



EDUCATION AND EMPLOYMENT RESEARCH CENTER

Career Advance USA Interim Evaluation Report

Anjali Srivastava and Michelle Van Noy

APRIL 2023



RUTGERS

School of Management
and Labor Relations

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Introduction

Apprenticeships are established credentials allowing participants to both earn wages and learn through instruction and mentorship. They provide structured on-the-job training and educational instruction in industries with employment opportunities. Depending on program specifics, apprentices may earn industry-recognized credentials or college credit as they complete their training, increasing their abilities to demonstrate skills.

Apprenticeships in the United States fall into two categories: registered and unregistered. The U.S. Department of Labor allows employers or groups of employers to register apprenticeships that are industry-vetted and assessed for quality and rigor.¹ Employers may also offer unregistered apprenticeships; these programs are known as industry-recognized apprenticeship programs and though not formally registered with the Department of Labor, meet standards set by the Department.²

Using systems-based approaches and precision technology,³ the advanced manufacturing industry across the United States is seeking to attract new talent as its workforce ages and to train workers to take advantage of technological advances.⁴ Employers and educators are offering both registered and unregistered apprenticeships in advanced manufacturing.⁵ Examples of areas where apprentices may gain training within advanced manufacturing include computerized numerical control (CNC) operators, tool and die makers, and industrial manufacturing technicians.⁶ Within New Jersey, the advanced manufacturing industry is a focus for economic development.⁷ Apprenticeship training may provide skills needed by both local and national employers.

EERC

Rutgers Education and Employment Research Center (EERC) is conducting a formative and summative evaluation of the Career Advance USA grant in New Jersey. This report is the first for EERC's full evaluation of the grant. The report begins with background and context for the grant and its goals followed by a section on our methods. Sections then discuss the implementation of the grant's key activities to meet goals: creating and developing programs, offering student supports, engaging employers, recruiting participants, and maintaining grant administration.

Background

The County College of Morris (CCM) is leading a group of eight county colleges in New Jersey as recipients of the U.S. Department of Labor–funded Career Advance USA grant to support pre-apprenticeship and apprenticeship programs in advanced manufacturing and related occupations. Colleges are grouped into three regional clusters, each with a regional lead. CCM leads both the entire grant and the Northern part of the state. Bergen Community College (BCC) and Hudson County Community College (HCCC) are CCM’s regional partners in the North region. Middlesex County College (MCC), the central regional lead, is joined by Raritan Valley Community College (RVCC) as middle-state colleges, and Camden County College (CCC) leads the Southern region, clustering with Mercer County Community College (MCCC) and Rowan College of South Jersey (RCSJ) at Gloucester. Apprenticeship programs were new for most of the colleges on the Career Advance grant; only CCC and RVCC offered apprenticeships before the start of the grant.

Grant partners to the colleges include the German American Chamber of Commerce (GACC), New Jersey Department of Labor, workforce boards in each region, local employers, veterans’ organizations, New Jersey Institute of Technology, high schools and vocational technical schools, and the New Jersey Council of Community Colleges (NJCCC). Employers are essential partners necessary to provide apprentices with their workplace training. Additional partners span the roles of outreach to employers and participants and, in the case of NJCCC, assisting with additional funding sources.

Although the grant does not require colleges to offer a specific number of programs, the grant is designed to pilot three approaches to apprenticeship training: pre-apprenticeship-training bootcamps, unregistered apprenticeships, and registered apprenticeships. As students participate in training, some are expected to earn National Institute for Metalworking Skills (NIMS) credentials, which are offered through an organization convening trade associations and employers.⁸ Some apprentices will be able to earn other industry- and school-related credentials. Additionally, the grant seeks to serve incumbent workers, unemployed individuals, transitioning military personnel, veterans, women, and people of color. The grant expects that program enrollees will receive a personal development plan to identify support needs and provide access to services.

Goals of the grant are to meet the following outcomes:

- ♦ 1,600 participants served (200 in Year 1);
- ♦ 85% (1,360) of participants hired and enrolled in apprenticeships;
- ♦ 80% (1,088) of those enrolled completing;
- ♦ 90% (979) of completers receiving a degree or certificate;
- ♦ 75% (816) of completers to have been previously unemployed or underemployed; with 90% (734) within that category retaining employment following completion; and 25% (272) of completers being incumbent workers, with 90% (245) of incumbent workers advancing.

The colleges are in their third year of a four-year grant that has been extended to five years, with plans to further refine and then scale up programs developed during the grant period.

Methodology

EERC's evaluation of the Career Advance USA grant includes interviews with grant leadership, program document reviews, attendance at statewide meetings, and a survey with administrators from each college. More specifically, EERC conducted interviews with grant leaders at CCM; reviewed quarterly reports, meeting minutes, and websites from grant partners; attended parts of two statewide meetings; and surveyed a grant leader at each college.

Most of the data for this report are drawn from interviews with grant leadership and surveys of college administrators. Grant leadership identified individuals knowledgeable about the grant at each school to complete survey questions.⁹ Additional data sources provide context and sources for data triangulations. These mid-grant-period evaluation activities are designed to provide the basis for feedback to CCM about programs and outreach. Findings illustrate areas where challenges have been met or may provide opportunities for further strategizing or investigation.

Findings

Pandemic Impact

While the pandemic impacted both colleges' programs and employers' operations, grant leadership and partners moved forward with implementation.

The Career Advance USA grant was scheduled to begin shortly after colleges and employers were impacted dramatically by the COVID 19 global pandemic. These impacts took various forms. Colleges had to decide whether to move some or all parts of their programs to virtual instruction. Some employers in the manufacturing industry changed their products to accommodate pandemic needs. Potential participants were impacted by health concerns and a changing unemployment benefit environment. Government agency staff were needed to work on pandemic-related programs and, as a result, were less available to assist individuals they were serving with program referrals.

Grant colleges adapted to these circumstances in several ways. CCM obtained a waiver so that pre-apprenticeship and apprenticeship programs could begin in the fall rather than spring of 2020. Colleges moved forward from varied pre-pandemic practices and pandemic-related responses to emerging situations. Both colleges and employers considered how effective virtual instruction and training would be for jobs that require hands-on experience. Overall, grant recipients rose to the challenges of this new environment, offering the types of programs intended by the grant, but finding that they would benefit from additional strategizing and support. They now operate in a landscape that has changed since the grant was approved and continues to evolve.

Programs

Although program implementation was impeded by the pandemic, all colleges are currently offering at least one bootcamp, and five are offering at least one full apprenticeship, either registered or unregistered.

The Career Advance USA grant provides for three types of programs in advanced manufacturing and related occupations and areas of skills and competencies. Bootcamps are conceptualized as short 6–8-week programs offering entry-level hard and soft skills with pre-apprenticeship training. Both registered and unregistered apprenticeships

combine associate degree-level coursework with paid on-the-job training, but only registered apprenticeships are authorized by the U.S. Department of Labor or a State Apprenticeship Agency.¹⁰

All partners are expected to develop a bootcamp. At the time of the grant beginning, BCC, HCCC, and MCC were already developing registered apprenticeships that they planned to expand with grant funds. Colleges modifying an academic internship model into an apprenticeship program were to convene employer partners and subject matter experts to assess and fill gaps in existing training to better meet employer training needs.

The grant names several partners for programmatic development and support. Programmatic partners include the GACC, which is offering training for trainers, made some initial connections between colleges and program participants, and will be translating materials from German once delays from external sources in Germany are overcome; NJCCC; and Tooling U, which is working with MCC and offering technical instruction for a machine operator apprenticeship to BCC.

Table 1: Program types offered under the College Advance USA grant, by college

College by Geography	Bootcamp	Unregistered Apprenticeship	Registered Apprenticeship
Bergen	1	0	0
Camden	1	0	3
Hudson	1	1	1
Middlesex	1	0	0
Mercer	1	0	0
Morris	1	2	3
Raritan Valley	2	0	2
RCSJ Glassboro	4	0	1

As shown in Table 1, all eight colleges have bootcamps in place, and five are also offering at least one full apprenticeship. Of those five colleges, three offer only registered apprenticeships, and two offer both registered and unregistered apprenticeships. Both RCSJ and RVCC offer more than one bootcamp. CCM offers the highest number of apprenticeships, with three registered and two unregistered apprenticeships, followed by CCC with three registered apprenticeships.

Bootcamps

The grant proposal expects bootcamps to be implemented by partners regardless of level and type of previous experience with apprenticeships.¹¹ This general requirement, the shorter time frame, and the lack of prerequisite training needed for potential program participants to enroll in bootcamps are likely reasons that they are the most widely implemented type of grant program across the colleges. Table 2 shows that all eight colleges are offering bootcamps in the areas of advanced manufacturing and machinists. Bootcamps at most colleges lead to some form of certification, with the highest numbers of colleges offering NIMS credentials (4) and college certificates (2). Bootcamps range in length and may be conducted in person, held virtually, or combine in-person and virtual components. Three colleges have definite plans to implement additional bootcamps in the future, with one indicating plans for a bootcamps in the areas of industrial maintenance and tool and die, and two more indicating that they may be offering future bootcamps in welding and one possibly offering a machinist bootcamp.

*Table 2: Details about bootcamps currently offered or planned under the Career Advance USA grant, by college**

College Geography	Number of Bootcamps	Certification	Length in Weeks	Modality	Future Additional or Different Bootcamps	Future Additional or Different Bootcamp Fields
Bergen	1	College certificate of completion	8	In-person only	Maybe	Welding
Camden	1	NIMS	15	In-person only	Maybe	Machinist
Hudson	1	Not specified	Not specified	Virtual and in-person components in the same program	Maybe	Welding
Middlesex	1	Tooling U and college certificate of completion	Not specified	Virtual only	Yes	Not specified
Mercer	1	NIMS	28	Virtual and in-person components in the same program	No	N/A
Morris	1	NIMS and OSHA 10	7	Virtual and in-person components in the same program	No	N/A
Raritan Valley	2	NIMS	16	Virtual and in-person components in the same program	Yes	Industrial Maintenance; Tool and Die
RCSJ (Glassboro)	4	Industry-recognized credential	15	Both in-person and virtual with some all virtual	Yes	Not specified

* All current bootcamps are in the field of advanced manufacturing/machinist.

Unregistered Apprenticeships

Colleges have room to grow in their development and implementation of unregistered apprenticeships. Table 3 displays data about unregistered apprenticeships. Currently, HCCC is offering one unregistered apprenticeship that combines in-person and virtual components; completers will receive a NIMS certification. CCM is offering two unregistered apprenticeships—die manufacturer and machining/CAD and CAM—that are held in person and will result in NIMS and/or Solidworks certifications. The same college is planning additional unregistered apprenticeship programs, as are RCSJ and MCCC. HCCC, BCC, and MCC may also be offering unregistered apprenticeships in the future but are less certain.

Table 3: Details about unregistered apprenticeships currently offered under the Career Advance USA grant, by college

College Geography	Unregistered Apprenticeship Number	Unregistered Apprenticeship Field	Unregistered Apprenticeship Leading to Certification	Unregistered Apprenticeship Length in Weeks	Unregistered Apprenticeship Modality
Hudson	In-person only	Not specified	NIMS	Not specified	Virtual and in-person components in the same program
Morris	2	Die manufacturer and machining/CAD and CAM	NIMS and/or Solidworks certifications	52	

Registered Apprenticeships

As intended by the grant, registered apprenticeships are primarily in manufacturing and machinist fields as shown in Table 4. Every college that offers a registered apprenticeship offers an opportunity to obtain a credential or certification as part of that program. Colleges vary in whether they offer their apprenticeships in-person, online, or in a hybrid format, with one providing in-person instruction, one entirely virtual, and three a mix of

virtual and in-person learning. CCM, RCSJ, MCCC, RVCC, and CCC are all planning to offer additional registered apprenticeships in the future. BCC and HCCC may offer new programs of this type as well.

Table 4: Details about registered apprenticeships currently offered under the Career Advance USA grant, by college

College Geography	Registered Apprenticeship Number	Registered Apprenticeship Field	Registered Apprenticeship Leading to Certification	Registered Apprenticeship Length in Weeks	Registered Apprenticeship Modality
Camden	3	Machinist; Industrial Maintenance Mechanic; Welding	NIMS	Not specified	Virtual only
Hudson	1	Not specified	AAS degree	Not specified	Virtual and in-person components in the same program
Morris	3	CNC Operator: Milling, Turning	NIMS	52	In-person only
Raritan Valley	2	Machining; CNC Milling	Journeyman/NIMS	16	Virtual and in-person components in the same program
RCSJ Glassboro	1	Industrial Maintenance Technician	NIMS	Not specified	Virtual and in-person components in the same program

Modalities Across Program Types

Looking across program types, the varying strategies of in-person and virtual instruction suggest that colleges utilized their pre-pandemic capabilities and practices in varying ways to adapt to pandemic needs for program delivery. Table 5 shows that, for example, CCM is offering a bootcamp with a mix of virtual and in-person components while offering apprenticeships solely in person. RCSJ is offering bootcamps in person and virtually with some entirely virtually; their apprenticeships utilize the two modalities within the same program. All programs offered by HCCC feature at least some virtual components. BCC’s bootcamp is in-person only. MCC’s bootcamp is virtual. CCC’s bootcamp is in-person and its registered apprenticeships are conducted virtually.

Table 5: Modalities of programs currently offered under the Career Advance USA grant

Program Modality Within Program Type	Bergen	Camden	Hudson	Mercer	Middlesex	Morris	Raritan Valley	RCSJ Glassboro
Bootcamp								
Virtual only					1			
In-person only	1	1						
Both in-person and virtual with some all virtual								4
Virtual and in-person components in same program			1	1		1	2	
Unregistered Apprenticeship								
In person only						2		
Virtual and in-person components in same program			1					
Registered Apprenticeship								
Virtual only		3						
In-person only						3		
Virtual and in-person components in same program			1				2	1

Certifications Across Program Types

Grant-funded training is designed to result in NIMS certifications for some participants. Participants might receive these credentials through either bootcamps or apprenticeships. While NIMS is the most common certification obtained by program participants, it is not the only type. Other certifications include Tooling U certificates, college certificates of completion, PMMI PLC, SME Certified Manufacturing Associate, OSHA 10, Solidworks, and machinist certifications.

Program Type Choices

Grant partners pivoted across program types to engage employers and address lengthy, complicated registration processes.

Grant leadership found that it was initially easier to engage employers for bootcamps than for longer apprenticeships. This strategy benefits employers by providing them with the opportunity to hire applicants with some skills developed over a short training period. Both employers and participants who become connected to a program through bootcamps may transition to full apprenticeships. CCM and BCC, for example, facilitate employer interviews with active bootcamp participants seeking full apprenticeships.

In some cases, schools also implemented unregistered apprenticeships with plans to transition those programs to registered apprenticeships. Grant leadership found the process of obtaining approval for registered apprenticeships to be long and complicated. For this reason, CCM moved forward with new apprenticeships as unregistered and then began the process to transition them to registered apprenticeships. Leadership expects that, having now learned about the registration process, colleges will be able to move more quickly through it in the future.

Participant Supports

Personal Development Plans (PDPs) and support services are in use or planned by some colleges.

The grant specifies that apprentices will work with college advisors to create personal development plans outlining support needs and available resources. Though at least three colleges have begun to use PDPs or plan to in the future, most are not using them.

Additional inquiry may show whether this low rate of use is related to the demographics of the population being served by the programs thus far—particularly, the larger proportion of incumbent workers compared to new workers. Four colleges described connecting students with support services that are either generally available or specifically grant funded. HCCC, RVCC, and CCM connect students to services that are generally available at the colleges. CCM also has funded transportation costs and shop shoes and has offered laptops on loan through the grant. CCC provides students with job development services. Students at RVCC receive scholarship funds through a workforce development board.

Outreach

Colleges are leading employer recruitment in their counties, overcoming barriers to building relationships with new contacts through a variety of in-person and remote strategies.

For successful apprenticeship programs, colleges and employers must partner to provide classroom and worksite training. All eight colleges have begun employer engagement, and seven have ongoing relationships with employers. Among colleges reporting ongoing employer relationships, the numbers of employer partners they work with range from two to seventy-four, with five colleges having ten or fewer employer partners, one having thirty-five, and one having seventy-four. Colleges are engaged in outreach initiatives on their own and in partnership with government agencies and secondary schools.

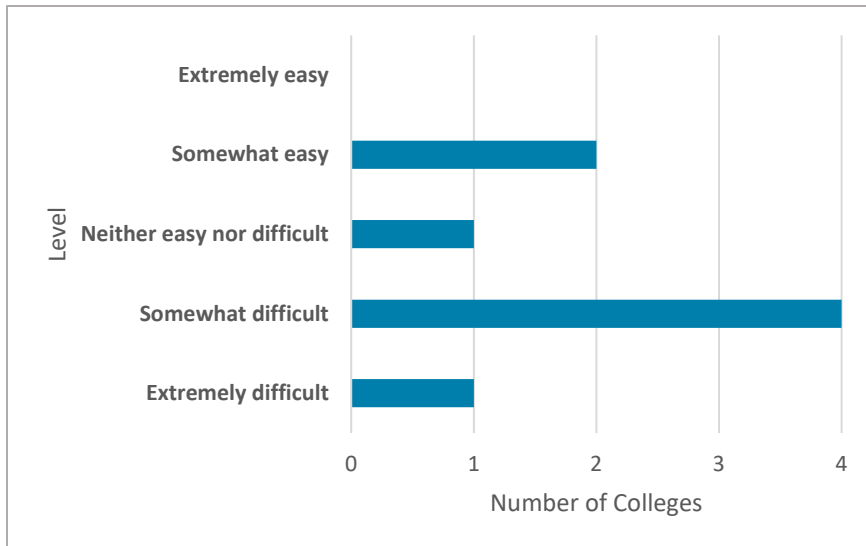
Employer Recruitment Challenges

Although employer engagement has been made easier due to a tight labor market, nearly all colleges experienced some initial difficulty with this aspect of the grant implementation. For the most part, county colleges were not familiar with potential employers in their vicinity before the grant, and many began without fully developed programs to present to employers. Seeking to connect employers with workers who will meet their needs and with state funds has proven to be successful strategically. Focusing on incumbent workers has also been a successful approach. BCC notes that although employers are busy, once contact is established, they are interested in partnering. Grant

leadership notes that employer engagement has become easier. Some employers are now reaching out to the colleges.

The main challenges to employer engagement are employers' busy schedules and the initial buy in needed for relatively long-term apprenticeship training programs. Several colleges referenced how busy employers are as something to be overcome in engaging them as partners. Colleges must help employers recognize the value of apprentices who will be in training for relatively long timeframes. Colleges also must engage adequate numbers of participants to send to employers for successful programs. One college noted that some state regulations have also posed challenges to working with employers.

Figure 1: Colleges' Level of Ease or Difficulty with Employer Engagement



Most colleges found it somewhat or extremely difficult to engage employers.

Employer Recruitment Strategies

As proposed in the grant, the GACC has a role in recruiting and supporting employers, and providing training for trainers is a key activity. In practice, colleges are leading employer recruitment in their counties, with the GACC's role in employer engagement and training differing somewhat from how the grant was originally conceptualized. Colleges have engaged in employer recruitment directly and on their own. The GACC remains an active partner, however, interacting with colleges at statewide meetings, and

CCM reports that the GACC referred some apprentices to them at the start of the grant. A BCC college representative took the GACC's training for trainers.

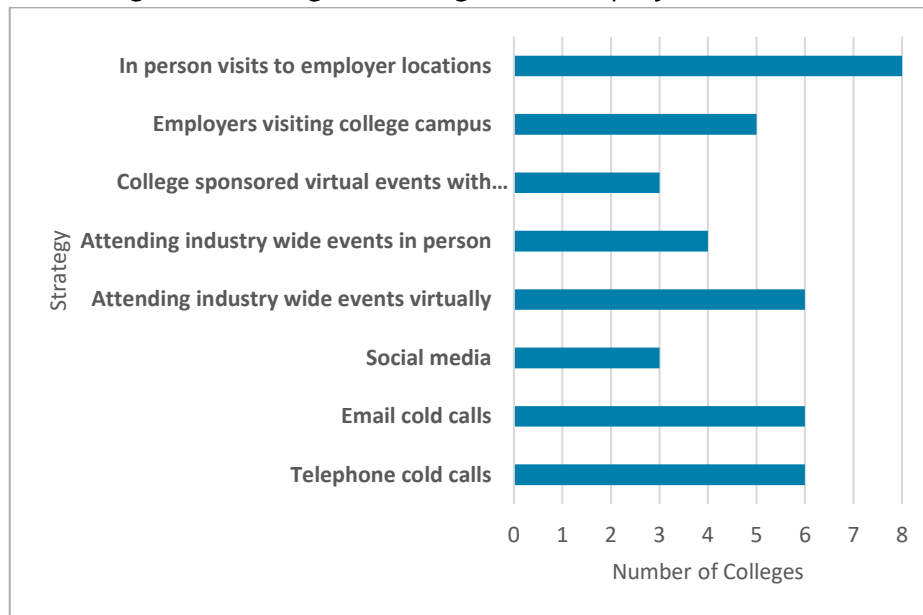
The grant did not initially put forward specific strategies for colleges to use in engaging employers. Especially in the early months of the pandemic, employers were busy addressing impacts on their businesses, and in some cases were implementing major shifts in how they were operating. Colleges were developing their own strategies for the crisis. Despite having to adapt and modify approaches due to the public health crisis, colleges were able to adjust many of the outreach strategies that they might have practiced before the pandemic to their new circumstances.

The most common strategies colleges used to engage employers were in-person visits to employers, telephone or email outreach to new contacts, and attending industry events virtually. A respondent at one college noted that the strategies they employed varied by individual employers according to that employers' unique needs. Discussing their employer outreach strategies in general, a respondent at CCM described asking employers about their pain points, highlighting that the college had already screened out people who would drop out of employment quickly, and offering tours of CCM's facilities. Two respondents reported that their colleges were trying to work with specialists to improve their employer engagement outcomes. HCCC hired a job developer with additional funding, but that person was redirected. RVCC will be hiring an apprenticeship specialist. All eight colleges had enrolled incumbent workers, and five reported having new workers in their programs.

Colleges used a wide range of employer outreach strategies.

In-person visits to employers' locations, emails, telephone calls, and attending industry events virtually were the most common strategies.

Figure 2: Colleges' Strategies for Employer Outreach



Outreach to participants is proving to be challenging and complicated by the pandemic.

The grant is designed to serve unemployed and underemployed populations, both career-entry and lower-level incumbent workers, and both general and special populations including transitioning military personnel, veterans, women, and people of color. According to the grant application, partners with roles in participant recruitment are veterans' support organizations; the New Jersey Department of Labor and Workforce Development, regional workforce boards, the New Jersey Department of Education, NJCCC, and AACC.

Colleges have focused their outreach on a range of special populations. Examples include that all eight colleges mentioned high school or vocational school students; one college conducted information sessions with school administrators and parents; colleges identified current students at their college as a population for outreach; and one college

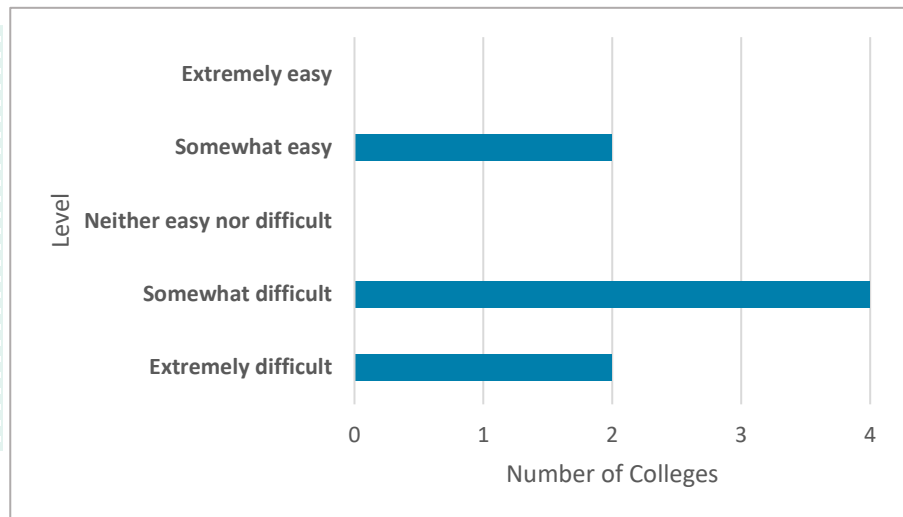
listed the unemployed. One respondent mentioned coordinating their outreach efforts with organizations serving a range of populations, including women’s, veteran’s, justice-system-impacted, Hispanic, and LGBT-serving organizations. In many cases, potential partners were not able to provide the same type of support with participant recruitment that they might have if they were not busy responding to needs created by the pandemic. Potential participants were themselves also making choices within an environment that was being influenced by pandemic-related government assistance and public health concerns.

Participant Recruitment Challenges

Two colleges noted extreme difficulty with participant engagement, and most colleges experienced at least some difficulty. Many of these challenges were associated with the pandemic and the related reduction in the number of agency referrals programs received relative to what they expected. The pandemic also hindered plans to make in-person connections with nonprofits and government agencies and made it more difficult to recruit unemployed workers. There were fewer referrals from unemployment offices than had been expected because fewer individuals were looking for work. As unemployment benefits were expanded, agency staff were redirected to processing large numbers of unemployment applications rather than directing recipients to programs. Programs also encountered some challenges working with veterans’ groups and obtaining approval for VA benefits.

Figure 3: Colleges' Level of Ease or Difficulty with Participant Engagement

Most colleges found it somewhat or extremely difficult to engage potential program participants.



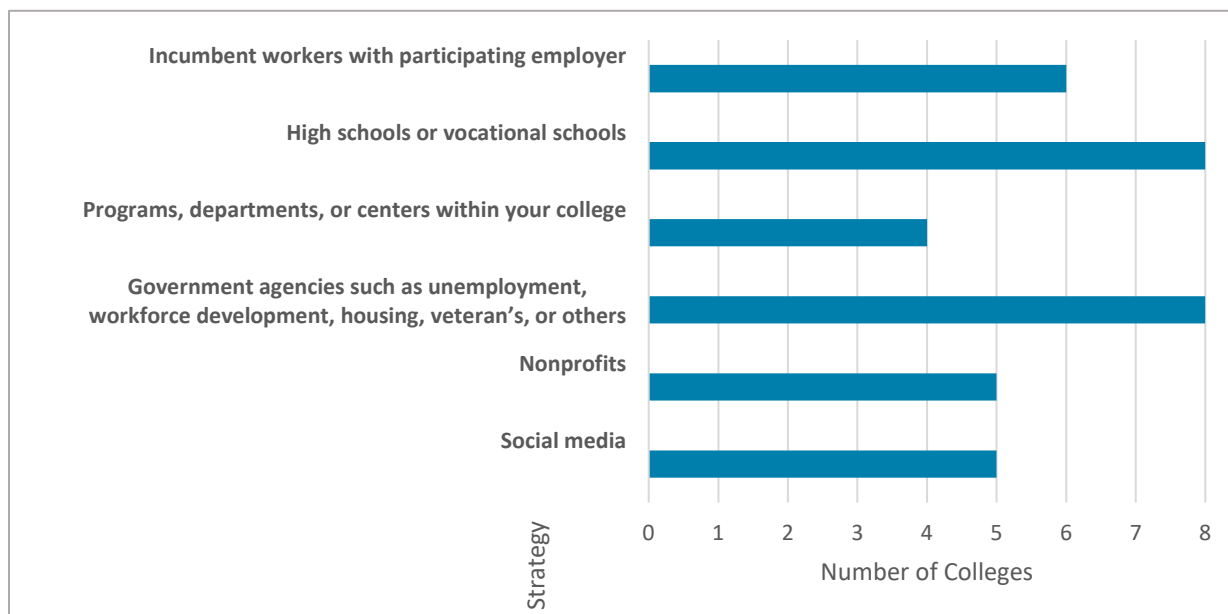
Certain challenges related to participant engagement were especially relevant for specific populations. For example, some of the challenges colleges encountered were related to documented-worker status, soft-skill needs, and difficulty finding contacts within agencies who could assist with recruitment. Colleges are seeking assistance with participant engagement going forward. One college plans to revisit its approach and formalize a plan for participant outreach; another college plans to begin in-person outreach to government agencies, nonprofits, and schools; a third plans to bring more organizations to its facility.

Participant Recruitment Strategies

Colleges sought to engage participants through government agencies and high schools or vocational schools most commonly among selected strategies. Types of agencies included workforce, housing, and women's centers along with county jails and sheriff's offices. One strategy used eblasts from the Department of Labor to dislocated workers. Five colleges used social media; five outreached through nonprofits; and six reached out to incumbent workers with participant employers. Four colleges outreached to programs, departments, or centers within their colleges. One college described offering a manufacturing lab demonstration. Colleges also noted that having a free bootcamp and tuition assistance from other grants boosted participation. Two colleges reported that NJCCC has assisted with recruiting participants.

Colleges used a variety of participant outreach strategies.

Figure 4: Colleges' Strategies for Participant Outreach



Grant Administration Across Colleges

Grant leadership began by giving colleges freedom to design their own programs, however, those new to apprenticeship programs may have benefited from more structure and support.

Structure versus Autonomy

In general, New Jersey county colleges operate autonomously from one another. For this reason, grant leadership chose to allow colleges flexibility in how they implemented the grant within their counties. Knowledge about apprenticeships varied widely across the colleges when the grant was awarded, with some schools already having established programs and others just beginning to learn about how such programs worked. Colleges that initially lacked the infrastructure necessary to implement the grant might have benefited from greater participation by relatively high-level staff. The grant continues to

operate in a manner that supports colleges' autonomy with some tension between allowing for institutional autonomy and providing colleges the potential benefits of more structured direction from CCM.

At the same time, CCM has been involved in overseeing grant implementation at the colleges. CCM takes an active role in providing program support across all schools. As was planned for the grant, colleges are organized into regional groups with regional leads. Regional distinctions may be less pronounced than centralized programmatic assistance from CCM. The colleges break out into regional groups during statewide meetings to share information and participate in statewide discussions across all regions. Both regional leads and non-leads report frequent contact among schools to offer and receive assistance. Colleges find CCM to be a supportive grant lead.

Staffing and Funding

Because colleges had flexibility in structuring the grant in their counties, there are variations in staffing and sources for additional funds. As the leading college, CCM has the most staff devoted to the grant. Staffing is affected by funding levels, which vary across the schools due to the numbers of apprentices that schools are planning to train. Colleges also have flexibility in how they structure staffing and how much of their grant funds they devote to staffing versus programs. As a result, colleges' staffing varies by number of staff members, whether full time or part time, and whether funded by the grant. All eight colleges have full-time staff working on the grant. Three of those colleges, including CCM, are fully funding their full-time staff through the grant; three are funding at least one person partially through the grant; and three have full-time staff not funded by the grant. CCM has one part-time fully funded staff person, and one college has a part-time person who is not funded by the grant.

Four of the seven colleges answering a question about additional grant information were using either Pre-Apprenticeship in Career Education (PACE), Growing Apprenticeship in Nontraditional Sectors (GAINS), or both sources of funds for pre-apprenticeship and apprenticeship programs. As a grant partner, NJCCC's role includes providing matching funds in addition to assistance with curriculum development and recruiting participants. Some colleges are using PACE and GAINS grants from NJCCC and partner colleges in combination. RVCC received funds from NJCCC to participate in the Center for Workforce

Innovation in Advanced Manufacturing. One college listed unemployment as a source for funding and another is receiving funds from a workforce development board.

Recordkeeping

CCM is working with colleges to improve ongoing data collection. The grant allows colleges to record all participants' individual-level data as self-reported (except age, which must be verified with a document such as a driver's license). Documenting students' ages was challenging due to the remote administration necessitated by the pandemic. CCM is sampling and reviewing colleges' records to ensure that the grant meets student demographic reporting requirements.

Conclusion

The grant is meeting its goal of apprenticeship training program development to a large extent. Colleges are offering all three of the program models specified in the grant, and new programs of all three types are planned. Bootcamps may prove to be a gateway to full apprenticeships both for participants and for employers new to hiring apprentices. Some changes in program delivery occurred due to the pandemic, and some colleges are offering instruction fully or partially online even as time has passed since the pandemic. Progress is occurring in meeting requirements for registered apprenticeships that were not yet in place at the time of data collection for this initial report.

Outreach efforts require continued strategizing and support. Employer engagement has become easier over time, although it is still not without some challenges. Participant recruitment remains highly challenging across colleges. Recruitment assistance from pandemic-impacted government agencies such as unemployment offices was not available to the extent that the grant participants originally anticipated. Over the grant period thus far, changes with government assistance rules, a tight labor market, and pandemic-related health concerns appear to have impacted potential participants' steps toward education and training programs.

Recommendations

- ◆ **Maintain Strong Leadership:** Continue CCM's strong leadership for colleges in all regions.
- ◆ **Assist with Participant Engagement Strategies:** Colleges need assistance with strategies to recruit participants in general. Some expressed difficulties in reaching agency staff who can assist. Some reported that they were having difficulty finding individuals who want to be apprentices. In addition to efforts to bolster outreach in general, the number of colleges focusing on recruiting participants from populations the grant specifically seeks to reach can be expanded.
- ◆ **Assist and Persist with Employer Engagement Across All Colleges:** Grant leadership might further discuss with partners why employer engagement has been challenging for them and assist with strategies to make this easier. While some colleges found employer recruitment relatively easy once they were able to connect with busy employers, others have had difficulty securing employer commitments for full apprenticeship programs.
- ◆ **Expand Program Fields Where Interest Exists:** CCM is tracking areas where expansion would be impactful. This work should continue, and expansions implemented as consistent with the grant requirements, funds, and colleges', employers', and participants' needs.
- ◆ **Continue Efforts to Improve Participant Documentation:** The grant requires that colleges document participant demographics, with age as verified through external documents.

¹ <https://www.apprenticeship.gov/employers/registered-apprenticeship-program>

² <https://www.apprenticeship.gov/employers/program-comparison>

³ <https://www.njeda.com/advanced-manufacturing/>

⁴ ApprenticeshipUSA. (2022). *Advanced manufacturing*. U.S. Department of Labor.

<https://www.apprenticeship.gov/sites/default/files/dol-industry-factsheet-series-manufacturing.pdf>

⁵ <https://www.apprenticeship.gov/apprenticeship-industries>; <https://www.apprenticeship.gov/apprenticeship-industries/advanced-manufacturing>

⁶ ApprenticeshipUSA

⁷ <https://www.njeda.com/advanced-manufacturing/>

⁸ <https://www.nims-skills.org/about-nims>

⁹ Survey results are missing responses from Raritan Valley Community College for some questions.

¹⁰ <https://www.apprenticeship.gov/employers/registered-apprenticeship-program>

¹¹ County College of Morris and the New Jersey Career Consortium, *Career Advance USA Grant Proposal*, p. 12.