

The Economic Impact of Rural Pennsylvania Community Colleges

By:

Matt Saboe, Ph.D., Mia Ocean, Ph.D., and Simon Condliffe, Ph.D.

West Chester University of Pennsylvania

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Executive Summary

This research examined the role and economic impact of community colleges in rural Pennsylvania to help inform state policy considerations. The research team gathered publicly available data, and conducted telephone interviews with 16 community college employees across six community colleges and 10 locations as well as with five local industry leaders with active relationships with rural community college locations.

The researchers visited seven rural community college locations that are part of two community college systems, and conducted in-person interviews with 27 community college employees and seven community members. The research team analyzed the data collected to identify broad and comprehensive themes among interviewees.

While six community colleges participated in the qualitative portion of the study, five community colleges shared data for the quantitative research. These data included detailed operating budgets, with calculations for capital and labor expenditures, enrollment statistics, full-time equivalent (FTE) employment, facility details, and other data they voluntarily provided. These five colleges represented the majority of rural community college sites in Pennsylvania.

The research team used IMPLAN to produce estimates of the economic impact of rural Pennsylvania community colleges.

Research Findings

College Locations

Rural community college locations can be classified broadly into two types: a college hub and satellite sites. The college hub is what is commonly referred to as a college's "main campus." Satellite sites are smaller locations that extend opportunities to individuals in other rural communities. All rural community college locations in Pennsylvania promote equity through financial, educational, and geographic access. For example, the research participants described dual enrollment, where eligible high school students can take

college-level courses, and the Workforce & Economic Development Network of Pennsylvania (WEDnetPA) program as pivotal programs at rural community colleges that provide access to valuable resources in their communities.

According to the research, rural community colleges are invested in their communities, yet they face many challenges. Additionally, rural community colleges do not have access to enough resources to meet their needs. If rural community colleges had access to adequate resources, they could develop additional partnerships with local industry and work to increase interest in technical fields.

Moreover, the decentralization of community colleges offers maximum flexibility and responsiveness to community needs, but it also creates unnecessary competition among community colleges and among community colleges and publicly funded universities.

Economic Impact

The study sample of rural community college sites varied in size, but represented the majority of rural Pennsylvania community college sites. Collectively, the study sample of Pennsylvania rural community colleges contributed an estimated 543 jobs, \$31.9 million in value-added economic activity, such as Gross Regional Product (GRP), and \$50.1 million to the total output of their local economies.

The research team found that, on average, rural sites (excluding the largest, outlier sites) support about 15 jobs, contribute \$722,000 in value-added GRP, and generate about \$1.25 million in total output within their local economies. However, this impact does not include the future impact of students who use the valuable skills and credentials provided by community colleges to further pursue higher education, find employment, and contribute to Pennsylvania's economy.

Policy Considerations

Rural community college employees have developed the needed relationships to make the most of state resources while minimizing waste. For instance, a rural community college administrator was able to

coordinate training opportunities for 10 local companies with similar training needs, which translated into the industry partners paying \$1,000 each rather than \$10,000 each. Therefore, the researchers recommend the continued funding of the WEDnetPA program and that rural community college leaders serve as administrators of the program.

Another way to capitalize on government partnerships is to expand the existing rural community college location typology to include the concurrent-use campus model, where community colleges and the Pennsylvania State System of Higher Education universities share a location to maximize public spending and minimize student barriers. This could also enhance the utility of the underused rural community college locations and elevate their status within the community.

Increase Funding for Rural Community Colleges

Chapter 35 of Pennsylvania Code 22 requires community college operating costs to be divided into thirds, with equal contributions from the state, local sponsors, and students. This law has not been enforced for over a decade, shifting the cost disproportionately to community college students. Therefore, the researchers offer that Pennsylvania should abide by the current statute and provide the required financial resources to community colleges.

Additionally, the base funding for Pennsylvania community colleges has not been updated since 2005. The researchers recommend that the base funding be revaluated and be consistently reevaluated every decade moving forward.

Rural community college students, like the institutions that serve them, need access to adequate resources. The researchers recommend that the state subsidize local sponsor fees for rural community college students who live outside of local sponsorship areas, and increase state funding for dual enrollment.

Public Higher Education Funding Commission

The recently appointed Public Higher Education Funding Commission (Act 70 of 2019) is composed of

19-members, including state senators, state representatives, and representatives from Governor Wolf's administration. Creating a more centralized system of higher education has the potential to address the structural issues identified in this research. However, best practices advise including key stakeholders in higher education commissions. The researchers recommend that the commission amends its current membership to include rural community college leaders. These leaders can provide guidance to accurately evaluate the important equity, access, and investment of rural community colleges.

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Introduction

Community colleges, as an institutional group, and rural areas, as a geographic categorization, commonly lack the resources to meet the needs of their constituents (Cohen and Brawer, 2008). Rural economies are less stable and more easily influenced by shifts in the local economy. Ironically, adequately funded rural community colleges can spur job and economic growth (Crookston and Hooks, 2012). Moreover, rural community colleges have been described as a bridge from state “resources and opportunities” to geographically remote individuals (Miller and Kissinger, 2007, p. 27). Of the 14 community colleges in Pennsylvania, nine have locations in rural counties (See Table 1). Overall, less than 2 percent of Pennsylvania’s total community college enrollment reside in rural counties (Pennsylvania Legislative Budget and Finance Committee, 2011).

It appears that rural Pennsylvania community college locations are commonly incorporated with larger, urban institutions, which may overshadow the unique needs and attributes of rural community colleges (Pennsylvania Commission for Community Colleges [PACCC], 2017a).

Table 1: Rural Pennsylvania Community College Locations

	Campuses/Centers	Rural Counties	Municipality/City
Butler County Community College	BC3 Main Campus	Butler	Butler
	BC3 @ Armstrong	Armstrong	Ford City
	BC3 @ Brockway	Jefferson (Clarion, Clearfield, Elk)	Brockway
	BC3 @ Cranberry	Butler	Cranberry Township
	BC3 @ Lawrence Crossing	Lawrence	New Castle
	BC3 @ LindenPointe	Mercer	Hermitage
Pennsylvania Highlands Community College	Richland Campus	Cambria	Johnstown
	Blair Center	Blair	Altoona
	Ebensburg Center	Cambria	Ebensburg
	Huntingdon Center	Huntingdon	Huntingdon
	Somerset Center	Somerset	Somerset
	Central Park Center	Cambria	Johnstown
HACC – Central Pennsylvania’s Community College*	Gettysburg Campus	Adams	Gettysburg
	Lewistown	Mifflin	Lewistown
Lehigh Carbon Community College*	Morgan Center	Schuylkill	Tamaqua
	Jim Thorpe	Carbon	Jim Thorpe
Northampton Community College*	Monroe Campus	Monroe	Tannersville (Pocono Township)
	Pike & Wayne County Center	Wayne	Honesdale Borough
Community College of Allegheny County*	Washington County Center	Washington	Washington
Luzerne County Community College*	Berwick Center	Columbia	Berwick
	Kulpmont Center	Northumberland	Kulpmont
	Northumberland Regional Higher Education Center	Northumberland	Shamokin
Westmoreland County Community College*	WCCC-Fayette	Fayette	Uniontown
	Indiana County Education Center	Indiana	Indiana
Community College of Beaver County*	Western Area Career and Technology Center	Washington	Canonsburg

*Also has campus locations in urban areas

While it is unclear what economic impact rural community colleges have on rural Pennsylvania, existing research argues that community colleges benefit society financially. Evidence suggests that community

colleges benefit the national economy in addition to individual students (Economic Modeling Specialists International, 2014). The American Association of Community Colleges (AACC, 2014) estimates that community colleges contributed \$809 billion to the national economy in 2012. Community colleges can also assist in building local economies. They can both retain businesses in the community, and, in some cases, assist in bringing new businesses to the area (Nickoli, 2013). Additionally, partnerships between community colleges and business leaders can spur economic development (Vickers-Koch and Zeiss, 2014). For example, Southeast Kentucky Community and Technical College collaborated with local banks to develop a loan program for entrepreneurs, who would not otherwise qualify for funding, for local start-ups (Torres and Viterito, 2008).

Moreover, community colleges may be of particular importance to rural areas. Rural community colleges have helped to revitalize struggling rural areas with their ability to react quickly to the changing needs of the community while attracting students, professors, and administrators who spend money on services, housing, and more (Garza and Eller, 1998; Johnson, Kackar and Kramer, 2015; Semuels, 2017). Satellite locations and centers can also assist in reaching more community members and extending opportunities beyond traditional campuses (Pennsylvania Legislative Budget and Finance Committee, 2011).

Pennsylvania community colleges and state universities have been experimenting with effective and creative partnerships at a local level. For instance, Delaware County Community College and West Chester University partnered for a concurrent-use campus model, where classes are taught by both institutions on the same campus, providing a seamless transfer for students and maximizing state resources to the benefit of all constituents (Ocean, Calvano and McGorry, in press).

Unfortunately, such local partnerships are not commonplace statewide. Indeed, Pennsylvania community colleges are now partnering with an out-of-state private university: Southern New Hampshire University (SNHU) (Blumenstyk, 2020). In January 2020, all 14 community colleges of Pennsylvania entered into a partnership and articulation agreement with SNHU. This agreement enables community college students to transfer as many as 90 credits and earn their bachelor's degree online with a 10 percent

reduction in fees and tuition. The agreement is also extended to community college employees and their immediate families. This appears to be a pivotal moment for community colleges within public higher education in Pennsylvania. Gathering more information related to these institutions can help state policymakers move forward in an informed manner.

Moreover, with Pennsylvania investing over \$280 million for community colleges, or \$2,671 per student, in the 2016-2017 budget, an investigation into the economic impact of these institutions is warranted (PACCC, 2017b). There is great variation in the budget, location, and state appropriations of these colleges. In fiscal year 2016, college budgets ranged from \$13.1 million at Penn Highlands to \$204.9 million at the Community College of Philadelphia. The process of funding Pennsylvania community colleges creates challenges for rural institutions.

Specifically, Pennsylvania Code 22 Education, Chapter 35 Community Colleges, has left Pennsylvania without comprehensive financial support for its rural community colleges. For instance, potential community colleges in rural locations face the nearly impossible task of meeting the requirements of having at least 500 full-time equivalent (FTE) students and one-third of the cost per FTE derived from local municipal taxes to qualify to open a new campus. Because community colleges are open access, large portions of the student body are composed of part-time students, adults enrolled in continuing education courses, and workers in training who are participating in economic development projects (AACC, 2020). Consequently, FTE numbers do not portray an accurate picture of community colleges and the diverse populations that they serve.

Pennsylvania Code 22 Education, Chapter 35 requires community colleges' operating budgets to be funded in equal shares by the state, local sponsor¹, and students, and capital expenses are required to be split equally between state and local sponsors. This law has not been enforced for over a decade shifting the cost disproportionately to community college students (Hoover, 2015).

¹ “*Local sponsor*—A school district or a municipality or combination of school districts or municipalities or both which participate or propose to participate in the establishment and operation of a community college” (PA Code 22 § 35.3).

According to Pennsylvania community college administrators, the current community college funding formula is also problematic because it does not account for underserved areas, non-credit student enrollment, or local needs (Council of Higher Education, 2015). Unlike many other states that account for lower enrollment in rural areas, Pennsylvania currently provides state funding based on FTE. “As all colleges have certain fixed costs, allocation of state dollars based primarily on FTEs may disadvantage smaller or rural colleges,” (Pennsylvania Legislative Budget and Finance Committee, 2011, p. 27).

Crookston and Hooks (2012) investigated this phenomenon nationally. They found a pattern of job growth in rural communities that hosted a community college until 1997, when state funding for these institutions began to decline. At that point, not only was job growth halted in these rural communities, but the areas also experienced job losses, which the researchers attributed to the decline in state funding.

Despite the voiced concerns in state level funding for community colleges, Pennsylvania is moving to performance-based funding, which could further limit rural community college funding. In 2019, the Public School Code of 1949 was amended to include Article XX-I Miscellaneous Provisions Relating to Institutions of Higher Education, Section 2001-I Public Higher Education Funding Commission², which will determine how to implement performance- based funding for Pennsylvania community colleges and universities. Performance-based funding impacts base funding for community colleges at the state level, and the metrics can vary from state to state. Student retention, transfers, graduation, and job placement are common performance-based funding metrics (Li, 2019). Other examples include employment post-graduation, and salary post-graduation. Performance-based funding is often associated with calls for accountability, yet critics are concerned that there is a lack of evidence to support its efficacy, generally, and that it has the potential to disadvantage community colleges that serve the populations with the greatest needs

² Article added June 28, 2019, P.L.117, No.16, and added July 2, 2019, P.L.417, No.70.

(Bailey, Jaggars and Jenkins, 2015; McKinney and Serra Hagedorn, 2017; National Conference of State Legislatures, 2015). If performance-based funding is implemented, research has recommended to engage key stakeholders, including college administrators, faculty, and staff, early and consistently throughout the development, implementation, and evaluation processes (Kadlec and Shelton, 2015).

With help from the state and from local sponsors, community colleges offer educational opportunities to many who would otherwise not be able to pursue a post-secondary education. PA Code 22 § 35.29c.(b) states, “Local continuous tuition support shall be provided for students who move permanently within the sponsor service area of the college. Local agreements shall determine how the proration of member share will be determined.”

Unfortunately, students located in rural areas, most likely without a community college, must travel long distances and pay the out-of-local-sponsor-territory tuition rate. Students living outside of the sponsor territory pay significantly higher tuition per credit than students living in the local sponsor territory (for example, for the 2019-2020 academic year – Northampton Community College, \$214 versus \$107; and Lehigh Carbon Community College, \$224 versus \$112, respectively).

Similarly, undocumented students are required to pay out-of-state tuition, which creates a significant financial barrier for potential students (Pennsylvania Immigration and Citizenship Coalition, 2019). There are no recent studies about rural Pennsylvania community colleges that are publicly available. Rural Pennsylvania community colleges’ direct and indirect contributions to the local and state economy are currently unknown. Similarly, the impact of community college locations on rural communities in Pennsylvania is unknown. What is known is that rural Pennsylvania continues to struggle to reach pre-recession levels in many areas including housing and employment (The Center for Rural Pennsylvania, 2018). There is an ethical requirement to investigate the allocation of resources to rural community colleges and their return to their local community. It is of paramount importance to understand the workings and impact of rural community college sites in Pennsylvania. Such information can ensure that rural community

colleges' unique circumstances are reflected in state allocations and policy. This study will fill this gap, as it looked to provide a descriptive analysis of rural community colleges and quantify the economic impact of these colleges to their local communities. The results would offer policymakers an objective assessment of the policies and programs related to community colleges in rural Pennsylvania.

Goals and Objectives

This study had three specific goals. The first was to identify and analyze the characteristics of rural campuses, centers, and sites in Pennsylvania. This goal was accomplished by gathering relevant data on students, employees, physical locations, and services offered at rural community college locations and subsequently analyzing the data using the multiple case study method to develop a comprehensive description of rural community college locations in Pennsylvania.

The second goal was to measure the economic impact of community college campuses on their host economy. This goal was accomplished by creating tables of the direct, indirect, and total effect for employment, value-added, and output of rural community college locations. The research team conducted quantitative analyses on the economic impact data and developed a report on the importance of rural community college campuses to the economy. Additionally, the research team visited two rural community colleges (one in which all locations are rural and one that has mixed urban/rural sites) and gathered data on the local relationships between the community college and industry, the impacts of the campuses on key constituents— staff, local communities, suppliers —and the local community members' perceptions of the economic impact of the rural campus.

The third goal was to identify public policy implications and make relevant recommendations based on these findings. This goal was accomplished by gathering key community college stakeholder perspectives on policy impacting rural community college locations and subsequently analyzing the perspectives, economic impact findings, and relevant public policy.

Methodology

To meet the goals and objectives, the researchers conducted a qualitative, multiple case study (Yin, 2003), and an economic impact study of rural community college locations. In consultation with the Center for Rural Pennsylvania and the Pennsylvania Commission for Community Colleges, the researchers identified rural community college locations (See Table 1) as of February 2019. The research team gathered publicly available secondary data from all of the rural community college locations. The research team also gathered primary data, in the form of interviews and field notes during site visits, from rural community colleges that agreed to collaborate. The research team then analyzed the qualitative data and conducted an economic impact analysis.

To begin, the research team gathered data from rural community college websites. This included course schedules, program offerings, event calendars, and information on staff and physical space as available. Publicly available data related to rural community college locations were also collected including reviews, YouTube videos, boards of trustees meeting minutes, and newspaper articles. All collected data were recent as of 2019 and were saved in password protected folders.

The research team conducted interviews and site-visits, and used purposeful sampling in conjunction with snowball sampling (Patton, 2002). The research team sought out knowledgeable employees at rural community college locations and asked them for referrals to other individuals. The inclusion criteria were intentionally broad, rather than focused on one job title, since many rural community college employees serve in myriad roles. Interviews at a college typically began with the director of Institutional Research who then provided referrals to college employees and other community members who have active relationships with the college. Specifically, participants were asked, “Who else should we speak with about this topic?” In all, the research team reached out to 20 community college employees and successfully conducted 16 telephone interviews with higher level administrators and employees who work directly with students at the rural locations across six community colleges and 11 locations. The research team were referred to five local

industry leaders with active relationships with rural community college locations and successfully completed phone interviews with all of them. The research team also independently spoke via phone to representatives at 306 local businesses located in close geographic proximity to rural community college locations. During these brief data gathering interactions, the research team documented businesses' interest in developing a relationship or the existence and quality of the collaboration with the nearby community college location.

One member of the research team also visited two colleges, one with only rural locations and one with both rural and urban locations for a total of seven rural community college locations. During the site visits, the researcher conducted in-person interviews with 27 community college employees and seven community members. All attempted in-person interviews were completed. The community college employee interviews were scheduled by administrators at the community colleges and the researcher arranged interviews with community members independently, seeking individuals who lived and worked in close proximity to the college locations. Within the budget constraints, the site visits allowed for a range of locations to be studied. During site visits, the researcher gathered additional data to supplement the first round of data collection, investigated local relationships between the community college and industry, examined impacts of the location on key constituents, and explored local community members' perceptions of the economic impact of the rural campus.

Both in-person and telephone interviews were conducted to minimize the barriers to participation for community colleges and affiliated organizations (McCoyd and Kerson, 2006; Trier-Bieniek, 2012). Notes were taken during the interviews to capture the major themes espoused by key informants (King and Horrocks, 2010). Additionally, relevant quotes were captured in the notes and time was spent immediately post-interview to fill in gaps and include details to enhance accuracy and completeness.

The research team analyzed the data including publicly available information, interview notes, and site visit notes to identify broad and comprehensive themes among informants across the community colleges in line with the multiple case study method (Yin, 2003). Team analysis followed best practice guidelines. The

research team met regularly to review the data. During these reviews, the team read through the collected data, grouping similar information together.

The development of the location typology can serve as an example of the process. First, the research team used a white marker board to identify the characteristics of each rural community college location. It then listed the logistics of each location, including the types of courses and degrees offered, student services provided, hours of operation, special events hosted, and relationships with local industry and the surrounding community. Next, the research team began grouping locations based on similarities. Once a draft of the typology was created, the raw data were read through again in their entirety, with the team looking for gaps and overlaps in the typology. After making another round of adjustments, the research team again read through the raw data seeking to further refine and finalize the typology. The research team's decision to assign typologies to the locations—the main typology being hub and satellite campuses — was motivated by the quantitative and qualitative disparities (apparent in the collected data) between the community colleges and furthermore their campuses: these typologies were developed for comparisons. The research team identified shared and divergent perspectives of team members throughout.

Discrepancies were discussed and again the original data were consulted. Along the way, the research team saved the intermediate work products to enhance the audit trail. Working as a team, frequently reviewing the raw data, and constructing an audit trail allowed for a clear link between the raw data and the ultimate findings (Fernald and Duclos, 2005; Miles and Huberman, 1994). This reciprocal process of developing findings and comparing them to the raw data and vice versa was completed until confidence in the typology and consensus was reached. The same process was followed to develop the additional thematic findings.

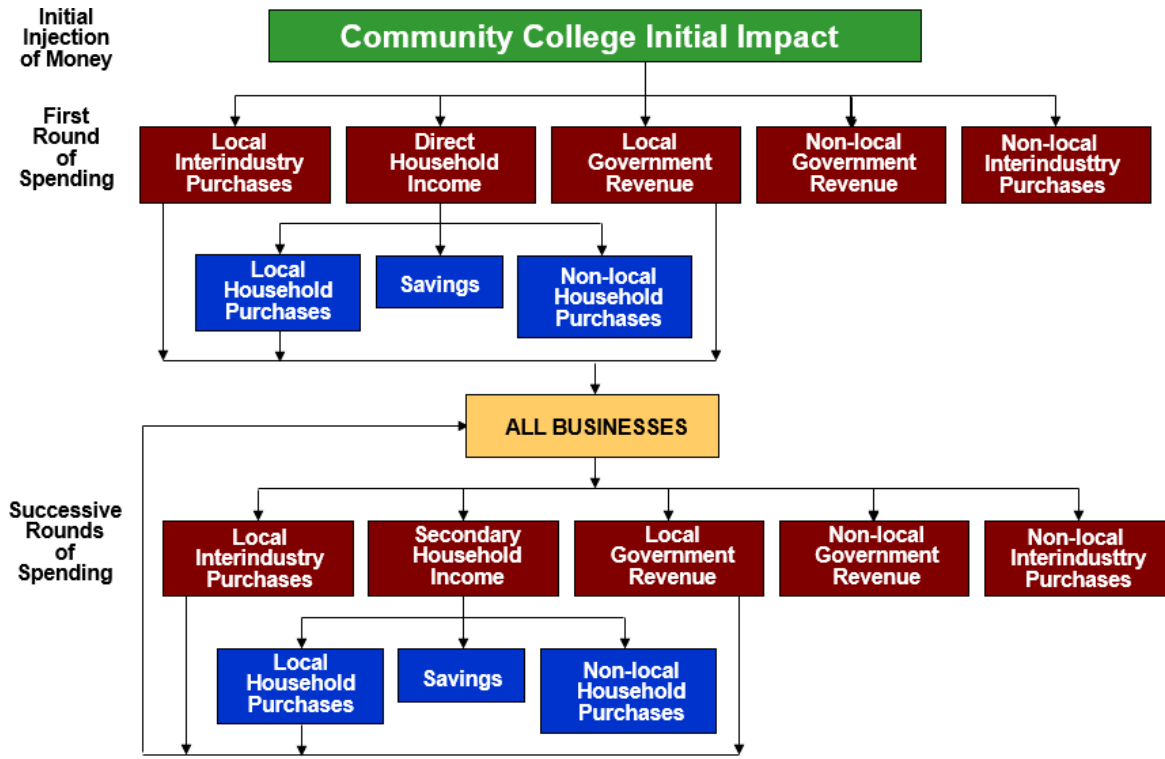
As one of the researchers formed relationships with the rural community colleges, the research team made requests for specific data broken out for both hub and satellite sites. As noted, nine community colleges have rural locations. While six participated in the qualitative study, five of the community colleges

consented to cooperate by sharing data with the understanding that the results would only be reported in aggregate and no individual college could be identified in the final report. These five colleges represent the majority of rural community college locations. The data included detailed operating budgets with calculations for capital and labor expenditures, enrollment statistics, full-time equivalent (FTE) employment, facility details, and any additional data they voluntarily provided for the most recently completed academic year (2018-2019). Data collection and preparation took several months and produced a final dataset that formed the inputs for the modeling of the economic impact of community colleges in rural locations.

While rural community colleges may not represent large employers or spenders in their respective counties, they do generate economic activity in their communities. Economic impact multipliers are the industry standard approach to quantify economic impacts of such activities. A multiplier is the numerical relationship between an original change in economic activity and the ultimate change in activity that results as the money is spent and re-spent through various sectors of the economy. There are several kinds of multipliers used to assess economic impacts of new activity, including employment multipliers, value-added (contributions to Gross Regional Product, or GRP) and output multipliers.

The multiplier process is illustrated in Figure 1. For the purpose of illustration, imagine any given campus of a community college spends its budget among local interindustry purchases, direct household income (wages and salaries), local government, non-local government, and non-local interindustry purchases. This expenditure represents the initial injection of money. Money that flows to non-local government and non-local interindustry purchases is lost to the local economy. However, the local recipients (businesses, workers, and government) will continue to spend this money in the same five ways over successive rounds of spending. Thus, the initial spending to local recipients has a ripple effect through the local economy as successive rounds of spending multiply the initial spending's impact.

Figure 1: Economic Impact Multiplier Process



Identifying the geographic region is key to understanding and interpreting the economic impact of community colleges. For this study, the research team defined the geographic region as the county that hosts each rural community college site. Spending spillovers to adjacent counties are excluded from the economic impact results.

Limitations

As with any research, this study has limitations. The findings are limited to individuals and institutions who participated in this research without financial compensation but may not be wholly representative of the population.

Economic impact studies typically use multipliers for jobs, value-added, and output generated for an

enterprise; there are many assumptions, measurements, and judgements that researchers must carefully consider. The research team used the industry-leading IMPLAN input-output modeling system to produce impact estimates of employment, value-added, and output.

While employment is straightforward to interpret, the remaining effects can often be confused. Value-added is the sales effect less the cost of inputs, or the true contribution of an enterprise to the host county's GRP. Output is the effect of community college spending on economic output in their local communities. However, the colleges did not create this entire output as many inputs are purchased during their operation. Hence, the output figure will exceed the value-added measure.

Further, the authors caution the use of employment impacts that are typically reported in such studies. IMPLAN does not distinguish between those jobs that are full- or part-time. In the case of the community colleges in this study, most of the faculty receive only part-time hours. Thus, while there may be many named employees, the full-time equivalent employees will be a smaller number.

Finally, this study does not capture community college graduates and how their lives are changed by obtaining training, education, and credentials through rural community colleges, and

does not quantitatively capture the impact of keeping the tuition dollars in the local, rural community. However, this research does add needed information about the role of rural community college locations and their economic impact in Pennsylvania.

Results

Economic Impact Analysis of Pennsylvania's Rural Community College Locations

This section details an economic impact analysis carried out on a sample of rural community college locations. Ultimately, the sample consists of 15 rural community college locations, the majority of which are of similar scale to one another. This sample encapsulates the majority of rural community college locations in Pennsylvania. However, two of the 15 locations have budgets that are more than \$5 million above the

next largest location. These outlier locations skew the results of the economic impact models. Therefore, the results are categorized into two groupings: one with and one without large “outlier” locations.

Recall that while employment is straightforward to interpret, the remaining effects can often be confused. Value-added is the sales effect less the cost of inputs, or the true contribution of an enterprise to the local economy’s Gross Regional Product (GRP). Output is the effect of community college spending on economic output in their local communities. However, the colleges did not create this entire output as many inputs are purchased during their operation.

Hence, the output figure can overstate the effect of the colleges on their local community. The closest estimate of a rural location’s contribution to their host county’s economy is the value-added effect.

The community colleges in this sample vary greatly in terms of where they are located and the scale of their operations. The average county has a population of approximately 100,000, employs just under 50,000 workers, and produces about \$3.7 billion in GRP. The community colleges in these counties represent a small fraction of this economic activity. On average, these colleges have operating budgets of about \$1.8 million and account for less than 0.1 percent of their county’s employment. Using IMPLAN, estimates regarding the GRP impacts of each campus on its host county, and the share of that county’s GRP, can be determined.

Table 2 represents the aggregate impacts of all campuses surveyed (N=15) on their local counties of the rural community college locations present in the sample. In sum, 543 full-time equivalent jobs are supported by the 15 locations, 174 stemming from the secondary effects of campus spending in their local communities. Secondary effects are described as the sum of indirect and induced effects, indirect being the initial spending by businesses and individuals whose services community colleges enlist, and induced being the impact of successive rounds of said spending. Rural community college locations’ activities supported \$31,948,469 in value-added GRP, and contributed \$50,141,600 to the output of their host counties. These results are presented for an aggregate impact. However, these aggregates mask the relative contribution of a

typical rural community college site to its local economy. To provide stakeholders with additional context, the effects are also presented as the economic impact of an additional \$1,000 in spending at a rural community college on the local economy; this result can be used to estimate the economic impact of expanding community college operations.

Table 2: Aggregate Economic Impact of Pennsylvania’s Rural Community Colleges

Aggregate Community College Impacts					
Effect	Employment	Value Added (\$)	Value Added Per \$1,000 additional spending	Output (\$)	Output Per \$1,000 additional spending
Direct	369	\$ 20,464,630	\$ 771	\$ 27,595,573	\$ 1,040
Secondary	174	\$ 11,483,839	\$ 433	\$ 22,546,027	\$ 849
Total	543	\$ 31,948,469	\$ 1,204	\$ 50,141,600	\$ 1,889

N=15. Based on the most recently available data (2018-2019 academic year). Value-added and output per \$1,000 additional spending columns show the impact of expanding rural community college operations.

Table 3 displays summaries for the direct, secondary, and total effects of the average community college location in the two groupings: including large locations (N=15), which have budgets exceeding several million dollars, and excluding large locations (N=13). The data used in these impacts are the same as that of Table 2, but further incorporate the size typology defined by the research team. The results can be interpreted as what a single rural Pennsylvania community college contributes to its county’s economy.

Table 3: Average Economic Impact of Pennsylvania’s Rural Community Colleges

Community College Impacts (Including Large Campuses)					
Effect	Employment	Value Added	Value Added Per \$1,000 additional spending	Output	Output Per \$1,000 additional spending
Direct	25	\$ 1,364,309	\$ 771	\$ 1,839,705	\$ 1,040
Secondary	12	\$ 765,589	\$ 433	\$ 1,503,068	\$ 849
Total	36	\$ 2,129,898	\$ 1,204	\$ 3,342,773	\$ 1,889

Community College Impacts (Excluding Large Campuses)					
Effect	Employment	Value Added	Value Added Per \$1,000 additional spending	Output	Output Per \$1,000 additional spending
Direct	11	\$ 451,948	\$ 648	\$ 725,259	\$ 1,039
Secondary	4	\$ 269,912	\$ 387	\$ 524,244	\$ 751
Total	15	\$ 721,859	\$ 1,034	\$ 1,249,503	\$ 1,790

N=15 total, 13 excluding large campuses. Large campuses have budgets greater than \$5 million over the next largest campus. Based on the most recently available data (2018-2019 academic year). Value-added and output per \$1,000 additional spending columns show the impact of expanding rural community college operations.

Table 3 presents average impacts, including the large outlier locations for reference. However, the estimates excluding those outlier sites present the most representative impacts and are the main takeaways of this analysis. On average, rural community college sites provided \$721,859 in value-added GRP for the host community. To provide context, this effect represents about 0.06 percent of the typical county’s GRP. In terms of \$1,000 of additional spending, GRP would increase by about \$1,034. While the value-added effects appear small, this is expected due to the nature of the education industry, where value-added tends to be low relative to other industries (Bevins, 2019). The benefits of the output of education, such as a more skilled workforce, are not readily captured by economic models and tend to render the value-added measure relatively low. As for the other results from Table 3, sites contributed \$1,249,503 to the output the host community, on average, and 15 full-time equivalent (FTE) jobs, on average, were generated due to the rural community college locations. It is noteworthy that the output result remains very healthy at \$1,790 dollars created for every \$1,000 spent, despite the fact that this, too, underestimates the benefits a more skilled

workforce may confer on the local economy.

Based on the results in Table 3, the implied economic impact multipliers may be calculated as the ratio of the total effect divided by the direct effect. The results are displayed in Table 4. On average, for rural community college sites (excluding large locations), each direct employee generates an additional 0.38 FTE jobs for the local community. Including large sites, each community college rural location job generates an additional 0.47 FTE jobs for the local community. Each dollar of value-added at a community college rural location confers an extra \$0.60 in value-added (\$0.56 including large sites) for the local community. And each dollar of output at a community college rural location generates an extra \$0.72 (\$0.82 including large locations) for the local community. These multipliers fall within reasonable ranges given the extant literature.

Table 4: Estimated Rural Community College Campus Multipliers

Community College Multiplier (Including Large Campuses)			
	Employment	Value Added (\$)	Output (\$)
Multiplier	1.47	1.56	1.82

Community College Multiplier (Excluding Large Campuses)			
	Employment	Value Added (\$)	Output (\$)
Multiplier	1.38	1.60	1.72

As mentioned previously, the typical economic impact analysis has limitations, especially when calculating impacts of rural community colleges. What the model fails to capture is all the effects of students who gained skills, became employed in local industries, earned certifications, went on to additional higher education, and ultimately contributed to their local economy. Additionally, the analysis was not able to capture how truly important community colleges can be to residents and local businesses in rural locations. The next section of this report presents a qualitative analysis of why rural community colleges are perceived as assets to their communities.

Comprehensive Case Description of Pennsylvania’s Rural Community College Locations

This section details a comprehensive case description of Pennsylvania’s rural community college locations. To orient readers to rural community colleges, the researchers first provided a typology of rural community college locations. Second, the work of rural community colleges is detailed focusing on two major areas: they promote equity through access and they are invested in their communities. Lastly, this section concludes with challenges rural community colleges face, specifically a lack of resources, being underused, and structural issues. Please note, because the population of individuals connected to rural community college locations is small, the plural and gender-neutral pronoun “they” is used throughout to protect participants’ identities.

Typology

The rural community college locations typology includes two main types, with additional sub-types. The two main location types are the college hub and satellite sites.

The college hub is what is commonly referred to as a college’s “main campus.” College hub is more accurate because the location provides many centralized services both on the campus and across the satellite sites. It is a home base, of sorts, offering the most comprehensive options for programs, classes, and services. They serve the largest student population. However, without the satellite locations, the college hub’s student population would likely decrease. Rural college hubs were included in the sample.

The satellite sites are smaller locations that extend opportunities to individuals in rural communities outside of the college hub. The satellite sites include six sub-types: scaled hub (includes many of the same offerings as the college hub but scaled down to reflect the smaller local community); focused site (offers limited degree and certificate programs, often specific to local employment needs); outreach site (offers some classes and student services but students cannot complete an educational credential at the one location); virtual site (online course offerings and student services); partner site (college has an articulation

agreement with technical college, allowing students to continue their education with stackable credits); closing site (during the course of the research, some satellite sites were in the process of closing, condensing/combining with other satellite sites, or the college was considering closing the site).

Rural community colleges appear to rarely own their own space and are more commonly leasing the space, or the space is provided at a nominal fee to draw local residents and business to the area. Additionally, rural community colleges commonly help repurpose buildings that would otherwise be empty.

Rural Community College Locations Promote Equity Through Access

Rural community college locations promote equity by providing access. They provide financial access, educational access, and geographic access. This section briefly covers each of these areas and closes with dual enrollment as an example covering the three areas of access.

Financial access

Rural community college locations provide financial access in two major ways for their students. To begin, the rural community college is less expensive than other institutions of higher education, including technical schools and universities. One employee explains that students can save \$54,000 by completing their first 2 years of general education courses at the community college before transferring to the local private university. This dollar amount is based on tuition alone. To help contextualize this statement without revealing identifying information, annual tuition not including room and board at publicly affiliated, private university, the University of Pittsburgh, is approximately \$20,000 per year and at a private university, Juniata College, it is approximately \$50,000 per year. When one parent learned about that savings during a meeting for his son, he said he was bringing his daughter to enroll as well, “we’ll be in tomorrow.” Spending less money on tuition and/or taking out less money in student loans means more money staying and circulating in rural communities.

Additionally, community colleges allow students the flexibility to schedule their classes part-time, including block, evening, and online options. Therefore, students can continue to work full-time or part-time, contributing to the local economy as employees, and, at the same time, they study to earn credentials for a promotion or career change. Students with children but without formal childcare can also schedule their courses around the work schedules of family members as they seek educational credentials to enhance their economic stability and improve the quality of life for themselves and their children.

Educational access

Rural community colleges in Pennsylvania offer open door admissions. Thus, anyone with a high school diploma or General Education Development (GED) can attend, and in some cases, rural community colleges even provide courses for GED preparation. As one participant put it, this means they are “most definitely a *community college*.” Likely in part because of this open door, community college employees described rural community colleges as a “wonderful show of democracy.” They explained rural community colleges serve a diverse population, “diversity in all ways – age, race, ethnicity, ability – all kinds of ways people...”

The range of educational opportunities offered by rural community colleges is expansive and includes: GED, basic skills (e.g. foundational English, reading, math), dual enrollment, transferable general education, vocational training for employment, and lifelong learning and continuing education courses. One participant explained, one of the biggest contributions of rural community colleges is providing “opportunities for students. If we were not here, people would not get educated.” The GED is an educational credential often taken for granted to enter many entry level jobs, but a participant explained they always have “extraordinary waitlists for that (GED).” Another participant stated that rural community colleges “take them (students) from where they are to where they want to be.” This occurs through both formal and informal “stackable credentials.” In other words, students can complete the basic skills courses and then move into credit bearing, transferable general education or employer-valued vocational coursework. Additionally, the rural

community college partners with industry to create formalized processes for students/employees to earn a certificate, then an associate degree, which can allow them to be promoted as they acquire new skills.

Ideally, students/employees could then transfer to a university and continue earning stackable credentials as they work and move up the ladder at their place of employment.

Geographic access

The rural community college locations send a message of physical access and availability to residents. First, the campus hubs and satellite sites provide in-person and virtual, synchronous learning. Classes are offered in a traditional classroom format (with the professor present at the location), and, depending on enrollment, may be offered at multiple locations at the same time using software, such as Zoom, to connect students to the location where the professor is present. Student services are also offered in-person on a rotating basis between locations, depending on student needs, and virtually, commonly via phone, to assist students in-between site visits. Despite the limitations in educational credentials offered at a focused site, one participant reported their data shows the majority of their students just attend one location. Another participant echoed this observation and stated if their focused site closed, most students would not travel to another location. They explained the locations may be 20 minutes away but, for the student it would mean a 50-minute commute, and students frequently do not have access to reliable private or public transportation. This potentially speaks to the importance of the physical locations in rural communities.

Moreover, the rural community college locations communicate that the state and local government are investing in the residents, and, perhaps most importantly, that the community is not forgotten. One employee observed, “We service the taxpayers and families where others do not.” Many first-generation students and parents do not understand the college process so the rural satellite location employees, “stay with them from start to finish.”

Example of access: dual enrollment

One of the commonly voiced and valued services provided by rural community colleges is the

opportunity for dual enrollment, where eligible high school students can take college-level courses. Rural community college employees often go to local high schools and present “getting ready for college” workshops covering admissions and financial aid not only at the community college but more broadly orienting students to college processes. Moreover, dual enrollment provides financial access (frequently offered without a cost or at a reduced rate), educational access (providing a range of options including remediation, general education, and vocational courses), and geographical access (often the courses are offered at the students’ high school and can “inspire educational attainment”). Therefore, rural community college locations that offer dual enrollment promote equity for students in rural areas who have limited opportunities and exposure to post-secondary coursework.

Rural Community Colleges Are Invested in Their Local Community

Rural community colleges are invested in a unique way in the success of their communities – students, families, and industry. Rural community college employees are often from the local area and are dedicated to improving their communities and the lives of residents. Rather than looking to take from the community, they are “always thinking how can we serve the community we’re in...” Another employee explained their “heart is in the community college...Their issues are community issues...they are serving the needs of the community.”

Rural community colleges invest in their local communities in a number of ways. Participants consistently discussed how they cultivate relationships across stakeholders, and once they have formed trust, they connect constituency groups to create employment opportunities, enhance the local economy, and consequently community members’ quality of life.

Rural community colleges are heavily focused on cultivating relationships. They accomplish this by connecting with students, residents, industry, neighboring educational institutions, and the state. For example, the small size of satellite locations puts people on a first name basis, which helps with retention

and creating strong relationships. One community college employee explained, students, "...feel like this place is home...(the location is) 100 percent commuter so they get that feeling just from being here during the days." However, community college employees do not wait for the community to come to campus, they go to the community. For instance, one community college administrator sponsored and participated in local fundraisers to build relationships, "I played in every [sporting] event in every county for 2 years...I was exhausted...Sometimes...from 9am-9pm." The administrator and their spouse also provided free consulting to local nonprofits. They stated it was important to foster relationships across all of the counties the college served describing the relationships as "exhausting to start and critical to maintain."

Rural community colleges also develop curriculum based on local needs. This includes adjusting the curriculum of existing programs to ensure quality, timely completion, and ready-to- hire graduates. They also develop new programs in response to community needs. Rural community college administrators explained the "services should be unique to community." For example, one location may focus on nursing and another mechatronics. They constantly ask themselves, "What are the workforce needs and how are we responding to them?" Another industry partner has their choice from five different colleges and universities in the area, but they go to the community college first, "we rely heavily on [the community college] for these soft skills courses including computer courses."

These strong relationships include trust, which allows the rural community college to then connect and link various constituency groups. Without the rural community college, an industry partner noted, "future employees would not exist." Another stated, "I don't know how we functioned before." At one time, a local welding company wanted to provide meals to their employees as a benefit of employment. They provided the kitchen space and the rural community college developed and offered a culinary arts program to the benefit of all. This also speaks to the public good provided by rural community college locations. One industry partner explained without the community college, the senior center he ran would "be on an island."

Example of investment: WEDnetPA

Rural community colleges also serve as a connector between state level initiatives, local industry, and students. Many rural community colleges serve as Workforce & Economic Development Network of Pennsylvania (WEDnetPA) administrators. WEDnetPA works in tandem with community colleges, PASSHE schools and other educational institutions to meet the needs of local business communities. WEDnetPA provides funds to approved local businesses for trainings that are developed and facilitated by the schools. Commonly, industry leaders think the WEDnetPA program sounds too good to be true, but community college administrators explain, “there is no catch other than that you have to follow directions.” The importance of relationship building and serving as a WEDnetPA administrator is a prime example of how to maximize state resources and minimize waste. For instance, a rural community college administrator was able to coordinate the training needs of 10 local companies, which translated into the industry partners paying \$1,000 each rather than \$10,000 each for training: “those are the partnerships that come out of community colleges.” Another industry partner explained, if there was no rural community college and no WEDnetPA program, “it would be a problem...they cover everything.”

Challenges that Hinder Rural Community College Locations

Rural community college locations face many challenges. Three primary issues were discovered through this research: rural community college locations are under-resourced; rural community college locations are underutilized; and there are structural issues at the institutional and state levels negatively impacting the functioning of rural community college locations. The first two themes were taken directly from participant observation, “We could be used a lot of different ways to keep people here and attract businesses here...(we’re) underutilized and under- resourced.” Additionally, the way community colleges are organized at an institutional and state level appear to pose barriers to maximum functioning and efficiency. Each of these challenges with sub-themes are described in this section.

Under-resourced

Three major stakeholders of rural community college locations are under-resourced: rural community colleges, rural local government, and rural community college students. These entities lack access to adequate financial resources, but supports, such as additional physical space, materials, and transportation, also appear to be needed. Resource issues for each of the three stakeholders are briefly detailed.

Rural community colleges

Many participants attributed the lack of resources to the Pennsylvania community college funding formula. The funding formula appears out-of-date, with most of the community college operating budgets relying heavily on conditions only slightly adjusted from 2005. This disproportionately impacts rural community colleges that have opened more locations and whose student populations have increased significantly over the past 15 years. Additionally, the funding formula is no longer equally balanced between state, local, and student contributions, with the majority of the cost now shifted to students. These points were consistently voiced by participants. They described the funding formula as “out-of-date” and “so out of whack.”

The inadequate funding “impedes (their) ability to meet the needs of the community.” Some programs cannot be offered, like welding and culinary arts, because rural community colleges do not have the space and facilities to train future employees. They are, “doing the best we can with what we have.” Unfortunately, this means, “people are starving for employees, but we don’t have the facilities to train them.” One administrator felt their “hands tied behind our back.” Industry partners can see it too. They appreciated the colleges maximizing their allocated resources, “how efficiently they spend money....there is no waste there...” but they also saw, “(the) school is always starved for funding...if there was a way to reallocate millions of dollars from Pitt and Penn to community colleges, the community would be better served...” Additionally, a participant stated, “Pennsylvania is horrible with helping community colleges out,” perceiving that funding has not been raised in years. While, technically, funding has been raised over the

years, the participant's perception speaks to the lack of consistent and adequate state support needed to adequately plan, invest, and, ultimately, serve their students, local communities, and industry. Rural community college employees also see more opportunities to serve their communities, "where low-income housing is...where people can walk...People do not have access that could."

Rural local government

Per Pennsylvania statute, a community college must have a local sponsor. Unfortunately, this is complicated in rural Pennsylvania. For example, some exclusively rural community colleges are sponsored by one county, have physical locations in four counties, and attempt to serve six counties. This means many students incur out-of-local-sponsor fees, and may need to travel to more than one location (e.g. outreach center and college hub) to complete an educational credential. This increases the students' overall costs (although contributes to the economy via gas/travel), and potentially decreases enrollment in rural Pennsylvania. Leaders at rural community college locations have sought additional sponsorship from other areas that are served, if not officially sponsored, but rural local governments are similarly in need of additional assistance. One participant noted, "(you) can't pull blood from a stone," and this funding structure is "setting us up for failure with our students." The lack of resources locally is evident in the lack of public transportation (at all, at night, to their location) and the lack of childcare. These deficits in local resources hinder attendance.

Rural community college students

There is often an assumption that the public community college is affordable, and it is less expensive than its university and private counterparts. However, when one community college employee asks their students, "Why aren't you coming back?" The students reply, "Because I can't afford it." Living outside of a local sponsor district, which translates into additional fees, often created an insurmountable barrier for rural community college students.

Additionally, a participant explained that Deferred Action for Childhood Arrivals (DACA) students are commonly unable to pay the currently required out-of-state tuition. DACA students have said to them, “I don’t care that I have to pay out of pocket but let me pay in state.”

Underused

In addition to being under-resourced, rural community college locations appear to be underused. Three major contributors are detailed in this section: unrealized business and industry partnerships; lack of interest in technical fields; and the misunderstood college.

Unrealized business and industry partnerships

With adequate resources, rural community colleges could develop more partnerships with local industry to the benefit of all. For instance, if rural community colleges had adequate staff, they could cultivate strategic partnerships with local businesses to increase educational training and subsequent employment opportunities for local residents. One community college administrator explained how they developed their partnership with local industry, “talked to the right person at the right time.” Presently, rural community college employees build these relationships as much as possible given their constraints but there is an opportunity to develop additional employment training programs and to draw new businesses to rural areas. Rural Pennsylvania could benefit from more purposeful and strategic planning to cultivate these partnerships. Similarly, rural community colleges could partner with local businesses to serve their captive student audience at their locations, but some are located remotely, even within the rural communities. One participant mentioned “You can’t even walk to the Sheetz...” referring to the remoteness of the school’s location and the lack of access to food services. Most sites have vending machines on campus, but the participants recognize this as a potential opportunity to partner and maximize relationships with local business that would keep resources in their rural communities.

Lack of interest in technical fields

Rural community colleges are also underused because there is a lack of interest in the technical fields,

generally, in the U.S. One industry partner explained that businesses like theirs are in a “unique position of shortage of skilled labor...dates back to the 90’s but worse now because of how good the job market is...” They continued, the unskilled manufacturing jobs were gone, and local industry needs skilled workers, “...you stand there push a button, things move down the line – you can learn the job in about a week. Those jobs are now overseas. You can’t pick up a gun and shoot flames and make cool sparks fly everywhere and call yourself a welder.” Participants wished certificates and degrees were more valued in the U.S. They believed people dismiss the importance of an associate degree, “a four-year is not better or worse than a 2-year degree if you can support yourself.” One participant explained, “It’s beneficial to no one to send someone out with a bachelor’s degree, \$80,000 in student loan debt with a job making \$40,000.” They explained the rural community college can help someone earn an associate degree to make the same \$40,000 annually with only \$10-15,000 in debt. One rural community college is unable to run an auto mechanic program because of lack of interest by students. The local auto dealerships asked the college, “How can we get you students?” The college and industry leaders are currently investigating how to implement an “earn and learn” program where students will be employed during the day (same wage across dealerships) and take classes at night.

The misunderstood college

There is much misinformation and miseducation about community colleges, “There are so many things that the community does not understand.” One participant believed their physical space contributes to the misperceptions, “because we are a building...” Participants note this miseducation is not limited to community members, “they (legislators) do not understand our mission.” Many participants explained their work is about more than just graduation rates. One participant wanted to see support at the state level like California, which has a centralized system and uses state funds to cover the bulk of student cost. They believed embedding the community college in a state level system with adequate support could change the mindset of residents so that community college might become a first choice rather than a last resort.

One rural community college employee explained that they offer a program to bus local high school

students to their site. They provide lunch and a tour to students but only six of the nine local high schools take them up on the offer. The frustration was clear as the community college employee lamented, “All of your graduates are going to Harvard I guess.” When prompted about the cause of this response from the three local high schools, he responded “...ignorance of what a community college is...” He stated one person emailed him and essentially said “community college is only for the lowest of the low...” He stated the community “turns their noses up at us because Penn State is Penn State.” Another participant echoed this experience saying despite that the community college is the affordable option and accredited like Penn State, “it’s a hard sell.”

Structural issues

Each community college system is unique across the 50 states. In Pennsylvania, the system is decentralized, meaning community colleges are initiated and administrated at the local level opposed to a centralized system, which is organized and governed at the state level. The decentralization of community colleges offers the freedom to tailor programs and services to the unique needs of the local community, but it also brings challenges. Because funding is, in part, based on the local municipality/county, many colleges organize their budgets by campus. This creates competition among campuses, confusion over how to handle distance education courses, and does not allow for location subsidization to serve the broader community needs. Employees noted, “locations are disconnected,” and, “we’re competing against ourselves.” Some rural community colleges were actively modifying their organization to address these concerns as this research was being conducted.

The decentralization at the state level also leads to competition among community colleges. There is a lack of clarity, to some extent, on territories and some artificial lines of demarcation. There also appears to be increased competition with public and private universities as university student enrollment decreases. This competition may hinder the development of comprehensive and streamlined articulation agreements between institutions and at the state level.

Conclusions

There is a direct, positive relationship between the size of a rural community college campus and its economic impact on its host county: the larger the budget, the larger the impact. Some rural campuses are very small and run on a skeletal staff. At such a scale, the rural campus should not be expected to directly generate many jobs. The economic benefits of rural community college locations extend beyond their budget and direct employment to area businesses whose training needs are met, and to area residents whose market-ready skills are developed. Such impacts on area businesses and residents are not readily captured in an economic impact framework, but the qualitative analysis provides evidence of these impacts through examples and testimonies. Therefore, the full economic impact of rural community colleges may be understated.

Based on data provided by participating community colleges, rural sites' operations support 543 jobs in their respective counties, contribute \$31.9 million to their host communities' GRP, and \$50.1 million to their host counties' output. On average (excluding the largest, outlier sites), rural community college locations support 15 jobs in the host community, contribute \$722,000 to the host community's GRP, and contribute \$1.25 million in their host community's output. On average (including the largest, outlier sites), rural community college locations support 36 jobs in the host community, contribute \$2.1 million to the host community's GRP, and contribute \$3.3 million in the host community's output. For every one rural community college job, a further 0.47 job is supported. Each dollar of value-added at a community college rural location confers an extra \$0.60 in value-added (\$0.56 including large sites) for the local community. And each dollar of output at a community college rural location generates an extra \$0.72 (\$0.82 including large sites) for the local community. Increasing financial support for rural community colleges would bring increased economic impact to host communities through larger direct and secondary effects.

Pennsylvania's rural community college locations can be classified into two main types, college hub and satellite sites. All rural community college locations promote equity through financial, educational,

and geographic access. They are invested in their local communities and seek to enhance their communities. Participants viewed dual enrollment and WEDnetPA as two stand-out examples of successful programs and collaborations with rural community college locations and their surrounding communities. Unfortunately, rural community colleges, rural local governments, and rural community college students do not have access to enough resources. Rural community college locations are also underused and misunderstood. With access to adequate resources, like increased state funding and employees, rural community college locations could develop additional relationships with local industry and expand educational opportunities for rural constituents. Additionally, the decentralization of community colleges offers maximum flexibility and responsiveness to community needs, but it also creates unnecessary competition among community colleges and among community colleges and publicly funded universities. Legislators and the public need to be educated on the benefits of attending community colleges and earning credentials in technical fields.

Policy Considerations

The research found that, although rural community colleges are invested in and contribute much to their local communities, they are both under-resourced and underused. This research identified areas of concern as well as successes to help inform state policy. The following recommendations aim to address issues pertaining to budgeting, representation and funding, the attainment of state educational goals, tuition equity, and the need for vocational skills development. The suggestions mentioned could potentially alleviate some of the hardships students in Pennsylvania rural areas face when attempting to access higher educational services.

PA Code 22 Education, Chapter 35 Community Colleges

Chapter 35 requires the burden of community college operating budgets to be divided into thirds with the state, local sponsors, and students equally contributing one third. As noted in previous research and in this research, this law has not been enforced for over a decade, shifting the cost disproportionately to community college students. There is a need to realign state level funding with state statute and to reflect present day conditions. This means increasing the line-item funding for community colleges' operating budgets. It is concerning that rural industry leaders are "starving" for employees, and rural constituents are seeking financial stability through employment, yet rural community college locations are closing. Without state level investment, conditions will continue to deteriorate. Therefore, the researchers recommend that the state abide by the current statute and provide the required financial resources to community colleges.

Additionally, the operating budgets at the state level should include consistent or base funding (determined by the prior year's funding) and variable funding (determined by FTE student enrollment). The base funding has not been updated since 2005. This has left some rural community colleges, which have experienced major changes over the past 15 years, at a disadvantage that the FTE funding has not corrected. Therefore, the researchers recommend that the base funding be revaluated and be consistently reevaluated every decade to ensure it is up-to-date.

Moreover, within Chapter 35, the local sponsor requirement is detailed. The local sponsor requirement is challenging in rural areas that are already financially constrained. Local sponsors, similar to the state, are not allocating their one third of the community college operating budgets. Additionally, a singular local sponsor does not reflect the realities of who attends rural community colleges, which frequently cover many rural counties. As noted in this research, the out-of-local-sponsor fees pose a barrier for some students. Colleges can be lenient in determining in- and out-of-sponsorship residency, but it does not require local sponsors to agree to that leniency. Again, in rural areas, where resources are limited for all stakeholders, this can create an undue burden. Therefore, the researchers suggest that the state consider subsidizing local sponsor fees for

rural community college students who live outside of local sponsorship areas.

Public School Code of 1949 (P.L.30, No.14)

The Public School Code of 1949 was amended in July 2019 and is relevant to these research findings. First, the Code, as amended, established, “The Public Higher Education Funding Commission.” The commission’s 19-members include state senators, state representatives, and representatives from Governor Wolf’s administration. There are no representatives from Pennsylvania community colleges or other institutions of higher education. As noted in the introduction, the commission’s composition does not conform to recommended best practices. Therefore, the researchers recommend that the commission amend its membership to include key stakeholders, including rural community college leaders.

Second, the Code as amended added a definition of “public institution of higher education,” to include, “a community college operating under Article XIX-A,” as well as, “a university within the State System of Higher Education under Article XX-A of the Public School Code of 1949,” (Pennsylvania State System of Higher Education or PASSHE) and, “a state- related institution as defined in Section 2001-C of the Public School Code of 1949” (state-related university). Creating a more centralized system of higher education has the potential to address the structural issues identified in this research, like competition among institutions. However, the institutions unique missions, services, and populations served need to be acknowledged and cooperative agreements need to be enacted to avoid creating additional complications.

The Code also extends the state’s purview of community college funding to include performance-based metrics, “The commission shall develop a higher education funding formula and identify factors that may be used to determine the distribution of funding among the public institutions of higher education.” This means that community colleges are under greater scrutiny by the state, not only without the benefit of additional resources but without the resources outlined in Chapter 35, and with the possibility of financial penalty.

The factors noted in the Code are to be determined by the commission. The concern is not that

community colleges will be assessed, rather than they will not be accurately assessed. With a sweeping definition of public institutions of higher education and a committee of decision makers who are likely unfamiliar with the varied work of community colleges, there is a concern that ultimately community colleges will be evaluated using university derived factors. The factors need to reflect the institutional missions, vision, values, and student goals of the evaluated institutions. Using the same factors to determine funding for institutions with different goals is a problem. This will not yield an accurate assessment of community colleges and will assuredly overlook much of the work they do in the interest of public good.

One of the factors listed in the amended Act, graduation rates, can serve as an example. First, students must apply and be admitted to universities. This is not the case for Pennsylvania's open-door admissions community colleges. This places community colleges, without any screening process for who attends their institutions, at a disadvantage. Second, unlike university students who are almost inevitably seeking to earn a bachelor's degree, community college students enter their institutions with a wide array of goals. Some students, after much bargaining with their parents, plan to attend the community college for a year or two before heading off to a university. Some students seek to "upskill," taking a few courses to enhance their professional skills and move up in their current employment. Some students take one class a semester because it is all they can afford and make time for in their busy lives. Community colleges with their open door admissions attract a diverse student body who may or may not be seeking to graduate from the community college in a prescribed timeline.

To be clear, presently, it is unknown what factors the commission will select and if they will select the same or different factors for institutions classified as public institutions of higher education. Please allow this to serve as a strong recommendation for the commission to consider. Should the state continue down this road of performance-based funding for its community colleges, the researchers recommend that community colleges have a unique set of factors different from PASSHE and state-related universities. The important equity, access, and connecting work of rural community colleges need to be included in the

factors. Additionally, and most importantly, the factors should be developed in collaboration with community college leaders, researchers, and advocates who: understand the unique circumstances of higher education in rural and urban settings; the work of community colleges generally; and the significant differences between Pennsylvania's public institutions of higher education.

Pennsylvania's Postsecondary Attainment Goal

In July 2018, the Pennsylvania State Board of Education's Council of Higher Education unanimously adopted a postsecondary attainment goal “to have 60 percent of the population ages 25-64 hold a postsecondary degree or industry recognized credential by 2025, with a particular focus on closing attainment gaps for historically underrepresented populations” (State Board of Education's Council of Higher Education, 2018, p. 1). To meet this goal, public educational institutions need to think creatively and critically about how to maximize resources. One way is through dual enrollment. Many rural community colleges and high schools already partner via dual enrollment to expand educational opportunities for rural students, with courses offered at the high school and the community college. Additional funding by the state to enhance and expand these partnerships between secondary and post-secondary institutions could encourage additional students to enroll in higher education and grow the skilled workforce in Pennsylvania.

Another way to capitalize on public education partnerships is to expand the existing rural community college location typology to include the concurrent-use campus model, where community colleges and PASSHE institutions share a location to maximize public resources and minimize student barriers to continue their educations. This could enhance the utility of the underused rural community college locations and elevate their status within the community. These partnerships could also be virtual using existing technology to connect classrooms across locations.

The state legislature and the public need to be educated about the benefits of rural community colleges and technical training. Commissioning research like this is one way to gather and disseminate credible

information. Additionally, state support and public service announcements could help to educate the citizenry on the benefits of pursuing educational and workforce credentials at rural community colleges.

WEDnetPA

WEDnetPA was viewed as a worthwhile state-funded initiative by all participants who spoke about it. Participants spoke about the improvements made to the program over the years to streamline the process and the additional vocational training they have been able to provide to improve workforce skills. Rural community college administrators of the program appeared to maximize allocated resources among industry partners to the benefit of industry, employees, and the local community. It is recommended to continue to fund the WEDnetPA program and have rural community college leaders serve as administrators of the program.

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