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WORKFORCE
DEVELOPMENT
PARTNERS

Education at the Speed of Industry

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Forward

Within the construction workforce, there is a need for more agile and efficient training models to improve the talent supply chain of job-ready candidates to fill high-demand career pathways. The following framing questions provide insight as to how we have addressed this concern:

- How do we better align and collaborate with our education and training partners to be more agile and responsive to talent demand?
- What role do community colleges play and what do you see as the challenges and opportunities that we need to address?
- How can we improve communication and transparency between employers and community colleges?
- Given that community colleges are able to support the training and credentialing of workers for the top high-demand careers, what do they need from industry partners to fill this demand?

This how-to guide addresses the number one challenge facing every state and region of the country as baby boomers exit the workforce.

We are excited about this collaboration because it demonstrates a true public-private model in the construction industry and may prove to be replicable and scalable across other industry hubs. Our purpose for documenting our journey is to help bridge the gap between community colleges and participating employers to show proof of concept that employer-driven programs are viable, profitable and transformative.

Introduction

According to Associated General Contractors of America, over 80% of construction firms nationwide report having a hard time filling craft positions. The lack of skilled craft professionals available in today's job market is indicative of a critical skills gap with industry having to take on a majority of the burden of craft education and training. With community college enrollments down, a model of industry and education partnerships can be the answer for both colleges and industry.

In the spring of 2016, Sundt Construction approached Central Arizona College (CAC) to explore an apprenticeship partnership in heavy equipment operations. During these discussions, a larger gap in available skilled workers emerged, leading Sundt and CAC to conclude that expanding the partnership beyond apprenticeship was necessary and warranted. Three months later, updated, approved and industry-vetted curriculum was being offered — an unprecedented turnaround in collegiate curriculum process setting.

In order to meet the growing needs of commercial construction, CAC administrators worked with Sundt leadership to develop four craft pathways in structural welding, heavy equipment operations, industrial construction and pipefitting/welding.

These new and enhanced pathways were specifically customized and designed to:

- Align with NCCER Credentials and American Welding Society requirements
- Embed OSHA 30
- Consist of stackable credentials equaling 30 college credit hour
- Include workplace employability skills
- Lead to Level 1 and 2 NCCER credentials in the craft as well as a CAC credential



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Part 1: Commitment

Sustainability was the top priority for Sundt. Previous experiences in attempting to partner with higher education and other entities had failed to materialize or produce a workforce that met their expectations. There needed to be a commitment that would surpass any change in leadership, instructors or curriculum. Sundt wanted to ensure that CAC was committed to being innovative, flexible and most importantly, willing to work together. Likewise, the college was venturing into unfamiliar territory and taking a risk by starting a new workforce development program and providing new credentials. There was concern on both sides that the time and effort expended to begin such an expensive partnership may not produce the desired results for CAC or Sundt.

Historically, industry partnerships with community colleges went something like this:

- Company contacts college with a workforce development need.
- College requests funds from the company to develop a program.
- Company writes a check to the college.
- College designs a program for the company without company input.
- Company realizes that the program does not meet their needs.
- Partnership dissolves.

This is a cycle that Sundt and CAC wanted to break. To do this, they decided that the only way for both organizations to get the desired outcome was to work side-by-side and get buy-in from the top down. As part of the planning, considerable time was invested by CAC's president, department chair and faculty along with Sundt's senior vice president

and chief administrative officer, education consultant and craft workforce development manager in discussions about commitment and sustainability. A significant result of these discussions was a formal sustainability agreement signed by the college's board of governors and Sundt's board of directors.

Due to potential leadership changes, formalizing a commitment to sustainability can provide a solid foundation for embedding the partnership into the culture of both entities. To develop a truly innovative workforce development partnership, it was necessary to define what was to be expected of both parties. This commitment ended up materializing as the "trade secret" in this partnership. On campus, most people cannot tell the difference between a Sundt instructor and a CAC professor. In addition, Sundt's commitment not to hire students out of the program early removed any concerns CAC had about program enrollment numbers. This also provided Sundt with a new process for individuals with no experience looking for work — start at CAC.



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Part 2: Co-Design

The most unique attribute of this partnership is the fact that Sundt and CAC co-designed every aspect of the courses and programs jointly. The need for CAC to work at the speed of industry and develop the program quickly was successfully accomplished with faculty and industry subject matter experts working collaboratively. This was a pivotal moment in traditional higher education course and program development and design.

The process started with the specific craft competencies and skills needed by Sundt and ended with four customized and tailored academic pathways. This has led to a true partnership where Sundt provides instructors for two of the pathways, direct employee interaction with CAC students, and equipment and materials for pipefitting and welding that includes, but is not limited to, a rover, GPS equipment, shoring and trenching equipment,

a welding training wall, and pipefitting-training aide. CAC furnishes on-site lab and office space for Sundt personnel who lead instruction.

Because the college did not have curriculum in place that met Sundt's needs, it was determined that both CAC and Sundt would co-design the course content, sequencing of courses and the credential maps for the certificates. Faculty from CAC and Sundt's craft workforce development manager built the program together course by course, starting with the desired skill competencies and working backwards.

By utilizing NCCER's curricula, Sundt and CAC were able to deliver pre- and post-employment training that not only benefited Sundt and CAC but the students, by providing them with national industry-recognized credentials. It also

allowed for the quick program development and release since NCCER programs are competency-based at the modular level and flexible for customizations. In addition, particular needs of Sundt, such as work ethic skills, were built into the programs' general learning outcomes and assessed as part of the grading and evaluation of student performance. Students are assigned work-ethic points for promptness, effort and professionalism.

Building successful partnerships require academia to suspend traditional practices and utilize the skill and knowledge of industry to design the curriculum that meets industry needs and expectations. Without industry and their input, the programs will not see success in terms of recruitment or placement with employers post-graduation.



Part 3: Co-Deliver

Another tenant of successful education and industry partnerships includes co-delivering the instruction. As with the challenge of designing new curriculum and credentials, there was a need to find qualified faculty to teach the new programs. As a result, the decision was made to utilize Sundt employees to serve as adjunct instructors.



Hands-On-Learning

Sundt employees bring current trends and industry standards to the classroom while incorporating the sense of an actual work environment. Much of the hands-on training takes places in a jobsite-like environment. Students spend the majority of their time out in the elements where they deal with weather, dust, noise and changing environments. This is crucial for retention with employers.

Teaching Is Donated

Sundt instructors' time is donated by Sundt, therefore Sundt pays the instructors for time spent teaching at CAC. If the instructional time falls out of normal business hours, then CAC works out a contract with the Sundt employee for compensation.

Expert Instructors

All Sundt and CAC instructors are subject matter experts having spent time as journeymen and/or supervisors in their field of expertise. Sundt has 28 NCCER certified instructors within the company and will at times bring additional instructors in to support a specific area of instruction.

Student Recruitment

As there are many companies that recruit the students out of this program, other contractors are invited in to teach specific portions of the curriculum. This allows the students to hear from other contractors and learn about their organizations.

Beyond Construction

Sundt/CAC instructors go beyond the technical craft instruction by covering topics such as:

- Finances
- HR Benefits
- Retirement

Brand Awareness

Sundt provides the students in the program with backpacks and hard hats which gives them a sense of connection to the industry. This provides Sundt with the opportunity to expand their brand.

NCCER Curricula

By utilizing NCCER curricula, there is confidence that the content is being reviewed and updated on an ongoing basis as technology, safety and codes change. This also reduces costs of rewrites or updates the college would typically be responsible for.

Co-delivering a partnership program not only provides students with a meaningful connection to industry standards but allows for college faculty to be constantly engaged with industry professionals and exposed to new and emerging trends.

Part 4: Constant Engagement

For a truly successful partnership, a high level of continued engagement is vital for program sustainability and for demonstrating ongoing commitment. These mechanisms should go beyond yearly advisory committee meetings that are made up of diverse employers. Since forging the partnership, Sundt and CAC have co-presented at local, state and national conferences and events including:

- National ACCE (American Council for Construction Education) Conference
- National ACTE (Association for Career and Technical Education) Conference
- NCCER Construction Career Pathways Conference
- Texas Construction Institute Summit
- Arizona Construction Career Days
- National Associated General Contractors' Conference
- Welding Thunder
- Arizona Regional SkillsUSA
- Arizona SkillsUSA Championships
- National SkillsUSA

These events are critical in promoting the Sundt/CAC program as well as awareness of the construction industry. Through these types of events, along with school visits, we have been able to grow our program to near capacity in less than three years. It is events like those listed that CTE teachers, counselors and administration become aware of this program and see the benefits for their students.



Commitment to Connection

Constant and meaningful engagement is critical for successful partnerships and enables the partners to stay connected and united in their purpose. Additional ways the two organizations stay connected are:

- With the Sundt office on campus, faculty and recruiters can meet with students about employment opportunities and visit the classrooms to share information about current and upcoming open positions within the company.
- The leadership at Sundt and CAC meet or talk on a weekly basis to ensure consistent and clear communication is taking place.
- The Sundt Director and CAC Director walk all areas and have conversations with the students and staff ensuring that all needs are being met.
- CAC and Sundt instructors stay in constant communication concerning students, upcoming classes and equipment needs.

Part 5: Outcomes

Students began coursework in August 2017 in heavy equipment operations, welding and pipefitting, and in October 2017, the newly created program for industrial carpentry.

Once students earn their certificates, those who are hired by Sundt receive a sign-on bonus for completing the Sundt/CAC Workforce Development program.

The new approach is working, and the results speak for themselves. CAC's construction technology program was dwindling annually prior to the partnership, with enrollment numbers around 40 students. At the beginning of the 2017 fall semester, more than 100 students were already enrolled in the Sundt-CAC Pre-Employment Pathways Training Programs, and in the spring of 2018, that number rose to 196 students.

In the fall of 2019, the program swelled to 328 students, essentially maxing out the capacity at the main campus. CAC has since expanded the skilled craft programs to two additional campuses, with a focus on electrical and an additional welding location. They also added industry partners following the same model established between Sundt and CAC.



Measuring Success

During our two-year journey we have begun to answer the question:

What does success look like for Sundt and Central Arizona College?

Here is how we will measure its continued success:

- Number of individuals who enroll in the college construction program
- Number of individuals who complete the college program
- Number of college credentials awarded through the program
- Number of industry certifications awarded to completer's of the program
- Number of actual position vacancies at participating businesses/corporations
- Number of projected position vacancies at participating businesses/corporations (e.g. 1-year out; 2-years out; etc.)
- Number of successful completer's employed by businesses/corporations
- Number of apprenticeships offered by employers
- Percent of vacancies filled by the number of completer's employed

Conclusion

The four Cs (Commitment, Co-Design, Co-Deliver and Constant Engagement) are critical to the success of this program.

Commitment

- Leaders in both the college and construction firm must participate in the development of a sustainability agreement.
- The industry partner must agree not to hire students before program completion.
- College must agree to develop program based on the needs and lead of the industry partner.

Co-Deliver

- All Sundt and CAC instructors are subject matter experts having spent time as journeymen and/or supervisors in their field of expertise. Sundt has 28 NCCER certified instructors within the company and will at times bring additional instructors in to support a specific area of instruction.

Co-Design

- A team needs to be created with employees from both organizations.
- The team will develop the course content, sequencing of courses and the credential maps for the certificates jointly.

Constant Engagement

- Co-present about program
- Weekly meetings



Collaboration Thrives

This partnership succeeds where others have failed because it is able to:

- Remove the concern of employers hiring students out of the program before they finish.
- Provide employers with programs that meet their current and specific needs in a timely fashion.
- Fill the need for qualified instructors.
- Remove the years and expense of curriculum development and maintenance.
- Provide graduating students with immediate employment opportunities.



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