

John J. Heldrich Center for Workforce Development

evaluation report

An Evaluation of Camden County College's Trade Adjustment Assistance for Community College Career Training Grant: Year 2 Program Implementation

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Introduction

This report follows up on a August 2015 program implementation evaluation report on Camden County College's (CCC) Trade Adjustment Assistance for Community College Career Training (TAACCCT) grant. CCC obtained the grant to build flexible workforce programs that respond to employer demand in the manufacturing and gas utility industries in New Jersey. The Heldrich Center provided a comprehensive evaluation of the program's implementation in Year 1 of the program. This report addresses ongoing activities in Year 2 of the program (2015). Since the focus of this report is on continued implementation and changes carried out in the program between Years 1 and 2, it does not address foundational aspects of the program, such as program goals, model, and overall staffing structure, which were covered in the first report, except where changes have occurred.

The purpose of the evaluation is to assess the extent to which CCC's TAACCCT-funded programs have addressed the U.S. Department of Labor's (2011) intentions for these grants, which are to "ensure that our nation's institutions of higher education are able to help the targeted population succeed in acquiring the skills, degrees, and credentials needed for high-wage, high-skill employment while also meeting the needs of employers for skilled workers."

Heldrich Center researchers used a variety of methods to understand how CCC is aligning workforce programs and services to meet the needs of students and employers. Program areas examined include program goals and the occupation/credential selection process; program design and staffing; recruitment, screening, and enrollment; curriculum and teaching strategies; job development; and other support services.

The Heldrich Center used the following methods to develop the findings in this report:

Interviews with Instructors and Program Staff. The evaluation team facilitated staff interviews in 2015 across multiple program sites. The Heldrich Center evaluation team also met with staff from CCC and other stakeholder groups involved in program administration. The purpose of these interviews was to collect information on how CCC was continuing to implement its TAACCCT grant, including any changes as a result of the Year 1 report. See Appendix A for a list of interviews conducted.



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Site Visits and Focus Groups with Students. The evaluation team conducted five site visits, including four that involved focus groups with students to learn about their experiences in the program, and one to observe an information session. Topics for the focus groups included students’ experiences with enrollment, instruction, and support services, as well as their perceptions of the challenges, strengths, and weaknesses of the program. The evaluation team encouraged the students to share a range of perspectives on these topics.

Employer and student surveys were planned, but the Heldrich Center was not able to obtain distribution lists from CCC on a regular basis, so the employer survey was not conducted, and too few student surveys were received to provide meaningful results.

Although surveys were not possible, the Heldrich Center obtained in-depth information on program implementation from extended focus groups with students, one-on-one interviews with instructors and program staff, and observation of program activities.

Program Implementation Findings

In its second year, the program did not make any significant changes to its goals or overall design; its process to target industries, occupations, and credentials; or its staffing structure. See the first interim evaluation report for additional information.

The following sections describe how CCC and its partners implemented key aspects of the program in 2015 and provide insights into the feedback offered by program staff and students. Because most information in Year 2 was gathered from manufacturing program sites, the detailed findings in the following sections are **for the manufacturing programs only**. Following these sections, the report provides a short summary of findings from a staff interview and a site visit to an information session for one of the utilities programs.

New Manufacturing Program Set-up

While not discussed in the first interim evaluation report, issues were raised by staff and students in Year 2 interviews and focus groups that warrant a separate discussion of the process CCC uses to set up new programs.

According to interviews with program staff and instructors, CCC's goal is to offer education to as many sites as possible where there is evidence of employer demand. Because the program has access to mobile manufacturing trailers and because starting a non-credit course can happen quickly, the process can be quite short. New programs in manufacturing are set up over a period of about four to six weeks.

When a partner college agrees to host a manufacturing program, CCC provides the trailer and associated safety documentation and training, assists in locating an instructor if the college does not have one available, connects the college with One-Stop Career Center staff, and provides curriculum tools, such as the technical instructor book, information on how to teach the class, and the student text

book. The college is responsible for purchasing equipment for the program, from cabinets to materials used on program machines, to other equipment. CCC then reimburses the college for these expenses.

Finding #1. Partner college program directors and other staff appreciated the opportunity to run the program and the support they received from CCC staff. Interviews with staff at partner colleges indicate that they were happy to have the opportunity to work with CCC to teach an in-demand skill to local residents. As one instructor said, "I can identify with a lot of these people. A working person is a great person." One instructor at a new program site described the support she received from the program as follows: "Camden provided the list of equipment in the trailer. When [the college] had me come on board, they knew there was going to be a list of consumables. They asked me to come up with that list and I have provided that...For consumables, you can't rely on Camden to provide, it should be by the college. If Camden provides the consumables, then it would be a cookie cutter design." The program administrator there remarked, "[The instructor is] stellar! He is the 'go to' person to solve any problems. He does the administrative part to make the tours, interviews, and hiring happen and coordinates with [CCC staff]." So, overall, the colleges seem enthusiastic about working with CCC to start new programs.

Finding #2. Colleges that had a prior relationship with their local Workforce Investment Board (WIB) and One-Stop reported fewer issues coordinating. At sites where college administrators had a history of working with the local workforce agencies, few issues were reported by program directors in terms of coordinating about eligibility screening for students. As one program director noted, "We have a good relationship with our WIB and One-Stop and strengthening that and getting those processes and getting them involved in that." However, at a college that had no prior relationship, the director commented, "Communication in the beginning how the consortium was going to reach out and how potential students would be qualified with unemployment and the benefits. That was the biggest challenge. The WIB doesn't get paid for doing this kind of work. That might be the lesson learned: that the WIB should have something built

in to get paid for this work. There was a coordination issue there. Labor did not do any of the qualifications. It was the One-Stop doing it."

Finding #3. Some challenges related to quick start-up times were noted by instructors and staff, including challenges attracting students, accommodating professors' needs, and establishing partnerships. Program directors expressed concerns during interviews that the fast pace of program set-up caused some unexpected issues that may affect program quality. One partner college program director stated, "The other eye opener is the time it takes to cull out appropriate students. By the time we got there, the class was ready to start. We had to run two orientation sessions." Another program director said, "There is a lot of follow-up to do to start the program. Getting the employers interested, then getting the job applicants interested, and getting the One-Stop in there to do the eligibility." Another program director agreed, saying, "The WIB was very interested in working with us. They felt that they would have needed more time. We had the trailer and the date. The WIB felt pressed and more time throughout that process is needed. That is another thing I learned: you need a long lead time to get the manufacturers on board, and selecting students. If we had a lab, our own machine shop, once we got going, it could run like clockwork."

From the teaching perspective, one instructor said, "[There] needs to be a buffer when the instructor is hired and when the program starts. Because there is a lot that is left to the instructor to work on. I was called in on a part-time consulting basis for three weeks prior to the program."

Finding #4. Instructors and program directors at some partner colleges described challenges finding funding to purchase needed program equipment, which led to delays and challenges getting supplies. Several instructors and program directors noted persistent challenges finding the funding to purchase equipment for the program. Since CCC provides funding for program supplies on a retroactive basis, partner colleges must find other ways to pay for the initial costs of materials, but these funds may not be easy to find. Two instructors who had

worked at multiple programs remarked that this was a challenge everywhere. Sometimes this resulted in ad hoc solutions like using other materials on hand at the college or with one of the instructors. In other cases, it led to delays in the delivery of cabinets, safety goggles, and other supplies.

Finding #5. Instructors, however, did not view these equipment delays as an impediment to the course. According to instructors, problems aligning the purchase of materials with course schedules is common. The instructors interviewed noted that they did not think the delays seriously affected the delivery of the course. At a program that was still waiting for a cabinet and some other supplies, the instructor said, "It has not been a problem with the students. It hasn't been holding it back." At another program, the instructor said he just brought in some material from his own shop until the program could order what he needed, so to his understanding he solved the problem and it did not affect students.

Finding #6. Students, on the other hand, saw the equipment delays as a sign of poor program coordination and quality. One student participating in a focus group stated, "We also have heard about having a cabinet for our stuff, but they don't even give us supplies like they say they are supposed to. Since everyone is borrowing tools, then we lose time. Another student noted, "The trailer gets really cold. We ran out of gas a few times. One of the students brought in diesel. They also gave us just enough materials, one piece each of aluminum. They had to order more glasses though since there were only seven glasses here." Another student commented, "The first two weeks, we didn't have the textbooks. We didn't have any materials. Most of the materials were brought by [an instructor]."

Students in several focus groups reported that they saw these delays as a poor reflection of the overall program coordination and, ultimately, its quality. So while instructors used to college bureaucracies may see these delays as normal, students see them differently and have a more negative perception of course preparedness and quality as a result.

Manufacturing Recruitment and Screening

As discussed in the first interim evaluation report, CCC established a basic framework for recruitment and screening for use in both utilities and manufacturing. This framework, while implemented with slight differences across program sites, included advertising in newspapers and on the radio, as well as through direct email to Unemployment Insurance recipients; holding comprehensive information and testing sessions in community locations, such as libraries or the college; allowing employers to interview program applicants and having input into their acceptance into the program, along with host college staff and CCC and New Jersey Community College Consortium for Workforce and Economic Development (NJCCCWED) staff; and screening students at the One-Stop Career Center for eligibility for Trade Adjustment Act assistance, other tuition assistance, and continued benefits while in training.

While the first evaluation report indicated that women especially were underrepresented in the program, there were no guidelines set by CCC in Year 2 to conduct outreach to women or other special populations, such as veterans or people with disabilities. At least one college, however, reported conducting special outreach on its own to attract veterans. College staff reported that they contacted the county veterans services agency to alert them about the program and to encourage veterans to attend. No other evidence was found that colleges were conducting targeted outreach to increase participation among underrepresented groups.

In Year 2, the program added additional screening criteria during the information sessions. As a result of findings in the first interim evaluation report that indicated students were not satisfied with salaries offered by employers, the program included a agreement in the screening process that students were required to sign before enrolling, even if they were otherwise qualified. The contract explicitly states that students agree to accept any job offered to them that is at least \$12 per hour. The intent of the agreement was to manage student wage expectations and to ensure that students were interested in working even if wages were not as high as they would like them to be.

Beyond this, however, no other changes were made to the recruitment and screening process for the program.

Finding #7. While at least one college conducted outreach to veterans, responsiveness of the veterans groups contacted was limited, so few referrals occurred. One program director mentioned conducting special outreach to veterans. The program director reached out to the county veterans department, “but was not able to reach anyone or get anywhere, but I was surprised. I thought that would be a good program.” The program did attract some older veterans, but no recently discharged veterans.

Finding #8. The program continues to recruit very few women. In the first interim evaluation report, the Heldrich Center noted that while there were a mix of ages and races in the program, there was low participation among women at information sessions and in terms of enrollment. Recommendations included conducting special outreach to attract more women to the program. During site visits in 2015, few women continued to attend information sessions and even fewer women enrolled in the program. Staff reported no special efforts to conduct outreach with women to increase female attendance at information sessions. One college official said that general outreach through the One-Stop and media outlets was conducted, but few women were interested. When asked if any special efforts were made to attract women to information sessions and to encourage them to enroll, he reported, “Not really. That’s just how it worked out.” Program administrators also did not note any new efforts to increase recruitment and enrollment of women in the program.

Finding #9. In Year 2, students reported greater awareness of the fact that they may be offered jobs with a starting salary of \$12 per hour. Because the program requires students to sign an agreement that includes wage information, more students reported that staff made it clear to them that job offers may start at \$12 per hour, instead of the \$18 to \$20 range that represents the median salary for many manufacturing jobs. In focus groups, students discussed the signed agreement and acknowledged that staff were clear that some jobs may have low starting salary offers, especially if students lacked prior experience in the industry.

Finding #10. Nonetheless, students at all manufacturing sites visited in 2015 continued to feel misled during the recruitment process regarding the content of the course and what jobs it would prepare them to do. Students at all sites visited in 2015 expressed some frustration and indicated that they did not receive complete or accurate information about the course content or the types of jobs that the course would prepare them to enter. Students reported in focus groups that due to the name of the course and the sparse details on curriculum provided in the information sessions, they assumed that they would become qualified to be CNC (computerized numerical control) operators right away. As one student said, "Well, the title of the course is Advanced Manufacturing Using CNC." Another student said, "The explanation of what the class entails would be helpful. They didn't really explain them well."

It was only after enrolling and taking the course that students reported realizing that the course spent little time on CNC operations and was really preparing them for more entry-level positions that did not require extensive knowledge of CNC. However, all of the instructors who were interviewed pointed out that they were imparting foundational knowledge about machining and safety and that the course was not designed to provide more than a basic introduction to CNC. One student said, "I came in thinking it was CNC training, and I was surprised to see that it was basic machine shop."

One instructor reported, "I really think there needs to be a better link between them [the people who are recruiting and assessing incoming students] and us. They don't understand the technical stuff we do so they don't know what to tell the students. This makes it hard when working with the students when they expect something different than what they thought they were going to learn."

Finding #11. Compared to Year 1, fewer students reported problems with accessing training benefits through the One-Stop. In Year 1, students in focus groups at several sites spent considerable time discussing the challenges they faced with getting access to benefits through the One-Stops. These students reported that they were assured that they would receive Additional Benefits while in Training, but were subsequently denied benefits

after starting the program. In Year 2, the evaluation team continued to hear reports about this at some sites, but there were fewer students complaining about this in focus groups. Overall, it seemed that students were experiencing fewer problems with accessing benefits than they did in Year 1.

Manufacturing Enrollment

As discussed in the Year 1 interim evaluation report, there are two distinct levels of enrollment. The first is **program enrollment**, which includes the processes staff use to set enrollment targets for TAACCCT programs within each college. The second level of enrollment is **college enrollment**, which includes the policies the program set that govern students' enrollment at the institutional level, which, in turn, govern students' ability to earn college credits and access on-campus facilities and services.

The program used the same processes in Year 2 as it used the previous year to manage program enrollment, including assessing job demand through quantitative and qualitative methods, and setting enrollment targets and limits based on program capacity and evidence of local demand. No significant changes were noted by staff in interviews.

The program also did not make changes to its college enrollment policies, which require students in TAACCCT programs to enroll **in the host college where the training takes place**. As a result, students are still subject to all of the host college's policies regarding earning credit and accessing on-campus facilities and services. As before, institutions delivering the training reported student enrollment and completion data to CCC for grant-tracking purposes and for outcomes assessment.

Staff reported that CCC continues to offer the option for students who take the National Institute for Metalworking Skills (NIMS) manufacturing course to apply for credit at CCC for the course to be applied toward an associate of applied science degree. Students can apply for up to 12 credits toward an associate's degree in advanced manufacturing according to interviews with CCC staff. The award of credit is based on a review of the actual NIMS coursework from the other colleges.

Finding #12. Despite using the “best practice” methods recommended in the U.S. Department of Labor (USDOL), Employment and Training Administration’s (ETA) request for applications (RFA) for gauging job vacancy demand, precisely aligning enrollment with job demand continues to be a challenge. Instructors and students reported again in Year 2 that it was difficult to accurately predict demand for graduates and to manage enrollment to align precisely with the demand.

While staff continued to use best practice methods suggested in the USDOL-ETA RFA for the TAACCCT program, instructors and students who participated in interviews and focus groups told the evaluation team that there was a constant churn of employers who were seeking workers. So, employers reporting hiring needs at the start of the program (either in online job ads or through direct employer engagement) were often not the same employers hiring workers at the end of the program.

This is not a surprising or negative finding, however. Given that the program spans several months from recruitment to graduation and the labor market is constantly changing, it is not surprising that even current best practices cannot guarantee the immediate availability of appropriate jobs for all graduates. As explored later in this report, the program reports that all students received at least one job offer and most students found jobs within a few weeks of graduation.

The reported job placement success may be influenced by the initial quantitative and qualitative research programs did to determine whether to offer a course and how many people to enroll, which provides valuable information about the general level of demand for jobs and skills in an area. However, it is clear that the dynamic nature of the labor market makes these best practice methods necessary, but not sufficient, for ensuring that enrollment aligns precisely with job demand at the end of the program. As explored later in this report, the continuous employer outreach and relationship building that program staff and instructors did throughout the year likely played a large role in ensuring that program enrollment aligned tightly with job vacancy demand, resulting in high job placement (and hopefully high wages, too).

Finding #13. Despite having a policy to award up to 12 credits for manufacturing courses completed at partner colleges, this aspect of the program was not implemented. In an interview, the person who does this review noted that he would not likely award more than three credits toward the NIMS course as it is taught in other colleges. CCC does not currently offer credit for the other manufacturing course (certified production technician) or for the utilities courses, so a similar transfer option is not available for students in these courses. A staff member from CCC noted in an interview, “After checking into it, I have not found anything supporting this transition or that it happened at all.”

Finding #14. Credit award policies for TAACCCT programs at host colleges continued to vary. According to interviews with staff and instructors at CCC and partner sites, no changes have been made in terms of standardizing credit award policies across colleges. As a result, students earn the number of credits that are awarded to them by the college that is delivering the training. In manufacturing, this can vary from 0 to 12 credits. At CCC, students can earn up to 12 credits, while another college offers 3 credits and several offer none.

Finding #15. The difference in credit award policies is somewhat related to differences in curriculum. According to interviews with instructors, curricula for the TAACCCT manufacturing program varied from site to site. Some sites, such as CCC, included a longer curriculum and more hands-on training than some others, so students could earn up to 12 credits for the course there. At other institutions, such as those that relied on the mobile trailer or those that ran shorter courses, instructors could not cover as much material. One instructor said that he covered different amounts of material in Year 2 compared to Year 1 because he had a class that could handle more material. On the other hand, at other sites, the curriculum was more limited either due to employer needs or the overall pace of learning in the class.

Finding #16. A larger contributor to the difference, however, is the difficulty of having a new course assessed for credit award at partner colleges. Staff reported in interviews that it is fairly easy to get workforce programs like TAACCCT started under the non-credit departments in county colleg-

es. By contrast, there is a lengthy process of review and assessment to determine if new programs are eligible for credit. So, unless a partner college had a similar program for which it was already offering credit, new partner colleges generally start the TAACCCT manufacturing program on a non-credit basis. The priority for CCC staff is to get the training distributed to as many students as possible to help students throughout the state get back to work. As one program administrator said, "We would like to do this for credit, but that takes time and we want to serve these students now." It is understandable, therefore, that the program would begin at new institutions on a non-credit basis.

Finding #17. Some students and staff at host colleges still lack awareness of the program's credit transfer policy for the NIMS manufacturing course. The program allows students who took a NIMS course at a local college who want to enroll in CCC's associate's degree program to transfer up to 12 credits. Some students and staff reported in focus groups and interviews that they were not aware of this policy. One instructor added that the policy was not very useful for students from northern New Jersey who are unlikely to enroll in a program at CCC.

Finding #18. The program is not likely to meet its goal to provide 95% of program completers with college credit. According to the proposal CCC submitted to USDOL, CCC planned for 95% of those who complete the program to earn credit. With a number of partner colleges not awarding credit for the program, the program is not on track to meet this goal. While CCC created an option to earn up to 12 credits by asking to have credits applied toward its advanced manufacturing associate's degree program, staff who review the applications for credit transfer told the evaluation team that there have not been any applications submitted since the program began. Overall, it is unclear what percentage of students have earned college credits, but the lack of credit available for many programs makes the original goal of 95% unreachable.

Finding #19. Credit award is often, though not always, required for students to gain access to key campus services that come with college enrollment. At colleges that offered credit for the course, students had access to a nearly full range of cam-

pus facilities and services. At most sites visited, though, students who were not earning credit were also not enrolled in the college to the extent that they could access **any** of these services or facilities beyond the classroom, with the exception of parking. However, at least one site where the manufacturing program was offered on a non-credit basis, the on-site program director successfully petitioned the college to provide access to a range of services.

Finding #20. As a result of varied college enrollment policies, students received varied levels of support and services, which may affect program outcomes. Students in focus groups reported varied levels of enrollment in the college. At some sites, students were enrolled in the college to the extent that they had access to some or all of the following: libraries, parking, computer labs, and career services, among others. As a result of the varied college enrollment policies, students received a range of different services and supports. As one student told the evaluation team, "We weren't issued school IDs, and we were unable to access the Internet while in the classroom. We weren't really considered students so we did not get an overview of the campus and what it has to offer." Overall, such different levels of access to support may have an impact on students' engagement in the program, which could affect student satisfaction, as well as academic and employment outcomes.

Manufacturing Curriculum, Teaching, and Assessment

This section discusses the state of the manufacturing curriculum implementation in 2015, as well as teaching and assessment strategies used for technical and soft skills.

Curriculum

According to interviews, the instructor at CCC taught a standardized curriculum, complete with a full syllabus. As pointed out in the first interim evaluation report, CCC developed this curriculum with employer input at the start of the program. This was shared with program sites, but instructors were not required to use it. They were encouraged to extract the relevant content necessary for NIMS

certification and to modify the curriculum to fit local needs. Manufacturing instructors at partner sites, therefore, continued to develop and modify their technical and hands-on curricula based on their own assessments of what students needed to learn, and on local employer needs. According to interviews with instructors and focus groups with students, syllabi are not provided to students as instructors vary instruction based on students' collective progress throughout the course.

For soft-skills training, interviews with instructors revealed that the program's job developer from NJCCCWED instructed staff at manufacturing partner sites to focus soft-skills training on résumé development and interview preparation. As a result, the program's curriculum no longer included lecture content on leadership development, teamwork, or other topics that had been covered at some sites in Year 1.

Teaching and Assessment Strategies

CCC's manufacturing programs continued to provide students with both hands-on and classroom-based technical training in a comprehensive approach that involved daily switching between the classroom and the hands-on training facility. Instructors used classrooms at the host college site, as well as the on-site machine shop, if available, or the mobile manufacturing trailer. As noted above, NJCCCWED staff instructed sites to focus soft-skills training on résumé development and interview preparation. As a result, teaching strategies tended to include résumé review and some level of coaching on how to interview successfully. As before, the program did not perform formal assessments for soft skills.

Finding #21. In Year 2, there was a mix of opinions among students about whether the program's curriculum was preparing them to obtain a good job in the industry. Students at each site expressed both positive and negative assessments of how well the program was preparing them for a good job. Positive comments from students about how the program was preparing them for jobs included:

- > "Yes. Going to employment now, you feel more confident. You definitely have a leg up."
- > "I think that the concept was a tremendous program. I believe there are jobs here and that's the strength of the program."
- > "I am much better off being in the program than before. My employment opportunities are better. Now if you want to continue and learn more there is an opportunity to do so. I have done courses before, I am more interested in this."
- > "I was capable of doing this stuff when I walked in the door. By taking the test, I can get the certificate to show that I can do this."
- > "This is a really good opportunity and I am happy to find this. I want to donate something to this program in the future. It really helped. I had certain skills with a construction background, the computer program allowed me to not be under-employed."

On the other hand, a number of students at different sites did not feel the program was meeting their needs. Comments included:

- > "You know, it depends. I feel like I know what is going on here, but they are offering us \$12 an hour. That's what they offer people who haven't done any training at all."
- > "Zero. It's helpful but it could be improved upon. It's out of sync with things."
- > "If it were more applicable. If it were more tied in exactly with the hands-on. And you are getting different instructors. Sometimes the instructors do not jibe well."
- > "I think this is a good introduction for getting started, but I think there should be more CNC. We are learning the basics on machining, but most places want CNC."

- > "I came in thinking it was CNC training, and I was surprised to see that it was basic machine shop."
- > "No. It is a lot of time and no job offers. I missed a lot of money being here and not getting any job options. I forgo doing what I could do. I have been searching for a bigger waste of my time than this, but maybe driving back and forth to work would be a bigger waste. To me, the class was for the shortage of machinists. It didn't meet my expectations. It's better than Lincoln Tech but that's not saying much."

Manufacturing Technical Curriculum

Finding #22. Students were generally pleased with the technical and hands-on instructors, with a few exceptions. Students at every site expressed appreciation for the instructors' knowledge and dedication. As one student stated, "It was really touching. [The assistant instructor] brought his computer to show us." Other comments from students in various focus groups included:

- > "The teachers were good. They sat down and helped."
- > "As far as classroom presentation is concerned, it was really good."
- > "[The instructor] is awesome. What he is trying to teach and how he is trying to teach, he is great!"

When asked to name the greatest strength of the program, students at several sites first mentioned the instructor. As one student said, "Industry-trained instructors. That is a big one."

However, there were a few detractors. Student comments in focus groups included:

- > "[The main instructor] was really good at teaching. [The assistant instructor] was not."
- > "It's clear to me that [the instructor] has multiple commitments and this was not a priority."

- > "There are four instructors: two doing classroom training, two doing hands-on, and they can be out of sync doing classroom instruction."

Finding #23. A few students, most concentrated at one site, expressed concerns over safety during hands-on instruction. At one site, in particular, several students were concerned about safety. One student who had experience in the manufacturing industry described how smoke came out of one machine. She said, "You should not be doing machining with fluids without proper ventilation. We have not seen the material handling safety procedures. We should have been using plastic materials." Other students at this site were also concerned about safety because they reported that instructors told them not to use a machine after a student made a mistake on it, which some students took to mean that the machines were shoddy or that they had not received proper use instructions, which led to the mistake. Other students at this site, which used the mobile manufacturing trailer, were also concerned about the safety of the temperature and ventilation conditions in the trailer, which was described as very cold in the winter and very warm in summer.

At another site, a few students reported that they felt it was unsafe to have to share workspace with so many other students because they were concerned that others would take their materials. This presented a distraction from their work, which could cause safety issues. However, other students at this site did not agree that they felt unsafe.

Finding #24. Overall, however, there were very few complaints about safety in the program. Most students at sites visited did not express safety concerns. In the few surveys that were received from students, there were no written complaints about safety issues. In addition, the issue did not come up at all during several site visits and when it did occur, there was not universal agreement on the issues.

Finding #25. Program staff assured the evaluation team that safety protocols were being followed. To follow up on the safety concerns expressed by some students, the evaluation team reported the issues to program management and questioned

instructors and program staff about safety protocols. Four staff members and instructors who were interviewed said that the mobile manufacturing trailers were designed by the factory to be compliant with Occupational Safety and Health Administration regulations, that instructors received safety training, and that students were being given the necessary safety information to operate machinery with instructor supervision. In addition, CCC staff assured the evaluation team that the trailer was equipped with an automatic fire suppression system that would protect the trailer and surrounding buildings in the case of an emergency. The system is inspected regularly.

Finding #26. Students reported needing more hands-on instruction, especially in CNC. Students in focus groups at multiple sites told the evaluation team that they wanted more time for hands-on training, especially in CNC, which many see as the most valuable part of the course for getting a job. Student comments included:

- > “There needs to be more hands-on work, too. We have all the CNC machines out there, but we haven’t even turned on the simulators.”
- > “[The program] needs more hands-on training. I think this is a good introduction for getting started, but I think there should be more CNC. We are learning the basics on machining, but most places want CNC.”
- > “The companies we went to visit, most of them were CNC and they tell us most jobs are with CNC not machine shop. This is good to know, but it looks like we need a little more training, because that is what jobs are out there.”
- > “The places we visited were very happy we are [a] learning machine shop, the fundamentals, but we still need more CNC introduction.”

Finding #27. Some students and instructors are concerned about the lack of clear math requirements for the program. In focus groups, students told the evaluation team that they felt the lack of math requirements for the program made the curriculum a particular challenge for some stu-

dents. One student commented, “The math has been challenging for some, but they said you only needed basic math. You needed trig.” Students also generally agreed in focus groups that it was challenging having people of different math abilities in the class. As one student said, “They should really do the TABE [Test of Adult Basic Education] because we spent a great deal of time going over trigonometry...They spent an inordinate amount of time on trig functions. You can do a pre-class to bring people up to speed. They could pile a basics math class onto the class. There could be a two-week warm-up to help those who need it.”

Instructors also echoed students’ concerns. One instructor said, “We do have students who are struggling with the math portion. I try to present it as easy as possible. We go over things several times, and reinforce it several times. Employers want students with math ability.” Another instructor said, “I think there should be a grade-level math testing that goes into the program. You shouldn’t turn down someone if they are not good at math, but you should at least know what you are working with. You need at least [an] eight-grade math level here. Below that, you are putting yourself in a bind. When I recognize that, I bring someone in to work with them.”

Finding #28. Instructors believe that they are personalizing the learning experience for students when they vary the material covered and the pace of the course based on students’ progress.

Several instructors told the evaluation team that they purposefully do not distribute syllabi to the class because they decide what to teach based on students’ abilities. This includes determining the course curriculum based on the average math ability of the class and the instructors’ understanding of local employer skill needs. These instructors also said that they decide what to teach each week based on the students’ progress in prior modules. The instructors have a commitment to ensuring all students are up to speed on key concepts before proceeding to a new topic. The instructors said that they believe this is a more personalized way to teach the course and the flexibility allows them time to adjust the course to accommodate the particular group and individuals in the group who need extra help.

Finding #29. Students, however, expressed a preference for knowing up front what would be covered and when in the course. Students at the sites where a syllabus was not used reported in focus groups that they would rather have a document that tells them what to expect. One student said, "Classroom instruction is variable. There is no syllabus, but we got a list of topics. Actually, about half the students got them." Other students had similar reactions:

- > "The explanation of what the class entails would be helpful. They didn't really explain them well. The list they gave also did not really meet what's going on with the class. There is no structure to the class."
- > "Most of the sections [in the book] we didn't have time to go over with the instructor. We skipped around a lot."
- > "There were no lessons prepared."
- > "An outline of what we were doing, a syllabus, or even what we should be reading would have helped. It was a little more on the fly."
- > "Bottom line is there is no communication between instructors themselves and students. You should have a syllabus to know what is going on. It would be advantageous to have that structure so we can be prepared."

Finding #30. Most, but not all, students would prefer more time to complete the program. A number of students reported in focus groups that they felt they needed more time in the program. For example, one student said, "It was very useful, but there are a lot of students in the short period of time." Other students had similar comments:

- > "There is a small period of time and they couldn't stop because there was too many of us."
- > "Because the class is so good, and you are trying to absorb, there's not a lot of time to ask questions. A whole lot of information he is trying to cram into a short period of time."

- > "It should have been longer or broken into groups. You could switch off and on and get a lot more out of it."
- > "We think it would be better if it were five days a week and you might want to extend the course for more weeks."
- > "By the time you get home to study, it's hard because it is such a long day."

On the other hand, a small number of students felt that the course was already too long. One student said, "I think they should have put the class in a more compacted framework. The longer you spread out is the longer I am unemployed." Another student said, "It could have been done in seven-and-a-half weeks instead of three months."

Manufacturing Soft-Skills Curriculum

Finding #31. Soft-skills training remained inconsistent across sites. According to interviews with some program site managers and focus groups with students, NJCCCWED instructed partner colleges to focus soft-skills instruction on résumé and interview preparation and to focus less on other topics such as teamwork and leadership. One program site manager said in an interview that NJCCCWED staff told him that the goal of soft-skills training "was to make sure everyone has a résumé." This manager also said, "She wanted them to put their best foot forward. [Our soft-skills instructor] provided each student with a *Creating a Dynamic Job Portfolio* handbook. She also took them to an online résumé builder so they could build a résumé. They used class time to do that." However, the instructor at the same site said he was responsible for teaching soft skills for a good portion of the course because the instructor was hired late in the course. The instructor said, "The soft skills was me throughout the course deciding from my experience what the student would need to learn to be a good employee. All of what I sat in on with [the college I taught at in Year 1] I was able to infuse that into the class day by day. I did not get any direction from the consortium folks." At other sites, instructors and site managers told the evaluation team that the soft skills were run as they had been

in Year 1, which included more focus on broad skills, like teamwork. At least one other program site manager mentioned that the school had scaled back the soft-skills instruction due to instructions from NJCCCWED to focus more on résumé and interview preparation.

Finding #32. Students generally did not find value in learning soft skills in a separate setting outside their regular class time. Students made comments that revealed their dissatisfaction with the soft-skills component of the course at several sites, including:

- > “That class was too long. Two days a week for three hours a class for four weeks.”
- > “We have a soft-skills day in the week. Rather than use those days, fill it with CNC stuff.”
- > “I think the soft skills, people should know that through their own research and upbringing.”
- > “Only an hour [or] two should be dedicated [to soft-skills instruction] during the week.”
- > “I think it was a waste. It started with one person, then two, and then three. Then they started contradicting one another. It was confusing.”
- > “The knowledge was infinitely less important than what we got in this class.”
- > “It’s redundant because you have to take that through unemployment. You are wasting time to go through that when it should have been done in unemployment anyway.”

Finding #33. Some of discontent with soft skills at some sites involved issues with when the class was scheduled. At some sites, soft-skills instruction was offered at the beginning of the course, which several students said made it hard to see the value of the class. Student comments included:

- > “It should have been in the end. There was too much going on in the beginning and we had [the soft-skills instructor], too.”

- > “The scheduling was very random; you didn’t know when you were going to have the class. And then when the class happened, you were taken out of this class.”
- > “[This weekday] was supposed to be soft skills and they wanted to split it in half. Some of us would have to leave [the technical skills class].”

Even one instructor felt that the disruption of the technical material made soft-skills lessons less effective. He said, “I find that just a soft-skills instructor it is less effective than having the enforcement on the day-to-day basis, unless you really have a lot of resources to devote to doing it well and we did not have that here.”

Finding #34. At several sites, students complained that the soft-skills instructor was not knowledgeable about what was needed in the field. Program site managers and instructors told the evaluation team that they hired outside instructors to teach soft skills to students. However, this lack of integration with the technical instruction appeared to be evident to students. Several students in focus groups were concerned that the soft-skills instructors were not familiar with the skills and norms in manufacturing. Student comments included:

- > “[The instructor] didn’t accentuate the skills in this class.”
- > “She didn’t know what a machinist does.”
- > “[The instructor] told me I wouldn’t get a job and I got five offers.”
- > “[The instructor] told me she wasn’t sure if she would hire me.”
- > “I showed my résumé to [the instructor] and [the instructor] said everything is wrong with it. I don’t agree with that. I have been working on that. I know how to get jobs and what I have to do. To have that rejected, I think there’s something wrong with this.”

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Job Development and Other Support Services

The program offered job development services to all students that included networking opportunities with employers throughout the program and job placement assistance. This section describes these services, as well as other services provided at some host colleges.

Employer Networking

According to interviews with program staff, the manufacturing programs the evaluation team visited provided the same types of networking opportunities with employers as they had provided in Year 1. These included employer involvement in information sessions to explain the jobs for which they were recruiting and to interview prospective students, employer site visits and classroom talks, and job placement assistance.

Job Placement and Other Support Services

As in Year 1, at the end of the program, the local and NJCCCWED job development staff assisted manufacturing students with setting up job interviews with employers on an individual basis. No job fairs were held for manufacturing programs in Year 2.

CCC and NJCCCWED did not build additional support services into the program model beyond those described above. However, as mentioned earlier in this report, students who were enrolled at a host college for credit were generally able to access all of the facilities and support services available to other credit-based students at the college.

Finding #35. Overall, staff continued to report strong post-completion employment placement results. CCC staff reported that 222 people completed the manufacturing program and 185 were placed (a placement rate of 83%). (Staff mentioned that this did not include a current class of 10 students that was still ongoing.) This reported placement rate is lower than the estimates of placement in Year 1, which were in the 90% to 100% placement range.

Finding #36. Staff reported that the number of students placed far exceeds the number promised in the grant proposal. According to interviews with CCC staff, the program promised to USDOL-ETA that it would place 120 people into jobs. However, CCC staff reported that 185 people have been placed in the manufacturing program alone.

Finding #37. Early involvement of employers in the programs continued to result in a number of students receiving job offers prior to program completion. All sites continued to involve employers early in the program through information sessions, and students and instructors reported to the evaluation team that this led to several students in each course receiving job offers prior to the completion of the course. Instructors and students reported that high-performing students, those who interviewed well in initial interactions with employers, and students with experience and other characteristics desired by employers received early job offers. Students, program staff, and administrators noted in focus groups and interviews that several students in each class were offered jobs prior to program completion. As one CCC staff member said, "Using the training on demand model gets employers engaged at the very beginning of the process and allows for faster and smoother placement."

Finding #38. In Year 2, there were no reports from students that they were offered wages that were below the minimum of \$12 that they were told to expect. In Year 1, students at several sites reported receiving job offers at wages as low as \$8 per hour, significantly lower than the \$12 per hour starting wage the program told students they could expect. In Year 2, however, there were no reports from students or staff that employers offered jobs with wages lower than \$12 per hour.

Finding #39. Despite requiring students to sign an agreement that they would accept any manufacturing job offered at or above \$12 per hour, some students continued to express dissatisfaction about the work conditions and salaries of jobs offered to them. Several employers, instructors, and staff noted that there were some students who did not seem particularly interested in the work and/or were unsatisfied with the salary range of jobs. Several staff and instructors provided examples

of students who dropped the class because they decided that they did not want to work in the field. Other employers, staff, and instructors noted that there were students who turned down job offers because they wanted to make more money, even though the jobs offered were within the salary range they were told to expect at the start of the program. One student expressed that he felt he had little choice but to sign the form. He noted that he learned after joining the program that employers were offering \$12 to people who have not done any training at all and that the average wage for the jobs that were being offered in the open job market for people with some training were in the \$18 to \$20 range. One student summed up the frustration many students expressed in focus groups about the lower wages they were offered at the end of the program by saying, “Frankly, we were talking to employers who are starving for workers, but they aren’t willing to pay for it. The ones that pay more get better people who will stay in the job.”

Finding #40. Much of the students’ frustration appears due to differences between the average salaries employers discussed in information sessions versus salaries offered at program completion.

One instructor said, “I think employers, to attract you, talk up the amount. [Program staff] mentioned the real numbers, but employers may try to talk up.” A student mentioned, “When we had the initial interview, they were telling us \$20 to \$22. Now they are telling us it’s \$14.” Another student said, “We were told \$18 to \$20. My offer was for \$16 and I think the only reason I got the offer was because of my engineering degree.”

Finding #41. At one site, student dissatisfaction with wages offered was a result of the One-Stop, CCC, and NJCCWED sending letters to employers that offered an on-the-job training grant if the employers agreed to pay at least \$12 per hour.

Students at one site, in particular, told the evaluation team that they were upset about the wages they received because they believed that their employment offers would have been higher had staff not sent a letter to employers that offered an on-the-job training grant to any employer that could pay at least \$12 per hour. This letter, many students mentioned, let employers know that they

could get away with paying a lower-than-average wage for program graduates. As a student described in a focus group, “The insult comes when they come down...I am a grown man, \$12 an hour, [the employer] might as well just have stood up and slapped me in the face.” Another student said, “They told us we are being trained for a job that is in demand and that we would be able to find a good job. They told us that you can make between \$12 and \$17 and the average is \$15, but that’s not what’s going on. They sent this letter to employers telling them they only have to pay us \$12 and they would get their money back. That’s not right.” Yet another student said, “The company came in and said they offer between \$16 and \$20. They all don’t hire that since they have received the letter.”

Finding #42. CCC staff reported that the intent of the letter was to set a minimum wage so that employers would not offer wages below \$12.

Interviews with CCC staff and instructors revealed that program staff were trying to provide hiring incentives for employers. Staff reported that \$12 per hour was the amount that employers had told them they would be willing to offer for entry-level program completers. In order to avoid the challenges the program faced in Year 1, when some employers made offers that were significantly below this mark, the program decided to set a floor for wages that employers could offer to graduates and still qualify for on-the-job training grants.

Finding #43. CCC staff also reported that they modified the letter to include a minimum wage of \$14 and they now share the letter with students at the start of the program.

Interviews with CCC program staff indicated that the on-the-job training letter is still being used with employers, but the program raised the minimum wage to \$14 per hour. Staff reported that students are also given a copy of the letter at the start of the program so they know how the situation is being handled. They are still required to sign an agreement that they will accept any job that offers at least \$14 per hour.

Select Findings on the Implementation of the Utilities Program

The Heldrich Center evaluation team conducted one site visit to a utilities information session in Year 2, as well as an interview with a program staff member and a representative of the key employer partner for the utilities program. Surveys were issued to students in two utilities programs, but the response rates were very low, preventing meaningful analysis. Early in the year, the evaluation team was not informed of program dates in a timely fashion, making site visits not possible to conduct. Later in the year, site visits were less relevant as the program was concluding, so the evaluation team determined that recommendations would be of little use to staff.

According to interviews with CCC and other staff, the only major change to implementation that occurred in the utilities program between Years 1 and 2 was that South Jersey Gas was able to renovate and equip its training center, allowing colleges to continue to offer courses.

Finding #44. Staff reported that the utilities program had a nearly 80% placement rate. In the utilities program, CCC staff reported in interviews that 81 students completed the program and 64 were placed into jobs. That would give the program a 79% placement rate.

Finding #45. Employers provided a thorough overview of work conditions and salaries in the information session the evaluation team observed. The evaluation team attended an information session for a planned line locators course in the utilities program. During the session, approximately five employers provided PowerPoint presentations that offered an overview of the work for which they were hiring. These employers discussed the risks and benefits of the job and discussed salaries starting at \$14 per hour. Employers also made themselves available to meet with students at the conclusion of the session.

Finding #46. Partnering with local organizations helped to increase exposure of the program. Atlantic Cape Community College (ACCC), at the

request of the local chapter of the NAACP (National Association for the Advancement of Colored People), held an information session at a church. In doing so, staff reported this increased the number of those interested in participating in the program beyond levels they had seen with more general outreach approaches.

Finding #47. Hosting information sessions four to five weeks prior to the program start date allowed ample time to determine participant eligibility for the program. According to interviews with program staff, participants who are interested in entering the utilities program are first required to take TABE. Once participants pass TABE, they are then required to pass the Bennett-Mechanical test. If participants pass both tests, they are considered eligible to participate in the eligibility session, which occurs approximately one week prior to program registration and orientation. Given the challenges associated with scheduling and test taking, staff reported that providing a significant block of time following the information session enabled participants to have the opportunity to determine eligibility. Staff reported in interviews that allowing four to five weeks lead time was generally sufficient for this purpose.

Finding #48. Including the local One-Stop in the eligibility session expedited the registration process for participants. Participants are encouraged to visit their One-Stop to determine if they are eligible to receive grant funds to participate in the utilities program. By asking the One-Stop to participate prior to program registration, at the eligibility session, eases this process for participants. During an interview, program staff shared, "ACCC has a good relationship with the local One-Stop. Having the One-Stop screen participants prior to the program start date helps the process become more efficient."

Finding #49. Employer attendance at the eligibility session continued to help participants to be more invested in the training. According to staff interviews, during the eligibility session, employers have the opportunity to share information about their organization, jobs for which they are hiring, and expectations of their organizations. Participants are encouraged to ask questions and interact directly with employers. This process enables stu-

dents to have a better understanding of the utilities program and its outcomes, according to staff. In an interview, one staff member claimed, “By allowing employers and participants to become familiar with one another prior to program engagement helped participants to be more vested in the training.” While it is difficult to prove, these staff members believe that students are more committed to completing the program because they are able to visualize what they can achieve upon completion due to the early and direct involvement of employers.

Conclusions

Between Years 1 and 2, CCC made a few adjustments to its manufacturing program in response to feedback from the field and the evaluation team’s recommendations. These included setting a clearer “floor” for wages employers can offer participants, providing more consistent and clear information to students, and emphasizing the résumé and interview preparation parts of soft-skills training over broader lessons, such as leadership development.

Overall, in Year 2, these changes were well received by students. Students reported a greater level of awareness of the jobs, working conditions, and wages that they would likely be offered, as well as a greater awareness of other program requirements. Overall, most students reported in focus groups that they value the program and believe it prepares them to do well at work. Staff continued to report high levels of employment placement for both the utilities and manufacturing programs. In addition, most students expressed tremendous respect and appreciation for their technical instructor(s).

The program faced new challenges in Year 2 that included issues bringing new partners into the program. At colleges where the program has not been offered before, problems developed with timing of the program set-up, ordering materials and supplies, and other tasks related to getting a new program in place.

Students in CCC’s manufacturing and utilities programs also had quite different experiences based on credit award and college enrollment policies

at each college, which is likely to affect program outcomes. Some students earned credit for their coursework, while others did not earn credit for similar work. This will lead to different academic outcomes for participants. Since credit policies often — though not always — drive college enrollment policies, those who received credit also received other services that may improve their academic and employment outcomes. These services include access to college supportive services, such as libraries, parking, and career services.

The program also continued to experience challenges successfully managing student expectations. Despite making efforts to ensure students are aware of the course requirements, the average pay offered to graduates, and other program details, some students continued to express dissatisfaction about the level of wages offered or the availability of jobs that fit their skills. Manufacturing students also indicated that they were not clear when they enrolled about the content of the course or the jobs for which it would prepare them. Students also expressed concerns about comfort, especially in the mobile trailers. Finally, some students complained that the math requirements for the program were too low.

Overall, it is difficult to say how the program should address lingering student concerns. The program has already taken steps to make students aware of the wages they may be offered, has created a contract for them to acknowledge this, and works with employers to ensure they do not offer jobs below the minimum pay level. However, there is little more that program staff can do to ensure that more participants are offered wages at the high end of the wage scale. To some extent, the very existence of an occupational training program may incentivize employers to offer lower wages as it gives them ready access to a larger pool of trained workers, allowing them to lower wages as the supply of workers increases. One area where the program could clarify its message is with respect to manufacturing course content and the jobs and job tasks that students can expect to enter and perform upon program completion.

Reference

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Acknowledgments

The author of this report was Jennifer M. Cleary. William Mabe, Ph.D. and Kathy Krepcio provided editorial advice. Robb C. Sewell provided editorial and graphic design assistance.

This report was funded by a grant from the U.S. Department of Labor, Employment and Training Administration. The findings and conclusions in this report do not necessarily represent the positions, policies, or opinions of the funding organization.

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Appendix A. List of Interviews Conducted in Year 2

Name	Position	Organization
Diane Belz	Soft-Skills Instructor	Camden County College
Gerry Bose	Technical Instructor	Cumberland County College
Esther Gandica	Interim Senior Director, Continuing Education	Atlantic Cape Community College
Lisa Raudelunas Hiscano	Director of Continuing Education	Union County College
Steve Kirbos	Technical Instructor	Bergen County College and Middlesex County College
Jim McCarthy	Program Site Manager	Brookdale Community College
Carol McCormick	Project Director	Camden County College
Conrad Mercurius	Technical Instructor	Union County College and Raritan Valley Community College
Anthony Pezzulo	Director of Work and Process Management	South Jersey Gas
Kevin Schmidt	Technical Instructor	Camden County College