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Room 309/310  2:15-3:00

Presenters:

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P.I. NSFATE #1400354:

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Current Situation and Risk

Percent of Honda Mfg. workforce

- Production Associate: 88%
- Manufacturing Technician: 6%
- Manufacturing Engineer: 6%

Production Associate

- Degree requirement: High school diploma / GED
- Responsibilities include:
  - Equipment setup
  - Equipment operation
  - Parts installation
  - Quality confirmation

Manufacturing Technician

- Degree requirement: Two year technical degree
- Responsibilities include:
  - Perform Equipment preventive maintenance
  - Troubleshoot equipment breakdowns
  - Communicate equipment issues to team through written and oral methods
  - Maintain trouble reports and perform analysis

Manufacturing Engineer

- Degree requirement: Four year technical degree
- Responsibilities include:
  - Equipment design and integration
  - Process analysis and design
  - Quality analysis and problem solving
  - New model vehicle and equipment introduction
• Manufacturing Technology has changed drastically over the last ten years and continues to become more sophisticated and complex.

• An increased requirement of skills needed to maintain today’s manufacturing equipment - Manufacturing Technicians must be able to trouble shoot integrated systems which utilize a combination of mechanical, hydraulic, pneumatic and electrical components.

• An increasing number of current technicians are nearing retirement eligibility each year.

• An insufficient number of people are considering or entering pathways which lead to manufacturing careers.

• In the near future, several hundred thousand manufacturing jobs are predicted to go unfilled because there will not be enough skilled people to fill them.
The retirement bubble – Acutely affecting the technician role and production associates

Talent pipeline for technicians was not sufficient – we had difficulty finding candidates for 2-year college student technician internship roles

Our two year college partners were struggling attracting students to their programs

Students at all levels do not have an accurate understanding of modern manufacturing and related careers.
One Great Solution: Work Study-An Aligned Pathway
Columbus State Community College

- The college curriculum is aligned specifically with the Technician role. The curriculum is hands on, focusing on industry’s most pressing needs.

- The **work study** is a full year opposed to a single term co-op or internship.

- The first two semesters are intense, with a heavy course load, so students have skills to take to work with them.

- The schedule is designed so the students take **classes two days and work three days**.

- Intrusive Advising.
At Honda...

- The student is assigned a mentor within the department/team in which they work.
- The student is offered a compensation increase each semester of successful performance “on the job” and “in the classroom”.
- The manufacturing department / plant is evaluating the student for full-time employment immediately after start of work study.
How it started

A partnership between Columbus State Community College, Honda, and the Worthington City Schools
This initiative was awarded by the National Science Foundation Grant #DUE-1400354 for $741,509 to improve the model and accelerate its implementation to other schools and industries.

2013
- 7 students
- 1 high school
- 1 company

2014
- 19 students
- 1 high school
- 2 companies

2015
- 26 students
- 2 high schools
- 3 companies

2016
- 32 students
- 9 high schools
- 7 companies
Defining Success
Success Stories ...

Anton Dela Fuente
2015 Columbus State Graduate

Erica Miller
Current EMECH student technician

“It was a smooth transition from high school to college”

“What I really like about this program is that it combines electrical engineering and mechanical engineering, which means more career options,”
II. Why is it working?

- Passion – students, teachers, industry
- Support & Engagement – administrators, schools, community
- Intentionality
- Continuous improvement mentality
- Best practices
Are you up for the challenge to help solve the talent gap in manufacturing?
Discussion...

Columbus State Community College

Honda - The Power of Dreams

Worthington City Schools

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