Final Evaluation of Southwest Virginia Community College's *PluggedIn VA* TAACCCT Grant Initiative

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Table of Contents

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The evaluation team would like to thank the many people who participated in the data collections and supported the development of this report. Southwest Virginia Community College (SWCC) leadership and PluggedIn VA (PIVA) program personnel, especially Dyan Lester and Tim Saylers, who approach their work positively, with enthusiasm and a focus on improvement for the sake of their students, were instrumental in facilitating the team's research and data collection efforts, and liberally provided their time to assist and support the team, as well as an abundance of details and information about SWCC's procedures and programs as related to their U.S. Department of Labor, TAACCCT Grant. SWCC staff and the program partners were generous with their time and freely shared their invaluable thoughts, experiences and perspectives regarding the development and implementation of their programs, and procedures. And, of course, we owe much thanks to the students who participated in surveys and focus groups and provided their open and honest thoughts, feelings and experiences. We would also like to acknowledge the Coffey Consulting staff who conducted the field work and prepared the various analyses: Elif Bor, Dr. William Munn, Suzanne Clery, Dr. Amelia Topper, and Dr. Brian Smith.

EXECUTIVE SUMMARY

In 2012, Southwest Virginia Community College (SWCC) was selected as Virginia's single-site Trade Adjustment Assistance Community College Career Training (TAACCCT) grant recipient based on its capacity to successfully implement a program that would address a documented need to increase services for TAA-eligible and other unemployed workers in the Appalachian coal-mining region. SWCC serves the state's most disadvantaged population, and the fiscal and social effect of foreign trade has further exacerbated long-standing barriers to residents' economic and occupational advancement. For example, the percentage of residents in the four counties served by SWCC who have a bachelor's degree or higher ranges between 9 percent and 13 percent compared with 36 percent for the state of Virginia. Moreover, the percentage of residents in poverty is approximately twice as much as the state average (Virginia Quick Facts, 2014). SWCC's *PluggedInVA* (PIVA) program offers an avenue out of poverty for these families during a period of high need and little hope through the provision of contextualized occupational skills training specifically designed to meet the needs of low-skilled adults.

For their TAACCCT grant, SWCC partnered with the Virginia Department of Education's Office of Adult Education and Literacy to expand the PIVA program to trade-impacted workers accepted into the Pharmacy Technician, Phlebotomy Technician, Paraoptometry, and Crime Scene Technician PIVA degree programs – fields that SWCC, in conjunction with the national Center for Occupational Research and Development (CORD), determined to be top-growth occupations in southwest Virginia. These four accelerated six-month programs that combine contextualized GED curriculum, the Career Readiness Certificate, college curricular totaling 12 to 28 credits, an array of support services, and industry-recognized certifications, including a constellation of services that consisted of an evidenced-base design, stacked and latticed credentials, online and technology enabled learning, transferability and articulation, and strategic alignment between TAA staff and SWCC leadership.

To evaluate the effect of the PIVA program on participants' academic and employment outcomes, SWCC's third-party external evaluator, Coffey Consulting, LLC, used a mixed methods approach to respond to the following six research questions:

1. To what extent does participation in the PIVA program increase successful student outcomes, as measured by completion and attainment of industry-recognized certificates?
2. To what extent does participation in the PIVA program increase successful student outcomes as indicated by employment in the job field for which they were being trained or enrollment in additional postsecondary education?

3. What student demographic characteristics are associated with successful PIVA program student outcomes (e.g., attainment of certificates; employment or enrollment)?
4. What student demographic characteristics are associated with entering and persisting in the PIVA program?
5. How do components of the PIVA program (intensive/fast-tracked; cohort-based; student supports) impact successful student outcomes?
6. How do PIVA program partners contribute to program development and success?

To answer these questions, quantitative student-level data consisting of academic transcript and wage record data were collected and complemented with qualitative data collected as part of annual site visits, student and faculty surveys, interviews, and focus groups. A quasi-experimental approach, which is the most rigorous method possible given constraints of TAA-eligible individuals precluding an experimental design, was used to analyze the quantitative data, although data limitations prevented any causal relationship to be established. Our analysis of the qualitative data focused on developing a rich understanding of the cultural and context of the PIVA Initiative, capturing the student experience, and generating common or divergent themes. Taken together, these methods helped us to develop a more complete understanding of the PIVA Initiative's outcomes and impact.

SWCC's anticipated outcomes were ambitious given the student population targeted. The following table (Table 1) documents SWCC's TAACCCT grant outcomes specified in the Solicitation for Grant Applications. The PIVA program enrolled more students than SWCC had targeted in their grant application, but the number completing at TAACCCT-funded program of study and/or were still enrolled in the program of study fell short of projections, as did the number of participants who were employed following program completion. However, the number of PIVA participants who completed credit hours was higher than projected.

Table ES1. Key Outcome Measures

	Outcome Measure	TAACCCT Program Participants	
		Target	Actual
1	**Total Unique Participants Served** Cumulative total number of individuals entering any of the grant-funded programs offered	90	92
2	**Total Number of Participants Completing a TAACCCT-Funded Program of Study** Number of unique participants having earned all of the credit hours (formal award units) needed for the award of a degree or certificate in any grant funded program	64	37
3	**Total Number of Participants Still Retained in Their Program of Study or Other TAACCCT-Funded Program:** Number of unique participants enrolled who did not complete and are still enrolled in a grant-funded program of study	13	0

	Outcome Measure	TAACCCT Program Participants	
		Target	Actual
4	Total Number of Participants Completing Credit Hours: Total number of students enrolled that have completed any number of credit hours to date.	72	89
5	**Total Number of Participants Earning Credentials** Aggregate number of degrees and certificates completed by participants in grant-funded programs of study	64	37
6	**Total Number of Participants Enrolled in Further Education After TAACCCT-funded Program of Study Completion** Total number of students who complete a grant-funded program of study and enter another program of study	25	6*
7	**Total Number of Participants Employed After TAACCCT-funded Program of Study Completion** Total number of students (non-incumbent workers only) who completed a grant-funded program of study entering employment in the quarter after quarter of program exit	35	23*
8	**Total Number of Participants Retained in Employment After Program of Study Completion:** Total number of students (non-incumbent workers only) who completed a grant-funded program of study and entered employment in the quarter after the quarter of program exit who retain employment in the second and third quarters after program exit	26	Unknown‡
9	**Total Number of Those Participants Employed at Enrollment Who Received a Wage Increase Post-Enrollment:** Total number of students who are incumbent workers and who enrolled in a grant-funded program of study who received an increase in wages after enrollment	**15**	Unknown‡

*Based on survey data collected by evaluation team; no student-unit-record (SUR) data available.

‡No data available.

Additional key findings from this evaluation are as follows:

- SWCC PIVA program personnel implemented the program components with a high degree of fidelity.
- PIVA program personnel were singled out by participants as having a substantial positive impact on their academic success.
- PIVA program participants had higher capstone course grades and higher average grade point averages compared with Comparison group students.
- PIVA program participants had higher persistence rates but slightly lower completion rates. However, PIVA program completers had higher average grade point averages compared with Comparison group students.
- PIVA program participants and Comparison group students had similar rates of subsequent postsecondary enrollment and employment.

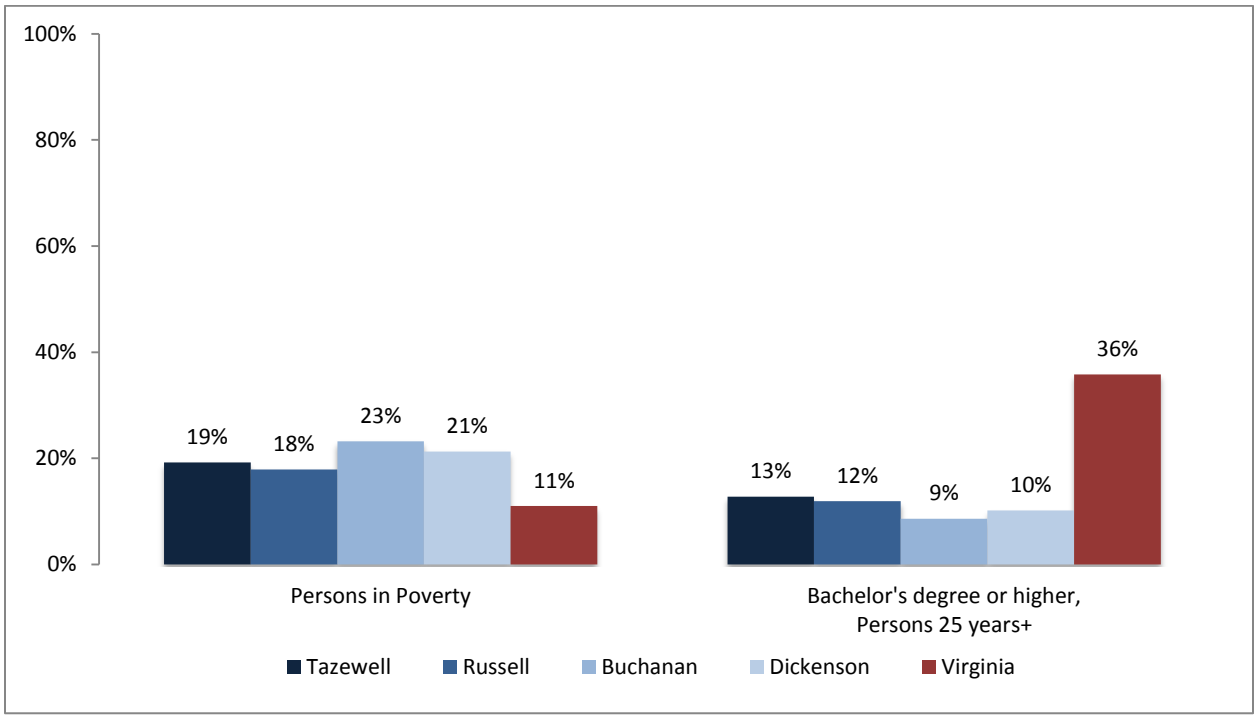
Some of the limitations associated with this evaluation are due to the small number of PIVA and Comparison group participants and the breadth and depth of the quantitative data available. Both of these factors affected the evaluation team's ability to establish a statistical relationship between PIVA program participant outcomes compared with students assigned to the Comparison group.

The evaluation team found that the following six factors contributed to SWCC's PIVA program success: 1) having a success-oriented culture, 2) taking a student-centered approach, 3) implementing proven practices, 4) providing wraparound support, 5) having quality program personnel, and 6) having a clear set of goals and strategies to meet these goals. At the same time, SWCC faced several challenges over the course of the initiative. First, the employer partners were less of an on-campus presence as the PIVA program personnel had hoped, although they did fulfill their obligations to the College and to participants. Second, it proved difficult for project leaders to leverage the partnership of the College and its adult education partner in the initiative to promote greater collaboration between the two organizations. SWCC also had difficulty securing access to high-quality employment data, which would have provided fuller insight into the impact of PIVA program completion on participants' employment prospects. At a more basic level, SWCC targeted students who were hardest to reach and support – at-risk and unemployment individuals – which makes the program's successes even more meaningful.

INTRODUCTION

In 2012, Southwest Virginia Community College (SWCC) was selected as Virginia's single-site Trade Adjustment Assistance Community College Career Training (TAACCCT) grant recipient based on its capacity to successfully implement a program that would address a documented need to increase services for TAA-eligible and other unemployed workers in the Appalachian coal-mining region. SWCC serves the state's most disadvantaged population, and the fiscal and social effect of foreign trade has further exacerbated long-standing barriers to residents' economic and occupational advancement. For example, the percentage of residents in poverty in the four counties served by SWCC is approximately twice as much as the state average (Figure 1; Virginia Quick Facts, 2014). Moreover, the percentage of residents who have a Bachelor's degree or higher ranges between nine percent and 13 percent, compared with 36 percent for the state of Virginia (Virginia Quick Facts, 2014). SWCC's *PluggedInVA* (PIVA) program offers an avenue out of poverty for these families during a period of high need and little hope through the provision of contextualized occupational skills training specifically designed to meet the needs of low-skilled adults.

Figure 1. Percentage of Population in Poverty and with High School Degrees or Less as the Highest Education, by County



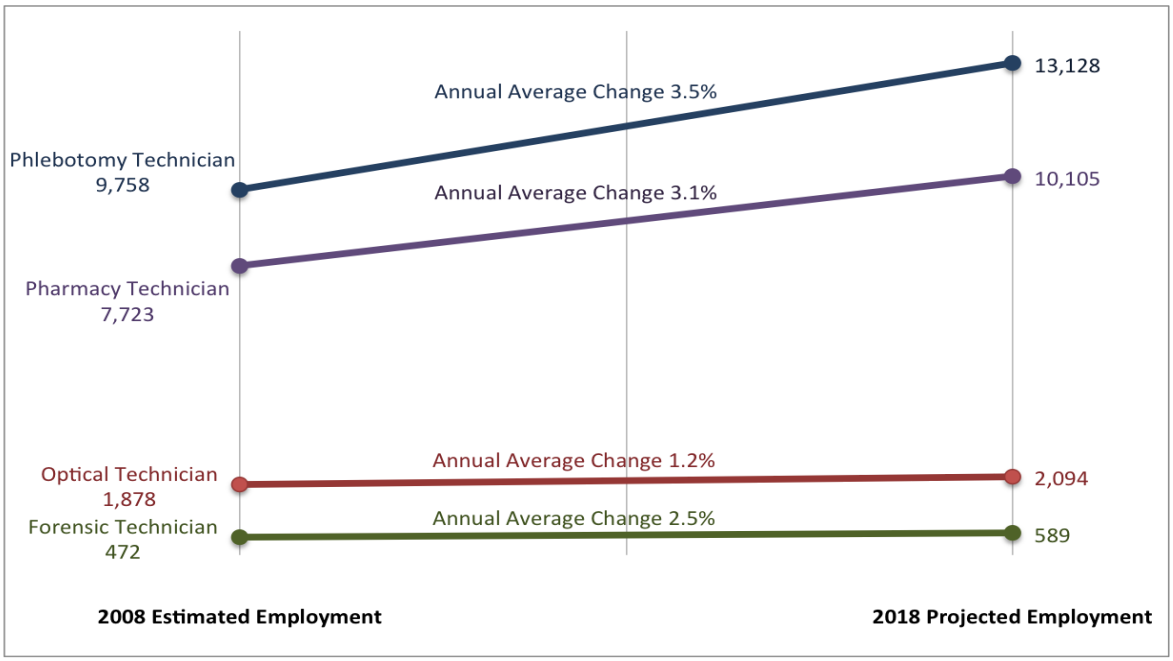
Source: Virginia Quick Facts.

PIVA is a pre-existing program and a project of the Virginia Adult Learning Resource Center (VALRC) at Virginia Commonwealth University's (VCU) School of Education. The program has expanded across Virginia and received funding from the U.S. Department of Education's

TAACCCT grant program. VCU describes the PIVA model as "a career pathways program that provides motivated adult learners with a contextualized GED curriculum integrated with industry-specific technical training as a means to develop essential workplace skills for entry-level jobs in targeted industries" (VALRC, 2016). SWCC participated in PIVA at the statewide level and implemented its first PIVA program in 2009 in the field of information technology, so the College was quite familiar with PIVA's components and requirements before receiving this TAACCCT grant in 2013.

As part of this iteration of PIVA at SWCC, the College partnered with the Virginia Department of Education's Office of Adult Education and Literacy to expand the PIVA program to at-risk, unemployed, low-skilled, and disadvantaged populations accepted into the Pharmacy Technician, Phlebotomy Technician, Paraoptometry, and Crime Scene Technician PIVA degree programs – fields that SWCC, in conjunction with the National Center for Occupational Research and Development (CORD), determined to be top-growth occupations in southwest Virginia (Figure 2). SWCC also collaborated with VALRC to redesign the adult education component in an open-source format and produce standardized, online manuals (a statewide PIVA website allows colleges to share these types of resources) and Southwest Regional Adult Education Center (SRAEC) to provide the adult education instruction (SRAEC has collaborated on more than 13 PIVA cohorts).

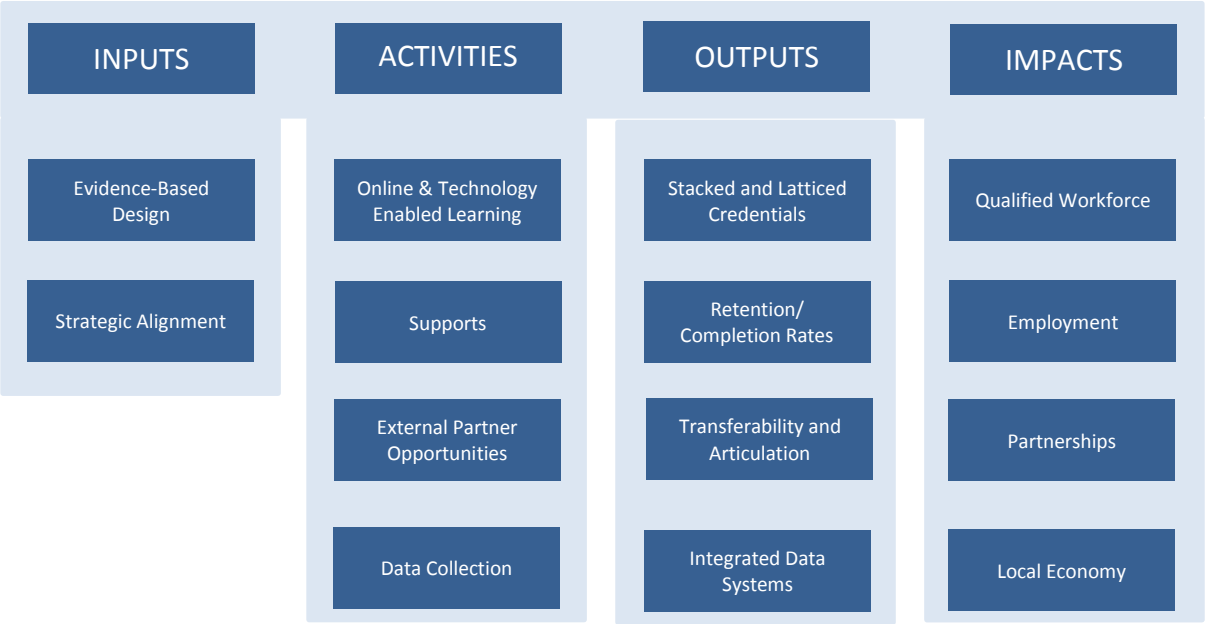
Figure 2. Occupational Employment and Future Employment Outlook for PIVA Program Occupations



Source: SWCC TAACCCT Grant Proposal.

These four accelerated, six-month programs offered at-risk adult students a combination of contextualized GED curriculum, the Career Readiness Certificate, a stacked and latticed college curriculum totaling 12-28 credits, online and technology-enabled learning, and an array of evidenced-based support services. These programs consisted of transferable coursework and they were structured so that there was strategic alignment between TAA staff and SWCC leadership (Figure 3).

Figure 3. PIVA Program Logic Model



SWCC's third-party external evaluator, Coffey Consulting, LLC (Coffey), drew on multiple quantitative and qualitative data sources to evaluate the effects of participation in the PIVA program on participants' academic and employment outcomes. Over the course of four years (2013 to 2016), Coffey's evaluation team was provided with student-level data from SWCC and its partnering organizations (Virginia Employment Commission [VEC] and National Student Clearinghouse [NSC]), and conducted four site visits to monitor PIVA program implementation through the collection of interview, focus group, and student survey data, as well as relevant documents (e.g., course catalogs, class syllabi, program flyers, and class materials). Overall, 143 students participated in this evaluation – 92 PIVA program participants and 51 comparison group students.

The Coffey evaluation team's interim findings, documented in this final report, provide a comprehensive summary of the PIVA program. The findings presented in this report are intended to inform SWCC's work by summarizing grant activities and outcomes and meet the reporting requirements of the U.S. Department of Labor-funded TAACCCT grant. The sections

that follow describe the four occupational programs targeted in this grant and the guiding research questions and present an overview of the evaluation team's methodological approach. This is followed by the evaluation team's findings and recommendations. A complete account of the methodologies, data sources, and data limitations can be found in Appendix A, and example data collection instruments can be found in Appendix B.

Overview of Targeted Programs

Each of the four programs targeted in this grant (Pharmacy Technician, Phlebotomy Technician, Paraoptometry, and Crime Scene Technician) were, as described above, identified as occupational fields that would experience significant growth in the southwest Virginia region. A description of each of these programs, their completion requirements, and anticipated outcomes are presented in Table 1. These programs included an employer partner with unfilled entry-level jobs that assisted in curriculum development and committed to interviewing participants. Drawing on their previous experience using the PIVA model, SWCC developed stackable credentials that align with existing related degree programs and prepare students for employment in high-skill, high-wage industries. Specific strategies included:

1. Creation and implementation of stacked and latticed credentials with multiple career paths using contextualized curriculum for each of the four occupational programs targeted in this grant.
2. Expansion and enhancement of employer partnerships to ensure industry involvement in the development and implementation of the targeted occupational programs.
3. Integration of partners into the planning and implementation efforts to enhance program access, retention, and completion for TAA and other unemployed workers and ensure seamless transition to work and/or additional training leading to increased wages and opportunities.
4. Expansion of access to SWCC's PIVA courses through implementation of online and hybrid coursework and/or increasing flexible scheduling options for students.

The major foci and hypothesized benefits of SWCC's PIVA program include programs constructed in a block format, utilizing cohort-style community building and support, and incorporating technology to simulate real-world experience and provide hands-on engagement.

Table 1. PIVA Grant Program Descriptions, Completion Requirements, and Outcomes

Occupation	Description	Completion Requirements	Knowledge and Occupational Skills	National Certification
Pharmacy Technician	Prepares students to assist and support licensed pharmacists and provides program participants with knowledge, skills, and techniques of pharmacy practice to order, stock, package, prepare, and dispense medications under the supervision of a licensed pharmacist.	▪ A minimum of 25 credit hours ▪ A grade of C or better in all program courses ▪ Background check	▪ Laboratory balances ▪ Sterile processing ▪ Medical terminology ▪ Customer service ▪ Computer skills	Pharmacy Technician Certification (PTC)
Paraoptometry	Provides students with the knowledge and skills to carry out a wide variety of front desk procedures in an optometrist office such as scheduling appointments, recalling patients, and accepting payments. Additional training may include different styles of eyewear, frame repair and adjusting, office materials, purchasing and other duties of a non-technical nature.	▪ A minimum of 28 credit hours ▪ A grade of C or better in all program courses ▪ Background check	▪ Documenting ▪ Sterile processing ▪ Clerical ▪ Customer service ▪ Computer skills	▪ Certified Paraoptometric ▪ Certified Paraoptometric Assistant ▪ Certified Paraoptometric Technician
Phlebotomy Technician	Provides students with knowledge and applied skills to draw and process blood and other samples for medical laboratory analysis. Students are also trained in the collection and transportation of laboratory specimens.	▪ A minimum of 25 credit hours ▪ A grade of C or better in all program courses ▪ Background check	▪ Draw blood ▪ Enter patient info ▪ Collect specimens ▪ Organize tools ▪ Match lab forms ▪ Medical terminology ▪ Customer service ▪ Computer skills	Phlebotomy Technician Certification (CPT)
Crime Scene Technology	Provides students with the knowledge, skills, and techniques to investigate crime by collecting, organizing, and analyzing physical evidence at crime scenes.	▪ A minimum of 27 credit hours ▪ A grade of C or better in all program courses ▪ Background check	▪ Collect evidence ▪ Keep records ▪ Use chemicals ▪ Testify in court ▪ Take photos ▪ Legal codes, court procedures ▪ Chemistry ▪ Customer service ▪ Computer skills	Certified Crime Scene Analyst (CCSA)

Research Questions

Six core research questions were articulated in the original evaluation plan, but modifications were made based on data availability and quality. The following chart shows the original research questions, their data sources (where applicable), and their data limitations (Table 2).

Table 2. Research Questions, Data Sources, and Limitations

Research Questions	Data Sources	Limitations
1. To what extent does participation in the PIVA program increase successful student outcomes, as measured by completion and attainment of industry-recognized certificates?	▪ Transcript data	Data on program completion was provided by SWCC, but no data were available on participants' attainment of industry-recognized certificates.
2. To what extent does participation in the PIVA program increase successful student outcomes as indicated by employment in the job field for which they were being trained or enrollment in additional postsecondary education?	▪ Transcript data ▪ Wage record data ▪ NSC data	Data on post-program employment and subsequent postsecondary enrollment were provided by SWCC (via the VA Employment Agency and NSC), but the data did not contain information on whether participants received a promotion or change in responsibilities or whether they were enrolled in a stackable credential.
3. What student demographic characteristics are associated with successful PIVA program student outcomes (e.g. attainment of certificates; employment or enrollment)?	n/a	Due to small cohort sizes and relatively homogeneous cohorts, outcomes by student demographics could not be computed and compared with statistical reliability.
4. What student demographic characteristics are associated with entering and persisting in the PIVA program?	n/a	Due to small cohort sizes and relatively homogeneous cohorts, outcomes by student demographics could not be computed and compared with statistical reliability.
5. How do components of the PIVA program (intensive/fast-tracked; cohort-based; student supports) impact successful student outcomes?	▪ Student and staff interviews ▪ Student focus groups ▪ Student surveys	Qualitative data were collected on all aspects of the PIVA program, but no student-level data were available to connect these components to student outcomes.
6. How do PIVA program partners contribute to program development and success?	▪ Faculty and staff interviews	Qualitative data were collected from within-College partners, such as the adult education staff who partnered with the PIVA program staff, but no student-level data were available to connect partners' contribution to program outcomes.

Cohort Eligibility

Students enrolled in the PIVA and Comparison programs received different services, although they earned the same professional certificate upon completion. The eligibility requirements of the two programs were as follows:

PIVA Program

To be considered for the PIVA program, students had to meet the following eligibility requirements (in rank order):

1. Expressed interest in the program in response to postcard and other advertisements;
2. Applied to the PIVA program;
3. Met minimal criteria (preference is given to students in the following order): students without a high school diploma or GED, students with a high school diploma or GED, and students with a previous college experience but no degree;
4. Were not a convicted felon; and,
5. Were accepted into one of the four specified programs of study.

Comparison Program

The comparison group consisted of students who:

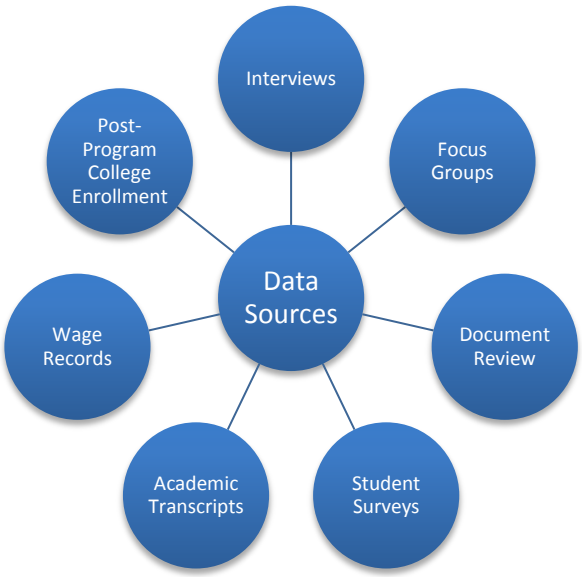
1. Enrolled in one of the four programs of study;
2. Met the same minimal criteria (not a felon); and,
3. Enrolled in the key program-related course during a specified term[1].

The comparison programs in which the comparison group students were enrolled are in the same academic fields as the enhanced PIVA grant-funded programs. The comparison programs, however, are not fast-tracked or cohort-based, and students must seek out available supports instead of being provided a high level of intentional support (like in the PIVA group).

Methodological Approach

Both quantitative and qualitative data sources were used to evaluate SWCC's PIVA program implementation and outcomes (Figure 4). The use of multiple data sources allows the researcher to triangulate findings by identifying themes or areas of convergence[2] and is particularly relevant when evaluating new and unstudied programs like SWCC's PIVA program.

Figure 4. Overview of Quantitative and Qualitative Data Sources



The quantitative data were analyzed using a quasi-experimental case-control variant of a cohort design, which was the most rigorous method possible given constraints of TAA-eligible

[1] Note: Comparison group students may have enrolled in the key course in a different semester than enrollment into the program, whereas PIVA students enrolled in this key course during their first semester in the PIVA program.

[2] Leech, N. L., & Onwuegbuzie, A. J. (2007). An array of qualitative analysis tools: A call for data analysis triangulation. *School Psychology Quarterly, 22*, 557–584.

individuals precluding an experimental design. Due to limitations in the breadth and depth of the quantitative data available (see Appendix A, Data Considerations), the analysis presented in this report is largely descriptive in nature. Moreover, given that much of the quantitative data findings are not statistically significant, due to cohort size and data quality, the evaluation team has focused on "meaningful" differences – that is, differences that are important and actionable even if no definitive relationship can be established statistically. The qualitative data collected during the evaluation team's annual site visits were analyzed to contextualize the quantitative data and generate common or divergent themes. Taken together, these methods helped to develop a more complete understanding of the PIVA program's outcomes and impact.

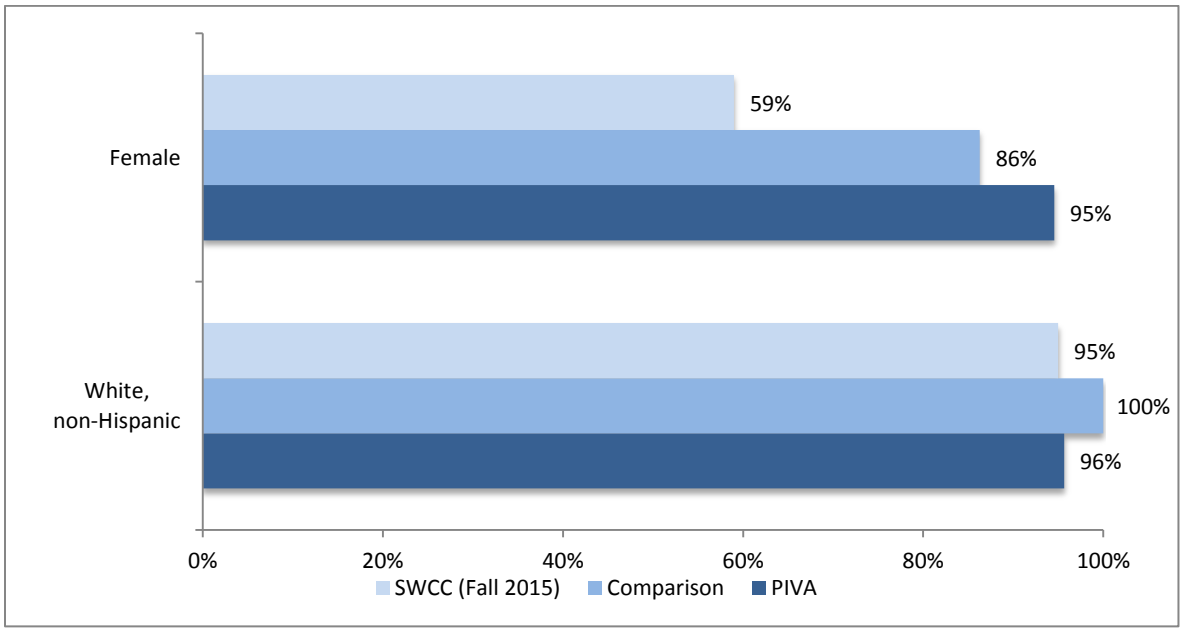
PIVA PROGRAM DESIGN, PARTICIPATION, AND OUTCOMES

Participant Characteristics

For over 48 years, SWCC has provided educational and cultural enrichment opportunities for residents of the Appalachian counties of Buchanan, Dickenson (partial), Russell, and Tazewell. This distinctive region, known for its rich music and arts communities, is also one of the most economically-depressed regions in the Commonwealth of Virginia. SWCC utilized the PIVA program model to better assist TAA-eligible and other unemployed workers by offering additional support to complete a streamlined program of study in one of the four top-growth occupation categories.

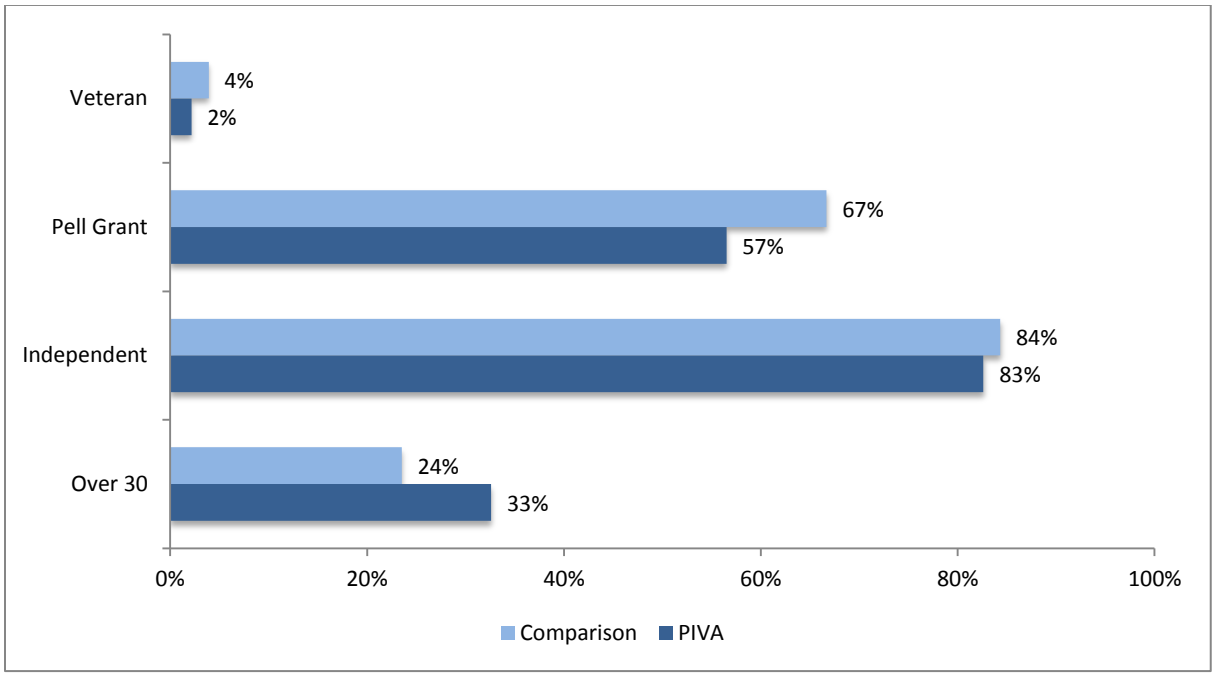
SWCC's catchment area is highly homogeneous in terms of race and ethnicity, and this is reflected in the percentage of students identifying as White, non-Hispanic both within the broader SWCC undergraduate community (U.S. Department of Education, 2015) and among the PIVA and Comparison groups; almost all (96 percent) of PIVA participants identified as White, non-Hispanic (Figure 5). Likewise, the majority of PIVA participants were female, which is consistent with the Comparison group and, to a lesser extent, SWCC more generally. According to SWCC's PIVA Project Director and Program Coordinator, one of the primary reasons female students were overly represented in the PIVA and Comparison groups was that female students were more likely to apply to healthcare-related fields (e.g., Phlebotomy, Pharmacy Technician, and Paraoptometry) than male students. In addition, male applicants were much more likely to have a felony record, which makes them ineligible for the Crime Scene, Phlebotomy, and Pharmacy Technician programs.

Figure 5. Percentage of Students that are Female and White, Non-Hispanic, by Cohort



Despite consistencies between the PIVA and Comparison groups along the dimensions of race and gender, there were notable – but not statistically significant – differences in age and Pell grant receipt status (used to proxy low-income status; Figure 6). PIVA participants were more likely than Comparison group students to be over 30 years old (33 percent compared with 24 percent), although the average age of PIVA participants and Comparison group students was the same – 28 years. This finding is also consistent with the aims of the PIVA program and their targeting of individuals who have already been established (and displaced) in the regional workforce.

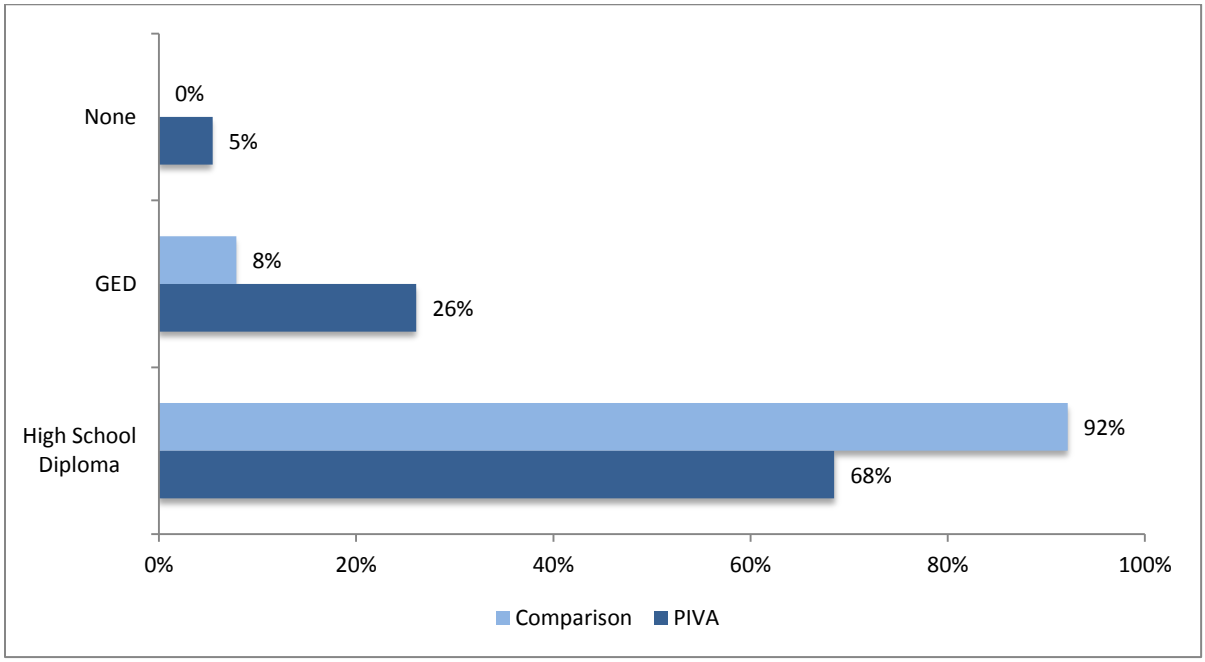
Figure 6. Percentage of Students by Selected Characteristics, by Cohort



A similar percentage of PIVA and Comparison group students identified as financially independent, but PIVA participants were less likely to receive a Pell grant (57 percent compared with 67 percent). Given that the PIVA program targeted at-risk and unemployed workers, the financial need of PIVA participants likely qualified them to receive a Pell grant. It should be noted that the PIVA participants in the first Phlebotomy Technician cohort, while having a limited timeframe to complete the financial aid application, had all of their expenses covered by the program. Unlike the other occupational programs, and later Phlebotomy cohorts, this initial group of PIVA participants was supported through a combination of tobacco funds, WIA/Southwest Regional Adult Education support, the SWCC Educational Foundation, and federal financial aid that covered the cost of coursework, books, supplies, laptops, all fees, and even childcare and gas expenses. Two other factors that may have contributed to the lower Pell rate among PIVA participants were: 1) the first Phlebotomy Technician cohort (Fall 2013) only had two weeks to complete their financial aid applications because their classes started midway

through the semester, while the Comparison group students had two months to apply;[3] and, 2) PIVA participants were, by design, less likely to have a high school diploma or GED, and these students would not have met the high school/GED requirement to apply for financial aid (see Figure 7).

Figure 7. Percentage Distribution of Students by Secondary School Credential, by Cohort



As indicated above, PIVA program participants were less likely to have high school diplomas and more likely to have GEDs or no secondary school credential at all (Figure 7). Approximately two-thirds (68 percent) of PIVA participants had a high school diploma and just over one-quarter (26 percent) had a GED, compared with 92 percent and 8 percent of Comparison group students, respectively. Five percent of PIVA participants had neither a high school diploma nor a GED. PIVA participants' non-traditional academic backgrounds are not unexpected given the program was originally designed as an Adult Education GED program for students who did not have a high school degree or GED; as such, PIVA applicants without a high school diploma/GED were given priority during the selection process. This finding, in fact, is evidence of SWCC's success in recruiting its target market.

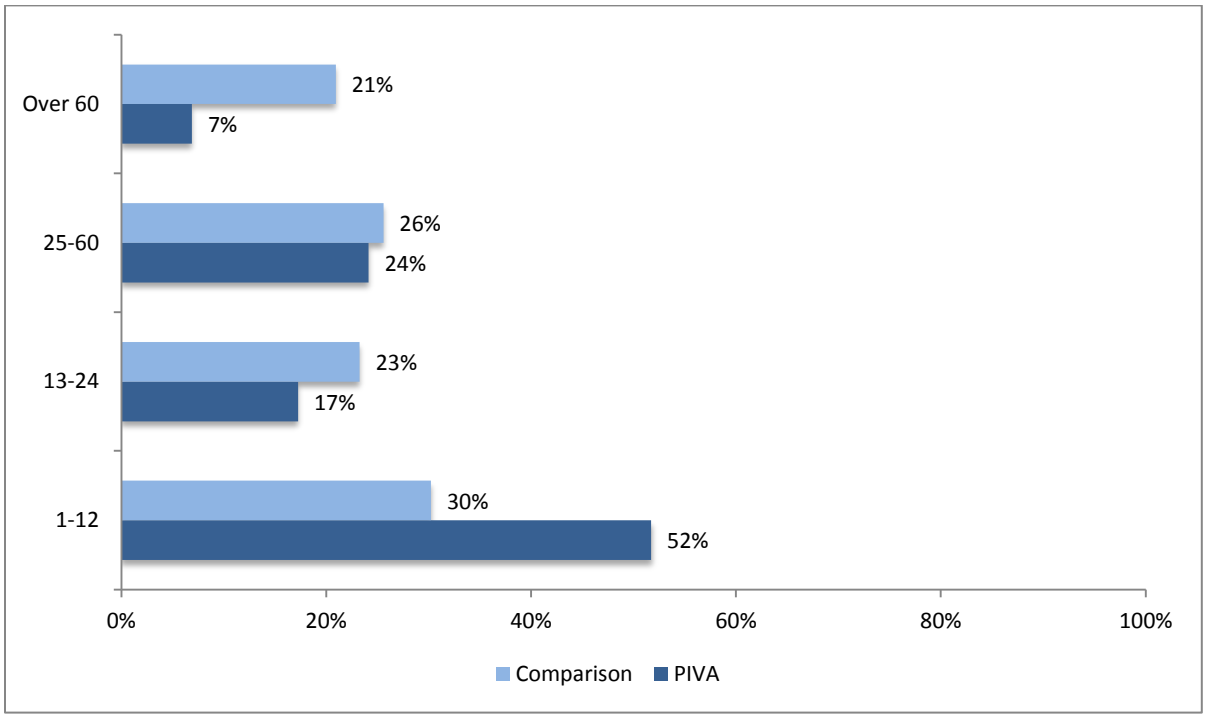
Sixty-one percent of PIVA program participants had prior postsecondary credit hours compared with 88 percent of Comparison group students. While this is expected given the PIVA program target population, it is surprising that such a substantial percentage of PIVA participants had previous higher education experience, especially given their less-traditional secondary school

[3] The PIVA program team later adjusted the program scheduling so PIVA participants in the remaining cohorts would have more time to apply for financial aid, and the PIVA Program Coordinator offered participants assistance with completing these forms.

qualifications. That said, of the PIVA and Comparison group students with prior credit, PIVA participants earned, on average, a smaller number of credit hours (22 compared with 30 prior credit hours, respectively). When the distribution of prior credit hours was examined, more than half (52 percent) of PIVA participants accrued 12 prior credit hours or less (equivalent to a semester or less of coursework, and perhaps just a class or two) compared with less than one-third (30 percent) of Comparison group students with 12 prior credit hours or less (Figure 8).

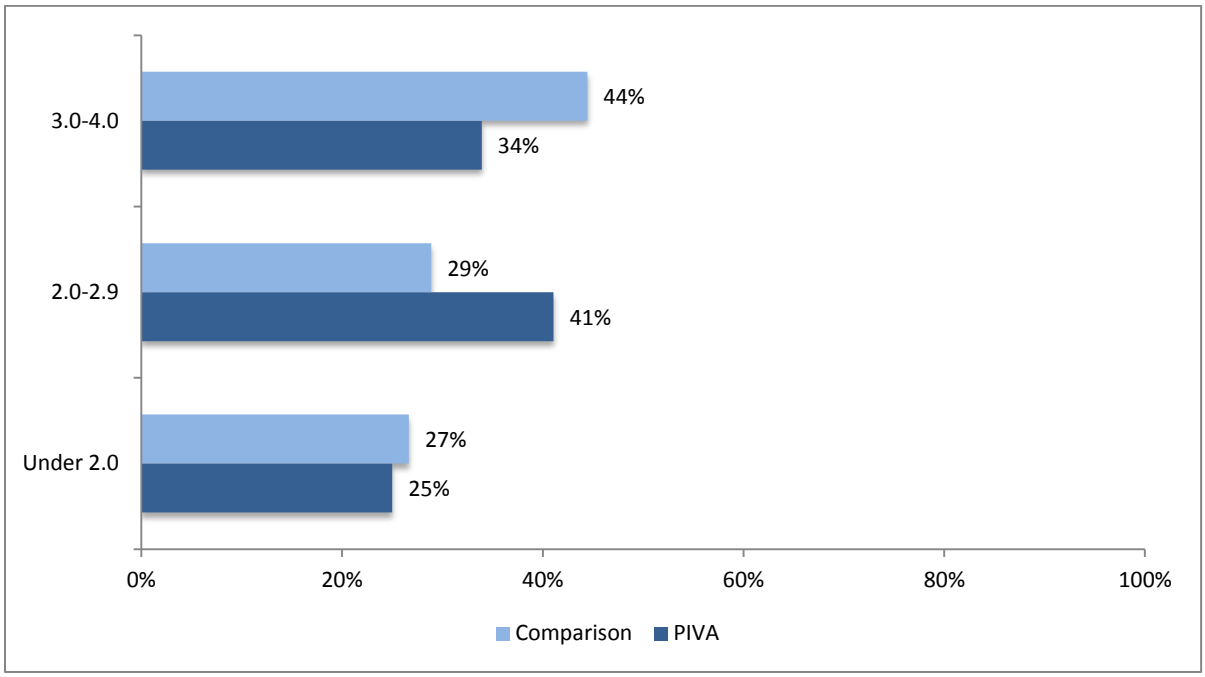
It is important to note that the majority of these prior credits were likely accrued at SWCC and not transferred in from another institution. The student-level data available were unable to distinguish where these prior credits were accrued. Moreover, it is also very likely that most of these prior credits did not apply to the PIVA programs of study.

Figure 8. Percentage Distribution of Students by Number of Prior Credit Hours Accumulated, by Cohort



In an examination of the average GPA of students with prior credits, PIVA participants were more likely to have lower prior GPAs than their Comparison group counterparts (Figure 9). PIVA participants averaged a lower prior GPA of 2.5 compared with 2.7 for Comparison group students, and only 34 percent of PIVA participants with prior credits had a prior average GPA that was 3.0 or higher compared with 44 percent of Comparison group students with prior credit hours. This suggests that PIVA participants with prior postsecondary experience and credit hours were more academically challenged than students in the Comparison group. Again, given the intent and design of the PIVA program, this finding is expected.

Figure 9. Percentage Distribution of Students by GPA Earned in Prior Postsecondary Experience, by Cohort



Taken together, the PIVA and Comparison group students' demographic and academic characteristics suggest that, while largely homogenous, PIVA program participants were slightly more non-traditional than their Comparison group counterparts in that they were older, held less conventional secondary school qualifications, were less experienced with higher education (as measured by prior credit accrual), and had less postsecondary success (as measured by prior GPA). Given these meaningful differences between the two programmatic groups, it is fair to say that the PIVA program has done what it set out to do – that is, offer occupational avenues to some of the most disadvantaged and at-risk individuals in the southwestern Virginia region.

Program Participation

The PIVA programs were advertised by sending information postcards to residents of SWCC's catchment area. The PIVA Project Director said that many more individuals requested application materials than submitted applications, which she thought was due to the amount of paperwork potential applicants had to complete and having to locate documents that they may not have readily available (e.g., tax records). That said, the PIVA Program Coordinator reported that each occupational cohort received between 80 and 100 applications, except Crime Scene Technician,

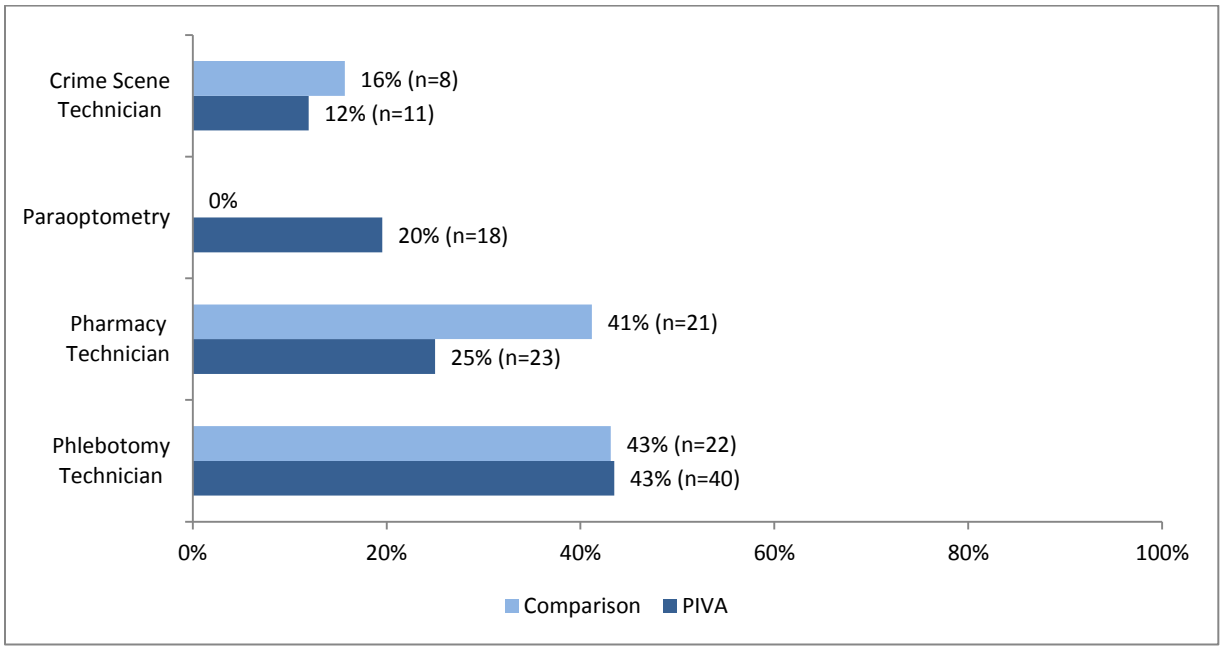
> *…it is fair to say that the PIVA program has done what it set out to do … offer occupational avenues to some of the most disadvantaged and at-risk individuals in the southwestern Virginia region.*

which received approximately 40 applications per cohort. About one-quarter of these applicants went on to enroll in a PIVA occupational program.

The low number of applications for the Crime Scene Technician program is noteworthy, particularly due to the fact that both the PIVA Project Director and Program Coordinator anticipated the Crime Scene Technician program to be the most popular of the four occupational offerings. However, they attributed the comparatively low number of Crime Scene Technician applications and enrollments to the eligibility requirements, which bar enrollment to individuals who have a felony conviction. SWCC staff shared that drug use is a major problem in the region and the felony rate was higher for males than females.

Analysis of students accepted into the PIVA program and selected into the Comparison group shows an uneven distribution across the four occupational areas (Figure 10). Forty-three percent of both PIVA and Comparison group students were enrolled in the Phlebotomy Technician program, which consisted of two cohorts of PIVA participants (Spring 2013, Spring 2015) and one cohort of Comparison group students (Fall 2014). Pharmacy Technician program represented one-quarter (25 percent) of PIVA participants and 41 percent of Comparison group students. The Paraoptometry program enrolled 20 percent of PIVA participants, and no Comparison group was initiated during the time this evaluation was conducted. SWCC's Paraoptometry Comparison group began in Fall 2016, which fell outside the timeframe of this evaluation. Twelve percent of PIVA participants and 16 percent of Comparison group students were enrolled in the Crime Scene Technician program.

Figure 10. Percentage Distribution of Students by Occupational Program Enrollment, by Cohort



Participant Outcomes

The following section addresses the four research questions for which the evaluation team had reliable and valid data. Where possible, multiple sources of data were used to triangulate findings by themes, areas of convergence, and areas of variation.

To what extent does participation in the PIVA program increase successful student outcomes, as measured by completion and attainment of industry-recognized certificates?

To understand student outcomes, it is important to first understand how effective SWCC was at implementing the PIVA program as outlined in their TAACCCT grant, as implementation is directly tied to the students' experiences and their ability to be successful in their program of study. From an implementation perspective, SWCC's PIVA programs did what they were designed to do – PIVA participants were provided with quality and comprehensive academic and career-technical instruction in an accelerated format. The evaluation team found that the PIVA programs were well-designed and effectively executed by SWCC PIVA program staff in terms of evidenced-based practices, implementation fidelity, intentionality, leadership, personnel, instruction, and support. (These areas were discussed in detail as part of the first and second interim reports submitted to SWCC.)

Implementation

Principles

Each of the PIVA programs was grounded in evidenced-based program design and delivery principles that supported student achievement. The programs provided meaningful academic learning experiences coupled with personal enrichment opportunities. Over the course of the four annual site visits and interviews and focus groups with students, faculty, and staff, the evaluation team identified the following principles that supported implementation effectiveness and contributed to creating a meaningful experience for the learners:

- Focusing on the student experience and student empowerment.
- Identifying the "real" needs of students and directly supporting those needs.
- Approaching learning as collaboration and co-creation.
- Creating an effective workflow and setting to enhance the user experience.
- Encouraging academic and affective engagement in service delivery.
- Emphasizing value creation in ways that benefit all stakeholders.

Fidelity

SWCC's PIVA initiative demonstrated overall implementation fidelity to the TAACCCT grant in that each PIVA cohort operated in adherence to the original design and intent of the grant initiative and was aligned with SWCC's statement of work. The PIVA initiative met its core

implementation objectives, and key outputs and milestones linked to each program were realized. Importantly, the design and implementation of the four programs were based on a sound logic model, effective instructional practices, and an operational structure that provided a platform for quality student learning, personal development, and career preparation. Over the course of SWCC's TAACCCT grant, the College implemented the following activities in accordance with its TAACCCT grant application:

- Offered online and technology-enabled learning.
- Offered contextualized and hands-on training.
- Implemented stacked and latticed credentials.
- Provided student support services (i.e., academic guidance, tutoring and mentoring, life skills counseling and guidance).
- Employed faculty members who were practitioners and professionals in their field.
- Developed and expanded the Forensics and Optometry lab/examination room that had state-of-the-art equipment and replicated what would be found in real life setting.

Intentionality

Looking across the PIVA programs, the evaluation team found that intentionality and consistency drove the involvement of college and adult education personnel. The focus for most of the faculty and staff interviewed was on ensuring the PIVA participants were well-served in return for the time they invested in their program of study. Most collaborators tried to create an educational environment where the PIVA participants wanted to be, one in which they could create new value and expand their capacity, and develop a sense of personal agency and efficacy. The evaluation team's review of course syllabi and classroom observations found that classroom engagement was made unavoidable and essentially mandatory. The teachers observed during the site visits were focused on incorporating the interests, abilities, and learning styles of their students, and cooperative and active learning headlined the list of practices applied in the classroom setting. PIVA participants were given opportunities to participate in class discussions, lead learning activities, design their own learning projects, and explore topics that interested them within the context of the field. They also were guided toward their goals using a variety of student-centered methods. These included inductive teaching and learning, experiential and workplace-based learning, wrap-around counseling, and self-paced and small group learning.

Leadership

At the program management level, the evaluation team's faculty and staff surveys evidenced that quality leadership was in place to support program operations and implementation. Effective direction came from the College, PIVA program staff, and from its partner, SRAEC, which provided the adult basic education instructors. Program personnel indicated that they felt a sense of empowerment to carry out their roles, and expressed satisfaction at the level

and quality of support and autonomy they were provided by the leadership team, as articulated in this comment from a PIVA program instructor:

> *One factor that was very helpful was that there was a great support structure in place at the college. [The PIVA Project Director], [PIVA Program Coordinator], and [Paraoptometry instructor] were wonderful. They were there when I needed to ask questions or had an issue. We worked together as a team, and I felt very supported. There was a great network to work with.*

The survey data supported this sentiment, crediting the commitment of the PIVA Program Coordinator and the leadership skills of the PIVA Project Director as the number one and number two factors that contributed to effective implementation. The PIVA Project Director and Program Coordinator employed proven management strategies for accomplishing activities and tasks, and for ensuring that ample capacity, motivation, and commitment were in-place and sustained. During interviews with the evaluation team, the Director and Coordinator discussed the importance of using an inclusive decision-making process and emphasized identifying and empowering qualified personnel and cultivating shared engagement and morale among both practitioners and participants.

PIVA faculty and staff talked about the PIVA Project Director's strong administrative skills and leadership style, which was distinguished by a respect for the views and ideas expressed by others, an aptitude for listening, and a willingness to work with others to define and achieve common goals. She was also credited for being adept at ensuring the right people were in place to do the type of quality work required to realize program effectiveness and for building and maintaining stakeholder support. The PIVA Program Coordinator shared the following perspectives on the management style and skills of the PIVA Project Leader with whom he worked closely. His views were reflected by those voiced by PIVA program staff and instructors during interviews with the evaluation team:

> *[The PIVA Project Director] is a super thinker. She can make quick decisions...She has good organizational skills and management skills…She worked well with faculty members, administrators, and with our adult education partner. She got out in front of issues and showed a willingness to learn and adapt. She also let me go ahead and do my job and was always supportive.*

Likewise, the PIVA program participants, during focus groups with the evaluation team and in their survey responses, also recognized the PIVA Program Coordinator as an inspirational and well-respected resource. "[He] is awesome," shared one participant in a focus group held with the evaluator team. "He's got our backs," remarked a second participant, and a third shared: "If it wouldn't have been for [the PIVA Project Coordinator], I wouldn't have come to school."

Personnel

At the level of program delivery - where the instruction and support touched the students – PIVA program personnel had the requisite experience and skills to be effective; as a group they were dedicated educators that expressed broad-based and authentic commitment and concern for students, as conveyed during interviews with the evaluation team in which staff emphasized the importance of helping students succeed. The PIVA participant focus group and survey data indicate that the program instructors were generally perceived as knowledgeable and credible; effective in delivering content and learning activities; reliable sources of support and guidance; and interested in the students' personal well-being and academic success.

For example, participants in the Phlebotomy program attributed their success to their instructional staff, such as this remark made by one student: **"**[This instructor] is one of the best teachers and goes through everything we need to know, and [another instructor] is a great teacher too." Participants in the Paraoptometry and Crime Scene programs were also surveyed about the supportive elements of their program, and they too voiced affection and respect for the PIVA program instructors – "They keep us on our toes, and we keep them on their toes." The appreciation extended to what the participants saw as the instructors' willingness to bring their knowledge-from-the-field directly into the classroom and weave it into the learning. As one Crime Scene program participant commented: "it helps make the learning real for me and others; it brought it all closer." The instructors also were complimented for their consistency and clarity in communicating expectations and in the reasonableness of their demands. And, in what echoed the perspective of most students in the program, one individual responded in the following manner when asked if the instructors and program staff cared if they succeeded:

> *All of the instructors have showed care and dedication in ensuring our success is achievable in the program. They are there to answer any questions we have, they are willing to spend one on one to ensure our comprehension of the course.*

The adult education instructors were also widely appreciated by students and staff for caring about the students and their achievements. They were praised by the PIVA faculty, staff, and program participants for their willingness to be patient, present, and accessible. Among the many positive comments shared by PIVA program participants, one noted simply that "[t]he adult education teachers make us feel more comfortable," and another participant shared that "[The adult education instructor] makes it fun." Participants said they also benefitted from having several core college-level instructors who had well-established track records in their field, and, importantly, were able to effectively weave their real-life experiences and knowledge into the classroom instructional setting. Participants unanimously identified the PIVA Program Coordinator as central to the effectiveness of the programs for his role in providing support to the students and as a link that brought together the elements of each PIVA program and the

overall initiative.

Instruction

The teaching and coaching across the programs was robust and provided the students with what the Program Coordinator framed as "hope and a path forward." The majority of instructors utilized practices and methods considered effective at supporting student learning, in particular among at-risk learners. Employability and work-readiness competencies necessary for obtaining and holding a job were taught in the classroom and also learned, first-hand, in work-based experiences. A central part of each program was for the students to take what they were taught in class and apply it in the field, in real-world settings. Forming and sustaining supportive relationships within the context of teaching and learning was also a core strategy found with each program. It is of value to note that education research consistently shows that a student's success in higher education, and his or her job satisfaction after college, are linked to having instructors and mentors who cared about them, helped them get excited about learning, and who engaged them to pursue their goals and dreams[4]. In the context of the PIVA programs, each of these scenarios was readily available to the students.

Support

Quality academic instruction, the connection of academic and applied knowledge, and relationship building were among many of the core elements of the PIVA programs that helped support their effectiveness. Another critical success factor was the extent to which the individual learners were wrapped in guidance and care. The students certainly did not lack for quality support. From program start to finish students were guided through their program experience. Generally speaking, most of those involved in the delivery of the PIVA programs worked to ensure that learning happened in an active and positive way, that it was rigorous and relevant, and that the students were supported and engaged. The opportunity was made available to the learners to develop valuable skills, strategies, attitudes, and behaviors.

Program Completion and Credential Outcomes

Student-level data were examined in an attempt to identify whether participation in the PIVA program had an effect on or was related to better student outcomes when compared with students who did not have the supports available provided by the PIVA program. However, for a variety of reasons, such as implementation design and the lack of randomization, extremely small group sizes, and data availability and quality, rigorous analysis could not be conducted, nor was statistical significance frequently found in descriptive statistical analysis (see Appendix A). That said, variations in outcomes between the PIVA program and Comparison group cohorts are indicated herein as "meaningful", in that they can be used to inform future PIVA efforts at

[4] Adelman, C (1999). Answer in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment. Office of Educational Research and Improvement. Washington, D.C.: U.S. Department of Education.

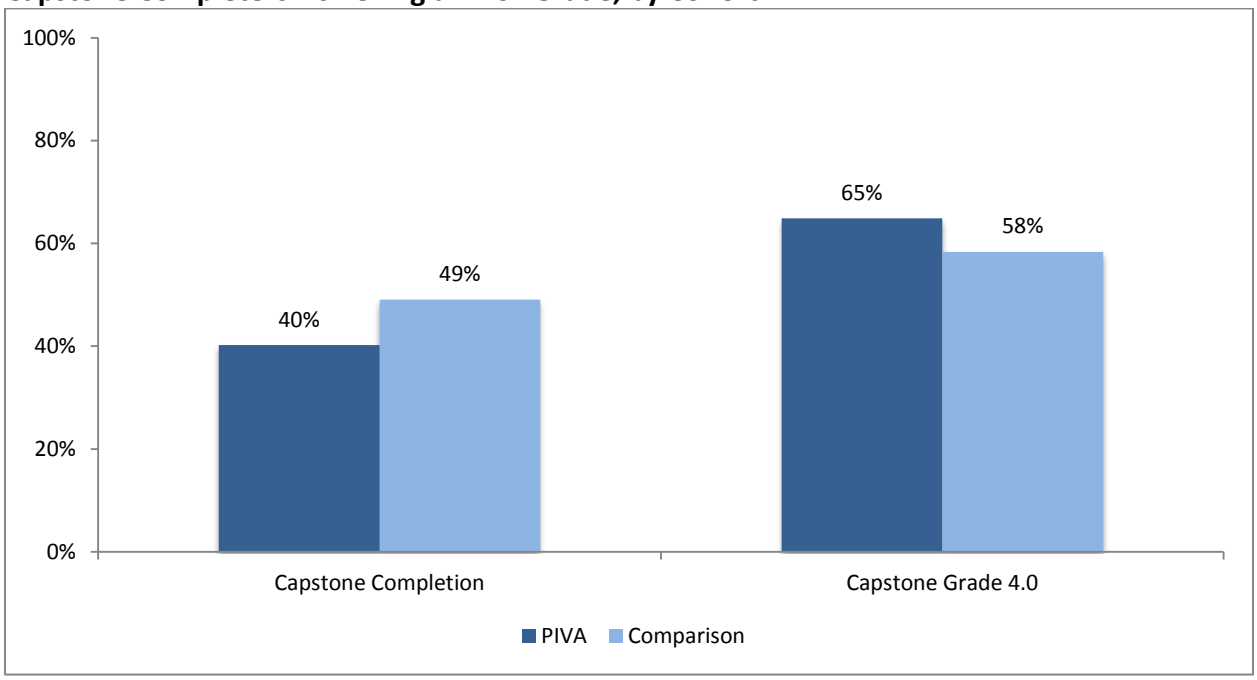
SWCC. And thus, the analysis of the student transcript and post-enrollment data indicated that PIVA program participants were slightly more likely to outperform their Comparison group counterparts across many student outcome measures.

The analysis presented below examines important milestones on the way to and including program completion: capstone course/project completion, capstone course/project GPA, persistence from the first to the second term, and program completion.

Capstone Course/Project Outcomes

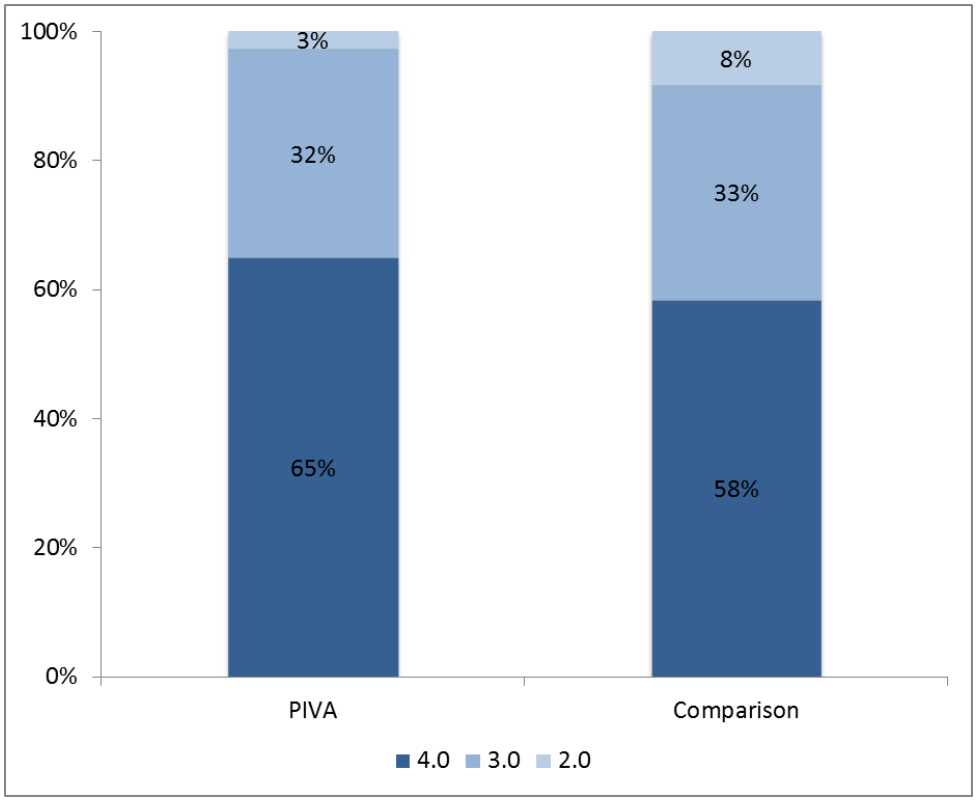
All PIVA program participants were required to complete a capstone course/project, which involved producing a final applied project and presenting to the class. Successfully passing the capstone course/project was a graduation requirement and an important milestone in a student's academic and employment pathway. Approximately 40 percent of PIVA participants and 47 percent of Comparison group students enrolled in the capstone course/project during this study's timeframe. Of those who attempted the capstone course/project, PIVA program participants were less likely to complete the capstone course/project compared with the Comparison group students (40 percent compared with 49 percent, respectively; Figure 11), but more likely to receive a grade of 4.0 on the capstone project (65 percent compared with 58 percent, respectively).

Figure 11. Percentage of Students Completing the Capstone Course and Percentage of Capstone Completers Achieving a "4.0" Grade, by Cohort



When grade distribution was examined, approximately 97 percent of PIVA participants earned a 3.0 or higher compared with 92 percent of Comparison group students.

Figure 12. Capstone Course/Project Grade by Cohort

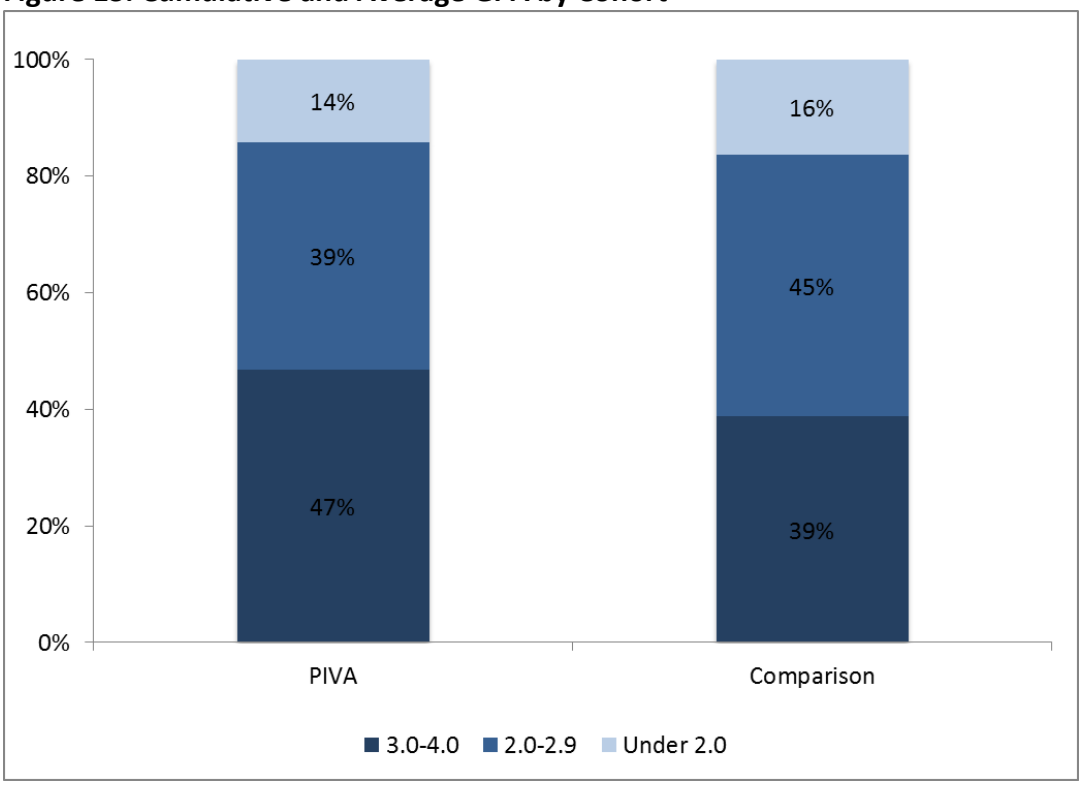


The capstone course/project changed over the course of the implementation of the PIVA initiative based on feedback from the adult education instructors. Two of the adult education instructors took charge of the capstone project and, when interviewed by the evaluation team, reported that they tried to rebalance the curriculum so that the learning requirements and demands for PIVA participants were lighter toward the end of the program. They also scaled back the scope and relative importance of the capstone project for the final two cohorts. These strategies were aimed at reducing the adult education workload for participants during what is often a stressful last stretch toward completion.

Overall Cumulative GPA

PIVA program participants had a higher average cumulative program GPA of 2.91 compared with 2.62 for Comparison group students. Although this difference is not statistically significant, it may be noteworthy; when the distribution of students by overall cumulative GPA is examined, PIVA participants were slightly more likely than Comparison group students to have cumulative GPAs above 2.0 (86 percent compared with 84 percent, respectively; Figure 13). The relationship between cohort and cumulative GPA, however, was not statistically significant.

Figure 13. Cumulative and Average GPA by Cohort



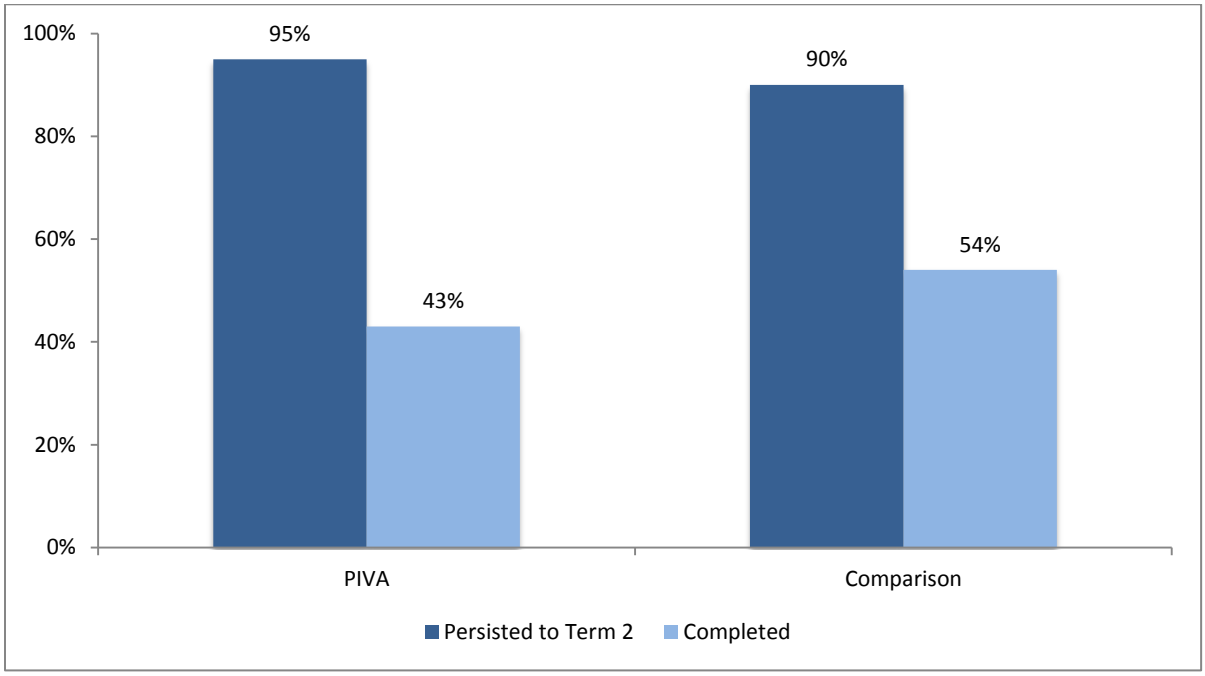
Persistence and Program Completion

Both PIVA participants and Comparison group students had high rates of persistence from their first term (Term 1) to their second term (Term 2), with almost all students re-enrolling after completing their first term (Figure 14). PIVA program participants were slightly more likely to persist to the second term than students in the Comparison program (95 percent compared with 90 percent, respectively). The PIVA Project Director said that a small number of participants would drop out after the first adult education class because it has a strict attendance policy and the instructors are "very firm" with participants, which lead some participants to leave. She also reported that attrition usually occurred over the course of the program as participants realize that it may not work with their other commitments, or the program is not for them, or they lose faith in their ability to complete the program.

Only 43 percent of PIVA participants and 54 percent of Comparison group students who persisted to the second term completed their program of study. Again, these findings were not statistically significant. The PIVA Project Director and Program Coordinator reported that many of the PIVA participants left for personal or employment-related reasons. For example, the Phlebotomy program dropped from 16 to nine participants between the first term and clinical placement. According to the PIVA Program Coordinator, one participant was hired into a full-time job while enrolled in the program and was unable to continue with the program; two participants entered another academic program at the college and also started working at a

doctor's office; one participant left the program due to family responsibilities and other related reasons; and two participants did not pass the core phlebotomy class and were not eligible to participate in the clinical placement.

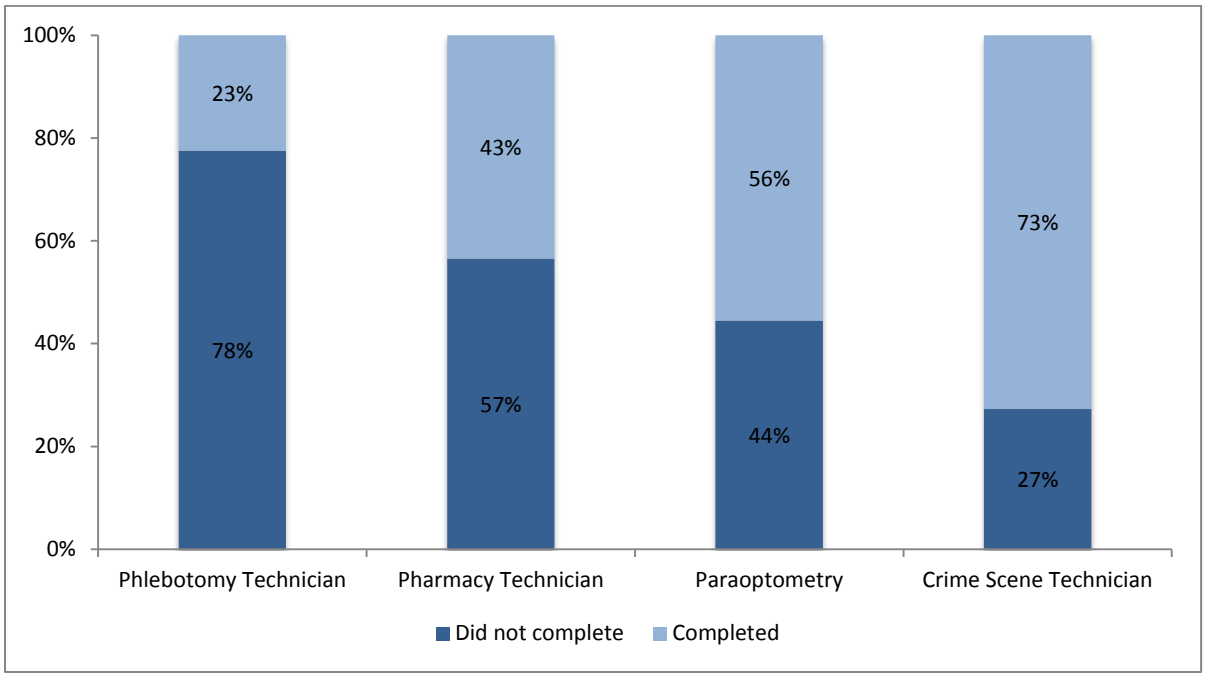
Figure 14. Percentage of Students Persisting to the Second Term and Completing the Program, by Cohort



Both the PIVA Project Director and Project Coordinator said that, as an open admissions institution, there is very little that they can do to keep participants from withdrawing, except through the extra supports that the PIVA program provides, such as assistance with completing their application and financial paperwork, and having a designated person (the PIVA Project Coordinator) to talk to in case difficulties arise. It appears that these supports made a meaningful contribution to the PIVA program's initial persistence rates.

When the PIVA cohorts are disaggregated by occupational program of study, the data show that the PIVA Crime Scene Technician cohort had a much higher program completion rate (73 percent) compared with the Paraoptometry (56 percent), Pharmacy Technician (43 percent), and Phlebotomy Technician (23 percent) cohorts (results were not significant; Figure 15).

Figure 15. Percentage Distribution of PIVA Students, by Program Completion and Occupational Program of Study

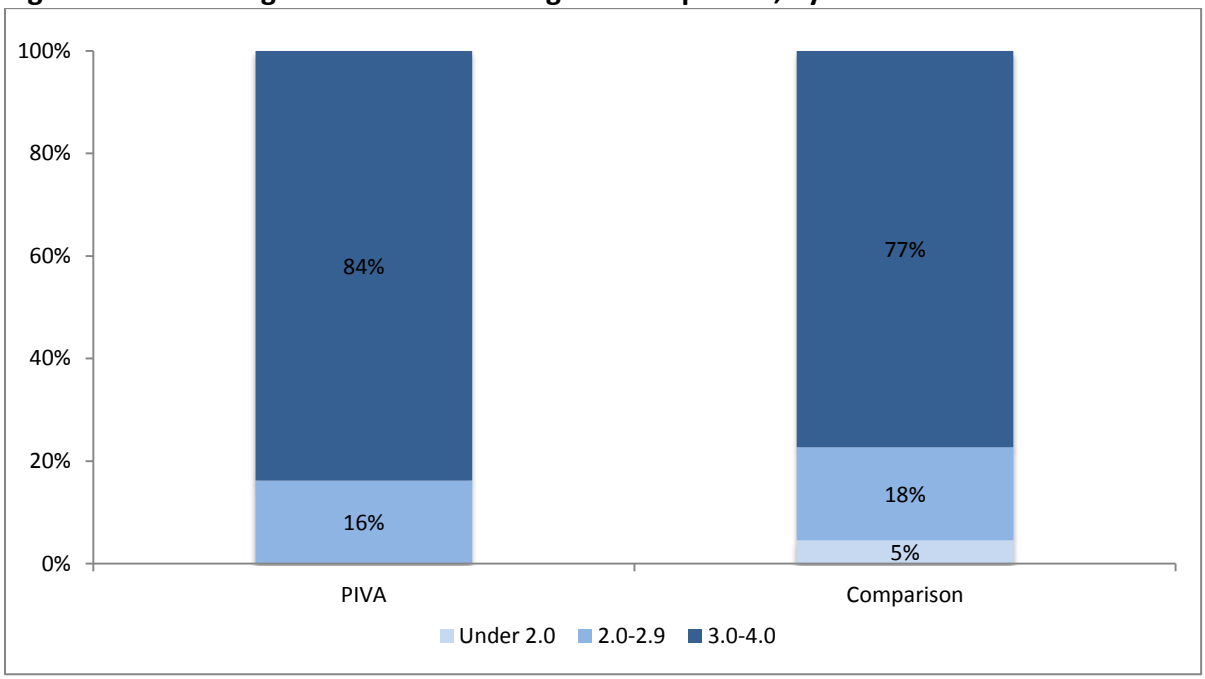


Cumulative GPA of Completers

Additional analysis of the student outcomes for successful program completers indicates that PIVA program completers were more likely than their Comparison student counterparts to have cumulative GPAs of 3.0 or higher (84 percent compared with 77 percent, respectively; Figure 16). Although these differences in cumulative GPA of program completers were not statistically significant, the meaningful difference is large. Likewise, PIVA participants earned an average cumulative grade of 3.67 compared with 3.61 for Comparison group students, which was also not statistically significant.

Successful PIVA program completers were more likely than their Comparison student counterparts to have cumulative GPAs of 3.0 or higher, 84 percent compared with 77 percent, respectively.

Figure 16. Percentage Distribution of Program Completers, by Cumulative GPA and Cohort



Industry-Recognized Certificates

Although there were no student-level data available to track subsequent attainment of industry-recognized certificates, anecdotal evidence collected by evaluation team suggests that PIVA program completers were taking the certification exams following graduation. Surveys sent to four cohorts of PIVA program participants found that – across the four occupational programs – approximately one-half (53 percent) of respondents reported passing their certification exam (n=8) and an additional 17 percent (n=4) said they were planning on taking the exam. However, all but one of the certificate attainers were enrolled in the Crime Scene Technician program, and no data were available on exam intent for respondents in the Pharmacy Technician program. While not all PIVA cohorts were represented in these surveys, and the survey response rates were low, these data provide a preliminary indication of PIVA participants' willingness to follow through with their occupational requirements in order to secure employment in the job field for which they were trained.

Summary

Overall, the quantitative and qualitative data suggest that SWCC's PIVA program successfully contributed to student success, as evidenced by PIVA participants higher grades, higher rates of persistence, and comparable rate of program completion. In terms of certificate attainment, anecdotal survey data indicated PIVA participants had earned, or were planning on earning, their certification.

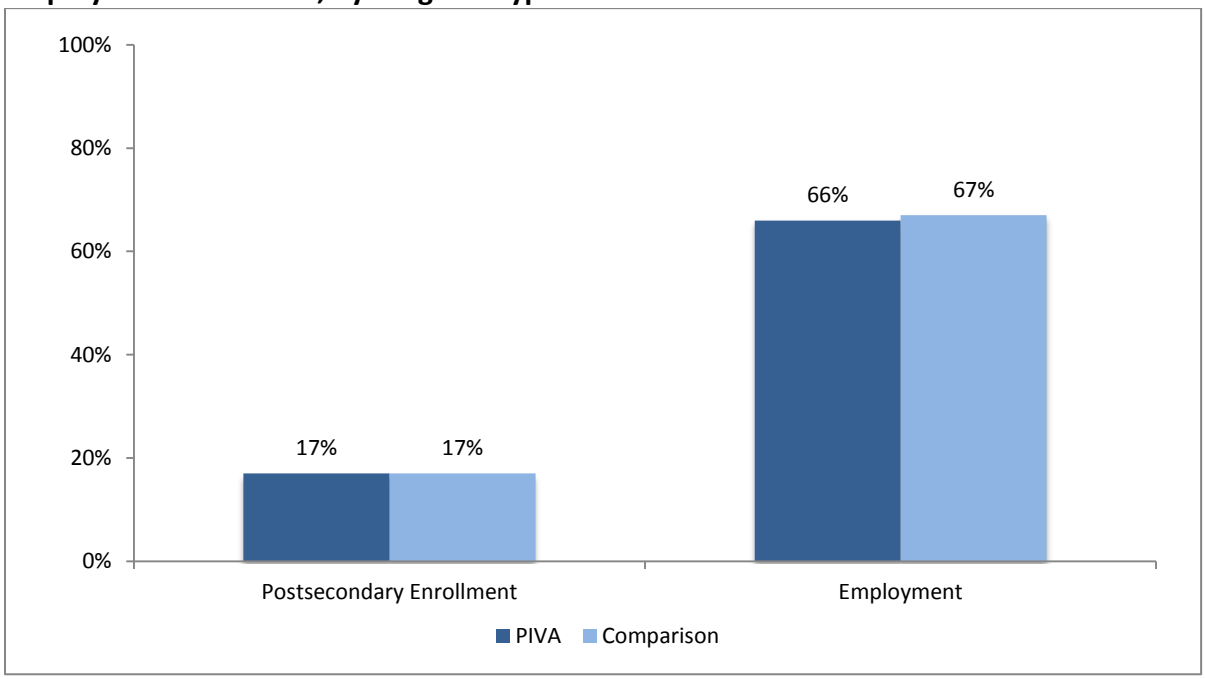
To what extent does participation in the PIVA program increase successful student outcomes as measured by employment in the job field for which they were being trained or enrollment in additional postsecondary education?

In addition to program completion and certificate attainment, the PIVA initiative was also focused on helping program completers secure employment in the job field for which they were trained and/or enrolled in additional postsecondary education. Overall, the evaluation team found that SWCC's PIVA program offered a meaningful pathway to credential attainment in preparation for in-demand jobs in the region. The PIVA program provided participants with work-based learning opportunities that enhanced their training and gave them real-world experience with the intention of better helping them transition into the workforce or, at some point, return to higher education to earn an advanced credential.

The student-level data on the post-college outcomes of PIVA participants and Comparison group program completers show similar rates of subsequent employment and postsecondary enrollment (Figure 17). Data provided by SWCC from VEC show that approximately two-thirds of both PIVA and Comparison group program completers were employed after graduating (results were not statistically significant). The qualitative data gathered echoed these fairly high rates of subsequent employment. For example, the PIVA Program Coordinator reported that six of the 15 Paraoptometry completers were hired by the employer where they did their clinical and four others had promises that a position would be available to them a short time after they graduated. It is important to note that the wage record data were limited to Virginia employers and, given the SWCC catchment area's geographic location, PIVA participants may have been employed in neighboring states. In addition, the employment data could not identify an individual's employment position, so no distinction could be made about whether their employment was aligned with their occupational training or, for those who continued employment with the same employer, whether they changed positions or received a promotion.

Data provided by SWCC from NSC also show similar rates of subsequent postsecondary enrollment between the two groups. PIVA participants who went on to pursue additional higher education credited the knowledge and training they received as part of their PIVA program experience for giving them the know-how and confidence to advance their learning, as evidenced in this survey response from a Phlebotomy Technician graduate: "The program gave me the opportunity to learn a new skill to seek employment…The program also gave me the confidence to return to school and I am now working toward my BS in Human Services."

Figure 17. Percentage of Program Completers with Subsequent Postsecondary Enrollment and Employment Outcomes, by Program Type



According to the PIVA Program Coordinator, "Through the end of the program, students start asking questions about other related fields. They make connections with each other… A lot of these students don't even have their GEDs, and completing the program increases their confidence and contributes greatly to students' personal development." This sentiment was echoed by one of the adult education instructors: "[t]he confidence students have when they first come in the program versus the confidence they have when they leave is just amazing." She went on to give the following example of a PIVA program participant who was preparing for an upcoming job interview: "[we asked if he] wanted us to throw some interview questions at him and he said 'Oh I am good at interview, I just need to work on my handshake.' So he felt confident." When the evaluation team asked the instructor what has been the most prevalent type of advancement she's seen in her students, she responded: "I would honestly have to say their belief in themselves. If they don't believe in themselves, they can't even get out of the bed and go to that job interview."

Likewise, the PIVA Project Director summarized the personal development and academic improvement outcomes she has seen in the students in the following terms:

> *[A]t the end, they feel like they can save the world. By the end of the program, students have the confidence to actually set a real goal. They give themselves permission to set goals for themselves, and perhaps further their education.*

Another component of PIVA participants' employment and subsequent postsecondary success is the strength of the relationship between SWCC and its employer partners. SWCC has a long-standing relationship with the healthcare community in the region due to the College's strong nursing programs. During the evaluation team's first site visit, the PIVA program staff reported that they had established partnerships with clinics and other relevant employers in the area to place PIVA participants for internships and clinical work, although this would not guarantee later job placement.

The PIVA Project Director reported that they did not experience any problems with the potential employers over the course of the TAACCCT grant. The partnering employers did everything they promised to do and held to their commitments – speaking to classes, assisting with clinicals, providing internships, writing letters of support, etc. – and were engaged operationally and genuinely appreciative of the partnership that they had with SWCC. However, the PIVA Project Director also expressed frustration that the employers did not want to come to the quarterly leadership team and employment partner meetings; she had originally envisioned the employers participating in summits where they could get very involved in the process, but that was not the case. She thought this was because, in healthcare, the program is pretty straightforward (i.e., participants take a test and pass certification to become a qualified phlebotomist), and as far as the employers' interest is concerned, the program was doing a good job. The PIVA Project Director went on to say that "[The employers] know that we are accredited, they know we put out good graduates, they know we are really such a small area that it's just inherent that we partner. If we didn't, we would both be in trouble." Nevertheless, over the course of the TAACCCT grant, the Project Director attempted to strengthen SWCC's connection with the employers by doing employment outreach, visiting them herself, and engaging employers through the College's career fairs.

How do components of the PIVA program (intensive/fast-tracked pacing; cohort-based model; student supports) effect successful student outcomes?

There was agreement among PIVA program leadership, staff, and faculty that the design and delivery of the cohort-based PIVA programs were effective in generating supportive learning outcomes. The return on the investment of time and effort made by the PIVA participants as well as staff and instructors was perceived as both tangible and valuable. Most notably, the PIVA program team believed – from their conversations with program participants – that participants gained relevant academic knowledge and workplace skills and reached new milestones in growing their self-confidence and self-efficacy. When key SWCC PIVA and SRAEC personnel were asked to provide indicators signaling program efficacy, they provided the following markers, among others, PIVA participants:

- Loved their classes and embraced the learning.
- Excelled in their learning and ability to apply the knowledge.
- Learned to work well together.
- Re-enrolled at SWCC for more education.
- Were motivated and confident to take charge of their life.
- Redefined their life goals and were moving to realize them.
- Understand how they can be successful in school and in the workplace.

In addition, personnel said that several participants found jobs in their field of study and many are on a new and clear path.

Cohort-based Model

The PIVA Project Director said that the cohort-based design of the PIVA program facilitated peer group support, as PIVA participants took the same courses in an accelerated amount of time, got to know each other well and helped each other complete the program. This was especially true for the Crime Scene Technician cohorts, who were seen coming before classes and on their off days. This kind of peer cohort support happened by itself as participants got to know each other. The PIVA Program Coordinator reflected that:

These students' lives have grown as individuals and working together as groups, they've learned to appreciate not only the fact that they can be successful but also to appreciate other individuals and their input and ideas, and working together.

The return on the investment of time and effort made by the PIVA participants as well as staff and instructors was perceived as both tangible and valuable.

Hands-on Learning

One important component of the PIVA program was hands-on learning. The PIVA Program Coordinator reported that each of the PIVA classes and labs had a hands-on piece to keep participants interested, active, and involved in their learning. The Crime Scene Technician program, for example, relied on a lot of hands-on learning, from forensic photography to collecting evidence and working with a virtual cadaver (life size replica). Skills training was integrated into almost every class. The Program Coordinator thought it made a big difference, especially since the Crime Scene instructors were practitioners working in the field. Hands-on learning was also integrated into the adult education courses, as one instructor shared:

> *The hands-on experiences keep them from getting bored. They are not just sitting there and listening to the instructor – they feel part of the process. And while*

they are doing hands-on work, they are working with each other on the activity. They try to bring in hands-on and experiential component to the lessons. A lot of Youtube videos, PowerPoint slide shows, other media sources.

Similarly, the Paraoptometry program students had the chance to build-out their skills through hands-on training in the simulation lab. The lab was outfitted with state-of-the-art equipment and replicated what would be found in a fully-equipped optometry office. In the replica of a real-life setting, students had the chance to learn about, and practice using, a wide variety of examination equipment. The setting offered the advantages of low stress, instructor-supported learning coupled with peer engagement. Students could comfortably practice and role-play in order to get ready to working directly with 'real' patients.

The Phlebotomy and Pharmacy Technician programs, however, had less hands-on learning because the PIVA participants had to complete certain classes, learn medical terminology, and acquire fundamentals before going into the hands on piece.

Clinicals

Another hands-on activity was the clinical work in which all PIVA participants were required to participate. The PIVA Program Coordinator helped students in the Crime Scene, Paraoptometry, and Phlebotomy programs find a place to do their clinicals, while students in the Pharmacy Technician program had to find their own internship. For the occupational programs with which the Program Coordinator helped, he worked closely with the PIVA participants to let them know their schedule, the employer's expectations, and the number of hours they needed to work and what days. The Paraoptometry cohort was the only group to do their clinical as soon as they completed their medical terminology coursework as their instructor thought it was better that they learned how a paraoptometry office worked, became familiar with the equipment, and applied what they were learning in their classes.

The PIVA Project Director said the College did not have the Pharmacy Technician partnership established at the beginning of the TAACCCCT grant and that the limited number of partners meant that participants had to do their internships one at a time, so some of the PIVA participants who received an "incomplete" in the program were waiting to complete their clinicals.

Use of Technology

To better support student learning and skill attainment, the PIVA program incorporated technology throughout the occupation programs. While the PIVA program is still participant-centered, the PIVA Project Director reported that the technology has been very useful. Each PIVA participant was loaned a laptop for the duration of the program, which he or she used for the computer class, homework, and tests. The labs contained equipment that simulated

employment conditions so PIVA participants could practice the skills they were learning about in their classes.

On the instructional side, PIVA faculty members used lecture capture to develop supplemental materials – that is, the instructors would record themselves lecturing and create modules that participants could access on Blackboard as needed. PIVA participants also used technology during their group projects (e.g., recovering evidence from the crime scene), and the labs were designed around being part of a team. Participants also used technology while preparing their capstone project.

Despite the PIVA program's investment in technology and the generally positive contribution it made to participants' academic experience, there were some challenges. While PIVA participants were loaned laptops to better access their course work whenever and wherever worked best for them, the PIVA Project Director reported that many of the participants did not have high speed internet at home, so they mostly work on campus. She also said that participants struggled when they introduced technology too soon. For example, the Biology class started as an online course and participants complained. SWCC revised the schedule and turned the class into hybrid to give participants the hands on, face-to-face support they wanted; most of the PIVA classes were hybrid by the end of the initiative.

Participant Perspective

All PIVA cohorts held very positive opinions of their PIVA experience at the community college. Class observations, group discussions, and responses to survey questions offered clear indication that the students were engaged, interested, and appreciative of the learning opportunities and support they were provided within the setting of the programs. Those who offered their opinion to evaluators framed their experience as a meaningful learning opportunity, a great chance to get a worthwhile credential, and an opportunity to meet others who shared their aspirations. For some, it was a bold step in a new direction in life. Overall, the general take-away from the opinions of the PIVA participants was that the programs were meeting their core objectives. The programs were talked about in terms that indicated they helped students form a strong base of career-technical knowledge and skills and to experience personal growth. Participants were responsive to the instruction and support, felt they were learning, and thought they were being well-positioned for employment in their field of study.

When PIVA participants in the Phlebotomy and Paraoptometry programs gathered on the college campus for a discussion with the evaluation team, a range of positive opinions rose to the surface during the conversation. "I love the program," commented one participant; "I've become proud of myself," remarked another. "The program has been helpful and supportive of my social skills," shared a third participant. And, echoing a sentiment expressed by several, another participant said: "I always thought that college was for young people. I was so

intimidated and scared when I began. I'm not so overwhelmed now. I feel more comfortable." It was apparent from the comments of participants in both programs of study that the character of the teaching and guidance they were provided generated strong levels of satisfaction and led to positive learning outcomes. Those enrolled in the other programs shared during focus group sessions a similar set of perspectives with regard to their program-related experiences.

The evaluation team found no evidence that PIVA participants were dissatisfied with their program or personnel. Participants reported feeling emotionally and academically supported from the beginning of their program experience. As might be expected with an education program, the participants did not refer to all their instructors in equally favorable terms. Some were liked more than others, and in a couple cases the participants were not pleased with the manner in which their instructor directed the class. As was mentioned earlier in the report, there was no data to support that the participants who left the program did so due to a lack of quality learning opportunities or discontent with the programs of study. It would seem that most of those students who started one of the programs and subsequently withdrew made the decision based on changes in personal circumstances rather than in response to program conditions. However, the evaluation team did not speak directly with participants who withdrew from the program of study.

The positive valuations PIVA participants attributed to their program experience were linked to a variety of domains and experiences. They appreciated the opportunities for teamwork and relationship-building; felt they were being provided a relevant academic and career-technical education by well-trained instructors; and found the interactions with personnel, as well as the in-class and work-based learning experiences, contributive to self-efficacy, knowledge growth, career awareness, and skill development. They expressed the view that their program was thorough. They felt they had available to them the necessary type and level of support to navigate their way to attaining a credential. Program personnel were valued for their work ethic and willingness to build quality relationships with the students. PIVA participants felt they were being well prepared for a career and for the responsibilities they would face in the workplace.

Table 3 presents the range of select comments students shared halfway through their program experience when asked about the most rewarding part of being a student in their program of study.

Table 3. Rewards Students Associated with their PIVA Program Experience

PIVA Participants
▪ The support I received from the staff. They always took time to answer any questions.
▪ The whole process was meaningful to me being able to succeed in this program has positively impacted my life.
▪ Realizing you are never too old to go back to school and follow your dreams.
▪ Learning more about the field of study that is interesting to me and talking about it with the friends I have made along the way.
▪ The instructor, the staff, and making new friends. They are so friendly and helpful.
▪ Learning and experiencing the program and gaining of friends.
▪ $150 allowance for clothes, race tickets, barter trip.
▪ I know now I can find a job.
▪ My confidence.
▪ Learning so much more about the medical career field.
▪ I am very satisfied with it all so I would say that it is all rewarding considering that I have never been to college before.
▪ I have done better than I thought I would. I'm proud of my accomplishments.
▪ It has helped me realize I can be successful.
▪ Gives me hope in job search.
▪ All the knowledge, and meeting all my classmates.
▪ It is rewarding to know that with focus and hard work I can see this through and have a career in the medical field.
▪ Learning something new, meeting new people who have same interests, common goals.
▪ Getting to know so many nice people and all the instructors are so helpful. And I have learned so much I feel like a doctor.
▪ Knowing that my accomplishment is almost completed and I will be able to work at the VA hospital!

Overall, as these findings indicate, the PIVA participants seemed generally satisfied with the manner in which the program was operated. When participants were asked on a written survey, for example, whether they "clearly understood what was expected" of them as a participant when they began their classes, the majority of participants responded affirmatively to the question. PIVA participants in the Phlebotomy and Paraoptometry programs were also asked whether there were any program-related expectations or requirements that were not clearly communicated. The seven Phlebotomy students who responded to the question said "no." Among PIVA Paraoptometry participants, four remarked 'no' and three shared that they would have appreciated more information about the Paraoptometry certification exam and related expenses. Similarly, six out of eight participants in the Crime Scene Technician program indicated the staff at SWCC have done all they could to help them feel ready, or prepared, for college learning, while two students felt that they could have been more informed about the program. The common thread among the perspectives of participants and program informants was that the participants felt "cared for," "encouraged," and "supported" and provided worthwhile job training experience. As one participant noted, she felt "helped during the whole process."

> *"…you are never too old to go back to school and follow your dreams."*
>
> *"I know now I can find a job."*
>
> *"Gives me hope in job search."*

How do PIVA program partners contribute to program development and success?

SWCC partnered with a number of different organizations to develop their curricula and implement their success strategies, and the College deeply valued these partnerships, as evidenced by this comment from a SWCC administrator: "Regional partnerships are extremely important in sustaining the program and the success of both individual and statewide PIVA programs."

National Partners

At the outset of the TAACCCT grant, the PIVA program administrators worked with the GED Testing Service in Washington, D.C. to discuss how to structure the PIVA health programs. They also hired a curriculum developer who specialized in education technology. SWCC invested time and resources into developing a solid curriculum for each of the four PIVA occupational programs, with the goal to develop a standard curriculum to ensure all future cohorts follow the same curricula and to meet the TAACCCT grant guidelines for open-sourced coursework.

State Partners

VALRC was also involved in curriculum development and worked with SWCC to develop a standardized model that incorporated elements of adult education coursework and workforce skills. VCU initially developed the PIVA program and partnered with SWCC on this grant to redesign the adult education component in an open-source format and produce standardized, online manuals. A statewide PIVA website also allowed colleges to share these types of resources.

SWCC also partnered with Tidewater Community College and had its career coaches come to campus one-to-two hours per month to work with PIVA participants as a group. This career coaching was mandatory for all PIVA participants, and the coaches helped prepare PIVA participants for interviews and offered guidance on other employment-related skills. Although the funding for Tidewater's career coaches ended in September 2014, SWCC's career services team began offering career coaching.

Regional Partners

As previously mentioned, SWCC's primary regional partner on the PIVA initiative was SRAEC – the organization responsible for providing the adult basic education instruction. The two organizations shared a common commitment to working together, as well as common goals and values. Both were focused on providing displaced adult learners in the region with meaningful skill development and training opportunities and chances to build a coherent career pathway.

However, a variety of factors seemed to be at play that complicated and limited the flow of communication and information between the two organizations, as well as the level of

coordination exercised by leadership personnel and instructors. The evaluation team's interviews with PIVA program staff and SRAEC faculty indicated that the two organizations had difficulty working together from the launch of the first cohort (Phlebotomy, Fall 2013), and it remained this way over the course of the TAACCCT grant. These factors, according to interview participants, ranged from different organizational cultures and leadership styles to variance in approaches to pedagogy, a high level of instructor autonomy at the college, and the fact that the two partners were not housed at the same location. Interview participants reported that the college-level and adult education components of the programs functioned as if positioned side-by-side, with some overlap and bridges connecting them, rather than the more optimal model of full integration or partnership. As one of the key program personnel remarked in discussing the relationship of the two organizations, "it's kind of like holding hands across the aisle."

Although these challenges did not seem to adversely impact program outcomes or implementation effectiveness, the situation burdened decision-making at times and weakened leadership and instructor cooperation. In addition, and importantly to program efficacy, the constraints in the partnership made it difficult to optimally integrate the adult education coursework with the college-level classes. As noted, a stronger bond would most likely have enhanced the delivery of instructional services as well as the efforts to contextualize the basic skills curriculum.

According to key program personnel, the partnership between the community college and the adult education program had improved from the initial launch point of the grant initiative into the concluding set of programs. The PIVA Project Director commented that, as the partnership evolved, "we built a working relationship that enabled us to meet our objectives and provide a quality learning experience for the students." Going into the final PIVA program implementation cycle, PIVA faculty and staff reported a greater appreciation for the value of each component of the initiative (i.e., college and adult education) and what each could bring to participants' learning and their workforce preparation. Collaboration and engagement continued to be limited in scope; however, and synergies remained largely untapped. When program personnel were asked on a survey whether the college course instructors and adult education instructors work together on a regular basis in order to ensure coordination and integration across the programs, the responses were mixed – one collaborator responded 'yes'; two said 'no'; and four checked 'somewhat.

CONCLUDING THOUGHTS AND RECOMMENDATIONS

Overall, the evaluation team found that SWCC's TAACCCT grant activities were well-implemented and reached the targeted population – namely, at-risk and disadvantaged individuals most in need of occupational skills. The PIVA coursework combined with the additional instructional supports were valued by PIVA program participants and recognized as positive contributions to their academic development. While the breadth and depth of the quantitative data did not lend itself to establishing a definitive relationship between the PIVA program and its supports to PIVA participants' academic and employment outcomes, it did offer a meaningful description of the progress PIVA participants made compared with participants in the Comparison group cohorts.

The effectiveness of an education initiative, as with that of any enterprise aimed at fostering individual change, is typically not driven by one condition. Rather, there are many elements that play a role in generating value and quality for participants. The evaluation team found this to be the case with SWCC's PIVA program. Many factors came together to support implementation progress and effectiveness. However, it seemed evident that there were six key factors that contributed to the PIVA programs' operational and student success. Drawing on these key factors, the evaluation team has made the following recommendations that can be used to guide SWCC's future initiatives, as well as by prospective TAACCCT grant recipients interested in implementing programs that address the needs of at-risk and unemployed adult student populations.

Recommendation #1: Foster a Success-Oriented Culture throughout the Program

SWCC's institutional culture, which was built and sustained by program personnel and PIVA participants, was a key factor in supporting program efficacy and student learning, persistence, and completion. Generally speaking, the PIVA participants who enrolled in each of the PIVA cohorts stepped into a learning environment that was defined by a set of values, norms, and behaviors, aimed at helping each student build their capacity to succeed. Emphasis across the culture was placed on quality service delivery and also on the need for PIVA participants to take ownership of their experience. Participants were encouraged by the PIVA program faculty and staff to see themselves as owners and leaders – that they have a stake in their future. A list of prominent qualities identified as part of the PIVA culture is provided in Table 4, below. These qualities helped define each program as a success-oriented setting for learning, and contributed to the effectiveness of program design and implementation. It should be noted that the features on the list connect with several key themes: (1) recognizing the importance of nurturing and empathy to effective learning; (2) promoting and leveraging productive behaviors and mindsets; (3) addressing elements in the affective domain that can matter to learning as

much as intellectual ability; and, (4) approaching learning as community and collaboration rather than a competition or a solo event.

Table 4. Prominent Qualities of the PIVA Initiative's Culture

PIVA Culture
▪ Learner-focused instruction and support. ▪ Learning experiences linked to the real-world. ▪ Social connectedness and engagement. ▪ Shared sense of belonging and purpose. ▪ Learning as a community experience. ▪ Mutual respect and dignity. ▪ Focus on commitment, responsibility, and self-discipline. ▪ Emphasis on critical thinking and problem-solving. ▪ Building effective life-learning strategies. ▪ Co-creating opportunities for personal development.

Recommendation #2: Take a Student-Centered Approach to Instruction and Support

SWCC's PIVA programs were designed and delivered with the student in mind. The evaluation team found that the PIVA program personnel took a genuine interest in the PIVA participants and recognized their talents and accomplishments in a variety of ways and on a regular basis. Emphasis was placed on empathy, commitment, and relationship formation, with the idea being, according to program personnel, to get the PIVA participants involved and engaged in shaping their pathway into a career. An important element of the student-centered orientation of the initiative was the emphasis placed on creating practical and compelling conditions (e.g., settings, lessons, activities) that incentivize learning and help participants develop the skills, habits, and know-how to succeed in college and the workplace (Table 5).

Table 5. Compelling Conditions that Framed and Contributed to PIVA Program Participant Success

Conditions that Contributed to PIVA Program Participant Success
▪ PIVA participants worked together to explore real-world questions and to build skills that would help them be more effective in the workplace. ▪ Social connection was made central to the learning experience and actively encouraged, and at the same time engagement was made unavoidable. ▪ Learners had ongoing opportunities to learn from each other and to build the type of emotional and intellectual linkages proven to support success. ▪ Program staff and instructors took the learning process seriously and tried to make it enjoyable; they held high standards but also offered ample support. ▪ Instructors were often currently active in their occupational field and used personal experience and workplace knowledge as key inputs for learning. ▪ State-of-the-art technology was utilized to provide experiential learning opportunities and to help participants connect college with career. ▪ Participants were placed in work settings where they could apply their academic learning and experience what they aspired to do upon program completion.

Recommendation #3: Ground the Program in Proven Student Success Practices

SWCC's PIVA program personnel relied on a comprehensive set of practices that emphasized the use of methods that helped move PIVA participants towards credential completion and career entry. The evaluation team found that the majority of instructors relied on methods and practices that education research suggests increase student persistence and completion rates. Student learning in the classroom was supported, for example, using embedded study skills and active learning as well as problem-solving exercises. Tactics such as variety, feedback, interaction, and relevance were used to keep PIVA participants interested, engaged, and to help them forge bonds with the subject matter they were studying. PIVA participants were given opportunities to participate in class discussions, lead learning activities, design their own learning projects, role play, and explore topics that interested them within the context of their career field. Most importantly, the PIVA participants were provided a comprehensive educational experience. They were provided a combination of academic and career-technical instruction, a focus on foundational knowledge learning, and an emphasis on strengthening the habits of mind and behaviors necessary for college and workplace success.

Recommendation #4: Provide Wraparound Support

One of the more evident characteristics of the PIVA program was the depth and breadth of the support offered to the adult learners. It was clearly a critical success factor. The assistance PIVA participants received was comprehensive, intensive, and blended into the classroom and work-based learning experiences. It is important to place emphasis on the fact that student support and guidance was not only placed front and center but also was, essentially, unavoidable. Offering program participants optional support would not have worked in the context of the learning cohorts. As such, program staff and instructors closely monitored PIVA participants, and the PIVA Program Coordinator continuously engaged them and kept them moving along with coaching and encouragement. Intervention was early and direct if challenges arose for a PIVA participant or he/she begin to withdraw effort. Moreover, all participants reported that they knew they had a person, or several people, to turn to when questions or concerns arose. As is shown in Table 6, a variety of approaches were used to wrap PIVA participants in meaningful support and help them to navigate their challenges.

In many ways the PIVA initiative was a case study in how to implement intrusive and proactive student support in order to have an impact on student persistence and attainment. The approach benefitted, of course, from the small size of the cohorts and also from the intensity of an accelerated program schedule. Overall, though, the evidence was clear that the PIVA participants benefitted significantly from being wrapped in quality and caring support starting with registration and admissions and running through program completion. The comments provided by PIVA participants across the learning cohorts pointed directly to the high impact the support had on their learning as well as their motivation to persist. They felt empowered by

the focus on their needs and the emphasis placed on empathy and openness as tools for providing support.

Table 6. Elements of the Wraparound Support Model Used in the Initiative

Wraparound Support
▪ Participants were provided a dedicated counselor and coach. ▪ Student support was essentially unavoidable. ▪ PIVA participants were provided intake support and orientation. ▪ Intervention was early and direct. ▪ Guidance covered a broad range of areas from academics to life-counseling. ▪ PIVA participant progress and experience was continuously monitored. ▪ Program personnel communicated regularly regarding student performance. ▪ Referrals were made to counseling and external agencies, when necessary. ▪ College-wide academic and student support services were available. ▪ Strong effort to get to know the PIVA participants, their interests, goals, and aspirations. ▪ Learning supports built into the operation of the program, not adjacent.

Recommendation #5: Ensure Quality Leadership and Committed Personnel

The evidence was quite compelling that the manner in which the PIVA Program Coordinator embraced his role in the initiative was a critical factor in supporting program operations and delivery – and student achievement. According to the PIVA Project Director, "[He] was the biggest support system for the students" – a view widely shared by PIVA participants as well as program personnel across the chain from instructors to senior college administrators. While the PIVA Program Coordinator position was envisioned as central to the initiative, it was clear that the manner in which the Program Coordinator operationalized the position went beyond the original conception of roles and responsibilities. "[He] personalized the position [of PIVA Program Coordinator]," according to the PIVA Project Director, "and defined it more fully from its original conception. In many ways, [he] built the model and defined the role."

The PIVA Program Coordinator wore many hats and managed a variety of roles as the Coordinator and Coach in order to optimize the position's impact on program delivery and student outcomes. He actively served, for example, as a bridge that linked the college and adult education components of the initiative. He also facilitated the flow of communication and information among instructors and between the instructors and PIVA participants. He helped keep the PIVA participants plugged into the College and the program. It also should not be overlooked that he was a key advocate for participants, the programs, and the values that framed the success-oriented culture of the initiative. In serving these roles, he acted as a constant point of contact that PIVA participants could reach out to at any time – a "go to" person as several of the participants said.

What emerged from conversations at the College, including with PIVA Project Coordinator, is a picture of an educator fully committed to the PIVA participants. The College's Dean of Instruction made the following observation, for example, when asked to describe the

Coordinator's contributions: "Tim takes care of these students – pretty much parents them sometimes…Students have to have connection with somebody in the institution to be successful. And these students have Tim's support imprinted on them. And that's a good thing, a very good thing." And the PIVA Project Director had this to share: "[He] started building relationships from the start. He worked with [the students] through the barriers; he started getting involved early. [He] went that extra step to not just say 'here is what you need to do, come back when you do this,' but helped students directly to go through the process and barriers that they face."

Across the arc of the learning cohorts, the PIVA Program Coordinator, was a one-stop shop for assistance and support for PIVA participants. His effectiveness related in no small part to his approach of taking seriously not only the participants' learning process but also his own within the setting of each program. He was widely complimented for being sensitive and empathic to the needs and circumstances of the participants' and for trying to meet them where they were in their learning, and in life. Consensus was he guided the learners toward recognizing their capacity to succeed. In all, the PIVA Program Coordinator stood out for his level of commitment and his willingness to, in the words of the Project Director, "walk with each of the students through their experience."

Recommendation #6: Establish and Work Toward Clear and Attainable Goals

The PIVA initiative was framed by a clear set of goals and strategies as identified in the original statement of work for the TAACCCT grant. Looking across the program implementation, and through the lens of the qualitative data collected for the evaluation, it is the conclusion of the evaluators that the PIVA project team achieved its core implementation goals. As would be expected, not all the goals were achieved to the same degree or intensity. Table 7 provides a summary list of the strategies and goals the evaluators thought were achieved across the programs.

Table 7. Achievement of Key Initiative Goals and Strategies

Key Program Strategies and Goals	Achieved
Provide TAA-eligible workers and other unemployed workers in the region with structured opportunities for comprehensive skill development and contextualized, well-supported learning.	✔
Support and improve student learning, persistence, and completion, and generally support positive student outcomes.	✔
Facilitate collaboration and integration of program participants within the context of the program of study experience.	✔
Provide comprehensive and intensive student assistance that is integrated into classroom learning.	✔
Provide contextualized and comprehensive content delivery and learning, student support, and credential attainment.	✔

Key Program Strategies and Goals	Achieved
Expand and enhance employer partnerships to ensure industry involvement in the development of curriculum and credentials.	✔
Engage and integrate partners into efforts to enhance student access, retention, and completion and ensure their transition to work.	✔
Provide employers with trained and motivated job seekers appropriate to need, while ensuring program sustainability.	✔
Use technology to expand the field of learning and enable integration of real world experience through simulation.	✔
Use online/technology-enabled learning to expand student access to training resources and help them overcome barriers to success.	✔
Use online/technology-enabled learning to facilitate collaboration and learning and to enable participants to self-pace their study efforts.	✔
Use SWCC personnel and Tidewater TAA award career coaches to disseminate information to help participants complete credential programs.	✔

Concluding Thoughts

Taken together, these six areas contributed to SWCC's PIVA program success. Although the quantitative findings were mixed, the qualitative data demonstrated that the PIVA program was well-developed and implemented with a high degree of fidelity. While SWCC's PIVA initiative did encounter challenges along the way, these challenges did not seem to have weakened what was generally perceived by students as a positive learning experience that prepared them well for the workplace and helped them make a significant achievement in their life: a college credential. Moreover, given that the PIVA program targeted highly at-risk individuals with little or no previous postsecondary experience and largely non-traditional educational backgrounds, it is impressive that PIVA participants reported such a high degree of satisfaction.

APPENDIX A: METHODOLOGY

Overview

The evaluation team used a mixed methods design, collecting both qualitative and quantitative sources of data, to examine program implementation and outcomes related to the four programs of study being offered under the SWCC TAACCCT grant:

1. Pharmacy Technician
2. Phlebotomy Technician
3. Paraoptometry
4. Forensics Technician

A detailed description of the data collection activities, descriptions of SWCC's PIVA cohorts and comparison groups, and the U.S. Department of Labor-approved analytical plan follows.

Research Questions

Six core research questions were articulated in the original evaluation plan, but modifications were made based on data availability and quality. The following chart shows each of the original research questions, their data sources (where applicable), and their data limitations (Table A1).

Table A1. Research Questions, Data Sources, and Limitations

Research Questions	Data Sources	Limitations
1. To what extent does participation in the PIVA program increase successful student outcomes, as measured by completion and attainment of industry-recognized certificates?	▪ Transcript data	Data on program completion was provided by SWCC, but no data were available on participants' attainment of industry-recognized certificates.
2. To what extent does participation in the PIVA program increase successful student outcomes as indicated by employment in the job field for which they were being trained or enrollment in additional postsecondary education?	▪ Transcript data ▪ Wage record data ▪ NSC data	Data on post-program employment and subsequent postsecondary enrollment were provided by SWCC (via the VA Employment Agency and NSC), but the data did not contain information on whether participants received a promotion or change in responsibilities, or whether they were enrolled in a stackable credential.
3. What student demographic characteristics are associated with successful PIVA program student outcomes (e.g., attainment of certificates; employment or enrollment)?	n/a	Due to small cohort sizes and relatively homogeneous cohorts, outcomes by student demographics could not be computed and compared with statistical reliability.
4. What student demographic characteristics are associated with entering and persisting in the PIVA program?	n/a	Due to small cohort sizes and relatively homogeneous cohorts, outcomes by student demographics could not be computed and compared with statistical reliability.
5. How do components of the PIVA program (intensive/fast-tracked; cohort-based; student supports) impact successful student outcomes?	▪ Student and staff interviews ▪ Student focus groups ▪ Student surveys	Qualitative data were collected on all aspects of the PIVA program, but no student-level data were available to connect these components to student outcomes.

Research Questions	Data Sources	Limitations
6. How do PIVA program partners contribute to program development and success?	▪ Faculty and staff interviews	Qualitative data were collected from within-College partners, such as the adult education staff who partnered with the PIVA program staff, but no student-level data were available to connect partners' contribution to program outcomes.

Cohort Eligibility

Students enrolled in the PIVA and Comparison programs received different services, although they earned the same professional certificate upon completion. The eligibility requirements of the two programs are as follows:

PIVA Program

To be considered for the PIVA program, students had to meet the following eligibility requirements (in rank order):

1. Expressed interest in the program in response to postcard and other advertisements;
2. Applied to the PIVA program;
3. Met minimal criteria (preference is given to students in the following order: students without a high school diploma or GED, students with a high school diploma or GED, and students with a previous college experience but no degree);
4. Were not a convicted felons; and,
5. Were accepted into one of the four specified programs of study.

Comparison Program

The comparison group consisted of students who:

1. Enrolled in one of the four programs of study;
2. Met the same minimal criteria (not a felon); and,
3. Enrolled in the key program-related course during a specified term[5].

The comparison programs in which the comparison group students were enrolled are in the same academic fields as the enhanced PIVA grant-funded programs. The comparison program, however, is not fast-tracked, not cohort-based, and students must seek out available supports as opposed to the high level of intentional support integrated for the PIVA group.

Study Participants

In sum, at the end of the data collection for this grant (Spring 2016), there were 92 PIVA cohort students and 51 Comparison group students, for a total of 143 students across the four

[5] Note: Comparison group students may have enrolled in the key course in a different semester than enrollment into the program; whereas, PIVA students enrolled in this key course during their first semester in the PIVA program.

program areas. While the number of PIVA participants was as expected, the number of comparison group students was substantially lower than anticipated. This is due in part because comparison groups in two of the four TAACCCT programs were not created in time to be included in this evaluation. Comparison groups were expected to be identified in the Phlebotomy and Optometry programs during Fall 2015; however, these cohorts were not created until Fall 2016, beyond the timeframe of this study. Table A2 provides a full breakdown of group definition, start dates, and selection criteria.

Table A2. SWCC TAACCCT Groups, Start Dates, Group Definitions, and Number of Students

Program	Group	Start/Definition Date	Selection Criteria	Number Participating
Phlebotomy	PIVA Cohort	Spring 2013	See PIVA cohort definition.	19
		Winter 2015	See PIVA cohort definition.	21
	Comparison Group	Fall 2014	Students enrolled in the introductory phlebotomy course (MDL 105: Phlebotomy) during the Fall 2014 term.	22
Pharmacy	PIVA Cohort	Fall 2013	See PIVA cohort definition.	23
	Comparison Group	Fall 2013	Students enrolled in the introductory pharmacy course (HLT 261: Basic Pharmacy) during the Fall 2013 term.	21
Forensics	PIVA	Summer 2014	See PIVA cohort definition.	11
	Comparison	Fall 2014	Students enrolled in the introductory Forensics course (ADJ 171: Forensics Science I) during the Fall 2014 term.	8
Optometry	PIVA	Spring 2015	See PIVA cohort definition.	18

Qualitative Data

Data Sources

The evaluation team relied on multiple research methods and focused principally on gathering the perspectives of key informants associated with both programs of study including the PIVA Project Director, PIVA Program Coordinator, college and adult education course instructors, college administrators, and program partners. Also of importance was capturing the student voice and the experience of those the programs were designed to support.

The qualitative data were collected over the course of this evaluation during the annual two-day site visits and performed the following activities:

- Conducted direct interviews with students and program personnel.
- Observed college-level and adult education classes.
- Administered surveys to students and program personnel.
- Conducted telephone interviews with program personnel.
- Reviewed internal program documents.

Data Collection

Among the data collection methods used were the in-person, one-on-one or small group interviews with stakeholders conducted during the two-day campus visit. These events allowed for engaging discussions with those who were central to program operation and delivery, and who were best positioned to offer insights into both process and output. Interviewees were identified prior to the site visit with the assistance of the PIVA Project Director and Program Coordinator. The interviews were conducted as conversations and approached by the evaluation team as opportunities to gather information, review data, share ideas and perspectives on program strategies and outputs, listen to personal stories, and provide feedback in support of program learning and improvement. The exchanges made for lively dialogue and were useful in building a narrative of the programs. A guide or protocol was used to bring structure to the experiences and direct the dialogue to ensure all relevant topics were covered. The guide also served as a method to promote consistency across the interviews as well as inter-investigator reliability. The sessions were digitally recorded and transcribed for purposes of the analysis.

As would be expected, during the on-campus discussion sessions and interviews, emphasis was placed on gathering a broad band of information pertaining to program experience. Consideration was given to exploring in detail specific topics of relevance to understanding implementation progress and efficacy. In all, respondents engaged a range of questions pertaining to:

- Program operations and delivery
- The character of the learning environments
- Instructional technology and simulation labs
- Instructional and support strategies
- Student learning and achievement
- Student and faculty engagement
- Supports and challenges to implementation effectiveness

Lessons learned were explored in detail with informants. It should be noted that these topic areas also constituted the focus of telephone interviews conducted with key personnel at the conclusion of the programs.

The campus visit also afforded evaluators the opportunity to gather information using closed- and opened-ended questionnaires. These were administered to college and adult education personnel as well as to students. The issues covered ranged from the academic practices and mindsets of students, to assessments of student engagement, and factors for program efficacy. Two additional methods of research employed on the visits were class observations and document collection. The focus of the observations was the character of the classroom

instruction, program culture and climate, and student engagement. The evaluators had the opportunity to interact with the students and instructors during the observations and also received a lesson or two on using the state-of-the-art equipment housed in the optometry and forensics labs. Lastly, documents related to the overall initiative and to each instructional program were gathered. These included curriculum guides, course syllabi, and orientation presentations.

In addition to the site visits, data were collected from students at the mid-point of their program of study using a survey developed by the evaluation team and administered by the Program Coordinator on-site. The primary purpose of the survey was to capture a mix of student perspectives pertaining to their learning and support experience. A second student survey was administered several weeks after the programs ended. The purpose of the second survey was to capture short-term outcomes as well as student reflections on the value of their participation in the PIVA program. Again, this instrument was developed by the evaluators, with distribution and collection handled by the PIVA Program Coordinator. The survey was sent electronically and via surface mail to each student who completed the programs.

Data Analysis

A coding framework was then developed for sorting the dense body of information gathered over the collection cycle and to support analysis and report writing. The framework consisted of three primary categories that included program attributes, outputs and short-term outcomes, and program dynamics. Each primary category was further divided into subcategories that pertained to the organizational, cultural, and ecological characteristics of the two programs under review, and the overall PIVA initiative. These included such qualities as core values, classroom and experiential learning practices, retention and learning support strategies, partnership relations, student experiences, program achievements, strengths and challenges, and lessons learned during program implementation. Factors such as cohesion, collaboration, and engagement were also highlighted within the analytic framework given their well-documented role as attributes that commonly support student learning and achievement.

The evaluation team addressed potential validity issues related to data collection and analysis in several ways. First, different data gathering methods were used to optimize the quantity and diversity of information collected about each program and to triangulate findings and themes. As discussed above, these included direct and mediated interviews, survey questionnaires, observations, and document review. Second, during the site visit two members of the evaluation team attended each interview session and took notes. At the conclusion of each day of data collection on campus, evaluation team members convened to discuss their experiences and to compare notes and observations. These sessions helped the team contextualize the interviews and identify questions or areas of uncertainty or bias. Third, all on-site interviews

were digitally recorded, and during transcription the field notes were compared to the recording to ensure accuracy and to check for potential bias.

Quantitative Data

Data Sources

The quantitative data consisted of student-level institutional administrative records maintained by SWCC, National Student Clearinghouse (NSC) records, and Virginia Employment Commission (VEC) records.

Data Collection

SWCC provided Coffey with student-level data tracking PIVA program participants and comparison groups longitudinally. Coffey then analyzed the data and conducted a quasi-experimental evaluation of SWCC's PIVA program outcomes. SWCC compiled the student-level course data, collected employment data from VEC, and requested postsecondary enrollment data from NSC. The College removed all personally-identifiable information and provided these files at the end of each quarter to Coffey for review and analysis.

Data Elements

The student-level data provided by SWCC for this evaluation included the following data elements (Table A3):

Table A3. Data Elements, Values, and Definitions

Variable	Values	Definition
BeginDate		Date student started program
Gender	F, M	Student's gender
AgeUpon Entry	Continuous	Student's age upon entry to the program
Depend	D, I	Student's dependency status
Race	W = White B = Black	Student's race/ethnicity
NumPriorCredits	Continuous	Number of prior credits student attained at SWCC
GPAPriorCredits	Continuous	Cumulative GPA in credits earned during prior enrollment at SWCC
HSGrad	0 = None 1 = High School Diploma 2 = GED 3 = Adult high school diploma 4 = All other -1 = Missing	High school grad status
Vet	Y/N	Student is a veteran
Disability	Y/N	Student is disabled
VEC Working	Y	According to VA Employment commission, student was employed at time of entry
Salyers Working	Y	According to Tim Salyers (Program Coordinator), student was employed at time of entry

Variable	Values	Definition
FinAid	Pell COMA No	Type of financial aid student received
FinAidAmount		Total amount of financial aid student received
LeftCohortTerm	(see TERM values)	Term SWCC indicates student left program
ChangeProgramDate	Date values	If student continued enrollment at SWCC, but changed program, date of program change
CompleteProgramDate	Date values	Date the student successfully completed the SWCC TAACCCT program (Note: this includes completion of clinicals, i.e., MDL 190)
GradDate	Date	Date student graduated from SWCC TAACCCT program (applies to both PIVA and traditional)
Term	2131 = 2013 Winter Term 2132 = 2013 Spring Term 2133 = 2013 Summer Term 2134 = 2013 Fall Term 2141 = 2014 Winter Term 2142 = 2014 Spring Term 2143 = 2014 Summer Term 2144 = 2014 Fall Term 2151 = 2015 Winter Term 2152 = 2015 Spring Term 2153 = 2015 Summer Term 2154 = 2015 Fall Term	Term the data reflect
Class		Department of course student enrolled
Nbr		Course Number
Sect		Section number
CHs		Credit hours
Drop Dt	Date values	Date course was dropped, if applicable
Grade	A, B, C, D, F Drop (Missing for students who left program) -1	Grade attained. No value provided by SWCC; SWCC did not indicate student left program
Term GPA		GPA for the term
Cum GPA		Cumulative GPA

Data Analysis

The evaluation team analyzed student-level academic and employment outcomes using a combination of descriptive and inferential statistical methods. We controlled for population differences between PIVA participants and the Comparison group students so that they would not confound differences in outcomes. Due to the small sample size (n=143) overall, the Fisher's Exact Test was determined to be the most accurate method of isolating the significance

of these variables. Moreover, the disparity in participants between the two groups suggested an exact sampling distribution provided by the Fisher's Exact Test method to be preferential to the approximation of the standard Pearson chi-square test, with standard confidence intervals ($p<.05$).

Data Considerations

Regression Incompatibility

As mentioned in the quantitative synopsis above, regression analysis was not a reliable option for examining this dataset. While the dataset itself was not pristine, the lack of a continuous dependent variable precluded even a linear regression analysis. While most of our measures contained at least a single continuous independent variable, no useful configurations of possible dependent variables allowed for linear or multiple regression techniques.

Inconsistent Independent Variable Structure

The hallmark of an excellent dataset is the uniformity of the structure of the potential independent variables it contains. The dataset provided for our analysis lacked this uniformity; variance among the basic forms of the independent variables (numeric variables, required for scale analysis, for example, were improperly coded as string variables in multiple instances) was a major obstacle to overcome prior to beginning any robust analysis. Numerous independent variables were incorrectly coded as ordinal rather than nominal, dichotomous, or scale, for example. Binary variables were occasionally inconsistent (1/0 values were listed as 1/2 in several instances). While not fatal to the final analysis, the sheer volume of clean-up required to render quantitative analysis in a reliable, repeatable fashion dampened any significant impact the final analysis may have potentially contained.

Cohort Size

Though minor in comparison with the aforementioned issues, the relatively small number of students (143), in conjunction with the variance between the control group (n=51) and the PIVA group (n=92) eliminated numerous analytical methods that could have otherwise been performed on the dataset.

Incomplete or Missing Data

Some of the data that the evaluation team had anticipated collecting could not be provided due to SWCC's interpretation of FERPA requirements, which prevented the sharing of data collected from students' FAFSA applications and other financial aid materials. These data included student and family income, number of dependents, details regarding financial aid sources, and amount of financial aid received. There were several other variables that the evaluation team did not have access to, such as length and type of unemployment prior to enrollment and college-entry/placement test scores. In addition, not all data elements were provided for each student. Table A4 lists all of the data elements collected and their usability, by data source.

Table A4. Data Elements Provided and their Usability by Data Source

Student-level Data		Virginia Employment Commission		National Student Clearinghouse	
Element	Complete	Element	Complete	Element	Complete
Student ID	✓	Student ID	✓	Student ID	✓
Cohort	✓	Gender	✓	College code	✓
Start date	✓	Year	✓	College	✓
Gender	✓	Quarter	✓	State	✓
Age	✓	Employer name	✓[6]	College type	✓
Race/ethnicity	✓	State	✓	College control	✓
Program	✓	NAICS code	✓	Program begin date	✓
Prior credits	✓			Program end date	✓
Prior GPA	✓			Class level	✓
High school diploma	✓			Major	✓
Veteran status	✓			CIP code	✓
Dependents (Y/N)	✓			Completion (Y/N)	✓
Disability (Y/N)	✓			Completion date	✓
Employment (Y/N)[7]	✓			Degree	✓
Post-Program Employment (Y/N)	✓[8]			Degree major	✓
Pell Grant receipt (Y/N)	✓			Degree CIP code	✓
Other classes	✓				
Left cohort term	✓				
Change program date	Partial				
Complete program date	Partial				
Graduation date	✓				
Award name	✓				
Course term	✓				
Course section	✓				
Course credit hours	✓				
Course grade	✓				
Term GPAs	✓				
Cumulative GPAs	✓				

[6] Employer information was limited to only a name value, inferred to be the DBA/entity name (see footnote 3). This prevented any reasonable deductive analysis on correlation between, for example, program of study and subsequent employment in a related field. The type of business could not be established in many cases, as some values appeared to be simply the names of individuals or were otherwise indeterminate. In cases where the incorporation of a business was established (employer data containing 'LLC' or 'INC'), the best-possible analysis would be based on anecdotal logic and thus inappropriate for inclusion.

[7] Multiple variables in the dataset provided employment information. *VECQtrX* (where *x* represents the calendar quarter) is signified by this variable, and indicated employment coinciding with this program. This was problematic because the positive value was repeated for students with multiple places of employment within the same quarter. Moreover, many of the values provided were applied inconsistently across the covered time period and/or were contradicted by a separate employment variable.

[8] The variable *VEC2QtrX* (where *x* represents the calendar quarter) was used to determine employment six months after the completion of the program and was provided by the Virginia Employment Commission. It contained the identical data integrity and referential deficiencies as the aforementioned *VECQtrX* variable. *VECQtrNAICS, VEC2QtrNAICS, VECQtrEmployer,* & *VEC2QtrEmployer* provided information employer information, but was missing for several student records that indicated employment during a specific period. Additionally, the data provided no information beyond the employer's DBA entity name, rendering any further inductive analysis to be performed on employment outcomes specious at best.

APPENDIX B: SAMPLE PROTOCOLS

SWCC Student Focus Group Protocol - Baseline

Intro: Thank you all for taking the time to participate in this focus group today. My name is [*moderator name*] and this is, [*notetaker name*]. We are with JBL Associates, an independent research firm based outside of Washington, DC, and conducting this focus group on behalf Southwest Virginia Community College (SWCC). The purpose of this study is to provide a thorough and objective review of SWCC's PluggedInVA program so far. Today, we would like to hear from you about your participation and experiences in the program. The information you provide will help to inform the PluggedInVA program and to guide the efforts in improving program activities.

The discussion will take approximately an hour. I will be leading the discussion and [*notetaker name*] will be taking notes. We are also taping the session to make sure we get all of your comments down. We will ask for your first names, but want to assure you that everything you say will be confidential and no personally identifying individual information about you will be used in the final report. Finally, please remember that there are no right or wrong answers to the questions I'll be asking; we would like to get your honest opinion.

Self-introductions/Ice breaker: Let's do a quick round of introductions. Please tell us your first name, the certificate program you are in, whether you are currently employed, and any previous training you received.

Now I would like to ask you some questions about your participation in the PluggedInVA Program.

Questions

A. Personal Goals

1. How did you hear about the program?
2. Why did you enroll the program?
3. Did you find the enrollment process easy to deal with?
4. What are your specific career goals?
5. How do you think the training you are receiving will help you achieve those goals?
6. What skill set(s) and knowledge are you hoping to gain through the program?
7. What result(s) do you expect from participation in this program?
8. What immediate steps/actions will you take as a result of this program?

B. Program Content and Design

9. What do you think of the pace of the program? The delivery mode (i.e., online learning, use of technology)? The quality of instruction?
10. What additional resources and are you aware of being provided through the program, to help with your educational and occupational needs?
11. What do you think about the program schedule? Does it meet your needs?

C. Support and Guidance

12. To what extent have you interacted with other students in the program? Faculty? Staff? Please describe.

D. Overall Program

13. What do you anticipate being the most challenging aspects of this program? (Ask for specific responses.)
14. What if anything would you like to change about the program application/enrollment process?
15. Given your experience with this program so far, what advice would you have for program administrators or those who are designing programs to serve individuals like you? How can this training be improved?

Closing

We thank you all for taking the time to meet with us today and share your impressions and experiences about the PluggedInVA program. The information you provided today is very valuable in our assessment of the PluggedInVA program and will help improve program activities to increase student success. We will share the results of this study with your institution. Please don't hesitate to contact us if you have any questions or concerns. You can reach us at (write contact information on white board).

SWCC Student Interview Protocol

Intro: Thank you all for taking the time to participate in this group discussion today. My name is [*moderator name*] and this is, [*notetaker name*]. We are with JBL Associates, an independent research firm based outside of Washington, D.C., and we are here today to hear from you about your participation and experiences in the Forensics Science Technician Program. The information you provide will help to inform the program and to guide the efforts in improving program activities.

The discussion will take approximately half an hour. I will be leading the discussion and [*notetaker name*] will be taking notes. We are also taping the session to make sure we get all of your comments down. We will ask for your first names, but want to assure you that everything you say will be confidential and no personally identifying individual information about you will be used in the final report. Finally, please remember that there are no right or wrong answers to the questions we will be asking; we'd appreciate you being open and honest with your opinion.

Self-introductions: Let's do a quick round of introductions. Please tell us your first name, whether you are currently employed, and received any other training prior to enrolling in the Forensics Science Technician Program.

Now I would like to ask you some questions about your participation and experiences in the Forensics Science Technician Program.

Questions

1. How did you hear about the Forensics Science Technician program?
2. Did you find the enrollment process easy to deal with?
3. What motivated you to enroll in this program?
4. What result(s) do you expect from your participation in this program? Do you feel that you gained the skill set and knowledge necessary to succeed at a workplace?
5. Would you say that the Forensic Science Technology program is effective at providing you with the type of learning experiences you need to be ready for a career? Why or Why not?

E. Program Content and Design

6. What do you think of the pace of the program? The delivery mode (i.e., online learning, use of technology)? The quality of instruction?
7. What do you think about the program schedule? Does it meet your needs?

F. Support and Guidance

8. To what extent do you interact with other students in the program? Would you say that working with other students increase your motivation to complete the program and help you succeed in your studies? Can you give some examples for how you benefit from interacting with other students in the program?
9. Do you feel that the staff and instructors care that you, personally, succeed in your courses and in the program, overall? Can you give an example or two of how they demonstrate, or show, this type of supportive attitude?
10. Are you aware of the supplemental support services (i.e., peer tutoring, career coaches, success counselors) available to you? How did you use these services – please give an example how using these services contributed to your success?

G. Overall Program

11. What do you like most about this program? What aspects of this program did you find most helpful and rewarding?
12. What are some of the challenges have you encountered in participating in the program? Were faculty and staff helpful in addressing those challenges?
13. What if anything would you like to change about the program application/enrollment process?
14. Given your experience with this program so far, what advice would you have for program administrators or those who are designing programs to serve individuals like you? How can this training be improved?

Closing

We thank you all for taking the time to meet with us today and share your impressions and experiences about the Forensics Science Technician program. The information you provided today is very valuable in our assessment of the program and will help improve program activities to increase student success. We will share the results of this study with your institution. Please don't hesitate to contact us if you have any questions or concerns.

★ Your Academic Practices: 'What You Do…and How Often' ★

Please respond to the following questions as best you can…Thanks!!

Do You Do This?	How Often?		
I take notes in class and lab	☐ Always	☐ Sometimes	☐ Never
I do my homework assignments.	☐ Always	☐ Sometimes	☐ Never
I actively participate in class discussions.	☐ Always	☐ Sometimes	☐ Never
I complete my readings or assignments before coming to class.	☐ Always	☐ Sometimes	☐ Never
I highlight key points or take notes when reading my course books and materials.	☐ Always	☐ Sometimes	☐ Never
I try to pick out the main ideas when I read something or listen to a lecture.	☐ Always	☐ Sometimes	☐ Never
I look up words that I don't understand.	☐ Always	☐ Sometimes	☐ Never
I review my notes right after class is over.	☐ Always	☐ Sometimes	☐ Never
I meet with my instructor outside of class.	☐ Always	☐ Sometimes	☐ Never
I participate in study groups with other students that meet outside of class.	☐ Always	☐ Sometimes	☐ Never
I study in the library or in a study area.	☐ Always	☐ Sometimes	☐ Never
I visit with a tutor at the learning center.	☐ Always	☐ Sometimes	☐ Never
I listen attentively to other people's views.	☐ Always	☐ Sometimes	☐ Never
I turn off my cell phone in class and lab.	☐ Always	☐ Sometimes	☐ Never
I turn off my cell phone when I study.	☐ Always	☐ Sometimes	☐ Never
I try to explain information I learn in class to my friends using my own words.	☐ Always	☐ Sometimes	☐ Never

Sharing Your Perspectives on The Crime Scene Technician Program

(1) Briefly describe your involvement, or role, with the Program:

(2) Using the following survey, please identify the extent to which you agree with each statement. If you don't feel well-positioned to provide a response please leave it blank.

Circle Your Response	Do you agree with the following statements?
Yes / No / Somewhat	The program ensures that students get a strong start toward completing their credential.
Yes / No / Somewhat	It's clear to students that a key focus of the courses and lab is career readiness and workplace skill development.
Yes / No / Somewhat	Expectations set by faculty and program staff are high but reasonable and clearly communicated to students.
Yes / No / Somewhat	The majority of students interact regularly with other students in the classroom and lab setting.
Yes / No / Somewhat	Students receive ongoing encouragement from staff and instructors to be motivated to learn and complete their credential.
Yes / No / Somewhat	Program staff and faculty members regularly encourage students to use the learning support services available at the college.
Yes / No / Somewhat	The course and lab work emphasizes the development of critical thinking and problem-solving skills.
Yes / No / Somewhat	Collaborative learning strategies, such as group projects, problem-solving teams, and study groups, are used to enhance learning and engagement.
Yes / No / Somewhat	The program provides students a coherent pathway to credential completion and entry into the labor market.
Yes / No / Somewhat	Instructors and program staff are proactive in working to keep students engaged in their learning and moving toward completion.
Yes / No / Somewhat	The majority of the students, when they came into the program, had the skills, habits, and know-how to succeed in college.

Southwest Virginia Community College - PluggedIn VA

'Helping students achieve their goals & aspirations'

Hi. Would you be willing to share with us about your experiences as a student in the Crime Scene Technician program? If so, please take a few minutes to answer the questions provided below. Use as much space as needed, including the back. You don't have to put your name on the questionnaire, as we want to keep all responses confidential. We'd appreciate you being open with your views as the information will help us better understand the student experience within the program. Please return this form to your instructor when you're finished.

Thanks and lots of luck with your studies!!

1. First of all, how did you find out about the Crime Scene Technician program?

2. Did you find that the orientation session held prior to beginning your classes was helpful for learning about the Crime Scene Technician program and what was expected of you as a student in the program? If not, can you share briefly why it wasn't helpful.

3. Now that you're well into the Crime Scene Technician program, do you feel you were ready for what is expected of you as a student in the program?

4. What could the staff at SWCC have done to help you feel more ready, or prepared, for college learning and the Crime Scene Technician program?

…*Now* we'd like to ask you some questions about your experiences as a student at SWCC both within and outside the classroom setting.

5. We all know that learning can be tough as well as rewarding. So, please share what you've found to be your biggest challenge(s) so far as a student in the Crime Scene Technician Program.

6. Again based on your experiences so far, what would you say has been the most rewarding part of being a student in the Crime Scene Technician program?

7. Based on your experiences in the program so far, do you feel that the instructors and program staff care that you succeed in your courses and in the overall program?

8. When you're in the classroom do you regularly work together with other students? What about in the forensics lab? If you do work with others collaboratively, do you find these experiences helpful for your learning?

9. Do you get together regularly with other students outside the classroom to study and review material covered in your courses? If you do, can you estimate how often?

10. Since you've been in the program, have you met with any staff member at SWCC for learning support or academic and career counseling? If so, can you recall, and write down, the name of the person and how many times you've visited with him or her?

11. Since you've been in the program, have you met with any of your instructors outside of class time in order to discuss issues or questions related to your courses? If so, how often would you say you've met with an instructor outside of class time?

We have one final question…

12. If you had the chance to share some quick thoughts and insights with others who may be considering attending college, and taking-on the challenge of college learning, what would you share based on your personal experiences?

We appreciate you sharing such good information!!!

Crime Scene Technician Program Questionnaire

Southwest Virginia Community College ***February 2015***

Would you be willing to share about your experiences as a student in SWCC's Crime Scene Technician Program?

The following questionnaire will only take a few minutes to complete. Your direct feedback will help us better understand the effectiveness of the program and make improvements in order to better serve students, like you. We appreciate your openness in sharing about your experiences while a student in the classroom and since completing the program. Your responses will be held confidential.

Thanks!

Your Personal Experience as a Student at SWCC …

1. Reflecting back over your time at SWCC, in general how satisfied are you with your experience as a student in the Crime Scene Technician program?

☐ Very Satisfied

☐ Somewhat Satisfied

☐ Not Satisfied

2. Overall, do you think the course material and content you studied at SWCC were helpful in preparing you for a job in the Crime Scene Technology field?

☐ Very Helpful

☐ Somewhat Helpful

☐ Not Helpful

3. How helpful were your instructors in preparing you for a job in this field of employment?

☐ Very Helpful

☐ Somewhat Helpful

☐ Not Helpful

4. Please indicate the extent to which you think your skills in each of the following areas improved because you participated in the Crime Scene Technician program. (Check the box that best applies for each skill)

Skills	Improved	Somewhat Improved	Didn't Improve
Critical Thinking	☐	☐	☐
Problem-Solving	☐	☐	☐
Communication	☐	☐	☐
Teamwork	☐	☐	☐
Leadership	☐	☐	☐
Confidence	☐	☐	☐

5. At the conclusion of your coursework did you feel you had the knowledge and skills to succeed in a career in the field of Crime Scene Technology?

☐ Yes ☐ No ☐ Somewhat

6. Would you recommend the Crime Scene Technician program at SWCC to another person who is interested in gaining a certificate for this field of employment?

☐ Yes ☐ No ☐ Not Sure

7. Do you think that by participating in the Crime Scene Technician program you are now better positioned to meet your employment goals, at this point in your life?

☐ Yes ☐ No ☐ Not Sure

Learning Support and Guidance at the College …

8. When you were a student in the Crime Scene Technician program did you receive direct, one-on-one career advice and guidance from any of your instructors?

☐ Yes ☐ No

9. Did you visit one-on-one with the PluggedIn VA Program Coordinator, Tim Salyers, while you were a student to discuss your coursework and/or career plans?

☐ Yes ☐ No

10. Did you use any of the following learning support services available through SWCC while you were a student? (Please check all that apply)

☐ Career Coaches

☐ Learning Assistance Center

☐ Peer Tutoring at the Counseling Center

☐ Success Counselors

11. Did you visit one-on-one with either of your adult basic education instructors to discuss classwork or other aspects of your learning experience?

☐ Yes ☐ No

Your Current Work Situation…

12. Did you complete all the requirements for the Crime Scene Technician program and receive your certificate?

☐ Yes ☐ No

13. Are you currently employed in the field of Crime Scene Technology?

☐ Yes ☐ No

14. If you answered "yes" to the above question, would you share whether the position is full-time or part-time?

☐ Full-time ☐ Part-time

15. If you are *not* currently employed in the Crime Scene Technology field, are you working in a job that enables you to use the skills you developed while a student at SWCC? If so, please provide the title of your current job.

☐ Yes ☐ No *Job Title: _____

16. If you are not working in the field at this time, are you actively looking for employment in the area of Crime Scene Technology?

☐ Yes ☐ No

17. At this point in time, are you actively considering additional education in the Crime Scene Technology field, or a related field of study, that will build upon your certificate from SWCC?

☐ Yes ☐ No

In Your Own Words…

18. What would you say was the *most* valuable or meaningful experience you had as a student in the Crime Scene Technician program at SWCC?

19. What were the two most significant challenges you faced as a student in the Crime Scene Technician program?

(1)

(2)

20. Lastly…Do you have any recommendations for how the Crime Scene Technician program could be improved so it would enable students, like you, to have a stronger learning experience?

Finished…Thanks Again!

Perspectives on the Students' Level of Engagement

Question: How would you rank the level of student engagement, generally speaking, based on what you've observed and experienced in your participation with the PluggedIn VA initiative ?

Process: Using a scale of 1-10, with 1 being 'none' and 10 being 'very high', rank the students' level of engagement in the following areas. Use "0" if you're not sure or don't feel well-positioned to provide a response.

Students' Engagement with…	Engagement Rating (Scale: 1-10)
The overall learning experience as provided in the classroom	
Other students in their learning cohort	
The college-level course material and readings	
The adult education course material and readings	
The idea and objective of working in their field of study	
Opportunities in the classroom to develop workplace skills and competencies	
The college course instructors for purposes of seeking academic guidance and support	
The college course instructors for purposes of seeking career guidance and planning advice	
The Program Coordinator for learning support and guidance	
The adult education instructors for purposes of seeking academic guidance and support	
SWCC College-wide student support services	
Online technology for purpose of learning and collaboration	

Supportive Conditions for Program Effectiveness

Question: Based on what you've observed and experienced in your participation with the PluggedIn VA initiative, how would you rank each of the following factors in terms of their contribution or value to supporting effective program implementation, in particular the goals of providing students with quality career training and readiness and supporting their success through to credential completion?

Process: Using a scale of 1-10, with 1 being "not important" and 10 being "very important", rank the factor for its perceived level of support for program effectiveness. Use "0" if you're not sure or don't feel well-positioned to provide a response. There is space provided to add other factors or elements that you consider to be important.

Discuss: *Explore the factors or elements that were given a low 'level of support' score, including the reasons the conditions are perceived as low contributor?*

Factor or Condition	Contribution to Effectiveness Rating (Scale: 1-10)
Skills and commitment of the programs' instructors	
Skills and commitment of the Program Coordinator/Coach	
Leadership skills of the Project Director	
Intensive, wrap-around coaching and learning support model	
Type of instructor feedback and guidance given to the students	
Collaborative learning strategies used in the classroom	
Cohort-style learning model	
Contextualized curriculum and learning environments	
Competency-based orientation to the learning experience	
Hands-on and/or work-based learning experiences	
Accelerating the time to credential completion	
Using technology to integrate real world experience into classroom learning	
Use of online and technology-enabled learning	
Integration of college-level and adult education coursework	
Employer engagement in the initiative	
Other:	
Other:	

Sharing Your Perspectives on The Forensics Technician Program

Please identify the extent to which you agree with each statement provided below as the statement pertains to the Forensics Technology program. If you don't feel well-positioned to provide a response please leave it blank. Thanks!

Circle Your Response	Do you agree with the following statements?
Yes / No / Somewhat	The program is designed to ensure that students get a strong start toward completing their program credential.
Yes / No / Somewhat	The program is designed to ensure that students have a strong finish to their program experience.
Yes / No / Somewhat	It's clear that the focus of the program is career readiness and the development of key workplace competencies and skills.
Yes / No / Somewhat	Expectations set by faculty and program staff are communicated both clearly and often to students.
Yes / No / Somewhat	The majority of students interact regularly with other students in the classroom and lab setting.
Yes / No / Somewhat	Students receive ongoing encouragement from staff and instructors to be motivated to learn and complete their credential.
Yes / No / Somewhat	Program staff and faculty members regularly encourage students to use the learning support services available at the college.
Yes / No / Somewhat	Collaborative learning strategies, such as group projects, problem-solving teams, and study groups, are used to enhance learning and engagement.
Yes / No / Somewhat	The program provides students a coherent pathway to credential completion and entry into the labor market.
Yes / No / Somewhat	Instructors and program staff are proactive in working to keep students engaged in their learning and moving toward completion.
Yes / No / Somewhat	The majority of the students, when they came into the program, had the skills, habits, and know-how to succeed in college.
Yes / No / Somewhat	Frequent classroom assessments, instructor feedback, and self-evaluation are used to provide students with actionable information for improving academic performance.

A) Overall Initiative to date

[1] What is the definition of "program success" and "student success" that you use when thinking about the PIVA initiative? Has your definition of success for either of these changed as you've moved along in implementation?

[2] Would you say the overall initiative, and its component programs, have been effective so far at providing students the type of learning experiences they need to be ready for a career? What leads you to that conclusion?

[3] What enables the initiative and its programs to work well? In other words, from what you've observed and experienced so far, what are the factors that drive effectiveness – is it the personnel, values, methods, curriculum, learning activities, program structure, workforce partnerships, relationships, etc.?

[4] Looking across the initiative and its different programs, can you identify any significant challenges to effective implementation that have been encountered? How about common challenges that have been experienced?

[5] What have been the most notable program achievements that you've observed during the implementation of the different programs? (As related to students, personnel, college, etc.),

[6] What would you identify as the strengths of this initiative and its programs? What about weaknesses?

[7] What changes would you make in the program that might strengthen the effort and enhance effectiveness?

B) Key Take-Aways and Lessons Learned

[8] What are some key takeaways you have from your involvement with the initiative to this point? For example, any relevant lessons learned and insights gained from the experience.

- Initiative
- Phlebotomy
- Pharmacy Technician
- Forensic Technician

[9] <u>Effective Practices</u> - Identify the activities and methods you feel have worked well to:

- Support student success

- Support career readiness and workplace skill development
- Encourage student engagement

[10] Gaps and Breakdowns - Based on your experiences, have their been components of the initiative - or the individual programs or courses - that haven't worked well; or that haven't worked as well as expected? What was the response?

[11] Changes - Let's use the rear view mirror and hindsight and ask what, if anything, would you do differently with regard to the initiative based on what you've experienced to date? In other words, from a program learning perspective, what changes might you make to strengthen the effort and enhance effectiveness?

C) Let's turn to the students

[12] Readiness - Would you say that the majority of the students, when they came into the programs, did or did not have the skills, habits, and know-how to succeed in college? What are the academic and workplace skills and competencies that students are generally lacking when they come into the program? Do you think that they completed the program with these skills in place?

[13] Student Challenges - Looking across the three programs that have been run so far, what do you consider are the primary challenges to academic achievement and success for the students? How has the staff tried to address – even anticipate - these challenges?

[14] Engagement - How would you characterize the level of students' engagement with:

- the learning experience
- each other
- faculty members
- program staff

Are they engaged / in what ways are they engaged / does the engagement seem to matter?

[15] Have you seen any difference in the level of student engagement in the Forensics Program relative to the other programs? If so, what do you think is behind the difference?

B) Persistence/Retention for each program

ENROLLMENT	Phlebotomy	Pharmacy Tech	Forensic Tech
Starting			
End of Coursework			
Finished Experiential			
Attained Credential			

[16] Are there particular points where you've seen students begin to withdraw effort and be at-risk of not completing? Any sense of why they pulled back on their engagement?

[17] Was there any intervention from program staff or instructors at these points of disengagement? Is there any type of early alert system?

[18] It seems some students had a difficult time completing their experiential learning component. Was there a way to address this challenge?

[19] What do you think have been the key reasons students dropped out of the program?

C) Experiential Learning: Internships and Clinical

[20] Overall, how do the students find these experiences? Are they perceived as valuable; complementary to the coursework? What are their big takeaways from the experience?

[21] How is student participation in the experiential learning monitored or tracked by program staff? Do you ask students to personally track their experience in journals or logs?

[22] Do program staff members visit the clinical site while students are working to observe?

[23] Do the student's supervisor on-site provide assessments of performance and engagement?

[24] Do students provide any assessment of their work site or their job supervisors?

[25] Are there opportunities during and after the clinical or internship for student to gather and share their experiences and discuss lessons learned and next steps with other students?

[26] What is the process if a student doesn't complete their clinical or internship on time?

(D) ABE Partnership

[27] What has been the role of the Adult Education component of the initiative? How does the Adult Education component support the overall goals of the initiative?

[28] How well has the adult education partnership component of the initiative worked? Any particular issues, challenges, or concerns?

[29] What factors have supported the ABE-SWCC partnership, and enabled it to work well?

[30] How would you describe the level and type of coordination between the Adult Education instructors and the regular classroom instructors, if any? Have you felt like there has been good synergy and connection between the ABE component of the program and the regular classes – and, as well, any learning support the students have received?

[31] How would you describe the collaboration between Adult Education Director and program staff at the college? What has supported the cooperation?

[32] Have there been any factors or conditions that have challenged the collaboration between the program and the ABE staff and instructors?

[33] What are your key takeaways and lessons learned from working with this initiative at SWCC as an ABE instructor or as Director?

E) Workforce Partnership

[34] How well has the workforce partnership component of the initiative worked? Issues, challenges, concerns, supports?

[35] To what extent have your workforce partners been actively involved in program implementation?

[36] Have there been any factors or conditions that have challenged engagement and collaboration?

[37] As a workforce partners, in what ways have you been involved with the development and implementation of the program at SWCC?

[38] In your role as a workforce partner, what are your key takeaways and lessons learned from working with this program at SWCC?

F) Focusing on the Forensics Technician program

[39] Would you say that the Forensics Technician program to-date has been effective at providing students with the type of learning experiences they need to be ready for a career in this field?

[40] What challenges do you see that the students have encountered in participating in the program? Did you anticipate these challenges? What steps have been taken to address these challenges at the program level?

[41] What would you say hasn't worked as well as expected with regard to implementing the program?

[42] What are some key takeaways you have from your involvement with the program to this point in its implementation? Do you have any particular lessons learned and insights gained from the program experience?

[43] In what ways is the program designed and implemented to ensure that students get a strong start toward completing their program credential and a strong finish? ★

[44] If you were a student in the program, what would lead you to come away from the experience with the view that the program is about getting me ready for a career and developing skills and talents I'm going to need on the job? ★

F) Focusing on the Forensics Technician program (cont'd)

[45] Would you say that the majority of students interact regularly with other students in the classroom and lab setting? If not, what do you think are the barriers to this type of engagement? ★

[46] In what ways do students receive ongoing encouragement from staff and instructors to be motivated to learn, to keep applying effort, and to complete their credential? ★

[47] Would you say that faculty members regularly encourage students to seek out learning support services and counseling/guidance to strengthen achievement? ★

[48] What is the definition of "program success" and "student success" that you use when thinking about the Forensics Technician program? Has your definition of success for either of these changed as you've moved along in program implementation?

[49] Effective Practices - Identify the activities and methods you feel have worked well to:

- Support student success
- Support career readiness and workplace skill development
- Encourage student engagement

[50] Student Readiness - Would you say that the majority of the students, when they came into the Forensics Technology program, had the skills, habits, and know-how to succeed in college? How do you know?

[51] Student Challenges – With regard to the students in the Forensic Technology program what do you consider are the primary challenges to academic achievement and success they face? How has the staff tried to address – even anticipate - these challenges?