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EXECUTIVE SUMMARY

OVERVIEW

Awarded in 2013, Bridgemont Community and Technical College (now BridgeValley Community and Technical College (CTC) – lead institution for the consortium) received a $25,000,000 grant to bridge energy, manufacturing, information technology (IT), and construction trades through career pathways, enhanced academic instruction, and closing student support gaps. The nine community and technical colleges in the Bridging the Gap (BTG) consortium have focused on grant areas such as grant-funded technical programs, learning strategies, student support services, developmental education, student recruitment, and industry sector partnerships.

RESULTS AND STRENGTHS

From October 1, 2013 through May 31, 2015, the BTG consortium focused on program development and implementation. Grant components were piloted and/or implemented and BTG colleges have begun to enroll participants. Colleges and the consortium as a whole have enhanced career pathways through new programs and streamlined schedules, improved the overall student experience through increased touch-points for students, and begun creating frameworks for dynamic student recruitment and sector partnerships.

Since grant implementation, many colleges have reported increased collaboration throughout the consortium through the sharing of curricula and other resources. In addition, BTG colleges have reported increased capacity to serve non-traditional student needs. For example, non-traditional students indicated that the flexibility of new program scheduling and course offerings has proven valuable in accommodating their work and family needs.

BARRIERS AND CHALLENGES

Although the implementation of the grant has been steadily moving forward, a handful of high-level challenges have surfaced in the first 20 months (Oct. 2013 – May 2015). For example, many colleges discussed the difficulty of fully understanding the intent and language of the grant application and of DOL requirements surrounding common definitions such as "participant". This led to a slower start-up for implementation and uncertainty concerning performance expectations.

PROGRAM RESULTS

- Institutional capacity expansion
- Technical program visibility
- Workforce and academic collaboration
- Streamlined programs
- Professional development for staff and instructors
- College staffing growth
- Diverse learning strategies
- College student support services modifications
- Career services enhancements
- Developmental education course modifications
- Targeted outreach strategies
- College staffing growth
- Strengthened employer engagement
- WIB relationships

ACCELERATORS AND STRENGTHS

- Existing college staff utilization
- Instructor experience in industry
- Program flexibility
- Non-traditional student population
- Online integration
- Student-peer coach contact
- Statewide PLA policy changes
- Technical developmental education focus
- Outreach tools
- Program-specific outreach
- Strong WIB partnerships
- Level of employer involvement

BARRIERS AND CHALLENGES

- Sector dynamics
- Difficulty recruiting instructors
- Student recruitment
- Loss of students to early employment
- Misinformed student expectations
- Grant spending
- Poor Mondopad connectivity
- Limited peer coach accessibility
- Negative student perception of developmental education
- Difficulty tracking students
- Participant definition
- Non-traditional student recruitment
- Expanding employer partnerships

Additionally, this large-scale grant initiative required the hiring of many new personnel whose positions are currently supported through grant funds. The colleges have attempted to find ways to use existing staff in the hopes that personnel funds can be reallocated to other program areas for further development. Spending personnel money has also been an ongoing challenge for the BTG colleges, because many colleges are concerned with allocating money for personnel they may not be able to sustain.

ENVIRONMENTAL FACTORS

External factors have impacted the delivery of the BTG grant. BTG colleges reported that some grant components were difficult to implement because of a particular college's economy (e.g., employer landscape, internet accessibility) and/or culture (e.g., student demographics). The grant encouraged collaboration and consistency between the colleges in terms of grant-funded development and implementation. However, because of regional differences, the colleges found it difficult to remain consistent in the program components implemented at their colleges (e.g., online learning strategies are difficult to implement in areas with low Internet accessibility).

The BTG institutions reported challenges in carrying out purchases under the grant due to modifications to the state's accounting system and confusion around purchasing requirements. Because of these challenges, grant purchasing did not occur until well after the start of Program Year 1. These time constraints have created challenges for grant implementation among the colleges, as some grant components (e.g., purchasing, curriculum and program development, hiring) progressed more slowly than initially planned.

LOOKING AHEAD

As the implementation of the grant moves through Program Year 2 and into Year 3, opportunities for continued growth include: clarifying objectives and definitions for the grant (e.g., definitions for participant, learning strategies, and grant spending categories); clarifying expectations among colleges, Sector Leads, Institutional Transformation Leaders (ITLs), and WVCTCS (West Virginia Community and Technical College System); and increasing collaboration across colleges (e.g., common curriculum, information and resource sharing). Defining these goals and expectations and clarifying objectives where they already exist will provide a foundation for continued growth through the grant.

A key topic touched upon throughout the report is collaboration. With nine colleges and a convening body working towards shared goals, opportunities abound to share strategies and put best practices into use. While targeted areas for collaboration can be found throughout the report, the three broad areas where this applies are collaboration within each college, within the community, and within the consortium. This is discussed further on the following page.

Within Colleges

- **Recommendations**
- Encourage coach-instructor contact
- Educate college personnel on grant-funded technical programs
- Track developmental course outcomes
- Evaluate effectiveness of outreach

- **Promising Practices**
- Embedded certifications
- Incorporation of certification costs into course costs
- Implementation of pre-assessments to measure student readiness
- Use of innovative learning strategies to save money
- Exploration of creative Mondopad use
- Invest in capacity for hybrid offering capabilities
- Development of proactive relationships with students
- Peer coach collaboration with instructors and departments
- Incorporation of job skills into courses
- Investment in recruitment staff
- Focus on greater internal communication

Within Community

- **Recommendations**
- Ensure course transferability
- Utilize WIBs for recruitment
- Demonstrate action or progress out of employer contributions and meetings
- Create targeted outreach strategies
- Meet employers where they are
- Look to partners to make employer connections

- **Promising Practices**
- Utilization of multiple avenues for curriculum development
- Development of completion agreements with businesses
- Development of different strategies for different target populations
- Diversified outreach strategy
- Creativity in outreach strategies
- Expanded WIB connections
- Accomodation of employer needs
- Opportunities for involvement

Within Consortium

- **Recommendations**
- Collaborate around successful strategy implementation
- Collaborate on curriculum and technology
- Increase Sector Lead involvement
- Create a platform for sharing resources within the consortium
- Create common learning strategy definitions
- *Note: successes across the prior two sections can be shared across the consoritum for improved outcomes*

Institutional Transformation Leaders (ITLs) at each college can work towards grant objectives by connecting individuals within departments and placing staff focus on particular trouble areas for opportunity noted above. Additionally, with WIB and employer connections playing an integral role in grant success, fostering teamwork between grant staff and community, business, and workforce partners is key. Successes in these areas can in turn be rolled up to the consortium level and shared across colleges at quarterly meetings, during ITL phone calls, through Teamwork or other online platforms, and more.

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INTRODUCTION

PURPOSE AND BACKGROUND

In 2013, Bridgemont Community and Technical College (now BridgeValley Community and Technical College (CTC) – lead institution for the BTG consortium) received a grant of $25,000,000 through the U.S. Department of Labor (USDOL) Trade Adjustment Assistance Community College and Career Training (TAACCCT) program to fund the West Virginia Community and Technical College System (WVCTCS) Bridging the Gap (BTG) consortium. The BTG project unites nine community colleges with the goal of creating career pathways for four in-demand industries: energy, manufacturing, information technology (IT), and building construction.[1] The project also seeks to enhance academic instruction and bridge student support gaps throughout the community college system, while creating a culture of continuous improvement that will expand into the CTC system's second decade.

Per grant requirements, Bridgemont procured an independent contractor, Thomas P. Miller and Associates, LLC (TPMA)[2], to conduct an objective evaluation of the Bridging the Gap program. This evaluation will provide WVCTCS, its partners, its funders, and other stakeholders with critical information regarding the effectiveness of implemented programs. The evaluation will track program implementation through September 2016 with a final year for evaluation through September 2017.

This Interim Evaluation Report is the first of two evaluation reports (the second being the Final Evaluation Report) that examine the outputs and outcomes of the program to date, as well as the underlying processes, assumptions, modifications, successes, and obstacles that have led to program results thus far. It concludes with recommendations and promising practices for WVCTCS and BTG grant staff and instructors to consider as part of continued operations.

THE BRIDGING THE GAP GRANT PROGRAM

GRANT OVERVIEW

Since 2004, when the West Virginia Legislature created the state's independent Community and Technical College (CTC) system, member institutions have rapidly expanded the number of career-technical program credentials offered and awarded. The BTG grant program is focusing on ways to continue the expansion of credentials offered and awarded in the state through focus on four industry areas: manufacturing, energy, IT, and construction. With this, the Bridging the Gap consortium is implementing a three-pronged evidence-based design: 1) enhanced and accelerated sector-driven career pathways; 2) contextualized, online, blended, simulated, and remote academic instruction; and 3) expanded and individualized student support strategies focused on strategic recruitment, college success courses, peer coaching, career planning, and data-driven decision-making. The BTG consortium is also focusing on creating a culture of continuous improvement that will extend into the CTC system's second decade.[3]

Through the grant, the BTG consortium anticipates developing seamless, stackable, and latticed industry-driven energy, manufacturing, construction, and IT career pathways; a new series of contextualized and online courses that allow individuals to earn an associate's degree; new gateway, bridge, and capstone

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[1] The nine colleges include Blue Ridge CTC, BridgeValley CTC, Eastern WV CTC, Mountwest CTC, New River CTC, WV Northern CC, Pierpont CTC, Southern WV CTC, and West Virginia University at Parkersburg.

[2] The Policy & Research Group (PRG) will be conducting the impacts comparison group evaluation

[3] Drawn from the original WV BTG Consortium Project Narrative

courses; a new web-based technical program-focused prior learning assessment system; and new predictive course and retention analytics protocols and systems focused on improving course and credential completion.

The BTG consortium predicts that these changes will benefit over 1,300 students included in grant outcome projections, not including future technical program students and other West Virginia CTC students benefitting from the enhanced and improved institutional services (i.e., developmental education, career planning, coaching, and counseling).[4]

GRANT INDUSTRY SECTORS

The BTG consortium is focusing on closing the gap for four industry sectors: energy, manufacturing, IT, and construction. The primary focus of consortium energy programs is oil and gas middle-skills jobs, with over 10,000 total sector jobs available from 2008 to 2011.[5] These numbers are expected to continue increasing due to nearly 1,000 new wells drilled in 2013 and 2014. WorkForceWV projects that employers will need an increase of 800 workers per year over the next five years due to these recent changes in the oil and gas industry.[6]

West Virginia is home to more than 2,250 manufacturing firms with growth expected in natural gas production and transportation-related manufacturing.[7] The focus of the BTG consortium is to address these regional needs. A number of jobs are available to students in these programs including: engineering technicians, machinists, aircraft mechanics, first line supervisors, and industrial machinery workers.[8]

The IT sector in West Virginia is active with jobs available through government agencies and in private-sector research, including focuses in networking, programming, software and application development, and cybersecurity. These jobs are expected to experience significant growth over the next seven years. Jobs such as computer and information systems managers; programmers; computer support specialists; and network administrators are available to students in these programs. [9]

Finally, the construction sector is expected to grow significantly over the next seven years in many regions due to increased Marcellus Shale activity in the state. Construction managers, extractors, carpenters, cement masons, electricians, welders, and insulation workers are some of the jobs that are available to students in these programs.[10]

GRANT COMPONENTS

Through the grant, the BTG consortium is providing education and training needs for a number of non-traditional student populations including: TAA-eligible, veterans, apprentices, journeypersons, underemployed, and unemployed. With this in mind, the BTG program has identified six focus areas for grant implementation based on state, regional, and student need: grant-funded technical programs,

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[4] Drawn from original Program Narrative

[5] WorkForceWV (2012). *The Influence of Marcellus Shale on Employment and Wages in West Virginia.*

[6] World-Class Industrial Network, LLC (2011). *Direct Job Creation in West Virginia's Marcellus Shale: The Demand Generated by the Natural Gas Industry.*

[7] Manufacturers' News, Inc. (2013). West Virginia Manufacturers Register.

[8] EMSI, 2013.

[9] EMSI, 2013.

[10] EMSI, 2013.

learning strategies, student support services, developmental education, student recruitment, and industry sector partnerships.

As part of accelerated sector-driven career pathways, the BTG consortium is expanding certificate offerings and accelerating credential attainment by strengthening prior learning assessment and adjusting program schedules. The consortium is also implementing compressed and paired developmental education courses by adopting the co-requisite model.

From an academic instruction perspective, the BTG program is expanding the use of contextualized learning by developing and implementing: 1) new gateway courses[11]; 2) new bridge courses that combine technical skillsets[12]; 3) industry-driven apprenticeship programs; 4) expanded learn-and-earn work-based cooperative education training programs; and 5) new capstone courses to ensure that students can demonstrate knowledge of foundational, industry, and occupation-related competencies.[13] The BTG grant is also strengthening online and blended instruction as well as remote and simulated learning by developing and implementing content for use in these different learning strategies.

Strengthening student support services is a significant component of the BTG grant. The consortium has been tasked with incorporating components of Mountwest Community and Technical College's BEACON model, namely peer coaches and professional counselors that work with instructors to provide students with a number of services ranging from retention strategies to recruitment efforts.

SUMMARY OF EVALUATION METHODOLOGY

This evaluation report focuses on the qualitative implementation of the BTG program through May 2015 of grant-funded operations. To understand program implementation and draw conclusions about successes and obstacles, this Interim Evaluation Report relies on content analysis of qualitative data from the following sources:

1. Interviews with BTG staff and instructors from each college;
2. Focus groups with BTG students from each college;
3. Interviews with BTG-connected employers;
4. Interviews with WVCTCS staff;
5. Quarterly reports prepared and submitted by BTG staff; and
6. Enrollment data.

Additionally, this report draws from analysis and findings in the Year 1 Evaluation Brief and quarterly summaries, prepared by the TPMA Evaluation Team. *See [Appendix A](#) for a more detailed look into the evaluation methodology implemented and [Appendix B](#) for a comprehensive list of focus group questions presented on-site.*

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[11] Gateway courses embed basic skills development and technical instruction in the same course and provide an entry into the field; drawn from *Bridging the Gap Course Design Overview.*

[12] Bridge courses provide foundational skills that will be useful in a variety of specializations within the field; drawn from *Bridging the Gap Course Design Overview.*

[13] Drawn from the original WV BTG Consortium Project Narrative; Capstone courses occur at the end of the program of study and ensure that students are able to demonstrate mastery of industry/occupation related skills as defined in the *Bridging the Gap Course Design Overview.*

SUMMARY OF CONSORTIUM FINDINGS

Overall, the BTG consortium has progressed in program development and implementation in the first 20 months (Oct. 2013 – May 2015) despite a slower start to the grant, *as touched on in the Executive Summary*. BTG colleges reported strengthened partnerships and relationships with employers, targeted outreach and recruitment strategies, and general progress toward BTG grant objectives. Although the BTG consortium is concerned about their ability to sustain the grant-funded programs, track student participants and outcomes, and spend grant funds, many institutions reported stronger collaborations within the college and enhanced solutions to address student needs. The colleges will continue to address barriers to program implementation as they move through Year 2 and into Year 3 of grant operations.

BTG colleges reported a number of program results, accelerators, and barriers that have impacted grant activities and outcomes to date (October 2013 – May 2015). These accelerators, barriers, program results as well as recommendations and promising practices are described in greater detail below.

GRANT-FUNDED TECHNICAL PROGRAMS

The Bridging the Gap grant has allowed colleges to expand their technical program offerings, from adding one or two courses to existing programs due to industry demand, to creating entirely new programs of study. Particularly, colleges reported using grant funds to hire new instructors and/or pay portions of current instructors' salaries, the result of which was an increased focus on developing and teaching new courses. Collaboration around grant outcomes has been enhanced by sector meetings, but opportunities exist to improve these outcomes.

A summary of evaluative findings is provided below. See the section on grant-funded technical programs for details around each point.

Program Results
- Institutional capacity expansion
- Technical program visibility
- Workforce and academic collaboration
- Streamlined programs
- Professional development for staff and instructors
- College staffing growth

Accelerators and Strengths
- Existing college staff utilization
- Instructor experience in industry
- Program flexibility
- Non-traditional student population

Barriers and Challenges
- Sector dynamics
- Difficulty recruiting instructors
- Student recruitment
- Loss of students to early employment
- Misinformed student expectations
- Grant spending

Recommendations
- Collaborate on curriculum and technology
- Increase Sector Lead involvement

Promising Practices
- Utilization of multiple avenues for curriculum development
- Embedded certifications
- Incorporation of certification costs into course costs
- Development of completion agreements with businesses
- Implementation of pre-assessments to measure student readiness

LEARNING STRATEGIES

Colleges have been receptive to the concept of utilizing new learning strategies to increase hybrid, online, remote, and simulated learning opportunities, particularly for non-traditional students. In general, colleges see opportunities or have followed through on placing general education and introductory-level courses online, while recognizing more limited applicability for transforming advanced classes due to their hands-on nature. Institutions that have not gained traction in this area can learn from successful implementations that combine targeted investment with innovative thinking as highlighted below.

A summary of evaluative findings is provided below. See the section on learning strategies for details around each point.

Program Results
- Diverse learning strategies

Accelerators and Strengths
- Online integration

Barriers and Challenges
- Poor Mondopad connectivity

Recommendations
- Create a platform for sharing resources within the consortium
- Collaborate around successful strategy implementation
- Create common learning strategy definitions

Promising Practices
- Use of innovative learning strategies to save money
- Invest in capacity for hybrid offering capabilities
- Exploration of creative Mondopad use

STUDENT SUPPORT SERVICES

From adding coaches to creating entirely new frameworks for student engagement, institutional capacity for student support services has increased through the grant, particularly in the amount of contact students have with fellow students or recent graduates. Mountwest Community and Technical College's BEACON model has served as a helpful guide to colleges rather than as a proscriptive model. BTG colleges can continue to bolster student support services by sharing best practices, particularly around recruiting tutors and meeting non-traditional students' needs.

A summary of evaluative findings is provided below. See the section on student support services for details around each point.

Program Results
- College student support services modifications
- Career services enhancements

Accelerators and Strengths
- Student-peer coach contact
- Statewide PLA policy changes

Barriers and Challenges
- Limited peer coach accessibility

Recommendations
- Encourage coach-instructor contact

Promising Practices
- Development of proactive relationships with students
- Peer coach collaboration with instructions and departments

DEVELOPMENTAL EDUCATION

BTG colleges have been building upon statewide shifts to adopt the co-requisite model for developmental education. The colleges have continued these efforts through the grant with some institutions seeing marked success in their programs. With the myriad of changes to developmental education across the consortium, opportunities abound for sharing successes and challenges in this area, especially as many colleges plan to perform in-depth reviews of developmental education changes and progress to date during the summer of 2015. Particular areas for cross-college collaboration include strategies on "selling" these courses to students, tracking outcomes, and defining participants for the grant.

A summary of evaluative findings is provided below. See the section on developmental education for details around each point.

Program Results
- Developmental education course modifications

Accelerators and Strengths
- Technical developmental education focus

Barriers and Challenges
- Negative student perception of developmental education
- Difficulty tracking students
- Participant definition

Recommendations
- Ensure course transferability
- Track developmental course outcomes

Promising Practices
- Incorporation of job skills into courses

STUDENT RECRUITMENT

The BTG grant has allowed for a shift in focus from general college recruitment to specific technical program recruitment. Accompanying and enhancing this shift, each college has developed an outreach plan to guide their recruitment efforts going forward, particularly around the targeted populations of the grant: veterans, TAA-eligible individuals, and dislocated workers. As the number of TAA-eligible individuals joining the program has been lower than expected, continued efforts around recruitment will prove key to grant success.

A summary of evaluative findings is provided below. See the section on student recruitment for details around each point.

Program Results
- Targeted outreach strategies

Accelerators and Strengths
- Program-specific outreach
- Strong WIB partnerships

Barriers and Challenges
- Non-traditional student recruitment

Recommendations
- Educate college personnel on grant-funded technical programs
- Create targeted outreach strategies
- Evaluate effectiveness of outreach
- Utilize WIBs for recruitment

Promising Practices
- Development of different strategies for different target populations
- Diversified outreach strategy
- Investment in recruitment staff
- Creativity in outreach strategies

INDUSTRY SECTOR PARTNERSHIP STRATEGIES

All BTG colleges are engaging with area employers to better align their training programs with the needs of industry. Instructors report that the grant has provided a new topic of discussion for collaboration when working with both individual employers and Advisory Boards/Committees. At the consortium level, discussions have focused on enhancing employer partnerships – often built upon individual relationships between instructors and employers – by furthering a sector partnership model. Consortium-wide focus on this model may help to improve outcomes regarding internship and apprenticeship opportunities, a key grant component.

A summary of evaluative findings is provided below. See the section on industry sector partnership strategies for details around each point.

Program Results
- Strengthened employer engagement
- WIB relationships

Accelerators and Strengths
- Level of employer involvement

Barriers and Challenges
- Expanding employer partnerships

Recommendations
- Demonstrate action or progress out of employer contributions and meetings
- Look to partners to make employer connections
- Meet employers where they are

Promising Practices
- Expanded WIB connections
- Opportunities for involvement
- Focus on greater internal communication
- Accommodation of employer needs

CONSORTIUM-WIDE OPPORTUNITIES

Grant success depends on consortium-wide collaboration so resources and successful implementation strategies can have a compounded effect. To ensure that collaboration is occurring and the colleges are progressing, some of the following recommendations can be considered:

Common definitions. (1) Development of a common and consistent definition around program participant (for grant outcomes reporting), will increase consistency across colleges and assist the institutions in properly identifying participants for the outcomes reporting to DOL. (2) Development of common definitions for each learning strategy, will assist colleges in identifying which strategies they are using. Additionally, describing the strategies can lead to opportunities for further innovation as colleges are more easily able to understand the different innovative options. (3) Development of common definitions for grant spending categories can provide clarity around how funding can be spent and identify where budget modifications may need to take place.

Continue requirement and goal clarification. CTCS has worked to inform consortium members of how their grant progress compares to expectations through quarterly meetings, updated goals documents (e.g., the January 2015 ITL Guide), the online project management tool Teamwork, and other more informal methods. CTCS should continue this support to colleges by offering guidance on grant deadlines and requirements, and reiterate institutional priorities,[14] outlined by CTCS that outline how colleges should prioritize grant components from a system level. Alignment between the goals and priorities of CTCS and each college will allow for enhanced collaboration and continued grant success.

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[14] Priorities outlined by CTCS include: (1) student recruitment; (2) developmental education; (3) innovative program delivery; (4) industry sector strategies; (5) spending plan/budget modification; and (6) data analytics start-up – system focus.

Foster a culture of sharing. Grant staff report positive opportunities to learn from staff at other BTG colleges but also note that there can be a hesitance to share new ideas or strategies for fear of straying away from grant requirements. This perception can stifle innovation and keep colleges from building upon the lessons learned from one another. As is often the case with consortia grants, CTCS should continue to work to promote a culture of inclusivity that promotes sharing even if adjustments must be made to a college's plan.

Budget modifications. Grant staff report concerns around grant spending as well as modifying budgets to accommodate grant components that need funds for further development as many colleges are significantly underspending. To counteract this, many colleges are anticipating budget modifications to reallocate funds to different grant areas. However, many of the colleges have reported concerns with this process. One college reported concerns with what constitutes administrative costs while another college voiced concern with modifying their budget to reallocate personnel funds. Support for a strategic approach to grant spending on remaining funds and a focused effort by each college to strategically modify spending is necessary to ensure all grant funds will be spent by the end of the grant.

ENVIRONMENTAL FACTORS

A number of factors, to greater or lesser extents, affect all BTG colleges and define the parameters under which they operate. These environmental factors are not necessarily positive or negative, but provide a background in which to understand the implementation of grant goals.

Regional differences. The nine service areas covered by the BTG institutions represent varying populations, industries, skill needs, and more. Many colleges reported difficulty in uniformly applying consortium level solutions, making collaboration around certain facets of the grant (e.g., student services, employer engagement) difficult. At the same time, these differences increase the reach of the grant by, for example, allowing colleges to focus on different components of advanced manufacturing rather than attempt to apply the same solution to different needs. The consortium should continue to explore the flexibility provided within the grant while finding areas to work together.

Geographic accessibility. Much of West Virginia is rural causing challenges in student accessibility to BTG college campuses. Many students reported traveling over two hours to the college campuses. The state's population in 2014 was 1.8 million with only 77 persons per square mile in 2010. Compared to the nation's average of 87 persons per square mile in 2010, students in West Virginia typically have longer commutes to campus than those in other states.[15] Some BTG colleges are concerned that this could act as a deterrent for non-traditional students that are considering enrollment in BTG technical programs.

Internet accessibility. Students in the more rural parts of West Virginia do not typically have access to the Internet to complete online coursework. Although 63 percent of all West Virginia households have some form of access to the Internet, the state ranks 48th in the percent of the population with access to broadband at home.[16] Many students report a preference toward online education but must

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[15] Census Bureau Quickfacts, West Virginia: http://quickfacts.census.gov/qfd/states/54000.html

[16] West Virginia Center on Budget and Policy: http://www.wvpolicy.org/downloads/Broadband102411.pdf

travel lengthy distances to the BTG college campuses to access the Internet for their studies. Of those students that have Internet access, the hands-on nature of the programs do not always translate well to online curricula (i.e. students need to be in class with the instructors to receive feedback and guidance).

Delayed grant purchasing. Because of changes to the state's accounting system and confusion around purchasing requirements under the grant, many institutions were met with delays in grant spending. Many BTG colleges reported that purchasing did not occur at their institution until well after the start of Program Year 1. These time constraints delayed grant development and implementation as many components progressed more slowly than initially planned.

The following sections provide a more detailed look into the consortium's progress to date, as well as the underlying processes, assumptions, modifications, successes, and challenges that have led to program results thus far. Recommendations and promising practices for WVCTCS and BTG grant staff and instructors to consider are also included. The information below addresses the successes, challenges, program results, recommendations, and promising practices in the six core categories of BTG-funded efforts. These include:

Section 1. Grant-Funded Technical Programs

Section 2. Learning Strategies

Section 3. Student Support Services

Section 4. Developmental Education

Section 5. Student Recruitment

Section 6. Industry Sector Partnership Strategies

The report concludes with a summary of recommendations and promising practices colleges should consider adapting and incorporating into their individual BTG portfolio of strategies. *See Appendix C for individual college matrices*.

SECTION 1.
GRANT-FUNDED TECHNICAL PROGRAMS

The Bridging the Gap grant has allowed colleges to expand their technical program offerings, from adding one or two courses to existing programs due to industry demand to creating entirely new programs of study. The grant funds allocated to each institution have increased institutional capacity in technical programs at each college. Additionally, grant funding has afforded instructors the ability to focus on developing courses and/or bringing on additional instructors to do so.

Results

- Institutional capacity expansion
- Technical program visibility
- Workforce and academic collaboration
- Streamlined programs
- Professional development for staff and instructors
- College staffing growth

Strengths

- Existing college staff utilization
- Instructor experience in industry
- Program flexibility
- Non-traditional student population

Challenges

- Sector dynamics
- Difficulty recruiting instructors
- Student recruitment
- Loss of students to early employment
- Misinformed student expectations
- Grant spending

Recommendations

- Collaborate on curriculum and technology
- Increase Sector Lead involvement

Promising Practices

- Utilization of multiple avenues for curriculum development
- Embedded certifications
- Incorporation of certification costs into course costs
- Development of completion agreements with businesses
- Implementation of pre-assessments to measure student readiness

CONSORTIUM FINDINGS

PROGRAM RESULTS

Institutional capacity expansion. According to many BTG colleges, cuts in state funding resulted in a decreased capacity to modify and expand existing college programs prior to the BTG grant. Since the grant, the funds have afforded many institutions the opportunity to expand their capacity (e.g., through national certifications, new equipment, and/or facilities). These modifications and expansions give the BTG institutions a competitive advantage in their region.

Technical program visibility. The BTG grant has increased the visibility of the technical programs at their respective institutions. Although some of these technical programs existed prior to the grant, their visibility at the institution has increased due to grant funds that target outreach specifically in these technical programs. As visibility of the technical programs increases, BTG colleges anticipate increased college support, increased student enrollment, and, in turn, future sustainability.

Workforce and academic collaboration. Since the implementation of the BTG grant, institutions have reported stronger collaboration between the workforce and academic sides of the institution. Prior to the grant, these two entities were siloed in the college with both the workforce and academic sides teaching classes that overlapped. Bridging these two areas has allowed the two to share resources and eliminate redundancies in class offerings, bringing efficiency to institutions.

Streamlined programs. The BTG grant has allowed colleges to reexamine programs and curricula with a focus on paring down the number of programs and courses. This has increased simplicity for students in identifying and participating in programs, decreased overlaps in resource utilization for colleges, and redirected courses to align with national certifications to increase the value of a student's education and, overall, help expedite students' time at the institution.

Professional development for staff and instructors. Because of increased grant funds, many colleges reported the ability to allocate funds to staff and instructor professional development. Many instructors have increased the number of certifications they have obtained through these funds, which has allowed instructors to teach students in certified courses and train staff. For instance, one institution's instructor reported the ability to obtain a Siemens certification through grant funds. Many colleges have utilized funds for professional development opportunities in IT (e.g., conferences, certifications, and certified testing facilities). Colleges also reported that having the ability to use grant funds for a variety of professional development opportunities has been beneficial in expanding the institution's professional and academic capacities.

College staffing growth. With BTG funds, many colleges were able to hire additional staff and instructors, increasing capacity at the college. Colleges reported that these individuals were typically entirely or partially funded through the BTG grant. Because of the grant, more instructors and staff are involved in increasing and improving student and institutional outcomes through improved support services and developmental education courses as well as program offerings at the institution.

ACCELERATORS AND STRENGTHS

Existing college staff utilization. While the BTG colleges have brought on new staff, many key positions have been filled by existing college staff, particularly for ITL and instructor positions. This has allowed institutions to minimize grant spending as well as expedite hiring grant staff and training these individuals. This strategy has also been a response to the difficulty faced by the colleges in finding qualified and interested instructors and staff for the BTG programs. In using existing college staff and instructors, start-up time was minimized, which was beneficial due to the delayed grant start resulting in delayed hiring.

Instructor experience in industry. Many instructors teaching the BTG courses have industry experience that have helped accelerate curriculum and advisory board development. These instructors also provide students with networking opportunities (i.e., through career fairs, referrals to employers, and employer college visits) that lead to jobs immediately upon program completion. The industry connections that the BTG instructors have from their time in the industry has provided the students and institutions opportunities for expedited program implementation and job placement.

Program flexibility. Many BTG students reported that the flexibility of class offerings was very significant for their success in the program. For instance, some colleges are considering or are already offering evening courses to accommodate daytime work schedules. Other colleges utilize block scheduling so students have fewer classes but they are scheduled for longer periods of time. This allows students to accelerate through programs more quickly and creates a targeted experience of course topics enabling students to focus on one concept at a time. Students enrolled in technical programs are typically non-traditional students who have jobs, families, and other responsibilities outside of the classroom. These students have also been out of school for a longer period of time, which could make integration into college life difficult. Because of this, BTG students reported an appreciation for the accommodations.

Non-traditional student population. BTG colleges reported that, of the non-traditional students that persisted through the technical programs, these students were typically more passionate and dedicated to their coursework than their younger counterparts. Some BTG colleges reported this could be due to the level of responsibility the students have outside of the classroom (i.e., supporting their family or maintaining outside jobs), which serves as motivation to progress through the program successfully.

BARRIERS AND CHALLENGES

Sector dynamics. Because sectors such as Advanced Manufacturing and IT are changing rapidly, especially in terms of technological advances, it is difficult for BTG colleges to develop curriculum that will be relevant and applicable for students in the future. Many institutions are attempting to look ahead at projected growth in specialized areas such as pipe welding to determine focus for the BTG programs at their institutions.

Difficulty recruiting instructors. Due to the high wages and high demand for trained workers in technical fields, it is often difficult for colleges to recruit individuals for instructor positions. Community colleges typically cannot compete with the wages provided by the industry, making it

difficult to find interested candidates for technical program positions. In addition, many trained workers in technical fields do not possess the degree requirements for the instructor positions at the colleges so they are not qualified for the positions even if they are interested.

Student recruitment. Recruiting students for BTG programs has been an ongoing concern for BTG institutions. Many institutions report difficulty in reaching non-traditional, veteran, and dislocated worker populations in their regions. Findings ways to target the specific BTG population in their outreach strategies has been a challenge as many institutions recruit for the institution as a whole rather than specific programs. Thus, making the shift to more targeted outreach strategies difficult for BTG colleges from both a resource and college culture perspective.

Loss of students to early employment. BTG colleges reported challenges in losing students prior to program completion due to employment. This is especially true in the Advanced Manufacturing sector because of the strong presence of this sector in the state and high-demand for jobs in this sector. Colleges define student success as program completion, while the students define success as job obtainment. One student reported that finding a job is the reason they are enrolled in a technical program so if they are offered a job prior to program completion, they will not hesitate in accepting the offer. This sentiment was echoed by students throughout the consortium. This is problematic as sustainability and funding are reliant upon student completion rates.

Misinformed student expectations. A number of BTG colleges reported low rates of program completion due to the intense and accelerated nature of the programs, which may discourage some non-traditional students from remaining in the technical programs. In addition, many students are unaware of the expectations within the program and dropout or transfer to another program. To counteract this, some BTG colleges are implementing a pre-assessment component to their program. This pre-assessment outlines the physical and mental expectations of the BTG programs so students understand the programs, expectations, and potential jobs that would be available upon program completion. For more information on pre-assessments, see *implement pre-assessments to measure student readiness.*

SPOTLIGHT ON: New River CTC Certified Testing Facility

Prior to the grant, New River CTC established the only American Welding Society (AWS) certified testing facility in the state of West Virginia. This facility allows New River to not only teach welding in a certified lab, but also award AWS certifications to students. With the next-closest certification facilities located in Virginia and Ohio, New River CTC's AWS facility is a much more accessible and cheaper option for students.

Although this facility was not funded through the BTG grant, it allows New River CTC to save money on certification costs; thus, lowering the cost for students in BTG programs. In addition, BTG funds were used to establish a Welding Office System that helps with certification paperwork to expedite the certification process, which allows students to find jobs more quickly following program completion.

The AWS facility is located at the Greenbrier Valley Campus and targets the following skills in the lab: pipefitting, pipe welding, technical math, and blueprint reading. With a certified facility, the students in capstone courses can see the internal processes of writing procedures for Welding jobs that other facilities may not have. The diverse skills students obtain in this program make them more marketable to local employers.

Becoming a certified testing facility under a specific sector has afforded New River CTC with many opportunities that help expedite student time spent in BTG programs. Although the certification process is lengthy, New River CTC reports that it has benefited the students in BTG programs at their institution.

Grant spending. Many colleges reported concerns with spending grant funds; especially personnel funds. Colleges are significantly underspending grant funds but are concerned with spending these funds and not sustaining the additions later. For example, many colleges are reporting challenges in spending personnel funds because they do not want to allocate funds to positions that cannot be sustained beyond the grant. Colleges are anticipating reallocating these personnel funds to other grant components that require funds for further development and will be continuing research on sustainability options.

RECOMMENDATIONS

Collaborate on curriculum and technology. Greater collaboration within the consortium is needed to ensure that the BTG colleges are aligning with grant requirements. Many institutions are using the same resources (e.g., TestOut) and could easily align with other BTG colleges but are not communicating these resources with each other. Opportunities such as utilizing online platforms for information sharing or holding discussions concerning curriculum changes should be used to build upon the success of the grant.

Increase Sector Lead involvement. Many colleges have reported a need for increased Sector Lead involvement within the consortium. The Sector Leads are tasked with assisting and guiding the rest of the consortium within the different sectors. These individuals can encourage greater collaboration within the consortium as well as guide and advise the colleges on program development and implementation. The Sector Leads should attempt to collaborate and communicate within the consortium more often as well as encourage more interaction between the colleges.

PROMISING PRACTICES

Utilization of multiple avenues for curriculum development. Many institutions reported using multiple avenues for curriculum development including employers, instructors with industry experience, and other BTG institutions. One institution reported the following process for developing curriculum: employers are invited to attend an advisory committee meeting at the BTG institution; once convened, the College requests input on the curriculum relevant to that industry; employers provide guidance on other certifications to include in the program, skillsets that are needed in the industry, and other general input on ways to make the curriculum more industry-relevant. Following the meeting, the College modifies the curriculum based on employer feedback and utilizes those employer partnerships for student job placement. This approach to curriculum development ensures that the BTG colleges are creating industry-relevant programs that align with academic and grant requirements. More specifically, one institution reported gathering input from other BTG colleges when developing curriculum, which encouraged consistency within the consortium.

Embedded certifications. Embedding certifications into grant-funded programs helps create more marketable students and opportunities for department assessments (i.e., certifications serve as exit assessment/final exam). Many industry representatives reported a need for certifications in the field and providing these opportunities for students to receive certifications while progressing through the program could increase student job placement upon program completion. One institution reported embedding multiple IT certifications into the BTG IT program (i.e., Microsoft A+, CompTIA, and Server+). Because the IT sector in their region was competitive, embedding multiple certifications into

the program was critical to equipping students with diverse skillsets that are transferrable to multiple jobs in the region, thus making them more hirable.

Incorporation of certification costs into course costs. Embedding the costs of the program certifications into the course tuition has lowered course costs to students. Colleges reported that certification exams can cost upwards of $200 each so covering these costs for the students helps ensure that the students become certified. Many of the non-traditional students in the technical programs do not currently have jobs or need to support families so the money for certification exams is typically difficult to gather. One college reported that when the certification exam is used as a final exam for the course, it makes it easier for the college to embed the exam cost into the cost of the course, which is typically covered by financial aid. Formerly, students at this institution were completing the courses but not taking the certification exams because of the extra expense of the certification. With this in mind, this institution made the change to accommodate the students' needs.

Development of completion agreements with businesses. Many BTG colleges have reported that non-traditional students are likely to leave the technical programs early due to employment. *See above for more information on this trend.* To counteract this, some BTG colleges are considering incorporating program completion into job placement agreements with local employers to discourage employers from hiring students prior to program completion. Colleges anticipate that employers will be cooperative and accommodating so the employers can continue receiving students from BTG technical programs in the future. Colleges are confident that this change will increase program completion numbers.

Implementation of pre-assessments to measure student readiness. Some BTG colleges have reported that students may not be aware of the expectations of the technical programs prior to enrollment. Because of this, students may drop out or transfer into another technical program, which causes low enrollment and completion numbers for BTG programs. BTG colleges are beginning to implement assessments prior to program enrollment to measure student readiness and ensure that students are aware of program expectations. For example, one institution has implemented a pre-assessment that focuses on the physical aspects of the program so instructors can predict each student's future success in the program. If students do not pass this assessment, they are asked to reexamine their program focus area.

ADVANCED MANUFACTURING

Many of the BTG colleges are implementing Welding programs with national certifications (e.g., American Welding Society and American Petroleum Institute) and are embedding other skillsets and certifications into the programs or creating clearer pathways to degree attainment. Mechatronics has also been a significant focus area for BTG colleges in Advanced Manufacturing due to the statewide decline in the coal industry. In addition, the skillsets in the Advanced Manufacturing sector are most transferable from skills found in the coal mining industry expediting program development and/or course modifications. Some of the BTG colleges are modifying their definitions of Mechatronics (i.e., implementing Industrial Maintenance programs) to better address the workforce needs in their region. Many of the BTG colleges did not have these Advanced Manufacturing programs in place prior to the grant so industry input has been essential. The colleges have been successful in connecting the Advanced Manufacturing sector to the job needs in the region.

Below is a table detailing the state of Advanced Manufacturing programs at each college prior to the BTG grant, progress made to date, and future goals.

	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	Mechatronics was created just prior to the grant. The program addressed key components of Mechatronics but, according to instructors, lacked the cohesiveness needed to give students a proper understanding of how the disparate parts of Mechatronics connect.	**Mechatronics** instructors have worked to revise the curriculum, purchase more training equipment, and align the program with Siemens Certification Levels 1 (operator) and 2 (technician). Instructors report that Siemens programs allow for a greater understanding of the entire Mechatronics process – Siemens was chosen due to its name recognition and its use throughout industry in the area.	Mechatronics instructors are seeking to add instrumentation and robotics courses to the Mechatronics program. Instructors would like to continue expanding the program including a potential partnership with Proctor and Gamble. Instructors are concerned however that they lack the funds to expand beyond what has already been accomplished. Instructors are exploring opportunities to imbed more certifications in the Mechatronics program. Exploring a co-op partnership with Quad Graphics to employ mechatronics students upon graduation.
BridgeValley CTC	All of the programs besides Machine Tool Technology have been in place, at least in pilot or conceptual form. Many of the programs utilized industry feedback to create the programs.	**Mechanical Engineering Technology** – program was modified to a block schedule and industry, mostly Toyota, helped refine the program to fit their needs; SME certification and Associate's degree pathway. **Diesel Technology** – program was modified to a modularized, accelerated format; program has ASE certification and Associate's degree pathway. **Advanced Manufacturing Technology** – program had six courses modified for the grant with Associate's degree and NOCTI, Siemens Level I and II, OSCHA, and IFPS certifications offered. **Machine Tool Technology** – program was a completely new program with 20 courses	Exploring adding the National Automotive Technical Educational Foundation certified program. Modifications to class times may also occur (i.e., set class times rather than open lab format). In the process of completing the NIMS credentialing process for the Machine Tool Technology program and plans to have that complete in January 2016.

	Baseline	Progress to Date	Future Goals
		added for an Associate's pathway; a pilot of this program has been run. **Industrial Piping Design and Technology** – program had four courses created through the grant and offers an Associate's degree pathway as well as SPED (Society of Piping Engineers and Designers) certifications and a CAS (Certificate of Applied Science); this program has been piloted and will have a full roll-out in Fall 2015. **Electrical Engineering Technology** – program modified four courses through the grant and offers an Associate's degree pathway as well as an SME certification and FANUC Robotics that will be rolled out in Fall 2016. **Mechanical Engineering Technology** – program has modified four courses through the grant and offers an Associate's degree pathway and SME certification. Internship and apprenticeship opportunities for all of these programs.	
Eastern WV CTC	Wind Energy and Electromechanical programs were established prior to the BTG grant. Wind Energy program was created under a previous grant and did not require any new equipment to be purchased through the BTG grant. *Note: Programs focus on industrial maintenance and due to their similarity, are viewed as Advanced Manufacturing and Energy programs at Eastern.*	**Wind Energy** program curriculum has been updated program to better align the curriculum with NCCER. Decision to move forward with NCCER was carefully thought out and only made after exploring PMMI, NIMS, and multiple other certifications.	Staff at the college will continue to engage in the consortium-wide discussion around certifications, and will also continue to modify curriculum to align their Wind Energy program to NCCER.
Mountwest CTC	Manufacturing Engineering program (curriculum and courses were used for the BTG grant). Held focus group to determine what students would like in an Advanced Manufacturing program and found that Machining was of significant interest of the students.	Developed **Engineering Design Technology** (Associate in Applied Science degree) program curriculum based on previous program. One instructor was hired to teach this program. Students will learn 2D and 3D, CAD, 3D modeling, rendering, and animation for art, films, and television, product development, engineering process and control, include reverse engineering and prototype development, design processes, organizational design, and business development. Certifications include: AutoCAD and Inventor.	Program will officially begin in Fall 2015. Plans to offer evening courses to accommodate the non-traditional students and plans to embed industry-relevant certifications into the program.

		Baseline	Progress to Date	Future Goals
New River CTC		Previous Welding program structure included multiple programs with low enrollment in many courses due to lack of student interest. Industrial Technology program was previously called "Mechatronics." While a valid term, New River CTC felt the term was not as clear as the college desired.	**Welding program**: Multiple courses have been combined and condensed to increase efficiency. Students can receive up to five national AWS certifications; New River is the only AWS certified facility in the state. New Welding courses include: gas welding, blueprint reading, pipe welding, and advanced courses that lead to advanced skillset certificates in General Welding and Physical Plant Welding, certificate of Applied Science in Welding Technology and Welding Technology Pipe Welding, and Associate of Applied Science in Welding Technology Structural Welding and Welding Technology Pipe Welding. College will embed use of Mondopads in Welding classrooms in Fall 2015. **Industrial Technology program** went through curriculum committee; have embedded math component into the core classes; have established employer partners for program. **Other**: Welding lab in Greenbrier and Advanced Technology Center in Ghent.	College plans to establish MOUs with employers so students will complete certifications before leaving for employment. Plans to modularize components of the Industrial Technology program. Exploring the addition of an industry certification to the Industrial Technology program.
Pierpont CTC		Well established Mechatronics program of at least four years, which, according to instructors, operated in its own sphere separate from the Energy programs at the college.	Instructors have worked to offer students more flexibility by aligning the Mechatronics program with Energy programs at the college. The Mechatronics program has been renamed to **Advanced Manufacturing** and is now a pathway within the **Applied Process Technology** AAS degree. Curriculum within the Advanced Manufacturing program has been restructured alongside two energy pathways – **Energy Systems Operation** and **Process Technology Instrumentation** – (also in the AAS degree) to allow students to take similar courses in their first year that will apply towards any of the three pathways. Example of flexibility includes students within the Applied Process Technology program having the option of taking courses in other pathways during fall and spring semesters, giving them greater flexibility with their qualifications upon graduation. A summer internship requirement for the Applied Process Technology has been added between the first and second program year to help students determine their pathway.	The Applied Process Technology AAS has been approved by the state and will begin in the Fall of 2015. Instructors are exploring opportunities to place some technical courses online within this program to accompany the online industrial safety course. Seeking to secure additional internship sites for students.

	Baseline	Progress to Date	Future Goals
Southern WV CTC	Looked at existing courses and brought in employers and recommendations from the consortium to develop curriculum.	**Mechatronics** (Associate's degree) newly created program has four focus areas pulled from state-identified needs; equipment purchased through grant was enough for one campus. Enrollment began in January 2015. New instructor, who will be brought from another position in the College, is on board and will be teaching in the Mechatronics program. **Welding** program (Associate's degree) newly created program has four focus areas for different types of welding with certifications attached to each course. Capstone courses were created for both programs to be used as a final assessment. **Industrial Technology** certificate program developed with Mechatronics and Welding certificate options.	Pipe welding skillset will be added into the Welding program once approved by the College's Board to reflect regional need. Block scheduling will be implemented for Mechatronics to allow students to complete the certificate in six months.
WV Northern CC	Mechatronics program was initially created out of discussions regarding statewide and regional needs in Fall 2011. Previous grants and money from the state were utilized to purchase the equipment needed for the program.	**Mechatronics:** Faculty have reached out to businesses to gauge how to modify advanced manufacturing courses. Created new pumps and piping course with industry input.	While it may not be able to be funded under the grant, Mechatronics faculty would like to purchase a pipe threading machine. Hiring another full time mechatronics instructor who will be sent for training to be a certified OSCHA instructor. Looking into curriculum changes for the basic electricity course.
WVUP	Traditional technical programs included Electricity & Instrumentation, Industrial Maintenance, HVAC, Residential/Commercial Electricity, Chemical Polymer Operator, and Welding.	**Multicraft Technology** is an associate's degree program, which includes both Industrial Maintenance and Electricity/Instrumentation certificates. **Industrial Maintenance** program is in the process of establishing employer relationships; will have an electrical instrumentation certificate that leads to an Associate of Applied Science and includes an apprenticeship component. **Welding** program was established with AWS and API certifications as well as a downhill certification fast-track program; offering evening courses for non-traditional students. Only CTC in the state to offer 4-year degree programs. The general structure of the programs includes obtainment of a certificate, 2-year degree, apprenticeship opportunity, and then movement to a bachelor's degree at WVU.	Bachelors of Applied Science for the technical programs will be rolling out in Fall 2015. The HVAC program is being removed due to low enrollment and regional need but some courses will be maintained. Looking into facility expansions including the development of a process control room and 40 foot distillation tower for Welding.

ENERGY

The Energy sector varies in prominence in the BTG regions, eliciting a more targeted approach to the focus areas in this program compared to other curricular areas. Accordingly, the BTG colleges implementing Energy programs are responding to direct needs in their region. Colleges that have implemented Energy programs are embedding industry-recognized certifications, including PMMI and NCCER. Some BTG colleges are combining Advanced Manufacturing and Energy sectors as many of the courses and skillsets overlap, *see Pierpont's call-out box for more information*. These colleges are also embedding specific skillsets for the Energy sector into the combined programs.

Within this sector, the consortium is working together to find ways to streamline courses across Energy and Advanced Manufacturing programs. Despite a lack of consensus regarding how to specifically align programs across institutions, conversations have led to a greater understanding of similarities and differences between programs across institutions. Additionally, a number of colleges have begun utilizing the help of the Sector Lead to implement an Instrumentation and Control program at their institution. There are ongoing discussions regarding which industry certifications to align to the programs, but a consensus may have emerged around the PMMI certification.

On the following page is a table outlining the Energy programs prior to the grant as well as progress to date and future goals for the program.

SPOTLIGHT ON: Pierpont Applied Process Technology Redesign

Prior to the Bridging the Gap grant, instructors and staff at Pierpont recognized opportunities for alignment between the college's Advanced Manufacturing and Energy programs. Many of the programs' introductory courses overlapped and students learned similar concepts and skills. And yet, redundancy was occurring so potential benefits to students (and college) were being lost because of the silo mentality in which the programs operated.

Through the BTG grant, Pierpont's Energy Coordinator was able to map out the similarities between programs and create, in partnership with instructors and leadership, a new Applied Process Technology degree with pathways in Advanced Manufacturing (previously Mechatronics), Energy System Operation (previously Power Plant Technology) and Process Technology Instrumentation (created through industry demand). The programs are mostly identical through the first academic year, streamlining courses and lightening course loads on instructors.

The rewards for students have already shown, with students able to add a second career pathway by taking only one extra summer of courses. This added flexibility will allow students to graduate with two specializations and the added benefit of being more flexible and responsive to market needs.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	The EDET Lineman program had offered a one-year certificate and two-year degree. While the program was successful in providing necessary job skills, the large amount of general studies courses and lack of online scheduling options were seen by instructors as areas for improvement. None of the technical studies classes – non general education classes – within the EDET program had hybrid components.	The primary changes under the grant for the **EDET Lineman** program have been the curriculum remapping and the hybridization of courses. Curriculum has been restructured to significantly reduce the amount of general studies courses students are required to take, allowing students to make it through the program more quickly (e.g., a conflict resolution course is now being offered completely online). CDL training has been added to the EDET program to allow students to gain this certificate by participating in the program. Developed the applied writing course Writing for Technicians to make this general requirement more relevant to EDET students. Placed technical courses online or portions of these courses online in a hybrid format. Created an Energy program with First Energy that focuses on EUT – another form of Lineman training – in which Blue Ridge teaches the general education courses and First Energy teaches the technical courses onsite at the college.	Instructors plan to make changes to how students are oriented to the program to better prepare them for hands-on requirements of being a lineman. Will continue to modify the EDET curriculum to take out unnecessary courses, incorporate videos into the introductory EDET course, and imbed more certifications within the program.
BridgeValley CTC	Advisory Committees in place in this sector; need for instrumentation was determined so meetings with chemical companies occurred to establish curriculum needs. ISA (International Society of Automation) provided curriculum feedback as well.	Developing the curriculum for this program and has been visiting other colleges and engaging employers for input. The program will be a Process Instrumentation Program to address local needs. Equipment for this program is also being purchased.	Anticipates curriculum approval and then program roll-out by August 2015.
Eastern WV CTC	*Note: the Advanced Manufacturing and Energy sectors overlap for Eastern.*		
Mountwest CTC	*No BTG Energy program at Mountwest*		

Colleges	Baseline	Progress to Date	Future Goals
New River CTC	Line Service program (aka: Electric Distribution Engineering Technology) developed with employer (AEP) so students could be trained and hired by company – a 900-hour non-academic, workforce program was developed and has since been modified to an academic program.	Math has been embedded into the **Line Service program.** Certificates obtained in program include: CDL, 900-hour Line Service Mechanic, Completion certificate, First Aid, CPR, and OSCHA 10 certificates.	The program is in the process of being shifted to a modularized format, which allows New River to embed different employer needs into the program. Plans to resubmit a curriculum proposal that will change the program back to the original design, to be implemented Fall 2016 (workforce-focused).
Pierpont CTC	Prior to the grant, Pierpont had well established Petroleum Technology, Power Plant Technology and Lineman programs. While the Power Plant and Lineman programs shared many common courses, the Petroleum Technology Program was a stand-alone program. *Note: Much of Applied Process Technology Degree is addressed in the Advanced Manufacturing Section.*	In addition to the **Petroleum Technology and Power Plant Technology**, and Lineman Programs that were already in place, an entirely new **Applied Process Technology** Program AAS was developed. Within this new degree, the previous Power Plant Technology Program and the previous Mechatronics AAS Programs became pathways within the AAS and a new **Instrumentation** pathway was created within the Applied Process Technology Associates Degree. The new I&C pathway was created due to industry demand for knowledge of controls and instrumentation, as well as the burgeoning midstream gas industry. The previous Power Plant Technology Program was also expanded within the new Applied Process Technology AAS to include mid-stream petroleum systems operations. When the new Applied Process Technology Degree is fully implemented in fall 2015, the Mechatronics and Power Plant AAS degrees will no longer exist. Grant funds have been used for Petroleum Technology equipment and simulators including a simulator for well control that will give students hands-on experience and can help them seek the associated certification through Wild Well. Portions of the **Petroleum Technology Program** align to select IADC certifications. The **Advanced Manufacturing** track within the Applied Process Technology AAS is seeking to align to select PMMI certifications. The **Energy Operations** track within the Applied Process Technology AAS has been unable to identify any national certifications that employers consistently recognize.	The Applied Process Technology AAS has been approved by the state and will begin in the Fall of 2015. Instructors will perform an in-depth curriculum review for the Lineman program to ensure it is meeting industry needs.
Southern WV CTC	*Note: the Advanced Manufacturing and Energy sectors overlap for Southern WV CTC (i.e., Advanced Manufacturing and Energy programs begin with same courses)*		

Colleges	Baseline	Progress to Date	Future Goals
WV Northern CC	Petroleum Technology program began just prior to the grant, enrolling its first students in August 2013. Program was created in conjunction with the Petroleum Technology plant at Pierpont.	**Petroleum Tech**: Faculty have engaged business and industry to explore needed changes to curriculum. Grant has given faculty a new topic to discuss with employers, helping the college form relationships with Markwest, Gulfsport Energy, and other companies. New midstream course created and run last fall that has received approval for the curriculum. Ordered new equipment for the grant, specifically a well control simulator which a faculty member will be trained on.	Faculty plan to create curriculum for Petroleum Technology Program and add additional classes including a processing class and a controls class, all in line with industry feedback. Primary Petroleum Tech faculty member will use grant funds to obtain training this summer to teach a controls class. Faculty are exploring streamlining courses within the Petroleum Technology degree by combining courses with similar content.
WVUP	Engineering Technology program was in place but needed to be realigned with current industry needs.	**Engineering Technology** 4-year (Bachelors of Applied Technology) and 2-year (Associates of Applied Science) degree programs created that target programming and code instrumentation to address needs of local employers.	Plans to partner with the ethane cracker plants that will be coming to the area.

INFORMATION TECHNOLOGY

A significant need for Information Technology jobs has been identified in West Virginia, *see Grant Industry Sectors for more information*. These high-skill, high-paying jobs require a combination of national certifications, degrees, and industry experience. The Information Technology market is very competitive so an all-encompassing training structure is essential.

The Information Technology programs being implemented at the BTG colleges reflect the needs of the industry and provide a blended learning experience for the students. Many of the BTG colleges are utilizing online resources (i.e., TestOut and Simtronics) to create accelerated Information Technology program formats. Because the Information Technology programs include so many certifications, some of the BTG colleges are developing testing centers at their institutions to reduce the cost of certification exams for the students. In addition, many colleges are beginning to embed the cost of certifications into the program courses so students can apply for the institution's financial aid rather than paying out-of-pocket for the certification exams.

Sector progress within the Information Technology program was delayed due to the retirement of the initial Sector Lead. Since the appointment of a new Sector Lead in November 2014, progress has been made regarding sector collaboration, particularly concerning program partnerships between colleges around curriculum areas such as cybersecurity. Additionally, plans are in place to increase the utilization of tools such as TestOut – a virtual lab simulation program – and bring online curriculum in line with Quality Matters standards.

Below is a more detailed look into Information Technology programs at the BTG colleges. This table includes a baseline measure of the program prior to the grant, progress that has been made to date, and future goals of the programs.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	The IT program at Blue Ridge is well established and serves as a "center of excellence" for federal departments, meaning that their curriculum is approved for their need. The college had three main programs: general information technology, cybersecurity, and C-NET. These programs align to a number of nationally recognized certifications.	Prior to any other work within IT, an in-depth needs assessment was performed analyzing the region's IT needs; the survey overall confirmed that the college is meeting the needs of the community. Instructors have redesigned the general **IT**, **Cybersecurity**, and **C-NET** AAS programs. The redesign has allowed for the streamlining of courses within the program, the addition of courses within certain programs, the removal of non-IT focused electives, a new gateway course *(covered in gateway section),* and more. Additionally, a number of courses have been hybridized or put entirely online. Instructors have added a capstone course to the Cybersecurity and general IT programs that is similar to the C-NET capstone course that was in place prior to the grant. Instructors have added TestOut curriculum to the program which prepares students to take the Security+ certification exam.	Blue Ridge instructors are working with CISCO in an attempt to lessen the amount of required classes so that students can receive credit for practicum and internship opportunities. Will add to their Linux training and overall seek to imbed more certifications into the program instructors would like to review options to increase hands-on, skill based software and equipment for classroom delivery.

Colleges	Baseline	Progress to Date	Future Goals
BridgeValley CTC	Some IT courses/programs and certifications were in place. Industry representatives assisted in creating these courses/programs.	**Information Technology** – program modified 12 courses and created one course through the grant. This program has an Associate's degree pathway and Cisco (CCENT and CCNA), CompTIA (A+, Server +, and Security +), TestOut Security Pro, SSCP, CAPM, and IBM certifications. Advisory committees have been developed and are focusing on curriculum. **Cyber Security** – program modified nine courses through the grant with the certifications mentioned above. **Computer Maintenance and Networking** – program modified six courses and created one course through the grant and includes many of the certifications listed above; these courses were also modified to an accelerated format.	Working to create a better distance learning tool for these programs. A testing center for the IT certifications will also be developed in the future. Working on partnerships with local industry to establish learn-and-earn internships.
Eastern WV CTC	Building upon a relatively new independent IT program. The college had previously worked with Southern to provide IT courses to students, and began offering courses independently in the fall of 2011. While courses were in place, no industry certifications were embedded in the program. Did not have a full time faculty member in the IT department prior to August 2013.	Primary IT faculty member aligned all **Information Technology** courses with MTA Certifications to ensure students graduate with industry recognized certifications. The courses teach to the exams while also adding a level of instructor deems necessary to prepare students for even more advanced certifications. Pursuing articulation agreements to create 2+2 agreements with Potomac State College and Franklin College. Primary faculty member has been reaching out to businesses to better understand trainings outside of IT that will help students get jobs upon graduating – e.g., HIPPA training for IT graduates who will be going into the healthcare industry.	Seeking to align courses with CompTIA certification tests as primary faculty member sees these as more rigorous and more widely accepted than the MTA certificates. Starting in Fall 2015, students will be charged a course fee that will pay for the certification exam fee to ensure that students take the exam. In order to make students more marketable, IT students will be required to create portfolios documenting what they have learned and the certifications they have completed. Staff are creating new labs for Fall 2015 and are seeking to offer a combination of in-class learning, lab work, and simulations for Spring 2016. Seeking to create connections with high schools as well that would allow students to graduate high school with a year of the program completed. Plan to use equipment funding in IT (e.g., swipe technology recommended by hospitals in area).

Colleges	Baseline	Progress to Date	Future Goals
Mountwest CTC	Certifications and classes in the IT sector but these were modified to fit student and employer needs. Met with an Advisory Board for years and continually received feedback on course content.	The **fast-track IT Networking Systems** program was piloted but is beginning to enroll following a 15-month cohort model (the pilot, which started with 6 students, ended with 2 students enrolled). Students in the program will take a full course load over four semesters: Semester 1 – Foundation material and A+ certification (CompTIA) Semester 2 – CCNA certification (Cisco) Semester 3 – Microsoft certification (Microsoft Academy) Semester 4 – Internship and employment Students can earn one-year certifications for CCNA and MCSE and an Associate in Applied Science in Information Technology Students for the pilot program were selected through a selection committee process. Have identified around 10 students for next semester.	Plans to have two rotating instructors that will ease the strain of the fast-track program on the instructors.
New River CTC	Modified the IT program that already existed at the institution.	The existing IT program was modified by integrating computer certification exams into four courses (students would obtain certifications every semester while in the program). **IT grant program** certificates and degrees include: Computer Support Specialist Advanced Skillset; IT Foundations Certificate of Applied Science; IT Associate of Science; CompTIA A+; CompTIA Network+; and CompTIA Server+. Changed the program from an Associate of Applied Science degree program to an Associate of Science degree program, for a more seamless transfer to four-year institutions and based on employer needs. Courses focus on a number of topics including: computer science, microcomputer maintenance and repair, operating systems, networking, and managing server network environments (capstone course). "New River Quality Matters" is being integrated to certify courses.	Plans to expand the IT Advisory Board. The testing center will be finalized for CompTIA certifications exams.
Pierpont CTC	Building upon an existing Information Technology program which focuses on programming and Cybersecurity.	**Information Technology**: Instructors have received Quality Matters training through the grant and are currently exploring a possible partnership with WVUP's Cybersecurity program. Initial grant progress was hampered by resignation of sector lead, but instructors are beginning to connect with grant initiatives and other institutions.	IT instructors will be meeting with the IT consortium to explore how to move forward with programming in alignment with the grant. Staff are exploring Blackboard tools to invest in and are seeking to obtain Quality Matters certifications for all courses. Exploring partnership opportunities with other BTG institutions, specifically around Cybersecurity with WVUP.

Colleges	Baseline	Progress to Date	Future Goals
Southern WV CTC	IT programs were offered with six industry-standard certifications.	**IT program** allows students to obtain 8 industry-standard certifications (2 certifications added through the BTG grant) that also allows students to test out of courses. There is also a capstone course component for students. Utilizing the resource TestOut for online certification testing within the program. Cost of 6 certifications built into IT courses through TestOut. Microsoft IT academy has 2 certifications obtainable through low-cost solutions for students.	Plans to offer more courses online in the future by utilizing resources Microsoft has released for free and will incorporate more lab simulations in courses.
WV Northern CC	IT program included 12 certifications and degrees overlapping in content areas.	Programs streamlined down to six including a one year certificate and a two year degree within **Systems Development**, **Networking**, and **Computer Programming.** Programs require students to graduate with an IT certification and 100 hours of internship training. Curriculum has been updated and streamlined and new courses have been added. Grant has allowed full-time faculty to go to consortium meetings where information sharing has helped improve Northern's programs.	Faculty are exploring implementing TestOut and other vendors that would help students prepare for certification tests. Faculty are seeking to add as many certifications as possible to the program including CompTIA, Cisco, and VM Ware. Faculty are exploring ways to enable students to obtain four year degrees around Cybersecurity and other programs; potential strategies include creating 2+2 articulation agreements – possibly with Wheeling Jesuit and West Liberty including exploring opportunities around Cyber Security programs as well.
WVUP	WVUP asked the workforce what they needed in their employees and the employers reported degrees, certifications, and experience is needed. IT program in place with multiple certification opportunities.	Programs offered include: **CIT Information Technology** 2-year degree program focusing on Microsoft and Cisco certifications; Computer Science 2-year degree program focusing on programming that leads to a bachelor's degree of Applied Technology; and **Networking and Security** that leads to a 4-year Computer Science degree. Also offers CompTIA Network Plus certification.	Considering offering a one-year certificate in CIT that will lead to the 2-year and 4-year degrees. WVUP is also planning to renew their Pearson Vue contract so they can become a certified testing facility again, as the nearest testing center is over 30 minutes away.

CONSTRUCTION

Many of the regions do not identify Construction as a critical need and are focusing their efforts on industries that are projected to grow, leading to future sustainability. This sector is one that BTG colleges are struggling to implement because of the lack of regional need. Of the colleges that are implementing Construction programs, the same structure of embedded certifications and creating clear career pathways is being employed. Many of the BTG colleges that are implementing this program did not have a Construction program prior to the grant and have been working to develop curricula based on industry need.

On the following page is a table outlining the BTG colleges that are implementing Construction programs and what the program looked like prior to the grant, since the grant, and goals for the future.

Note – the following colleges are not implementing this portion of the grant: New River Community and Technical College, Mountwest Community and Technical College, Pierpont Community and Technical College, West Virginia Northern Community and Technical College, and Eastern West Virginia Community and Technical College.

SPOTLIGHT ON: WVUP Construction Management

West Virginia University at Parkersburg, the largest community and technical college in the state and the only to offer four-year programs is leading the way in the BTG grant's fourth curricular domain: Construction. Together with its parent university, West Virginia University, WVUP has worked to pilot Construction Management in response to growing demand in the region. Through close relationships with the Affiliated Trade Unions, WVUP recognized the need and demand for a skill set to bridge the gap between workers and foreman. The Construction Management curriculum is designed to produce these employees, as well as provide an opportunity to continue their education to obtain an associate's or bachelor's degree from WVUP.

WVU received the BTG grant funds to create the Construction program curriculum online and is currently piloting the program at WVUP. Once the pilot is complete, the curriculum will be handed over to any CTC that wishes to participate. Feedback from other institutions has been limited to this point. WVUP anticipates the Construction program to begin at their institution in 2016.

WVUP reports that the assistance from WVU has been beneficial in ensuring that the curriculum is transferrable to the four-year institution. In addition, this partnership allows WVUP to utilize the resources from the University and alleviates the work in developing a new program.

For this to be effective, it is imperative to have a strong relationship with those interested in using the curriculum. The Affiliated Trades are instrumental to the program's success.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	Blue Ridge has not had a Building Construction program in the past.	Blue Ridge has appointed a staff member to head up this project and has decided on a direction which it will carry out in the coming months.	Blue Ridge plans to create a series of seminars, based off of employer needs, leading to skill set certificates. The program will be based around project management within building construction. The college will continue to solicit guidance from the lead institution and plans to carry on with this initial concept.
BridgeValley CTC	Weatherization program existed but had low student enrollment due to lack of regional jobs.	Created 11 grant-funded courses for the **Building Design and Construction** Associate's degree program Advisory members were involved in modifying the curriculum and pilots of the program led to more of a focus on Construction Management in the Spring 2015 semester. Program will have Construction Specification Institute's Construction Documents Technology certification.	Increase student enrollment to ensure this program is sustainable beyond grant funds.
Southern WV CTC	No Construction program in place.	Southern is looking into the Construction Management program (i.e., potential partnerships, equipment needed, curriculum, etc.).	If Southern moves forward with this program, development and implementation of the Construction program is a goal.
WVUP	Construction Maintenance served as a skillset and not a stand-alone program. WVUP established partnership with local affiliated trades to include PLAs for apprenticeships.	WVU received BTG funds to develop the program and is in the process of piloting the **Construction Management** curriculum at WVUP. Program will lead to an associate's or bachelor's degree. WVU will complete the pilot and it will then be available to all CTC's. NCCER certificate will be incorporated into the curriculum as well as a capstone project that outlines professional soft skills.	The Construction Management associate's degree program is expected to rollout in January 2016.

SECTION 2.
LEARNING STRATEGIES

Colleges have been receptive to the concept of utilizing new learning strategies to increase hybrid, online, remote, and simulated learning opportunities, particularly for non-traditional students. In general, colleges see opportunities or have followed through on placing general education and introductory-level courses online, while recognizing more limited applicability for transforming advanced classes due to their hands-on nature.

Results
- Diverse learning strategies

Strengths
- Online integration

Challenges
- Poor Mondopad connectivity

Recommendations
- Create a platform for sharing resources within the consortium
- Collaborate around successful strategy implementation
- Create common learning strategy definitions

Promising Practices
- Use of innovative learning strategies to save money
- Invest in capacity for hybrid offering capabilities
- Exploration of creative Mondopad use

CONSORTIUM FINDINGS

PROGRAM RESULTS

Diverse learning strategies. Prior to the grant, many BTG institutions reported a lack of diverse learning strategies (i.e., remote, hybrid, simulated, and online formats) due to a shortage of adequate funding streams. The BTG grant funding provided the institutions with the opportunity to expand their learning strategies with the implementation of online, simulated, remote, and hybrid/blended course formats. Grant funds also afforded colleges the opportunity to hire new staff or expand the responsibilities of current staff with expertise in this area.

ACCELERATORS AND STRENGTHS

Online integration. Incorporating online components has helped students and instructors advance through the accelerated program structures more easily. Students are able to work outside of the classroom on coursework while instructors provide online assignments to supplement the in-class work. Colleges have reported that utilizing online components has been beneficial when campus has been closed due to inclement weather and students reported that online components have been valuable when they missed class due to illness, family emergencies, and/or current job responsibilities. Despite these circumstances, online components have allowed the courses to remain on schedule, which is especially important for accelerated programs.

BARRIERS AND CHALLENGES

Poor Mondopad connectivity. The Mondopads were a significant purchase within the grant with a purpose of encouraging collaboration between the colleges and creating shared resources for programs. The Mondopad series was designed to provide a large touch tablet to present, annotate, and collaborate with meeting participants.[17] Though all colleges have purchased a Mondopad, connectivity has been an ongoing issue. Some BTG colleges speculate there is a problem with bandwidth while others report that the webcams on the Mondopads are not high quality. Because of these issues, many institutions are not utilizing the Mondopads to their full capabilities. In addition, some colleges have attempted to purchase additional cloud-based videoconferencing software (i.e., BlueJeans[18]) in attempts to fix the connectivity issues with the Mondopads. However, these purchases have been unsuccessful in regards to enhancing connectivity among the colleges. The consortium continues to research ways to increase connectivity with the Mondopads.

RECOMMENDATIONS

Create a platform for sharing resources within the consortium. Many of the BTG institutions reported using the same online resources (e.g., TestOut, Microsoft Academy, etc.) and curriculum. To encourage consistency, collaboration, and cost-effectiveness, the BTG colleges should create a platform for sharing these resources across the consortium; especially for those that are not employing online components. Teamwork could be used to share resources across the consortium or a dashboard could be used, allowing each college to upload resources they are using and provide suggestions for implementation.

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[17] Mondopad Series; http://www.infocus.com/displays/MONDOPAD-Series#datasheets

[18] BlueJeans; http://bluejeans.com/

Collaborate around successful strategy implementation. Many schools are hesitant to implement learning strategies due to an uncertainty around the form these will take for technical courses. Some colleges have already found success in hybridizing courses and any successes or promising efforts around this area should be shared with other schools in the consortium. For instance, Pierpont has worked with an entirely online process technology program to learn lessons on hybridizing courses and Blue Ridge has blended grant and institutional funds to increase and improve hybrid offerings; *see Blue Ridge Investing in Hybrid Offerings call-out box for more information*. By sharing knowledge and collaborating, the successes of one college in this area can be very effectively leveraged into creating innovative learning strategies at another college.

Create common learning strategy definitions. A document from CTCS outlining the different learning components as well as their definitions could help avoid differing definitions of the various grant-funded learning strategies. Defining hybrid, simulated, online, blended, and remote could help ensure that all BTG colleges are consistent in their learning strategy implementation, or at least are clear about the different forms various strategies might take. More importantly, sharing this information with the colleges could encourage a system-wide, collaborative approach between the colleges and WVCTCS.

PROMISING PRACTICES

Use of innovative learning strategies to save money. BTG colleges reported embedding online and simulation components into courses to save money on equipment that would be needed for the programs. Instructors have used various online resources to develop simulations. For example, many institutions reported the use of TestOut as a virtual lab simulation software that students can access in and out of the classroom. BTG colleges reported that utilizing the online software rather than purchasing simulation equipment has alleviated the burden of equipment purchasing. Equipment funds have been exhausted for most colleges at this point in the grant so finding ways to save money by employing innovative learning strategies could be useful.

Invest in capacity for hybrid offering capabilities. Making a front end investment in video cameras, audio equipment, and other technical equipment can greatly enhance the overall quality and learning experience of hybrid and online courses. Additionally, some colleges have dedicated grant funds to hiring staff specifically for the purpose of helping instructors put courses online. *For additional details on possibilities for investing in hybrid and online offerings, see Blue Ridge's call out box on investing in hybrid offerings*.

SPOTLIGHT ON: Blue Ridge Investing in Hybrid Offerings

Entering the grant, Blue Ridge instructors and staff sought to increase the school's capacity to provide hybrid and online learning opportunities. With this in mind, the college hired a course designer specifically tasked with helping instructors put course material online. In addition to this grant-related investment, the college utilized institutional funds to purchase cameras, light kits, green screens, wireless audio equipment, and more to ensure that these offerings would be dynamic, high-quality online learning opportunities, not afterthoughts. Combining grant opportunities with institutional funds also increases opportunities for sustaining progress after the grant had ended.

While many courses within the BTG programs rely on in-person, hands-on training, instructors are exploring what parts of classes can be put online, and which courses – such as OSCHA trainings – can be administered almost entirely online. The increased investment and drive of instructors has resulted in new online hybrid offerings and an excitement around these opportunities as well. By braiding together grant funds and institutional moneys, Blue Ridge is providing both the technical expertise and the equipment to create engaging hybrid and online learning opportunities for students.

Exploration of creative Mondopad use. Many colleges have struggled to use the Mondopads at their institutions. Colleges have reported bandwidth and picture quality problems that make Mondopad utilization difficult at each institution. BTG colleges that have attempted to use the Mondopads have become creative in the ways they employ Mondopads including utilization for simulations, as part of Technology Enhanced Active Learning labs, remote class instruction, videoconferencing, and other local uses. BTG colleges should continue their attempts at utilizing the Mondopads and pursue research on ways to improve the connectivity.

SPOTLIGHT ON: Northern Technology Enhanced Active Learning Labs

In alignment with the grant, Northern purchased Mondopads for remote learning opportunities and conferencing. Despite using these to teach a remote class, attend meetings, and provide classrooms simulations, the overall use of the Mondopads has been more limited than staff expected.

Seeking to repurpose this technology and meet the needs of students, Northern is now creating a Technology Enhanced Active Learning (TEAL) Lab on the main campus. The TEAL Lab is a best practice that provides student groups with hands-on, interactive work stations. The area facilitates collaboration while also providing access to simulators and other online course materials that would be otherwise unavailable. Pending the success of the initial TEAL Lab on campus, Northern will seek other opportunities to implement these labs on campus.

HYBRID, ONLINE, REMOTE, SIMULATED AND BLOCK FORMATS

Integrating hybrid, online, remote, and simulated formats into programs at the BTG institutions was typically not a priority prior to the grant; levels of implementation of these types of strategies varied by institution. Reductions in state funding resulted in fewer opportunities to enhance learning strategies at community and technical colleges. Because of the BTG grant, colleges are now able to expand their course offerings by incorporating online components into the curriculum. These online components allow the BTG institutions to accelerate programs leading to expedited certificate and degree completion; a goal of the BTG grant.

Below is a table outlining baseline measures of learning strategies at the BTG colleges as well as progress to date and future goals or progress that has yet to be made.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	Offered hybrid and online coursework for general studies courses but were more limited for hybrid or online offerings in the technical studies coursework.	Grant has focused on creating hybrid and online offerings for technical studies courses and also for general studies courses that are a part of these technical programs (e.g., Math 102). Hired a course designer specifically to put course material online. Added hybrid and online offerings in each of their three grant programs. Using the Quality Matters framework to guide the implementation of online course material.	Blue Ridge plans to continue implementing the Quality Matters framework and roll this out at the consortium level alongside professional development that accompanies the software.

Colleges	Baseline	Progress to Date	Future Goals
BridgeValley CTC	Purchased Mondopads and utilized the campus IT department to help instructors develop online courses.	Incorporated more online and hybrid formats into their programs, especially for IT and Advanced Manufacturing. For example, the Computer Maintenance and Networking program modified courses into an accelerated format. Mondopads are being used in courses and Media Bridge was purchased to support the Mondopads and make them work better. The IT program utilizes the online lab TestOut. Utilizes Simtronics for distillation simulation – virtual simulation software.	Plans to create a better distance education tool for the IT program. Exploring technology for delivering remote courses. Plans to create a testing center that will be used for IT certifications in the future. Plans to have two courses completely online in the fall, which will be used by the Advanced Manufacturing and Energy programs.
Eastern WV CTC	Online and hybrid program possibilities have historically been limited due to the poor internet coverage in the college's service area. Additionally the college is under Higher Learning Commission review, and is not able to create new online programs until after 2018.	Provides opportunities for flexibility with student schedules by providing IT classes later in the afternoon for working professionals and providing the option of doing these in a hybrid format by allowing students to complete certain classes online. Purchased laptops and Mondopads to allow students access to technology and to create more interactive classrooms for professors and students.	Building upon a new IT lab that will be added to the campus, staff are exploring offering MTA testing on-site. Will be offering a hybrid workforce training for Parolees that embed the CPT certification.
Mountwest CTC	Testing center in place when they were part of Marshall University but had to give that up when they split from the college.	The Mondopads have been used for presentations and communication within the institution. Online components have been integrated into Microsoft courses and for the fast-track IT program. TestOut has been used in the IT program as a virtual lab.	Submitted application for testing center and plans to launch this center that will be used for assessments and certifications in mid-June. Mountwest also plans to put Cisco courses online. Reassessment of program needs indicate that pending available funds and grant modification approval, the Institution Technology Coordinator position should be expanded from to full-time due to assessment, tracking, and technical education duties
New River CTC	New River did not have many online, hybrid, remote, or simulated components integrated into their programs, especially the technical programs.	Integrated virtual lab software into classes. Two Mondopads were purchased through the grant. Mondopads was used for a blueprinting course in Fall 2014.	Planning to incorporate hybrid formatting into program courses.

Colleges	Baseline	Progress to Date	Future Goals
Pierpont CTC	Within Pierpont's BTG programs, most courses were delivered in a face-to-face lecture format; staff report that many of these courses needed to be done this way in order to incorporate hands-on learning components.	Pierpont has offered training to new instructors on how to put courses online and continues to help all staff members with online course needs including helping the Energy sector lead put material online. Brought on a staff member to focus specifically on e-learning opportunities which has improved Pierpont's online capabilities.	Staff are looking into putting the OSCHA 10 certification course online. Staff are seeking to utilize simulation products, explore a virtual reality welding system, and utilize a distance learning center currently under construction from which instructors will teach remotely. Researching programs at other institutions to find opportunities to put courses online, particularly for subject areas such as AC and DC fundamentals, hydraulics, pneumatics, and other basic skills that run across multiple programs. Exploring a partnership with Tata International as an online learning solution. Collaborating with Coastal Community College to gain lessons from their completely online Midstream program.
Southern WV CTC	Adopted learning management system through Blackboard in which hybrid and online courses are delivered.	Utilizing TestOut as a virtual lab in the IT program. Using online components to save money on equipment and reduce certification costs to students. Stackable credentials (certificates and degrees) with different levels for different programs. This allows students to move through the certificates and degrees without loss of credit or duplicating skills that they have already acquired.	Plans to look into simulations for the IT, Energy, and Manufacturing programs.
WV Northern CC	Distance learning has been used at Northern for a number of years, with CIT courses streamed live from the Wheeling campus to the New Martinsville and Weirton locations. Other courses had been online prior to grant including English, math, and other general education courses. Staff report a more traditional student body served well by current course structure.	Purchased Mondopads with the grant money; have utilized these in a limited scope for communication purposes but have used these more as a teaching tool and for simulations. Prior to hiring additional faculty, Mechatronics utilized the Mondopads for remote class instruction; student feedback was poor however due to student preference for in-person instruction.	Plans to utilize Mondopads in a Technology Enhanced Active Learning (TEAL) lab on the Wheeling campus – will add the Mondopad to a group work space allowing for collaboration on touch screen. College exploring opportunities to add additional hybrid courses particularly with assistance of newly hired instructional designer.
WVUP	The College used online components for capstone courses, assignments, and additional resources.	Currently offers all IT and Energy classes in a hybrid format including assignments in Pearson Vue and hands-on components. TestOut is being used for a virtual lab component to the IT program as well as Moodle for the Energy program Integrating online components for course assessments.	Plans to incorporate online components into the Construction Management program. Uses the Mondopads for Skype within the institution but plans to begin use throughout the consortium.

SECTION 3.
STUDENT SUPPORT SERVICES

Student support services has been a main focus of the grant with each college increasing efforts around peer coaching. Changes have run the gamut from adding coaches to existing models to creating entirely new frameworks for the way students are engaged, particularly by increasing the amount of contact with fellow students or recent graduates. Some schools have utilized funds to pay for additional peer coaches as well as new support services staff. Overall, college capacity for student support services has increased through the grant.

Results
- College student support services modifications
- Career services enhancements

Strengths
- Student-peer coach contact
- Statewide PLA policy changes

Challenges
- Limited peer coach accessibility

Recommendations
- Encourage coach-instructor contact

Promising Practices
- Development of proactive relationships with students
- Peer coach collaboration with instructors and departments

CONSORTIUM FINDINGS

PROGRAM RESULTS

College student support services modifications. Many of the BTG colleges did not have adequate student services prior to the grant due to cuts in state funding. Because of grant funds, colleges have been able to expand their services, increasing student success throughout the institution. For example, one institution reported a 10% increase in fall persistence rates due to the changes made to their student support services department with BTG grant funds.

Career services enhancements. Whether directly through the peer coaching model or through another avenue at the college, many colleges increased the offerings and capabilities of career services for students. Recognizing the importance of job placement for students, many colleges have hired a career services staff member to help with coaching or coordinating these positions. Other colleges were able to hire counselors specifically targeting career services, which would not have occurred without grant funds targeting improvements in student services.

ACCELERATORS AND STRENGTHS

Student-peer coach contact. Many students reported contact with peer coaches throughout their educational experience. The peer coaches' responsibilities are to serve as a liaison between the student and counselor/instructors and provide general guidance and assistance as needed. BTG students emphasized that the services the peer coaches provide are valuable and have had an impact on their success in the BTG programs. One student that was enrolling in a BTG program indicated that a peer coach contacted them prior to their enrollment to guide them through the process. This student was confident in their ability to succeed in the program because of the support they were given prior to enrollment.

Statewide PLA policy changes. The Higher Education Policy Commission/Council for Community and Technical College Education is in the process of developing a policy for prior learning assessments (PLAs)[19] that will be implemented across the consortium beginning in August. The purpose of the policy is to permit the awarding of undergraduate academic credit for prior learning through a variety of assessment methodologies that ensure academic credibility of these credits.[20] Institutions will develop a

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SPOTLIGHT ON: BridgeValley Accommodating Veterans

Since grant implementation, BridgeValley has been targeting the veteran population in their outreach, enrollment, and support strategies. With a veteran population of nearly 200,000 in the state (nine percent of the total WV population; *Dept. of Veterans Affairs, 2014*) and over 16,000 in Charleston, West Virginia alone, finding unique ways to accommodate veterans has been a significant focus for BridgeValley and the BTG grant as a whole.

In addressing veteran's needs, BridgeValley hired two peer coaches that are used specifically for veterans. These peer coaches ensure that the veterans are adjusting to college life appropriately and provide guidance throughout the student's educational experience. The veteran peer coaches also helped establish an area in the Advising Center specifically for veterans to assist them throughout the semester.

BridgeValley hired a Veteran's Coordinator to assist with the enrollment and retention of veterans as well as ensure that all eligible veterans are receiving their benefits and connect students with community resources.

In addition, the veteran students have developed a Veteran's Club with nearly 30 active students that works with other local community organizations to maintain the veteran memorial in Charleston. The veteran student population at BridgeValley has access to a number of services that ease the transition into college life as well as throughout the educational experience.

With the vast number of services available to these students, BridgeValley currently has a veteran student retention rate of 71 percent. Finding unique and comprehensive ways to accommodate veteran needs has proven beneficial for the student veteran population at BridgeValley.

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[19] Prior Learning Assessment (PLA) is defined as the assessment of college level learning for education academic environment.

[20] Drawn from *Series 59 for Public Comment: Awarding Credit for Prior Learning*

policy that aligns with the mission and goals of the institution and will make that information publicly available to the students, faculty, and other stakeholders.[21] This consistency will help ensure the consortium is aligning in how they award prior credit.

BARRIERS AND CHALLENGES

Limited peer coach accessibility. Some students reported that due to their intense course scheduling and other responsibilities, they are unable to access the peer coaches. These responsibilities – such as their families and jobs – force the students to leave immediately after class making peer coach contact minimal. Although peer coaches are attempting to maintain contact with these students, some students report this has become increasingly difficult as they progress through their program.

RECOMMENDATIONS

Encourage coach-instructor contact. BTG institutions emphasized the importance of peer coaches connecting with instructors as soon as possible. Instructors at these institutions are capable of referring students that may be at-risk for dropout to the peer coaches. Without an established relationship, this may not occur because many instructors may be unaware of the role the peer coaches fill in student support services. Colleges that have encouraged this contact have reported more referrals to the peer coaches from instructors. These referrals from instructors are significant when considering student success in BTG programs.

PROMISING PRACTICES

Development of proactive relationships with students. Because BTG students typically have other responsibilities, peer coaches need to reach out to these students as often as possible. Rather than students coming to peer coaches when they have concerns or questions, peer coaches should reach out to students regularly to establish a proactive and meaningful relationship with the students. Peer coaches have reported sitting in on BTG courses as well as visiting BTG classrooms to establish relationships with their students. Other colleges emphasized the importance of requiring BTG students to meet with peer coaches at least three times per semester because this allows peer coaches to maintain consistent contact with the students throughout the semester.

SPOTLIGHT ON: Mountwest Community and Technical College BEACON

The BEACON model, implemented through Mountwest Community and Technical College's TAACCCT Round 1 grant, is a student success model that provides a support team of individuals from key divisions within the institution who have a common goal of promoting student success and college completion through promising practices. The model guides students through the enrollment process and introductory coursework and assists with career planning and job placement.

The role of the peer coaches is to establish contact with the potential students, act as a liaison between students and counselors/instructors, conduct campus tours, and provide assistance to new students as needed and/or requested. The peer coaches and counselors are also responsible for both retention and recruitment of students through the BEACON model.

Through this grant, Mountwest Community and Technical College has served as the model for implementing improved student support services at each BTG institution. Mountwest Community and Technical College reports that the BEACON model has allowed their institution to better serve the needs of the non-traditional students, a focus population for the grant. Mountwest Community and Technical College has identified two peer coaches to target BTG students specifically. These peer coaches have monitored BTG students in the fast-track IT program during lab time to ensure that the students are not overwhelmed by the accelerated program format.

Many non-traditional students require one-on-one guidance because of their lack of college experience. The peer coaches have served as the point person for BTG students throughout the consortium, who have reported increased academic success because of the peer coaches.

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[21] Drawn from *Series 59 for Public Comment: Awarding Credit for Prior Learning*

Peer coach collaboration with instructors and departments. Peer coaches should work closely with instructors and the student services department staff to identify at-risk students, educate each other on the BTG programs, and ensure that appropriate contacts are made for students throughout the institution. Establishing these relationships and communication standards with instructors and departments is critical to identifying student needs without relying solely on students' self-reported needs or concerns. In addition, working together within the institution will allow the departments and peer coaches to create a more efficient system for addressing student needs. For example, one college created a computer system that allows instructors to refer students to tutors with just one click, simplifying the process for instructors and offering a starting point for peer coaches and instructors to communicate about students' needs.

BEACON MODEL: PEER COACHES AND COUNSELORS

Prior to the grant, WVCTCS reported that student services at most community and technical colleges in the state were not well-developed. Many colleges had just enough support services to get students through with a heavy focus on crisis management. WVCTCS identified student services as a priority need and tied funds to this through the BTG grant.

The BEACON model, implemented through Mountwest Community and Technical College's TAACCCT Round 1 grant, guides students through the enrollment process and introductory coursework and assists with career planning and job placement. The students are matched with a counselor and peer coach who help them navigate the pathway to achieve their goals.[22] The peer coaches and counselors are responsible for both recruitment and retention of students through the BEACON model, *see Mountwest Community and Technical College's call-out box for more information.* For the BTG grant, the colleges were asked to implement the BEACON model at their institutions so students in the technical programs would receive one-on-one guidance from the peer coaches and counselors through their programs and onto job placement.

Many BTG colleges have adjusted the model to fit their institution's capacity and needs. Some BTG colleges reported being unable to implement all aspects of the BEACON model due to institutional capacity. This has been a concern for some colleges due to the perceived grant requirement to incorporate the entire BEACON model into institutional operations. The BEACON model utilized peer coaches for both recruitment efforts and retention strategies but some colleges are not able to address both recruitment and retention due to fewer peer coaches. For example, one institution emphasized their concern for only using peer coaches for retention rather than both retention and recruitment. Peer coaches at this institution provided guidance to students and ensured the students had what they needed to stay in the program. Many other BTG colleges are attempting to utilize peer coaches for recruitment but are struggling. Some institutions are hiring a separate recruiter rather than attempting to use the peer coaches. All BTG colleges are incorporating aspects of the BEACON model but this varies across the consortium.

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[22] Mountwest Community and Technical College BEACON project webpage: http://www.mctc.edu/student-services/beacon-project

Prior to the grant, many of the BTG colleges had minimal student support services, which is outlined in the table below as well as how these services have expanded since the BTG grant and future goals for this area of the institution.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	Career services program in which one staff member had been serving 5,000 students. Peer mentoring program included mentors attending a College 101 class and also engaging students.	Brought on a job placement coordinator through the grant to help with placement as well as post-employment tracking. Purchased a job board and integrated this into the website and are using social media and other avenues to drive people to the board. Hired a staff member to focus specifically on meeting the needs of veterans. Brought on a staff member to coordinate and implement a peer coach program.	Planning to pilot a new vocational assessment initiative, switching from ONET to the World of Work Inventory (WOWI) which includes an interest inventory, personality test, and an aptitude assessment; the college's lead for student services is being trained on WOWI through the grant. This assessment should help guide students towards careers. New BEACON coordinator will implement a peer coaches program in which coaches provide support to students, direct them on where to go, help identify the appropriate services for their needs, and overall provide support to students. Peer coaches will be hired for this as well. Seeking to coordinate with consortium wide BEACON training contact to come onsite at Blue Ridge to ensure that program is rolling out well. Planning to hire another student services counselor to focus on retention.
BridgeValley CTC	Counseling was contracted outside of the school. Students did not have immediate services but had to be referred to the community.	Set up support services on-site. Peer coaches were brought on and focus on retention and recruitment for any student in the College (i.e., help students schedule classes, fill out of the FAFSA, navigate online courses, register and enroll at the College, and during orientation). There are also two veteran's peer coaches that focus on the veteran population and connects them with the college's Veteran's Club. Contracted with College Central Network that assists students in connecting with employers and vice versa (have connected 19 employers to the network that target technical jobs).	Plans to develop a crisis plan so counselors are ready to come to the college following a campus crisis.

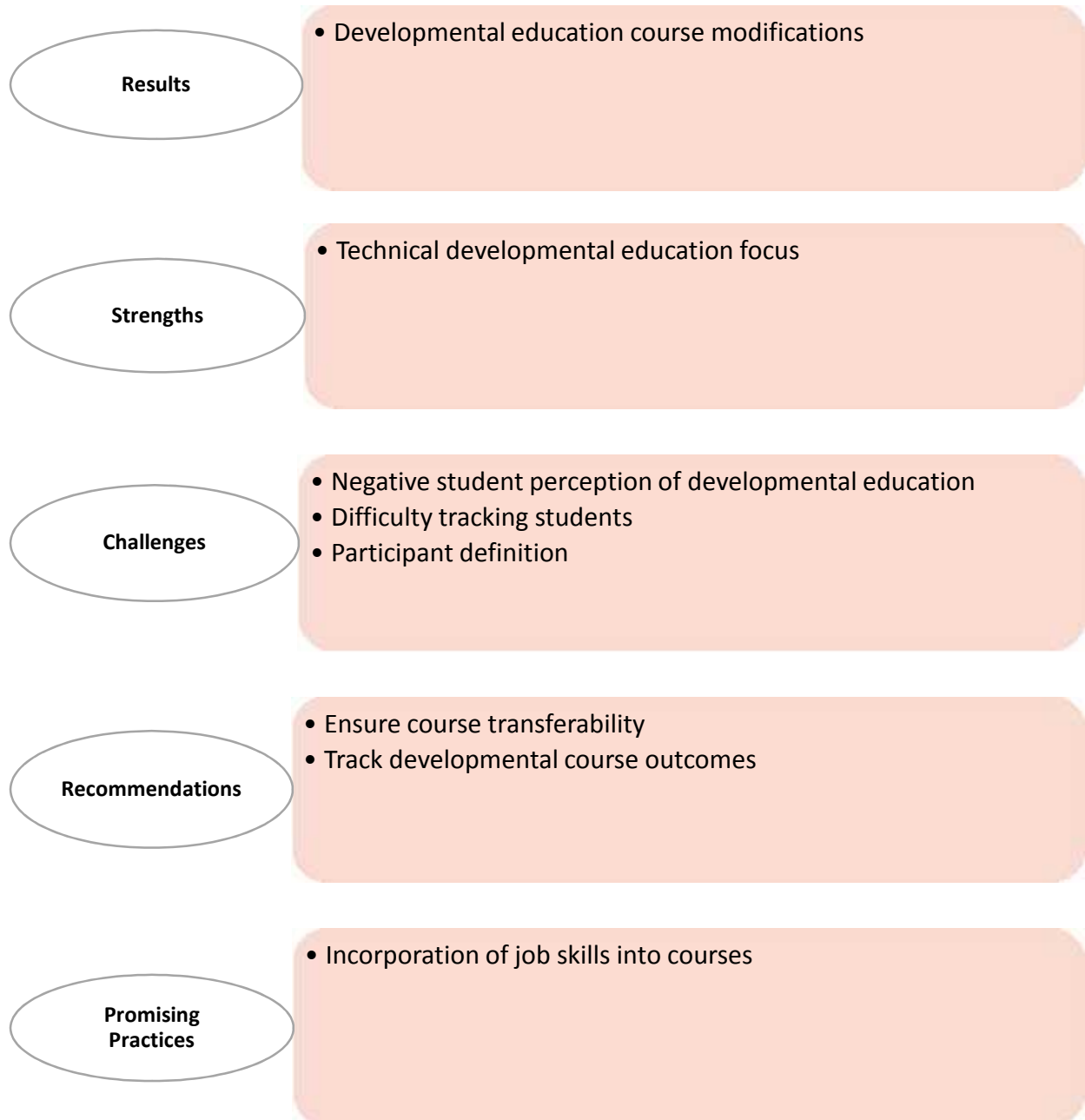| Colleges	Baseline	Progress to Date	Future Goals
Eastern WV CTC	Student support was primarily delivered by tutors who focused on specific subject areas that could assist on coursework but generally did not work through other, more general issues such as email or course scheduling assistance.	**Eastern Advocates** – In this new program, full-time staff serve as advocates and have a list of students who they check in with throughout the semester. Advocates ensure that students do not feel alone in attending school and have a friendly face to reach out to when they need help. Staff have incorporated these responsibilities into their regular work requirements. **Peer Coaches** – Added two peer coaches through the grant who assist students with needs including accessing email, finding a classroom, proctoring tests, tutoring, and more. Training is provided to coaches and if specific tutoring needs are beyond what the coach can provide, they will refer to other staff. **Tutor Tracking System** – Improving the tracking system for tutoring by using Google Docs to update when students have been served, and by adding a feature where instructors can refer students to tutors and then check on Google Docs to see if the student has gone for help. With the large adjunct population, it can be hard to coordinate these efforts.	Will roll out Eastern Advocates program to entire college, with all full-time staff serving as advocates. Eastern seeks to incorporate career services into the College 101 class. Staff seek to use the data they have collected from the tutoring program to drive future decisions on scheduling and staffing.
Mountwest CTC	Received the BEACON grant (TAACCCT Round 1) and developed the model that the BTG colleges are now following for student services. Mountwest hired 6 counselors and 9 peer coaches – the BTG grant has allowed for expansions to this model.	Mountwest has hired 2 peer coaches specifically for BTG students that provide support in the classroom. Students are required to see the coaches at least 3 times per semester. Utilizes multiple tracking systems (EMAS: an enrollment management system and Starfish: an alert system) to track student contact with peer coaches. A part-time employee was also hired to help contact employers for potential partnerships.	Plans to reallocate funds to increase peer coach hours by 50% allowing an increase from two to three peer coaches. (I.e., one serving the Mechatronic program and two serving the Information Technology program).
New River CTC	Had one career counselor for all four New River campuses. Had five educational counselors (serve all students through advising, registration, and other general needs).	Hired 5 peer coaches that focus on BTG students, 2 part-time career counselors – these individuals are spread across the campuses. Peer coaches provide one-on-one guidance to BTG students and help students pass their certification exams in the Line Service and IT programs. Addition of career counselors led to nearly 65% increase in number of mock interviews and resume reviews during Spring 2015 semester. A tracking system has been implemented to document the contacts that student services makes with students (5,000 non-BTG and BTG students have been tracked to date). The BEACON model was incorporated into the student services model but was changed to reflect the institution's capacity.	Plans to hire another peer coach who can focus on the Line Service and Welding programs as these students need the most guidance. Plans to find new ways of making students aware of the opportunities and resources that student services offers.

Colleges	Baseline	Progress to Date	Future Goals
Pierpont CTC	Shared student support services with Fairmont State; operated as a high-tech, low touch provider in which students had little interaction with staff and instead were directed towards computers.	Career services was created through the grant in November 2013 and transitioned to a high-touch, low-tech provider model in which students have more direct interaction with counselors offering mock interviews, job searching skills, a job board through NACE simplicity, and job fairs. Career services connects with students via classroom visits and social media, with some instructors requiring students to set up a mock interview or resume review meeting. Due to large and spread out student body, the college is not pursuing a full-fledged BEACON model. Utilizing grant funds to pay professional, master's level tutors and utilize 16 tutors who are current students, some of which have been directly added through grant funds. Tutoring services function seven days a week with extended hours to accommodate non-traditional learners. Grant staff reports that tutors have been particularly helpful to students who never thought they would go to college and now need help in their courses.	Seeking to hire more staff for the career services department Experimenting with a video-conferencing system to provide distance counseling. Utilizing data gathered from recent tutoring schedules to optimize tutoring schedules based on current data of when students seek tutoring services. Working to improve tutor training, seeking to hire more tutors for IT, and continually seeking tutors for math and English.
Southern WV CTC	Four counselors on each of the four campuses that had many responsibilities other than counseling. Advising assignments were given alphabetically rather than by department.	Hired 5 peer coaches to split between the Logan and Williamson campuses (the bulk of BTG students are at these campuses). Peer coaches are beginning to interact with instructors and are being used for recruitment. Added one additional educational counselor provides academic advising and counseling (i.e., identifies resources, helps students register for classes, etc.). Peer coaches recruit students, talk with students, and document their interactions (students are required to meet with the peer coaches at least 3 times per semester).	Peer coach recruitment is anticipated to increase overall enrollment. Continuing search for another counseling candidate through the grant. Will bring one peer coach position to full-time who will take a leadership role in training incoming peer coaches.
WV Northern CC	Student services center operates on a drop in basis with both student and professional tutors available for math, English, IT, and other subjects.	While no full scale tutoring or peer coach model has been implemented, a supplemental instructor position was funded by the grant to aid students in a technical math class which helped create a bridge between the instructor and the grant staff. Difficulty in finding qualified and interested students for peer coaching roles.	Seeking to continue the supplemental instructor model for math and may extend this to physics as well. Seeking to have peer coaches for technical math and physics and across all three grant funded programs. Will imbed peer coaches in TEAL Lab to help both faculty and students with new technology. Exploring possibility of having peer coaches sit in on video lectures for IT to help students who run into problems. Seeking to hire a part-time career services staff member for the three grant programs to help find internships for students and build relationships with companies.

Colleges	Baseline	Progress to Date	Future Goals
WVUP	Career services included an assessment, career planning, job skills building, and job placement assistance. The co-op system was ineffective because it was not centralized. (I.e., each department handled co-ops differently, which skewed instructor evaluations.)	Hired peer coaches that serve as support for students while targeting BTG students. Peer coaches have frequent contact with students and often help BTG students in the classroom. The College counselor position is partially funded through BTG. The College Career Network is being used to help place students in jobs; the system connects employers and students.	Sustain peer coaches as a resource to the college. Expand co-op, which is now centralized in Career Services. Need to increase student, instructor, and business involvement.

SECTION 4.
DEVELOPMENTAL EDUCATION

Over recent years, BTG colleges have been building upon system-wide shifts to implement the co-requisite model for developmental education. The colleges have continued these efforts through the grant with some schools seeing marked success in their programs. Most colleges are coming to an inflection point in the summer of 2015 where they will review results from their current developmental education model to see how these changes have affected student outcomes and what can be changed to improve programs before moving forward.

Results

- Developmental education course modifications

Strengths

- Technical developmental education focus

Challenges

- Negative student perception of developmental education
- Difficulty tracking students
- Participant definition

Recommendations

- Ensure course transferability
- Track developmental course outcomes

Promising Practices

- Incorporation of job skills into courses

CONSORTIUM FINDINGS

PROGRAM RESULTS

***Developmental education course modifications*.** All BTG colleges reported modifications to their developmental education format since the implementation of the BTG grant. Because of increases to institutional funding, BTG colleges were able to make changes including statewide shifts to co-requisite models, creation of contextualized technical courses, and development of summer accelerated courses. The changes to the developmental education courses have allowed BTG colleges to accelerate student time spent in developmental courses and has also increased the percentage of students entering college-level courses following developmental courses. The changes to the developmental education courses have also allowed the BTG colleges to enhance efficiency and relevance to the students.

ACCELERATORS AND STRENGTHS

Technical developmental education focus. Many colleges reported integrating technical program skills and competencies into their developmental education formats. Because many of the students that are required to take developmental education courses are non-traditional students, integrating skills and competencies that they are familiar with could help students transition into college-level courses more easily. Because non-traditional students are looking to return to the workforce as quickly as possible, incorporating skills and competencies that are relevant to their industry interests could help improve developmental education outcomes. In addition, these changes could accelerate the time students spend in developmental education courses, which is an overall goal of the BTG grant.

BARRIERS AND CHALLENGES

Negative student perception of developmental education. Students in BTG programs reported negative perceptions toward the English and math developmental education courses. BTG students preferred an accelerated format that could get them through a certificate or degree program and into a job as quickly as possible. According to students, developmental education courses were slowing the pathway to a job. In addition, students believed that the English and math courses were not relevant to the skills and competencies needed in their desired job. However, BTG colleges reported that technical program students were more likely to need developmental education; colleges reported between 40 to 60 percent of technical students are typically placed in developmental education compared to students in other programs. Some colleges are attempting to contextualize developmental education courses so students can see applicability to their programs of study.

Difficulty tracking students. BTG colleges emphasized a need to track students that move out of developmental education courses and into credit-bearing courses, to better measure student and developmental education success. However, tracking students has been a challenge for some BTG colleges due to a lack of sufficient tracking software and institutional capacity. As a result, it can be difficult to determine the efficacy of new education strategies in the short-term.

***Participant definition*.** Many colleges believe the current structure for tracking participants may not accurately reflect the institution's definitions of BTG students. For instance, some institutions count BTG participants in terms of those enrolled in BTG-funded programs while other institutions are

considering dosage (i.e., peer coaches are counted as one dose of BTG services) and general non-traditional status (i.e., students over 22 years of age) as BTG students. Further, BTG institutions have reported differences in BTG student-participant tracking. The BTG colleges need to establish a consistent measure and definition for BTG student-participants in order to ensure reliability in data tracking and to accurately determine program outcomes and impact.

RECOMMENDATIONS

Ensure course transferability. One institution reported challenges in the transferability of developmental education courses to four-year institutions. Ensuring that these courses align with the needs of four-year institutions could ease this process for students. Because many developmental education courses at the BTG colleges are modified to fit non-traditional student needs, transferability could be an issue. Keeping this in mind during development and creating strong partnerships with four-year institutions could ease this process for students.

Track developmental course outcomes. Because the BTG colleges reported a need for student tracking, locating the appropriate software to track student outcomes would provide the colleges with the opportunity to measure developmental course success. This software could also show whether the developmental education modifications have been successful in terms of encouraging student success. Many colleges reported that they could not determine a cohort identifier in Banner to track student outcomes so finding other ways to effectively track student data could help colleges invest in areas that show significant success to continually improve upon the current developmental education model.

PROMISING PRACTICES

Incorporation of job skills into courses. Many non-traditional technical program students require more than just remedial courses to obtain jobs beyond program completion. Some BTG colleges are also integrating soft skills into their courses or into workshops for the students. Soft skills were continuously reported as a need from employers in the workforce. Incorporating these job skills into developmental education courses addresses this need and ensures students are as marketable as possible.

CONTEXTUALIZED, CO-REQUISITE, AND GATEWAY COURSES

Prior to the grant, the state facilitated a revitalization of the developmental education format. They started with a move to a modularized format but the students and instructors did not respond well to this model. In addition, student completion numbers as well as the percentage of students moving to college-level courses plummeted. Because of this, the Higher Education Policy Commission took another look at the current developmental education format and decided to shift to a co-requisite model (i.e., developmental education courses taken simultaneously with support, college-level, or other developmental education courses)[23] with the goal to accelerate student time spent in developmental education. Many colleges utilized BTG funds to make this shift to a co-requisite model or to accelerate these changes. Included in this model is the implementation of gateway, bridge, and/or contextualized courses that the colleges are incorporating into the developmental education model at their institutions.

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[23] Retrieved from Merriam-Webster; http://www.merriam-webster.com/dictionary/corequisite

For purposes of the grant, gateway courses are:

- Foundational in nature (i.e., non-credit bearing developmental education courses);
- High-risk (i.e., as measured by rates of withdrawals and incompletes); and
- High-enrollment (i.e., measured by the number of students enrolled in developmental education courses).[24]

Bridge courses are those that provide foundational skills that will be useful in a variety of specializations within the field.[25] BTG colleges are also offering contextualized developmental education courses that involve instructors using technical materials, activities, interests, issues, and needs from students' lives to develop classroom curricula[26]. Many colleges have implemented technical-focused developmental education courses as a result of this grant requirement to meet non-traditional students' needs and expedite time spent in developmental education.

BTG colleges reported the number of BTG students in developmental education courses falls between 40 and 60 percent. With such a large percentage of students enrolled in developmental education courses, improving this structure has been a priority for the colleges. BTG college leadership continually reported that students do not value courses that are not directly tied to their certification or degree so expediting the time students spend in non-credit courses has been a significant component of the BTG grant. BTG colleges reported modifications to their developmental education structure in response to the needs of the non-traditional students.

The table below outlines the developmental education courses prior to the BTG grant as well as progress and future goals in this area.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	Students needing developmental math courses were required to take two remedial math courses before entering a 100 level course. These three required courses were a target for change as students would drop out before completing these. English developmental education switched to a co-requisite model a few years ago. The program had a very limited scope as the score required to enter into the program was comparatively high, yet still low enough to require remedial work. Math bootcamps had been offered at the college for a number of years, and English bootcamps had taken place but were discontinued.	**Math**: Through the BTG and Complete College America grants, developmental math has been overhauled, with the two remedial math courses being blended into the 100 level courses, reducing the number of required developmental education courses from three to one. Hybridizing the technical math course required for BTG students. Changed a highly utilized EDET developmental math course from non-credit to credit. Placed portions of math bootcamp online to offer aid to more students. **English**: Lowered developmental English score requirements to allow more students into the co-requisite model course. Developed an applied technical writing course for EDET and Mechatronics. Restarted English bootcamp – SKILLS 101 – to provide a week of instruction to help students test out of developmental English course.	Seeking to bring back the bootcamp format this summer and add a hybrid format as well. Working to revamp the applied technical writing course focusing on developmental education and computer skills and apply this to the electrical and mechatronics programs. Unsure to what extent it will pursue additional co-requisite courses due to limited numbers of students taking the six hour contextualized courses.

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[24] Retrieved from John N. Gardner Institute; http://www.jngi.org/gateway-courses-definition/

[25] Drawn from *Bridging the Gap Course Design Overview*

[26] Retrieved from *Contextualized Curriculum for Workplace Education*; https://www.umass.edu/roundtable/projects/Integrated%20curr_guide%20p1.pdf

Colleges	Baseline	Progress to Date	Future Goals
		Math and English: Continuing efforts of surveying program coordinators in the math and English departments to maintain close contact with the technical instructors to make adjustments to developmental curriculum as needed. **Other**: Modified a gateway course for IT to provide more information on the three IT programs offered by Blue Ridge.	
BridgeValley CTC	Began piloting different developmental education approaches including a learning community that integrated math, reading, and English with a science course – students did not like this model and completion rates were low for this model. Also piloted the Accelerated Learning Program approach for English and the math pathways approach for math. One campus piloted the emporium model for math but did not like it. The other campus piloted accelerated math with some success.	The developmental education model has been modified to a fast-track, accelerated model. Made changes to the placement scores for the developmental education co-requisite course approach by Fall 2014 (i.e., lowering the scores to account for the technical, non-traditional student population they are serving so students can more easily transition to college-level courses). Students who place very low are referred to Adult Education partners for preparation before taking college courses, via their choice of either an individualized bridge program or a more structured class. **English** – Students that test above a certain assessment level take 1 credit hour of writing support with college-level students; students that need more support take a 3 credit hour course and seminar (co-requisite Accelerated Learning Program approach). **Math** – Co-requisite approach with two different tracks. 2 tracks: 1 semester Bridge to Algebra course and 1 semester of algebra if below assessment level or college-level math with 1 credit hour math seminar. The non-algebra track offers four math options: Applied Technical Math, Business Math, Mathematical Reasoning, and Math for Health Care.	**English** – Changed schedule for the 3 credit hour support course and college-level English to an accelerated 8 week support/8 week college-level approach. **Math** – Added 1 credit hour to Bridge to Algebra and changed meeting schedule to 4 days per week. Created a Technical Algebra course. Added 1 additional credit hour to each of the co-requisite support classes for the math courses in the non-algebra track.
Eastern WV CTC	Previously utilized a modularized developmental education for math that reportedly garnered poor results. Accelerated Learning Program (ALP) co-requisite model had been utilized for English for 2 years prior to the beginning of the grant. English and math instructors handled the developmental education courses on their own rather than with any outside coordination or assistance.	Developmental education requirements for math have been streamlined by paring three or four math courses down to one course. **Math and English**: Hired a full-time developmental education employee who has helped instructors create material for developmental education curriculum. Recently begun a partnership with Hawkes Learning to facilitate the co-requisite model – Hawkes Learning provides textbooks, software, and curriculum focusing on developmental education; customizes these to a school's needs; provides training to instructors; and provides data feedback on student progress. A challenge that has arisen is that the college does not plan to implement bridge courses as limited size has prohibited these classes from functioning well in the past.	The Hawkes Learning system will be implemented this fall. Eastern is seeking to implement two co-requisite English 101 courses. Over the summer, Eastern is seeking to offer an accelerated English course that will allow students, upon passage, to transition directly into English 101.

Colleges	Baseline	Progress to Date	Future Goals
Mountwest CTC	20 percent success rate in their structure of the developmental education courses under the modularized format. Reading, writing, and math courses existed but were not tied to financial aid as they were voluntary.	Now at 70 percent success rate in their modified structure of the developmental education courses. Implemented boot camps for adult learners in English, math, and reading to expedite the process of moving to a 100-level course; these camps are for 1 week/15 hours during the summer so students can enter 100-level courses immediately at the start of the fall semester. Math for IT Professionals was also developed as a technical math course that allows students to take the developmental education and college-level courses in one semester. A new reading and writing course was piloted last semester and stretch courses for Algebra were also launched.	Plans to modify the placement assessments to ensure that students are properly placed in courses. Also plans to re-evaluate the boot camps to decide if they should be customized specifically for fast-track students or offered to all incoming students. Mountwest is hiring a bootcamp instructor for summer.
New River CTC	Modifying developmental education was a priority with the TAACCCT Round 2 grant that was awarded to New River. Math – 3 courses total; students would need to take at least 2 courses to transition out of developmental education. English – 2 courses total; tried to adopt accelerated format by integrating reading and writing components; students needed 2 courses to transition out of developmental education.	**Math** – created a list of competencies to include in the courses and created 3 pathways a student could take for each course (i.e., students would only need to take one course but would need to gain more competencies); students need to take a total of 7 hours but can finish in 1 semester – this is currently in the piloting process. New River offered initial modified math developmental courses in Spring 2015. **English** – customizing competencies and adopting contextualization for technical programs from the main campus.	By Fall 2015, the English contextualized course will be launch and will include workshops. These courses will be called Foundations courses rather than developmental education courses and would utilize web-based components from My Foundations Lab to create a modularized format that students could test out of.
Pierpont CTC	In the past three years, have changed developmental education for math and English twice, first from a three-introductory courses system for to a modularized system, and then – due to poor results and a second state mandate to a co-requisite model.	**Math and English**: Continuing to track the results of the pre-grant transition to co-requisite model. Embedding English requirements into gateway courses. Pierpont is waiting to see results of the co-requisite model that preceded the grant before making major changes.	Seeking to blend additional English requirements into gateway courses. Developing two summer bridge courses to help students score higher on the placement exam – one course will be one week math intensive and the other will combine math, English, and an "Introduction to Higher Education" course. Will apply lessons learned from tracking and assessment of developmental education students including potentially changing the threshold of scores for placement in co-requisite courses.
Southern WV CTC	10 percent of students earned a college credit in mathematics within two years of completing the developmental education cycle – it took 3 semesters to complete – and students could not begin college-level courses until they finished the developmental education courses.	Transitioned math developmental education into a co-curricular model and had a 29-50 percent success rate (depending on math course), compared to the previous 10 percent rate. Pilots have been completed in the English condensed pre-requisite course (combined reading and writing) but this model may be changed due to student need. Offers gateway courses with certifications in the Information Technology program as well as	Plans to implement the developmental and college-level English and math co-requisite model in Fall 2015. Success will be measured by writing prompts for English at the beginning and end of the course and exams for math. Will be looking at technical math and may modify for different programs.

Colleges	Baseline	Progress to Date	Future Goals
		bridge courses for Internet basics in this program. Every BTG program has identified a gateway, bridge, and capstone course. Technical math will be taught from Mechatronics instructor.	
WV Northern CC	Northern began overhauling developmental education in 2011 through a Title III grant in which the college implemented the co-requisite model as well as the My Skills Lab tool, pared three developmental math courses down to one for most students, and implemented a fast-track math program with mastery-based learning modules and boot camps to bring students up to speed on basics.	**Math and English**: Building on successes of the Title III grant, BTG grant funds have allowed professional development for faculty and staff to attend developmental education trainings and conferences to share their own knowledge and gain knowledge from colleagues; conferences include NADE, Math Association for Two Year Colleges, and training from TIDE (Technology Institute for Developmental Education).	Exploring streamlining safety and other introductory courses across Welding, Mechatronics, and Petroleum Technology as a way to cut down on excess classes and get students from different fields to interact. Will purchase equipment for math and computer labs such as headphones. Plan to recap changes to developmental education since Fall 2011 and then decide course of action.
WVUP	WVUP had English (pre-college writing); arithmetic; elementary, intermediate, and college algebra; and literacy credit bearing courses (0-level). There was also an Intro to College course that incorporated labs that were required before moving into college-level courses (only 25% of students would get to the college-level courses compared to 60% now).	Math and English developmental education-type courses still require labs but are considered 100-level courses where students receive additional support, but do not receive credit. WVUP also created a mentoring program (AIM), which is a voluntary program that offers students optional sessions (for example, learning styles, testing styles, etc.). This program started in the summer as a pilot and had 3 sessions with 11 participating students; this fall WVUP offered 13 sessions but had low enrollment so they need to re-evaluate.	Because the remedial courses that WVUP offers are not considered developmental education courses, WVUP wants to determine how to report these numbers for the grant.

ASSESSMENTS AND TRACKING

The BTG colleges are, in some way, implementing prior learning or other college assessments. Some colleges award prior learning credits toward degrees as well as conduct internal program assessments to estimate student success in the BTG programs. At the state level, a policy for prior learning assessments is being developed and will be implemented in August 2015. Each college will develop a policy based on the mission and goals of the institution; students, faculty, and stakeholders will be notified of the change; and colleges will ensure transferability of prior learning credits.[27] All of the BTG colleges have procedures in place around prior learning assessments but are waiting for the state legislation before solidifying the practices. Many BTG institutions anticipate the changes coming from the state but also recognize these changes will soon impact the colleges' assessment structure.

Currently, many of the BTG colleges utilize ACCUPLACER or COMPASS as their entrance course placement exam. These placement tests assess students' knowledge in English and math and places students in college-level or developmental education courses depending on the student's scores. Some colleges felt this instrument did an excellent job of helping identify where students should be placed, while others felt like it was not as accurate for non-traditional students as they had anticipated.

For tracking student data, the BTG consortium as a whole will be implementing Predictive Analytic Solutions software to track and pull appropriate student data for outcomes reporting. This software will allow the colleges to determine the outcomes and success of the services they are providing at their institution.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	Traditionally has utilized the Accuplacer exam or ASSET to identify students for developmental education Utilized pre- and post-testing in technical courses to gauge knowledge. Students can translate work experience into coursework credits and framework existed between at least one other college for granting PLAs towards Mechatronics and Electricity.	Continues to utilize the Accuplacer and ASSET tests.	Will explore the differences between ASSET and Accuplacer exams to see if either one provides better data. Plans to increase the level of rigor of the rubrics they use for evaluating mock interviews and student resumes. Will incorporate WOWI (mentioned above) to assess students' interests, personality, aptitude, and more.
BridgeValley CTC	Utilized ACCUPLACER for an entrance assessment. When BridgeValley was still Bridgemont and Kanawha Valley colleges, DegreeWorks was used as a degree planning software. The merger led BridgeValley to lose their DegreeWorks software.	ACCUPLACER is still being used as an entrance assessment. Working to get DegreeWorks software back.	Plans to have a strategic approach in place for data tracking and reporting. Also plans to implement assessments for the individual programs.
Eastern WV CTC	Utilized Accuplacer test for incoming students. Regarding PLAs, the college has traditionally provided credit for prior learning via tests rather than the PLA method. However, the portfolio method	Utilizing assessment data and finding it useful for making decisions and will continue to utilize their current assessments.	Eastern's ITL plans to pursue additional professional development around PLAs including guidance from the state.

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[27] Drawn from *Series 59 for Public Comment: Awarding of Prior Learning Credit*

	has been and is still offered to anyone who is interested.		
Mountwest CTC	ACCUPLACER has been used as the initial placement assessment for all students that can lead to boot camps if students are below a certain level.	Mountwest still uses ACCUPLACER but has been setting up a testing center for assessment and certification testing.	Plans to use Elevate – a product of Ellucian – that will track, input, and store data.
New River CTC	ACCUPLACER used as placement test – students falling below a certain level would be referred to ABE, students falling at a certain level would be placed in developmental education and students falling above a certain level would be placed in the college-level course.	BTG programs are beginning to implement their own internal assessments to ensure that students understand the amount of work expected – Line Service is one of those programs and the pre-assessment incorporates physical and mental components (i.e., carry 5 gallon buckets of sand up and down the stairs in 2 minutes; tie 2 basic knots).	Plans to continually revise the internal department assessments that exist and encourage the other BTG programs to implement internal assessments to ensure that the students coming into the programs are prepared and capable of succeeding in the programs.
Pierpont CTC	College has traditionally utilized COMPASS testing for assessment and placement, and also accepted SAT or ACT scores. College has always made a direct connection between assessment and advising with students being required to go to the advising center to view results.	Assessment has continued as it did prior to the grant.	Pierpont will continue to utilize assessment tools as a way to gauge student entry into developmental education courses. Course assessments will be developed for new Applied Process Technology AAS. Provost is developing a policy regarding PLAs regarding what will or will not be accepted, financial aid, and other PLA relevant topics.
Southern WV CTC	ACCUPLACER has been used as a course placement assessment. There was no unified system for PLAs but had policies and procedures for granting credit based on prior experiences.	Working to develop an inclusive College assessment process. Each program has its own assessments internally and are reviewed formally with the institution's Council. There are also general education assessments to determine what attracted students to attend Southern.	Plans to continually revise their assessments in regards to the levels that place students in developmental education.
WV Northern CC	All students take the COMPASS test upon coming into college. Class assessments are completed by students at the end of each semester. Award credits for prior learning but is a complicated process and largely unknown to date.	Northern continues to use COMPASS as its primary method of assessment. Discussing how to implement additional PLAs at Northern.	New course-assessment focused staff separate from the grant are joining over the summer which should help increase efforts around assessment. Sitting down with staff and faculty to map out PLA process for certain credits, increase visibility, and streamline process for students.
WVUP	ACCUPLACER has been used to place students into STEPS courses.	Although ACCUPLACER is still used to place students in STEPS courses, developmental education, or college-level courses, there are now other avenues for assessment internally. Programs have been modifying their internal assessments. Courses are also being evaluated every couple of years rather than every 5 years. WVUP awards PLAs for apprentices (up to 43 credits) and associate's degrees (up to 60 credits) that can go toward bachelor's degrees.	Tracking students through their initial assessments into exit assessments has been a challenge for WVUP as it is difficult to define the cohort, especially with the rolling enrollment of the STEPS courses.

SECTION 5.
STUDENT RECRUITMENT

Student recruitment for the grant has become a key focus for all colleges as the number of TAA-eligible individuals joining the program has been lower than expected. Each college has developed strategies to attract the targeted populations of the grant including veterans, TAA-eligible individuals, and dislocated workers including an outreach plan that will guide their recruitment efforts going forward. Colleges that have strong relationships with the local Workforce Investment Boards (WIBs) have found greater success recruiting dislocated workers.

Results

- Targeted outreach strategies

Strengths

- Program-specific outreach
- Strong WIB partnerships

Challenges

- Non-traditional student recruitment staff

Recommendations

- Educate college personnel on grant-funded technical programs
- Create targeted outreach strategies
- Evaluate effectiveness of outreach
- Utilize WIBs for recruitment

Promising Practices

- Development of different strategies for different target populations
- Diversified outreach strategy
- Investment in recruitment staff
- Creativity in outreach strategies

CONSORTIUM FINDINGS

PROGRAM RESULTS

***Targeted outreach strategies*.** Because of the BTG grant, institutions have been encouraged to create outreach plans that target technical students directly. Typically, these programs (if existing prior to the grant) have gone unnoticed by the institution's outreach strategies. In addition, many BTG colleges reported that outreach strategies prior to the grant focused on the institution as a whole rather than specific programs. Since the implementation of the grant, these colleges have been able to target the technical programs in their outreach strategies and recruit students directly into these programs, which would not have been possible without the BTG grant funds.

ACCELERATORS AND STRENGTHS

***Program-specific outreach*.** Many BTG institutions reported increased focus of advertisements and program specific recruitment, diverging from the more general advertisements usually employed. With colleges reporting other institutions in the area and difficulty reaching target populations, outreach becomes essential in increasing the number of potential enrollees. Program-specific outreach strategies have helped colleges increase community awareness of specific BTG programs rather than the institution as a whole.

Strong WIB partnerships. For the colleges that reported strong relationships with the regional WIB, many found the WIB to be critical in student recruitment. Colleges reportedly utilized the WIBs for student referrals, campus recruiting events, and community outreach. Colleges with strong WIB relationships were able to engage in more innovative and collaborative outreach efforts such as larger scale mailings and greater identification of potential TAA participants than could have been provided otherwise.

BARRIERS AND CHALLENGES

***Non-traditional student recruitment*.** Student recruitment has been a significant concern for BTG colleges as the target population (non-traditional technical students) is difficult to access or not present in the region. These students also typically have responsibilities that conflict with their return to college (i.e., families, jobs, etc.) making colleges adjust their outreach strategies. Finding effective ways to recruit students is essential for program sustainability so the colleges are beginning to focus more of their efforts on the outreach portion of the grant.

RECOMMENDATIONS

Educate college personnel on grant-funded technical programs. Many of the institutions reported that the college as a whole may not be aware of the efforts made through the grant. Ensuring that non-BTG college personnel are aware of the grant programs that are being offered could help the BTG programs market the programs (i.e., the institution personnel can explain all education opportunities to potential students). For example, one institution reported that students coming to sessions that introduce the college's options were not made aware of the technical programs. This silos outreach strategies at the institution and requires the BTG recruiters to duplicate their efforts. Educating the institution on the technical programs would make this process easier for the students and institution as a whole.

In addition, educating non-BTG college personnel on the technical programs could increase potential financial support opportunities for the technical programs through institution funds. Colleges reported that familiarity with the BTG technical programs increased institutional interest in the programs resulting in funding from the college itself. For example, some colleges reported their grant staff are only partially funded through the grant because the institution sees the value in sustaining these positions after the grant (e.g., Program Coordinator through the WIB, peer coaches, developmental education staff, other support services staff, etc.).

Create targeted outreach strategies. Some BTG colleges need to modify their outreach plans to specifically target non-traditional, veteran, and dislocated workers rather than the institution as a whole. As stated [above](#), targeted outreach strategies help confirm the college is recruiting BTG students for program sustainability purposes. Creating outreach strategies that focus on recruiting students from the grant's target populations could result in increased enrollment in the technical programs, which is typically tied to program sustainability. For instance, many colleges reported that sustaining the technical programs is contingent upon increased enrollment, which is tied to outreach strategies. If one program has low enrollment, outreach strategies targeting that program could result in increased student enrollment. Because many outreach strategies that were in place prior to the grant do not specifically market technical programs, it is important to find a strategy that showcases the technical opportunities to students.

Evaluate effectiveness of outreach. Many colleges are beginning to make changes to their outreach strategies to target BTG programs and populations. In order to ensure that the colleges are efficient in their strategies, their practices should be regularly evaluated. Colleges could track how students learned about the BTG programs during the intake process and then use that feedback to invest resources where they know they are having an impact. This approach could help the colleges maintain efficiency and relevance in their outreach strategies.

Utilize WIBs for recruitment. Colleges that had reportedly stronger partnerships with the WIBs seemed to have more success reaching the target populations of unemployed, underemployed, and veteran individuals. Colleges reported that working more closely with the WIBs resulted in more student referrals for the BTG institutions. These referrals can help increase student enrollment numbers in the BTG target population. WIBs can also help recruit students at community events (e.g., career fairs), which creates another resources for recruiting BTG target populations.

PROMISING PRACTICES

Development of different strategies for different target populations. Consider the target population when developing outreach strategies. One BTG institution has modified their strategies due to the needs of the target population by focusing less on social media (these students may not have a Facebook, for example) and more on magazines or newspapers that the population may be exposed to more. Considerations such as these also help to refocus marketing strategies from college-wide efforts to grant program specific strategies.

Diversified outreach strategy. All of the BTG institutions have utilized multiple outreach tools and avenues (e.g., TV ads, social media, newspapers, newsletters, brochures, etc.) in their recruitment plans. For example one college is pursuing their traditional model of outreach by advertising in the

largest area newspapers while also doing a reevaluation of their entire social media strategy. Diversifying outreach strategies goes beyond the medium of use and relates to targeting diverse populations as well, as can be seen in the *Spotlight on Eastern Partnerships for Possibilities*. Multi-pronged approaches promote wider exposure of BTG technical programs to non-traditional students in their region.

Investment in recruitment staff. Making an investment using BTG funds to increase recruitment capacity can increase the quality and reach of marketing. Examples from BTG institutions include hiring a graphic designer, bringing in an outside consulting group to evaluate methods, bringing on a grant-specific admissions advisor, using peer coaches, or hiring a person specifically tasked with student recruitment. Finding ways to use current personnel for recruiting, especially those directly involved in the BTG programs, could help maintain consistent technical program recruitment and future sustainability.

Creativity in outreach strategies. Colleges that have emphasized creativity while focusing on projected outcomes have received promising results such as increased student interest and subsequent enrollment. Examples include video campaigns, mobile marketing, targeting incarcerated populations, and having face-to-face opportunities at community events, food banks, and sporting events. In addition, colleges that are creative with content creation and targeting groups can help impact and reach previously untouched potential students. When appropriate for targeted populations, consider opportunities for outreach such as social media (e.g., Facebook forums, YouTube applications) as well as live chat sessions or webcasting, personalized websites, unique campus tours, and mobile apps[28].

SPOTLIGHT ON: Eastern Partnerships for Possibilities

Eastern's Partnerships for Possibilities program – a parolee reengagement program that seeks to provide individuals on parole with marketable skills and then connect them with employer partners – arose from discussions at the college on opportunities to connect to untapped student populations. The program is part of a three-pronged approach to reach parolees, the incarcerated population prisons, and individuals in regional jails.

The Partnerships for Possibilities parolee program could not have started without conversations and collaboration among key stakeholders. Eastern's leadership reached out to leadership of the parole program as well as the prisons and jails and discussed what needs were not being met. Simultaneously, the college approached businesses and pitched a value proposition of how the organization, the community, and prospective employees would all be improved by an arrangement to hire people coming through the program. The job prospects of participants in the semester-long program would also improve significantly, with participants receiving NCRC certifications, mock interviews, resume writing assistance, and more.

The partnerships that Eastern has established with the parole system and businesses – six businesses as of April 2015 – has taken time and persistence but has also provided a new stream of students and new opportunities for partnership and growth.

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[28] Retrieved from: http://collegestats.org/2012/10/50-creative-ways-colleges-are-recruiting-students-today/

OUTREACH AND RECRUITMENT

Prior to the BTG grant, recruitment was disjointed and typically carried out by individuals who recruited for the entire college rather than specific programs. The BTG grant has allowed the colleges to focus their outreach and recruitment efforts on the technical programs. Because of this drastic change, many institutions are finding this targeted focus challenging. Student recruitment for the BTG programs require an understanding of the population the grant is targeting so many institutions are revising their outreach plans to reflect the needs of the non-traditional students.

WVCTCS will increase recruitment efforts at the system level by creating a technical program recruitment website. The website will advertise for the technical programs at each college and provide resources such as curriculum guides and links to each institution.

The table below reflects these changes in terms of how colleges recruited students prior to the grant, currently in the grant, and what colleges are planning to accomplish in the last year of the grant.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	Conducted recruitment within their general marketing strategy; while occasionally specific programs were highlighted, marketing was performed on a general basis for the college as a whole.	Increased the amount of marketing material going out and hired a graphic designer specifically tasked with designing marketing pieces for BTG materials. College reports that having a graphic designer on-site has greatly reduced the time it takes to complete marketing pieces. Increased recruitment efforts through BTG has had the additional benefit of increasing communication and collaboration between different divisions at the school. Other BTG-specific marketing pieces include print advertisements in the paper, banner ads on the website highlighting particular programs, pop-up banners for attending events and job fairs, radio campaigns, open houses, and more. Launched additional efforts around recruitment utilizing social media. Hired a veteran's recruiter for the BTG grant and uses a special software, ARGOS, to track the veterans in the program. WIB partners are working on recruiting on Blue Ridge's behalf and have sent out approximately one thousand recruitment letters on college's behalf as well.	New outreach campaign will start in Summer 2015 with commercials, billboards, and social media in particular being utilized to advertise BTG programs to adult students. Seeking to ensure consistency across advertising. Will continue working with WIB to recruit students, particularly from the pool of dislocated workers. Exploring working with the Council for Adult and Experiential Learning (CAEL) to gauge if they are properly serving their target audience.
BridgeValley CTC	Went to Career Fairs and community events, visited high schools, etc. Less structured and coordinated efforts; more general outreach strategies.	Utilizing a number of avenues for outreach including: career fairs, community events, brochures, flyers, posters, television broadcasts and commercials, radio commercials, webpage improvements, monthly press releases, social media outreach, and services targeting veterans. Materials distributed to WIBs.	Has hired a Technical Outreach and Retention specialist to focus recruitment efforts on targeted populations that will start in the middle of June 2015.

Colleges	Baseline	Progress to Date	Future Goals

Eastern WV CTC	Building on a recruitment strategy that included many traditional forms of prospective student engagement including hosting events, radio advertisements, billboards, mailings, social media platforms, and workforce trainings.
	  Utilized resource of extensive demographic research.
	  Eastern's ITL reports college's workforce training as the key asset to their marketing platform as their ability to offer workforce training sets them apart from other schools in the region.
		Collaborated with WIB to send a mailer to all 26,000 households in Eastern's service area, the first time the college has been able to do so.
		  Innovatively recruiting students by targeting the prison and parolee population - targeting three groups: individuals incarcerated in prisons, individuals incarcerated in regional jails, and individuals released but on parole.
		  Eastern is seeking to provide academic training in the prisons, provide short term courses in the regional jails, and bring parolees and businesses together through the new Partnerships to Possibilities Program.
		  The college will offer academic and workforce certifications for parolees as well.
		  In order to better recruit veterans, the college has become an "8 keys to Veteran's Success" member.
		  Met with Potomac State College and West Virginia University to begin conversation towards developing guaranteed admission agreements with 4-year transfer institutions.
			Seeks to grow the number of business partners from six to eight or nine in their Partnerships to Possibilities program.
			  Will continue to reach out to the new National Guard employment center that has been created nearby to recruit new students.
			  Will pursue a potential opportunity to build upon prison program if a former Navy base in Sugar Grove is converted into a prison – the decision on this will be made in the near future.
			  Will continue to work with veterans and strengthen ties with community.
			  Seeking to implement and advertise guaranteed admission agreements with Potomac State and WVU – will strive to reach out to other 4-year institutions.

Mountwest CTC	Single recruiter for the entire institution.	Hired an Information Specialist that will serve as an industry liaison and recruit for BTG programs.
		  Also hired the Bulldog Agency to create marketing materials for the BTG programs.
		  The following avenues for outreach will be used: brochures, emails, handouts, Youtube videos, television ads, news releases, media buys (cable and WSAZ), social media (Facebook ads and weekly posts), CareerFocus magazine articles, college websites, and posters for local businesses.
			Concerned about identifying, selecting, and recruiting students from a limited population so they will continue to research unique outreach strategies.

New River CTC	Two recruiters conducted outreach for the college as a whole but did not target any specific programs.	Added one of the existing recruiters to the BTG committee who will recruit student for the BTG programs.
		  The college is utilizing multiple avenues for outreach including an entry in the CareerFocus magazine, social networking sites, newspapers, radio, publications, attending statewide and regional recruitment events, hosting lunch and learn sessions with workforce personnel, campus events, blogs, student emails, facility tours, monthly columns, marketing materials (i.e., brochures, factsheets, College webpages) and alumni testimonials.
			Examining other avenues of outreach that may be more relevant for non-traditional students.
			  Will also be researching the Advanced Technology facility competition in the area to determine what they should target in their marketing strategies.

Colleges	Baseline	Progress to Date	Future Goals
Pierpont CTC	Building upon general recruitment strategy of partnering with local media outlets to advertise the college as a whole.	Marketing for the grant has targeted unemployed, underemployed, recently laid-off, and veterans. Building upon partnerships with local media, newspapers, radio, and editorial staff to make sure that BTG programs specifically are advertised. Utilized funds to advertise in the three largest local newspapers and two journals. Hired a staff member to recruit specifically for TAACCCT programs; employee will focus on veterans as well in her recruitment role. Pierpont has hired a staff member that is shared with Northern who is responsible for recruiting for the Petroleum Technology program at both colleges.	Seeking to expand social media usage and have tasked a recent hire with developing a communication plan for BTG programs that outlines how students will be engaged from first contact to enrollment. Continue to respond to business closures and layoffs with targeted marketing pieces. Seeking to implement recommendations from the CLARUS Corporation's analysis of the college's marketing strategy.
Southern WV CTC	Targeted recruitment plan was not in place because of limited number of students in target populations in the region. Recruitment efforts were disjointed and not well-coordinated.	Utilizing the following outreach avenues: news releases, social media (Twitter, Facebook, Youtube, ad buys), radio, newspapers, television, College webpages, Resource Portal materials, sponsorships of community, employer Quicksheets, facility tours, Workforce WV, showcases for programs, and alumni testimonials.	Plans to revise the outreach plan to specifically target BTG students.
WV Northern CC	Past recruitment efforts were not focused on the Mechatronics and Petroleum Technology programs as they were relatively newer programs for the college.	Creating two brochures to advertise for the grant programs, one advertising the college and another focusing on both the college and the WIB's services. Advertisements including radio spots and print ads will be run regionally in May and June and are anticipated to help not only the grant programs but the college as a whole. Hired a veteran's coach tasked with connecting veterans to programs, recruiting, coaching, and promoting veterans' needs. Northern has hired a staff member that is shared with Pierpont who is responsible for recruiting for the Petroleum Technology program at both colleges.	Plans for veterans coach to expand efforts to job fairs, military and veterans events, and veterans' organizations to build program participant base. Seeking to hire a recruiter specifically focused on all three BTG programs. Will continue to utilize the marketing funds to advertise three grant programs via television, radio, electronic billboards, print ads, online presence, and printed material.
WVUP	WVUP had limited resources for outreach due to institution and state budget cuts. Outreach targeting specific programs was non-existent; outreach targeted the College as a whole.	WVUP is utilizing the following for outreach: print, video, online ads in movie theaters, television ads, Facebook, and print materials.	Will continue to research ways to target outreach strategies to BTG students. WVUP is also hiring a Technical Marketing Coordinator that will work within the marketing department and on promoting the technical programs.

SECTION 6.
INDUSTRY SECTOR PARTNERSHIP STRATEGIES

All BTG colleges are engaging with area employers to better align their training programs with the needs of industry. At many of the colleges, this is accomplished through the relationships between individual instructors that have come from the industry and local employers. The BTG grant has provided instructors and staff at the colleges with a new topic of discussion for collaboration when working with both individual employers and advisory boards.

Results

- Strengthened employer engagement
- WIB relationships

Strengths

- Level of employer involvement

Challenges

- Expanding employer partnerships

Recommendations

- Demonstrate action or progress out of employer contributions and meetings
- Look to partners to make employer connections
- Meet employers where they are

Promising Practices

- Expanded WIB connections
- Opportunities for involvement
- Focus on greater internal communication
- Accommodation of employer needs

CONSORTIUM FINDINGS

PROGRAM RESULTS

Strengthened employer engagement. Although all colleges reported relationships with employers prior to the grant, many indicated these relationships have been strengthened since BTG implementation. Because the grant has a significant focus on industry sector partnerships, many colleges found they were utilizing the past partnerships while also reaching out to other employers in the region where connections did not exist prior to the grant. In addition, colleges reported establishing Advisory Boards/Committees, receiving feedback on curriculum, and forming agreements for internships, apprenticeships, and hiring.

WIB relationships. Many BTG colleges reported low levels of collaboration with the WIBs prior to the BTG grant. Even the colleges that had relationships with the WIBs prior to the grant indicated that these relationships have strengthened to some degree since the grant. Colleges indicated that the regional WIBs were now more involved in student recruitment and referrals, which is another result of the grant's focus on engagement. Although many colleges reported a need for still-greater involvement with the WIB, most colleges have at least contacted the WIB or established some level of partnership since the BTG grant began.

ACCELERATORS AND STRENGTHS

Level of employer involvement. Many interviewed employers indicated they are more involved with the community and technical colleges than they are with four-year institutions in the area, which has been beneficial for the community and technical colleges in terms of curriculum development, internship and apprenticeship opportunities (sometimes serving as a capstone component within the BTG program)[29], and student job placement. Employers attributed this level of involvement to the consistent contact they had with the institution. Similarly, colleges that made consistent efforts to contact and partner with employers reported increased levels of involvement from employers.

BARRIERS AND CHALLENGES

Expanding employer partnerships. Expanding employer partnerships has been a challenge for many BTG colleges as many of the relationships currently utilized by the colleges have been in place for many years or take a considerable amount of time and coordination between staff to develop a strong partnership. Colleges are finding it difficult to reach out to new employers and establish the same level of involvement as the other employer partnerships that are in place. Establishing partnerships with employers has reportedly been more difficult for colleges that are developing new programs through the grant and are thus starting from a small or nonexistent base of employer-partners.

RECOMMENDATIONS

Demonstrate action or progress out of employer contributions and meetings. Employers who know their voice will be heard and their recommendations will be directly incorporated into program curricula are more likely to develop deep and meaningful partnerships with postsecondary institutions because their time is used wisely. One institution utilizes employer feedback for curriculum and

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[29] Capstone courses occur at the end of the program of student and ensure that students are able to demonstrate mastery of industry/occupation related skills; drawn from the *Bridging the Gap Course Design Overview.*

certification development. The students receive certifications directly related to the employer's needs, and are hired by the employers in the region.

Look to partners to make employer connections. Partnerships provide an avenue to gain feedback regarding programs and curricula, are a source for student recruitment, and lead to student job placement. Beyond WIBs and employers, partnerships with veteran's organizations, union training organizations, chambers of commerce, community and social services organizations, and other community members will widen colleges' networks and lead to greater awareness of program offerings.

Meet employers where they are. BTG staff charged with connecting with employers should expect to meet employers where they are, both geographically (i.e., going to their place of business for a meeting) and in terms of level of engagement. This demonstrates a willingness to accommodate busy schedules, begin the relationship with a minimal "ask," and invest time understanding the employer's environment. Additionally, just as students report better outcomes with hands-on learning, meetings on-location provide an opportunity to participate in a company tour. This broadens the experience of college staff, provides more time to make a personal connection with an employer representative, and could provide an opportunity to meet potential students.

PROMISING PRACTICES

Expanded WIB connections. One institution reported having a grant-funded Program Coordinator through the WIB at their institution. This person serves as the primary bridge between the college and the regional WIB. The institution emphasized the importance of this role in sharing referrals, hosting events for the institution, and attending events at the college. The Program Coordinator at this institution reported that this position helped strengthen the relationship between the WIB and the institution, which could be beneficial for grant implementation at other colleges as well.

Opportunities for involvement. Institutions that provided opportunities for employer and workforce partners to learn about the programs offered at the institution were likely to have stronger relationships with their partners. For instance, colleges have found opportunities to have partners join trainings, attend BTG courses, and tour the campus facilities. These opportunities encourage employers, WIBs, and other partners to get involved at the institution.

Focus on greater internal communication. Strong partnerships involve communication and coordination, not only with local businesses, but within the college as well. Communicating with the college staff to coordinate advisory meetings and determine other avenues for employer engagement is an efficient way to build relationships inside and outside of the college. One college reported that increasing internal communication allowed the institution to streamline their communication to employers (i.e., appointing one person to contact employers rather than each department/program). Employers emphasized that streamlined communication within the college increases employer likelihood of college partnerships. In other words, employers recognize and appreciate streamlined communication standards within colleges and are more likely to partner with those institutions that implement this strategy.

Accommodation of employer needs. A flexible and accommodating approach to employer partnerships helps the relationship, as it reduces the burden on the employer and makes the institution's partnership request more substantial. For instance, one institution reported hosting BTG courses at the employer's facility. Other institutions reported the need to be reliable in incorporating employer needs into curricula and taking action with the feedback gained. In general, establishing proactive and trusting relationships with employers that encourage and emphasize open dialogue increase the likelihood that employers will partner with institutions.

SPOTLIGHT ON: Engaging Employers at Southern

Southern had been engaging employers well before the BTG grant, as many other institutions have reported. However, since grant implementation, Southern has discovered unique ways to accommodate employer needs as they develop curricula for the grant.

Southern reported that they hosted BTG courses at employer facilities to better accommodate employer needs and make partnerships with Southern more accessible for the region. These employer accommodations also benefit employees enrolled in the programs. By hosting courses at employer facilities, students can easily access the courses without missing work.

For example, Southern has established an RAP program with Mohawk Unilin Flooring where specific BTG courses are taught at the facility. The employer reported that these opportunities encouraged further relationships with the College. Southern states that being cooperative with employers has helped create valuable relationships with employers in the region.

Expanding current partnerships by finding unique and accommodating ways to engage employers in the region has been reportedly beneficial for Southern. Going the "extra mile" for employers facilitates a trusting and proactive relationship with employers that can lead to long-lasting, valuable partnerships.

EMPLOYER AND WIB ENGAGEMENT

Prior to the grant, the WVCTCS reported that there was not a formalized process for engaging employers. Because some of the new industries coming into the area were recruiting students from outside of the region, WVCTCS decided to incorporate employer engagement into the BTG grant. This would allow the community and technical colleges to receive more employer feedback that could ensure students were well-qualified for the new industries coming into the region.

Many BTG colleges reported partnerships with local employers prior to the grant but these partnerships have evolved since the grant. For example, Advisory Boards/Committees may have been present prior to the grant, but these Boards/Committees are now more active in regards to curriculum development, hiring commitments, and internship/apprenticeship opportunities. BTG colleges also reported strengthened relationships with the regional WIBs in regards to student referrals and partnership on campus events. Although many institutions reported a need for stronger employer and WIB partnerships, these relationships have improved since the implementation of the BTG grant.

Going forward, WVCTCS will continue to push a focus on sector partnerships rather than only advisory boards. In tandem with the employer engagement plans recently created by each college, the consortium seeks to hone in on coordinated employer engagement at a regional level over ad hoc solutions.

These relationships are explained in greater detail on the following page.

Colleges	Baseline	Progress to Date	Future Goals
Blue Ridge CTC	Building upon an external engagement strategy that includes chairing local workforce development committees, conducting biannual business needs assessments, working with local chambers of commerce, and meeting regularly with local business and industry.	Developed a Workforce Engagement Team to allow staff to coordinate and communicate more about partnerships with the business sector. Additionally, under the grant, Blue Ridge has utilized at least one "A La Carte" dinners put on by the college's hospitality program to bring together employers in BTG target industries.	Seeking to grow networking events with employers including plans to host a leadership development conference for local employers, develop a student resume database, promote co-op programs, and more. For the IT sector, the college will reach out to more businesses one-on-one to build personal relationships with employers. College is implementing new software that will allow Blue Ridge to coordinate employer engagement across the college. Exploring a co-op partnership with Quad Graphics to employ mechatronics students upon graduation. A challenge is finding businesses to offer internships and other-on-the job training opportunities in the nearby area.
BridgeValley CTC	Advisory committees in place. These employers were looking to recruit employees through their partnership. Partnership with the WIB was existent prior to the grant but needed improvement – one of the merging institutions was placed on probation by the WIB; did not send program materials for WIB approval. There was no veteran-focused employee prior to the grant.	Numerous employer partners since grant implementation that have recruited employees and helped develop curriculum. Attempting to strengthen the partnership with the WIB but is experiencing challenges in connecting with the WIB. The College hired someone to work specifically with the WIBs to strengthen their relationship; marketing materials are being developed with the WIB. Staff specifically for veterans were hired through the grant and allow the College to track these students.	Planning a sector strategies meeting to convene local employers in June 2015. A stronger partnership with the WIB is a priority. Plans to improve their veteran data tracking so they can understand the dispersion of benefits, etc.
Eastern WV CTC	Engaged the WIB for years and has a strong relationship with the WIB staff. Instructors and staff at Eastern serve to connect the college and thus students to employers.	Using grant funds to pay an employee from the local Workforce Investment Board (WIB) to come on campus twice a week to provide career support services – provide career interest inventories, discuss financial aid and possibilities for aid through WIA, help with resume writing, aid in the job search process, and more - relationship was facilitated through the college President and the Executive Director of the WIB. Coordinated with the WIB to do a mass mailing to anyone who has opened a new UI claim with workforce and to TAA-eligible individuals dating back to 2005. Instructors have continued to make connections with employers to understand their needs and provide training opportunities to businesses while trying to pursue opportunities for internships and job placements for students.	Will continue to pursue partnerships with industry, focusing on where internship and job placement opportunities can be obtained. Working to increase student traffic to the career services opportunities by better advertising services.

Colleges	Baseline	Progress to Date	Future Goals
Mountwest CTC	Established connections with employers through alumni and previous attachment to Marshall University. There have been longstanding relationships with employers that participate in Advisory Board meetings where employers provide direct feedback on new curricula.	Advisory Board Meetings are held biannually with employer input directly integrated into Mountwest curriculum. Continues to expand their employer relationships in the region. Hired an Information Specialist to serve as the single point of contact for employers.	Plans to continually ensure that they are current in terms of the skills they are targeting in courses.
New River CTC	Welding Advisory Board but it was not very active. Region1 WIB reached out to New River to establish partnership.	Region 1 has been sending student referrals (at least 20 to date) and hosts career fairs for New River. Meeting with community members based on the different sectors to discuss New River's resources and how partnerships can be formed. Corporate sponsors have been helping New River develop curriculum. Advisory Boards are becoming more active, especially for the Line Service and Welding programs, with partnerships beginning to be set up for apprenticeships and job placement. Program Coordinator for BTG that is located at the WIB to help with recruitment and employer partnerships.	Plans to identify industry sectors they want to focus on and create a better working group with employers. The Region1 WIB representative would like to increase student referrals and be more involved in the process of getting students to New River.
Pierpont CTC	Pierpont reports a strong connection with the WIB due to the performance of the WIB director. Pierpont has built relationships with local industry over the years through the efforts of instructors and college administration as well as convening advisory councils.	Meeting with business and industry and advisory councils. Worked out initial difficulties in placing materials at career centers and can now have materials advertising the program at the Career Centers. Constant contact with businesses has led to new career pathway related to instrumentation and has allowed for employer feedback on new curriculum. Staff report that new partnerships, such as with Southwest Energy, would not have been possible without the grant and the attention and new students it has garnered.	Continue building relationships with industry and pursue specific partnerships with businesses akin to the one with First Energy, specifically with Southwest Energy. Continue working directly with veteran partners. Further utilize WIB help by explaining specific programs to WIB director and providing marketing additional marketing materials to WIB.
Southern WV CTC	Program Advisory Committees for the technical programs have been in place but getting involvement from employers has been a challenge.	Because of grant funding, Southern has been able to establish Advisory Boards and focus efforts towards technical programs. Apprenticeship agreements are in place with local employers and agreements to use company facilities for course labs. Employers have also assisted in developing Mechatronics curriculum. All institution departments have been brought together to create an employer engagement team; each department has at least one contact person. A Technical Coordinator was hired to visit employers and establish relationships.	Southern would like to expand their partnerships with employers in the region and improve engagement strategies.

Colleges	Baseline	Progress to Date	Future Goals
WV Northern CC	Established relationship with WIB in which they refer about 25-30 people to Northern each year. Advisory boards had been in place with each program prior to the grant to advise on courses and programs. Staff reports that traditionally, administrators in New Martinsville and Weirton locations are well connected with the boards they serve on due to small town location and feel of these campuses.	ITL held a cross training at the WIB to explain the Petroleum and Mechatronics programs to staff members. WIB Director reports that employees understand BTG programs and advertise these at job fairs and with flyers at their desks. Existing advisory committees have been reconvened through grant to connect schools to industry needs – grant staff report positive responses from businesses and find that the grant provides a helpful topic for conversation. Instructors utilize their contacts to provide opportunities for students: e.g., Petroleum Tech professor takes students on "field trips," three IT professors share their connections. Staff are reaching out to larger manufacturers in the area to explore businesses' interest in training workers at Northern – employer specific training is currently happening at Weirton campus and will start on Wheeling campus in May. Grant has given faculty a new topic to discuss with employers, helping the college form relationships with Markwest, Gulfsport Energy, and other companies.	Northern plans to make brochures focusing on the BTG programs – Mechatronics, Petroleum, and IT – for the WIB to hand out. WIB sees opportunities for alignment between the grant and the WIB around youth efforts for WIOA, serving veterans, retraining coal miners filing for unemployment (although they are more focused on short-term opportunities) and recommends that Northern be more active at the Career Center.
WVUP	Every program was required to have an Advisory Board. There used to be a general committee that contained all of the employers that were interested in partnering with WVUP. Partnerships with employers for learn-and-earn programs.	A liaison for Workforce WV that oversees TAA and WIA students has been established. The process for engaging employers is as follows: invite employers to visit the institution, tour the facility, and have employers provide input on curriculum and programs. There are quarterly Advisory Board meetings that target specific program areas.	Plans to continue strengthening relationships with the WIB through sector strategies.

SECTION 7.
CONCLUSIONS

SUMMARY

The BTG consortium has made strides during the first 20 months (October 2013 – May 2015) in developing and implementing their technical programs, utilizing different learning strategies, expanding student support services and developmental education strategies, and focusing on student recruitment and partnership development. The consortium has experienced a number of barriers throughout the grant period, including delayed grant start, concerns with sustainability, and recruiting the target population. Each college has examples of implementing solutions to one or more challenges, which serve as promising practices and recommendations to other colleges.

LOOKING AHEAD

Success during the remainder of the grant depends on increased collaboration within the consortium so colleges can continue to adapt and adopt what is working in one location, and avoid duplicating work one or more colleges have already done. The promising practices throughout this report provide a starting place for ITLs who are looking to leverage grant successes at their institution. To ensure that collaboration is occurring and the colleges are progressing, some of the following recommendations should be considered for immediate implementation:

- Develop a common and consistent definition around program participant (for grant outcomes reporting),
- Clarify action steps and requirements for each college,
- Develop common definitions for each learning strategy,
- Develop common definitions for grant spending categories, and
- Support strategic approach to grant spending for remaining funds.

In addition, opportunities for strengthening advancement at each institution within the grant program include:

- Revision of current spending approach (i.e., budget modification) to ensure all grant funds will be spent,
- Clear identification around which programs are counted as grant-funded programs,
- Revision of recruitment plans to address college-specific challenges with attracting students, and
- Leverage partnerships and use staff to increase student enrollment and job placement.

RECOMMENDATIONS

- Collaborate on curriculum and technology
- Increase Sector Lead involvement
- Create a platform for sharing resources within the consortium
- Collaborate around successful strategy implementation
- Create common learning strategy definitions
- Encourage coach-instructor contact
- Ensure course transferability
- Track developmental course outcomes
- Educate college personnel on grant-funded technical programs
- Create targeted outreach strategies
- Evaluate effectiveness of outreach
- Utilize WIBs for recruitment
- Demonstrate action or progress out of employer contributions and meetings
- Look to partners to make employer connections
- Meet employers where they are

PROMISING PRACTICES

- Utilization of multiple avenues for curriculum development
- Embedded certifications
- Incorporation of certification costs into course costs
- Development of completion agreements with businesses
- Implementation of pre-assessments to measure student readiness
- Use of innovative learning strategies to save money
- Exploration of creative Mondopad use
- Development of proactive relationships with students
- Peer coach collaboration with instructors and departments
- Incorporation of job skills into courses
- Development of different strategies for different target populations
- Diversified outreach strategy
- Investment in recruitment staff
- Creativity in outreach strategies
- Expanded WIB connections
- Opportunities for involvement
- Focus on greater internal communication
- Accommodation of employer needs

Building upon successes to date, ITLs must continue to push forward in grant implementation and find ways to motivate and unite disparate groups of staff. By implementing relevant promising practices, ITLs can take the work started by others in their position and bring these successes to bear at their college. These promising practices and spotlighted areas can be particularly useful in areas where limited traction has been gained on accomplishing a grant goal. By providing a concrete practice as a starting place, institutions may find success more attainable via a new avenue.

During the remainder of the grant, colleges will focus more heavily on program sustainability, enrollment, and completion. Increasing sustainability and overall grant success will require internal college planning and strategic decision making (e.g., intentional discussions around sustainability and opportunities for leveraging current funding to promote program and grant-funded position sustainability), support from WVCTCS (e.g., clarification and content-specific training), and identifying opportunities to leverage resources (e.g., curriculum, technology) and promising practices from other BTG institutions. Through these methods, ITLs, instructors, and staff can build upon their successes as they continue to implement the Bridging the Gap grant.

SPOTLIGHT Areas

- New River CTC Certified Testing Facility
- Pierpont Applied Process Technology Redesign
- WVUP Construction Management
- Blue Ridge Investing in Hybrid Offerings
- Northern Technology Enhanced Active Learning Labs
- BridgeValley Accommodating Veterans
- Mountwest Community and Technical College BEACON
- Eastern Partnerships for Possibilities
- Southern Engaging Employers

APPENDIX A. EVALUATION METHODOLOGY

This report presents the results of the Implementation Evaluation of the Bridging the Gap Consortium during its first year of implementation. The purpose of the Implementation Evaluation is to document:

- Implementation of the project model and individual program elements;
- Changes incorporated into the original design and why the changes were necessary;
- Experiences of participants, faculty and staff in grant-funded activities;
- Potential connections between program implementation, service innovations and program outcomes; and
- Lessons learned from the program and resultant best practices.

Throughout the past year, the Evaluation team has tracked progress; recorded lessons learned; measured perceived program strengths, weaknesses, and value to participants, partners, and faculty/staff through the following measurement strategies:

1. Interviews with BTG staff and instructors from each college;
2. Focus groups with BTG students from each college;
3. Interviews with BTG-connected employers; and
4. Interviews with WVCTCS staff;
5. Quarterly reports prepared and submitted by BTG staff; and
6. Enrollment data.

The latter four data collection strategies were employed most recently in April and May 2015 when members of the evaluation team conducted on-site visits with BTG leadership at each CTC. With the help of each ITL, a full-day schedule of interviews and focus groups were convened at each of the college campuses. Focus groups were chosen as a primary method of data collection for a number of reasons: (1) Focus groups allow participants to interact, asking questions of one another, and allowing them to re-evaluate and reconsider their own understanding of specific experiences[30]; (2) Focus groups allow researchers to explore the degree to which there is consensus around a particular topic[31]; and (3) Focus groups have been shown to serve as a forum for change, especially in collaborative environments[32]. Because the data collected during the on-site visits are intended to be formative in nature, identifying promising practices and planning for change (when needed), focus groups were a particularly relevant data collection strategy.

Each on-site visit began with initial introductions of BTG leadership team members at each college, followed by a focus group facilitated by members of the evaluation team. After this initial session concluded, individual and small-group interviews were held with faculty members, administrators, and other staff members involved in the implementation BTG related services and programs (e.g., career and educational counselors, department chairs, student service providers, technology support staff, and peer coaches). A focus group with students enrolled in BTG programs, and another with local employee

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[30] Kitzinger, J. (1994). The methodology of focus groups: The importance of interaction between research participants. *Sociology of Health*, 16(1), 103-121.

[31] Morgan, D.L. & Krueger, R.A. (1993) When to use focus groups and why. In Morgan, D.L. (Ed.) *Successful Focus Groups*. London: Sage.

[32] Morgan, D.L. (1997). *Focus groups as qualitative research*. London: Sage.

partners, were also conducted at each college. For more details related to the focus groups conducted during the on-site visits, a list of questions is presented in Appendix B.

The content of the interviews and focus groups were determined by the evaluation questions developed by TPMA at the beginning of the grant cycle. Because many of the overarching questions in the evaluation plan applied to some, but not all, of the prospective members of each BTG team, the evaluation team sought to convene focus groups and interview sessions of faculty and administrators around topics of common expertise or relevance. In most cases, the ITL at each college was included as a participant in the majority of the focus groups and interviews (with the exception of focus groups for students and employer partners). The evaluation questions that served to guide the development of the interview and focus group protocols included:

1. How was the particular curriculum selected, used, and/or created/modified?
2. How were programs and program designs improved or expanded using grant funds? What delivery methods were offered? What was the program administrative structure? What support services and other services were offered?
3. Was an in-depth assessment of participants' abilities, skills, and interests conducted to select participants into the grant program? What assessment tools and processes were used? Who conducted the assessment? How were the assessment results used? Were the assessment results useful in determining the appropriate program and course sequence for participants? Was career guidance provided, and if so, through what methods?
4. What contributions did each of the partners make in terms of: 1) program design, 2) curriculum development, 3) recruitment, 4) training, 5) placement, 6) program management, 7) leveraging of resources, and 8) commitment to program sustainability?
5. What factors contributed to partners' involvement or lack of involvement in the program? Which contributions from partners were most critical to the success of the grant program? Which contributions from partners had less of an impact?
8. How satisfied are program partners, staff, and participants with the program? Why?
9. What have been successes and obstacles to program performance?
10. How can program processes, tools, and/or systems be modified to improve performance?
11. How can the program expand or enhance institutional capacity? What are the most promising programmatic components to use institution–wide? Consortium-wide? Why?

From this list of guiding questions, the evaluation team developed a list of relevant focus group and interview questions for each group of BTG stakeholders. The interim nature of the data collection activities made it necessary to differentiate between past, present, and future changes in order to accurately understand the impact of the BTG grant.

In order to increase the validity of the interviews and focus groups conducted during the on-site visits, the evaluation team included several design features consistent with previous research. First, at least two members of the evaluation team (and in most cases three members) were present for each interview and focus group. This methodology is consistent with recommendations made by focus group practitioners[33], and allows a member of the evaluation team to focus on facilitation, a second member to take detailed

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[33] Kidd, P.S. & Parshall, M.B. (2000). Getting the focus and the group: enhancing analytical rigor in focus group research. *Qualitative Health Research*, 10(3), 293-308.

notes, and a third team member to take supplemental notes and add follow-up questions for discussion when necessary.

Second, the evaluation team utilized multiple opportunities to present the primary findings of the focus groups and interviews and seek confirmation and clarification from members of the BTG leadership at each college. While on-site, and before concluding each of the interviews and focus groups, the evaluation team presented a summary of key issues revealed through the data collection efforts and asked participants to confirm the accuracy of and/or provide clarification. Several weeks later, each ITL and their BTG leadership team were sent a summary of the information gleaned from the on-site visits. The ITLs and the BTG team members were again asked to confirm and/or clarify the main findings in writing. These comments were then reviewed during a follow-up phone call with evaluation team members, and changes to the final results were made when necessary.

Finally, because the role of the focus group and interview moderator is critical to the validity of the data collected[34], TPMA ensured that experienced facilitators moderated each focus group and interview. The lead TPMA staff member on site had five years of experience conducting focus groups in a variety of education and workforce development settings. In addition, TPMA subcontracted with a second facilitator with 15 years of experience in focus group facilitation in the education and non-profit sectors. Together, the two facilitators had well developed interpersonal and communication skills, drew out differences of opinion, probed for details to uncover meaning, and established trust among participants. In order to draw upon the strengths of the interactive environments of focus groups, these moderator skills are essential.

DATA ANALYSIS

A general inductive approach[35] was used to analyze the qualitative data generated from the focus groups and interviews. This approach was selected because it is particularly useful in drawing clear links between research questions or objectives and data collection results. The coding frame used for the analysis included both a time-dependent gradient (when the changes in the education programs and student services occurred: before the initiation of BTG, since BTG, or planned for later in BTG), and a sector-related gradient (which referenced the primary sector-driven education areas of BTG). Emerging themes were then developed through a review of the notes taken during the on-site visits according to the coding frame. Following this initial development of these themes, additional evaluation team members reviewed the results, adding contextual details and examples. The results were then compared again to the analytic frame and the anticipated reporting elements. The final step in the analysis was to send the summarized results from each college to the ITL for review. This process provided an opportunity for clarification and additional contextual details when needed.

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[34] Krueger, R.A. (1994). *Focus groups: A practical guide for applied research* (2nd ed.). Thousand Oaks, CA: Sage.

[35] Thomas, D.R. (2006). A general inductive approach for analyzing qualitative evaluation data. American Journal of Evaluation, 27, 237-245.

APPENDIX B. FOCUS GROUP QUESTIONS

FOCUS GROUP AUDIENCES AND QUESTIONS FOR BTG ON-SITE VISITS

The table below outlines the list of questions that were used for the on-site focus groups. The questions were modified and/or reworded to accommodate the participants at each college as well as customize questions based on the Evaluation Team's previous knowledge of the college.

Audience	Potential Questions
1. Project/grant management	• Introduction/Ice-Breaker Question: Can you tell me your name and your role with the BTG project/grant? • Help me understand the administrative structure of the project. Who is responsible for the various project components? • In addition to the BEACON model, what sorts of support services are currently being offered to students in the program? What are the parameters? • Who would you consider to be the program's primary partners (employers, workforce system, other training providers and educators, philanthropic organizations, etc.)? (write these on flipchart paper) • For each of the partners, what contributions did they make? [Have the following written on another flipchart: 1) program design, 2) curriculum development, 3) recruitment, 4) training, 5) placement, 6) program management, 7) leveraging of resources, and 8) commitment to program sustainability]. • Which contributions from partners were most critical to the success of the grant program? • How have you seen grant funds improve the programs you offer? How else would you like to see grant funds used to improve the programs you offer? • Looking back, do you have any critiques of how the program was delivered in this first year? (Highs and lows in the past year) • What factors have unexpectedly improved your ability to implement the program and deliver the relevant services? • Have there been any barriers that have gotten in the way of implementing the program in the manner in which you had hoped? • Do you have any thoughts on how program processes, tools, and/or systems could be modified to improve performance? • Which of your program components do you think could be appropriate for institution-wide or statewide use? • If there is one thing that you could highlight to DOL, what would it be?

2. Curriculum development and delivery for each of the 4 industries of focus (as applicable) • Energy/Electrical • Information Technology • Advanced Manufacturing/ Mechatronics • Building Construction	• Introduction/Ice-Breaker Question: Can you tell me your name and the grant-funded courses you are currently teaching? • Was it a new course or a modified course? (Think about how hybrid, online, simulated, and remote formats were incorporated) • How did you determine what curriculum to use? • Other than the curriculum review committee, who had input into course materials and content? Was anyone external to the college involved? • What certifications or other credentials will grant-funded academic and training programs lead to? How were those identified? • Will students be ready to take those with only this program content, or will they need additional coursework? • Can students test for those industry-recognized credentials on-site? If not, where will they have to go? • Has there been anything that has unexpectedly improved your ability to teach the courses related to the BTG curriculum? • Have there been any barriers that have gotten in the way of your ability to teach the courses you are teaching related to the BTG curriculum • How have you seen grant funds improve these courses? (i.e., hybrid, online, and remote capabilities) • How would you like to see grant funds used to improve the courses you currently teach? • Do you have any thoughts on how BTG program processes, tools, and/or systems could be modified to improve student performance? • If funding were made available are there other courses, or is there other content, that you think would be valuable to add in this subject area?

3. External partnerships: business engagement/ WIB partnerships	• Introduction/Ice-Breaker Question: Can you tell me your name and a little about your office/organization? • How/have you worked with [institution] in the past? • How would you describe your contributions to [institution] and the BTG grant? (*Recruitment, training, placement – keep in mind*) • What factors contributed to the level of involvement you decided to take within the program? Did certain factors make you more or less ready to participate as a program partner? (Did the grant change your level of involvement?) • How satisfied are you with your experience as a partner? Why? • Have you had successful experiences working with other colleges and training institutions? What made it successful? • What would improve your experience with the BTG grant program?
4. Career counseling/job placement	• Introduction/Ice-Breaker Question: Can you tell me your name and your role related to career counseling/job placement at [institution]? • Can you describe the career counseling and job placement services that are offered to students at [institution]? • Are employers involved in these processes? If so, how? • How have grant funds expanded and/or changed those services over the past year? • What trends are you seeing in the types of BTG students who use these services? Who is most and least likely to use them? Are these services available to non-BTG students as well? Are they different for BTG students? • Which types of services are most useful for those students participating in the BTG program? • What needs to be done to further tailor these services for students participating in BTG?

5. Peer coaches/student services	• Introduction/Ice-Breaker Question: Can you tell me your name and your role related to peer coaching and/or providing student services at [institution]? • Can you describe the coaching and/or other services that are offered to students at [institution] as part of the BTG program? • How have grant funds expanded and/or changed those services over the past year? • What trends are you seeing in the types of BTG students who use these services? Who is most and least likely to use them? Are these services available to non-BTG students as well? Are they different for BTG students? • What needs to be done to further tailor these services for students participating in BTG?
6. Developmental Education	• Introduction/Ice-Breaker Question: Can you tell me your name and your role related to developmental education at [institution]? Do you also teach other core subject areas outside of developmental education? • What proportion of students in the BTG program are taking developmental education classes? • What strategies is [institution] using to try and streamline the developmental education curriculum with the BTG core curricula areas? • In what ways do these strategies (or others) reduce barriers related to developmental education? • What needs to be done to further tailor developmental education courses to students? (What needs to be done to move forward?) • What would you change or do differently?

7. Student Assessment	• Introduction/Ice-Breaker Question: Can you tell me your name and your role related to student assessment at [institution]? • What kinds of assessments are conducted with students who apply to participate in the BTG program at [institution]? • How are these assessments being used? • Are you finding these assessments helpful and results useful? Do students seem prepared for the program? If not, why do you think that is? (Are there other assessments that you think you could utilize that would be better to use?) • Which assessments are used to determine readiness among students? • What other assessments are used with students in the BTG program? How are the results of these assessments used?
8. Technology Support/ Utilization	• Introduction/Ice-Breaker Question: Can you tell me your name and your role related to using technology to enhance the educational experience for students in the BTG program at [institution]? • What kinds of technology has the grant allowed [institution] to use in order to improve communication? (*This might be communication within courses, communication between other higher education institutions, or communication between the multiple campuses of an educational institution.*) • How has the grant (or, has the grant) improved technology at the institution as a whole? (Keep online and remote formats in mind) • What kinds of additional plans are in the works for enhanced educational opportunities through technology? • How is technology used to strengthen efforts to track student progress and success in the BTG program? • How has [institution] been able to make more data-driven decisions related to enhancing student progress and success as a result of technological advances made possible by the grant?

9. Students	• Introduction/Ice-Breaker Question: *Explain and remind them that they are in a grant-funded program.* Can you tell me your name and which academic program are you enrolled in?
	
	• Can you tell me a little about how/why you enrolled in the BTG program?
	
	• Do you recall going through any specific processes or assessments?
	  o If yes, how were these assessments conducted?
	  o Do you know how the assessment results were used?
	  o Do you think the results were useful in determining whether or not the program and course sequence that was right for you?
	  o Was career guidance provided to you during the enrollment process? If yes, how was it provided?
	
	What do you feel like the job market is for this program? How do you know?
	• What specific kinds of things (specific skills and competencies) are you hoping you will gain from being involved in the program?
	
	• Are there any of these that you hope to gain earlier in the program than others?
	
	• Which skills will be most useful in helping you get a job or start a career?
	
	• Are there any specific skills or competencies that you feel will be missing from the program in which you are participating? If so, what are these skills/competencies? What can [institution] do to ensure you gain these skills and competencies?
	
	• Is there anything you are facing now (or could face in the future) that could affect your ability to make progress through the program?
	
	• What can the program do to help ensure these things don't get in the way of your progress?
	
	• On a scale from 1-5 (with one being "not at all satisfied" and 5 being "very satisfied"), how would you rank your level of satisfaction with the program? Why?
	
	• What suggestions do you have for improving the program in the future (*this can be tools, processes, systems, etc.*)?

APPENDIX C. INDIVIDUAL COLLEGE MATRICES

BLUE RIDGE COMMUNITY AND TECHNICAL COLLEGE

Blue Ridge-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	Mechatronics was created just prior to the grant. The program addressed key components of Mechatronics but, according to instructors, lacked the cohesiveness needed to give students a proper understanding of how the disparate parts of Mechatronics connect.	Mechatronics instructors have worked to revise the curriculum, purchase more training equipment, and align the program with Siemens Certification Levels 1 (operator) and 2 (technician). Instructors report that Siemens programs allow for a greater understanding of the entire Mechatronics process – Siemens was chosen due to its name recognition and its use throughout industry in the area.	Mechatronics instructors are seeking to add instrumentation and robotics courses to the Mechatronics program. Instructors would like to continue expanding the program including a potential partnership with Proctor and Gamble. Instructors are concerned however that they lack the funds to expand beyond what has already been accomplished. Instructors are exploring opportunities to imbed more certifications in the Mechatronics program. Exploring a co-op partnership with Quad Graphics to employ mechatronics students upon graduation.
Energy	The EDET Lineman program had offered a one-year certificate and two-year degree. While the program was successful in providing necessary job skills, the large amount of general studies courses and lack of online scheduling options were seen by instructors as areas for improvement. None of the technical studies classes – non general education classes – within the EDET program had hybrid components.	The primary changes under the grant for the EDET Lineman program have been the curriculum remapping and the hybridization of courses. Curriculum has been restructured to significantly reduce the amount of general studies courses students are required to take, allowing students to make it through the program more quickly (e.g., a conflict resolution course is now being offered completely online). CDL training has been added to the EDET program to allow students to gain this certificate by participating in the program. Developed the applied writing course Writing for Technicians to make this general requirement more relevant to EDET students. Placed technical courses online or portions of these courses online in a hybrid format. Created an Energy program with First Energy that focuses on EUT – another form of Lineman training – in which Blue Ridge teaches the general education courses and First Energy teaches the technical courses onsite at the college.	Instructors plan to make changes to how students are oriented to the program to better prepare them for hands-on requirements of being a lineman. Will continue to modify the EDET curriculum to take out unnecessary courses, incorporate videos into the introductory EDET course, and imbed more certifications within the program.

Blue Ridge- Component	Baseline	Progress to Date	Future Goals
Information Technology	The IT program at Blue Ridge is well established and serves as a "center of excellence" for federal departments, meaning that their curriculum is approved for their need. The college had three main programs: general information technology, cybersecurity, and C-NET. These programs align to a number of nationally recognized certifications.	Prior to any other work within IT, an in-depth needs assessment was performed analyzing the region's IT needs; the survey overall confirmed that the college is meeting the needs of the community. Instructors have redesigned the general IT, Cybersecurity, and C-NET AAS programs. The redesign has allowed for the streamlining of courses within the program, the addition of courses within certain programs, the removal of non-IT focused electives, a new gateway course *(covered in gateway section),* and more. Additionally, a number of courses have been hybridized or put entirely online. Instructors have added a capstone course to the Cybersecurity and general IT programs that is similar to the C-NET capstone course that was in place prior to the grant. Instructors have added TestOut curriculum to the program which prepares students to take the Security+ certification exam.	Blue Ridge instructors are working with CISCO in an attempt to lessen the amount of required classes so that students can receive credit for practicum and internship opportunities. Will add to their Linux training and overall seek to imbed more certifications into the program instructors would like to review options to increase hands-on, skill based software and equipment for classroom delivery.
Construction	Blue Ridge has not had a Building Construction program in the past.	Blue Ridge has appointed a staff member to head up this project and has decided on a direction which it will carry out in the coming months.	Blue Ridge plans to create a series of seminars, based off of employer needs, leading to skill set certificates. The program will be based around project management within building construction. The college will continue to solicit guidance from the lead institution and plans to carry on with this initial concept.
Learning Strategies	Offered hybrid and online coursework for general studies courses but were more limited for hybrid or online offerings in the technical studies coursework.	Grant has focused on creating hybrid and online offerings for technical studies courses and also for general studies courses that are a part of these technical programs (e.g., Math 102). Hired a course designer specifically to put course material online. Added hybrid and online offerings in each of their three grant programs. Using the Quality Matters framework to guide the implementation of online course material.	Blue Ridge plans to continue implementing the Quality Matters framework and roll this out at the consortium level alongside professional development that accompanies the software.
Student Support Services	Career services program in which one staff member had been serving 5,000 students. Peer mentoring program included mentors attending a College 101 class and also engaging students.	Brought on a job placement coordinator through the grant to help with placement as well as post-employment tracking. Purchased a job board and integrated this into the website and are using social media and other avenues to drive people to the board. Hired a staff member to focus specifically on meeting the needs of veterans.	Planning to pilot a new vocational assessment initiative, switching from ONET to the World of Work Inventory (WOWI) which includes an interest inventory, personality test, and an aptitude assessment; the college's lead for student services is being trained on WOWI through the grant. This assessment should help guide students towards careers.

Blue Ridge-Component	Baseline	Progress to Date	Future Goals
		Brought on a staff member to coordinate and implement a peer coach program.	New BEACON coordinator will implement a peer coaches program in which coaches provide support to students, direct them on where to go, help identify the appropriate services for their needs, and overall provide support to students. Peer coaches will be hired for this as well. Seeking to coordinate with consortium wide BEACON training contact to come onsite at Blue Ridge to ensure that program is rolling out well. Planning to hire another student services counselor to focus on retention.
Developmental Education	Students needing developmental math courses were required to take two remedial math courses before entering a 100 level course. These three required courses were a target for change as students would drop out before completing these. English developmental education switched to a co-requisite model a few years ago. The program had a very limited scope as the score required to enter into the program was comparatively high, yet still low enough to require remedial work. Math bootcamps had been offered at the college for a number of years, and English bootcamps had taken place but were discontinued.	**Math**: Through the BTG and Complete College America grants, developmental math has been overhauled, with the two remedial math courses being blended into the 100 level courses, reducing the number of required developmental education courses from three to one. Hybridizing the technical math course required for BTG students. Changed a highly utilized EDET developmental math course from non-credit to credit. Placed portions of math bootcamp online to offer aid to more students. **English**: Lowered developmental English score requirements to allow more students into the co-requisite model course. Developed an applied technical writing course for EDET and Mechatronics. Restarted English bootcamp – SKILLS 101 – to provide a week of instruction to help students test out of developmental English course. **Math and English**: Continuing efforts of surveying program coordinators in the math and English departments to maintain close contact with the technical instructors to make adjustments to developmental curriculum as needed. **Other**: Modified a gateway course for IT to provide more information on the three IT programs offered by Blue Ridge.	Seeking to bring back the bootcamp format this summer and add a hybrid format as well. Working to revamp the applied technical writing course focusing on developmental education and computer skills and apply this to the electrical and mechatronics programs. Unsure to what extent it will pursue additional co-requisite courses due to limited numbers of students taking the six hour contextualized courses.
Assessments and Tracking	Traditionally has utilized the Accuplacer exam or ASSET to identify students for developmental education Utilized pre- and post-testing in technical courses to gauge knowledge. Students can translate work experience into coursework credits and framework existed between at least one other college	Continues to utilize the Accuplacer and ASSET tests.	Will explore the differences between ASSET and Accuplacer exams to see if either one provides better data. Plans to increase the level of rigor of the rubrics they use for evaluating mock interviews and student resumes. Will incorporate WOWI (mentioned above) to assess students' interests, personality, aptitude, and more.

Blue Ridge-Component	Baseline	Progress to Date	Future Goals
	for granting PLAs towards Mechatronics and Electricity.		
Student Recruitment	Conducted recruitment within their general marketing strategy; while occasionally specific programs were highlighted, marketing was performed on a general basis for the college as a whole.	Increased the amount of marketing material going out and hired a graphic designer specifically tasked with designing marketing pieces for BTG materials. College reports that having a graphic designer on-site has greatly reduced the time it takes to complete marketing pieces. Increased recruitment efforts through BTG has had the additional benefit of increasing communication and collaboration between different divisions at the school. Other BTG-specific marketing pieces include print advertisements in the paper, banner ads on the website highlighting particular programs, pop-up banners for attending events and job fairs, radio campaigns, open houses, and more. Launched additional efforts around recruitment utilizing social media. Hired a veteran's recruiter for the BTG grant and uses a special software, ARGOS, to track the veterans in the program. WIB partners are working on recruiting on Blue Ridge's behalf and have sent out approximately one thousand recruitment letters on college's behalf as well.	New outreach campaign will start in Summer 2015 with commercials, billboards, and social media in particular being utilized to advertise BTG programs to adult students. Seeking to ensure consistency across advertising. Will continue working with WIB to recruit students, particularly from the pool of dislocated workers. Exploring working with the Council for Adult and Experiential Learning (CAEL) to gauge if they are properly serving their target audience.
Industry Sector Partnership Strategies	Building upon an external engagement strategy that includes chairing local workforce development committees, conducting biannual business needs assessments, working with local chambers of commerce, and meeting regularly with local business and industry.	Developed a Workforce Engagement Team to allow staff to coordinate and communicate more about partnerships with the business sector. Additionally, under the grant, Blue Ridge has utilized at least one "A La Carte" dinners put on by the college's hospitality program to bring together employers in BTG target industries.	Seeking to grow networking events with employers including plans to host a leadership development conference for local employers, develop a student resume database, promote co-op programs, and more. For the IT sector, the college will reach out to more businesses one-on-one to build personal relationships with employers. College is implementing new software that will allow Blue Ridge to coordinate employer engagement across the college. Exploring a co-op partnership with Quad Graphics to employ mechatronics students upon graduation. A challenge is finding businesses to offer internships and other-on-the job training opportunities in the nearby area.

BRIDGEVALLEY COMMUNITY AND TECHNICAL COLLEGE

Bridge Valley-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	All of the programs besides Machine Tool Technology have been in place, at least in pilot or conceptual form. Many of the programs utilized industry feedback to create the programs.	**Mechanical Engineering Technology** – program was modified to a block schedule and industry, mostly Toyota, helped refine the program to fit their needs; SME certification and Associate's degree pathway. **Diesel Technology** – program was modified to a modularized, accelerated format; program has ASE certification and Associate's degree pathway. **Advanced Manufacturing Technology** – program had six courses modified for the grant with Associate's degree and NOCTI, Siemens Level I and II, OSCHA, and IFPS certifications offered. **Machine Tool Technology** – program was a completely new program with 20 courses added for an Associate's pathway; a pilot of this program has been run. **Industrial Piping Design and Technology** – program had four courses created through the grant and offers an Associate's degree pathway as well as SPED (Society of Piping Engineers and Designers) certifications and a CAS (Certificate of Applied Science); this program has been piloted and will have a full roll-out in Fall 2015. **Electrical Engineering Technology** – program modified four courses through the grant and offers an Associate's degree pathway as well as an SME certification and FANUC Robotics that will be rolled out in Fall 2016. **Mechanical Engineering Technology** – program has modified four courses through the grant and offers an Associate's degree pathway and SME certification. Internship and apprenticeship opportunities for all of these programs.	Exploring adding the National Automotive Technical Educational Foundation certified program. Modifications to class times may also occur (i.e., set class times rather than open lab format). In the process of completing the NIMS credentialing process for the Machine Tool Technology program and plans to have that complete in January 2016.
Energy	Advisory Committees in place in this sector; need for instrumentation was determined so meetings with chemical companies occurred to establish curriculum needs. ISA (International Society of Automation) provided curriculum feedback as well.	Developing the curriculum for this program and has been visiting other colleges and engaging employers for input. The program will be a Process Instrumentation Program to address local needs. Equipment for this program is also being purchased.	Anticipates curriculum approval and then program roll-out by August 2015.

Bridge Valley- Component	Baseline	Progress to Date	Future Goals
Information Technology	Some IT courses/programs and certifications were in place. Industry representatives assisted in creating these courses/programs.	**Information Technology** – program modified 12 courses and created one course through the grant. This program has an Associate's degree pathway and Cisco (CCENT and CCNA), CompTIA (A+, Server +, and Security +), TestOut Security Pro, SSCP, CAPM, and IBM certifications. Advisory committees have been developed and are focusing on curriculum. **Cyber Security –** program modified nine courses through the grant with the certifications mentioned above. **Computer Maintenance and Networking –**program modified six courses and created one course through the grant and includes many of the certifications listed above; these courses were also modified to an accelerated format.	Working to create a better distance learning tool for these programs. A testing center for the IT certifications will also be developed in the future. Working on partnerships with local industry to establish learn-and-earn internships.
Construction	Weatherization program existed but had low student enrollment due to lack of regional jobs.	Created 11 grant-funded courses for the **Building Design and Construction** Associate's degree program Advisory members were involved in modifying the curriculum and pilots of the program led to more of a focus on Construction Management in the Spring 2015 semester. Program will have Construction Specification Institute's Construction Documents Technology certification.	Increase student enrollment to ensure this program is sustainable beyond grant funds.
Learning Strategies	Purchased Mondopads and utilized the campus IT department to help instructors develop online courses.	Incorporated more online and hybrid formats into their programs, especially for IT and Advanced Manufacturing. For example, the Computer Maintenance and Networking program modified courses into an accelerated format. Mondopads are being used in courses and Media Bridge was purchased to support the Mondopads and make them work better. The IT program utilizes the online lab TestOut. Utilizes Simtronics for distillation simulation – virtual simulation software.	Plans to create a better distance education tool for the IT program. Exploring technology for delivering remote courses. Plans to create a testing center that will be used for IT certifications in the future. Plans to have two courses completely online in the fall, which will be used by the Advanced Manufacturing and Energy programs.
Student Support Services	Counseling was contracted outside of the school. Students did not have immediate services but had to be referred to the community.	Set up support services on-site. Peer coaches were brought on and focus on retention and recruitment for any student in the College (i.e., help students schedule classes, fill out of the FAFSA, navigate online courses, register and enroll at the College, and during orientation). There are also two veteran's peer coaches that focus on the veteran population and connects them with the college's Veteran's Club.	Plans to develop a crisis plan so counselors are ready to come to the college following a campus crisis.

Bridge Valley-Component	Baseline	Progress to Date	Future Goals
		Contracted with College Central Network that assists students in connecting with employers and vice versa (have connected 19 employers to the network that target technical jobs).	
Developmental Education	Began piloting different developmental education approaches including a learning community that integrated math, reading, and English with a science course – students did not like this model and completion rates were low for this model. Also piloted the Accelerated Learning Program approach for English and the math pathways approach for math. One campus piloted the emporium model for math but did not like it. The other campus piloted accelerated math with some success.	The developmental education model has been modified to a fast-track, accelerated model. Made changes to the placement scores for the developmental education co-requisite course approach by Fall 2014 (i.e., lowering the scores to account for the technical, non-traditional student population they are serving so students can more easily transition to college-level courses). Students who place very low are referred to Adult Education partners for preparation before taking college courses, via their choice of either an individualized bridge program or a more structured class. **English** – Students that test above a certain assessment level take 1 credit hour of writing support with college-level students; students that need more support take a 3 credit hour course and seminar (co-requisite Accelerated Learning Program approach). **Math** – Co-requisite approach with two different tracks. 2 tracks: 1 semester Bridge to Algebra course and 1 semester of algebra if below assessment level or college-level math with 1 credit hour math seminar. The non-algebra track offers four math options: Applied Technical Math, Business Math, Mathematical Reasoning, and Math for Health Care.	**English** – Changed schedule for the 3 credit hour support course and college-level English to an accelerated 8 week support/8 week college-level approach. **Math** – Added 1 credit hour to Bridge to Algebra and changed meeting schedule to 4 days per week. Created a Technical Algebra course. Added 1 additional credit hour to each of the co-requisite support classes for the math courses in the non-algebra track.
Assessments and Tracking	Utilized ACCUPLACER for an entrance assessment. When BridgeValley was still Bridgemont and Kanawha Valley colleges, DegreeWorks was used as a degree planning software. The merger led BridgeValley to lose their DegreeWorks software.	ACCUPLACER is still being used as an entrance assessment. Working to get DegreeWorks software back.	Plans to have a strategic approach in place for data tracking and reporting. Also plans to implement assessments for the individual programs.
Student Recruitment	Went to Career Fairs and community events, visited high schools, etc. Less structured and coordinated efforts; more general outreach strategies.	Utilizing a number of avenues for outreach including: career fairs, community events, brochures, flyers, posters, television broadcasts and commercials, radio commercials, webpage improvements, monthly press releases, social media outreach, and services targeting veterans Materials distributed to WIBs.	Has hired a Technical Outreach and Retention specialist to focus recruitment efforts on targeted populations that will start in the middle of June 2015.

Bridge Valley-Component	Baseline	Progress to Date	Future Goals
Industry Sector Partnership Strategies	Advisory committees in place. These employers were looking to recruit employees through their partnership. Partnership with the WIB was existent prior to the grant but needed improvement – one of the merging institutions was placed on probation by the WIB; did not send program materials for WIB approval. There was no veteran-focused employee prior to the grant.	Numerous employer partners since grant implementation that have recruited employees and helped develop curriculum. Attempting to strengthen the partnership with the WIB but is experiencing challenges in connecting with the WIB. The College hired someone to work specifically with the WIBs to strengthen their relationship; marketing materials are being developed with the WIB. Staff specifically for veterans were hired through the grant and allow the College to track these students.	Planning a sector strategies meeting to convene local employers in June 2015. A stronger partnership with the WIB is a priority. Plans to improve their veteran data tracking so they can understand the dispersion of benefits, etc.

EASTERN WEST VIRGINIA COMMUNITY AND TECHNICAL COLLEGE

Eastern-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	Wind Energy and Electromechanical programs were established prior to the BTG grant. Wind Energy program was created under a previous grant and did not require any new equipment to be purchased through the BTG grant. *Note: Programs focus on industrial maintenance and due to their similarity, are viewed as Advanced Manufacturing and Energy programs at Eastern.*	Wind Energy program curriculum has been updated program to better align the curriculum with NCCER. Decision to move forward with NCCER was carefully thought out and only made after exploring PMMI, NIMS, and multiple other certifications.	Staff at the college will continue to engage in the consortium-wide discussion around certifications, and will also continue to modify curriculum to align their Wind Energy program to NCCER.
Energy	***Note***: *the Advanced Manufacturing and Energy sectors overlap for Eastern.*		
Information Technology	Building upon a relatively new independent IT program. The college had previously worked with Southern to provide IT courses to students, and began offering courses independently in the fall of 2011. While courses were in place, no industry certifications were embedded in the program. Did not have a full time faculty member in the IT department prior to August 2013.	Primary IT faculty member aligned all Information Technology courses with MTA Certifications to ensure students graduate with industry recognized certifications. The courses teach to the exams while also adding a level of instructor deems necessary to prepare students for even more advanced certifications. Pursuing articulation agreements to create 2+2 agreements with Potomac State College and Franklin College. Primary faculty member has been reaching out to businesses to better understand trainings outside of IT that will help students get jobs upon graduating – e.g., HIPPA training for IT graduates who will be going into the healthcare industry.	Seeking to align courses with CompTIA certification tests as primary faculty member sees these as more rigorous and more widely accepted than the MTA certificates. Starting in Fall 2015, students will be charged a course fee that will pay for the certification exam fee to ensure that students take the exam. In order to make students more marketable, IT students will be required to create portfolios documenting what they have learned and the certifications they have completed. Staff are creating new labs for Fall 2015 and are seeking to offer a combination of in-class learning, lab work, and simulations for Spring 2016. Seeking to create connections with high schools as well that would allow students to graduate high school with a year of the program completed. Plan to use equipment funding in IT (e.g., swipe technology recommended by hospitals in area).
Learning Strategies	Online and hybrid program possibilities have historically been limited due to the poor internet coverage in the college's service area. Additionally the college is under Higher Learning Commission review, and is not able to create new online programs until after 2018.	Provides opportunities for flexibility with student schedules by providing IT classes later in the afternoon for working professionals and providing the option of doing these in a hybrid format by allowing students to complete certain classes online. Purchased laptops and Mondopads to allow students access to technology and to create more interactive classrooms for professors and students.	Building upon a new IT lab that will be added to the campus, staff are exploring offering MTA testing on-site. Will be offering a hybrid workforce training for Parolees that embed the CPT certification.

Eastern-Component	Baseline	Progress to Date	Future Goals
Student Services	Student support was primarily delivered by tutors who focused on specific subject areas that could assist on coursework but generally did not work through other, more general issues such as email or course scheduling assistance.	Eastern Advocates – In this new program, full-time staff serve as advocates and have a list of students who they check in with throughout the semester. **Advocates** ensure that students do not feel alone in attending school and have a friendly face to reach out to when they need help. Staff have incorporated these responsibilities into their regular work requirements. **Peer Coaches** – Added two peer coaches through the grant who assist students with needs including accessing email, finding a classroom, proctoring tests, tutoring, and more. Training is provided to coaches and if specific tutoring needs are beyond what the coach can provide, they will refer to other staff. **Tutor Tracking System** – Improving the tracking system for tutoring by using Google Docs to update when students have been served, and by adding a feature where instructors can refer students to tutors and then check on Google Docs to see if the student has gone for help. With the large adjunct population, it can be hard to coordinate these efforts.	Will roll out Eastern Advocates program to entire college, with all full-time staff serving as advocates. Eastern seeks to incorporate career services into the College 101 class. Staff seek to use the data they have collected from the tutoring program to drive future decisions on scheduling and staffing.
Developmental Education	Previously utilized a modularized developmental education for math that reportedly garnered poor results. Accelerated Learning Program (ALP) co-requisite model had been utilized for English for 2 years prior to the beginning of the grant. English and math instructors handled the developmental education courses on their own rather than with any outside coordination or assistance.	Developmental education requirements for math have been streamlined by paring three or four math courses down to one course. **Math and English**: Hired a full-time developmental education employee who has helped instructors create material for developmental education curriculum. Recently begun a partnership with Hawkes Learning to facilitate the co-requisite model – Hawkes Learning provides textbooks, software, and curriculum focusing on developmental education; customizes these to a school's needs; provides training to instructors; and provides data feedback on student progress. A challenge that has arisen is that the college does not plan to implement bridge courses as limited size has prohibited these classes from functioning well in the past.	The Hawkes Learning system will be implemented this fall. Eastern is seeking to implement two co-requisite English 101 courses. Over the summer, Eastern is seeking to offer an accelerated English course that will allow students, upon passage, to transition directly into English 101.

Eastern-Component	Baseline	Progress to Date	Future Goals
Assessments and Tracking	Utilized Accuplacer test for incoming students. Regarding PLAs, the college has traditionally provided credit for prior learning via tests rather than the PLA method. However, the portfolio method has been and is still offered to anyone who is interested.	Utilizing assessment data and finding it useful for making decisions and will continue to utilize their current assessments.	Eastern's ITL plans to pursue additional professional development around PLAs including guidance from the state.
Student Recruitment	Building on a recruitment strategy that included many traditional forms of prospective student engagement including hosting events, radio advertisements, billboards, mailings, social media platforms, and workforce trainings. Utilized resource of extensive demographic research. Eastern's ITL reports college's workforce training as the key asset to their marketing platform as their ability to offer workforce training sets them apart from other schools in the region.	Collaborated with WIB to send a mailer to all 26,000 households in Eastern's service area, the first time the college has been able to do so. Innovatively recruiting students by targeting the prison and parolee population - targeting three groups: individuals incarcerated in prisons, individuals incarcerated in regional jails, and individuals released but on parole. Eastern is seeking to provide academic training in the prisons, provide short term courses in the regional jails, and bring parolees and businesses together through the new Partnerships to Possibilities Program. The college will offer academic and workforce certifications for parolees as well. In order to better recruit veterans, the college has become an "8 keys to Veteran's Success" member. Met with Potomac State College and West Virginia University to begin conversation towards developing guaranteed admission agreements with 4-year transfer institutions.	Seeks to grow the number of business partners from six to eight or nine in their Partnerships to Possibilities program. Will continue to reach out to the new National Guard employment center that has been created nearby to recruit new students. Will pursue a potential opportunity to build upon prison program if a former Navy base in Sugar Grove is converted into a prison – the decision on this will be made in the near future. Will continue to work with veterans and strengthen ties with community. Seeking to implement and advertise guaranteed admission agreements with Potomac State and WVU – will strive to reach out to other 4-year institutions.
Industry Sector Partnership Strategies	Engaged the WIB for years and has a strong relationship with the WIB staff. Instructors and staff at Eastern serve to connect the college and thus students to employers.	Using grant funds to pay an employee from the local Workforce Investment Board (WIB) to come on campus twice a week to provide career support services – provide career interest inventories, discuss financial aid and possibilities for aid through WIA, help with resume writing, aid in the job search process, and more - relationship was facilitated through the college President and the Executive Director of the WIB. Coordinated with the WIB to do a mass mailing to anyone who has opened a new UI claim with workforce and to TAA-eligible individuals dating back to 2005. Instructors have continued to make connections with employers to understand their needs and provide training opportunities to businesses while trying to pursue opportunities for internships and job placements for students.	Will continue to pursue partnerships with industry, focusing on where internship and job placement opportunities can be obtained. Working to increase student traffic to the career services opportunities by better advertising services.

MOUNTWEST COMMUNITY AND TECHNICAL COLLEGE

Mountwest-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	Manufacturing Engineering program (curriculum and courses were used for the BTG grant). Held focus group to determine what students would like in an Advanced Manufacturing program and found that Machining was of significant interest of the students.	Developed **Engineering Design Technology** (Associate in Applied Science degree) program curriculum based on previous program. One instructor was hired to teach this program. Students will learn 2D and 3D, CAD, 3D modeling, rendering, and animation for art, films, and television, product development, engineering process and control, include reverse engineering and prototype development, design processes, organizational design, and business development. Certifications include: AutoCAD and Inventor.	Program will officially begin in Fall 2015. Plans to offer evening courses to accommodate the non-traditional students and plans to embed industry-relevant certifications into the program.
Information Technology	Certifications and classes in the IT sector but these were modified to fit student and employer needs. Met with an Advisory Board for years and continually received feedback on course content.	The **fast-track IT Networking Systems** program was piloted but is beginning to enroll following a 15-month cohort model (the pilot, which started with 6 students, ended with 2 students enrolled). Students in the program will take a full course load over four semesters: <u>Semester 1</u> – Foundation material and A+ certification (CompTIA) <u>Semester 2</u> – CCNA certification (Cisco) <u>Semester 3</u> – Microsoft certification (Microsoft Academy) <u>Semester 4</u> – Internship and employment Students can earn one-year certifications for CCNA and MCSE and an Associate in Applied Science in Information Technology Students for the pilot program were selected through a selection committee process. Have identified around 10 students for next semester.	Plans to have two rotating instructors that will ease the strain of the fast-track program on the instructors.
Learning Strategies	Testing center in place when they were part of Marshall University but had to give that up when they split from the college.	The Mondopads have been used for presentations and communication within the institution. Online components have been integrated into Microsoft courses and for the fast-track IT program. TestOut has been used in the IT program as a virtual lab.	Submitted application for testing center and plans to launch this center that will be used for assessments and certifications in mid-June. Mountwest also plans to put Cisco courses online. Reassessment of program needs indicate that pending available funds and grant modification approval, the Institution Technology Coordinator position should be expanded from to full-time due to assessment, tracking, and technical education duties

Mountwest-Component	Baseline	Progress to Date	Future Goals
Student Support Services	Received the BEACON grant (TAACCCT Round 1) and developed the model that the BTG colleges are now following for student services. Mountwest hired 6 counselors and 9 peer coaches – the BTG grant has allowed for expansions to this model.	Mountwest has hired 2 peer coaches specifically for BTG students that provide support in the classroom. Students are required to see the coaches at least 3 times per semester. Utilizes multiple tracking systems (EMAS: an enrollment management system and Starfish: an alert system) to track student contact with peer coaches. A part-time employee was also hired to help contact employers for potential partnerships.	Plans to reallocate funds to increase peer coach hours by 50% allowing an increase from two to three peer coaches. (I.e., one serving the Mechatronic program and two serving the Information Technology program).
Developmental Education	20 percent success rate in their structure of the developmental education courses under the modularized format. Reading, writing, and math courses existed but were not tied to financial aid as they were voluntary.	Now at 70 percent success rate in their modified structure of the developmental education courses. Implemented boot camps for adult learners in English, math, and reading to expedite the process of moving to a 100-level course; these camps are for 1 week/15 hours during the summer so students can enter 100-level courses immediately at the start of the fall semester. Math for IT Professionals was also developed as a technical math course that allows students to take the developmental education and college-level courses in one semester. A new reading and writing course was piloted last semester and stretch courses for Algebra were also launched.	Plans to modify the placement assessments to ensure that students are properly placed in courses. Also plans to re-evaluate the boot camps to decide if they should be customized specifically for fast-track students or offered to all incoming students. Mountwest is hiring a bootcamp instructor for summer.
Assessments and Tracking	ACCUPLACER has been used as the initial placement assessment for all students that can lead to boot camps if students are below a certain level.	Mountwest still uses ACCUPLACER but has been setting up a testing center for assessment and certification testing.	Plans to use Elevate – a product of Ellucian – that will track, input, and store data.
Student Recruitment	Single recruiter for the entire institution.	Hired an Information Specialist that will serve as an industry liaison and recruit for BTG programs. Also hired the Bulldog Agency to create marketing materials for the BTG programs. The following avenues for outreach will be used: brochures, emails, handouts, Youtube videos, television ads, news releases, media buys (cable and WSAZ), social media (Facebook ads and weekly posts), CareerFocus magazine articles, college websites, and posters for local businesses.	Concerned about identifying, selecting, and recruiting students from a limited population so they will continue to research unique outreach strategies.

Mountwest-Component	Baseline	Progress to Date	Future Goals
Industry Sector Partnership Strategies	Established connections with employers through alumni and previous attachment to Marshall University. There have been longstanding relationships with employers that participate in Advisory Board meetings where employers provide direct feedback on new curricula.	Advisory Board Meetings are held biannually with employer input directly integrated into Mountwest curriculum. Continues to expand their employer relationships in the region. Hired an Information Specialist to serve as the single point of contact for employers.	Plans to continually ensure that they are current in terms of the skills they are targeting in courses.

NEW RIVER COMMUNITY AND TECHNICAL COLLEGE

New River-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	Previous Welding program structure included multiple programs with low enrollment in many courses due to lack of student interest. Industrial Technology program was previously called "Mechatronics." While a valid term, New River CTC felt the term was not as clear as the college desired.	**Welding program**: Multiple courses have been combined and condensed to increase efficiency. Students can receive up to five national AWS certifications; New River is the only AWS certified facility in the state. New Welding courses include: gas welding, blueprint reading, pipe welding, and advanced courses that lead to advanced skillset certificates in General Welding and Physical Plant Welding, certificate of Applied Science in Welding Technology and Welding Technology Pipe Welding, and Associate of Applied Science in Welding Technology Structural Welding and Welding Technology Pipe Welding. College will embed use of Mondopads in Welding classrooms in Fall 2015. **Industrial Technology program** went through curriculum committee; have embedded math component into the core classes; have established employer partners for program. **Other**: Welding lab in Greenbrier and Advanced Technology Center in Ghent.	College plans to establish MOUs with employers so students will complete certifications before leaving for employment. Plans to modularize components of the Industrial Technology program. Exploring the addition of an industry certification to the Industrial Technology program.
Energy	Line Service program (aka: Electric Distribution Engineering Technology) developed with employer (AEP) so students could be trained and hired by company – a 900-hour non-academic, workforce program was developed and has since been modified to an academic program.	Math has been embedded into the **Line Service program.** Certificates obtained in program include: CDL, 900-hour Line Service Mechanic, Completion certificate, First Aid, CPR, and OSCHA 10 certificates.	The program is in the process of being shifted to a modularized format, which allows New River to embed different employer needs into the program. Plans to resubmit a curriculum proposal that will change the program back to the original design, to be implemented Fall 2016 (workforce-focused).
Information Technology	Modified the IT program that already existed at the institution.	The existing IT program was modified by integrating computer certification exams into four courses (students would obtain certifications every semester while in the program). **IT grant program** certificates and degrees include: Computer Support Specialist Advanced Skillset; IT Foundations Certificate of Applied Science; IT Associate of Science; CompTIA A+; CompTIA Network+; and CompTIA Server+. Changed the program from an Associate of Applied Science degree program to an Associate of Science degree program, for a more seamless transfer to four-year institutions and based on employer needs. Courses focus on a number of topics including: computer science, microcomputer maintenance and repair, operating systems, networking, and	Plans to expand the IT Advisory Board. The testing center will be finalized for CompTIA certifications exams.

New River- Component	Baseline	Progress to Date	Future Goals
		managing server network environments (capstone course). "New River Quality Matters" is being integrated to certify courses.	
Learning Strategies	New River did not have many online, hybrid, remote, or simulated components integrated into their programs, especially the technical programs.	Integrated virtual lab software into classes. Two Mondopads were purchased through the grant. Mondopads was used for a blueprinting course in Fall 2014.	Planning to incorporate hybrid formatting into program courses.
Student Support Services	Had one career counselor for all four New River campuses. Had five educational counselors (serve all students through advising, registration, and other general needs)	Hired 5 peer coaches that focus on BTG students, 2 part-time career counselors – these individuals are spread across the campuses. Peer coaches provide one-on-one guidance to BTG students and help students pass their certification exams in the Line Service and IT programs. Addition of career counselors led to nearly 65% increase in number of mock interviews and resume reviews during Spring 2015 semester. A tracking system has been implemented to document the contacts that student services makes with students (5,000 non-BTG and BTG students have been tracked to date). The BEACON model was incorporated into the student services model but was changed to reflect the institution's capacity.	Plans to hire another peer coach who can focus on the Line Service and Welding programs as these students need the most guidance. Plans to find new ways of making students aware of the opportunities and resources that student services offers.
Developmental Education	Modifying developmental education was a priority with the TAACCCT Round 2 grant that was awarded to New River. **Math** – 3 courses total; students would need to take at least 2 courses to transition out of developmental education. **English** – 2 courses total; tried to adopt accelerated format by integrating reading and writing components; students needed 2 courses to transition out of developmental education.	**Math** – created a list of competencies to include in the courses and created 3 pathways a student could take for each course (i.e., students would only need to take one course but would need to gain more competencies); students need to take a total of 7 hours but can finish in 1 semester – this is currently in the piloting process. New River offered initial modified math developmental courses in Spring 2015. **English** – customizing competencies and adopting contextualization for technical programs from the main campus.	By Fall 2015, the English contextualized course will be launch and will include workshops. These courses will be called Foundations courses rather than developmental education courses and would utilize web-based components from My Foundations Lab to create a modularized format that students could test out of.
Assessments and Tracking	ACCUPLACER used as placement test – students falling below a certain level would be referred to ABE, students falling at a certain level would be placed in developmental education and students falling above a certain level would be placed in the college-level course.	BTG programs are beginning to implement their own internal assessments to ensure that students understand the amount of work expected – Line Service is one of those programs and the pre-assessment incorporates physical and mental components (i.e., carry 5 gallon buckets of sand up and down the stairs in 2 minutes; tie 2 basic knots).	Plans to continually revise the internal department assessments that exist and encourage the other BTG programs to implement internal assessments to ensure that the students coming into the programs are prepared and capable of succeeding in the programs.

New River-Component	Baseline	Progress to Date	Future Goals
Student Recruitment	Two recruiters conducted outreach for the college as a whole but did not target any specific programs.	Added one of the existing recruiters to the BTG committee who will recruit student for the BTG programs. The college is utilizing multiple avenues for outreach including an entry in the CareerFocus magazine, social networking sites, newspapers, radio, publications, attending statewide and regional recruitment events, hosting lunch and learn sessions with workforce personnel, campus events, blogs, student emails, facility tours, monthly columns, marketing materials (i.e., brochures, factsheets, College webpages) and alumni testimonials.	Examining other avenues of outreach that may be more relevant for non-traditional students. Will also be researching the Advanced Technology facility competition in the area to determine what they should target in their marketing strategies.
Industry Sector Partnership Strategies	Welding Advisory Board but it was not very active. Region1 WIB reached out to New River to establish partnership.	Region 1 has been sending student referrals (at least 20 to date) and hosts career fairs for New River. Meeting with community members based on the different sectors to discuss New River's resources and how partnerships can be formed. Corporate sponsors have been helping New River develop curriculum. Advisory Boards are becoming more active, especially for the Line Service and Welding programs, with partnerships beginning to be set up for apprenticeships and job placement. Program Coordinator for BTG that is located at the WIB to help with recruitment and employer partnerships.	Plans to identify industry sectors they want to focus on and create a better working group with employers. The Region1 WIB representative would like to increase student referrals and be more involved in the process of getting students to New River.

Pierpont Community and Technical College

Pierpont-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	Well established Mechatronics program of at least four years, which, according to instructors, operated in its own sphere separate from the Energy programs at the college.	Instructors have worked to offer students more flexibility by aligning the Mechatronics program with Energy programs at the college. The Mechatronics program has been renamed to **Advanced Manufacturing** and is now a pathway within the **Applied Process Technology** AAS degree. Curriculum within the Advanced Manufacturing program has been restructured alongside two energy pathways – **Energy Systems Operation** and **Process Technology Instrumentation** – (also in the AAS degree) to allow students to take similar courses in their first year that will apply towards any of the three pathways. Example of flexibility includes students within the Applied Process Technology program having the option of taking courses in other pathways during fall and spring semesters, giving them greater flexibility with their qualifications upon graduation. A summer internship requirement for the Applied Process Technology has been added between the first and second program year to help students determine their pathway.	The Applied Process Technology AAS has been approved by the state and will begin in the Fall of 2015. Instructors are exploring opportunities to place some technical courses online within this program to accompany the online industrial safety course. Seeking to secure additional internship sites for students.

Pierpont-Component	Baseline	Progress to Date	Future Goals
Energy	Prior to the grant, Pierpont had well established Petroleum Technology, Power Plant Technology and Lineman programs. While the Power Plant and Lineman programs shared many common courses, the Petroleum Technology Program was a stand-alone program. *Note: Much of Applied Process Technology Degree is addressed in the Advanced Manufacturing Section.*	In addition to the **Petroleum Technology** and **Power Plant Technology**, and Lineman Programs that were already in place, an entirely new **Applied Process Technology** Program AAS was developed. Within this new degree, the previous Power Plant Technology Program and the previous Mechatronics AAS Programs became pathways within the AAS and a new **Instrumentation** pathway was created within the Applied Process Technology Associates Degree. The new I&C pathway was created due to industry demand for knowledge of controls and instrumentation, as well as the burgeoning midstream gas industry. The previous Power Plant Technology Program was also expanded within the new Applied Process Technology AAS to include mid-stream petroleum systems operations. When the new Applied Process Technology Degree is fully implemented in fall 2015, the Mechatronics and Power Plant AAS degrees will no longer exist. Grant funds have been used for Petroleum Technology equipment and simulators including a simulator for well control that will give students hands-on experience and can help them seek the associated certification through Wild Well. Portions of the **Petroleum Technology Program** align to select IADC certifications. The **Advanced Manufacturing** track within the Applied Process Technology AAS is seeking to align to select PMMI certifications. The **Energy Operations** track within the Applied Process Technology AAS has been unable to identify any national certifications that employers consistently recognize.	The Applied Process Technology AAS has been approved by the state and will begin in the Fall of 2015. Instructors will perform an in-depth curriculum review for the Lineman program to ensure it is meeting industry needs.
Information Technology	Building upon an existing Information Technology program which focuses on programming and Cybersecurity.	**Information Technology**: Instructors have received Quality Matters training through the grant and are currently exploring a possible partnership with WVUP's Cybersecurity program. Initial grant progress was hampered by resignation of sector lead, but instructors are beginning to connect with grant initiatives and other institutions.	IT instructors will be meeting with the IT consortium to explore how to move forward with programming in alignment with the grant. Staff are exploring Blackboard tools to invest in and are seeking to obtain Quality Matters certifications for all courses. Exploring partnership opportunities with other BTG institutions, specifically around Cybersecurity with WVUP.

Pierpont-Component	Baseline	Progress to Date	Future Goals
Learning Strategies	Within Pierpont's BTG programs, most courses were delivered in a face-to-face lecture format; staff report that many of these courses needed to be done this way in order to incorporate hands-on learning components.	Pierpont has offered training to new instructors on how to put courses online and continues to help all staff members with online course needs including helping the Energy sector lead put material online. Brought on a staff member to focus specifically on e-learning opportunities which has improved Pierpont's online capabilities.	Staff are looking into putting the OSCHA 10 certification course online. Staff are seeking to utilize simulation products, explore a virtual reality welding system, and utilize a distance learning center currently under construction from which instructors will teach remotely. Researching programs at other institutions to find opportunities to put courses online, particularly for subject areas such as AC and DC fundamentals, hydraulics, pneumatics, and other basic skills that run across multiple programs. Exploring a partnership with Tata International as an online learning solution. Collaborating with Coastal Community College to gain lessons from their completely online Midstream program.
Student Support Services	Shared student support services with Fairmont State; operated as a high-tech, low touch provider in which students had little interaction with staff and instead were directed towards computers.	Career services was created through the grant in November 2013 and transitioned to a high-touch, low-tech provider model in which students have more direct interaction with counselors offering mock interviews, job searching skills, a job board through NACE simplicity, and job fairs. Career services connects with students via classroom visits and social media, with some instructors requiring students to set up a mock interview or resume review meeting. Due to large and spread out student body, the college is not pursuing a full-fledged BEACON model. Utilizing grant funds to pay professional, master's level tutors and utilize 16 tutors who are current students, some of which have been directly added through grant funds. Tutoring services function seven days a week with extended hours to accommodate non-traditional learners. Grant staff reports that tutors have been particularly helpful to students who never thought they would go to college and now need help in their courses.	Seeking to hire more staff for the career services department Experimenting with a video-conferencing system to provide distance counseling. Utilizing data gathered from recent tutoring schedules to optimize tutoring schedules based on current data of when students seek tutoring services. Working to improve tutor training, seeking to hire more tutors for IT, and continually seeking tutors for math and English.

Pierpont-Component	Baseline	Progress to Date	Future Goals
Developmental Education	In the past three years, have changed developmental education for math and English twice, first from a three-introductory courses system for to a modularized system, and then – due to poor results and a second state mandate to a co-requisite model.	**Math and English**: Continuing to track the results of the pre-grant transition to co-requisite model. Embedding English requirements into gateway courses. Pierpont is waiting to see results of the co-requisite model that preceded the grant before making major changes.	Seeking to blend additional English requirements into gateway courses. Developing two summer bridge courses to help students score higher on the placement exam – one course will be one week math intensive and the other will combine math, English, and an "Introduction to Higher Education" course. Will apply lessons learned from tracking and assessment of developmental education students including potentially changing the threshold of scores for placement in co-requisite courses.
Assessments and Tracking	College has traditionally utilized COMPASS testing for assessment and placement, and also accepted SAT or ACT scores. College has always made a direct connection between assessment and advising with students being required to go to the advising center to view results.	Assessment has continued as it did prior to the grant.	Pierpont will continue to utilize assessment tools as a way to gauge student entry into developmental education courses. Course assessments will be developed for new Applied Process Technology AAS. Provost is developing a policy regarding PLAs regarding what will or will not be accepted, financial aid, and other PLA relevant topics.
Student Recruitment	Building upon general recruitment strategy of partnering with local media outlets to advertise the college as a whole.	Marketing for the grant has targeted unemployed, underemployed, recently laid-off, and veterans. Building upon partnerships with local media, newspapers, radio, and editorial staff to make sure that BTG programs specifically are advertised. Utilized funds to advertise in the three largest local newspapers and two journals. Hired a staff member to recruit specifically for TAACCCT programs; employee will focus on veterans as well in her recruitment role. Pierpont has hired a staff member that is shared with Northern who is responsible for recruiting for the Petroleum Technology program at both colleges.	Seeking to expand social media usage and have tasked a recent hire with developing a communication plan for BTG programs that outlines how students will be engaged from first contact to enrollment. Continue to respond to business closures and layoffs with targeted marketing pieces. Seeking to implement recommendations from the CLARUS Corporation's analysis of the college's marketing strategy.
Industry Sector Partnership Strategies	Pierpont reports a strong connection with the WIB due to the performance of the WIB director. Pierpont has built relationships with local industry over the years through the efforts of instructors and college administration as well as convening advisory councils.	Meeting with business and industry and advisory councils. Worked out initial difficulties in placing materials at career centers and can now have materials advertising the program at the Career Centers. Constant contact with businesses has led to new career pathway related to instrumentation and has allowed for employer feedback on new curriculum. Staff report that new partnerships, such as with Southwest Energy, would not have been possible without the grant and the attention and new students it has garnered.	Continue building relationships with industry and pursue specific partnerships with businesses akin to the one with First Energy, specifically with Southwest Energy. Continue working directly with veteran partners. Further utilize WIB help by explaining specific programs to WIB director and providing marketing additional marketing materials to WIB.

SOUTHERN WEST VIRGINIA COMMUNITY AND TECHNICAL COLLEGE

Southern-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	Looked at existing courses and brought in employers and recommendations from the consortium to develop curriculum.	**Mechatronics** (Associate's degree) newly created program has four focus areas pulled from state-identified needs; equipment purchased through grant was enough for one campus. Enrollment began in January 2015. New instructor, who will be brought from another position in the College, is on board and will be teaching in the Mechatronics program. **Welding** program (Associate's degree) newly created program has four focus areas for different types of welding with certifications attached to each course. Capstone courses were created for both programs to be used as a final assessment. **Industrial Technology** certificate program developed with Mechatronics and Welding certificate options.	Pipe welding skillset will be added into the Welding program once approved by the College's Board to reflect regional need. Block scheduling will be implemented for Mechatronics to allow students to complete the certificate in six months.
Energy	***Note***: *the Advanced Manufacturing and Energy sectors overlap for Southern WV CTC (i.e., Advanced Manufacturing and Energy programs begin with same courses)*		
Information Technology	IT programs were offered with six industry-standard certifications.	**IT program** allows students to obtain 8 industry-standard certifications (2 certifications added through the BTG grant) that also allows students to test out of courses. There is also a capstone course component for students. Utilizing the resource TestOut for online certification testing within the program. Cost of 6 certifications built into IT courses through TestOut. Microsoft IT academy has 2 certifications obtainable through low-cost solutions for students.	Plans to offer more courses online in the future by utilizing resources Microsoft has released for free and will incorporate more lab simulations in courses.
Construction	No Construction program in place.	Southern is looking into the Construction Management program (i.e., potential partnerships, equipment needed, curriculum, etc.).	If Southern moves forward with this program, development and implementation of the Construction program is a goal.

Southern-Component	Baseline	Progress to Date	Future Goals
Learning Strategies	Adopted learning management system through Blackboard in which hybrid and online courses are delivered.	Utilizing TestOut as a virtual lab in the IT program. Using online components to save money on equipment and reduce certification costs to students. Stackable credentials (certificates and degrees) with different levels for different programs. This allows students to move through the certificates and degrees without loss of credit or duplicating skills that they have already acquired.	Plans to look into simulations for the IT, Energy, and Manufacturing programs.
Student Support Services	Four counselors on each of the four campuses that had many responsibilities other than counseling. Advising assignments were given alphabetically rather than by department.	Hired 5 peer coaches to split between the Logan and Williamson campuses (the bulk of BTG students are at these campuses). Peer coaches are beginning to interact with instructors and are being used for recruitment. Added one additional educational counselor provides academic advising and counseling (i.e., identifies resources, helps students register for classes, etc.). Peer coaches recruit students, talk with students, and document their interactions (students are required to meet with the peer coaches at least 3 times per semester).	Peer coach recruitment is anticipated to increase overall enrollment. Continuing search for another counseling candidate through the grant. Will bring one peer coach position to full-time who will take a leadership role in training incoming peer coaches.
Developmental Education	10 percent of students earned a college credit in mathematics within two years of completing the developmental education cycle – it took 3 semesters to complete – and students could not begin college-level courses until they finished the developmental education courses.	Transitioned math developmental education into a co-curricular model and had a 29-50 percent success rate (depending on math course), compared to the previous 10 percent rate. Pilots have been completed in the English condensed pre-requisite course (combined reading and writing) but this model may be changed due to student need. Offers gateway courses with certifications in the Information Technology program as well as bridge courses for Internet basics in this program. Every BTG program has identified a gateway, bridge, and capstone course. Technical math will be taught from Mechatronics instructor.	Plans to implement the developmental and college-level English and math co-requisite model in Fall 2015. Success will be measured by writing prompts for English at the beginning and end of the course and exams for math. Will be looking at technical math and may modify for different programs.
Assessments and Tracking	ACCUPLACER has been used as a course placement assessment. There was no unified system for PLAs but had policies and procedures for granting credit based on prior experiences.	Working to develop an inclusive College assessment process. Each program has its own assessments internally and are reviewed formally with the institution's Council. There are also general education assessments to determine what attracted students to attend Southern.	Plans to continually revise their assessments in regards to the levels that place students in developmental education.
Student Recr	Targeted recruitment plan was not in place because of limited number of	Utilizing the following outreach avenues: news releases, social media (Twitter, Facebook, Youtube, ad buys), radio,	Plans to revise the outreach plan to specifically target BTG students.

Southern- Component	Baseline	Progress to Date	Future Goals
	students in target populations in the region. Recruitment efforts were disjointed and not well-coordinated.	newspapers, television, College webpages, Resource Portal materials, sponsorships of community, employer Quicksheets, facility tours, Workforce WV, showcases for programs, and alumni testimonials.	
Industry Sector Partnership Strategies	Program Advisory Committees for the technical programs have been in place but getting involvement from employers has been a challenge.	Because of grant funding, Southern has been able to establish Advisory Boards and focus efforts towards technical programs. Apprenticeship agreements are in place with local employers and agreements to use company facilities for course labs. Employers have also assisted in developing Mechatronics curriculum. All institution departments have been brought together to create an employer engagement team; each department has at least one contact person. A Technical Coordinator was hired to visit employers and establish relationships.	Southern would like to expand their partnerships with employers in the region and improve engagement strategies.

West Virginia Northern Community College

Northern-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	Mechatronics program was initially created out of discussions regarding statewide and regional needs in Fall 2011. Previous grants and money from the state were utilized to purchase the equipment needed for the program.	**Mechatronics:** Faculty have reached out to businesses to gauge how to modify advanced manufacturing courses. Created new pumps and piping course with industry input.	While it may not be able to be funded under the grant, Mechatronics faculty would like to purchase a pipe threading machine. Hiring another full time mechatronics instructor who will be sent for training to be a certified OSCHA instructor. Looking into curriculum changes for the basic electricity course.
Energy	Petroleum Technology program began just prior to the grant, enrolling its first students in August 2013. Program was created in conjunction with the Petroleum Technology plant at Pierpont.	**Petroleum Tech**: Faculty have engaged business and industry to explore needed changes to curriculum. Grant has given faculty a new topic to discuss with employers, helping the college form relationships with Markwest, Gulfsport Energy, and other companies. New midstream course created and run last fall that has received approval for the curriculum. Ordered new equipment for the grant, specifically a well control simulator which a faculty member will be trained on.	Faculty plan to create curriculum for Petroleum Technology Program and add additional classes including a processing class and a controls class, all in line with industry feedback. Primary Petroleum Tech faculty member will use grant funds to obtain training this summer to teach a controls class. Faculty are exploring streamlining courses within the Petroleum Technology degree by combining courses with similar content.
Information Technology	IT program included 12 certifications and degrees overlapping in content areas.	Programs streamlined down to six including a one year certificate and a two year degree within **Systems Development**, **Networking**, and **Computer Programming.** Programs require students to graduate with an IT certification and 100 hours of internship training. Curriculum has been updated and streamlined and new courses have been added. Grant has allowed full-time faculty to go to consortium meetings where information sharing has helped improve Northern's programs.	Faculty are exploring implementing TestOut and other vendors that would help students prepare for certification tests. Faculty are seeking to add as many certifications as possible to the program including CompTIA, Cisco, and VM Ware. Faculty are exploring ways to enable students to obtain four year degrees around Cybersecurity and other programs; potential strategies include creating 2+2 articulation agreements – possibly with Wheeling Jesuit and West Liberty including exploring opportunities around Cyber Security programs as well.
Learning Strategies	Distance learning has been used at Northern for a number of years, with CIT courses streamed live from the Wheeling campus to the New Martinsville and Weirton locations. Other courses had been online prior to grant including English, math, and other general education courses. Staff report a more traditional student body served well by current course structure.	Purchased Mondopads with the grant money; have utilized these in a limited scope for communication purposes but have used these more as a teaching tool and for simulations. Prior to hiring additional faculty, Mechatronics utilized the Mondopads for remote class instruction; student feedback was poor however due to student preference for in-person instruction.	Plans to utilize Mondopads in a Technology Enhanced Active Learning (TEAL) lab on the Wheeling campus – will add the Mondopad to a group work space allowing for collaboration on touch screen. College exploring opportunities to add additional hybrid courses particularly with assistance of newly hired instructional designer.

Northern- Component	Baseline	Progress to Date	Future Goals
Student Support Services	Student services center operates on a drop in basis with both student and professional tutors available for math, English, IT, and other subjects.	While no full scale tutoring or peer coach model has been implemented, a supplemental instructor position was funded by the grant to aid students in a technical math class which helped create a bridge between the instructor and the grant staff. Difficulty in finding qualified and interested students for peer coaching roles.	Seeking to continue the supplemental instructor model for math and may extend this to physics as well. Seeking to have peer coaches for technical math and physics and across all three grant funded programs. Will imbed peer coaches in TEAL Lab to help both faculty and students with new technology. Exploring possibility of having peer coaches sit in on video lectures for IT to help students who run into problems. Seeking to hire a part-time career services staff member for the three grant programs to help find internships for students and build relationships with companies.
Developmental Education	Northern began overhauling developmental education in 2011 through a Title III grant in which the college implemented the co-requisite model as well as the My Skills Lab tool, pared three developmental math courses down to one for most students, and implemented a fast-track math program with mastery-based learning modules and boot camps to bring students up to speed on basics.	**Math and English**: Building on successes of the Title III grant, BTG grant funds have allowed professional development for faculty and staff to attend developmental education trainings and conferences to share their own knowledge and gain knowledge from colleagues; conferences include NADE, Math Association for Two Year Colleges, and training from TIDE (Technology Institute for Developmental Education).	Exploring streamlining safety and other introductory courses across Welding, Mechatronics, and Petroleum Technology as a way to cut down on excess classes and get students from different fields to interact. Will purchase equipment for math and computer labs such as headphones. Plan to recap changes to developmental education since Fall 2011 and then decide course of action.
Assessments and Tracking	All students take the COMPASS test upon coming into college. Class assessments are completed by students at the end of each semester. Award credits for prior learning but is a complicated process and largely unknown to date.	Northern continues to use COMPASS as its primary method of assessment. Discussing how to implement additional PLAs at Northern.	New course-assessment focused staff separate from the grant are joining over the summer which should help increase efforts around assessment. Sitting down with staff and faculty to map out PLA process for certain credits, increase visibility, and streamline process for students.
Student Recruitment	Past recruitment efforts were not focused on the Mechatronics and Petroleum Technology programs as they were relatively newer programs for the college.	Creating two brochures to advertise for the grant programs, one advertising the college and another focusing on both the college and the WIB's services. Advertisements including radio spots and print ads will be run regionally in May and June and are anticipated to help not only the grant programs but the college as a whole. Hired a veteran's coach tasked with connecting veterans to programs, recruiting, coaching, and promoting veterans' needs. Northern has hired a staff member that is shared with Pierpont who is responsible for recruiting for the Petroleum Technology program at both colleges.	Plans for veterans coach to expand efforts to job fairs, military and veterans events, and veterans' organizations to build program participant base. Seeking to hire a recruiter specifically focused on all three BTG programs. Will continue to utilize the marketing funds to advertise three grant programs via television, radio, electronic billboards, print ads, online presence, and printed material.

Northern- Component	Baseline	Progress to Date	Future Goals
Industry Sector Partnership Strategies	Established relationship with WIB in which they refer about 25-30 people to Northern each year. Advisory boards had been in place with each program prior to the grant to advise on courses and programs. Staff reports that traditionally, administrators in New Martinsville and Weirton locations are well connected with the boards they serve on due to small town location and feel of these campuses.	ITL held a cross training at the WIB to explain the Petroleum and Mechatronics programs to staff members. WIB Director reports that employees understand BTG programs and advertise these at job fairs and with flyers at their desks. Existing advisory committees have been reconvened through grant to connect schools to industry needs – grant staff report positive responses from businesses and find that the grant provides a helpful topic for conversation. Instructors utilize their contacts to provide opportunities for students: e.g., Petroleum Tech professor takes students on "field trips," three IT professors share their connections. Staff are reaching out to larger manufacturers in the area to explore businesses' interest in training workers at Northern – employer specific training is currently happening at Weirton campus and will start on Wheeling campus in May. Grant has given faculty a new topic to discuss with employers, helping the college form relationships with Markwest, Gulfsport Energy, and other companies.	Northern plans to make brochures focusing on the BTG programs – Mechatronics, Petroleum, and IT – for the WIB to hand out. WIB sees opportunities for alignment between the grant and the WIB around youth efforts for WIOA, serving veterans, retraining coal miners filing for unemployment (although they are more focused on short-term opportunities) and recommends that Northern be more active at the Career Center.

WEST VIRGINIA UNIVERSITY AT PARKERSBURG

WVUP-Component	Baseline	Progress to Date	Future Goals
Advanced Manufacturing	Traditional technical programs included Electricity & Instrumentation, Industrial Maintenance, HVAC, Residential/Commercial Electricity, Chemical Polymer Operator, and Welding.	**Multicraft Technology** is an associate's degree program, which includes both Industrial Maintenance and Electricity/Instrumentation certificates. **Industrial Maintenance** program is in the process of establishing employer relationships; will have an electrical instrumentation certificate that leads to an Associate of Applied Science and includes an apprenticeship component. **Welding** program was established with AWS and API certifications as well as a downhill certification fast-track program; offering evening courses for non-traditional students. Only CTC in the state to offer 4-year degree programs. The general structure of the programs includes obtainment of a certificate, 2-year degree, apprenticeship opportunity, and then movement to a bachelor's degree at WVU.	Bachelors of Applied Science for the technical programs will be rolling out in Fall 2015. The HVAC program is being removed due to low enrollment and regional need but some courses will be maintained. Looking into facility expansions including the development of a process control room and 40 foot distillation tower for Welding.
Energy	Engineering Technology program was in place but needed to be realigned with current industry needs.	**Engineering Technology** 4-year (Bachelors of Applied Technology) and 2-year (Associates of Applied Science) degree programs created that target programming and code instrumentation to address needs of local employers.	Plans to partner with the ethane cracker plants that will be coming to the area.
Information Technology	WVUP asked the workforce what they needed in their employees and the employers reported degrees, certifications, and experience is needed. IT program in place with multiple certification opportunities.	Programs offered include: **CIT Information Technology** 2-year degree program focusing on Microsoft and Cisco certifications; Computer Science 2-year degree program focusing on programming that leads to a bachelor's degree of Applied Technology; and **Networking and Security** that leads to a 4-year Computer Science degree. Also offers CompTIA Network Plus certification.	Considering offering a one-year certificate in CIT that will lead to the 2-year and 4-year degrees. WVUP is also planning to renew their Pearson Vue contract so they can become a certified testing facility again, as the nearest testing center is over 30 minutes away.
Construction	Construction Maintenance served as a skillset and not a stand-alone program. WVUP established partnership with local affiliated trades to include PLAs for apprenticeships.	WVU received BTG funds to develop the program and is in the process of piloting the **Construction Management** curriculum at WVUP. Program will lead to an associate's or bachelor's degree. WVU will complete the pilot and it will then be available to all CTC's. NCCER certificate will be incorporated into the curriculum as well as a capstone project that outlines professional soft skills.	The Construction Management associate's degree program is expected to rollout in January 2016.

WVUP-Component	Baseline	Progress to Date	Future Goals
Learning Strategies	The College used online components for capstone courses, assignments, and additional resources.	Currently offers all IT and Energy classes in a hybrid format including assignments in Pearson Vue and hands-on components. TestOut is being used for a virtual lab component to the IT program as well as Moodle for the Energy program Integrating online components for course assessments.	Plans to incorporate online components into the Construction Management program. Uses the Mondopads for Skype within the institution but plans to begin use throughout the consortium.
Student Support Services	Career services included an assessment, career planning, job skills building, and job placement assistance. The co-op system was ineffective because it was not centralized. (I.e., each department handled co-ops differently, which skewed instructor evaluations.)	Hired peer coaches that serve as support for students while targeting BTG students. Peer coaches have frequent contact with students and often help BTG students in the classroom. The College counselor position is partially funded through BTG. The College Career Network is being used to help place students in jobs; the system connects employers and students.	Sustain peer coaches as a resource to the college. Expand co-op, which is now centralized in Career Services. Need to increase student, instructor, and business involvement.
Developmental Education	WVUP had English (pre-college writing); arithmetic; elementary, intermediate, and college algebra; and literacy credit bearing courses (0-level). There was also an Intro to College course that incorporated labs that were required before moving into college-level courses (only 25% of students would get to the college-level courses compared to 60% now).	Math and English developmental education-type courses still require labs but are considered 100-level courses where students receive additional support, but do not receive credit. WVUP also created a mentoring program (AIM), which is a voluntary program that offers students optional sessions (for example, learning styles, testing styles, etc.). This program started in the summer as a pilot and had 3 sessions with 11 participating students; this fall WVUP offered 13 sessions but had low enrollment so they need to re-evaluate.	Because the remedial courses that WVUP offers are not considered developmental education courses, WVUP wants to determine how to report these numbers for the grant.
Assessments and Tracking	ACCUPLACER has been used to place students into STEPS courses.	Although ACCUPLACER is still used to place students in STEPS courses, developmental education, or college-level courses, there are now other avenues for assessment internally. Programs have been modifying their internal assessments. Courses are also being evaluated every couple of years rather than every 5 years. WVUP awards PLAs for apprentices (up to 43 credits) and associate's degrees (up to 60 credits) that can go toward bachelor's degrees.	Tracking students through their initial assessments into exit assessments has been a challenge for WVUP as it is difficult to define the cohort, especially with the rolling enrollment of the STEPS courses.
Student Recruitment	WVUP had limited resources for outreach due to institution and state budget cuts. Outreach targeting specific programs was non-existent; outreach targeted the College as a whole.	WVUP is utilizing the following for outreach: print, video, online ads in movie theaters, television ads, Facebook, and print materials.	Will continue to research ways to target outreach strategies to BTG students. WVUP is also hiring a Technical Marketing Coordinator that will work within the marketing department and on promoting the technical programs.
Industry Sect	Every program was required to have an Advisory Board.	A liaison for Workforce WV that oversees TAA and WIA students has been established.	Plans to continue strengthening relationships with the WIB through sector strategies.

WVUP-Component	Baseline	Progress to Date	Future Goals
	There used to be a general committee that contained all of the employers that were interested in partnering with WVUP. Partnerships with employers for learn-and-earn programs.	The process for engaging employers is as follows: invite employers to visit the institution, tour the facility, and have employers provide input on curriculum and programs. There are quarterly Advisory Board meetings that target specific program areas.	