Financial, Equity, and Systems Gap Analysis: Removing Barriers and Creating Opportunities in Education in Beaver County, Pennsylvania

The Center for Research and Reform in Education

Community Catalyst Partners

The Management Solution

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EXECUTIVE SUMMARY

The Center for Research and Reform in Education (CRRE) at Johns Hopkins University, in collaboration with Community Catalyst Partners (CCP), and The Management Solution (TMS) conducted a year-long, multi-faceted study for the Quality Education Council (QEC) of the Beaver County Partnership for Community and Economic Growth. The QEC is one of five pillars identified by the Beaver County partnership to grow the county. We specifically designed our study to address Phase III goals of the QEC's four-phase initiative to "provide a high-level overview of the county's current public education system within the context of demographic trends and fiscal sustainability" through several focuses:

- ***Benchmarking*** six communities, four in Pennsylvania and two out of state, that have demonstrated success in population growth and quality of education, for purposes of identifying potential strategies and best practices for achieving quality education and community development.
- ***Stakeholder Analysis and Engagement*** for purposes of developing cross-sector community buy-in and trust, critical feedback, and ideas to inform immediate recommendations and Phase IV implementation planning.
- ***Financial Analyses*** for purposes of identifying revenue and expenditure practices by county school districts over time and relative to the benchmark communities and enrollment patterns.

County and Education Profiles

Prior analyses and our current study of Beaver County provide a description of current characteristics.

- Reversals in prior economic growth and continued population decline between 1980 and 2000, following the closing of the steel mills.
- A population of approximately 168,000 residents, of whom 86.2% are white and 6.6% are African American.
- An opportunity for expanding local job opportunities potentially sparked by the Shell Oil Company's construction of a petrochemicals plant. The plant is expected to employ about 600 workers in jobs.

Beaver County consists of 14 small school districts (totaling about 21,000 students), all of which serve student enrollments of under 2,500. Based on NCES data for 2018-19, in five of the county's districts, over 90% of students qualify for free or reduced-priced lunch. Eight of the county's 14 districts serve student enrollments that are over 88% white. Only one district, Aliquippa, serves a population that is majority minority. School achievement exceeds state norms in the majority of districts. On the 2019 Pennsylvania System of School Assessment (PSSA) Language Arts Exam, roughly

two-thirds of the elementary/middle schools across the county (23 of 35) had pass rates that exceeded the overall pass rate for the state (60.9% of students across the state achieved proficient or advanced status on the exam). This trend was also present for the 2019 PSSA exams for math and science, respectively.

Benchmarking Study

The Benchmarking study was designed to examine the educational practices, strategies, and programs employed by high-achieving school systems outside of Beaver County. The purpose was to identify potential strategies that the county may consider as it plans and implements solution activities in Phase IV. For this portion of the project, we conducted case studies of select communities, four in Pennsylvania and two out of state. From a comprehensive initial search for comparison counties, we selected the following six as the benchmarking sample: (1) Allegan County, MI; (2) Butler County, PA; (3) Cameron County, TX; (4) Dauphin County, PA; (5) Pittsburgh, PA; and (6) York County, PA. These communities were those that we identified as having high quality educational programming and population stability or growth, as well as characteristics that appeared well-aligned with the goals of achieving educational equity and success across a diverse array of schools. Pittsburgh, a geographically close urban center, was selected based on strong QEC interest. Cameron County, in the Rio Grande Valley of Texas, was selected based on its participation in recent initiatives to develop community partnerships and improve education.

Findings from these case studies revealed that within the benchmarking communities, four key areas appeared to be consistently prioritized by local school district and community leaders as the central focal points of their programming, budgeting, and strategizing. These focal points included (1) college and career readiness, (2) academic quality, (3) equity and opportunity, and (4) parent and community engagement. For each of these areas, we identify key programs implemented by the communities as potential considerations for adaptation by Beaver County. The main technical report provides case study overviews of each benchmarking community and also details these exemplar programs with regard to rationale, implementation, and outcomes.

College and Career Readiness. The benchmarking communities each had clearly articulated definitions for what college and career readiness meant in the context of their schools. Further, they attempted to operationalize the knowledge and skills that students would need to develop over the course of their K-12 schooling in order to achieve this “readiness” standard. School districts then implemented key programs for high school students, which were aimed at exposing them to different career pathways, providing them opportunities to earn college credit, and providing general guidance for post-secondary transitioning. Exemplary programs included:

- *The College within the High School* program in Butler County, in which students can earn college credit from the county's community college or through the University of Pittsburgh, all while taking the classes on-site at their neighborhood high school.

- *Early College High Schools* in Cameron County, a program that enables students to earn up to two years of tuition-free college credit while pursuing their high school diplomas.

- *Naviance software* usage support in Butler County, Dauphin County, and Pittsburgh, which guides students in setting post-secondary goals and creating long-term career plans that match their unique strengths and interests.

- *The Pittsburgh Promise* initiative in Pittsburgh Public Schools, in which students who maintain a 2.50 GPA and 90% attendance throughout high school are awarded a $5,000 annual scholarship to continue their education at a post-secondary school of their choosing.

- *The Graduate Profile* in Pittsburgh Public Schools, which serves as a comprehensive compendium of the knowledge and skills needed at each grade level to ensure that students are progressing on a pathway to be college and career ready, personally prepared, and civically engaged.

- *The Pathways to Pride* program in Dauphin County, which is designed, starting in middle school, to connect career, curriculum, and character education so that students graduate from high school as well-rounded and productive citizens.

- *The Career Clusters* program in Butler County, which provides students with a variety of courses and activities to help them plan for the future with an eye toward 21st century learning.

- *The LEAD (Learn, Explore, Act, and Develop)* program in Butler County, which is designed to develop 21st century learners who are career ready in academic preparation and personal characteristics that promote success.

- *The College Readiness Action Network* in Cameron County, which strives to increase the number of students eligible to take college-level, credit-bearing courses during high school. The program also fostered the development of college prep courses in math and English aimed at preparing students not yet demonstrating college readiness.

- *The Culture of Attending College Action Network* in Cameron County, which was created to engage college-access professionals to increase early college awareness by providing high school students resources and pre-college advising on admissions and financial aid application completion.

Academics and Curriculum Resources. In most districts across the benchmarking communities, students are provided with extensive course offerings and academic programming that allow for high levels of student choice. Teachers are also provided with a wide array of high-quality curriculum resources that are explicitly focused on student-centered learning and whole-child development. At the district level, there is a clear focus on investing in innovative programs and initiatives. While pursuing these innovations, the districts take steps to maintain a well-organized and efficient use of funding and resources. Exemplary programs include:

- *The School Choice Program* in Allegan County, which enables students living anywhere in the county to apply to and attend school in any of the county's eight school districts.

- *The Creativity, Innovation, and Research Centers (CIRCs)* in Butler County's Seneca Valley SD, in which special classrooms are uniquely designed to accommodate project-based and constructivist forms of learning.

- *The Reading Lab* in Butler County's Mars Area School District, which offers comprehensive programs to assist struggling readers and their families.

- *The Back on Track Program* in Cameron County, which encourages high school dropouts to return to and complete school.

- *The ACE After-School Program* in Cameron County, which aims to address learning loss that resulted from the pandemic-interrupted 2020-21 school year by providing support services such as virtual homework assistance, tutoring, and enrichment to students and their families.

- *The Summer B.O.O.S.T. Program* offered by Pittsburgh Public Schools, which provides summer enrichment programs to support low-achieving and other students motivationally, socially, and academically.

- *The Middle School Mentoring* program as well as the *We Promise Mentorship* program in Pittsburgh Public Schools, which provides extra support to 11th-grade males to help them qualify for the *Pittsburgh Promise* scholarship.

- *The ACE Mentoring Program* in Dauphin County, which provides high school juniors exposure to work projects and skilled professionals in career fields such as architecture, construction management, and engineering.

- *The Discovery Program* in Dauphin County, which is designed to support high school students' character education through seminar discussions, community service, school-wide jobs, and team building activities.

Equity, Diversity, and Inclusion. The vast majority of districts across the benchmarking communities, regardless of size and demographic composition, were found to have explicit plans for promoting equity, inclusion, and celebrating student diversity. Exemplary programs include:

- *The Pennsylvania Department of Education's Six Pillars of Equity* are used in Dauphin County to promote general and academic equity, including equitable access to resources (e.g., internet and technology), teacher awareness of diversity and students' lives outside of school, and family and community engagement.

- *The Future-Focused Planning* (FFP) initiative in York Suburban School District (York County) is developing a research base and recommendations to guide schools in creating more equitable, inclusive, and socially just learning environments for students

- *On Track to Equity* in Pittsburgh Public Schools is a comprehensive implementation plan intended to reduce racial disparities throughout the district and elevate the achievement levels of African American students.

- The *Superintendent's Student Advisory Council* in Pittsburgh Public Schools places peer-elected students on a variety of the Superintendent's district-level committees and tasks them with representing student interests while participating in instructional committees at their individual schools.

Family and Community Engagement. The benchmarking communities were found to place a great deal of emphasis on promoting strategies aimed at engaging parents and involving community institutions in the local school systems. These strategies, which were considered by stakeholders as necessary for success in fostering community health and growth, were largely centered on substantive, ongoing communication with parents, families, and community organizations, as well as on formally celebrating student and school accomplishments and capital projects (e.g., marketing campaigns). Exemplary programs include:

- *The Key Communicators Network (KCN)* in Allegan County's Otsego Public Schools (OPS) was launched in 2013 to increase the number of people outside the school district who are well informed about what is happening in the schools.

- *The NutriPacks* program in Central Dauphin School District focuses on local families' needs for food and nutrition.

- The *Plainwell Education Foundation* in Allegan County, the *Seneca Valley Foundation* in Butler County, the *Northeastern Foundation* in York County, and the *Trojan Education Foundation* in Dauphin County are all dedicated to fundraising for school and scholarship support.

- *Experience HCISD* in Cameron County is a magazine disseminated regionally to further Harlingen Consolidated ISD's effort to market its schools.

- The *RGV* initiative in Cameron County developed a comprehensive data strategy that focuses on disseminating school performance data related to the initiative and providing schools and stakeholders with tools to help them accurately interpret the information communicated.

- *The comprehensive parent engagement plan* in Pittsburgh Public Schools establishes a Parent Advisory Council that acts as the district's central mechanism to inform parents about district matters and gives them the opportunity to help develop district-level programming/policy and share information with district staff.

Approaches to System-Wide Reform in Benchmark Communities. Across the communities, IU leaders, district cabinet members, and others described strategies they have employed to successfully foster district collaboration, parent and community engagement, and county-wide buy-in for educational change. One consistent theme was that they must actively work to overcome challenges, similar to those in Beaver County (with the QEC endeavoring to establish initial collaborative leadership), related to competing demands, resource allocation, inequality, and localized poverty. They consistently stressed that *school choice* is an important reality for their districts, in response to which they are now prioritizing ways to better communicate and build relationships with parents about such opportunities. Notably, they identified uses of collaborative forms of leadership as effective for creating a shared vision, prioritizing cross-sector communication, and building on pre-existing community strengths. Initiatives identified to build local capacity for growth and reform include:

- The *Collective Impact* Approach and *Bright Spots Model* employed in the Rio Grande Valley (Cameron County)
- *The Appreciate Inquiry Approach* employed in Allegan County
- The use of *ThoughtExchange* in Pittsburgh Public Schools
- *The Community Engagement Strategy* employed as part of the York County Suburban School District *Future-Focused Planning (FFP)* initiative

For large-scale initiatives that involve sweeping instructional reforms or changes in facilities use, leadership teams often engaged in comprehensive research to inform their decision-making. Several of these initiatives, including *Slippery Rock School District's Facilities Study* (Butler County), the *Future-Focused Planning Initiative* in York Suburban School District (York County), and the *Upper Dauphin–Millersburg District Merger Study* in Dauphin County, bear similarities to the present QEC project. Several systemic reform approaches that are currently being employed in the benchmarking communities are discussed in greater depth in the main report.

Community Stakeholder Perceptions

Because travel was precluded by the COVID-19 pandemic, we initiated 45- to 60-minute individual remote (Zoom) interviews with community stakeholders, beginning with every member of the QEC. Next, we interviewed superintendents, followed by school board presidents, political office holders, presidents of higher education institutions, and then a mixture of community members from the public and private sector. We conducted 85 remote (Zoom) interviews in total. During a community visit the week of July 12-16, 2021, our team visited school districts and charter schools, conducted focus groups with various stakeholder groups, participated in a press conference, met with groups of high school students invited from the districts and charter schools, and informally met with Beaver County citizens invited to attend open meetings.

Qualitative analysis of the individual interview responses yielded several themes, as described below. Subsequent community focus groups echoed these same themes as described in the full report.

Education and School Effectiveness. Common themes in the county were declining enrollments due to an aging adult population in their communities, older and unattractive school buildings, and struggles with stretching tight budgets to provide adequate staffing, curriculum options, and resources. Most frequently noted as reasons for maintaining the current number of school districts in Beaver County were the popularity of high school football and maintaining the community's long-time "mascot identity." With regard to student achievement, common perceptions of interviewees from diverse sectors are that (a) Beaver County schools are doing a good job with what they have, but that resources in many districts are limited; and that (b) there are extensive inequities across schools and districts. Suggestions for improving educational quality, equity, and opportunity included sharing resources between districts, consolidating/merging districts, increasing connections between K-12 education and higher education and careers, and expanding enrichment and academic programming both inside and outside of school.

Resource Sharing. Relative to mergers and consolidation, resource sharing was described as a more conservative and less controversial strategy for districts to

economize and increase capacity. Areas in which sharing has occurred and could be expanded included busing, Advanced Placement courses, counselors, administrators and managers, counseling and mental health services, and special education. The predominant view was that while resource sharing was logical and desirable in any scenario, it would not resolve the overriding problems for many districts regarding financial solvency, funding sources, equity, and capacity to offer comprehensive programming.

Charter Schools. Multiple district superintendents and school board presidents expressed concerns that charter schools benefit unfairly from an overly generous state funding formula. Consequently, the regular school districts incur a severe financial drain from losing their students to the charters. In a positive vein, some district leaders acknowledged a positive role of the charter schools in offering alternatives to what regular schools could provide, such as arts integration or cyber learning. Supporters of charter schools, however, noted their contribution of bringing in students from outside the county, who otherwise would be enrolled in schools elsewhere. Charter school leaders conveyed that they desired to participate more in county-wide education planning and in cooperative ventures but often felt excluded from such discussions.

Keeping Young People in the Community. Many interviewees expressed the belief that after completing school, particularly college, many young adults just assume that they will live elsewhere. Clearly, one effective draw would be attractive jobs in contemporary fields likely to have longevity. Another suggestion was bringing in arts and other attractions that appeal to young people. A third was more active marketing of the community to college students, particularly those who currently live outside the county.

Financial Status of Districts. Interviewees overall presented highly consistent, mostly pessimistic views of the present and future financial status of education in the county. One school board president offered, “our budget is balanced this year, but deficits seem likely for the next three to four years.” Identified as salient problems across the county were aging school buildings, open positions, increasing teacher salaries, and an aging population not wanting to pay higher taxes for schools. As small districts with limited revenues, they felt considerable pressure to provide full course offerings, maintain facilities, and fund all necessary administrative, teaching, and staff positions. Of much concern, the declining enrollment in nearly all districts results in less funding.

Equity in Education and Opportunity. A strong consensus regardless of interviewees’ race or background was that inequity clearly is visible across the county. Poorer districts were generally characterized as having less attractive or older school facilities and resources, and also serving the highest numbers of African American students. White respondents, in general, tended to view the acceptance of minorities

across the county much more positively than did African Americans, some of whom who perceived continuance of prejudice in how minorities are treated and regarded.

Higher Education Connections. Many interviewees described the presence and influences of higher education in Beaver County as a clear asset. Praise was highest for community college opportunities, based on the view that many high school graduates in the county don't necessarily need four-year college degrees to be prepared for meaningful and successful careers. Others also commented favorably about the Community College of Beaver County's academy program, seeing it as a valuable way to connect high school students to college programs and contemporary careers. Higher education and K-12 Local Education Agency (LEA) leaders described efforts of varying scopes and success to develop connections with school districts. Needs suggested included: (a) creating more dual-credit, AP, and academy-type offerings for high school students; (b) shifting the roles of high school guidance counselors, so as to assist all students in learning more about postsecondary opportunities and increase their communications with college admissions officers; (c) establishing a postsecondary tuition incentive program similar to Pittsburgh Promise; and (d) increasing outreach by higher education to both local and residential students to promote service learning and career opportunities in Beaver County.

County Economics. Interviewees presented an equivocal picture of the current economy in the county and more skepticism about its future. One perspective was that there are not enough applicants with suitable training to fill current job openings. Several interviewees viewed the Shell plant as a possible foundation for spawning additional jobs and attracting new industry. A greater number, however, were more pessimistic and advocated that the county become more aggressive and creative in attracting new businesses and industry.

Quality of Life. Characterizations of county living included beautiful scenery, the rivers, parks and forest, proximity to Pittsburgh and the airport, and friendly people. Those involved in the judicial system and law enforcement described crime as mostly associated with disputes or incidents among family members or acquaintances rather than random. Drugs, such as opioids, were viewed as a growing problem in some areas of the county. Interviewees in general described the county as a safe and pleasant place to live, and quality of life as an asset in potentially attracting new and younger residents.

Student Perceptions

During the July 12-16 visitation to Beaver County, multiple student focus groups supported several main themes.

Lack of Opportunity. Many students perceived educational opportunities at their high schools as insufficient. The most common explanation was that their schools

were too small to offer the range of programs and extracurricular activities that larger high schools could provide. Students also felt that they received limited counseling about personalized options for obtaining advanced coursework (e.g., engineering, music, or theater) at their home school or elsewhere.

Insular Environments. Although the vast majority of students were positive about peer relationships and the friendly atmosphere of their towns, many expressed feeling confined or isolated by attending small schools with most of the same peers from grade school to high school. A strong perception of nearly all of the focus group participants was that Beaver County and its high schools place inordinate emphasis on athletics, particularly football. These concerns ran parallel to those expressed about course and enrichment offerings likewise being given lower priority than athletics.

Equal Opportunity and Diversity. The prevailing attitudes reflected openness to having more opportunities to interact with peers different from themselves. On the other hand, the focus group responses saliently presented a picture of inequity and stereotyping associated with towns and schools. The existence of a status hierarchy based on which district you attended received strong corroboration by the overall group. Students from lower-income districts also felt that inequities existed in the quality of education they received relative to peers in wealthier areas.

Beaver County as a Place to Live. When asked whether they envisioned themselves living in Beaver County as adults, a strong majority of students across the others answered negatively. Major concerns addressed perceived limitations regarding desirable jobs, culture, and entertainment. Specifically, they conveyed that compared to larger communities, few venues for arts, sports, and other activities aside from high school athletics and outdoors recreation exist.

Beaver County Financial Capsule

For this study, we performed analyses of revenues, expenditures, and enrollments in Beaver County and the benchmark communities. The full report includes multiple tables as well as a link to spreadsheets employed in the analyses. Main takeaways from this study component are summarized below.

Revenue Sources. We tracked the revenue sources for the years FY16 through FY19 for all publicly funded schools in four counties (Beaver, Butler, Dauphin, and York), as well as the Pittsburgh Public Schools. Of the five systems, Beaver County had the lowest percentage of local funding (from 45.2% to 43.7% over the four years). The other four systems' ratios ranged between 49.9% and 64.4%. In each of the four years, and more so than for the comparison communities, an increasing percentage (from 46.6% to 50.8%) of local funding for education in Beaver County went to charter schools.

The primary implication of these data is that losing local funding to charter schools creates greater dependency by the regular school districts on federal and state funding. The latter sources are less secure and predictable than local funds, and do not fully make up for local losses. To the extent local revenues decline over time or trail those in other counties, Beaver County schools will be at a relative disadvantage in acquiring resources to support quality education.

Within Beaver County, there was noticeable variation in the percentage of local revenue to total revenue from district to district. In FY19, the highest percentage of local revenue/total revenue occurred in the Beaver Area at 63.9%. Midland Borough had the lowest percentage, at 19.4%. Notably, lower percentages of local income and higher percentages of state income tended to be found for the five districts enrolling 90% or more students who qualify for free or reduced-price lunch (Midland, Beaver Falls, Aliquippa, Rochester, New Brighton). When we tracked revenue changes over the four years, two of the districts serving the highest percentages of low-income students, Aliquippa (+7.5%) and Midland (+6.4%), were among the three lowest in revenue increase during this period; South Side Area (+6.1%) was the lowest. However, another high-poverty district, Big Beaver Falls (+15.5), had the highest increase, followed by Blackhawk (+13.4%) and Central Valley (+13.1%). Similar to the concern described for the county overall, having lower local revenue relative to school districts in Beaver County and neighboring counties places certain districts (most concerningly, those in lower-income areas) in a less stable and sustainable position for supporting quality education.

Beaver County Expenditure Analysis. Given publicly available data extending from FY16 to FY19, we analyzed expenditures compiled by the state departments of education for Beaver County and the benchmark communities.

Instruction to total expenditure ratios. In Pennsylvania, instructional expenditures include regular education, special education, and vocational programs. All PA benchmark districts, including Beaver County, devoted at least 52% of expenditures toward instruction for every fiscal year examined. However, Beaver County consistently had the lowest percentages of the PA counties. With regard to per-pupil expenditures for instruction, Beaver County's yearly allocations (in the $10-11k range) were about half of those by Pittsburgh Public Schools but comparable to the other PA benchmark counties.

Beaver County school district expenditures. Beaver Area had the lowest ratio of instruction expenditures at 50.4% to 52.7% over the four-year period. At the other end of the scale, Midland Borough had the highest ratios, between 65.1% and 69.1%. Over the four-year period, all 14 Beaver County School Districts saw an increase in expenditures, with a range of a 4.0% increase in South Side to a high of 15.7% at Western Beaver. But the percentage increases in expenditures did not always match up evenly with the percentage increases in revenues. Aliquippa experienced a 5.7% higher

percentage in expenditure at 13.2% over the four years than in revenue at 7.5%. Conversely, Central Valley revenue rose 13.1% over four years, but the expenditures rose only 9.5%. The wide range of differences in percentage for revenue and expenditure increases reflects inequities in available funding across the various districts. Such inequities, in turn, are likely to create unequal educational opportunities for students depending upon where they attend school.

In a concluding analysis, we examined the amount Beaver County School Districts spent per pupil on instructional expenditures. Three of the five districts serving the highest percentages of low-income students (>90%) fell into the highest of three tiers for instructional expenditures: Rochester, Midland, and Aliquippa. New Brighton and Big Beaver Falls fell into the middle tier. Poorer districts benefit from receiving increased supplementary federal (e.g., Title I) support, but the financial analyses overall present a concerning picture. Given relatively low and potentially diminishing local revenues and increasing expenditure needs for aging buildings, staffing, and instructional resources, competing with charter schools and other districts within and outside Beaver County will be increasing challenging.

Beaver County Student Enrollments

Revenue trends are influenced directly by student enrollments in associated years. In comparison to the six benchmarking communities, when regular public and charter schools are combined, Beaver County ranks fairly high (third out of seven) in four-year change (FY2016-19), gaining 89 students (+.28%). Only Dauphin County, which exhibited a marked gain of 7.90%, and Allegan County (0.93%) also increased their enrollments.

For Beaver County regular school districts, enrollment increases, all very modest in size, occurred only for Central Valley (+24 students; 1.05% gain) and Big Beaver Falls (+6 students; 0.35% gain). Of the 12 districts showing decreases, South Side (-119 students; -10.84% gain), Aliquippa (-97 students; -8.76% gain), Midland (-28 students; 9.33% gain), and New Brighton (-108 students; -7.36% gain) experienced the greatest losses. The latter three districts also have three out of the five highest student poverty rates in the county.

Results for the three Beaver County Charter Schools tell quite a different story, as all three schools experienced positive growth rates, with those for Lincoln Park and PA Cyber exceeding 10% over the four years. Specifically, while the regular public schools lost 864 students (-4.01%) in total, the charter schools gained 1,061 students (10.19%). Charter schools, however, as notably demonstrated by PA Cyber, have the advantage of enrolling students from outside the county.

Conclusions and Recommendations

Based on our findings, we discuss in this section potential needs and strategies to be considered by the QEC and other county leaders in establishing community goals for Phase IV. In considering possible initiatives for positive change, we drew on a framework depicted in the main report, which reflected three interactive "circles of change" efforts.

The Inner Circle: Strengthening School Districts

The inner circle represents the strengthening of education quality at the school district level. Suggested strategies and goals for consideration and discussed in the main report include:

Relevant and Engaging Learning.

- Increasing the connection of academic and experiential learning offerings to postsecondary and career educational opportunities, particularly those available locally.
- Increasing the connection of academic and experiential learning offerings to jobs and careers available locally.
- Increasing the connection of academic and experiential learning offerings to 21st century jobs and careers, particularly those likely to be most essential in the future world of work.

Equity in Opportunity and Expectations.

- Ensuring that all students in each school district have the preK-12, postsecondary, and career opportunities to be successful as adults.
- Ensuring that all students in each school district are supported in the expectations communicated and encouragement provided for achieving educational success.

Using Funding Strategically and Wisely.

- Conducting yearly operational budget reviews aligned to needs assessment goals for quality education.
- Allocating American Rescue Plan Act funds and other supplementary state, federal, or local funding to support needs assessment goals for quality education.
- Continuing to investigate opportunities for resource sharing with other districts and LEAs.
- Conducting, at a minimum annually, program reviews and the corresponding financial impacts of the programs to determine the rate of return on the investment.
- Exploring strategic planning relative to investments addressing aging high school facilities throughout the county.

Personalizing Education for Students as Future Citizens.

- Increasing communications to students and parents about educational opportunities within and outside the LEA.
- Increasing the personalization of those opportunities to students' needs and interests.
- Increasing the availability of health and social-emotional supports to students and their families.

The Middle Circle: Enhancing County Education

Generating a broader type of engagement, focused on short-term and long-term community-owned education goals is viewed as most likely to foster economic growth and prosperity over time. Target strategies proposed for consideration in the full report include:

- *Sharing Resources:* LEAs can increase collective capacity by sharing resources and services rather than excluding important offerings or providing watered-down versions. To support future sustainability and growth, LEAs are encouraged to focus on how to be competitive and accountable within the county and the region.

- *Connecting Students with Adaptive Programming:* Without extensive funding and resources, a given school can only provide so many programming options to its diverse students. A county as a whole, however, is much better equipped to accomplish this goal, given the right structures and collaborations.

- *Telling the County Story:* Our findings also revealed many positive aspects of Beaver County education, the diverse program options (regular districts, the CTC, charter schools, higher education institutes) being one. In the absence of the county telling its own story, the messaging about education quality that reaches the public may be reduced to state-reported test score (PSSA) averages and the attractiveness of school facilities. The most potent type of communications would describe clear and universally appealing advantages of Beaver County education potentially available to every high school graduate.

- *Postsecondary Opportunities for All:* Providing supplementary financial support to ensure that all local students can pursue postsecondary academic and career education can galvanize communities, attract new residents, and increase student high school graduation rates and achievement. Our financial analyses suggest ways that last-dollar funding for the first two years of postsecondary education can be achieved through collaborations between local LEAs and higher education institutes.

The Outer Circle: Engaging the Community

School districts by themselves (Inner Circle) and collectively (Middle Circle) unquestionably can do much to elevate the county's profile as a place where students can receive a quality education from pre-K through postsecondary. However, simply building it doesn't mean they (new residents) will come or that what is built will last very long. While access to good schools is a critically significant asset of a community, ultimately, families and businesses considering where to locate will be evaluating what the county as a whole offers them. Using positive educational initiatives as a springboard, the Beaver County community might consider the following types of actions:

- Promoting and helping to implement "postsecondary opportunities for all," which, similar to the Pittsburgh Promise, would ensure that every Beaver County high school graduate has last-dollar tuition money at a partnering regional vocational school or institute of higher education.

- Fostering school-to-work and school-to-community connections through expanded internships for students in local businesses and service-learning opportunities with nonprofits, government agencies, and other community organizations.

- Actively promoting ("marketing") the county to students as a place to live as young adults. The charter schools and higher education institutes have many enrollees from outside Beaver County, who, through community outreach and participation in service projects, might form local connections that make them more likely to remain or return some day as residents.

- More actively communicating with the public (i.e., voters) about future possibilities for the county and how strengthening education and promoting county growth would impact them personally in positive ways (e.g., lowering taxes, increasing property values, bringing in more businesses and entertainment, etc.).

- Bringing diverse, cross-sector groups to the table to collaboratively establish goals, structures, and action strategies for Phase IV.

Phase IV Implementation: Driving Educational, Postsecondary, and Economic Success

This Phase III report is intended to provide information and ideas for strengthening education and spurring future community growth. Our proposed framework for supporting education, with the goal of positively impacting development countywide, entails:

- Establishing and communicating *community-owned expectations and goals.*
- *Using collaborative governance* to inform and sustain effective initiatives.
- *Using data* to quantify benchmarks, measure progress, and establish accountability.
- *Implementing comprehensive programming* to align educational initiatives with community needs.
- *Marketing educational and county assets* locally and regionally.

Cautions are:

- Effective community change requires abandoning what is familiar and comfortable.
- Diverse stakeholders must participate to derive and own shared goals.
- Success requires enhanced community education (Inner and Middle Circles).

Commitment device/community-owned goal. Combining an overarching goal that the community "owns" with strong cross-sector alliance can help ensure that long-term commitment to development is made to all sectors. Examples from other communities include: postsecondary scholarship programs, job training programs with guaranteed employment, incentives to reside or relocate to the county, etc.

Collaborative governance. In order to achieve the community-owned goals, to improve education quality and the local economy, and to make Beaver County more attractive to potential residents, all sectors (education, higher education, business, government, philanthropy) need to be working together in an inter-dependent relationship. Establishing such collaborations will require putting structures and processes in place for the work to be sustained, and will necessitate a local facilitator or convener who is *not* employed by one of the partners.

Strategic data utilization. A dashboard of mutually agreed-upon data points that tie together economic and academic indicators is the lifeblood of sustained communitywide efforts. This dashboard serves both as a vehicle to identify short-term goals and as an accountability tool for the collective effort and the individual partners. Putting processes in place (*Root Cause Analysis)* to ensure that these data are utilized to inform decision making is critical early work necessary to sustain the effort.

Comprehensive programming. Programming that builds upon student talents and strengths, aligns with community needs, and supports economic development countywide will help ensure that young people and talent are both drawn to Beaver County and remain in Beaver County. The benchmark counties reviewed in this study demonstrate use of numerous programs and initiatives that might be vetted and considered for adaptation to support Beaver County's identified goals in Phase IV.

Financial, Equity, and Systems Gap Analysis: Removing Barriers and Creating Opportunities in Education in Beaver County, Pennsylvania

Introduction

The Center for Research and Reform in Education (CRRE) at Johns Hopkins University, in collaboration with Community Catalyst Partners (CCP), and The Management Solution (TMS) conducted a year-long, multi-faceted study for the Quality Education Council (QEC) of the Beaver County Partnership for Community and Economic Growth. We specifically designed our study to address Phase III goals of the QEC's four-phase initiative to "provide a high-level overview of the county's current public education system within the context of demographic trends and fiscal sustainability" through several focuses:

- ***Benchmarking*** six communities, four in Pennsylvania and two out of state, that have demonstrated success with regard to population growth and quality of education, for purposes of identifying potential strategies and best practices for achieving quality education and community growth.

- ***Stakeholder Analysis and Engagement*** for purposes of developing cross-sector community buy-in and trust, critical feedback, and ideas to inform immediate recommendations and Phase IV implementation planning in conjunction with a review of federal, state, and local government regulations.

- ***Financial Analyses*** for purposes of identifying revenue and expenditure practices by county school districts over time and relative to the benchmark communities and enrollment patterns.

The three major partners for this project (CRRE, CCP, and TMS) have collaborated for many years as facilitators and evaluators of school and community revitalization initiatives, most recently (CRRE and CCP) in association with the Say Yes to Education Foundation in the cities of Syracuse, Buffalo, and Cleveland. TMS and the Say Yes to Education Foundation partnered on reviewing the budget condition and financial operations and stability of the New Haven, CT, Public Schools, as well as work in Converse County School District #1 of Douglas, Wyoming. In the subsequent sections of this report, we will describe the background and rationale for the study, the methodology, and most critically, the major findings and their implications for QEC and broader community actions to achieve education improvement and community growth goals. In a final section, we propose a conceptual framework and implementation steps to guide intervention activities in Phase IV.

Background and Purpose

One of the most fundamental obligations of any society is to prepare its children to lead productive and prosperous lives as adults. In considering what it means to be well prepared for adulthood, there is strong evidence to suggest that attainment of some postsecondary credential is correlated with increases in employment opportunities, lifetime earnings, and even improved physical health (Carnevale, Smith, & Strohl, 2010; Rothwell, 2012). However, making effective changes in a community must begin with understanding that isolated interventions—such as good schools, more available health care, or ample recreational programming—are not sufficient by themselves to remove barriers for growth, promote equity across diverse social, economic, and geographic groups, and overall create positive living environments for youth and their families (Zaff & Malone, 2016). There is growing recognition that locally organized, multi-sector collaborations are needed to build the capacity of communities to coordinate and mobilize previously untapped family, cultural, and local resources to foster educational excellence and ultimately population and economic growth (Center for Promise, 2014; Leventhal, Dupere &Brooks-Gunn, 2009).

Among the important lessons learned from past educational reform efforts (Desimone, 2002), many in which the three leaders of the present project team have been involved (e.g., see Ross, Nunnery, Goldfeder et al., 2004), is that: (1) reforms that deal exclusively with academic improvement address only some of the barriers preventing educational success (and reforms that focus primarily on immediate test score increases are unlikely to succeed for very long); (2) reforms associated with particular leaders (e.g., a charismatic superintendent or principal) usually don't last much beyond the tenure of that individual; (3) reforms restricted to particular contexts (e.g., one or several schools) often lose staying power by being out of sync with school district initiatives; and (4) reforms championed by K-12 educators only (e.g., school districts) often lose staying power by failing to become rooted in and supported by the broader community. The latter factor appears critical to the success of the Say Yes to Education initiative in both sustainability (12 years in Syracuse and 10 years in Buffalo), and demonstrating significant improvement in rigorous research (Bifulco, Rubenstein, & Sohn, 2017), particularly for minority and socioeconomic subgroups, in student achievement, high school graduate rates, and post-secondary enrollment and persistence.

The Context for Growth Opportunities in Beaver County

Generating meaningful recommendations for educational improvement and community development requires first and foremost deep understanding of the context and needs. Prior analyses, recent census data (Beaver County Times, 2021, https://data.timesonline.com/census/total-population/total-population-change/beaver-county-pennsylvania/050-42007/), and our current study of Beaver County provide a description of current characteristics.

County profile. Noteworthy aspects of Beaver County's history and current status include:

- Reversals in prior economic growth and continued population decline have occurred between 1980 and 2000, following the closing down of the steel mills.

- The current population numbers approximately 168,200 residents, of whom 86.2% are white and 6.6% are African American. The 2020 census figures reveal over the past 10 years a 1.4% decline in overall population and a 6.8% decline in the white population. A diversity index, computed by *USA Today*, correspondingly reveals increasing county variability in race and ethnicity. Specifically, using an index ranging from 0 to 100 to show the likelihood of two random people having a different race and ethnicity, Beaver County scored 27 in 2020—an increase of 9 points from a score of 18 in 2010. Beaver County, however, is still far less diverse than the United States as a whole (index = 67) and Pennsylvania (index = 47).

- An opportunity for expanding local job opportunities is anticipated through the Shell Oil Company's construction of a petrochemicals plant. A recent study conducted at Robert Morris University (Clinton, Minutolo, & O'Roark, 2021) estimated that the operational plant would have about 800 employees while positively impacting Beaver County through jobs and revenue:

  > *The projection is that Project operations will involve approximately 240 to 450 new jobs for Beaver County residents at the petrochemical facility. With multipliers, total new jobs held by Beaver County residents are anticipated to be between 777 and 1,444. Annual labor income increases in Beaver County will be between approximately $73 and $120 million. Over the 40-year operational life of the Project, labor income increases within Beaver County are estimated to total between $1.5 and $2.4 billion. Annual value added in Beaver County would be between $260 and $846 million. (p. 4)*

- The county is home to 14 small school districts serving approximately 20,500 students, 12 private schools serving approximately 1,800 students, and three publicly-funded charter schools, including a cyber school.[1] Given these schools' importance to the QEC's goals, we profile the local education system in more detail below.

- Current projections for Beaver County continue to show attrition of residents in this decade. According to a report by Jerry Paytas, Ph.D.,[1] the projected declines

[1] A summary of this report and these quotes were provided to us by the QEC in documents accompanying the original RFP.

in population and enrollment have potential impacts on the fiscal condition of Beaver County schools. Paytas further notes:

> *The assumption that fewer students equates to less education spending is not a given. Population loss and fewer children also means reduced spending by households and lower tax revenues. There are fixed costs for maintaining school infrastructure that do not decrease with fewer students.*

Differences between school costs and the local real estate taxes will have to come from federal, state, or local sources—the current gap of about $3,000 per household will grow to nearly $5,000 per household by 2035.

Education profile. Beaver County consists of 14 small school districts, all of which serve student enrollments of under 2,500. Over half of the Beaver County students attend school in one of five districts: Ambridge, Blackhawk, Central Valley, Hopewell Area, or Beaver Area. Overall, the county has a large number of students living in poverty. Based on National Center for Educational Statistics (NCES) data for 2018-19, in five of the county's districts, over 90% of students qualify for free or reduced-priced lunch. This pattern is generally more prevalent across the county's smaller districts, however, as four of the five largest districts have free or reduced-priced lunch (FRL) enrollments of less than 30%.

In terms of demographic characteristics, Beaver County serves a mostly homogenous student population. Eight of the county's 14 districts serve student enrollments that are over 88% white. Only one district, Aliquippa, serves a population that is majority minority, with roughly 70% of students being African American. Students from other ethnic groups, including those who are Latino or Asian, make up only a very small proportion of the overall study body. Across each of the county's districts, Hispanic/Latino students make up less than 4% of the enrolled student population, Asian students make up less than 2%, and Native American students make up less than 1%.

In comparison to school performance trends across Pennsylvania, Beaver County's schools generally produce relatively high levels of student achievement.[2] On the 2019 Pennsylvania System of School Assessment (PSSA) Language Arts Exam, roughly two-thirds of the elementary/middle schools across the county (23 of 35) had pass rates that exceeded the overall pass rate for the state (60.9% of students across the state achieved proficient or advanced status on the exam). This trend was also

[2] Results are for analyses conducted by the JHU CRRE project team on Pennsylvania System of School Assessment Data (PSSA). PSSA datasets were pulled from the Pennsylvania Department of Education's PSSA Results repository at https://www.education.pa.gov/DataAndReporting/Assessments/Pages/PSSA-Results.aspx.

present for the 2019 PSSA exams for math and science, respectively. On the PSSA Math, 21 of the county's 35 schools achieved pass rates higher than the overall state average (42.4%). On the science assessment, 20 of the county's 35 schools exceeded the state average (68.0%). Its overall above-average achievement notwithstanding, of importance with regard to gaining positive recognition, none of its 14 high schools fell among the top 10% performers in the state.

In 2018-19, about half of the districts in Beaver County had student achievement that consistently outpaced the state averages for the vast majority of grade levels and subjects. These districts, which represent the highest performing across the county, included Beaver Area, Blackhawk, Hopewell Area, Riverside Beaver County, Southside Area, and Western Beaver County. A comparatively smaller proportion of districts across the county had schools that were consistently below the state performance averages. These included Aliquippa, Big Beaver Falls, New Brighton Area, and Rochester Area. With the exception of Aliquippa, however, these districts had pass percentages that, although lower, were still relatively close to the overall state averages.

As a foundation for the present study, the Beaver County school system profiles reveal a generally positive but highly diverse pattern across districts, with most schools performing above state norms but with others trailing. There is an inverse correlation with student socioeconomic status—the greater the proportion of low-income students served by schools, the lower the high academic performance on average. However, important to future planning is that aside from what benchmarking other communities might reveal about best practices, Beaver County presently has its own high performing schools that potentially provide valuable bases and models for promoting county-wide educational excellence.

Methodology

The original plan for the study was to schedule an early, in-person visit in November-December, 2020, to Beaver County to meet with the QEC and members of the community. This type of meeting, however, was precluded by travel restrictions and safety precautions because of the COVID-19 pandemic. It was decided at an opening meeting with the QEC to schedule bi-weekly check-ins between the full committee and leaders of the JHU team: S. Ross, J. Reilly, and M. Alberg from JHU; G. Chasin and D. Turlington from Community Catalyst Partners; and A. Paquette from The Management Solution, Inc. Discussions focused on the planning and implementation of the three major project components.

Benchmarking Study

The Benchmarking portion of this study was designed to examine the educational practices, strategies, and programs employed by high-achieving school systems outside of Beaver County. The purpose was to identify potential strategies that the county may

consider as it plans and implements solution activities in Phase IV. For this portion of the project, the research team conducted case studies of select communities, four in Pennsylvania and two out of state, that were identified as key benchmarking exemplars for Beaver County. These communities were those that the research team identified as having high quality educational programming and population stability or growth, as well as characteristics that appeared well-aligned with the goals of achieving educational equity and success across a diverse array of schools.

Methods and Procedure. From a comprehensive initial search that explored options across Pennsylvania as well as states in the Midwestern and Northeastern United States, the research team together with the QEC selected the following six communities for benchmarking: (1) Allegan County, MI; (2) Butler County, PA; (3) Cameron County, TX; (4) Dauphin County, PA; (5) Pittsburgh, PA; and (6) York County, PA.

For each of the selected communities, data were gathered from interviews and focus groups[3] with key leadership personnel as well as through reviewing educational programming materials, school system achievement and performance data, economic and community data, community financial records, and other informational artifacts. The interviews were conducted with individuals including Educational Intermediate Unit/Education Service Agency directors, representatives from district superintendents' cabinets, school district communication directors, and an assortment of additional education leaders including education technology directors, curriculum coordinators, and family and community engagement directors. The interview protocol used to guide these conversations is presented in Appendix A. As needed, the research team also coordinated with communications personnel from select districts to gather additional information and artifacts on key initiatives and district practices. All data were gathered and analyzed during the spring and summer of 2021.

For the selected benchmarking sites, our primary focus was examining the communities with regard to (a) *Educational Equity and Quality* (b) *Cost Effectiveness and Budgeting,*[4] and (c) *Implementation Processes and Governance.* The questions below were used to guide this research.

Educational Equity and Quality:

- What have comparable communities done to achieve academic quality and equal opportunities for diverse students?

[3] Because of JHU School of Education travel protocols related to the COVID-19 pandemic, all benchmarking interviews and focus groups were conducted virtually, via telephone and Zoom.

[4] To supplement this focus, data were also gathered with regard to county spending, tax rates, and revenue.

- What attributes of the educational system appeared most instrumental in accounting for high student achievement and success in the county (or city) schools?
- How were local challenges addressed to provide quality educational opportunities and equity?
- What appear to be the effectual educational components and interventions promoting success?

Implementation Processes and Governance:

- What are the primary governance structures and timelines that promote positive community development, equity, and educational quality?
- What strategies are employed to engage citizens and cross-sector stakeholders in the community to ensure success?
- What evaluation and monitoring strategies are employed to establish accountability, transparency, and continuous improvement?

Cost Effectiveness and Budgeting:

- To what degree and how is budgeting oriented to support enhanced opportunity and core values of the community?
- What financial models and operations are employed to maximize cost savings and support school systems' basic educational plans?
- What budget and financial management flexibility exists in order to be able to address changes in adequate time?

Benchmarking Sample Selection. Given the extensiveness and complexity of community characteristics, there was no simple means of quantitatively combining a vast array of indices across multiple domains to validly capture all relevant data for selecting comparison counties. For example, a county that almost identically matches Beaver County in population size and demographics, geographic location, and socioeconomic conditions may have school systems that underperform on the quality standards sought as benchmarks. Accordingly, we started with the criterion that the county include preferably five or more school districts that collectively demonstrated an upward student achievement trajectory during the past three years and recent (SY2018-19) scores exceeding state norms. Additional criteria were also employed to help identify an initial list of benchmarking options to explore as possible exemplars. These are listed below.

Initial search procedures and exploratory research. The search criteria for identifying the initial pool of benchmarking candidates was as follows:

- Data were gathered/reviewed for every county that had a population of between 100,000 and 225,000 residents in the following six states: Pennsylvania, New York, New Jersey, Maryland, Ohio, and Michigan.

- Data were also gathered and reviewed for each of the counties in Pennsylvania ranked in the top 30 of the state's student achievement distribution.

- Lastly, data were gathered for counties representing communities in states outside the Pennsylvania region that were identified by the JHU team as quality benchmarking options based on other factors. These included counties representing the Rio Grande Valley in Texas (Starr, Hidalgo, Cameron, and Willacy Counties), those encompassing the Inland Empire in California (Riverside and San Bernardino Counties), and those representing Chattanooga, TN, and Tacoma, WA, among others.

From these searches, an initial pool of ~100 communities was identified for intensive review. For each of the communities in this pool, a comprehensive examination was conducted of the community's school district performance and quality, demographic characteristics, and population trends. As appropriate, additional community information was also reviewed to provide for more contextualized understanding. As a culminating step, a preliminary list of approximately 20 "nominees" was reviewed with the QEC for discussion and input into the final selections. From this process, the research team, with QEC input, selected the following six communities to serve as the benchmarking sample:

- Allegan County, MI
- Butler County, PA
- Cameron County, TX
- Dauphin County, PA
- Pittsburgh, PA
- York County, PA

A variety of key criteria was used in selecting this final group. Pittsburgh, a geographically close urban center, was selected based on strong QEC interest. Cameron County, in the Rio Grande Valley of Texas, was selected based on its participation in recent initiatives to develop community partnerships and improve education (Education First, 2021). The remaining four counties were selected mostly on the basis of:

- School district performance and student achievement trends[5]

[5] District performance data was pulled from multiple sources. This included state assessment data and district report card data pulled from State DoE repositories, as well as ratings pulled from the Niche National School District Database.

- Rate of the county's population growth since 2011[6]
- The presence of multiple (minimum of five) school districts under the county's umbrella
- Demographic similarity to Beaver County across areas including population size,[7] ethnic composition,[8] median resident age,[9] median household income,[10] and the proportion of households living in poverty

Stakeholder Analysis and Engagement

Interviews. The initial plan for engaging stakeholders was to visit Beaver County soon after the project was formally launched, in late fall or early winter of 2021. Because of the COVID-19 pandemic, however, traveling for person-to-person meetings was precluded. As an alternative plan, we initiated 45- to 60-minute individual remote (Zoom) interviews with community stakeholders, beginning with every member of the QEC. Next, we interviewed superintendents, followed by school board presidents, political office holders, presidents of higher education institutions, and then a mixture of community members from the public and private sectors. Although the interviews were unstructured to allow us to follow emergent themes, we used core sets of questions, adapted to different groups, as an initial guide (see Appendix A).

Most interviews included two to three team members from CRRE and CCP, one leading the questioning (most frequently, G. Chasin) and one taking notes. At the beginning of the interview, each team member briefly introduced himself/herself, and one member reviewed the JHU human subjects (Institutional Review Board or IRB) conditions and protections for confidentiality. After the interviewee gave oral consent to participating, the interview commenced. We conducted 84 video interviews and one telephone interview in total. Of these, nine were with QEC members, 35 with educators, 15 with government officials, 14 with business leaders, seven with non-profit leaders, and the remainder with community members in other domains.

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[6] Demographic and population trend data was pulled from the US Census Bureau. Population change was measured from 2011 to 2019.

[7] "Similar" counties were those with populations between 100,000 and 230,000 residents (Beaver County Population = 165,833).

[8] "Similar" counties were those with populations that are 75% or more Caucasian (Beaver County = 89.5% Caucasian).

[9] "Similar" counties were those with a median resident age of 40 years or older (Beaver County Median Age = 45.1).

[10] "Similar" counties were those with median household incomes between $50,000 and $70,000 (Beaver County Median Annual Income = $57, 807).

Community Visit. The community visit originally planned for early in 2021 was rescheduled several times due to COVID precautions and finally conducted the week of July 12-16, 2021. During that time, a team of seven individuals, including the PIs from the three partner organizations, JHU (Ross), Community Catalyst Partners (Chasin), and The Management Solution (Paquette), visited 12 school districts and three charter schools, conducted focus groups with various stakeholder groups, participated in a press conference, met with over 30 high school students invited from the districts and charter schools, and informally met with Beaver County citizens invited to attend open meetings. Aside from collecting new data from individuals not previously interviewed, the purpose of the visit was to obtain firsthand impressions of the county and its schools, inform stakeholders and the citizenry in general of the purposes of the study, and develop trust and buy-in through these communications and personal encounters for the Phase III and eventual Phase IV initiatives.

Recommendations for Next Steps. Following data collection, we analyzed and synthesized the findings to support conclusions and recommendations. The procedure involved the principal team members reviewing interview notes, identifying themes and potential strategies, and then jointly corroborating those to be included in this report. Accordingly, in the pages to follow, we present in sequence (a) findings from benchmarking analyses and interviews, (b) identification of community assets and needs based on those and other findings, (c) financial and enrollment analyses for the county overall and school districts, and (d) possible actions to reduce gaps between needs and desired conditions. For the latter "action" section, our goal was *not* to make decisions for the QEC or county but to identify options that could potentially be used independently or in combination for consideration as the foundation for the Phase IV community-owned goals and implementation planning.

Benchmarking Study Findings

This section presents the findings for the benchmarking communities. First, we provide a brief "case study" overview of each community to include the county's education system, demographic and economic characteristics, and overall K-12 achievement profile. In an effort to highlight potential areas that may be useful for further exploration as the QEC advances to later phases of this project, we also offer insights into the key strengths of the community relative to Beaver County and general commentary on the specific areas where the county may serve as an aspirational exemplar now and in the future. To accompany this section, for each benchmarking community, a variety of supplementary data are summarized in tables provided in Appendices D and E.

The section following the case studies provides an outline of the key initiatives, programs, and practices employed across the benchmarking communities as a whole. Of particular interest are those identified by county leaders as playing a central role in the local K-12 school success. The goal is to produce a catalog of different initiatives

and programs that the QEC can consider and draw ideas from as the project moves into subsequent phases and Beaver County adopts new approaches of its own.

The final section provides an overview of the key leadership practices employed by district leaders across the benchmarking communities. Here, we identify insights provided by IU leaders, district cabinet members, and others in relation to the strategies they have employed to successfully foster district collaboration, parent and community engagement, and county-wide buy-in for educational change.

Benchmarking Case Study: Butler County, PA

Butler County (PA) was selected as one of the four in-state benchmarking communities for the present study. Located in Western Pennsylvania directly adjacent to Beaver, the county serves as an affluent bedroom community for those working in the Pittsburgh metro area. The county's advantageous tax structure, along with rapid residential and commercial development occurring in its southwestern quadrant (i.e., Cranberry Township), have positioned the area well for population growth. While not home to any single major "anchor" industry, the county is a 20-minute drive from Pittsburgh. The county is also home to Slippery Rock University, a wide array of arts and culture venues, and a variety of large state parks and agritourism venues, including Moraine State Park and Lake Arthur (Butler County Tourism and Convention Bureau, 2021). Through the combination of these factors, numerous communities within the county have received recognition for promoting a high quality of life. Recently, Smithsonian Magazine ranked Butler as the "7th Best Small Town in America," and Bloomberg Businessweek voted Cranberry Township as the "Best Place to Raise Kids in Pennsylvania."

Given the county's proximity to Beaver, Butler County shares many similarities in terms of regional characteristics, as well as the demographic composition of its residents. Moreover, because of its adjacent location, the county serves as a particularly useful benchmarking exemplar, as in many ways the county directly competes with Beaver in attracting new residents.

In terms of demographic characteristics, the population in Butler is more affluent and slightly older (median age 43.3) than that of many other counties in the area. While the median household income for the county as a whole is roughly $70,000, in several parts of the county it is a great deal higher. In the Mars and Seneca Valley regions, for instance, median incomes approach or exceed $100,000. Median home prices also reflect this trend. Whereas the majority of zip codes within the county have median home values in the $170,000 to $200,000 range, these figures are greatly exceeded in the county's wealthiest regions, with the median value in Seneca Valley approaching $250,000 and the median value in Mars approaching $400,000.

In terms of K-12 education offerings, the school systems across Butler County are among the highest achieving in the benchmarking sample. Table 1 provides a "snapshot" overview of the county's population, demographic, and school system characteristics.

Table 1
Butler County Demographic and K-12 Achievement Profile

Butler County, PA	
Location	Western PA—Pittsburgh/Laurel Highlands Area
Number of Districts	8
District Quality and Performance	High Achieving/Highly Rated ~50% of Districts are High Performing ~40% of Districts are Very High Performing
Population	186,899
10-Year Population Change	+ 3,000
% White	94.7
Other Key Demographics	1.5% Latino
Median Household Income	$70,668
Poverty %	5.4
Median Age of Residents	43.3

- Similar to Beaver County in terms of: Size, Demographic Composition, Age of Residents
- Located in same geographic/industrial region as Beaver County
- Population growth was stagnant in the 1980s but then rebounded substantially since the 1990s
- Slightly wealthier than Beaver County
- Population has aged slightly over the past decade

Based on achievement, performance, and school resource data pulled as part of this study's benchmarking selection process, four of the eight school districts within the county are considered either high performing[11] or very high performing in relation to others across Pennsylvania. Two of these districts, Mars Area SD and Seneca Valley SD, are among the highest performing in the state.

Numerous schools within the county have also attained high levels of distinction. Across Butler, six schools have been designated as National Blue Ribbon sites by the

[11] For the benchmark analyses, high performing districts are defined as those within the top 33% of the state's achievement distribution. Very high performing districts are those within the top 20%.

United States Department of Education. Four of these schools received this distinction within the past 10 years. At the secondary level, these included Mars Area HS (2019), Slippery Rock Area HS (2015), and Seneca Valley MS (2012). Other schools in the county have achieved recognition in other areas. Along with Mars Area HS, Freeport Area HS (Freeport Area SD) and Seneca Valley HS (Seneca Valley SD) are each ranked by *US News and World Report* as being among the top 100 high schools in Pennsylvania.

Based on data reviewed as part of the benchmarking process, districts across Butler County appear to be particularly strong in terms of academic quality[12] and college preparatory outcomes.[13] Rankings produced by Niche Research rate five of the county's eight districts in the top third of academic quality ratings. Two of these districts were rated in the top 10%. In terms of college preparatory outcomes, two districts were rated in the top 10% and two others were rated in the top third. Teacher salaries in the county vary widely depending on district. On the high end, Seneca Valley SD has average salaries in excess of $75,000, while most other districts have average salaries in the $60,000 to $65,000 range. With a few exceptions, most districts boast low student-to-teacher ratios in the 13-1 range. District per pupil spending is generally average for Pennsylvania, with all districts in the county spending between $13,500 and $16,500 per student annually.

Many key programs and initiatives are being employed across the county to help foster student academic success. To promote college and career readiness, the *Career Clusters Program*, the *Apprenticeship and Journeyman Training Program*, the *College within the High School Program*, and uses of *Naviance* post-secondary planning software were all highlighted during the benchmarking research as key programs currently in place. Other initiatives aimed at academics and curriculum, including Mars Area SD's *Reading Lab* and Seneca Valley SD's *Creativity, Innovation, and Research Centers (CIRC)*, are also noteworthy.

Benchmarking Case Study: Dauphin County, PA

Located in South-Central Pennsylvania adjacent to the Susquehanna River, Dauphin County is home to Harrisburg, the state's capital, and is uniquely positioned for economic development. The county is situated as a convergence point in the Boston-

[12] For the benchmark analyses, academic quality ratings are based on a weighted formula that considers district-level performance in terms of student achievement on state assessments, SAT/ACT scores, AP exam pass rates, AP enrollment, college enrollment, graduation rate, student-teacher ratios, parent and teacher survey data, and college interest survey data (Niche Research, 2021).

[13] For the benchmark analyses, college Preparatory ratings are based on a weighted formula that considers district-level performance in terms of SAT/ACT scores, AP exam pass rates, AP enrollment, college enrollment, graduation rate, parent and student survey data, and college interest surveys (Niche Research, 2021).

Richmond transportation corridor, making it an especially cost-effective access point to a variety of Eastern US markets. As such, the county serves "as a major distribution hub for many companies servicing the east coast's top metropolitan markets" and serves as home to such companies as "Tyco Electronics/AMP, Hershey Chocolate USA, and Hershey Amusement Park" (Dauphin County, 2021).

While Butler and York counties were selected, in part, because of their demographic similarities to Beaver, Dauphin County was chosen for outcomes in a high performing district that has more noticeable ethnic diversity. Across the county, less than two-thirds of the population is white, roughly 20% is African American, 10% is Latino, and the remainder is divided across a variety of other ethnic groups. While relatively affluent, the county does not appear to have as many localized areas of significant wealth as are seen in some of the other benchmarking communities. Nowhere in the county does the median household income exceed $80,000, and in some parts (Harrisburg), the figure dips below $40,000.

Like Beaver County, the demographic and socio-economic composition of Dauphin largely differs by geography. School districts within the county vary between those that are predominately white and those that are majority minority. Whereas the "upper" portion of the county is mostly rural, the lower portion is largely urbanized and is home to both Harrisburg and Hershey. Despite these differences, both portions of the county have experienced economic and industrial development in recent years. While the county has historically served as an industrial and manufacturing center, it has recently emerged as the fifth fastest growing high-tech center in the United States (Dauphin County, 2021). As described by the Dauphin County local government (2021):

> *Several national companies have located [in Upper Dauphin] due to availability of land, an established workforce, and a proximity to interstate highways, including several new road projects that are planned or underway. In contrast, the county's southern portion is much more urbanized in and around Harrisburg and Hershey. This region boasts a number of economic development resources including Harrisburg International Airport, the New Baldwin Corridor Enterprise Zone which spans seven municipalities, over 20 major industrial parks and office districts, a highway system developed far beyond what one would expect for an area this size, as well as main line Amtrak passenger service and an intermodal terminus for double stack rail freight.*

In terms of K-12 education offerings, the school systems across Dauphin County are both high-achieving and diverse. Table 2 provides a "snapshot" overview of the county's population, demographic, and school system characteristics.

Table 2
Dauphin County Demographic and K-12 Achievement Profile

Dauphin County, PA	
Location	Southeastern PA
Number of Districts	10
District Quality and Performance	High Achieving/Highly Rated ~50% of Districts are High Performing ~20% of Districts are Very High Performing
Population	275,632
10-Year Population Change	+ 8,000
% White	65.8
Other Key Demographics	18.0 % African American, 9.2% Latino
Median Household Income	$60,715
Poverty %	8.8
Median Age of Residents	39.7

- Similar to Beaver County in terms of: Median Income, Age of Residents
- Steady population growth since 2011
- Slightly larger than Beaver County and more demographically diverse

Based on achievement, performance, and school resource data pulled as part of this study's benchmarking selection process, five of the 10 school districts within the county are considered either high performing or very high performing in relation to others across Pennsylvania. Two of these districts, Derry Township and Lower Dauphin, are among the highest performing in the state. Several others, including Middletown Area and Central Dauphin, stand out as districts that are both very high achieving as well as serving of student populations that are ethnically and socio-economically quite diverse.

Numerous schools within the county have also attained high levels of distinction. Across Dauphin, eight schools have been designated as National Blue Ribbon sites by the United States Department of Education. Four of these received this distinction within the past 10 years. At the secondary level, these included public schools such as Harrisburg High School for Science and Technology (2018) and Infinity Charter School (2012). The county also contains several elite private schools, including St. Joan of Arc School (Awarded National Blue Ribbon Status in 2016) and Harrisburg Academy, one of the only high schools in Central Pennsylvania that is part of the International Baccalaureate Program. Other schools in the county have achieved recognition in other areas. Hershey High School (Derry Township SD) is currently ranked by *US News and World Report* as the 22nd best high school in the state of Pennsylvania, and also ranks among the top 200 or so STEM-focused schools in the United States. The Capital Area

School for the Arts is rated by this same publication as one the top Charter schools in the state.

Based on data reviewed as part of the benchmarking process, districts across Dauphin County appear to be particularly strong in terms of teacher effectiveness, college preparatory outcomes, and resources/facilities. Rankings produced by Niche Research rate four of the county's 10 districts in the top 5% of teacher quality ratings, and two others in the top 10%. While teacher salaries in the county are relatively average, most districts in the county boast exceedingly low student-to-teacher ratios. In six of the county's districts, ratios are less than 14:1, with two of these districts boasting ratios of less than 12:1. Very few teachers across the county are in their first or second year of teaching. In almost all districts, this proportion is less than 8%, and in three districts, it is below 5%. In terms of college preparatory outcomes, three of the county's 10 districts were rated in the top 10% in the state. In terms of resources, four of the 10 districts also fell within this top percentile range.[14] Perhaps not surprisingly given these ratings, per-pupil spending across the county is quite high. Most districts spend between $15,000 and $19,000 per student annually. In three districts, however, this figure approaches or exceeds $20,000.

The programs and initiatives employed across the county are varied. To promote college and career readiness, the *Pathways to Pride* initiative, *Project Search*, the *Harrisburg Community College Partnership*, the *Discovery SEL/Character Ed Program*, and the use of *Naviance* software were all highlighted as key programs currently in place. Central Dauphin's *Clean Energy Program*, as well as the district's *Equity and Inclusion Initiative*, were also noted. Also of importance, Dauphin County is the only benchmarking community reviewed as part of this study that has recently embarked on the process of merging two of its school districts (Millersburg SD and Upper Dauphin SD) for purposes of enhancing educational opportunities for students.

Benchmarking Case Study: Pittsburgh, PA

Pittsburgh (PA), and more specifically the Pittsburgh Public School District, was also selected as one of the four in-state benchmarking communities. Pennsylvania's second largest city, Pittsburgh houses a socio-economically and ethnically diverse population of just over 300,000 residents. While historically a hub for the American steel industry, the city has shifted in recent decades to become a national leader in fields such as healthcare, education, technology, and financial services (Pittsburgh City Government, 2021). Located in Allegheny County, the city is at the center of the metro region which encompasses both Beaver and Butler Counties—a region with roughly 2.6 million residents. In comparison to its suburban counterparts across Western Pennsylvania, Pittsburgh is home to a younger and more socially diverse population.

[14] For the benchmark communities, resource ratings are based on a weighted formula that considers district expenditures per student, student-teacher ratios, student-counselor ratios, and parent and student survey data (Niche Research, 2021).

The median age of residents is 34, roughly 10 years younger than that for Beaver County. The population is roughly 65% white, 25% African American, and 6% Asian. Approximately 20% of residents live below the poverty line. In comparison to other major industrial cities in the region, such as Philadelphia, Baltimore, Cleveland, and Youngstown, Pittsburgh is quite socio-economically affluent. The median household income in the city is roughly $50,000, and the median home value tops $250,000. Table 3 provides an overview of the city's demographic characteristics.

Table 3
Pittsburgh Demographic and K-12 Achievement Profile

	Pittsburgh, PA
Location	Western PA—Pittsburgh/Laurel Highlands Area
Number of Districts	1
District Quality and Performance	Relatively average in PA
Population	302,205
10-Year Population Change	- 5,000
% White	63.7%
Other Key Demographics	23.5% African American, 5.7% Asian
Median Household Income	$47,417
Poverty %	21.4
Median Age of Residents	34.0

The Pittsburgh Public School District, which served as the focal point of this benchmarking case study, serves a population of just under 23,000 students across a total of 54 schools. About two-thirds of the district's students qualify for free or reduced-priced lunch. The student population is also highly diverse. Just over 50% of students are African American, roughly one-third are white, and about 15% belong to a variety of other races. Close to 100 native languages are spoken by different students in PPS. In total, the district serves students representing close to 60 different nationalities.

In terms of district achievement outcomes, Pittsburgh Public Schools is relatively high performing overall, particularly when compared to other districts of comparable size and socio-economic characteristics. Roughly half of students in the district (~49%) achieve proficiency on the state's ELA exam, and roughly one-third (~31%) achieve proficiency on the state math exam. Across Pittsburgh, 19 schools have been designated as National Blue Ribbon sites by the United States Department of Education. While this reflects a greater number than any of the other benchmarking communities, only three of these schools (all elementary schools) have received this distinction within the past 10 years. The district is also home to the Barack Obama Academy of International Studies, one of the only high schools in Western Pennsylvania that is part of the International Baccalaureate Program.

Based on data reviewed as part of the benchmarking process, Pittsburgh Public Schools appears to be particularly strong in terms of teacher effectiveness and resource allocation/funding. The district boasts among the highest average teacher salaries, close to $80,000, of any of the benchmarking districts. The district also holds a 12:1 student to teacher ratio and employs a noticeably lower proportion (4.6%) of first- and second-year teachers than many other large urban districts. Per pupil spending, in part driven by a large volume of federal Title I funding that the district accrues, is the highest of any district in the benchmarking sample (~$28,000 annually).

The programs and initiatives employed across the county are varied and address topics related to college and career readiness, student equity, and family and community engagement. To promote college and career readiness, the district's *Graduate Student Profile*, *Pittsburgh Promise* initiative, *Summer B.O.O.S.T. Program*, *Middle School Mentoring* and *We Promise* mentoring programs, and use of *Naviance* software were all highlighted as key strategies currently in place. For promoting student equity and parent and community engagement, the district's *On Track Equity* initiative, *Parent Advisory Council*, *Comprehensive Parent Engagement Program*, and use of *ThoughtExchange* discussion management software were also highlighted.

Benchmarking Case Study: York County, PA

York County (PA) was selected as the fourth in-state benchmarking community. Located in Pennsylvania Dutch Country in the southernmost portion of the state, the county sits directly on the Maryland/Pennsylvania border. Its nearness to the I-95 corridor makes it easily commutable to cities such as Baltimore, Harrisburg, Lancaster, and Reading. Spanning a wide geographic region, the county represents one of the fastest-growing areas in the state of Pennsylvania. Its population is currently 450,000 residents with a growth rate since 2000 of roughly five times that of the state average (Explore York, 2021).

Despite its nearness to the broader Philadelphia metro area, York County's commerce bears many similarities to the Rust Belt region. Manufacturing, health care and social assistance, retail trade, and public administration are its major industries. Notably, the county is home to over 20 factories and manufacturing centers and informally refers to itself as the "Snack Food Capital of the World." Five major snack food manufacturers are headquartered in the county, including Snyder's of Hanover, Martin's Snacks, and Utz Potato Chips (York County Government, 2021). In the more rural regions, agritourism related to Pennsylvania Dutch Country, the Mason-Dixon Wine Trail, and state parks such as Codorus, Samuel Lewis, and Gifford Pinchot are also key industries.

Although York has a noticeably larger population size than Beaver County, the demographic characteristics of the area are highly similar. Roughly 80% of the population is white, about 10% is Latino, and about 5% is African American. The

median age of residents in the county is on the older side (41), and although there are localized areas of poverty, the county is largely affluent overall. The median household income for the area is just over $65,000. In a handful of areas in the county, this figure exceeds $85,000. Median home values are generally in the $150,000 to $200,000 range. With regard to K-12 education, the school systems across York County were among the highest achieving in the benchmarking sample. Table 4 provides a "snapshot" overview of the county's population, demographic, and school system characteristics.

Table 4
York County Demographic and K-12 Achievement Profile

York County, PA	
Location	Mason Dixon Area
Number of Districts	16
District Quality and Performance	Very High Achieving/Very Highly Rated ~75% of Districts are High Performing ~40% of Districts are Very High Performing
Population	445,565
10-Year Population Change	+ 13,000
% White	83.4
Other Key Demographics	7.5% Latino, 5.4% African American
Median Household Income	$66,457
Poverty %	6.5
Median Age of Residents	41.0

- Very high school performance and quality
- Similar to Beaver County in terms of: Demographic Composition, Median Income, Age of Residents
- Steady population growth since 2011
- Larger than Beaver County

Based on achievement, performance, and school resource data pulled as part of this study's benchmarking selection process, 12 of the 16 school districts within the county are considered either high performing or very high performing in relation to others across Pennsylvania. Six of these districts are considered very high performing. Several of these, including Northeastern SD and York Suburban SD, are among the top performing in the state. Others, such as Hanover PS and West York Area SD, stand out as districts that are both very high achieving and that serve student populations that are ethnically and socio-economically quite diverse.

Across the county, 10 schools have been designated as National Blue Ribbon sites by the United States Department of Education. Four received this distinction within the past 10 years. At the secondary level, this included York Suburban Senior HS (2016). The county also contains York Academy Regional Charter School, one of the only high schools in Southern Pennsylvania that is part of the International Baccalaureate Program. Other schools in the county have achieved notable recognition in other areas. *US News and World Report* currently ranks two schools within the top 100 or so high schools in Pennsylvania: Susquehannock HS (ranked 72nd) and York Suburban Senior HS (ranked 34th). Other schools across the county have achieved excellent academic performance while serving very high proportions of students living in poverty, including Eastern York HS (currently ranked 136th in PA), Northeastern HS (ranked 115th in PA), and Hanover Senior HS (ranked 165th in PA).

Districts across York County appear to be particularly strong in terms of academic quality and college preparatory outcomes. Rankings produced by Niche Research rate 10 of the county's 16 districts in the top third of academic quality ratings, six of which are ranked in the top 20%. In terms of college preparatory outcomes, eight districts are ranked in the top third within the state, five are ranked in the top 20%, and two are ranked in the top 10%. York County teacher salaries were also found to be among the highest of any in the benchmarking sample. Half of the districts in the county boast average teacher salaries in excess of $75,000. Three districts (Dallastown Area SD, York Suburban SD, and Southern York SD) had average salaries in excess of $80,000. Across most districts, the teaching force is also highly experienced. In eight districts, less than 5% of the teaching force is in its first or second year of teaching. Student-to-teacher ratios vary by district, with most districts having ratios of 15:1 or 16:1. Annual per-pupil spending also varied by district, with most districts spending between $15,000 and $17,000 per student annually. In two districts, however, this figure approaches or exceeds $20,000.

The Mass Customized Learning Program as well as programs available at the *York County School of Technology* stand out as being particularly innovative. York Suburban SD's use of *The Pennsylvania Department of Education's Six Pillars of Equity* is also noteworthy. Several education reform initiatives, similar to the present QEC project, are taking place within the county, including York Suburban SD's comprehensive *Facilities Study* and *Future-Focused Planning (FFP) Initiative*.

Benchmarking Case Study: Allegan County, MI

Located in the southwest region of Michigan's Lower Peninsula, this largely rural community directly borders Lake Michigan and is situated as part of the broader Grand Rapids metropolitan area. Currently home to just over 110,000 residents, the county has been one of the fastest-growing regions in the state for several years. Given the county's positioning along the Lake Michigan coastline—one of the state's central tourism destinations—Allegan's economy is predominately rooted in seasonal tourism

and agritourism. During the summer months, an influx of part-time residents owning vacation homes helps drive the economy. In the fall, winter, and spring, the county remains a prominent destination for visitors. Numerous large state parks, orchards, vineyards, and outdoor resorts for camping, skiing, and snowmobiling are present in the region, including the Allegan State Game Area and Saugatuck Dunes State Park (County of Allegan, 2021). Allegan's centralized location between the larger cities of Grand Rapids, Kalamazoo, and Battle Creek also makes it an attractive bedroom community for those working outside the county.

Residents of Allegan County share many demographic similarities with those of Beaver County. The population is largely middle class and aging slightly. The median household income across the county is just over $60,000 and while there are some localized areas of poverty, less than 10% of the county lives below the poverty line. Just under 90% of residents are white, and about 10% are Latino. Importantly, data reviewed for this project revealed that the county has among the lowest costs of living in the state. Despite its location, median housing values across the county are in the $115,000 to $130,000 range, and median monthly rent is typically under $750. Based on cost-of-living ratings produced by Niche Research,[15] nearly every zip code within the county is ranked within the best 20% of living costs for the state.

The K-12 school systems across Allegan County are consistently high achieving. Table 5 provides a "snapshot" overview of the county's population, demographic, and school system characteristics.

[15] Cost of living ratings are calculated through a weighted formula that includes home value to income ratio, median home value and rent, monthly housing cost to income ratio, Consumer Price Indexes for gasoline and groceries, median effective property tax rates, rent to income ratio, and state tax shares (Niche Research, 2021).

Table 5
Allegan County Demographic and K-12 Achievement Profile

Allegan County, MI	
Location	Western MI—Grand Rapids area
Number of Districts	10
District Quality and Performance	High Achieving/Highly Rated ~70% of Districts are High Performing ~20% of Districts are Very High Performing
Population	116,143
10-Year Population Change	+ 6,000
% White	88.4
Other Key Demographics	7.3% Latino
Median Household Income	$62,965
Poverty %	7.7
Median Age of Residents	39.8

- Steady population growth since 2011. Population has aged slightly over the past decade.
- Similar to Beaver County in terms of: Size, Demographic Composition, Median Income, Age of Residents

Based on achievement, performance, and school resource data accessed, seven of the 10 school districts within the county are considered either high performing or very high performing in relation to others across Michigan. Two districts are considered very high performing. Similar to those in Beaver County, many of the school systems in Allegan are very small, with three districts housing fewer than 1,000 students (see Appendix D for further district-level information).

Several schools within the county have attained notable levels of distinction. Across Allegan, nine schools have been designated as National Blue Ribbon sites by the United States Department of Education. Six of these received this distinction within the past 10 years. At the secondary level, this included Eagle Crest Charter Academy (2019). In the *US News and World Report* High School Rankings, Allegan County's Plainwell HS and Saugatuck HS both currently rank within the top 100 or so high schools within the state of Michigan.

Overall, the county appears to be particularly strong in creatively using resources and funding. In comparison to the benchmarking communities in Pennsylvania, districts in Allegan County were found to have slightly higher student-teacher ratios, a higher proportion of new teachers, and lower per-pupil spending. Despite these trends, the areas schools still produced a high level of student achievement. Across the county,

teacher salaries are generally between $50,000 and $55,000 annually. Student-teacher ratios are mostly between 17:1 and 19:1. While three of the districts had fewer than 5% of their teaching force in their first or second year, in three other districts, this proportion was greater than 15%.

The key instructional initiatives employed across the county touch on a variety of areas. Perhaps most notably, Allegan offers students a comprehensive school choice program that allows students to apply to and attend school in any district in the county. Other initiatives, including the *IXL Personalized Learning Program*, the use of "sinking funds" to pay for facilities upgrades in Hopkins ISD, and the *Key Communicators Network* in Otsego Public Schools, were noted as being particularly beneficial. Representatives from the county's Educational Service Agency also noted that it employs a distinct framework for school leadership: *The Appreciate Inquiry Model.*

Benchmarking Case Study: Cameron County, TX

Located in the Rio Grande Valley along the US-Mexico border, Cameron County spans a massive land area of close to 1,500 square miles. Currently home to over 400,000 residents, the county represents one of the fastest-growing areas in Texas. Whereas most of the other benchmarking sites were selected in part because they possessed key demographic similarities to Beaver County, Cameron County was chosen specifically because of its ongoing participation in a successful comprehensive K-12 reform initiative sponsored by the Bill and Melinda Gates Foundation. Given the aims of the current QEC project, particularly as it transitions into Phase IV, lessons learned from a community undergoing a similar process were viewed as paramount.

Cameron County differs noticeably from the other benchmarking communities. The majority of residents are young (median age is 32), and 90% are Latino. While many sections of the region are very economically disadvantaged, other areas have become destinations for those working in industries related to computer programming, cybersecurity, medical research, aero-space engineering, and international trade and logistics. Recently, Elon Musk's SpaceX Corporation received approval from the FAA to house its private spaceport and launch site in Brownsville (Berger, 2014). Given the county's proximity to vacation destinations along the Gulf Coast and the US-Mexico border, including South Padre Island, regional tourism also represents a key industry for the region, particularly during the winter months (Garza and Long, 2021).

Similar to Allegan County, Cameron County boasts a very low cost of living, as revealed by data reviewed for this project—particularly in comparison to the four Pennsylvania benchmarking communities. In most areas, median housing prices are well below $100,000, and median monthly rent is typically under $700. Based on cost-of-living ratings produced by Niche Research, about two-thirds of the zip codes within the county are ranked within the best 20% of living costs for the state. About half are ranked within the top 10%.

The county school systems are fairly average in performance, but serve a very high proportion of disadvantaged students. Table 6 provides a "snapshot" overview of the county's population, demographic, and school system characteristics.

Table 6
Cameron County Demographic and K-12 Achievement Profile

Cameron County, TX	
Location	Southern TX—Rio Grande Valley
Number of Districts	9
District Quality and Performance	Average Achieving ~35% of Districts are High Performing ~10% of Districts are Very High Performing
Population	421,700
10-Year Population Change	+ 10,000
% White	9.0
Other Key Demographics	89.7% Latino
Median Household Income	$38,758
Poverty %	25.6
Median Age of Residents	31.7

- Innovative community school system
- County is an excellent example of multiple LEAs working together to achieve goals
- Has undergone systemic community reform
- Gates Foundation Community Investment Grantee
- Growing population. Population has aged slightly over the past decade.
- Demographically differs from Beaver County
- While districts are comparatively lower performing than other benchmarking sites (and Beaver County), these schools serve a significantly less affluent population

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Based on achievement, performance, and school resource data analyzed, three of the nine school districts within the county are considered either high performing or very high performing in relation to others across Texas. One district, Los Fresnos Consolidated ISD, is rated as very high performing. Across the county, 10 schools—nine in the past 10 years—have been designated as National Blue Ribbon sites by the United States Department of Education. At the secondary level, these included public schools such as Brownsville Early College High School (2016) and South Texas Rising Scholars Academy (2021). The county also contains two of the only International Baccalaureate Programs in South Texas—IDEA College Prep Brownsville and IDEA Frontier College Preparatory School. The county boasts two schools that are ranked by *US News and*

World Report as being within the top 200 high schools in Texas. These included the National Blue Ribbon winner Brownsville Early College HS (ranked 33rd in the state), Harlingen School of Health Professionals (ranked 84th in the state), and Veterans Memorial Early College HS (ranked 199th).

Similar to the other out-of-state benchmarking site (Allegan County, MI), Cameron County appears to be particularly strong in terms of efficient resource allocation. Rankings produced by Niche Research rate seven of the county's nine districts in the top third of school resource rankings. Five districts are rated in the top 20%. In comparison to the benchmarking communities in Pennsylvania, districts in Cameron County were found to have slightly higher student-teacher ratios, a higher proportion of new teachers, and lower per-pupil spending. Across the county, teacher salaries are generally between $45,000 and $55,000 annually. Student-teacher ratios are mostly between 15:1 and 16:1. Although in two of the districts roughly 5% of the respective teaching forces had less than two years of experience, in three other districts, this proportion was greater than 15%. In one district, this proportion exceeded 30%. District spending varied greatly by district, but was also generally lower than the majority of benchmarking districts in Pennsylvania. Across the county, the majority of districts had per-pupil spending between $10,000 and $14,000 annually.

Many programs and initiatives employed across the county were aimed specifically at improving community engagement and enhancing students' college and career readiness. Importantly, Cameron County is one of the primary counties involved in the *Rio Grande Valley Initiative*—a comprehensive education reform program in the region sponsored by the Bill and Melinda Gates Foundation. As part of this initiative, *Early College High Schools*, *The Culture of Attending College Action Network, The College Readiness Action Network, The Back on Track Program,* and the *Rio Grande Valley's Data Literacy Strategy* were all highlighted as playing a key role in promoting post-secondary readiness across the county. The *Collective Impact* approach to community leadership was also noted as playing a central role in fostering community engagement. Other supplementary programs included Santa Rosa ISD's *ACE* after-school program, the *Family PLUS Program* in Harlingen PS, and some related to Los Fresnos Consolidated SD's *District of Innovation*.

Key Initiatives, Programs, and Practices for K-12 School Success

This section provides an outline of the key initiatives, programs, and practices that were identified by leaders in the benchmarking communities as playing a central role in their respective school systems' successes. The goal is to produce a catalog of different initiatives and programs from which Beaver County can draw ideas in Phase IV. With these considerations in mind, our purpose here is not to tout particular options as recommended adoptions for Beaver County, but to offer exemplars for school districts and the county overall to consider where there are gaps in or dissatisfactions with existing programming.

Across the six benchmarking communities, four key areas appeared to be consistently prioritized by district leaders as the central focal points of their districts' programming, budgeting, and strategizing. Each area is briefly described below, and exemplary programs are highlighted in subsequent sections.

- *College and Career Readiness:* In different ways, each of the benchmarking communities is taking explicit, substantive steps to ensure that their students will be *college and career ready* upon graduation. The benchmarking communities each had clearly articulated definitions for what college and career readiness meant in the context of their schools and clearly operationalized the knowledge and skills that students would need to develop over the course of their K-12 schooling in order to achieve this "readiness" standard. The districts within these communities then incorporated key programs aimed at exposing high school students to different career pathways, providing them opportunities to earn college credit, and providing general guidance for post-secondary transitioning.

- *Academics and Curriculum Resources:* In most districts across the benchmarking communities, students are provided with a vast array of course offerings and academic programming that allows for a great degree of student choice. Teachers are also provided with a wide array of high-quality curriculum resources that are explicitly focused on *student-centered learning* and *whole-child development*. At the district level, there is a clear focus on investing in innovative programs and initiatives. While pursuing these innovations, the districts take steps to maintain a well-organized and efficient use of funding and resources.

- *Equity, Diversity, and Inclusion:* The vast majority of districts across the benchmarking communities, regardless of size and demographic composition, were found to have explicit plans for promoting equity and inclusion as well as plans for celebrating student diversity.

- *Family and Community Engagement:* The benchmarking communities were found to place emphasis on promoting strategies aimed at engaging parents and involving community institutions in the local school systems. These strategies were largely centered on substantive, ongoing communication with parents, families, and community organizations, as well as on formally celebrating student and school accomplishments and capital projects (e.g., marketing campaigns).

College and Career Readiness. Of note, several key initiatives appear to be playing a central role in advancing these efforts across the benchmarking communities. These include those aimed at creating a shared vision for college and career readiness (e.g., Pittsburgh Public Schools' *Graduate Student Profile*) and those that take a whole-child approach to exposing students to different career options (e.g., Dauphin County's *Pathways to Pride* Initiative, Butler County's *Career Clusters*). Other initiatives were aimed at providing technical training and actual workforce experience to high school

students (e.g., Dauphin County's *Project Search* and Butler County's *Apprenticeship and Journeyman Training Program*).

Dual-enrollment programs that offered students the opportunity to earn college credit through partnerships with local community colleges or four-year universities were also prevalent. These included the *College within the High School* program in Butler County, where students can earn college credit from the county's community college or through the University of Pittsburgh, all while taking the classes on-site at their neighborhood high school. In Cameron County, the school system employs a robust network of "Early College High Schools" that allow students to earn up to two years of tuition-free college credit while pursuing their high school diploma.

Other initiatives sought to address many of the hidden barriers that students and families face in the years leading up to college. Naviance software, which is used across Butler, Dauphin, and Pittsburgh, serves as a resource for students to guide them in setting post-secondary goals and creating long-term career plans matched to their unique strengths and interests. In Cameron County, unique programs have been put into place to help parents complete the Free Application for Federal Student Aid (FAFSA). The school system has also created special courses in English/Language Arts and math specifically aimed at helping college-bound students address their remedial needs while still in high school. In Pittsburgh Public Schools, the *Pittsburgh Promise* initiative was created as a form of universal scholarship fund for all PPS students. Students who maintain a 2.50 GPA and 90% attendance throughout high school are awarded a $5,000 annual scholarship to continue their education at a post-secondary school of their choosing.

Taken in combination, these initiatives and approaches shed light on the ways that college and career readiness is promoted by school districts in the benchmarking communities. Key lessons learned from several of these specific initiatives are discussed in greater depth below.

Defining what "College and Career Readiness" means in the context of your community: Lessons from the Pittsburgh Public Schools "Graduate Profile." To set a shared vision for what the district hopes students will learn over the course of their K-12 career, Pittsburgh Public Schools recently developed the PPS Graduate Profile. This framework, which was the result of multiple years of research on behalf of the district's leadership, is meant to serve as a comprehensive outline of the knowledge and skills that Pittsburgh Public Schools students should accumulate over the course of their K-12 career. Centered on ensuring that students are college and career ready, personally prepared, and civically engaged, the framework operationalizes the specific abilities that students need to develop in each grade level to progress on the path of becoming "Successful 21st Century Citizens" by the time they graduate from high school. Beginning in 2021-22, this framework will act as the central blueprint that drives educational programming and strategizing across the district.

The profile was initially drafted by the District's Teaching and Learning Advisory Committee (DTLA). This committee reviewed research on educational best practices and also reviewed a variety of research that compiled the perspectives of CEOs, human resource directors, and college and university educators on the skills students need to be successful beyond high school. Following the initial release of this draft, community meetings and focus groups were conducted to gain input from the broader Pittsburgh community. After internalizing this feedback, the DTLA team worked in conjunction with the district's Parent, Student, and Community Engagement Team in making refinements to the profile and creating a comprehensive plan for the profile's implementation across the district. This process included operationalizing key objectives within each standard and tailoring each of these by grade level.

Beginning in 2021-22, the Graduate Profile will begin informing instruction for all PreK-12 students, and will begin serving as a form of graduation requirement for high school students. Over the course of their high school studies, the upcoming cohort of ninth-grade students will be required to create a living portfolio documenting completion of each of the profile's milestones. As described during an interview with the district's Chief Academic Officer, the district is adjusting its high school course catalog as a result. In completing the profile milestones, students will not only need to demonstrate knowledge and mastery of skills related to reading, writing, mathematics, and science, but will also be expected to complete courses related to African American history, ethnic studies, financial literacy, and service learning, among others. The profile's key objectives across each of its major domains of college and career readiness, personal development, and civic engagement are provided in Figures B.1 to B.3 in Appendix B.

Whole-Child Development and Career Exploration: Lessons from Dauphin County's Pathways to Pride Program and Butler County's Career Clusters. Across the benchmarking communities, several initiatives appeared successful in prioritizing "whole-child" development to promote college and career readiness. Dauphin County's Pathways to Pride Program, which is headquartered in the county's Middletown Area School District, "is designed to connect careers, curriculum and character education so that students graduate from high school as well-rounded and productive citizens" (Middletown Area SD, 2021).

As part of the program, which begins in middle school and continues through the end of high school, students first conduct a research project on various career fields and then complete a career planning self-assessment. At the beginning of ninth grade, students take a career development course titled "Futures I," and then, in conjunction with their parents and guidance counselors, select a "Career Pathway" that they would like to explore. This Pathway then forms the basis of their elective coursework throughout the remainder of high school.

Each Pathway is a broad grouping of careers that share similar characteristics and whose employment requirements call for many common interests, strengths, and competencies. A chosen Pathway focuses a student's elective courses toward preparing for a specific goal area. Students also complete service learning activities and character education coursework that is associated with their given Pathway. Through using this approach, students are intended to generate an overall sense of "career awareness" that relates their "high school education to the world after graduation." Students can choose from Pathways including:

- Arts and Communications
- Business, Finance, and Information Technology
- Engineering and Industrial Technology
- Human Services
- Science and Health

Regardless of the Pathway that students select, the elective coursework associated with each is designed to promote the social, emotional, and ethical traits that lead to the development of a students' character in qualities such as perseverance, respect, integrity, discipline, and excellence.

Similar to the Pathways to Pride program, several initiatives housed in Butler County are designed to promote students' college and career readiness, with some using a whole-child approach. Notably, the Career Clusters program, which is headquartered in the county's Seneca Valley School District, provides students with a variety of courses and activities to help them plan for the future with an eye toward 21st century learning:

> *Throughout a Seneca Valley student's high school career, they will participate in career units during class, hear from career speakers, have the opportunity to meet with college as well as career and technical institution representatives, complete career-related assessments, and discuss issues individually or in groups with School Counselors. (SVSD, 2021)*

Importantly, the district aligns its high school curriculum and courses with national career clusters to allow "students and parents to explore the latest career trends and jobs with the greatest likelihood of success, including emerging careers identified by the Bureau of Labor Statistics monthly review" (SVSD, 2021). The clusters themselves are geared to span a wide array of career paths, including:

- Agriculture, Foods, and Natural Resources
- Architecture and Construction
- Business Management and Administration
- Education and Training
- Finance

- Fine Arts
- Government and Public Administration
- Health Science
- Hospitality and Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections, and Security
- Manufacturing
- Marketing, Sales, and Service
- Science, Technology, Engineering, and Mathematics (STEM)
- Transportation, Distribution and Logistics

To accompany this focus on college and career readiness, the district also employs a comprehensive framework focused on whole-child social-emotional development. This framework, titled LEAD (Learn, Explore, Act, and Develop), aims to "grow the characteristics of 21st century learners" who, among other things, are "career ready, future orientated, appreciative of others, resilient, productive, kind, respectful, accountable, [and] self-confident" (SVSD, 2021). To promote this whole-child development, the district includes robust programming in a host of non-academic areas, including diversity learning, wellness activities, mindfulness programming, and programming for digital citizenship and bullying prevention.

College and Career Planning: Applications of the Naviance Program.

One of the key education management tools employed across several of the benchmarking districts (Butler County, Dauphin County, and Pittsburgh) is Naviance. This software program was highlighted by benchmarking participants as playing a key role in helping students with college and career planning, identifying areas of strength and interest, and connecting them to post-secondary goals.

In Pittsburgh Public Schools, all students from grades 6-12 are provided access to this program. Each year, students use the program in collaboration with their parents and guidance counselors to create personalized college and career plans. Specifically, they complete a detailed career interest assessment that identifies specific career options aligned with their unique strengths and interests. The program then provides students with resources to explore various career options. These resources provide students with information "including the amount of education or training that is required, the salary potential, work conditions, and projected demand for (each) occupation" (Pittsburgh Public Schools, 2019).

The program directs students to schools that match their personal postsecondary goals, provides them with resources to help them navigate the college application process, and connects them with a variety of scholarship and financial aid information. In addition, the software includes features that allow students to communicate directly with their guidance counselors, and provides resources related to college admittance

exams (e.g., the SAT and ACT), letters of recommendation, and campus visits, among others.

A Coordinated System-Wide Effort to foster College Readiness: Lessons from the RGV FOCUS Action Networks. Across the benchmarking communities, Cameron County, located within Texas' Rio Grande Valley, serves as possibly the best exemplar of how an entire community can work together to improve education outcomes for children. Central to this effort was the Rio Grande Valley initiative, which used funding from the Bill and Melinda Gates Foundation to comprehensively overhaul the region's K-12 education system during the past 15 years. Led by the organization RGV FOCUS, this work first began in the mid-aughts as the Texas High School project.[16] The goal was to "introduce the Early College High School model to the state of Texas to address the declining graduation rates for Texas high school students and the low percentage of minority, low-income, first-generation students earning higher education credentials" (RGV FOCUS, 2021). Later, this work shifted to take on more comprehensive aims:

> *In 2012, with the recognition that the establishment of an education-focused collective impact initiative in the Rio Grande Valley could greatly improve the educational outcomes across the four-county region, Community Foundations of Texas and Educate Texas partnered with Valley-based leaders to establish RGV FOCUS in support of the vision that all Rio Grande Valley learners will achieve a degree or credential that leads to a meaningful career and successful life. (RGV FOCUS, 2021)*

Ultimately, the goal of this work is to have 60% of all 25-34–year-olds in the region earn a certificate or degree by the year 2030.[17] Rather than serve as the sole organization leading this work, RGV FOCUS instead positioned itself as a backbone organization that served as a thought partner and facilitator in bringing together the leadership of school districts, institutions of higher learning, and community organizations across the region. As a starting point to this process, RGV FOCUS created a Leadership Team consisting of key leaders from the public school districts, post-secondary institutions, community-based organizations, and leaders of local companies and industries (Educate Texas, 2019). This team, given its localized expertise and connection to the community, ultimately took on ownership of leading the initiative, while RGV FOCUS acted as a backbone organization, consultant, and community facilitator. Once appointed, the Leadership Team conducted research to identify the communities' assets and needs, created a shared vision for the initiative, and developed the strategies and approaches that the initiative would seek to implement.

[16] In 2012, the Texas High School Project changed its name to "Educate Texas."

[17] This goal was first established by the Texas Higher Education Coordinating Board. The goal is in place for the entire state of Texas and is referred to as the THECB 60x30 Strategic Plan.

While the Leadership Team ultimately oversaw the initiative and directed the work that needed to be done, the work on the ground was led by "Action Networks" that the Leadership Team created. These specialized teams, which consisted of high-level practitioners (e.g., school principals, district leaders, etc.), were each put in charge of different areas and were tasked with executing the work needed to achieve the initiative's goals. Two of these Action Networks were formed with the explicit purpose of promoting college readiness and creating a student-led culture of attending college across the region.

The College Readiness Action Network. Originally, the intention of the College Readiness Action Network was to assist school districts within the Rio Grande Valley with their efforts to increase the number of students who could take college-level, credit-bearing courses during high school. After some exploratory meetings, the Action Network shifted its focus toward addressing the needs of students falling below readiness standards. New state legislation required all Texas school districts to partner with at least one institute of higher education (IHE) to "develop and implement college prep courses in Math and English for those students not yet demonstrating college readiness" (Educate Texas, 2019). As part of the RGV Initiative, Cameron County completed this mandate in a highly collaborative manner that wound up involving all the major colleges in the region:

> *RGV FOCUS brought together all the regional, public IHEs (one university, two community colleges and one technical college), the Region One Education Service Center and the 37 public school districts to design two college prep courses, one in English and one in Math. These courses can be implemented by all 37 public school districts and are designed to help 12th-grade students meet college readiness requirements, allowing them to enroll in college credit courses immediately upon high school graduation. School districts have access to the curriculum free of charge. (RGV FOCUS, 2021)*

As a result of this process, which has been cited by Educate Texas (2019) as a "best-in-class model," Cameron County and the surrounding region have been able to successfully decrease the number of students needing remedial coursework upon entering higher education.

The Culture of Attending College Action Network. Similarly, the initiative's Culture of Attending College Action Network was also able to enhance post-secondary outcomes for students in Cameron County and the broader RGV region. While the College Readiness Action Network set out to improve post-secondary preparedness, this Action Network was created to "develop a regional strategy for college-access professionals to increase early college awareness by providing resources and pre-college advising on admissions and financial aid application completion" (Educate Texas, 2019). As a central focus of this work, the Action Network developed a program to provide parents with the knowledge and tools necessary to complete the FAFSA application. Given that this work

required a “shift in cultural mindset,” the Action Network partnered with a local community union, La Union del Pueblo Entero (LUPE), that had deep cultural and historical ties to the region to help communicate and facilitate this work with parents, particularly those who may not have been formally educated themselves.

The Action Network created a variety of tools for guidance counselors, students, and parents to assist in completing applications for financial aid. These included a comprehensive guidebook for counselors outlining strategies they could use to support students through this process, as well as a guide for parents that outlined the steps needed to obtain materials such as tax transcripts and individual taxpayer identification numbers (ITIN). In addition to these materials, the Action Network employed four major strategies to help students and parents file financial aid materials:

1. First, the team “developed a single process for state aid applicants to submit financial aid applications at local IHEs and built a counselor toolkit for DREAMers, which resulted in a 26% increase in state financial aid submissions.”

2. Second, the team “facilitated a federal policy change to include 19-year-olds in the formula for calculating FAFSA completions. Previously, the Department of Education only included students in the FAFSA completion calculations if they were 18 years old or younger. With this new age consideration, virtually all eligible seniors in the region are now completing FAFSA.”

3. Third, “in a collective response to the new federal financial aid application calendar and ‘Prior-Prior Year’ tax return policy,” the team “convened the leaders from the four public IHEs in the region to discuss aligning their financial aid calendars. As a result, all the IHEs began distributing aid packages in November, directly following the new FAFSA application window.”

4. Fourth, to help students complete the FAFSA, the Action Network led the creation of “Super Saturday” events. Here, the “financial aid, admissions and enrollment professionals at each of the four IHEs hosted financial aid completion events at their respective campuses on the same date, so that students could receive assistance in filling out the FAFSA/ TASFA and complete their college applications (simultaneously)” (Educate Texas, 2019).

To monitor the progress of these efforts, and to support the school systems within the region as it relates to the FAFSA, the Action Network provides monthly progress reports to each of the districts on students’ completion of these forms. To date, the combined efforts of the Culture of Attending College Action Network have been shown to be effective. Over 70% of the region’s 20,000 high school seniors now complete the FAFSA, up from less than 60% (the state average) before these efforts began.

Academics and Curriculum Resources. In most districts across the benchmarking communities, students are provided with a vast array of course offerings and academic programming that allows for a great degree of student choice. Teachers are also provided with high-quality curriculum resources that are explicitly focused on *student-centered learning* and *whole-child development*. At the district level, there is a clear focus on investing in innovative programs and initiatives, including in those related to school facilities. While pursuing these innovations, the districts take steps to maintain a well-organized and efficient use of funding and resources.

Personalized learning and choice. Of note, several key initiatives appear to be playing a central role in advancing these efforts across the benchmarking communities. These include those aimed at providing highly personalized learning experiences to students, such as the *IXL Personalized Learning Program* in Allegan County and the *Mass Customized Learning Program* in York County. At the school level, Allegan offers a county-wide school choice program for students. Run by the county's Education Service Agency (i.e., Intermediate Unit), beginning in 2021-22, this program allows students living anywhere in the county to apply to and attend school in any of the county's eight school districts.

Instructional resources. Many benchmarking districts also provided teachers with a variety of curriculum and instructional materials to support students. A commonality across sites was selecting materials that had either undergone a thorough vetting process by district curriculum leaders or had been produced by national academic organizations such as the National Writing Project, ReadWriteThink, and the National Core Arts Standards. Programs aligned with gifted and talented education standards as well as key STEM standards were also present.

Instructional technology support. Many districts were described as engaging in innovative practices related to instructional technology usage and facilities construction. Most districts had some sort of 1-to-1 laptop program for students, and many of the benchmarking Intermediate Units had recently taken on significant roles in enhancing the wireless infrastructure in their communities so that students across their counties could have internet access at home. Districts in York County (York Suburban SD) and Butler County (Seneca Valley SD) have also implemented school renovation projects focused on innovation. Notably, Seneca Valley SD recently renovated elementary schools in its district to contain *Creativity, Innovation, and Research Centers (CIRCs)*—unique classrooms that are specifically designed for project-based and constructivist forms of learning (see Figures C.1 and C.2 in Appendix C).

Adaptive instruction. The use of Multi-Tiered Systems of Support (MTSS) as a means of responding to the needs of *all* students was also a common theme across the benchmarking communities. Intermediate Units in these communities often played a central role in coordinating early-child and preschool programs across the districts, and served as the central hub for special education services. Many districts went to

significant lengths to provide support to at-risk populations of students. Mars Area SD in Butler County offers a comprehensive "Reading Lab" to help families of students who are struggling readers. Numerous programs were observed in the Rio Grande Valley aimed at providing support for migrant students and students at risk for high school dropout. Almost all the benchmarking sites offered programs specifically aimed at supporting homeless students and housed community-run food pantries in schools. Unique programs aimed at encouraging high school dropouts to return and complete school were also observed (e.g., *The Back on Track Program* in the Rio Grande Valley).

Out-of-school-time instruction and mentoring. Programs aimed at taking a proactive approach to student support were widespread as well. These included comprehensive programs for after school, mentoring, and summer school. In the Rio Grande Valley, Santa Rosa ISD's ACE after-school program offers students virtual homework assistance, tutoring, and enrichment activities, and also incorporates activities aimed at engaging families in at-home learning. To address issues related to summer learning loss, Pittsburgh Public Schools currently implements the *Summer B.O.O.S.T. Program.* As described by PPS (2021), this no-cost summer enrichment program is "designed to support students by building positive relationships and creating opportunities for exploration that put youth on track for their future academic success in a thriving and fun environment."

Key initiatives aimed at student mentoring included Pittsburgh Public Schools' *Middle School Mentoring* program and the *We Promise* mentorship program, which is aimed at 11th-grade males who may need extra support to qualify for the *Pittsburgh Promise* scholarship. In Dauphin County, students in skilled trades are able to participate in the National *ACE Mentoring Program*. This after-school program, which is available to high school juniors, aims to provide exposure to career fields in architecture, construction management, and engineering. A key component is providing students the "opportunity to work on a 'real life' project, in a team setting, with professionals from all over the Dauphin County area" (Middletown Area SD ACE Program, 2021).[18]

Character education. The benchmarking communities also employed numerous programs aimed at fostering whole-child learning and students' social-emotional development. In Dauphin County's Upper Dauphin SD, the *Discovery Program* is used to support character education by assigning high school students to mixed-grade-level groups in which they engage in seminar discussions, community service, school-wide jobs, and team-building activities. Through these components, the program aims to promote core values such as humility, conscientiousness, and honesty while helping students develop character traits such as integrity, concern for others, curiosity, and leadership. Similar programs, including Seneca Valley SD's (Butler County) *Kindness and Bullying Prevention* initiative, Central York SD's partnership with TW Ponessa Counseling

[18] For additional information, please visit: https://raiderweb.org/academics/mahs_career_readiness/mahs_transitional_opportunities.

Services, and an assortment of programs aimed at students' mental health and general wellness, were also identified in the benchmarking analysis.

Innovative School Buildings: Lessons from CIRC Spaces in Butler County. During the benchmarking interviews, several school leaders brought up the importance of having high-quality school buildings. According to district leaders, a key effect of high-quality, modernized school buildings is positively influencing parents' *perceptions* of a school's quality. As noted by one district leader from York County:

> *Quality facilities provide a visual cue to families that are looking to move into the area that there is a value in education—and that it's a place they can visualize their own children attending. And sure, if you're comparing a more modern facility to a more antiquated building, those considerations will come into effect. Parents are going to ask themselves, 'Do I really want to go and attend my kids' events for the next 10 years if the buildings aren't nice?'*

Several benchmarking districts have engaged in particularly noticeable innovation. York County's York Suburban SD recently completed a comprehensive facilities study that identified creative ways that its buildings could be improved to facilitate multiple types of uses as well as more frequent student collaboration. Notably, the district also drafted plans for updating their school facilities to include spaces that more directly replicate the real-world experiences that students will have in their jobs and careers.

Other districts within the benchmarking communities have also engaged in strategic facilities improvements. District leaders in Allegan County's Hopkins ISD, for instance, have recently begun to leverage "sinking funds" to pay for capital improvements and renovations of existing buildings throughout the district. As outlined by district officials:

> *A sinking fund is a savings account into which a local school district can deposit voter-approved local millage revenue in order to pay cash for projects or repairs as they arise rather than having to borrow through short-term notes or long-term bonds. Sinking funds provide districts with a cost-effective alternative to borrowing or bonding for some expenditures because they require none of the associated interest costs or legal fees. (Hopkins ISD, 2021)*

Arguably the most notable example of innovative facilities observed across the benchmarking sample was in Butler County's Seneca Valley School District. Recently, the district collaborated with the Pittsburgh-based Inventionland Institute in renovating its elementary school buildings. As part of these renovations, Inventionland designed unique classrooms that are specifically designed for constructivist, project-based approaches to learning. Referred to as *Creativity, Innovation, and Research Centers*

(CIRC), these classrooms are designed to be immersive learning environments where students

> *can be found learning and collaborating on subjects such as coding, robotics, engineering, communications, and graphics design. [In these centers] they are also experiencing self-discovery, learning problem-solving skills and taking home real-world knowledge. Some of the products [available in these centers] include robotic, engineering, invention and construction activity sets, Kindles, microphones, extensive video equipment, Snap circuits and Arduino boards. (Seneca Valley Foundation, 2021)*

Funded in part through philanthropic donations from a variety of community businesses and organizations (including the Pittsburgh Penguins NHL Hockey Team), these unique classroom spaces are among the only ones of their type in Western Pennsylvania. As a result of these innovative efforts, the school district was awarded a bronze medal as part of the national Edison Award program—a competition that included "over 3,000 professionals from the fields of product development, design, engineering, science, marketing and education." Examples of these classroom spaces are presented in Figures C.1 and C.2 in Appendix C.

***After School Programming: Lessons from the Rio Grande Valley*.** The ACE after-school program in the Rio Grande Valley's Santa Rosa Independent School District exemplifies a district taking a proactive approach to student support—particularly in the face of the COVID-19 pandemic. This grant-funded program aims, in part, to address learning loss that resulted from the pandemic-interrupted 2020-21 school year through providing a "network of support services to students and their families." During virtual learning days, the program offers virtual homework assistance and tutoring to students. On days when students are on a regular, in-person schedule, ACE offers comprehensive programming in the form of academic tutoring and homework help, along with enrichment activities and activities for family at-home learning.

The program provides both on-campus academic tutoring in each of the core subject areas and daily homework assistance that students can "drop-in" to receive. It also offers additional activities that support student learning in areas such as character development, social-emotional learning, health and wellness, and fine arts. Activities and services available to parents of student participants "include ESL classes, computer literacy classes, family strengthening classes, nutrition classes, and social work services that include social-emotional support and information and referral services" (SRISD ACE Program, 2021).

To supplement the work of the ACE program, the district has also secured grant funding from the Texas Parks and Wildlife CO-OP for the purpose of providing additional out-of-school enrichment. Through this grant, students have the opportunity to

participate in a variety of outdoor activities (e.g., camping, fishing, kayaking, hiking, archery) and to visit and camp in several state parks across Texas.

Broadband Internet as a Convening Point: Lessons from York County. Large investments in digital learning were prevalent across many of the school districts within the benchmarking communities. Most had 1-to-1 laptop programs for students and employed a variety of different digital curricula and other instructional technology tools. One particularly interesting finding that came out of the benchmarking interviews was the role that many Intermediate Units are playing in securing broadband internet access for their communities. Given the central role of virtual learning during the pandemic in 2020-21, not surprisingly, districts found that simply providing students with personal computing devices was not sufficient. They also had to prepare students *to use* the devices effectively while off-campus. Where internet access was limited, particularly in rural areas, several of the benchmarking Intermediate Units assumed significant roles to enhance the wireless infrastructure in their communities. In two counties (Dauphin and York), IU leaders described these efforts as bringing education leaders from across the county together for a common goal. According to one IU leader in York County:

> *One of the things that my department manages is the entire wide-area network that connects all of our schools and district buildings together. We are essentially the internet service provider for every single district. The paradox of this is, because of scale, we're able to bring in Comcast as our primary provider—and because of the economies of scale, we are able to force Comcast to build out into those areas that they would never build to otherwise.*

Adult Learning and High School Diplomas: Lessons from the Rio Grande Valley. In the Rio Grande Valley, district leaders found that they had a large population of students who attended high school for four years but did not meet the academic requirements necessary to receive a high school diploma. As described by RGV FOCUS (2021):

> *Though many students had attended for four years and assumed they had finished, they had not actually graduated. [District leaders recognized] that the odds of enticing them back were slim, and simply emphasizing the importance of a high school diploma was not sufficient. Some were already working, and others would be too embarrassed to find themselves in this situation.*

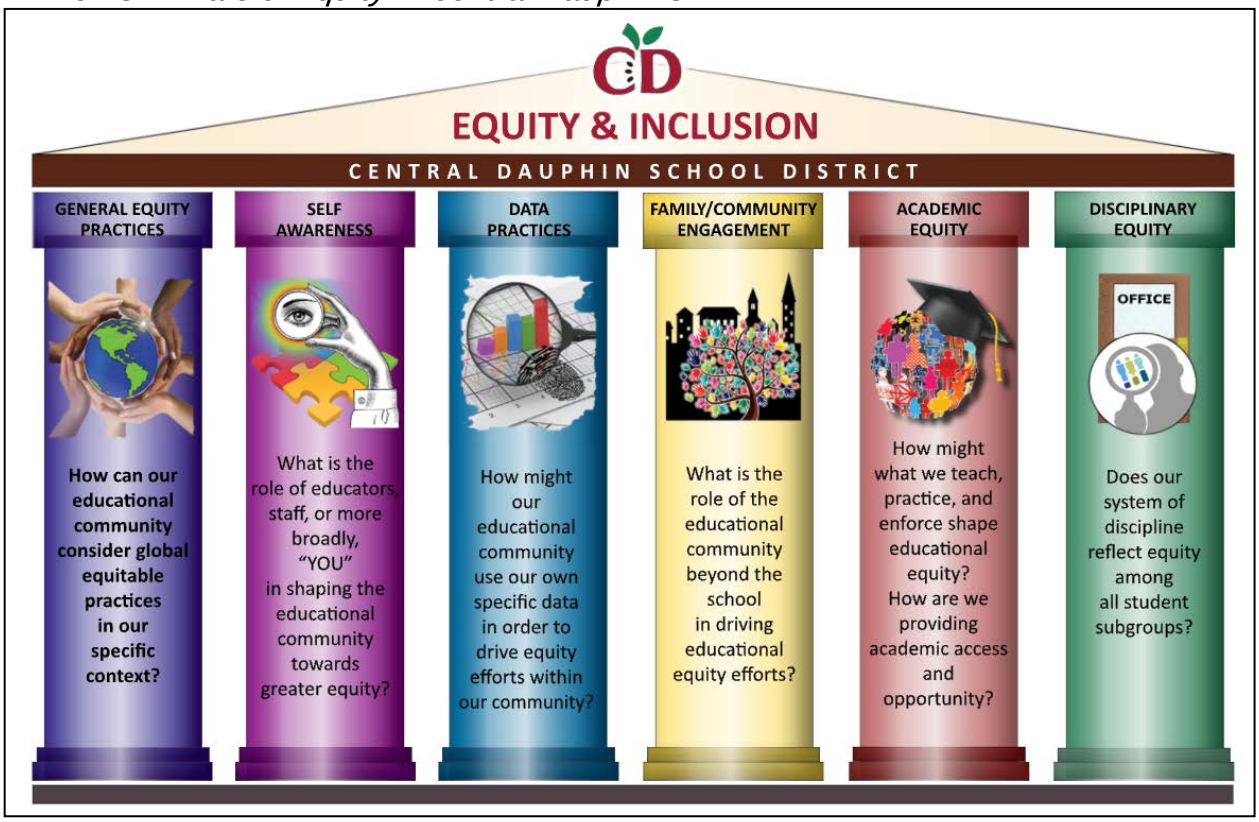
In response to this need, district leaders created the *Back on Track* program, which aimed to "create the opportunity for students to return not for a GED, but for *a diploma*, while taking college courses for dual credit with the intent to advance to college to improve their job prospects and open more doors" (RGV FOCUS, 2021). As part of this process, the districts partnered with South Texas College to accommodate both the educational and social needs of these individuals. Rather than hold the classes

at the local high schools, the program was established at a separate campus that was set up as a "training center" and not a traditional classroom. Special coursework was developed, and program teachers who had experience working with at-risk youth were thoughtfully selected. District leaders then embarked on a region-wide "system of campaigns to draw students to the new campus, including outdoor boards and door-to-door outreach" (RGV FOCUS, 2021). Through the combination of these efforts, the RGV has been able to provide outreach to this unique population of former students, while simultaneously addressing the adult learning needs of others who may wish to return and finish high school.

Equity, Diversity, and Inclusion. The vast majority of districts across the benchmarking communities, regardless of size and demographic composition, were consistently found to have explicit plans for promoting equity and inclusion as well as plans for celebrating student diversity. In each community, we identified the presence of diversity committees, initiatives aimed at enhancing equitable student outcomes, and programs aimed at promoting cultural literacy among students. Key initiatives in these areas included Pittsburgh Public Schools' *On Track to Equity* initiative, and in several other communities, the implementation of programs aligned with the Pennsylvania Department of Education's *Six Pillars of Equity*.

Best Practices for Promoting Equity in Schools: The Pennsylvania Department of Education's Six Pillars. As shown in Figure 1, the Pennsylvania Department of Education (PA DoE) has created a framework outlining key considerations for schools and districts to follow in promoting equity and inclusion. In several of the benchmarking communities, most notably Dauphin County (Central Dauphin SD) and York County (York Suburban SD), we identified initiatives that explicitly referenced and aligned with these focuses. Briefly, the six pillars stress that equity/inclusion initiatives should address: general equity practices, self-awareness, data practices, family and community engagement, academic equity, and disciplinary equity.

Figure 1
PA DoE Six Pillars of Equity in Central Dauphin SD



In relation to these pillars, research and materials produced by York County's York Suburban School District are instructive. Recently, this district engaged in a comprehensive district-reform initiative to help explore system-wide best practices in areas such as facilities usage, family and community engagement, and student equity. The lessons learned through this process, which the district titled the Future-Focused Planning Initiative (FFP), will ultimately inform the district's executive decision-making in the near future. The culminating goal of this research initiative is identifying recommendations on how to "organize the district for long-term success." The research base constructed by the FFP provides clear guidance for schools and districts as they work to create more equitable, inclusive, and socially just learning environments for students. Key lessons learned from this research as it applies to each of the PA DoE pillars is as follows:

- *General Equity Practices:* The FFP's "General Equity Practices are designed to empower school administrators, teachers, and support staff to identify (and mitigate) barriers that hinder students' ability to maximize their full potential." Central to these practices is the belief that *through improving equity, districts also improve education.*

- *Academic Equity:* In accord with the Six Pillars, the FFP states that "academic equity is the foundation that allows students to be successful in their school experience. It is crucial that all students have access and opportunities to fully engage in their learning."

- *Data Practices:* Data-driven decision-making on behalf of schools was highlighted by the FFP as a key component in helping schools provide equitable services for *all* students. The goal is to examine equity in terms of students' access to resources, participation in programs, and achievement outcomes. On a district level, the FFP emphasizes the importance of identifying and addressing access barriers to students (e.g., not all students having Wi-Fi at home, not all students having the same access to transportation, etc.). Perhaps most importantly, the FFP notes that districts must also work to ensure that school curricula, particularly those used in subjects such as language arts and social studies, reflect a diversity of cultures, histories, and viewpoints.

- *Self-Awareness*: To promote equity, the FFP research encourages teachers to be "aware of student's lives outside of school," prioritize relationship-building with students, and work to embed social-emotional learning throughout all aspects of their teaching. On a district level, the FFP notes the importance of promoting empathy and understanding among staff and students. To promote teacher engagement, the FFP recommends that practical, job-embedded PD opportunities be provided to all district staff that target areas such as cultural awareness, culturally responsive teaching, and equitable instructional practices, among others.

- *Family and Community Engagement:* As articulated by the PA DoE, "families have an interest in what is occurring within their children's school and will be able to provide guidance to what is occurring in the community as a whole" (PDE, 2021). The FFP notes:

  > *Decision makers interested in establishing and maintaining meaningful family engagement should embrace a shift from the mindset of 'doing to and for families to doing with them; from being the expert to acknowledging parents as experts; from a one-size-fits all approach to personalizing family engagement.'*

  School and district leaders must work conscientiously to create an environment in which all parents feel appreciated and welcomed, and should also examine how they can address barriers to parent involvement in school (e.g., addressing transportation and child-care needs for parents to attend after-school meetings and events). For example, in York Suburban SD:

> *The typical means of communication, structures and scheduling of meetings, and modes of communication with the community must all be examined to ensure pockets of the community are not being left out of discussions and decision making. As barriers to participation are identified, leaders should take the necessary steps to address, accommodate, and eliminate these barriers when possible. (York Suburban SD FFP, 2021)*

- *Disciplinary Equity:* The PA DoE notes that disciplinary policies should be examined for purposes of ensuring that all students are treated fairly. Inequity can occur in this area when disciplinary practices lead to one or more subgroups of students being disciplined at a disproportional rate compared to other subgroups for similar offenses (PDE, 2021). For instance, examining dress code policies that may unreasonably target certain subgroups, such as female students or students living in poverty. Of note, the FFP concludes that disciplinary actions focused on "Restorative Justice," rather than on punitive measures, are most optimal. Here, students engage in a dialogue centered on identifying actions they can take to address any harm they may have caused. Built around the "5 Rs" (relationships, respect, responsibility, repair, and reintegration), this approach has been found to be highly effective at enhancing disciplinary equity as well as improving school climate overall (York Suburban SD FFP, 2021).

A Comprehensive Approach to District-Wide Equity: Lessons from Pittsburgh Public School's On Track Initiative. Parallel to the PA DoE's *Six Pillars of Equity*, Pittsburgh Public Schools' *On Track to Equity* initiative serves as an additional key exemplar in this area. This initiative functions as a "comprehensive implementation plan that seeks to reduce racial disparities throughout the District and elevate the achievement levels of African American students" (PPS, 2021). The plan functions alongside the district's Equity Advisory Panel and focuses on promoting equity through seven distinct channels: instructional support, school board support, equity in discipline, reducing the achievement gap, equity in special education and special programs access, equity monitoring, and administrative support. Through each of these channels, specific action steps are implemented to ensure that equity is promoted from all angles. In the area of instructional support, for instance, the district is working to create additional culturally responsive instructional materials that teachers can access and is also reviewing its existing curricular materials to ensure that students in all schools have access to the same level of rigor.

In the area of administrative support, the district has employed other key actions in reaching these goals. PPS has created key teams in the form of an Equity Advisory Panel, an Equity Office, and a Student Equity Advocates Team. Robust resources are also made available for teachers, students, and families through the district's website. These include the district's "Racial Equity Learning Resources," which include publications on African American, Latino, Asian American, and Native American

heritage. These resources provide equity-focused teaching materials for educators, materials for parents and families, and a recommended reading list of books and other assorted publications.

Notably, as part of the *On Track* initiative, all teachers across PPS now participate in a comprehensive professional development program aimed at promoting equity and inclusion in schools. This program, titled *Beyond Diversity: Courageous Conversations About Race*, is a training series that has been implemented in urban school districts across the county and was specifically cited by interviewees from the District Superintendent's Cabinet as "*a game-changer*" for addressing system-wide racial equity within PPS. Specifically, teachers and staff work to gain a foundational understanding of the impact of race on students of color and are provided the tools to use a common language for engaging in team discussions about race and reflecting upon their own racial experiences, beliefs, and perspectives (Courageous Conversations, 2021).

Elevating Student Voice: Lessons from Pittsburgh Public Schools. PPS has also created mechanisms for gathering the input of students in district-wide decision-making and in celebrating student voice and involvement. The district specifically formed the Superintendent's Student Advisory Council in 2017 to address these goals. Students placed on the council are elected by their peers and complete intensive leadership training in advance of joining. They then serve on a variety of the Superintendent's district-level committees and are also tasked with representing student interests while participating in instructional committees at their individual schools.

Other actions taken by the district with regard to elevating student voice have been equally robust, including (PPS, 2021):

- Appointing a district-wide "Student Voice" project manager
- Seeking student input on the district's proposed suspension ban
- Including students in the development of the *Imagine PPS* themes and groups
- Sponsoring students to attend the *Classroom Without Borders Poland Study Seminar*
- Supporting a variety of student driven virtual projects including the "Month of Non-violence"—a collaboration between the U.S. Attorney's Office, the Pittsburgh Bureau of Police, and the Pittsburgh Downtown Partnership, among others.

Family and Community Engagement. The benchmarking communities were found to place a great deal of emphasis on promoting strategies aimed at engaging parents and involving community institutions in the local school systems. These strategies were largely centered on substantive, ongoing communication with parents, families, and community organizations, as well as on formally celebrating student and school accomplishments and capital projects.

By and large, the districts within the benchmarking communities took significant and often comprehensive strides to engage families and parents through the use of formal committees. Parent committees and organizations such as the *Key Communicators Network* in Allegan County, the *Parent Advisory Council* in Pittsburgh Public Schools, and the *Family PLUS Program* in Harlingen Public Schools (Cameron County) all represented key PTO-style organizations that appear to be playing a central role in family engagement. Community food pantries (e.g., the *NutriPacks* program in Central Dauphin SD), social-work–oriented programs (*Central York Communities That Care*), and outreach programs targeting military veterans (Pennsylvania's *Operation Recognition*) were prevalent, as were efforts to leverage school facilities as "community hubs" in hosting community events.

Most districts had well-established community foundations which aimed to help with school fundraising and student scholarships (e.g., the *Plainwell Education Foundation* in Allegan, the *Seneca Valley Foundation* in Butler, the *Northeastern Foundation* in York, and the *Trojan Education Foundation* in Dauphin). Many districts formed strong partnerships with area community colleges and local businesses. Many also went to noticeable lengths to "market" themselves to the broader community both for purposes of celebrating student success and for helping to establish and build the community partnerships. To increase visibility, digital newsletters and even district magazines (e.g., *Experience HCISD* in Cameron County) were prevalent. One district, Seneca Valley SD in Butler County, even boasts its own local-access cable station which broadcasts instructional television shows, a student-produced news program, and live school events such as concerts, plays, and football games. Other districts implemented specific marketing campaigns aimed at promoting their schools to families who are considering moving. For example, Hopkins PS in Allegan County explicitly markets itself as a "Destination District," while Los Fresnos Consolidated SD in Cameron County promotes itself as a "District of Innovation."

Broadly, these initiatives and approaches illustrate the variety of ways that family and community engagement are promoted by school districts in the benchmarking communities. Key lessons learned from several of these specific initiatives are discussed in greater depth below.

Lessons from the Key Communicators Network in Allegan County.

Across the benchmarking communities, The Key Communicators Network (KCN) in Allegan County's Otsego Public Schools (OPS) represents a particularly straightforward approach to community engagement. This initiative, which was launched by OPS in 2013, aims to increase the number of people outside the district who are well informed about what is happening in the schools. Members of the KCN include parents, local business owners, city leaders, and booster groups, all of whom "simply commit to being more informed, sharing what they know, and asking questions" (OPS KCN, 2021). Through this process, the initiative aims to better share information about the programs

the district is using, the professional development that teachers are receiving, and the general day-to-day happenings of schools.

The Importance of Data-Literacy: Lessons from the Rio Grande Valley.

One key consideration for school leaders in the Rio Grande Valley was data literacy among parents and other outside stakeholders. Put simply, "for data to be useful, it has to be turned into a tool that everyone knows how to use" (RGV FOCUS, 2021). As part of the region's RGV initiative, the RGV FOCUS team developed a comprehensive data strategy that focused not only on disseminating school performance data related to the initiative but also on providing schools and stakeholders with tools to help them accurately interpret the information received. The team also creates "data narratives" to help stakeholders make sense of the story that the data are telling. Perhaps most importantly, RGV FOCUS has a live data dashboard that is made available to the public on the initiative's website. During one of the benchmarking interviews, a key leader of RGV FOCUS specifically highlighted the central role that data plays in helping the initiative achieve its goals:

> *Data is so vital to us. We have a tableau dashboard that is available to the public on our website. It has data for every single school district in the Rio Grande Valley. We also included an equity framework on the dashboard to track outcomes related to race, inclusion, and diversity. All of these are hugely important, and our potential funders want to see how we're addressing these areas. We also use the dashboard ourselves. If we see someone that's an outlier, a school that is outperforming their district, we reach out to them and say, "Okay, what are you doing? It looks like you're doing something that's really working."*

In addition to these tools, RGV FOCUS has also created a variety of additional resources and trainings to help schools, as well as the broader RGV community, move away from a "culture of data *compliance* to a culture of data *inquiry*." Initiative leaders have noted that this shift has been critically important "in establishing a truly authentic data-informed culture of innovation" (RGV FOCUS, 2021).

Lessons from Pittsburgh Public Schools' Comprehensive Parent Engagement Approach.

Pittsburgh Public Schools *Comprehensive Parent Engagement Program* represents another exemplary approach. Its centerpiece is the Parent Advisory Council, which acts as the district's central mechanism to ensure "that parents are well-informed about Pittsburgh Public Schools matters and that they have the opportunity to help develop district-level programming and policy and share information with district staff" (PPS Family, Youth, and Community Engagement, 2021). The Advisory Council consists of one to four parent representatives from each of the district's schools who serve as liaisons between their schools' parents and the superintendent's cabinet. The Council meets regularly with district leadership for the purpose of:

- Learning about key topics identified for the purposes of sharing the information with other parents at their school.
- Sharing the interests and concerns of other parents at their school with district leadership.
- Helping with the development of district-level programming and policies.

PPS implements a variety of additional initiatives to enhance parent engagement. Each school is assigned a Family and Community Engagement Coordinator (FACE) and establishes a Parent-School Community Council (PSCC). Family and Community Engagement Coordinators are school-based staff members who are tasked with leading each school's collaboration efforts with parents, family members, and community organizations. Each school's PSCC serves as an advisory group that meets monthly to provide guidance and input to the school's leadership team, including the head principal.

Annually, the district administers a survey that is sent to parents of all students in an effort to gather their opinions about various initiatives and programs. It also operates a Parent Hotline that allows parents to call and receive on-the-spot technical assistance with student laptops and distance-learning programs. Each year, it distributes to parents the PPS "Get Involved" booklet, a resource that highlights all the ways parents can participate in their child's schooling. The document also outlines a variety of "best practices" that parents can employ in supporting the school while at home (Figure 2) and while volunteering (Figure 3).

Figure 2

PPS Parent Engagement Best Practices and Guidance for School Volunteers Booklet: Best Practices for Families (Pittsburgh Public Schools, 2019)

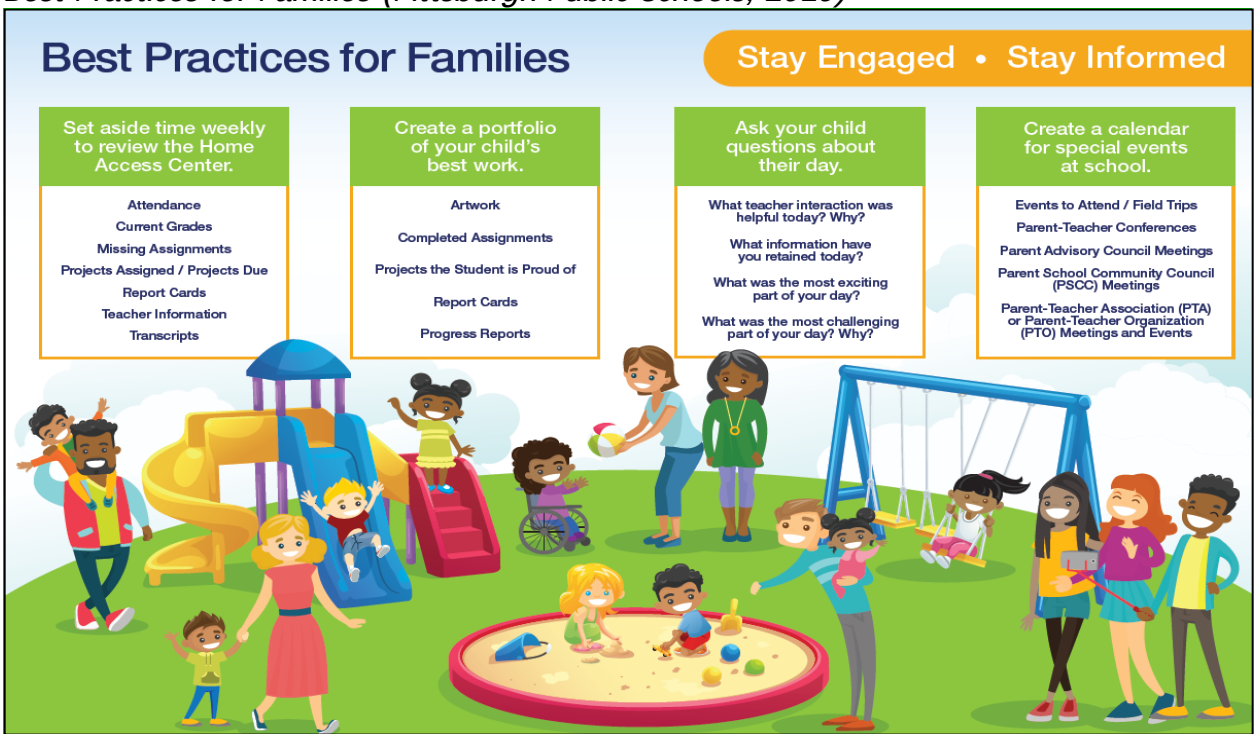


Figure 3

PPS Parent Engagement Best Practices and Guidance for School Volunteers Booklet: Best Practices for Schools (Pittsburgh Public Schools, 2019)

Approaches to System-Wide Reform: Lessons from Leadership in Benchmarking Communities.

In this section, we describe insights conveyed by IU leaders, district cabinet members, and others on techniques they have employed to successfully foster district collaboration, parent and community engagement, and county-wide buy-in for educational change.

Leadership challenges. During interviews, leadership personnel from across the benchmarking counties noted the many responsibilities and competing demands that their teams face. A consistent theme was that, similar to Beaver County, they too must actively work to overcome challenges related to competing demands, resource allocation, inequality, and localized poverty. For instance, leaders in the Pennsylvania benchmarking communities almost unanimously bemoaned the challenges that the state's charter school funding formula creates for many of their districts. They consistently stressed that *school choice* is an important reality for their districts, which in response, they are now prioritizing ways to better connect and build relationships with parents. Many also indicated the challenges of considering structural reforms such as school re-districting and mergers. Several interviewees noted that community pushback could be particularly strong in these areas. After attempting a re-districting initiative, one IU leader even jokingly remarked (reminiscent of interviews we conducted in Beaver County) that they now believe "the toughest animal to hunt in Pennsylvania is the high school mascot."

When reflecting on population growth, district leaders were quick to point out that education is only one factor driving their community's respective successes. "Anchor" industries, localized development projects, tax structures, and cost of living were all frequently cited as important factors driving community growth, over which a school system has no control. In Dauphin County, for instance, the presence of Hershey Park, as well as the state's capital (Harrisburg), drives industry and population growth. Similar trends appear to be evident in the Rio Grande Valley, with the presence of SpaceX and a variety of industries related to medical research. Leaders in Butler County highlighted the county's particularly advantageous tax structure. Those in Allegan County stressed the importance of the county's low cost of living and accessibility as a bedroom community located adjacent to two different metro areas.

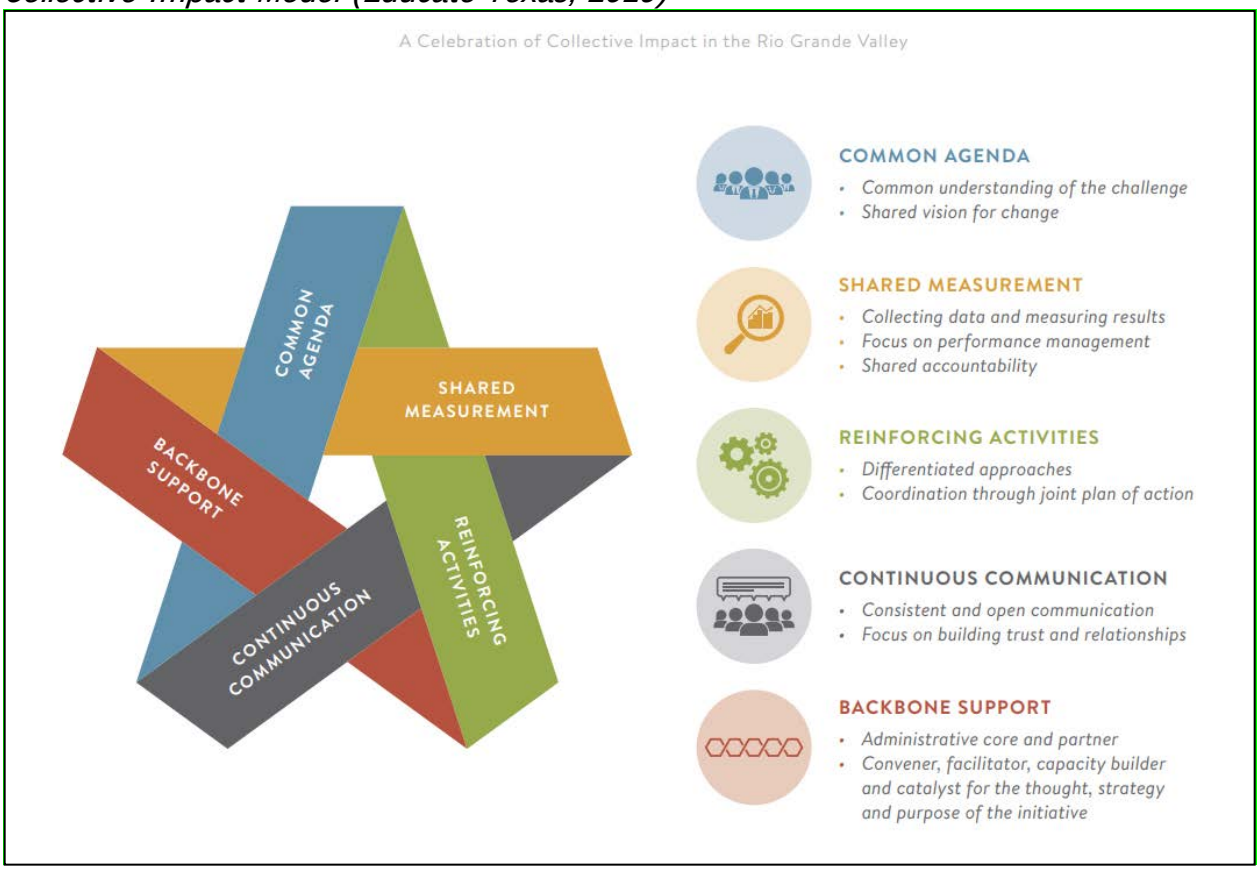
Collaborative leadership practices. While considering these conditions and challenges, education leaders in these counties held consistently positive views on the role that their school systems could play in advancing the quality of life in their communities. Notably, they identified uses of collaborative forms of leadership to create a shared vision, prioritize cross-sector communication, and build on pre-existing community strengths. The *Collective Impact Approach* and *Bright Spots Model* employed in the Rio Grande Valley (Cameron County), along with the *Appreciate Inquiry Approach* employed in Allegan County, each stand out as exemplars in this area,

as does the approach taken by leadership in Pittsburgh Public Schools. This approach was summarized by one member of the Superintendent's Cabinet as "bottom-up decision-making with a top-down check."

For including input from parents and community members, the *ThoughtExchange* in Pittsburgh Public Schools and the *Community Engagement Strategy* employed as part of the York Suburban *Future-Focused Planning (FFP)* initiative both appear to be particularly promising. For large-scale initiatives that involve sweeping instructional reforms or changes in facilities use, leadership teams often engaged in comprehensive research to inform their decision-making. Several of these initiatives, including Slippery Rock SD's *Facilities Study* (Butler County), the *Future-Focused Planning Initiative* in York Suburban SD (York County), and the *Upper Dauphin—Millersburg District Merger Study* in Dauphin County, bear similarities to the present QEC project. Several approaches that are currently being employed in the benchmarking communities are discussed in greater depth below.

The Collective Impact Approach in the Rio Grande Valley. Across the benchmarking communities, perhaps the clearest example of collaborative leadership was observed in the Rio Grande Valley (Cameron County). Here, as part of the region's RGV FOCUS Initiative, an approach to leadership called "Collective Impact" (CI) was adopted. CI is an asset-focused approach that provides communities with a framework centered on helping different sectors work together in the service of a shared goal. As outlined in Figure 4, the specific focus of CI is on identifying areas of localized strength that can be scaled to the broader region through creating cross-sector community partnerships (e.g., partnerships between neighboring school districts, partnerships between community businesses, organizations, and schools, etc.).

Figure 4
Collective Impact Model (Educate Texas, 2019)



In the Rio Grande Valley, RGV FOCUS applied this Collective Impact approach with the goal of enhancing college and career readiness outcomes for K-12 students across the region. As a starting point to this process, RGV FOCUS constructed a Leadership Team consisting of local education leaders and community leaders in the region. These included key leaders from the public school districts, post-secondary institutions, community-based organizations, and local companies and industries (Educate Texas, 2019). The goal was to select a team that was inclusive and representative of the various school districts and communities in the region. Given its collective expertise and connections to the community, this team ultimately took ownership of leading the initiative. RGV FOCUS, in turn, functioned as the initiative's "backbone" organization by working in the background as a thought partner, consultant, and facilitator. Once appointed, the Leadership Team conducted research to identify the communities' needs and assets, created a shared vision for the initiative, and identified the strategies and approaches that the initiative would seek to implement. The work on the ground, however, was led by "Action Networks" that the Leadership Team appointed. These specialized teams, which consisted of high-level practitioners (e.g., school principals, district leaders, etc.), were each put in charge of different areas and were tasked with executing the work needed to achieve the initiative's goals.

When woven together, this overarching structure—a backbone organization, a community-based leadership team, and a group of specialized action networks—forms the foundation of the Collective Impact framework. Interviewees conveyed that this approach has been very well received by the broader community and has played a crucial role in helping the RGV initiative achieve its goals. Taking these considerations in mind, leaders from RGV FOCUS also offered advice for those looking to adopt the Collective Impact approach:

- *The importance of creating a shared vision*. RGV FOCUS (2021) stresses that "in order for the CI framework to be effective, regional assets must be leveraged around a shared vision and goals to strengthen each step of the educational pipeline." Importantly, for the CI approach to function optimally, "there must be a common agenda, common progress measures, mutually reinforcing activities, (and) ongoing communication."

- *Focus on community assets: the importance of Bright Spots Analysis.* Central to the Collective Impact approach is identifying and then *building upon* areas of exceptional strength. The "Bright Spots Analysis" model employed through the Collective Impact framework is an equity-informed data literacy strategy in which practitioners identify where the "good is happening" and then critically examine who is "driving success in relation to outcomes [as well as] how they achieved this success." RGV FOCUS (2021) describes their experience with this process as trying to shift focus from district leaders comparing each other's school districts to asking the question, "What explains the disparity of performance among schools within your own district?" For the Leadership Team, this approach has been a game-changer for understanding the broader culture of the community and redesigning support for students.

- *Start small and build capacity over time*. Leaders of RGV FOCUS noted that prior initiatives attempting to unite school districts as well as the broader community in the Rio Grande Valley had often been unsuccessful. They found, however, that this was largely because these initiatives had been too large and too aggressive in trying to force the involvement of a wide spectrum of community partners at once. To avoid these pitfalls, they note that it is important that leaders employing the Collective Impact approach "take disciplined and thoughtful steps to bring coherence and build capacity."

- *Use data to monitor progress.* Leaders from RGV FOCUS highlighted the ways that data were used to help monitor progress toward the initiative's goals and to promote buy-in among different stakeholder groups. Collecting a wide array of data, including K-12 performance data—and workforce and economic development data, for the business-focused stakeholders—was cited as being valuable in helping reach the broader community as a whole. RGV FOCUS found that "it was important to show data for the whole region versus by school district

or college, so that stakeholders could see themselves in the aggregation while understanding that the region would rise or fall as one."

- *Make sure the leadership team consists of those with decision-making authority.* As one of the key leaders of RGV FOCUS noted:

> *We need to have influential individuals that are really making a difference in our community in those roles. We do not really tamper with that because we want the CEOs, the Presidents of Colleges, Superintendents, people who are decision-makers to be at the forefront of our Collective Impact table.…[But] you need the worker bees. The directors, the people that are on the ground, they're getting all the work done…*

The Appreciate Inquiry Approach: Lessons from Allegan County Leaders. Similar to that of Collective Impact, this approach focuses on strengths-based assets by identifying what schools are doing well with the goal of building upon and scaling these efforts. Initially developed by and based on the research of Dr. David Cooperrider and colleagues (Appreciative Inquiry, 2021), the framework stresses that:

- All individuals have unique skills and strengths.
- Organizations and communities are sources of relational capacity.
- The images organizations hold of the future "are socially created and, once articulated, serve to guide individual and collective actions."
- Through inquiry and dialogue, organizations can begin "to shift their attention and action away from problem analysis to lift up worthy ideals and productive possibilities for the future."

The framework itself involves leadership teams engaging in a cyclical process of discovery (e.g., identifying and appreciating "what works"), imagining future possibilities, and then developing and implementing systems and structures that leverage these best practices.

As noted by one district leader from Allegan, this approach has made a noticeable difference in the leadership culture within the county. He further stated that

> *rather than focusing our school improvement efforts on 'what is wrong and how we can fix it,' this method has helped us focus on what is being done well and how we can build upon it. It has particularly helped us reach those schools that have only ever been told what they're doing wrong.*

Compiling Community Feedback: The Use of ThoughtExchange in Pittsburgh Public Schools. One key tool that was employed in fostering cross-sector communication and collaboration in Pittsburgh Public Schools was *ThoughtExchange* (2021). As characterized by members of the district's Superintendent's Cabinet, this

discussion management platform is the primary tool used by district leadership in compiling the insights and feedback of schools, teachers, parents, and community members when planning various instructional initiatives.

This digital platform allows users to facilitate open forums where they can pose discussion questions to a group of stakeholders. The forum is structured so that participants provide confidential responses and then rate and react to the responses of others. The platform has built-in analytics that summarizes the overall content of each group discussion, outlining for users the general group consensus on the topic and then highlighting the ideas that participants appear to favor the most. The discussion forum is conducted entirely virtually, and participants are provided a link that enables them to access and respond to the forum from any device.

Key Stakeholder Perceptions

As indicated in the methodology section, individual interviews were conducted with 85 individuals having varied roles in Beaver County, including QEC membership, education, business, non-profits, and government. Qualitative analysis of the interview responses yielded several themes, which will be examined in the sections below.

Education and School Effectiveness

The dominant theme across interviews concerned the quality and equity of educational opportunities across the county. As a general reaction, nearly all interviewees conveyed the uniqueness and perceived impacts on equity and quality of having so many school districts serving a relatively small population of county students (less than 23,000). Superintendents interviewed varied in how they appraised their districts' assets and challenges, depending on history and present enrollment patterns and student characteristics. Common themes were declining enrollments due to an aging adult population in their communities, older and unattractive school buildings, and struggles with stretching tight budgets to provide adequate staffing, curriculum options, and resources. There was common recognition of, but diverse opinions about, mergers being a potential option for more efficient budgeting and increasing educational offerings. Much less controversial was the idea of districts sharing instructional and administrative resources.

Several reasons for the persistence of district autonomy were offered. Most frequently noted was the popularity of high school football and maintaining the community's long-time "mascot identity." Another was the community character itself as manifested in smaller neighborhood schools where students, teachers, and families know each other, feel safe, and live relatively short distances from schools. One superintendent described their rural community as "very tight" but also complacent about change and developing higher aspirations beyond students attending state and community colleges.

With regard to student achievement, Beaver County overall outperforms state norms on the state assessment (PSSA), with about two-thirds of the schools scoring higher than average. However, closer inspection of the data shows that school and district performance clearly correlates with family income. Specifically, across the five districts in which 90% of the students qualify for free or reduced-priced meals, approximately 75% of the schools scored below state averages. With this background in mind, common perceptions of interviewees from diverse sectors are that (a) Beaver County schools are doing a good job with what they have but that resources in many, especially small, districts are limited, and (b) there is extensive inequity across schools and districts. Several respondents expressed a more salient concern that attending small districts and small schools limits educational and social opportunities for students. As a community activist expressed very succinctly, “We are cheating our students.”

Suggestions for improving educational quality, equity, and opportunity aligned with several other interview themes, which are examined in detail below. These included sharing resources between districts, merging districts, increasing connections between high school education and preparation for higher education and careers, and expanding enrichment and academic programming both inside and outside of school.

The Efficacy of District Mergers

When asked to react to preK-12 education in Beaver County, the vast majority of interviewees opined that 14 school districts were too many for accommodating the county’s relatively small and generally declining student population of roughly 20,000. Many referred to potential mergers as the notorious “m” word, with the prevailing belief that mergers were probably needed but “won’t happen” easily or quickly. One district administrator characterized the situation rather bluntly: “There are 13 superintendents, each making over $130,000. The county can’t afford it. Needs to happen, but will it? Doubtful.” A few pointed to what they considered to be a successful merger involving the Center Area and Monaca districts into Central Valley School District in 2009, while acknowledging that the process required extensive planning, financial analyses, and time to achieve operational viability and local acceptance. For the existing districts, barriers to mergers were described as entrenched and formidable. Among the most salient are:

- Devotion to “mascot identities” and deep-rooted passions for high school sports in the various communities. As one interviewee put it, “There’s an old joke that if you want to merge towns, ask the athletic directors.”
- Resistance by district school boards and superintendents, whose future roles obviously could be reduced or even eliminated entirely by mergers.
- Concerns by mostly white and wealthier communities about integrating minority and lower-income students into their schools.
- Preferences by students and their families for schools close to home.

- Financial and administrative complexities involving the funding of merged schools, payment of existing debts, and staffing and human resources decisions.
- Availability of modern school buildings that would effectively accommodate mergers.

Whether or not mergers are realizable in the near future, supporters of the concept (a strong majority of interviewees) saw them as an essential future strategy for addressing both funding and resource exigencies. Mergers were also viewed as a means of improving the quality and attractiveness of educational offerings both within and outside the community. Aging and unattractive school buildings were noted as a deterrent for students and families to select Beaver County as a desirable place to live. Few if any of the existing 14 districts can easily afford to build a first-class modern high school, but merged districts would have greater potential by pooling and seeking external funding (perhaps from the state). Aside from modernizing facilities, eliminating expenses of duplicated administrative costs across small districts while expanding course offerings to larger numbers of students were viewed as significant advantages of mergers.

Interviewees also pointed to the limitations of small districts trying to be "everything to everyone" by offering comprehensive programming in all subjects and career pathways. One superintendent described the challenges of hiring and keeping teachers who could teach advanced math and science courses. An idea frequently voiced was converting district high schools (preferably reduced in number through selective mergers) into magnet schools having different academic concentrations, such as aviation, globalization, communications, and arts integration. Obvious advantages would be narrowing focuses and resource usage, avoiding duplication, and creating unique educational programs attractive to students both inside and outside the county. Mergers could also directly address county-wide disparities in equity. As occurs nationwide, the school districts with the least amount of funding, due largely to receiving lower property tax revenues, are also those that serve the highest proportion of minority and low-income students. Clearly, merging poorer districts with one or more wealthier ones could reduce the disparities in funding and associated educational opportunities. As many interviewees were quick to remark, wealthier districts, despite verbally supporting equity, likely view such substantive changes as complicated to achieve and threatening for maintaining current levels of success.

Consolidation and Resource Sharing

For many interviewees, "'consolidation' was viewed as a much friendlier word than 'merger.'" A common interpretation of consolidation was maintaining neighborhood elementary and middle schools while reducing the number of high schools to perhaps five to seven. The rationale is that younger students could benefit from small neighborhood schools that don't need the specialized curricula and resources to the

same extent as middle schools and especially high schools. No one offered, however, an explanation of how these mini-districts would be governed and funded.[19]

Relative to mergers and consolidations, resource sharing was described as a more conservative and less controversial strategy for districts to economize and increase capacity. For example, several interviewees noted that three districts—Rochester, Beaver Falls, and New Brighton, have been sharing a technology director. Other identified areas in which sharing has occurred and could be expanded included busing, AP courses, counselors, administrators and managers, counseling and mental health services, and special education. The predominant view was that while resource sharing was logical and desirable in any scenario, it would not resolve the overriding problems for many districts regarding financial solvency, equity, and capacity to offer comprehensive educational programming.

Charter Schools

A second controversial theme emerging from the interviews concerned the role of charter schools. A framing of the situation was provided by a community leader not associated with any school system: "Politics are odd in Beaver County, as it houses the largest charter school district in the state. Beaver County is therefore more charter friendly, as charter schools create jobs." But differences of opinion were stark depending on one's association with regular schools or charters. Multiple district superintendents and school board presidents groused that charter schools benefit unfairly from an overly generous state funding formula. Consequently, their school districts incur a severe financial drain from losing students to the charters. One school board president described the need bluntly: "Charter school reform is needed for the district to be financially viable." In his estimation, his district forfeited $5-6 million from enrollment losses, while being severely challenged to compete against charter schools like Baden Academy, which can offer smaller classes and innovative curricula. Another school board president echoed these sentiments even more tersely: "Charters are killing us." Of the 12 superintendents interviewed, only one reported minimal loss of students and revenues to the charters.

In a more positive vein, some district leaders acknowledged a positive role of the charter schools in offering alternatives to what regular schools could provide, such as arts integration or cyber learning. Two mentioned that the competition is useful in pushing their schools to improve the quality and attractiveness of their offerings. A public official with lifelong personal ties to the county commented that "choice creates more commitment [from students and families]." However, the prevailing view, especially by those directly involved with school districts, is that the charter schools haven't been collaborative in working with the districts or communicative about their

[19] One form of consolidation is combining two or more high schools into one renamed high school; another is when an existing high school takes in students from one or more other schools on a tuition plan.

plans for offerings, such as the new technology charter school to be opened next year in Midland. Two district leaders complained that Lincoln Park appeared to be recruiting students who had little performing arts interests or talents to play basketball and enrolling them in less demanding courses such as photography.

Not surprisingly, those associated with charter schools viewed these schools' contributions and role in the broader Beaver County educational community much differently. One positive impact, they noted, was bringing in students from outside the county, who otherwise would be enrolled in schools elsewhere in the state. One interviewee described Lincoln Park Charter School as enrolling students from over 80 districts in seven or eight counties, with less than half of the approximately 800 students residing in Beaver County. Such outreach is greatly magnified in the Cyber Charter School, which was reported to enroll about 11,500 students representing every county in Pennsylvania. Where students live outside the county, a potential advantage to the community, according to several interviewees, is creating connection through educational and field experiences to Beaver County as a possible place to pursue postsecondary education and work opportunities. Those affiliated with charter schools also elaborated on the alternative educational opportunities offered, notably in arts integration and performing arts. An affiliate of the Cyber Charter School also pointed out how it provided very convenient options to students for learning remotely and in face-to-face classroom settings.

Contrary to the view expressed by some district superintendents and board presidents, charter school leaders conveyed that they desired to participate in county-wide education planning and in cooperative ventures, but were mostly excluded from such discussions. As one interviewee put it, "there needs to be more cooperation and collaboration. It appears that success always comes down to 'what can you do for me?'" A charter school leader said that they would like districts to do a better job of working together and hoped to be invited to superintendents' meetings. Another wanted to participate in Beaver Valley Intermediate Unit (BVIU) meetings but felt intentionally excluded by the district superintendents.

No easy resolutions emerged from the interviews. There was strong agreement that charter schools in Pennsylvania benefit from favorable funding formulas compared to other states but also recognition that those in Beaver County have experienced success by attracting students who view their offerings as appealing and desirable alternatives to regular district schools. Consequently, competition between the charter schools and district seems certain to continue and even accelerate given the planned opening in Midland of a new charter high school focusing on technology. Still, according to several interviewees, improved communications and collaboration could minimize duplication of programs and increase resource sharing between the charter and regular school sectors. Charter schools uniquely can increase efforts to motivate families and students from outside Beaver County to want to work and live there. They also can

stimulate regular schools to be more innovative rather than resting on their laurels, thereby raising the quality of education county-wide.

Financial Status of Districts

Interviewees overall presented highly consistent, mostly pessimistic views of the present and future financial status of education in the county. One district stakeholder offered, “Our budget is balanced this year, but deficits seem likely for the next three to four years.” They continued to explain, “Structures are aging. Buildings were designed in the years of open classrooms, and the elementary building is still open. Bookshelves and dividers are used to create classrooms. That was not successful in the high school, and walls were built.” A board president from another district echoed this view, describing the budget as their “number-one problem…always a challenge. Also, providing for the needs of all students. Then busing and keeping up with updated learning tools.” Among the superintendents and board presidents interviewed, the salient problems across the county were aging school buildings, open positions, increasing teacher salaries, and an aging population not wanting to pay higher taxes for schools their immediate families no longer needed. As small districts operating on limited budgets, they faced continual challenges of providing quality instruction, resources, and staffing.

Keeping Young People in the Community

Although a few interviewees didn’t view the loss of young people from Beaver County as a problem, the vast majority conveyed awareness and concern that the population was increasingly aging. A school board president discussed the exodus of young adults in relation to their own family members, saying, “There are lots of senior citizens in the community. The elderly stay; younger people have been moving away since the 1990’s….There was nothing for them in Beaver Falls after college.” A QEC member placed some responsibility on the community for not making an effort to attract young people to stay. He and several others expressed the belief that after completing school, particularly college, many young adults just assume that they will live elsewhere. Clearly, one effective draw would be attractive jobs in contemporary fields likely to have longevity. On that note, a local government official forecasted that $50-100 billion in construction was coming to the community, and the county needed to connect students to those opportunities. Another suggestion was bringing in arts and other attractions that appeal to young people. A third was more actively marketing the community to college students, particularly those who currently live outside the county. As a way of creating connections, several interviewees from higher education described programs that directly involved college students in local community events and service projects.

Equity in Education and Opportunity

The question of equity yielded viewpoints divided to some degree but not completely across African American and white racial lines. A strong consensus regardless of interviewees' race or background was that inequity clearly is visible across the county. In the case of education, the responses referred to several districts, such as Aliquippa, Beaver Falls, Midland, New Brighton, and Rochester, that serve lower-income communities with more limited revenue than other districts. These districts were further characterized as having less attractive or older school facilities and resources, and also serving (Aliquippa notably) the highest numbers of African American students.

These acknowledgements of inequities notwithstanding, opinions regarding the severity or implications for the county differed greatly among interviewees. One white school board president was blunt in expressing the view that racial and socioeconomic biases, especially by middle-aged people, resulted in "white flight" for certain communities. Consequently, in his opinion, the school districts were becoming increasingly segregated, and prospects for mergers or consolidations more challenging. Several African American interviewees from various county and local community sectors echoed these beliefs more demonstrably, with one describing Beaver County as "one of the most racist areas in the country." Another, older African American vividly described growing up in Aliquippa and attending schools that were 100% minority, and encountering various types of prejudices when visiting other, mostly white communities in the county. This interviewee has observed some progress over the years but still sees much disparity and a long way to go to achieve educational and economic equity between races. Other responses noted the lack of African American representation in administrative positions across the county, the absence of an influential "equity impact committee" among the various countywide councils, and the perception by some in wealthier school districts that Black students cannot learn as well as white students.

Overall, across the many interviewees, the lack of equity emerged as a well-recognized problem in the county and a barrier, if not addressed, to achieving the goals of improving education quality and community growth. White respondents, in general, tended to view the acceptance of minorities across the county much more positively than did African American respondents, who perceived continuance of prejudice and bias in how minorities are treated and regarded.

Higher Education Connections

Many interviewees described the presence and influences of higher education in Beaver County as a clear asset. An individual in the legal profession captured the prevailing viewpoint by describing the local colleges as "good schools that are on the same page in serving students." Praise was highest for community college opportunities, based on the view that many high school graduates in the county don't necessarily need four-year college degrees to be prepared for meaningful and successful careers. According to a local government official for a lower-income residential area, "Word is getting around that there is nothing wrong with being an

electrician. Good living can be made in the trades. Students who have gone through the CCBC (Community College of Beaver County) academies are better prepared for college." Others also commented favorably about the CCBC academy program, seeing it as a valuable way to connect high school students to college programs and contemporary careers in aviation, health, STEM, criminal justice, and construction. As considerations for future enhancement of the program, it was also noted that many districts, especially those serving more minority and low-income students, have relatively limited student participation. Possible barriers were identified as inhibitions by students to attend classes away from their regular schools and associated transportation needs. Lost revenue for participating students was also mentioned as a deterring factor for districts to heavily promote academy enrollment.

Higher education leaders described efforts of varying scopes and success to develop connections with school districts. School district leaders, in turn, described their experiences in fostering connections with higher education institutions, some fruitful and some less so. Notably, no serious dissatisfactions were voiced about these relationships, but the clear consensus was that improvements were needed in both collaborations and programming to create smoother and more educationally beneficial transitions from high school to college. Needs suggested included:

- Creating more dual-credit, AP, and academy-type offerings for high school students.
- Orienting both high school and higher education programs (particularly in two-year programs) to the skills and knowledge needed in contemporary careers (e.g., aviation, technology, communications, STEM, and health).
- Orienting high schools and higher education programs (two-year and vocational) to the skills and knowledge needed for local and 21st job opportunities (e.g., aviation, petrochemical sciences, construction and other trades).
- Increasing the training and shifting the roles of high school guidance counselors so as to assist all students (not only those having readiness for four-year college enrollment) in learning more about postsecondary opportunities, including vocational education, adapted to their needs and opportunities available for financial aid and coursework locally.
- Increasing communications and collaborations between high school guidance counselors and college admissions officers to increase student awareness and ability to take advantage of local offerings.
- Establishing a tuition incentive program (e.g., covering last-dollar tuition costs the first two-years of postsecondary school) similar to Pittsburgh Promise.
- Increasing outreach by colleges and universities to both local and residential students to provide and promote service learning and career opportunities in Beaver County.

Schools and Community Service and Health Care Relationships

Numerous relationships between schools and community organizations were noted by interviewees. Particularly in districts serving lower-income students, the need for health services of various types is substantial. An interviewee from one of these districts described these issues and how help was being provided from multiple community agencies:

> *Health issues are showing up as early as kindergarten and grades 1 and 2. SAT [Student Assistance Teams] and in-house counseling are offered through Western PA Psychology. Interestingly, participation is higher with older kids because parents of the younger ones have to sign them up and don't because of pride. Others are Western PA Psychology, Aliquippa Impact (summer, after-school tutoring), and Dare to Excel after school programs. Two churches took students in to be sure they could access online instruction (log in, etc.). Those churches are still offering help.*

Other interviewees identified support services such as the Prevention Network, grief counselors, Child and Youth Services, Heritage Valley Medical (for obesity, diabetes, and smoking), Western Psychological, Keystone Program (at Boys and Girls Clubs), the Youth Ambassador Program, and various other agencies. A superintendent described having medical checkups conducted at the school and psychologists visiting to meet with certain students. Overall, existing supports were described as helpful and available, if not overflowing.

County Economics

Interviewees presented an equivocal picture of the current economy in the county and more skepticism about its future. One perspective was that there appear to be ample job opportunities but not enough applicants with suitable training to fill the openings. Several interviewees viewed the Shell plant as a possible foundation for spawning additional jobs and attracting new industry. A greater number, however, conveyed the more tempered opinion that once construction needs were completed, the number of employees there would be only about 600 to 700. A higher education leader said, "An economic driver is needed [in the county] to build social capital. Community socioeconomic status is decreasing over time." A QEC member worried about increasing taxes, while another, with government experience, forecast that such increases would be moderate but still a concern for an aging population dependent on fixed incomes and not disposed to support progressive spending for schools and community growth. The age issue was noted by another interviewee as a problem in staffing service industries and small businesses, adding that "Small businesses are very important in Beaver County." Some optimism was seen for the construction industry by an individual knowledgeable about that area.

In looking toward the future, the prevailing view was that the county needed to be more aggressive and creative in attracting new businesses and industry. One leader

in a community organization expressed discouragement that the county hadn't taken advantage of its proximity to Pittsburgh and the airport. Detrimental factors, in his view, were the lack of amenities, poor schools, poor leadership, and "town parochialism that resists forward thinking and planning." Still, many expressed some hope that the information provided from this Phase III study would inspire innovative ideas and planning in Phase IV that could effect positive change.

Quality of Life

On the topic of living conditions in Beaver County, nearly all interviewees expressed positive views. Characterizations included beautiful scenery, access to the rivers, parks, and forest, proximity to Pittsburgh and the airport, and friendly people. Those involved in the judicial system and law enforcement described crime as mostly associated with disputes or incidents among family members or acquaintances. Drugs, such as opioids, were viewed as a growing problem in some areas of the county. As one preventative action, members of the police department occasionally visit schools to talk to students about the dangers of drug use. Interviewees in general described the county as a safe and pleasant place to live, and quality of life as an asset in potentially attracting new and younger residents.

Focus Groups

Community Focus Groups

During the site visit conducted the week of July 12-16, our team conducted nine focus groups and made visits to 12 school districts and other education facilities, including the three charter schools and the Career and Technology Center (CTC). The focus groups consisted of service providers, religious leaders, athletic directors, PTA presidents, and open community forums. Because the students have a unique voice as future citizens and current direct recipients of Beaver County education, we review their responses in a separate section.

The adult focus group responses substantially overlap with those of the individual interviews just described. In the interest of brevity, we outline the primary themes below:

Assets.

- Friendly people
- Multi-generational family histories and stability
- Small, neighborhood schools
- Beautiful scenery and rivers
- Proximity to Pittsburgh and the airport
- Low taxes compared to neighboring counties

Challenges.

- Aging population
- Uncertain job/career opportunities
- Limited communications within and between towns about county assets and opportunities
- Insular towns and school districts

Education Quality.

- Adequate in most districts/schools but not exceptional relative to some neighboring counties and the highest performers in the state
- Too many districts for county population size (resources spread thin)
- Too much emphasis on high school sports and "mascot identities"
- Many aging campuses—not attractive and competitive with those of neighboring counties
- Concern about higher taxes where districts lose population and revenue

Student Focus Groups

During the July 12-16 visitation to Beaver County, we conducted two focus group sessions in which high school students from nine districts, the technical center, and one charter school participated. (All districts and charter schools serving secondary students were included in the focus group invitation.) In each session, students were grouped by school and sat at tables with JHU facilitators present to guide the discussions. Toward the end of the session, responses recorded at the tables were shared with the entire group. Questions may be seen in Appendix A. A single focus group of 11 students was conducted separately at a "summer camp" site in Aliquippa. In the sections to follow, we describe the primary themes that emerged from the responses.

Lack of Opportunity. One major theme was the perception that educational opportunities at their high schools were insufficient. The most common explanation was that their schools were too small to offer the range of programs and extracurricular activities that larger high schools could provide. Students also complained that they received limited counseling about personalized options for obtaining advanced coursework (e.g., engineering, music, or theater) at their home school or elsewhere. Consequently students having particular talents or interests felt constrained in how far they could go with the offerings available. Several students expressed disappointment that life skills (e.g., financial literacy) were given little attention. A prevalent belief of students from both wealthier and poorer school districts was that despite having dedicated and competent teachers, they were at a disadvantage in their competitiveness for college admission or career preparation than were family members or friends who attended schools in other counties.

Insular Environments. Although the vast majority of students were positive about peer relationships and the friendly atmosphere of their towns, many expressed feeling confined or isolated by attending small schools with most of the same peers from grade school to high school. Some described what they felt was an insular mindset by both their school and community, which inhibited or at least failed to foster opportunities to interact with students from other schools, even those attending a neighboring district only a few miles away. A few students mentioned athletics and youth clubs (e.g., Student Ambassadors) as the most common of the limited contexts for meeting others.

A strong perception of nearly all of the focus group participants was that Beaver County and its high schools place inordinate emphasis on athletics, particularly football. Many of these students participated in high school athletics (none reported playing football) and viewed such activities very positively. But notably, these student athletes were among the most vocal in disparaging the perceived disparity in the resources devoted by their schools to boys' football and basketball relative to girls' sports universally and lower-profile boys' sports. These concerns ran parallel to those expressed about course and enrichment offerings likewise being given lower priority than athletics. Despite the rich history of Beaver County in producing notable professional athletes, several students noted that, in reality, very small numbers of graduates from their high schools would end up playing professional sports, while the majority would be pursuing careers dependent on strong academic and life skills.

Equal Opportunity and Diversity. The majority of focus group participants attended high schools in which diversity was minimal. Neither they nor their peers from more heterogeneous contexts described serious problems or tensions associated with student ethnicity or socioeconomic status. The prevailing attitudes reflected openness to having opportunities to interact with peers different from themselves. On the other hand, the focus group responses saliently presented a picture of inequity and stereotyping associated with towns and schools. A white, female, high-achieving athlete from a lower-income school district candidly described how she and her schoolmates felt stigmatized by low expectations ascribed to them inside and outside the community. She believed that a positive effect of the stigmatization was that it was motivating them to try harder to prove what they could do. In this particular focus group session, all student attendees, by chance, came from districts in the lower one-third of average family income. That a status hierarchy based on which district you attended existed received strong corroboration by the overall group.

Students from lower-income districts also felt that inequities existed in the quality of education they received relative to peers in wealthier areas. These inequities included the types and range of course offerings, equipment and resources, and guidance counseling. In a focus group conducted at the summer camp, nearly all of the students attended Aliquippa High School, one of the lowest performing schools in the state. They openly shared many concerns that they felt the school wasn't addressing,

such as tattered and outdated textbooks, aging faculty, disruptive classroom behavior, an unsafe school environment due to gang activity, and weapons on campus. Notably, when asked what they would want to preserve about their schools and education, the group was silent.

Beaver County as a Place to Live. When asked whether they envisioned themselves living in Beaver County as adults, all students in the Aliquippa focus group and a strong majority across the others answered negatively. Appreciation of the friendly ambiance of the county notwithstanding, their major concerns addressed perceived limitations regarding desirable jobs, culture, and entertainment. For example, one recent graduate, who would be majoring in engineering at a prestigious university in the fall, didn't foresee suitable jobs in their area being available outside major cities. Two others, who were interested in careers in the arts, likewise saw limited options in the county for networking and personal development in those pursuits. In contrast, two students described Beaver County as a desirable location for their respective interests in medical care and mechanics.

Aside from work opportunities, the prevailing view of students was that Beaver County is a nice but "unexciting" place to live with regard to culture and entertainment. Specifically, they expressed that compared to larger communities, few venues for arts, sports, and other activities aside from high school athletics and outdoors recreation exist. When asked about the county's closeness to Pittsburgh, they did not consider the commute "reasonable" for either work or leisure.

Beaver County Financial Capsule

In the following sections, we examine revenues and expenditures for Beaver County school districts over time and relative to benchmarking districts. For interested readers, a source for much of the data analyzed is: https://tinyurl.com/39ndws89.

School District Revenue Trend Analysis

The ratio of Local, State, and Federal Revenues often yields insight into the financial health of school districts. The percentage of Local Revenue to the total revenue pool typically reflects a district's affluence and ability to pay for the education of its students. When local revenues are not sufficient, other revenue sources (State and Federal) cover the gap. In addition to student enrollment numbers, State and Federal formulas for supplemental educational funding usually factor in the district's socioeconomic status and other variables in their allocation of funds to districts. Some of these variables can be inconsistent depending on the accuracy of the source data (e.g., over- or under-reporting student free or reduced-priced lunch status). In the present series of analyses, we tracked the revenue sources for the years FY16 through FY19 for all publicly funded schools in four counties (Beaver, Butler, Dauphin, and York) as well as the Pittsburgh Public Schools (the latter analyses not including local charter

or technical schools). Table 7 shows the highest and lowest percentages of Local, State, and Federal funding over the four-year period.

There was little variance in ratio over the four years. Beaver County had the largest variances in ratio, which were 2.6% for Local and 2.5% for State over the four years. Butler, Dauphin, and York ratios differed between 1.2% and 1.7% over the same time period. Dauphin County ranked highest in local funding. Each year it provided between 69.6% and 68.4% of the revenues for school funding. York, Beaver, and Butler counties ranked in that order behind Dauphin County, with an 11% difference in ranking between the highest percentage (Dauphin at 69.6%) and the lowest percentage for the period (Butler at 58.6%).

Table 7
County Comparisons of High and Low Local Revenue Percentages for All Publicly Funded Schools (FY15-19)

All Schools		Local	State	Federal
Beaver Co	High	62.5%	37.8%	2.5%
	Low	59.9%	35.3%	2.2%
	variance	2.6%	2.5%	0.2%
Butler Co	High	59.8%	40.6%	1.1%
	Low	58.6%	39.2%	0.8%
	variance	1.2%	1.4%	0.3%
Dauphin Co	High	69.6%	28.5%	3.5%
	Low	68.4%	26.9%	2.9%
	variance	1.2%	1.6%	0.6%
York Co	High	65.3%	34.4%	2.1%
	Low	63.6%	32.8%	1.9%
	variance	1.7%	1.6%	0.2%

The funding ratio for regular public schools only (i.e., excluding the funds for charter schools and Career/Technical Centers [CTCs]) shows a similar pattern of little variance in the ratio over the four years (1.1% in Pittsburgh to 1.7% in York). However, Table 8 reveals a different ranking of the percentages of Local Revenue to the Total Revenue. Beaver County had the lowest percentage of local funding (from 45.2% to 43.7% over the four years). The other four systems ratios ranged between 64.4% and 49.9%.

Table 8
County Comparisons of High and Low Local Revenue Percentages for Public Schools Only (FY15-19)

Public Schools Only		Local	State	Federal
Beaver Co	High	45.2%	53.9%	2.6%
	Low	43.7%	52.5%	2.3%
	variance	1.5%	1.4%	0.3%
Butler Co	High	59.6%	40.8%	1.1%
	Low	58.4%	39.4%	0.8%
	variance	1.2%	1.4%	0.3%
Dauphin Co	High	61.9%	36.0%	3.7%
	Low	60.5%	35.0%	3.1%
	variance	1.4%	1.0%	0.6%
York Co	High	64.4%	35.6%	1.9%
	Low	62.7%	33.9%	1.7%
	variance	1.7%	1.7%	0.2%
Pittsburgh	High	51.0%	43.1%	8.0%
	Low	49.9%	41.9%	7.0%
	variance	1.1%	1.2%	1.0%

The change in ranking resulted from the disproportionate share of Beaver County Local Revenue going to charter schools in the county when compared to the other three districts that also fund charter schools. Specifically, as shown in Table 9, in each of the four years, an increasing percentage (from 46.6% to 50.8%) of local funding for education in Beaver County went to charter schools. Comparison counties were Dauphin and York.

Table 9
County Comparisons of Local Revenue Percentages (FY16-19) Allocated to Public Schools, Career/Technical Centers (CTC), and Charter Schools

	FY16	FY17	FY18	FY19
	Beaver County Public Schools			
% Local Rev to Public Schools	52.0%	50.5%	49.4%	48.0%
% Local Rev to CTC	1.4%	1.3%	1.3%	1.2%
% Local Rev to Charters	46.6%	48.1%	49.3%	50.8%
	Dauphin County Public Schools			
% Local Rev to Public Schools	71.5%	71.2%	68.2%	65.6%
% Local Rev to CTC	2.8%	2.7%	2.9%	2.8%
% Local Rev to Charters	25.7%	26.1%	28.9%	31.6%
	York County Public Schools			
% Local Rev to Public Schools	94.2%	94.2%	94.9%	94.6%
% Local Rev to CTC	2.9%	2.8%	2.7%	2.7%
% Local Rev to Charters	2.8%	3.0%	2.4%	2.6%

Dauphin County also saw a yearly percentage increase (from 25.7% to 31.6%) in the local funds percentage to charter schools. In York County, 3% or less of the local funding went to charter schools.

Beaver County School District Comparisons

We compared the 14 School Districts in Beaver County using three metrics: the percentage of Local Revenue to the Total Revenue, the Total Revenue in dollars, and the percentage of change over four years. Table 10 shows the various percentages of Local, State, and Federal Revenue to the Total Revenue for each fiscal year from FY16 to FY19. The “Change” row in the chart indicates the percent change in total revenue from the prior year.

Table 10
Beaver County School District Revenues (FY15-19)

	FY16	FY17	FY18	FY19
Aliquippa SD				
Local %	29.8%	27.9%	29.2%	30.7%
State %	61.0%	62.0%	65.7%	63.7%
Fed %	9.2%	10.2%	5.1%	5.6%
Change	2.7%	10.2%	-2.3%	-0.1%
Ambridge Area SD				
Local %	55.7%	53.9%	53.6%	55.5%
State %	41.7%	44.2%	43.0%	42.5%
Fed %	2.6%	1.9%	3.5%	2.0%
Change	3.6%	6.1%	2.2%	1.2%
Beaver Area SD				
Local %	65.1%	62.4%	63.3%	63.9%
State %	33.5%	36.0%	34.6%	34.2%
Fed %	1.3%	1.5%	2.1%	1.8%
Change	7.5%	6.1%	2.7%	3.8%
Big Beaver Falls Area SD				
Local %	31.2%	29.7%	29.8%	29.5%
State %	64.7%	66.3%	64.9%	65.6%
Fed %	4.1%	4.1%	5.3%	5.0%
Change	2.1%	8.0%	1.5%	5.3%
Blackhawk SD				
Local %	52.0%	50.6%	51.4%	52.7%
State %	46.9%	48.4%	46.7%	45.9%
Fed %	1.1%	1.0%	1.9%	1.4%
Change	2.0%	9.3%	0.1%	3.7%
Central Valley SD				
Local %	54.1%	54.1%	54.1%	54.9%
State %	44.8%	44.5%	44.3%	43.4%
Fed %	1.1%	1.4%	1.6%	1.7%
Change	2.1%	5.0%	3.0%	4.5%
Freedom Area SD				
Local %	39.4%	40.0%	40.5%	41.8%
State %	58.5%	57.8%	57.1%	56.0%
Fed %	2.1%	2.2%	2.3%	2.2%
Change	3.4%	3.5%	3.0%	2.8%

	FY16	FY17	FY18	FY19
Hopewell Area SD				
Local %	51.6%	49.5%	50.8%	51.2%
State %	47.1%	49.4%	48.2%	47.8%
Fed %	1.2%	1.0%	1.0%	1.0%
Change	0.9%	7.2%	1.2%	1.8%
Midland Borough SD				
Local %	17.6%	18.6%	19.6%	19.4%
State %	78.5%	77.9%	76.5%	76.6%
Fed %	3.9%	3.5%	3.9%	4.0%
Change	5.3%	6.7%	-0.2%	-0.1%
New Brighton Area SD				
Local %	29.7%	28.9%	29.2%	30.0%
State %	67.3%	68.2%	67.7%	66.8%
Fed %	3.0%	2.8%	3.1%	3.2%
Change	2.3%	3.7%	3.2%	4.9%
Riverside Beaver Co SD				
Local %	42.1%	40.6%	41.6%	42.9%
State %	56.6%	58.1%	56.4%	55.1%
Fed %	1.3%	1.3%	2.0%	1.9%
Change	1.1%	6.8%	1.5%	4.0%
Rochester Area SD				
Local %	35.4%	34.1%	33.6%	33.7%
State %	61.4%	63.0%	62.9%	62.6%
Fed %	3.3%	2.8%	3.5%	3.7%
Change	-7.1%	13.1%	-3.9%	3.8%
South Side Area SD				
Local %	37.3%	35.7%	37.2%	38.1%
State %	61.5%	63.3%	61.7%	61.0%
Fed %	1.2%	0.9%	1.1%	0.8%
Change	3.1%	2.4%	2.0%	1.6%
Western Beaver Co SD				
Local %	33.5%	33.5%	32.9%	33.3%
State %	65.3%	64.6%	65.6%	65.8%
Fed %	1.2%	1.9%	1.5%	0.9%
Change	1.6%	3.3%	1.8%	6.3%

Within districts, there was little variation in the percentage of Local Revenue to the Total Revenue from year to year. Aliquippa had the largest variance between the lowest and highest years at 2.8% (27.9% in FY17 vs. 30.7 in FY19); Western Beaver County had the smallest variance between the lowest and highest years at 0.6% (33.5% in FY16 vs. 32.9 in FY18). The median variance between the lowest and highest years (2.1%) was shared by three School Districts (Ambridge Area, Blackhawk, and Hopewell Area).

There was significantly more variation in the percentage of Local Revenue to Total Revenue from district to district. We chose the FY19 numbers for this analysis. The highest percentage of Local Revenue/Total Revenue occurred in Beaver Area at 63.9%. Midland Borough had the lowest percentage at 19.4%. The 14 districts fell into the three tiers shown in Table 11. Notably but not surprisingly, Tier 3 includes the five districts enrolling 90% or more students who qualify for free or reduced-priced lunch. Poorer communities generate lower proportion of local revenue, and consequently become more dependent on state and federal dollars.

Table 11
Percentage Tiers of Local Revenue to Total Revenue by District

Tier 1 (Highest)	Tier 2 (Middle)	Tier 3 (Lowest)
Beaver Area (63.9%)	Riverside Beaver (42.9%)	Rochester Area (33.7%)*
Ambridge Area (55.5%)	Freedom Area (41.8%)	Western Beaver (33.3%)
Central Valley (54.9%)	South Side Area (38.1%)	Aliquippa (30.7%)*
Blackhawk (52.7%)		New Brighton Area (30.0%)*
Hopewell Area (51.2%)		Big Beaver Falls (29.5%)*
		Midland Borough (19.4%)*

Note. *Free and reduced lunch percentage > 90%

A millage rate represents the amount taxed per every $1,000 of a property's assessment value. Although we did not formally analyze the millage rates for the county school districts, data for 2020-22 and 2021-22 were shared with us by a member of the QEC. Wide district disparities were indicated, with—for example—the Beaver Area showing a millage rate of $88.40 in 2021-22, compared to Midland's rate of $31.75 in the same year. Notably, nine of the 14 districts had year-to-year rate increases of 1% or less. By comparison, four-year trends (FY16-FY19) that we analyzed for district *expenditures* (see later section; Table 17) showed yearly county-wide increases ranging from 3.9% to 17%. These patterns suggest future challenges for local property tax revenues, especially in poorer towns, to keep pace with their school districts' needs for adequate resources.

As one might expect, examining the State Revenue percentage to the Total Revenue in FY19 yields similar but generally converse groupings. Beaver Area had the lowest percentage of state funds at 34.2%, while Midland Borough had the highest percentage at 76.6%. The 14 districts fell into the three tiers shown in Table 12. Of the

five districts serving the largest percentages of low-income students, three fell into the highest tier, and two into the middle tier.

Table 12
Percentage Tiers of State Revenue to Total Revenue by District

Tier 1 (Highest)	Tier 2 (Middle)	Tier 3 (Lowest)
Midland Borough (76.6%)*	Riverside Beaver (55.1%)	Hopewell Area (47.8%)
New Brighton (65.8%)*	Freedom Area (56.0%)	Blackhawk (45.9%)
Western Beaver Co. (65.8%)	South Side Area (61.0%)	Central Valley (43.4%)
Big Beaver Falls (65.6%)*	Rochester Area (62.6%)*	Ambridge Area (42.5%)
	Aliquippa (63.7%)*	Beaver Area (34.2%)

Note. *Free and reduced lunch percentage > 90%

In 10 of the 14 districts, Federal Funding accounted for no more than 3.5% of the Total Revenue for each of the four years, with the FY19 median being 2.0%. The four exceptions were Aliquippa (5.1% to 10.2%), Big Beaver Falls Area (4.1% to 5.3%), Midland Borough (3.5% to 4.0%), and Rochester Area (2.8% to 3.7%). Note that all four districts were among the five in the county serving the highest percentages of low-income students.

The total revenue dollar amounts for the 14 districts in FY19 ranged from a high of $48,452,160 to a low of $5,905,130. The districts are grouped in tiers in Table 13. Note that here districts serving higher percentages of low-income students were distributed among the three levels. District enrollment size (see later section) naturally influences these revenue amounts substantially.

Table 13
Total Dollar Amount Tiers by District (FY19)

Tier 1 (Highest)	Tier 2 (Middle)	Tier 3 (Lowest)
Ambridge Area ($48,452,160)	New Brighton ($25,513,178)*	Midland Area ($5,905,130)*
Hopewell Area ($39,924,134)	Riverside ($25,182,495)	
Blackhawk ($38,782,677)	South Side (23,816,798)	
Central Valley ($36,519,252)	Freedom Area ($23,617,416)	
Beaver Area ($33,280,560)	Aliquippa ($23,146,719)*	
Big Beaver Falls ($29,756,431)*	Rochester ($16,997,391)*	
	Western Beaver ($14,036,152)	

Note. *Free and reduced lunch percentage > 90%

In the next series of analyses, we examined for each district total yearly revenue from FY16 to FY19 and the cumulative percent change over the four years. The data are presented in Table 14. Of note, two of the districts serving the highest percentages of low-income students, Aliquippa (+7.5%) and Midland +6.4%), were among the three lowest in revenue gain during this period; South Side Area (+6.1%) was the lowest. However, another higher-poverty district, Big Beaver Falls (+15.5), had the highest gain, followed by Blackhawk (+13.4%) and Central Valley (+13.1%).

Table 14
Beaver County District Total Revenue Trends (FY16-FY19)

	FY16	FY17	FY18	FY19	
	Aliquippa SD				
Total Revenue	$21,530,395	$23,720,199	$23,173,608	$23,146,719	**4 yr %**
Yearly Change	2.7%	10.2%	-2.3%	-0.1%	**7.5%**
	Ambridge Area SD				
Total Revenue	$44,166,871	$46,871,945	$47,891,072	$48,452,160	**4 yr %**
Yearly Change	3.6%	6.1%	2.2%	1.2%	**9.7%**
	Beaver Area SD				
Total Revenue	$29,418,056	$31,227,181	$32,055,547	$33,280,560	**4 yr %**
Yearly Change	7.5%	6.1%	2.7%	3.8%	**13.1%**
	Big Beaver Falls Area SD				
Total Revenue	$25,774,102	$27,837,673	$28,256,368	$29,756,431	**4 yr %**
Yearly Change	2.1%	8.0%	1.5%	5.3%	**15.5%**
	Blackhawk SD				
Total Revenue	$34,195,030	$37,363,277	$37,382,706	$38,782,677	**4 yr %**
Yearly Change	2.0%	9.3%	0.1%	3.7%	**13.4%**
	Central Valley SD				
Total Revenue	$32,296,495	$33,912,066	$34,945,383	$36,519,252	**4 yr %**
Yearly Change	2.1%	5.0%	3.0%	4.5%	**13.1%**
	Freedom Area SD				
Total Revenue	$21,549,225	$22,296,324	$22,966,292	$23,617,416	**4 yr %**
Yearly Change	3.4%	3.5%	3.0%	2.8%	**9.6%**
	Hopewell Area SD				
Total Revenue	$36,161,434	$38,752,351	$39,211,581	$39,924,134	**4 yr %**
Yearly Change	0.9%	7.2%	1.2%	1.8%	**10.4%**
	Midland Borough SD				
Total Revenue	$ 5,549,876	$ 5,920,749	$ 5,909,777	$ 5,905,130	**4 yr %**
Yearly Change	5.3%	6.7%	-0.2%	-0.1%	**6.4%**
	New Brighton Area SD				
Total Revenue	$22,711,955	$23,551,974	$24,310,570	$25,513,178	**4 yr %**
Yearly Change	2.3%	3.7%	3.2%	4.9%	**12.3%**
	Riverside Beaver Co SD				
Total Revenue	$22,329,825	$23,842,627	$24,202,662	$25,182,495	**4 yr %**
Yearly Change	1.1%	6.8%	1.5%	4.0%	**12.8%**
	Rochester Area SD				
Total Revenue	$15,069,786	$17,036,970	$16,373,570	$16,997,391	**4 yr %**
Yearly Change	-7.1%	13.1%	-3.9%	3.8%	**12.8%**
	South Side Area SD				
Total Revenue	$22,455,973	$22,986,305	$23,439,406	$23,816,798	**4 yr %**
Yearly Change	3.1%	2.4%	2.0%	1.6%	**6.1%**
	Western Beaver Co SD				
Total Revenue	$12,563,815	$12,973,789	$13,209,841	$14,036,152	**4 yr %**
Yearly Change	1.6%	3.3%	1.8%	6.3%	**11.7%**

Table 15 summarizes the rankings for the districts in each of the three major metrics considered. What emerges from the rankings is that some districts consistently rank high in all three metrics (Beaver Area, Blackhawk, Central Valley), while other districts consistently rank low in the three metrics (Aliquippa, Midland Borough, Western Beaver County). Ambridge Area and Hopewell Area both ranked high in percentage of Local Revenue and Total Revenue but appear to be losing ground over time. On the other hand, Big Beaver Falls Area has a very low percentage of Local Revenue despite ranking in the top half for total revenue and showing the largest increase over the four-year period.

Table 15
District Rankings on Key Revenue Metrics

	% Local Revenue		Total Revenue		4 yr Change	
School District	**% - FY19**	**Rank**	**$ - FY19**	**Rank**	**%**	**Rank**
Aliquippa	30.7%	11	$ 23,146,719	11	7.5%	12
Ambridge Area	55.5%	2	$ 48,452,160	1	9.7%	10
Beaver Area	63.9%	1	$ 33,280,560	5	13.1%	3-T
Big Beaver Falls Area	29.5%	13	$ 29,756,431	6	15.5%	1
Blackhawk	52.7%	3	$ 38,782,677	3	13.4%	2
Central Valley	54.9%	4	$ 36,519,252	4	13.1%	3-T
Freedom Area	41.8%	7	$ 23,617,416	10	9.6%	11
Hopewell Area	51.2%	5	$ 39,924,134	2	10.4%	9
Midland Borough	19.4%	14	$ 5,905,130	14	6.4%	13
New Brighton Area	30.0%	12	$ 25,513,178	7	12.3%	7
Riverside Beaver Co	42.9%	6	$ 25,182,495	8	12.8%	5-T
Rochester Area	33.7%	9	$ 16,997,391	12	12.8%	5-T
South Side Area	38.1%	8	$ 23,816,798	9	6.1%	14
Western Beaver Co	33.3%	10	$ 14,036,152	13	11.7%	8

Beaver County Expenditure Analysis

Given publicly available data extending from FY16 to FY19, we analyzed expenditures compiled by the state departments of education for Beaver County and the benchmark communities. We used the following categories as reported in the PA State DOE for our initial chart:

- 1000 Instruction—salaries, supplies, materials for classroom instruction
- 2000 Support Services—Guidance, Library, Administration, Health, Business, Building Maintenance, Transportation, Central Office
- 3000 Non-instructional Services—Food Service, Student Activities
- 4000 Facilities Acquisition, Construction and Improvement Services
- 5000 Other Expenditures and Financing Uses

County Comparisons.

Expenditure Trends Over Time. We focused our initial analysis on the ratio of Instruction Expenditures to the Total Expenditure for each entity. We looked first at how Beaver County compared with the Benchmark Communities (see Table 16 below) and then how the 14 Beaver County School Districts compared with each other and Beaver County as a whole. Allegan County was omitted from our analysis of the four-year trend across the benchmark districts because of the discrepancies between how Michigan formats their data and how Pennsylvania and Texas do.

Table 16

Expenditures by Category for Beaver County and Benchmark Districts

	Beaver County - All Schools			
Expenditures	FY16	FY17	FY18	FY19
Total Expenditures	$356,975,377.33	$367,993,940.18	$376,262,742.28	$413,883,556.52
Instruction 1000	$203,459,668.90	$211,488,128.95	$218,856,923.55	$226,340,043.19
Support Services 2000	$105,704,094.80	$110,226,941.21	$113,438,908.80	$117,104,466.40
Noninstructional Services 3000	$ 8,428,414.68	$ 8,850,447.80	$ 9,108,963.26	$ 9,606,402.14
acilities Acquisition & Improvement 4000	$ 613,206.56	$ 827,349.45	$ 541,834.56	$ 2,085,642.06
Other Expenses & Financing Uses 5000	$ 38,769,992.39	$ 36,601,072.77	$ 34,316,112.11	$ 58,747,002.73
Change in Expenditures over prior year	N/A	$ 11,018,562.85	$ 8,268,802.10	$ 37,620,814.24
% Change over prior year	N/A	5.4%	3.9%	17.2%
Instruction % of Total Expenditure	57.0%	57.5%	58.2%	54.7%

	Pittsburgh School District			
Expenditures	FY16	FY17	FY18	FY19
Total Expenditures	$640,128,513.41	$649,523,006.65	$673,112,485.03	$700,618,421.33
Instruction 1000	$369,914,071.96	$391,392,927.76	$405,797,020.43	$426,292,836.39
Support Services 2000	$187,892,672.32	$195,094,925.61	$210,681,930.52	$215,510,007.06
Noninstructional Services 3000	$ 5,885,021.98	$ 5,844,867.06	$ 5,714,355.99	$ 5,983,239.01
acilities Acquisition & Improvement 4000	$ 1,783,178.89	$ 1,498,892.03	$ 1,737,497.50	$ 1,627,694.89
Other Expenses & Financing Uses 5000	$ 74,653,568.26	$ 55,691,394.19	$ 49,181,680.59	$ 51,204,643.98
Change in Expenditures over prior year	N/A	$ 9,394,493.24	$ 23,589,478.38	$ 27,505,936.30
% Change over prior year	N/A	2.5%	6.0%	6.8%
Instruction % of Total Expenditure	57.8%	60.3%	60.3%	60.8%

	Butler County - All Schools			
Expenditures	FY16	FY17	FY18	FY19
Total Expenditures	$363,639,376.02	$380,940,295.49	$391,234,750.90	$400,930,031.62
Instruction 1000	$216,666,329.04	$225,130,997.59	$234,161,354.22	$239,726,023.91
Support Services 2000	$106,963,172.23	$112,519,710.04	$113,880,989.72	$116,367,039.84
Noninstructional Services 3000	$ 8,233,561.00	$ 8,531,461.90	$ 8,701,770.56	$ 9,427,134.68
acilities Acquisition & Improvement 4000	$ 826,118.33	$ 865,700.06	$ 165,418.76	$ 184,082.53
Other Expenses & Financing Uses 5000	$ 30,950,195.42	$ 33,892,425.90	$ 34,325,217.64	$ 35,225,750.66
Change in Expenditures over prior year	N/A	$ 17,300,919.47	$ 10,294,455.41	$ 9,695,280.72
% Change over prior year	N/A	8.0%	4.6%	4.1%
Instruction % of Total Expenditure	59.6%	59.1%	59.9%	59.8%

	Dauphin County - All Schools			
Expenditures	FY16	FY17	FY18	FY19
Total Expenditures	$827,939,563.67	$ 783,421,014.76	$ 839,180,141.68	$899,840,551.21
Instruction 1000	$433,115,901.15	$ 451,993,228.12	$ 494,392,842.83	$505,161,389.47
Support Services 2000	$220,207,049.15	$ 223,779,866.39	$ 238,371,059.37	$249,175,696.39
Noninstructional Services 3000	$ 11,584,822.63	$ 12,480,982.42	$ 13,191,679.02	$ 13,647,022.31
acilities Acquisition & Improvement 4000	$ 369,266.24	$ 3,959,485.22	$ 2,316,922.83	$ 234,532.31
Other Expenses & Financing Uses 5000	$162,662,524.50	$ 91,207,452.61	$ 90,907,637.63	$131,621,910.73
Change in Expenditures over prior year	N/A	$ (44,518,548.91)	$ 55,759,126.92	$ 60,660,409.53
% Change over prior year	N/A	-10.3%	12.3%	12.3%
Instruction % of Total Expenditure	52.3%	57.7%	58.9%	56.1%

	York County - All Schools			
Expenditures	FY16	FY17	FY18	FY19
Total Expenditures	$ 1,161,646,279.35	$ 1,211,961,819.55	$ 1,212,865,412.12	$ 1,279,520,415.16
Instruction 1000	$ 667,404,103.46	$ 691,509,410.68	$ 723,695,746.59	$ 755,865,074.45
Support Services 2000	$ 304,567,245.01	$ 313,828,482.09	$ 330,278,105.10	$ 358,280,880.33
Noninstructional Services 3000	$ 18,309,032.07	$ 19,621,864.73	$ 20,509,670.45	$ 21,784,220.96
acilities Acquisition & Improvement 4000	$ 2,831,125.90	$ 620,745.82	$ 680,214.02	$ 1,296,518.34
Other Expenses & Financing Uses 5000	$ 168,534,772.91	$ 186,381,316.23	$ 137,701,675.96	$ 142,293,721.08
Change in Expenditures over prior year	N/A	$ 50,315,540.20	$ 903,592.57	$ 66,655,003.04
% Change over prior year	N/A	7.5%	0.1%	9.2%
Instruction % of Total Expenditure	57.5%	57.1%	59.7%	59.1%

	Cameron Co - Texas			
Expenditures	FY16	FY17	FY18	FY19
Total Expenditures	$ 1,061,803,741.00	$ 1,112,047,377.00	$ 1,155,989,930.00	$ 1,204,915,732.00
Instruction 1000	$ 526,917,094.00	$ 540,049,166.00	$ 546,273,428.00	$ 614,166,915.00
Support Services 2000	$ 71,053,617.00	$ 70,976,882.00	$ 71,594,164.00	$ 77,127,262.00
Noninstructional Services 3000	$ 186,901,217.00	$ 198,977,702.00	$ 203,617,756.00	$ 199,795,431.00
acilities Acquisition & Improvement 4000	$ 33,219,512.00	$ 31,883,660.00	$ 32,312,375.00	$ 32,369,029.00
Other Expenses & Financing Uses 5000	$ 243,712,301.00	$ 270,159,967.00	$ 302,192,207.00	$ 281,457,095.00
Change in Expenditures over prior year	N/A	$ 50,243,636.00	$ 43,942,553.00	$ 48,925,802.00
% Change over prior year	N/A	9.5%	8.1%	9.0%
Instruction % of Total Expenditure	49.6%	48.6%	47.3%	51.0%

Our analysis of the expenditure data focused on several dimensions. First we wanted to understand macro-trends in school district spending across all categories. A school district's financial obligations increase from year to year, driven largely by salary increases, but also because of increased costs of contracted services, supplies, and materials. Accordingly, we would expect to see expenditures increase from year to year in order to maintain the same level of services provided by the district. If expenditures were to remain the same (i.e., level funding) given the increase in financial obligations from various sources, then the level of services provided is likely to decline as offsets are needed to meet salary obligations and other required expenses.

An overall decline in expenditures almost necessarily means that there is a decline in the level of services provided, and so we first examined the data to locate any instances of expenditures declining from one year to the next in the same school district. Of the six counties examined, only Dauphin County saw a decline in overall expenditures from FY16-FY17. While overall expenditures declined, the proportion

dedicated to instruction actually increased during this period, with the declining expenditures exclusively impacting the 5000s category of "other expenses." This situation indicates that the declining expenditures were likely related to debt services or other related types of financing expenses, and likely did not result in decreased quality of educational services during this period.

Instruction to Total Expenditure Ratios by Community. We then compared the ratio of instruction expenditure to the total expenditure for each community. In PA, the state considers instructional expenditures to include regular education, special education, and vocational programs. Specific programs under this category include life skills programs, emotional support programs, and drivers' education. As shown in Table 17, Beaver County has substantially trailed all of the PA benchmark districts despite having only a slightly lower proportion of the overall expenditures towards instruction. However, all PA benchmark districts, including Beaver County, devoted at least 52% of expenditures towards instruction for every fiscal year examined.

Table 17
Countywide Percentage of Total Expenditures Toward Instruction in Beaver County and PA Benchmark Counties

	FY16	FY17	FY18	FY19
Beaver County	57.00%	57.50%	58.20%	54.70%
Pittsburgh SD	57.80%	60.30%	60.30%	60.80%
Butler County	59.60%	59.10%	59.90%	59.80%
Dauphin Co	52.30%	57.70%	58.90%	56.10%
York County	57.50%	57.10%	59.70%	59.10%
Allegan County	59.68%	58.70%	54.06%	52.95%
Cameron Co	46.60%	48.60%	47.30%	51.00%

From FY18-FY19, Beaver County saw a drop of around 3.5% in the proportion of expenditures toward direct instruction. During this same period, expenditures increased across all categories, but the most marked increases were in the 4000s (facilities) and 5000s (financing and other expenses). This tells us that increased (and potentially unexpected) obligations in physical infrastructure or financing might be negatively impacting the district's ability to provide the same level of instructional services.

Instructional Per Pupil Spending. In addition to comparing the ratio of expenditure, we compared the actual dollar amounts of spending on instruction per pupil (see Table 18). This figure provides insight into the degree to which district is investing in student instruction given the district's enrollment.

Table 18
Per-Pupil Instructional Expenditures in Beaver County and PA Benchmark Counties

	FY16	FY17	FY18	FY19
Beaver County	$9,439.97	$9,958.47	$10,506.31	$10,940.12
Pittsburgh SD	$15,292.02	$17,485.39	$18,140.23	$18,587.81
Butler County	$8,770.14	$9,247.53	$9,781.99	$10,201.83
Dauphin Co	$9,589.42	$9,833.64	$10,431.55	$10,366.11
York County	$16,711.93	$10,089.28	$10,533.07	$10,965.21
Allegan County	$5,714.12	$5,796.67	$6,114.72	$6,389.68
Cameron Co	$4,857.32	$5,016.63	$5,183.81	$5,879.03

Table 18 reveals that Beaver County allocates less than what Pittsburgh does on per-pupil instruction by almost 50%, although Beaver County's instructional expenditures align closer with the other PA benchmark communities, and all of the PA districts outspend Allegan and Cameron counties.

Beaver County School Districts.

Expenditures by Year. When we first looked at the data for the individual districts in Beaver County, we found three anomalies (represented by cells in yellow in Table 19) in that expenditure levels increased precipitously in a given year: Aliquippa in FY19, New Brighton in FY17, and Rochester Area in FY16. In each case we traced the cause to expenditures reported in category 5120 (Debt Service—Refunded Bonds). Since these expenditures are one-time and outside the normal realm of the educational expenditures, we subtracted the amounts from the Total Expenditures line to preserve the consistency of the reporting, but left them in place in the 5000 line for accuracy. The amounts were:

- Aliquippa: $25,392,755
- New Brighton: $ 9,380,000
- Rochester Area: $ 4,240,000

Table 19
Expenditure Reports for 14 Beaver County Districts

Expenditures	FY16	FY17	FY18	FY19
Aliquippa SD				
Total Expenditures	21,296,222	23,180,355	22,987,277	24,114,256
Instruction 1000	12,136,744	13,326,022	13,109,462	13,922,286
Support Services 2000	6,464,279	6,248,281	6,293,163	7,015,209
Non-instructional Services 3000	433,193	475,899	423,357	431,847
Facilities Acquire & Improve 4000	-	-	-	-
Other Expenses & Financing 5000	2,262,005	3,130,154	3,161,296	28,137,669
Change Total Expend over prior year	N/A	1,884,134	(193,078)	1,126,979
% Change over prior year	N/A	15.5%	-1.4%	8.6%
Instruction % of Total Expenditure	57.0%	57.5%	57.0%	57.7%
Ambridge Area SD				
Total Expenditures	44,314,307	45,840,130	49,440,227	50,811,476
Instruction 1000	26,257,735	27,230,657	29,265,186	29,768,720
Support Services 2000	11,725,560	11,801,171	13,027,471	13,816,614
Non-instructional Services 3000	780,525	817,349	861,524	977,837
Facilities Acquire & Improve 4000	-	-	-	372,423
Other Expenses & Financing 5000	5,550,487	5,990,953	6,286,046	5,875,883
Change Total Expend over prior year	N/A	1,525,823	3,600,097	1,371,249
% Change over prior year	N/A	5.8%	13.2%	4.7%
Instruction % of Total Expenditure	59.3%	59.4%	59.2%	58.6%
Beaver Area SD				
Total Expenditures	28,881,210	29,963,477	31,934,394	33,074,258
Instruction 1000	15,218,411	15,109,811	16,455,643	16,732,081
Support Services 2000	10,095,383	11,214,524	11,489,640	12,469,429
Non-instructional Services 3000	781,726	871,715	873,571	895,213
Facilities Acquire & Improve 4000	13,644	3,665	-	-
Other Expenses & Financing 5000	2,772,045	2,763,762	3,115,540	2,977,535
Change Total Expend over prior year	N/A	1,082,267	1,970,917	1,139,863
% Change over prior year	N/A	7.1%	13.0%	6.9%
Instruction % of Total Expenditure	52.7%	50.4%	51.5%	50.6%
Big Beaver Falls Area SD				
Total Expenditures	26,335,953	27,268,906	28,203,056	29,739,252
Instruction 1000	15,262,067	15,873,323	16,697,472	17,332,230
Support Services 2000	8,390,990	8,527,842	8,778,616	8,927,587
Non-instructional Services 3000	717,311	678,772	625,906	726,571
Facilities Acquire & Improve 4000	156,937	154,881	265,842	795,800
Other Expenses & Financing 5000	1,808,648	2,034,088	1,835,220	1,957,065
Change Total Expend over prior year	N/A	932,953	934,150	1,536,196
% Change over prior year	N/A	6.1%	5.9%	9.2%
Instruction % of Total Expenditure	58.0%	58.2%	59.2%	58.3%

Blackhawk SD				
Total Expenditures	33,631,816	35,539,576	36,516,084	38,334,362
Instruction 1000	19,241,116	19,981,956	20,742,419	21,624,316
Support Services 2000	10,055,660	10,925,097	10,875,219	10,835,531
Non-instructional Services 3000	1,118,080	1,180,877	1,223,122	1,208,606
Facilities Acquire & Improve 4000	114,031	439,936	24,311	6,866
Other Expenses & Financing 5000	3,102,929	3,011,710	3,651,013	4,659,043
Change Total Expend over prior year	N/A	1,907,760	976,508	1,818,278
% Change over prior year	N/A	9.9%	4.9%	8.8%
Instruction % of Total Expenditure	57.2%	56.2%	56.8%	56.4%

Central Valley SD				
Total Expenditures	33,255,803	35,273,151	37,148,728	36,411,212
Instruction 1000	20,500,272	21,165,955	22,364,074	22,700,499
Support Services 2000	10,333,836	11,239,950	11,291,885	10,421,570
Non-instructional Services 3000	983,361	1,004,829	1,046,390	1,027,227
Facilities Acquire & Improve 4000	-	-	-	-
Other Expenses & Financing 5000	1,438,335	1,862,416	2,446,378	2,261,915
Change Total Expend over prior year	N/A	2,017,347	1,875,577	(737,515)
% Change over prior year	N/A	9.8%	8.9%	-3.3%
Instruction % of Total Expenditure	61.6%	60.0%	60.2%	62.3%

Freedom Area SD				
Total Expenditures	21,986,798	23,145,942	23,313,966	23,759,012
Instruction 1000	13,095,517	13,198,202	13,516,902	14,187,464
Support Services 2000	6,314,291	6,495,550	6,979,382	6,788,853
Non-instructional Services 3000	529,458	565,914	561,423	605,997
Facilities Acquire & Improve 4000	45,968	112,355	91,538	149,739
Other Expenses & Financing 5000	2,001,564	2,773,920	2,164,720	2,026,961
Change Total Expend over prior year	N/A	1,159,144	168,024	445,046
% Change over prior year	N/A	8.9%	1.3%	3.3%
Instruction % of Total Expenditure	59.6%	57.0%	58.0%	59.7%

Hopewell Area SD				
Total Expenditures	36,885,589	39,435,688	39,904,116	41,241,007
Instruction 1000	21,303,516	23,114,191	23,473,598	24,466,104
Support Services 2000	11,358,283	11,901,474	12,237,803	12,495,648
Non-instructional Services 3000	839,153	891,276	960,384	997,662
Facilities Acquire & Improve 4000	-	-	606	2,686
Other Expenses & Financing 5000	3,384,637	3,528,748	3,231,724	3,278,907
Change Total Expend over prior year	N/A	2,550,100	468,427	1,336,891
% Change over prior year	N/A	12.0%	2.0%	5.7%
Instruction % of Total Expenditure	57.8%	58.6%	58.8%	59.3%

Midland Borough SD

Total Expenditures	5,276,573	5,283,312	5,202,385	5,541,056
Instruction 1000	3,565,212	3,634,906	3,593,965	3,608,674
Support Services 2000	1,485,542	1,418,548	1,364,740	1,656,649
Non-instructional Services 3000	13,658	21,055	36,319	70,201
Facilities Acquire & Improve 4000	-	-	-	-
Other Expenses & Financing 5000	212,160	208,803	207,362	205,532
Change Total Expend over prior year	N/A	6,739	(80,927)	338,670
% Change over prior year	N/A	0.2%	-2.2%	9.4%
Instruction % of Total Expenditure	67.6%	68.8%	69.1%	65.1%
New Brighton Area SD				
Total Expenditures	22,205,204	23,045,180	23,613,284	24,821,759
Instruction 1000	13,168,950	13,790,163	14,058,070	15,173,300
Support Services 2000	6,423,652	6,891,428	7,245,452	7,198,256
Non-instructional Services 3000	625,521	641,747	652,664	695,354
Facilities Acquire & Improve 4000	249,115	5,888	-	5,237
Other Expenses & Financing 5000	1,737,966	5,955,954	1,657,098	1,749,612
Change Total Expend over prior year	N/A	839,976	568,104	1,208,475
% Change over prior year	N/A	6.4%	4.1%	8.6%
Instruction % of Total Expenditure	59.3%	59.8%	59.5%	61.1%
Riverside Beaver Co SD				
Total Expenditures	22,610,355	23,553,352	25,134,263	25,166,325
Instruction 1000	13,116,652	13,795,741	13,802,964	14,198,124
Support Services 2000	7,164,885	7,325,235	7,464,138	7,960,984
Non-instructional Services 3000	517,189	511,029	533,675	583,513
Facilities Acquire & Improve 4000	-	-	-	70,485
Other Expenses & Financing 5000	1,811,629	1,921,346	3,333,486	2,353,220
Change Total Expend over prior year	N/A	942,997	1,580,911	32,063
% Change over prior year	N/A	7.2%	11.5%	0.2%
Instruction % of Total Expenditure	58.0%	58.6%	54.9%	56.4%
Rochester Area SD				
Total Expenditures	15,893,930	16,349,828	16,948,936	17,629,647
Instruction 1000	9,870,955	10,274,524	10,806,865	10,798,061
Support Services 2000	4,295,457	4,479,610	4,514,332	5,203,544
Non-instructional Services 3000	290,135	312,410	406,074	391,728
Facilities Acquire & Improve 4000	-	-	-	-
Other Expenses & Financing 5000	10,817,383	1,283,283	1,221,665	1,236,314
Change Total Expend over prior year	N/A	455,898	599,107	680,711
% Change over prior year	N/A	4.6%	5.8%	6.3%
Instruction % of Total Expenditure	62.1%	62.8%	63.8%	61.2%
South Side Area SD				
Total Expenditures	22,841,984	23,090,727	22,788,125	23,755,134
Instruction 1000	13,042,143	13,256,173	13,005,934	13,142,436

Support Services 2000	7,804,592	7,591,669	7,627,120	7,872,589
Non-instructional Services 3000	603,499	669,744	613,545	697,365
Facilities Acquire & Improve 4000	23,526	110,624	136,503	617,389
Other Expenses & Financing 5000	1,368,224	1,462,517	1,405,023	1,425,356
Change Total Expend over prior year	N/A	248,743	(302,602)	967,009
% Change over prior year	N/A	1.9%	-2.3%	7.4%
Instruction % of Total Expenditure	57.1%	57.4%	57.1%	55.3%
Western Beaver Co SD				
Total Expenditures	12,179,634	12,784,315	13,127,901	14,092,045
Instruction 1000	7,680,379	7,736,504	7,964,369	8,685,750
Support Services 2000	3,791,686	4,166,562	4,249,949	4,442,005
Non-instructional Services 3000	195,603	207,832	291,008	297,281
Facilities Acquire & Improve 4000	9,985	-	23,034	65,018
Other Expenses & Financing 5000	501,981	673,418	599,541	601,991
Change Total Expend over prior year	N/A	604,681	343,586	964,143
% Change over prior year	N/A	7.9%	4.4%	12.1%
Instruction % of Total Expenditure	63.1%	60.5%	60.7%	61.6%

Ratio of Instruction to Expenditures. Most districts had consistent percentages on the ratio of instruction to total expenditures from year to year. Aliquippa had the smallest variance, with instructional expenditures accounting for between 57.0% and 57.7% in all four years. Ambridge also had a small variance (58.6% to 59.4%). The two districts with the largest variances were Midland Borough (65.1% to 69.1%) and Riverside Beaver (54.9% to 58.6%). The remaining 10 districts all had variances of 1.0% to 2.7% between the high and low for four years.

We found more significant differences when we compared the percentages across districts. Beaver Area had the lowest ratio of instruction expenditures, at 50.4% to 52.7% over the four-year period. At the other end of the scale, Midland Borough had the highest ratios, between 65.1% and 69.1%. Three tiers emerge in Table 20.

Table 20
District Classifications into Tiers of Instructional Spending Ratios

Tier 1 (highest)	Tier 2 (middle)	Tier 3 (lowest)
*Midland Borough	Freedom Area	*Aliquippa
65.1>69.1	57.0>59.7	57.0>57.7
*Rochester	Ambridge	South Side
61.2>63.1	58.6>59.4	55.3>57.4
Western Beaver	Hopewell	Blackhawk
60.5>63.1	57.8>59.3	56.2>57.2
Central Valley	*Beaver Falls	Beaver Area
60.0>62.3	58.0>59.2	50.4>52.7
New Brighton	Riverside Beaver	
59.3>61.1	54.9>58.6	

Note: *District with over 90% of low-income students

Revenues vs. Expenditures. We looked at how the four-year expenditure trend matched up with the four-year revenue trend reported earlier (see Table 21).

Table 21
Beaver County Districts' Four-Year Expenditure and Revenue Trends

	FY16	FY17	FY18	FY19	4 yr %
Aliquippa SD					
Total Revenue	$21,530,395	$23,720,199	$23,173,608	$23,146,719	
Yrly Rev Change	2.7%	10.2%	-2.3%	-0.1%	7.5%
Total Expenditure	$21,296,222	$23,180,355	$22,987,277	$24,114,256	
Yrly Exp Change	N/A	8.8%	-0.8%	4.9%	13.2%
Ambridge Area SD					
Total Revenue	$44,166,871	$46,871,945	$47,891,072	$48,452,160	
Yrly Rev Change	3.6%	6.1%	2.2%	1.2%	9.7%
Total Expenditure	$44,314,307	$45,840,130	$49,440,227	$50,811,476	
Yrly Exp Change	N/A	3.4%	7.9%	2.8%	14.7%
Beaver Area SD					
Total Revenue	$29,418,056	$31,227,181	$32,055,547	$33,280,560	
Yrly Rev Change	7.5%	6.1%	2.7%	3.8%	13.1%
Total Expenditure	$28,881,210	$29,963,477	$31,934,394	$33,074,258	

Yrly Exp Change	N/A	3.7%	6.6%	3.6%	14.5%
Big Beaver Falls Area SD					
Total Revenue	$25,774,102	$27,837,673	$28,256,368	$29,756,431	
Yrly Rev Change	2.1%	8.0%	1.5%	5.3%	15.5%
Total Expenditure	$26,335,953	$27,268,906	$28,203,056	$29,739,252	
Yrly Exp Change	N/A	3.5%	3.4%	5.4%	12.9%
Blackhawk SD					
Total Revenue	$34,195,030	$37,363,277	$37,382,706	$38,782,677	
Yrly Rev Change	2.0%	9.3%	0.1%	3.7%	13.4%
Total Expenditure	$33,631,816	$35,539,576	$36,516,084	$38,334,362	
Yrly Exp Change	N/A	5.7%	2.7%	5.0%	14.0%
Central Valley SD					
Total Revenue	$32,296,495	$33,912,066	$34,945,383	$36,519,252	
Yrly Rev Change	2.1%	5.0%	3.0%	4.5%	13.1%
Total Expenditure	$33,255,803	$35,273,151	$37,148,728	$36,411,212	
Yrly Exp Change	N/A	6.1%	5.3%	-2.0%	9.5%
Freedom Area SD					
Total Revenue	$21,549,225	$22,296,324	$22,966,292	$23,617,416	
Yrly Rev Change	3.4%	3.5%	3.0%	2.8%	9.6%
Total Expenditure	$21,986,798	$23,145,942	$23,313,966	$23,759,012	
Yrly Exp Change	N/A	5.3%	0.7%	1.9%	8.1%
Hopewell Area SD					
Total Revenue	$36,161,434	$38,752,351	$39,211,581	$39,924,134	
Yrly Rev Change	0.9%	7.2%	1.2%	1.8%	10.4%
Total Expenditure	$36,885,589	$39,435,688	$39,904,116	$41,241,007	
Yrly Exp Change	N/A	6.9%	1.2%	3.4%	11.8%
Midland Borough SD					

Total Revenue	$5,549,876	$5,920,749	$5,909,777	$5,905,130	
Yrly Rev Change	5.3%	6.7%	-0.2%	-0.1%	6.4%
Total Expenditure	$5,276,573	$5,283,312	$5,202,385	$5,541,056	
Yrly Exp Change	N/A	0.1%	-1.5%	6.5%	5.0%
New Brighton Area SD					
Total Revenue	$22,711,955	$23,551,974	$24,310,570	$25,513,178	
Yrly Rev Change	2.3%	3.7%	3.2%	4.9%	12.3%
Total Expenditure	$22,205,204	$23,045,180	$23,613,284	$24,821,759	
Yrly Exp Change	N/A	3.8%	2.5%	5.1%	11.8%
Riverside Beaver Co SD					
Total Revenue	$22,329,825	$23,842,627	$24,202,662	$25,182,495	
Yrly Rev Change	1.1%	6.8%	1.5%	4.0%	12.8%
Total Expenditure	$22,610,355	$23,553,352	$25,134,263	$25,166,325	
Yrly Exp Change	N/A	4.2%	6.7%	0.1%	11.3%
Rochester Area SD					
Total Revenue	$15,069,786	$17,036,970	$16,373,570	$16,997,391	
Yrly Rev Change	-7.1%	13.1%	-3.9%	3.8%	12.8%
Total Expenditure	$15,893,930	$16,349,828	$16,948,936	$17,629,647	
Yrly Exp Change	N/A	2.9%	3.7%	4.0%	10.9%
South Side Area SD					
Total Revenue	$22,455,973	$22,986,305	$23,439,406	$23,816,798	
Yrly Rev Change	3.1%	2.4%	2.0%	1.6%	6.1%
Total Expenditure	$22,841,984	$23,090,727	$22,788,125	$23,755,134	
Yrly Exp Change	N/A	1.1%	-1.3%	4.2%	4.0%
Western Beaver Co SD					
Total Revenue	$12,563,815	$12,973,789	$13,209,841	$14,036,152	
Yrly Rev Change	1.6%	3.3%	1.8%	6.3%	11.7%

Total Expenditure	$12,179,634	$12,784,315	$13,127,901	$14,092,045	
Yrly Exp Change	N/A	5.0%	2.7%	7.3%	15.7%

Over the four-year period, all 14 Beaver County school districts saw an increase in expenditures, with a range of a 4.0% increase in South Side to a high of 15.7% at Western Beaver. There was a similar range of increases in revenues (6.1% to 15.5%) among the districts. But the percentage increases in expenditures did not always match up evenly with the percentage increases in revenues. For example, Aliquippa experienced a 5.7% higher percentage in expenditure at 13.2% over the four years than in revenue at 7.5%. Conversely, Central Valley revenue rose 13.1% over four years, but the expenditures rose only 9.5%. In the first three years of the period, Central Valley expenditures exceeded their revenues, but in FY19, their expenditures fell 2.0% below what was expended in FY18. Table 22 classifies the districts into two tiers: those that experienced higher revenue increases than expenditure increases and those whose expenditures increased more (listed alphabetically).

Table 22
District Classifications into Four-Year Increased or Decreased Expenditure/Revenue Trends

Greater Revenue Increase Than Expenditure			Greater Expenditure Increase Than Revenue		
Beaver Falls*	15.5% vs 12.9%	2.6%	Aliquippa*	13.2% vs 7.5%	5.7%
Central Valley	13.1% vs 9.5%	3.6%	Ambridge	14.7% vs 9.7%	5.0%
Freedom Area	9.6% vs 8.1%	1.5%	Beaver Area	14.5% vs 13.1%	1.4%
Midland*	6.4% vs 5.0%	1.4%	Blackhawk	14.0% vs 13.6%	0.6%
New Brighton*	12.3% vs 11.8%	0.5%	Hopewell	11.8% vs 10.4%	1.4%
Riverside	12.8% vs 11.3%	1.5%	Western Beav.	15.7% vs 11.7%	4.0%
Rochester*	12.8% vs 10.9%	1.9%			
South Side	6.1% vs 4.0%	2.1%			

Note: *Districts have over 90% of low-income students

The wide range of differences in percentage for revenue and expenditure increases suggests that there are serious inequities in available funding across the various districts in the county.

Instructional Expenditures Per Pupil. In a concluding analysis, we examined the amount Beaver County school districts spent per pupil on instructional expenditures and broke them into a three-tiered system to better observe the disparities. Table 23 demonstrates these discrepancies below.

Table 23
Beaver County School Districts' Instructional Expenditures Per Pupil

Beaver County SDs	Total instructional expenditures	FY19 enrollment	Per-pupil instructional expenditures
Tier 1			
Beaver Area	16,732,081	2005	$8,345
Blackhawk	21,624,316	2322	$9,313
Riverside Beaver Co	14,198,124	1446	$9,819
Central Valley	22,700,499	2302	$9,861
Tier 2			
Big Beaver Falls Area	17,332,230	1710	$10,136
Freedom Area	14,187,464	1322	$10,732
New Brighton Area	15,173,300	1360	$11,157
Western Beaver Co	8,685,750	757	$11,474
Hopewell Area	24,466,104	2109	$11,601
Tier 3			
Ambridge Area	29,768,720	2397	$12,419
Midland Borough	3,608,674	272	$13,267
South Side Area	13,142,436	979	$13,424
Aliquippa SD	13,922,286	1010	$13,784
Rochester Area	10,798,061	698	$15,470

Note that three of the five districts serving the highest percentages of low-income students (>90%) fell into the highest tier for instructional expenditures: Rochester, Midland, and Aliquippa. The others, New Brighton and Beaver Falls, fell into Tier 2.

Beaver County Student Enrollments

The foregoing revenue trends are influenced directly by student enrollments in associated years.[20] Table 24 presents summary data reflecting a four-year comparison of (a) Beaver County enrollments to those in the six Benchmark counties, (b) the 14 Beaver County school districts, and (c) the three Beaver County charter schools. The results reveal several noteworthy trends. First, when regular public and charter schools are combined, Beaver County ranks toward the top (three out of seven) in four-year change, gaining 89 students (+.28%). Only Dauphin County, which exhibited a marked gain of 7.90%, and Allegan County (0.93%) also increased their enrollments. The largest decreases occurred for neighboring district Butler County (-4.07%) and for rural-suburban Texas district Cameron County (-4.21%).

[20] For interested readers, our data sources can be found at: https://tinyurl.com/ht8kpwn2

For Beaver County regular school districts, enrollment increases, all very modest in size, occurred for Central Valley (+24 students; 1.05% gain) and Big Beaver Falls (+6 students; 0.35% gain) only. Of the 12 districts showing decreases, the highest were for South Side (-119 students; -10.84% gain), Aliquippa (-97 students, -8.76% gain), Midland (-28 students; 9.33% gain), and New Brighton (-108 students; -7.36% gain). The latter three districts also have three of the five highest student poverty rates (all over 90%) in the county.

Results for the three Beaver County charter schools tell quite a different story, as all three schools experienced positive growth rates, with those for Lincoln Park and PA Cyber exceeding 10% over the four years. Specifically, while the regular public schools lost 864 students (-4.01%) in total, the charter schools gained 1,061 students (10.19%).

Table 24

Student Enrollment Trends for Beaver County vs. Benchmark Counties (FY16-19)

County	FY16	FY17	FY18	FY19	4 Yr Delta	4yr %D
Beaver County	32,167	32,254	31,921	32,256	89	0.28%
Butler County	24,705	24,345	23,938	23,700	-1,005	-4.07%
Dauphin County	45,166	45,964	47,394	48,732	3,566	7.90%
York County	69,510	68,539	68,707	68,933	-577	-0.83%
Pittsburgh PS	24,190	22,384	22,370	22,934	-1,256	-5.19%
Allegan County - Michigan	14,275	14,539	14,544	14,408	133	0.93%
Cameron County - Texas	101,992	100,731	99,090	97,701	-4,291	-4.21%
Beaver Cty SDs						
Aliquippa SD	1,107	1,079	1,051	1,010	-97	-8.76%
Ambridge Area	2,542	2,418	2,371	2,397	-145	-5.70%
Beaver Area	2,089	2,058	1,992	2,005	-84	-4.02%
Big Beaver Falls Area	1,704	1,744	1,704	1,710	6	0.35%
Blackhawk	2,444	2,432	2,364	2,322	-122	-4.99%
Central Valley	2,278	2,347	2,357	2,302	24	1.05%
Freedom Area	1,409	1,382	1,356	1,322	-87	-6.17%
Hopewell Area	2,127	2,081	2,098	2,109	-18	-0.85%
Midland Borough	300	273	280	272	-28	-9.33%
New Brighton Area	1,468	1,424	1,384	1,360	-108	-7.36%
Riverside Beaver Co	1,482	1,484	1,445	1,446	-36	-2.43%
Rochester Area	747	698	701	698	-49	-6.56%
South Side Area	1,098	1,077	997	979	-119	-10.84%
Western Beaver Co	758	740	731	757	-1	-0.13%
Total Public Schools	21,553	21,237	20,831	20,689	-864	-4.01%
Beaver County CTC	603	586	592	618	15	2.49%
Beaver Cty Charters						
Baden Academy CS	529	541	567	574	45	8.51%
Lincoln Park Perf Arts CS	706	723	760	785	79	11.19%
Pennsylvania Cyber CS	9,173	9,723	9,676	10,110	937	10.21%
Total Charter Schools	10,408	10,987	11,003	11,469	1,061	10.19%

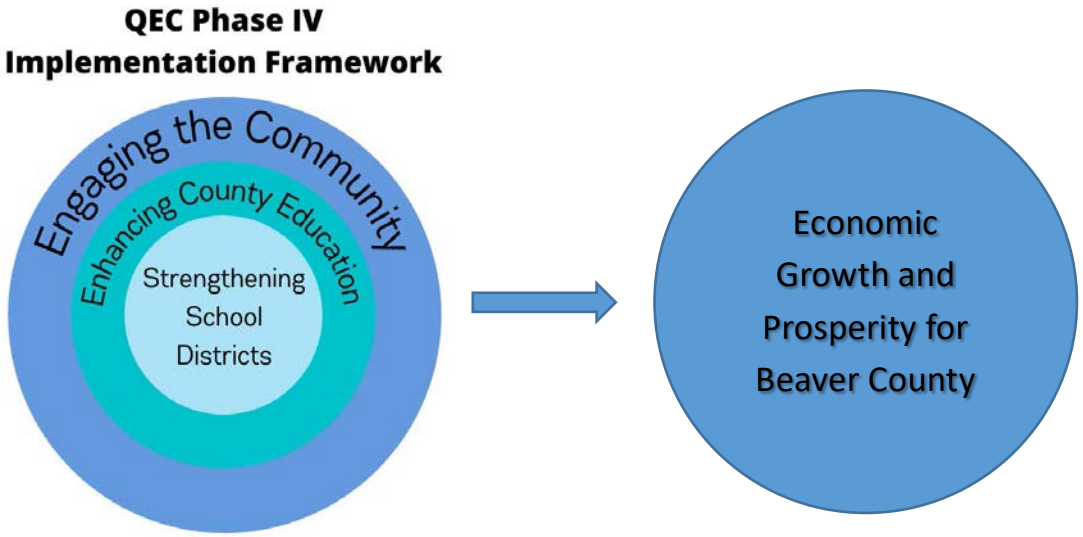
Conclusions and Recommendations

Based on our findings, we discuss in this section potential needs and strategies to be considered by the QEC and other county leaders in establishing community goals for Phase IV. What we cannot do with any reasonable expectation of success is *prescribe* solutions. We firmly believe that county needs are diverse and complex, best understood locally, and most effectively addressed through community ownership of goals and actions. As external analysts in our one-year study, however, we were able to provide in this report descriptive data about Beaver County reflecting how it compares broadly to demographically similar counties that have shown some success in

education, economic growth, and governance. We have also synthesized perspectives and recommendations from numerous (over 200) diverse stakeholders, including educators, community leaders, government officials, students, and ordinary citizens. We will discuss the main themes below, along with what we perceive to be their associated advantages as well as limitations.

In considering possible initiatives for positive change, we drew on the framework depicted in Figure 5. As shown, its foundation is three concentric circles, each encompassing a particular locus for positive intervention. While each locus can be addressed separately to effect advancement within its domain, the holistic logic model for furthering future, sustained county growth and prosperity views them as inter-dependent. That is, for complex systemic initiatives to be sustainable, multiple partnerships that focus on shared cross-sector community goals are needed (Cohen, Spillane, and Peurach, 2017; Desimone, 2002; Ross, 2013; Ross et al., 2004).

Figure 5
Framework for Promoting Educational Quality and Community Growth



The inner circle represents strengthening of education quality at the school district level. Here, it is incumbent on each school district to address instructional, staffing, and administrative needs to prepare students to succeed in postsecondary education and careers. At the same time, LEAs (school districts and charter schools) will want to make academic offerings, supplementary programming, and facilities attractive and contemporary to appeal to students and their families. While such local reforms can be immediately impactful once implemented, prior research suggests that their longevity may be limited once the leaders (superintendents, principals, and school

boards) that championed them are no longer in power (Desimone, 2002; Ross et al., 2004).

The middle circle represents the enhancement of countywide education. Clearly, this domain is directly boosted by strengthening educational quality at the local LEAs and institutes of higher education. At a broader level, however, it involves changes that are systemic and rooted in "collective" attainments where the "whole" becomes much more than the sum of the parts, and resilient against failure or alteration of any individual parts. An example would be an instance in which multiple LEAs collaborate to combine resources to offer cutting-edge programming open to any student within the consortium. Another would be a tuition incentive open to all county high school graduates to attend local colleges and vocational schools. These types of collective initiatives not only increase the reach of individual LEAs but should have much more staying power than self-initiated LEA programs which so often come and go with leadership changes. However, they should potentially gain even stronger grounding and sustainability if embedded in countywide goals and recognized as value-added by diverse constituencies, including those who no longer have school-age children.

The outer circle, Engaging the Community, would be immediately affected by stronger LEAs and enhanced countywide education, if for no other reason than the majority of Beaver County citizens have a direct stake in education themselves or through family members. But improvements in education can only go so far in increasing county job and career opportunities and attracting younger people to Beaver County as a place to live. Generating a broader type of engagement, focused on short-term and long-term community-owned goals, appears most likely to foster economic growth and prosperity over time.

In the sections below, we examine possible change strategies in each of the three domains (Figure 5). While we describe perceived benefits and challenges for each, we avoid advocating or prescribing solutions given the ultimate goal of fostering local decision-making and ownership. Based on our current findings, one exception is our strong belief that maintaining the status quo will be the least desirable option for promoting a positive future. Without concrete actions to achieve goals of education quality, equal opportunity, and prosperity, it seems unreasonable to expect that trends of continual population decline and economic stagnation will disappear on their own. Importantly, although some of the over 80 cross-sector leaders whom we interviewed were satisfied with current and future prospects in their domain, none was sanguine in projections for the county if the status quo persisted.

The Inner Circle: Strengthening School Districts

As revealed by the quantitative data on district enrollments, available funding, and student achievement, two conclusions are clear. One is that there are substantial disparities between the 14 Beaver County school districts on all of these data points and

many more (e.g., student and teacher demographics, advanced course offerings, facilities, etc.). A second is that for all districts, even those that are higher-performing, there is room for improvement in academic offerings and facilities to compete successfully with schools in the mostly wealthier neighboring counties. Several community leaders who were interviewed characterized the county schools holistically as adequate at best, with none standing out among the elite in the state.

We view the strengthening of LEAs as the responsibility and purview of each through collaborative efforts of the superintendent (CEO), school board, principals, and teachers. There is vast literature on implementing educational reforms, and reviewing findings and recommendations here would be beyond the scope of this report. Clearly, one desirable strategy for all LEAs is to conduct a comprehensive needs assessment that examines outcome attainment relative to internal goals and external standards of excellence. Such analyses would identify any gaps in performance and inform priorities for improvement efforts. From our present data—interviews with community leaders and citizens, student focus groups, and benchmarking of comparison counties—we more specifically suggest consideration by LEAs of the following strategies for improving the quality of education and equitable opportunities:

Relevant and Engaging Learning.

- Increasing the connection of academic and experiential learning offerings to postsecondary and career educational opportunities.
- Increasing the connection of academic and experiential learning offerings to jobs and careers available locally.
- Increasing the connection of academic and experiential learning offerings to 21st century jobs and careers, particularly those likely to be most essential in the future world of work (Dondi, Klier, Panier, & Shubert, 2021).

Obvious potential advantages of these focuses are not only preparing students for future work and careers, but directly connecting that preparation and the students themselves to needs and opportunities in the county. The current challenges for many LEAs, however, are directing already-limited resources to increasing advanced and supplemental educational offerings such Advance Placement and dual-credit courses, internships with community businesses, student participation in college “academies” and vocational training, and enrichment experiences in 21st century career skills involving STEM, communications, economics, etc. Sharing resources (such as an honors course in advanced chemistry) between LEAs could increase individual capacity to provide quality education.

Equity in Opportunity and Expectations.

- Ensuring that all students in each school district have the preK-12, postsecondary, and career opportunities to be successful as adults.

- Ensuring that all students in each school district are supported in the expectations communicated and encouragement provided for achieving educational success.
- Providing administrators, teachers, and the school community with equity training to increase understanding of the meaning and value of equal opportunities for all students.

Both quantitative and qualitative data presented in this report reveal that substantial inequities within and between LEAs exist regarding expectations, encouragement, and opportunities for success. A strong theme emerging from the student focus groups was that for some students, their school's emphasis on athletics reduced its focuses on academics and enrichment programming. Students who could most benefit from career academies and enrichment, particularly those from minority and low-income subgroups, were described by providers of these offerings and some LEA leaders as typically the least likely to take advantage. Reorienting guidance counselor roles to focus on the preparation and support of each student for postsecondary education/training (e.g., community college, four-year university, vocational or on-the job training) emerged as a positive suggestion for all districts. Ensuring that transportation to special programs or service learning activities is available to all students was another suggested need. Encouraging students' families to see the value of and support such opportunities, even where they take place off campus or interfere with athletics, was a third.

The advantages of increasing equity are obvious if done in a way that elevates those who lack opportunities rather than takes away from those who have them. The challenges are similar to those described for strengthening the quality of education—allocating sufficient funding and resources for the types of interventions needed, such as increasing the number of school counselors and providing counselors with the requisite professional development for helping all students to maximize their potential.

Using Funding Strategically and Wisely.

- Conducting yearly operational budget reviews aligned to needs assessment goals for quality education.
- Allocating American Rescue Plan Act funds and other supplementary state, federal, or local funding to support needs assessment goals for quality education.
- Continuing to investigate opportunities for resource sharing with other districts and LEAs.
- Exploring strategic planning relative to investments addressing aging high school facilities throughout the county.

Compared to those in wealthy counties, school districts in Beaver County have less funding for supporting programming, school operations, and building maintenance and renovation. Interview responses, most tellingly from educators, administrators, and

students, and our macro-reviews of districts' expenditures and revenues, suggest relatively high allocations to athletic programs compared to what is normative in Pennsylvania and nationally. Consequently, academic programs and supports for students (e.g., guidance counseling and wraparound services) can suffer from being underfunded. Some interviewees, outside of the school districts, expressed the view that budgeting was overly influenced by traditional practices rather than goals for quality education geared to the needs of today's students.

Personalizing Education for Students as Future Citizens.

- Increasing communications to students and parents about educational opportunities within and outside the LEA
- Increasing the personalization of those opportunities to students' needs and interests
- Increasing the availability of health and social-emotional supports to students and their families

In focus groups, students across districts expressed frustration with being unaware of and restricted in educational opportunities beyond access to standard courses. The vast majority were unaware of the programs offered by the Career and Technology Center and CCBC's academy. None mentioned involvement in internships or service learning activities with local businesses or nonprofit organizations. Several conveyed not knowing where to turn at school if experiencing medical or mental health problems. On the whole, the students viewed the availability of personal support and academic guidance as limited or inadequate at their schools.

Interviewees in both preK-12 and higher education described differences between school districts in how much they connected their students to opportunities to take vocational and college-level courses while in high school. They characterized some districts as relatively active in guiding students in those directions and thereby disproportionately represented in the associated student enrollments. Others had low student participation, likely for different reasons. One reason suggested from the interviews with both adults and students was having fewer students who qualified for or had interest in such offerings. Another was overburdened guidance staff who were occupied with more immediate problems facing certain students and the school overall. A third was the financial disincentive of districts losing revenue for students who attend an external program full-time or part-time. One superintendent, whose district had relatively high numbers of student participants, interpreted the financial impact in the opposite way, as gain rather than loss. Their rationale was that students who were frustrated by or disinterested in standard curricula, and who would otherwise prosper in an alternative setting (such as a career or trade focus), were excessively costly to educate by needing more support or disrupting others in regular classes.

Strengthening LEAs in the inner circle naturally enhances county education as a whole. That is, each LEA that elevates its offerings and reputation contributes to current and prospective residents viewing the county more positively. However, isolated changes at the LEA level only does not ensure broader, impactful, and sustainable impacts countywide. As noted in several places in this report, school district reforms, even when successful and popular, often last only as long as the superintendents who championed them remain in power. Also, logically and in the opinion of many interviewees involved with county education, what can be achieved holistically by collaborative LEAs can exceed what can be done additively in isolation—i.e., the whole can significantly exceed the sum of its parts. Possible strategies that were suggested from our study are reviewed below.

Sharing Resources. One means of increasing the capacity of multiple LEAs is to share resources, such as staff, services, and courses. This practice has been used frequently in the past and is presently continuing. For example, Rochester, New Brighton, and Western Beaver share a technology director, while Rochester and New Brighton have also shared AP courses. Notably, the Western Beaver and Blackhawk districts share the same superintendent. While such collaborations were frequently mentioned by interviewees in a positive vein, they were also seen as under-utilized given the resource and staffing constraints faced by small districts. Similarly, there appears to be limited communication between LEAs regarding best practices and programs. Although competition between LEAs is natural, it seems that increased resource sharing and other types of partnering could only serve to elevate the quality of education at both the LEA and countywide levels.

Connecting Students with Adaptive Programming. Without extensive funding and resources, a given school can only provide so many programming options to its diverse students. A county as a whole, however, is much better equipped to accomplish this goal given the right structures and collaborations. A clear frustration expressed by students in our focus groups, and explicitly acknowledged by several of the educators interviewed, is that although Beaver County is rich with varied educational opportunities, efforts to connect students to them adaptively have been weak. As noted in prior sections of this report, several constraining factors exist. One is the natural inclination of school districts in an era of declining enrollments to want to hold on to their students rather than send them elsewhere. Another is resistance by students and their families, more in some locations and cultures than others, to attend school outside their home district. A third is logistical barriers involving scheduling, transportation, and workable operational plans. Several years ago, a federal grant funded a regional choice program, coordinated by the Beaver Valley Intermediate Unit, in which courses were offered to students across participating schools. Several interviewees described the program as a successful prototype, but downsides were the significant funding needed for implementation and time lost in the school day for students to be transported to other schools.

It is clear that county-wide, numerous diverse educational opportunities for high school students exist, including at the CTC, higher education institutes, and specialized programs or courses at charter schools and regular schools. While some logistical and other challenges exist, it seems worthwhile to explore ways of creating more fluid access to these opportunities for students who can benefit. All LEAs increased substantially their capacity and the skills of their teachers for using technology during the pandemic of 2020. Sharing and expanding instructional offerings, counseling support, and administrative resources through technology-driven solutions provide potential future avenues for elevating educational quality and opportunity throughout the county.

Telling the County Story. While virtually all parents and students have opinions about how their schools can become better, our findings also revealed many positive aspects of Beaver County education, the diverse program options just noted being one. Students and school administrators were unified in describing their districts' teachers as dedicated, caring, and effective. The small neighborhood schools offer advantages, particularly in the elementary grades, of familiarity, personalization, and safety. Most LEAs have distinctive academic focuses and strengths that would be appealing to outsiders if communicated in compelling ways. The abundant higher education institutions in the region and the CTC have been cited throughout this report as assets recognized within and outside the county. Unfortunately, however, in the absence of the county telling its own story, the messaging about education quality that reaches the public may default to state-reported test score (PSSA) averages and the attractiveness of school facilities, neither being an exceptional attribute of the county overall. As an alternative approach, several of the benchmarking communities have launched active and seemingly successful marketing campaigns to showcase local educational attainments and offerings. The most potent type of communications, we believe, would describe clear and universally appealing advantages of Beaver County education potentially available to every high school graduate. We turn to this idea next.

Postsecondary Opportunities for All. As demonstrated in cities such as Kalamazoo, Pittsburgh, Buffalo, Syracuse, and Cleveland, providing supplementary financial support to ensure that all local students can pursue postsecondary academic and career education can galvanize communities, attract new residents, and increase student high school graduation rates and achievement. Our financial analyses suggest ways that last-dollar funding for the first two years of postsecondary education can be achieved through collaborations between local LEAs and higher education institutes. Specifically, building on existing, high-quality dual-credit programming in the county and strong programming at the community college, students admitted to a two-year, four-year, or vocational postsecondary school would receive last-dollar tuition support. This support would be applied after Federal Pell Grants, state aid, and existing local aid are applied in order to fully cover the cost of tuition. Using existing funding and programming as a foundation, the cost to build a scholarship program for the county would be relatively low. Such a program could jumpstart county students in becoming

career-ready, provide a competitive edge in attracting young families, and deliver a message to young people that they are supported by their community.

While the higher-achieving students are likely to have adequate preparation for success in postsecondary education, many others may lack postsecondary education aspirations, readiness, or both. LEAs that serve many such students may want to consider more actively designing career-connected high school programs that create pathways and exposure to jobs tied to workforce demands and opportunities, particularly those that are locally needed. Such programs build on internships, dual-credit courses, and classes that develop personal and professional skills to prepare students for careers and productive lives (see Case Illustration in Figure 6).

Having available postsecondary opportunities is one critical piece of the puzzle. Providing personalized guidance and coaching that leads students to the programs that fit their needs is another. Helping them to navigate the admissions and financial aid processes is a third. As will be discussed in more detail as a form of community (outer circle) engagement, partnerships between LEAs and community agencies and nonprofits potentially can greatly expand the range of counseling services beyond what resident school counselors can provide (Balfanz, 2021).

Figure 6
Case Illustration: The Homegrown Talent Initiative in Colorado

When the COVID pandemic began, the Holyoke School District in partnership with seven other Colorado districts was in its first year of a three-year project, the Homegrown Talent Initiative (HTI). The goal was to help rural schools better prepare students for success after high school. The districts addressed this goal by connecting high school coursework and experiential learning activities to contemporary careers in demand locally and nationally. A core component of the HTI is the community's creation of a "Graduate Profile," which defined the types of skills that students would need as successful workers and productive citizens. As part of a broader plan to engage communities in sustained systemic change, partnerships were formed with cross-sector teams, including local industry, to develop internships, technical assistance, and programming to support students' successful transition from high school to postsecondary education and careers.

The initiative is ongoing, and its sustainability and impacts remain to be determined. Holyoke and other districts are adapting their strategies to local resources and priorities, using some or all of these components: internships, increased dual-credit or concurrent-enrollment courses, career exploration, career pathways, high school career courses, industry-based certification, and courses in "Graduate Profile" skills (Heyward, 2021).

Mergers and Consolidations. Throughout our individual interviews with Beaver County stakeholders, the frequent "elephant in the Zoom," so to speak, was the question of whether merging school districts would resolve many of the deep-rooted concerns about declining enrollments and limited resources in the many small county high schools. Clearly, there is a large divide across the community on this question. The prevailing view, it seems, is that in an ideal, "ahistorical" context, having five or six districts rather than 14 in a county with 21,000 students would be much more viable economically and operationally. Pooled resources could possibly support the future construction of one or more ultra-modern high schools and a wide expansion of core, accelerated, and enrichment course offerings. If such a plan were conceivable, most advocates would likely be in favor of maintaining all or most of the neighborhood elementary and middle schools, whether in existing or merged districts. However, based on the budgetary and resource analyses, as recommended in the prior section (Inner Circle, "Strengthening School Districts"), certain districts may forecast future inability to provide quality education to students on their own, thereby making proactive exploration of potential mergers essential.

However, the current situation is far from lacking deep historical roots and existing comforts with the status quo. There is a long tradition and appreciation of small districts in the county serving neighborhood students from elementary school to high school. Likewise, there is strong identity in every town with the local high school sports teams, football above all. The 2009 merger of the Central Valley and Monaca districts, although deemed ultimately successful, also demonstrated that mergers are long-term undertakings that require extensive planning and adjustments. Realistically, unless strong incentives were offered (e.g., by the Pennsylvania State Department of Education), many districts, particularly wealthier ones, would not be motivated to merge with others. This viewpoint was reinforced by several district school board members and school board presidents in interviews, and by members of certain school communities at the July forums. Our main takeaway on the merger question is that certain mergers may occur naturalistically over time based on needs created by various districts' enrollment trends and financial health, but mergers as a *systemic* community revitalization plan would face many challenges as a short- or intermediate-term Phase IV goal.

The Outer Circle: Engaging the Community

School districts by themselves (Inner Circle) and collectively (Middle Circle) unquestionably can do much to elevate the county's profile as a place where students can receive a quality education from pre-K through postsecondary. However, simply building it doesn't mean they (new residents) will come or that what is built will last very long. While access to good schools is a critically significant asset of a community, ultimately, families and businesses considering where to locate will be evaluating what the county as a whole offers them.

Based on the present Benchmarking analysis (particularly for Cameron County, TX) and our prior work with Say Yes to Education in Buffalo and Cleveland, we believe that focusing on education quality in the individual LEAs and county-wide can be an effective catalyst for change, initially for engaging the community and ultimately for further developing it. But the process must be interactive, working from both sides. As enhanced education quality and opportunities give greater visibility to the community's stature and future potential of serving youth and attracting young adults as residents, the community, in turn, must support the education initiatives and use them as a springboard for its own growth. In concluding this report, we first suggest for consideration by the QEC and its partners ideas for both (a) general types of community actions in response to the education initiatives, and in a concluding section, (b) launching Phase IV to define community-owned goals and implementation strategies.

Using positive educational initiatives as a springboard, the Beaver County community might consider the following types of actions:

- Promoting and helping to implement "postsecondary opportunities for all," which, similarly to the Pittsburgh Promise, would ensure that every Beaver County high school graduate has last-dollar tuition money at a partnering regional vocational school or institute of higher education.

- Complementary to increasing postsecondary opportunities, establishing partnerships with community nonprofit organizations and volunteers to expand students' access to counseling and mentoring in preparing for life and education after high school.

- Fostering school-to-work and school-to-community connections through expanded internships for students in local businesses and service learning opportunities with nonprofits, government agencies, and other community organizations.

- Actively promoting ("marketing") the county to students as a place to live as young adults. The charter schools and higher education institutes have many enrollees from outside Beaver County, who, through community outreach and participation in service projects, might form local connections that make them more likely to remain or return some day as residents.

- More actively communicating with the public (i.e., voters) about future possibilities for the county and how strengthening education and promoting county growth would impact them personally in positive ways (e.g., lowering taxes, increasing property values, bringing in more businesses and entertainment, etc.).

- Bringing diverse, cross-sector groups with substantive minority representation to the table to collaboratively establish goals, structures, and action strategies for Phase IV.

Phase IV Implementation: Driving Educational, Postsecondary, and Economic Success

This Phase III report is intended to provide information and ideas for strengthening education and spurring future community growth. Among the key takeaways from our analyses are:

- Having many school districts and LEAs working in isolation to serve relatively few students is inefficient.
- Conversely, many school board members believe that their districts are performing well and point to their small size as a strength to be preserved.
- The county population is aging and the tax base is declining.
- Many local employers are struggling to find qualified job applicants.
- Many families are choosing to live in neighboring counties because of the perception that the educational or career opportunities are better elsewhere.
- There is a lack of meaningful partnership and collaboration between the school districts, economic development, and the broader business community.
- There are salient concerns about equity, particularly for the lower-income districts that serve a larger minority population.
- The County Career and Technology Center is lauded by many as a key building block for preparing students to enter contemporary trades needed by the county.
- The QEC is viewed as a critical player in advancing and facilitating a proactive agenda for education in the county.
- Community College of Beaver County is viewed as a strength and is engaging with the business community to inform programming.
- Many county leaders and citizens perceive a great deal of activity but little county-wide coordination, thereby making it difficult to get anything accomplished.
- Generally, there is optimism about economic potential given the Shell plant locating in the county.

A Framework for Phase IV Actions

Our proposed framework for supporting education, with the goal of positively impacting development countywide, is depicted in Figure 7. The action sequence of steps, in turn, is shown in Figure 8. The primary components consist of:

- Establishing and communicating *community-owned expectations and goals*
- *Using collaborative governance* to inform and sustain effective initiatives
- *Using data* to quantify benchmarks, measure progress, and establish accountability
- *Implementing comprehensive programming* to align educational initiatives with community needs
- *Marketing educational and county assets* locally and regionally

Cautions are:

- Effective community change requires abandoning what is familiar and comfortable.
- Diverse stakeholders must participate to derive and own shared goals.
- Success requires enhanced community education (Inner and Middle Circles).

Figure 7
Phase IV framework for driving educational, postsecondary, and economic success

Commitment Device/Community-Owned Goal. We have learned that an urgent need for economic development in Beaver County is qualified applicants for unfilled jobs. Combining an overarching goal that the community "owns" with strong

cross-sector alliance can help ensure that long-term commitment to development is made to all sectors. Examples from other communities (see benchmarking profiles) include: postsecondary scholarship programs, job training programs with guaranteed employment, and incentives to reside or relocate to the county.

Collaborative governance. In order to achieve the community-owned goals, to improve education quality and the local economy, and to make Beaver County more attractive to potential residents, all sectors (education, higher education, business, government, philanthropy) need to be working together in an inter-dependent relationship. Establishing such collaborations will require putting structures and processes in place for the work to be sustained, and will necessitate a local facilitator or convener who is *not* employed by one of the partners. *The executive director of the Beaver County Partnership could be the person best positioned to serve in this role.*

Strategic Data Utilization. A dashboard of mutually agreed-upon data points that tie together economic and academic indicators is the lifeblood of sustained community-wide efforts. This dashboard serves both as a vehicle to identify short-term goals and as an accountability tool for the collective effort and the individual partners. Putting processes in place (*Root Cause Analysis)* to ensure that these data are utilized to inform decision making is critical early work necessary to sustain the effort.

Comprehensive programming. Equity and social justice have been a consistent underlying theme in our interviews. Working in a coordinated fashion across the county to put programming into place that builds upon student talents and strengths, aligns with community needs, and supports economic development countywide will help ensure that young people and talent are both drawn to Beaver County and remain in Beaver County.

Figure 8
Phase IV Focus Steps

Key Activities and Milestones

For developing the Phase IV Action Plan, we outline in the inserts below the four proposed *Focuses*.

Focus 1: Establishing the Conditions for Success

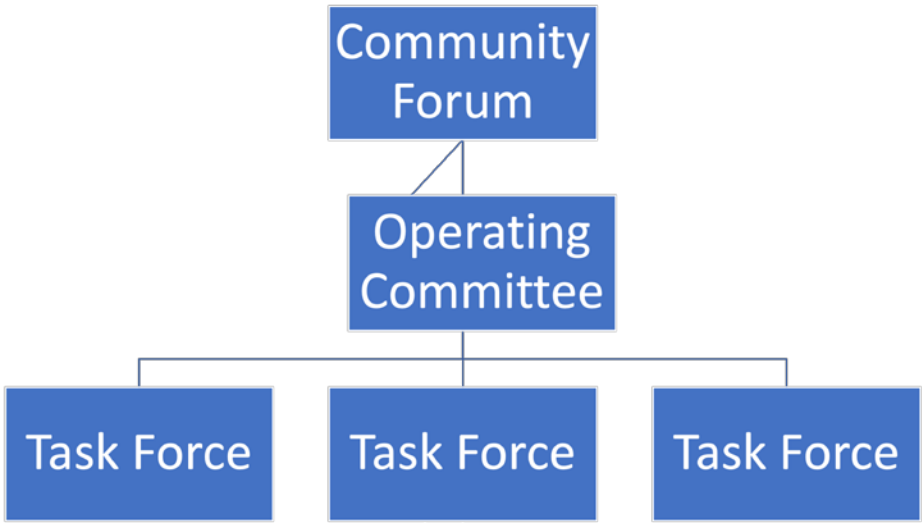
- Identify Community-Owned Goal
  - Identify incentives and commitment devices tied to the goal
- Communications
  - Develop strategy for ongoing support and information flow to community
- Cross-Sector Facilitation and Leadership Development
  - Work with three to five visible and respected Champions of the strategy
  - Establish the backbone function by identifying and building the capacity of the Executive Director for the effort
  - Establish the structures and processes for sustainability
- Cooperation with school districts
  - Engage in cross-sector discussions
  - Invite and encourage all LEAs to participate
  - Secure resources

Focus 2: Establish Collaborative Governance

- Facilitate the establishment of a structure including (see Figure 9):
  - an operating committee, that includes substantive minority membership, which meets regularly
  - leadership from all key stakeholder groups
  - a community forum that meets several times per year
  - task forces based on priority challenges that emerge in Phase III
- Facilitate the development of MOUs with all key partner agencies detailing roles and responsibilities (school districts, cities/towns, county, higher education, unions, economic development agencies, etc.)
- Facilitate the identification of a local backbone agency and point person facilitating and convening the process

Culminating product: Development of a collaborative governance structure and the signing of MOUs with all key partner agencies.

Figure 9
Phase IV recommended governance structure



Focus 3: Strategic Data Utilization

- Facilitate the development of a dashboard of key indicators that contribute to attaining the overarching goal
- Conduct value chain analysis of LEAs, Towns, and county as it relates to youth and family services in order to locate sustainable funding for programming
    - Identify redundant programs
    - Identify funding that is available to the community that may not currently be utilized (typically federal funding)
    - Identify opportunities for strategic braiding of funds and reallocation
- Convene and facilitate Task Forces initially based on key challenges that emerge
    - Facilitate Task Forces to utilize root cause analysis process in order to arrive at plans that address challenge
      Note: All plans go to the Operating Committee for approval and to ensure commitment of key partner agencies

Culminating product: Identification of a data dashboard that both guides the refinement of the work in the community and provides public transparency and accountability, and the identification of resources that will sustain the work of the partnership.

Focus 4: Comprehensive Programming

- Facilitate task forces to develop initial implementation plans using root-cause analysis protocol:
  - Hypothesize about why challenge exists
  - Test the three to four key hypotheses
  - Identify research-proven interventions that address key root causes
  - Develop implementation plan with emphasis on programs already existing in the community that can be scaled
  - Pilot test and refine the interventions
  - Deliver intervention at scale
  - Evaluate and refine based on lessons learned

Culminating product: Development (and process for continual refinement) of a roll-out plan that will attain the overarching goal.

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Appendix A: Interview Protocols

Interview Questions Bank
Benchmarking Interviews

1. What is your role/position in the (county government, school system, etc.)? What does this role entail?

2. Describe your impressions of school system here in (County Name)? I believe that there are [X] school districts.

    a. Are they successful overall? If so, in what ways; or why not?

    b. Are the districts similar or different in their characteristics and success?

    c. Has enrollment increased or decreased over time overall and in different districts? What are the causes of the increases/decreases?

3. Please describe the array of programs and services you provide to young people and schools districts in your county?

4. We selected [COUNTY NAME] for our benchmarking study because of its apparent success in education and population growth. In your opinion, what factors account for that success?
    a. Possible Prompts: New industry/jobs, Schools and higher education, Housing availability, Tax rates, Good government, Location, Low crime, etc.

5. Since you have been in your current role, how has the school system across (County Name) changed?

6. Please describe your role in facilitating collaboration between school districts in your county?

7. To what extent do the different school districts within your county plan together and coordinate resources? What strategies has (County Name) used to ensure that districts work together successfully?

    a. Have there been instances where school districts within the county consolidated schools or redistricted students? If so, what impact has that had on student success?

8. What strategies has your office used to enhance equity of opportunities for students across the different districts here in (County Name)?

9. What *resources* do you believe have been most important in helping your school system succeed?

10. What *district-wide practices or initiatives* do you believe have been most important in helping your school system succeed?

11. Please describe your relationship with non-academic providers of support (social/emotional, health/wellness) in your county?

12. During your tenure what have been the points or items to celebrate in your work at the IU?

13. What barriers has (County Name) encountered in leveraging these resources and practices? How was your leadership team able to overcome these barriers?

14. Is there anything that the IU has aspired to do to improve school effectiveness but hasn't yet been able to do? What have been the barriers? (probe about curriculum, resources, equity)?

15. Are there any specific things that you feel that your school system needs to do better? What strategies is (County Name) leveraging to address these issues?

16. During your tenure what have been the biggest lessons learned? Any insights on the leveraging of resources?

17. What advice or suggestions would you give to leadership personnel in other communities similar to yours who would like to try to replicate your success?

18. Please talk about you relationship with school districts in your county

19. If you had a "magic wand", what solutions would you put in place in Beaver County to improve schools and attract new residents?

Interview Questions Bank
Community Groups

Government officials/economic development personnel

1. How would you describe the economic health of Beaver County/your city?
2. What are the most pressing issues facing Beaver County/your city?

3. What is your overall impression of the schools in Beaver County/your community? Do you feel they prepare students well for higher education and careers?
4. How closely do you work with the school system? Please describe the relationship?
5. What are the assets or strengths the schools have to build upon?
6. Do you think resources could be better leveraged in Beaver County Schools? How?
7. What do you believe the schools need to do to support a vibrant future for your city/county?

Business Leaders

1. Please talk about your relationship with the schools in Beaver County? Do the schools prepare students well for working in local businesses?
2. How would you describe the economic health of Beaver County
3. What are the most pressing issues facing Beaver County and your industry?
4. Do your employees live in the community? Why or why not?
5. What is your overall impression of the schools in Beaver County/your community? Are young people prepared for life after high school?
6. What are the assets or strengths the schools have to build upon?
7. What do you believe the schools need to do to support a vibrant future for the community/county?

Parents

1. Why do you choose to live in Beaver County?
2. How do you feel about the education your child is receiving?
3. What are your hopes/dream for your child after high school?
4. Do you feel that your child is being prepared for that aspiration?
5. What would you suggest can be done to better support Beaver County young people and their future?

Charter School Parents

1. Why do you choose to live in Beaver County?
2. How do you feel about the education your child is receiving?
3. Why did you choose to have your child attend the charter school?
4. What are your hopes/dream for your child after high school?
5. Do you feel that your child is being prepared for that aspiration?
6. What would you suggest can be done to better support Beaver County young people and their future?

Community Based Organizations

1. Please talk about your relationship with the schools in Beaver County?
2. What are the strengths or assets we have to build on as we look to improve outcomes for young people?

3. Please talk about your view of the systems of support (academic, Social/Emotional/Health and wellness) that exist for young people and families in Beaver County.
4. What in your view needs to be done to improve these systems of support?
5. In an ideal world, how could your organization better be utilized to support young people in Beaver County?
6. Overall, what would you suggest can be done to better support Beaver County young people and their future?

Higher Education Leaders

1. Please talk about your relationship with the schools in Beaver County?
2. How much are finances a barrier to young people pursuing higher education? If this is an issue do you have any thoughts as to how this might be addressed?
3. How would you envision the relationship between your institution and the schools in Beaver County?
4. How prepared are Beaver County students that matriculate to your institution (academic, non-academic, postsecondary planning, financial planning)?
5. Is your institution utilized as a partner and resource by the schools?
6. What suggestions would you offer to improve outcomes for young people in Beaver County?

Philanthropic Leaders

1. Please talk about your relationship with the schools in Beaver County?
2. What are the strengths or assets we have to build on as we look to improve outcomes for young people?
3. Please talk about your view of the systems of support (academic, Social/Emotional/Health and wellness) that exist for young people and families in Beaver County/What are the most pressing issues that you are aware of?
4. What in your view needs to be done to improve these systems of support?
5. Do you think resources could be better leveraged in Beaver County? How?
6. Overall, what would you suggest can be done to better support Beaver County young people and their future?

Intermediate Units

- Please talk about you relationship with school districts in your county?
- Please describe the array of programs and services you provide to young people and schools districts in your county?
- Please describe your role in facilitating collaboration between school districts in your county?
- Please describe your relationship with non-academic providers of support (social/emotional, health/wellness) in your county?
- During your tenure what have been the points or items to celebrate in your work at the IU?

- During your tenure what have been the biggest lessons learned? Any insights on the leveraging of resources?

Students

1. What are your plans after high school? Did the schools play a role in nurturing your plans?
2. Did the schools recognize your strengths or talents?
3. When you complete your education, Do you want to live in Beaver County? Why or why not?
4. What do you believe are the biggest issues facing the schools in Beaver County?
5. As you reflect back on your schooling in Beaver County, what has been good/gone well?
6. As you reflect back on your schooling in Beaver County, what could be improved?

Community Interviews/Focus Groups

Open All Focus Groups with:

1. Expression of gratitude for attendees engagement
2. Introduction of team
3. Introduction of participants
4. Purpose of the meeting

Note: Please feel free to ask follow-up or clarifying questions . Generally, 5 questions will take about 60 minutes depending on the size of the group.

Focus Group
Service Providers & CBOs

7. Please talk about your relationship with the schools in Beaver County?
8. What are the strengths or assets we have to build on as we look to improve outcomes for young people?
9. Please talk about your view of the systems of support (academic, Social/Emotional/Health and wellness) that exist for young people and families in Beaver County.
10. What in your view needs to be done to improve these systems of support?
11. In an ideal world, how could your organization better be utilized to support young people in Beaver County?
12. Overall, what would you suggest can be done to better support Beaver County young people and their future?

Focus Group
Religious Organizations

1. Please talk about your relationship with the schools in Beaver County?

2. What are the strengths or assets we have to build on as we look to improve outcomes for young people?
3. What are the most significant issues facing families and young people in the community?
4. Do you see student strengths, talents or interests being recognized and developed in an organized fashion?
5. Please talk about your view of the systems of support (academic, Social/Emotional/Health and wellness) that exist for young people and families in Beaver County.
6. What in your view needs to be done to improve these systems of support?
7. In an ideal world, how could your organization better be utilized to support young people in Beaver County?
8. Overall, what would you suggest can be done to better support Beaver County young people and their future?

Focus Group
PTA Presidents

1. Why do you choose to live in Beaver County?
2. How do you feel about the education your child is receiving?
3. What are your hopes/dream for your child after high school?
4. Do you feel that your child is being prepared for that aspiration?
5. Do you see student strengths, talents or interests being recognized and developed in an organized fashion?
6. What are the strengths or assets we have to build on as we look to improve outcomes for young people?
7. What would you suggest can be done to better support Beaver County young people and their future?

Focus Group
Athletic Directors

1. Please talk about what makes Beaver County Unique.
2. What are the key strengths or assets we have to build on as we look to improve outcomes for young people?
3. Are these key assets being leveraged or utilized?
4. What are the biggest issues facing young people in Beaver County?
5. Please talk about your view of the systems of support (academic, Social/Emotional/Health and wellness) that exist for young people and families in Beaver County.
6. Overall, what would you suggest can be done to better support Beaver County young people and their future?

Focus Group
Students

1. What are your plans after high school? Did the schools play a role in nurturing your plans?
2. Did the schools recognize your strengths or talents?
3. When you complete your education, Do you want to live in Beaver County? Why or why not?
4. What do you believe are the biggest issues facing the schools in Beaver County?
5. As you reflect back on your schooling in Beaver County, what has been good/gone well?
6. As you reflect back on your schooling in Beaver County, what could be improved?

Focus Group
Open Forum

1. Please talk about what makes Beaver County special?
2. What are the strengths or assets we have to build on as we look to improve outcomes for young people?
3. What are the most significant issues facing the community?
4. What are the most significant issues facing families and young people in the community?
5. Overall, what would you suggest can be done to better support Beaver County young people and their future?

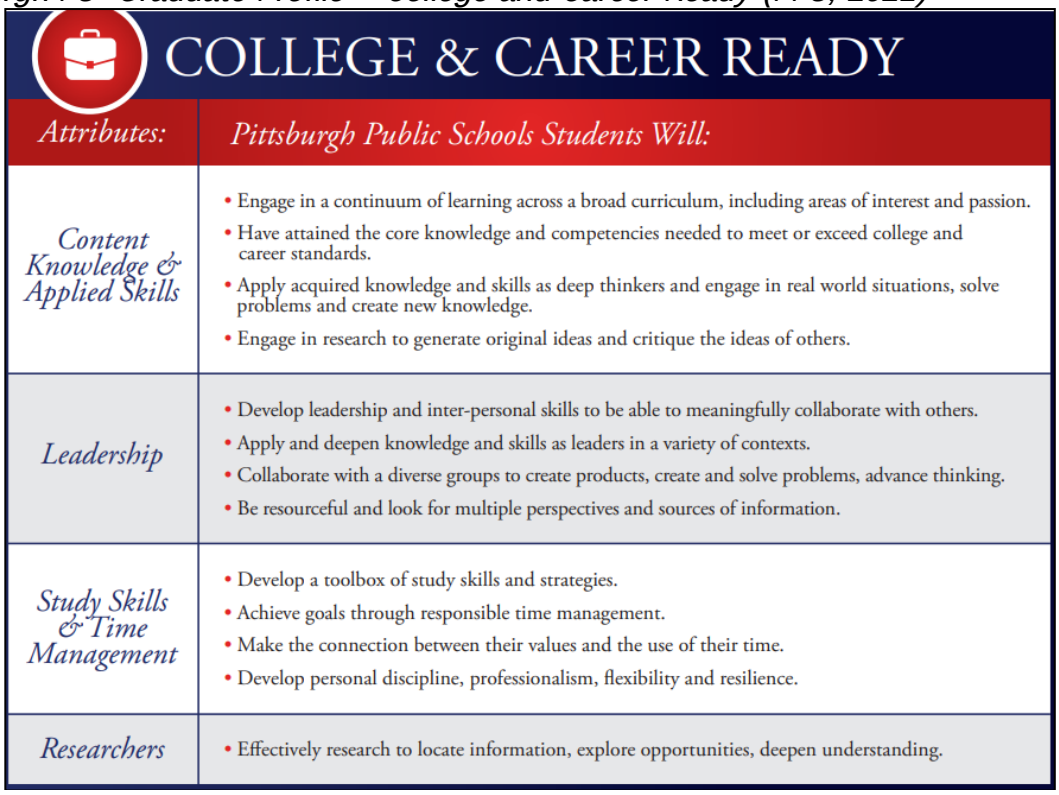
Focus Group
Union Leadership

1. Please talk about what makes Beaver County Unique.
2. What are the key strengths or assets we have to build on as we look to improve outcomes for young people?
3. Are these key assets being leveraged or utilized?
4. What are the biggest issues facing young people in Beaver County?
5. Please talk about your view of the systems of support (academic, Social/Emotional/Health and wellness) that exist for young people and families in Beaver County.
6. Overall, what would you suggest can be done to better support Beaver County young people and their future?

Appendix B: Pittsburgh Public Schools Graduate Profile

Figure B.1

Pittsburgh PS "Graduate Profile"—College and Career Ready (PPS, 2021)

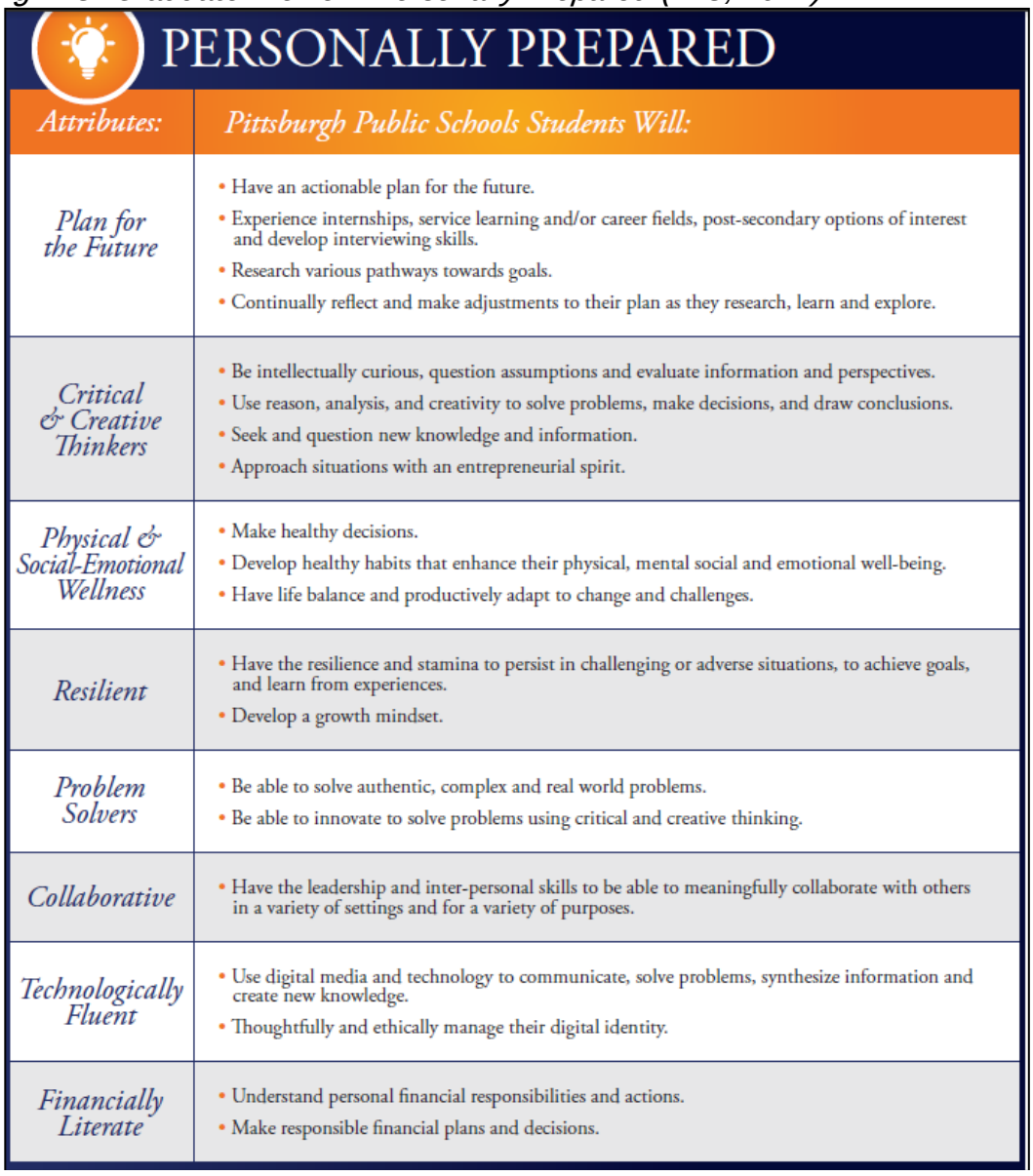


COLLEGE & CAREER READY

Attributes:	*Pittsburgh Public Schools Students Will:*
Content Knowledge & Applied Skills	• Engage in a continuum of learning across a broad curriculum, including areas of interest and passion. • Have attained the core knowledge and competencies needed to meet or exceed college and career standards. • Apply acquired knowledge and skills as deep thinkers and engage in real world situations, solve problems and create new knowledge. • Engage in research to generate original ideas and critique the ideas of others.
Leadership	• Develop leadership and inter-personal skills to be able to meaningfully collaborate with others. • Apply and deepen knowledge and skills as leaders in a variety of contexts. • Collaborate with a diverse groups to create products, create and solve problems, advance thinking. • Be resourceful and look for multiple perspectives and sources of information.
Study Skills & Time Management	• Develop a toolbox of study skills and strategies. • Achieve goals through responsible time management. • Make the connection between their values and the use of their time. • Develop personal discipline, professionalism, flexibility and resilience.
Researchers	• Effectively research to locate information, explore opportunities, deepen understanding.

Figure B.2

Pittsburgh PS "Graduate Profile"—Personally Prepared (PPS, 2021)

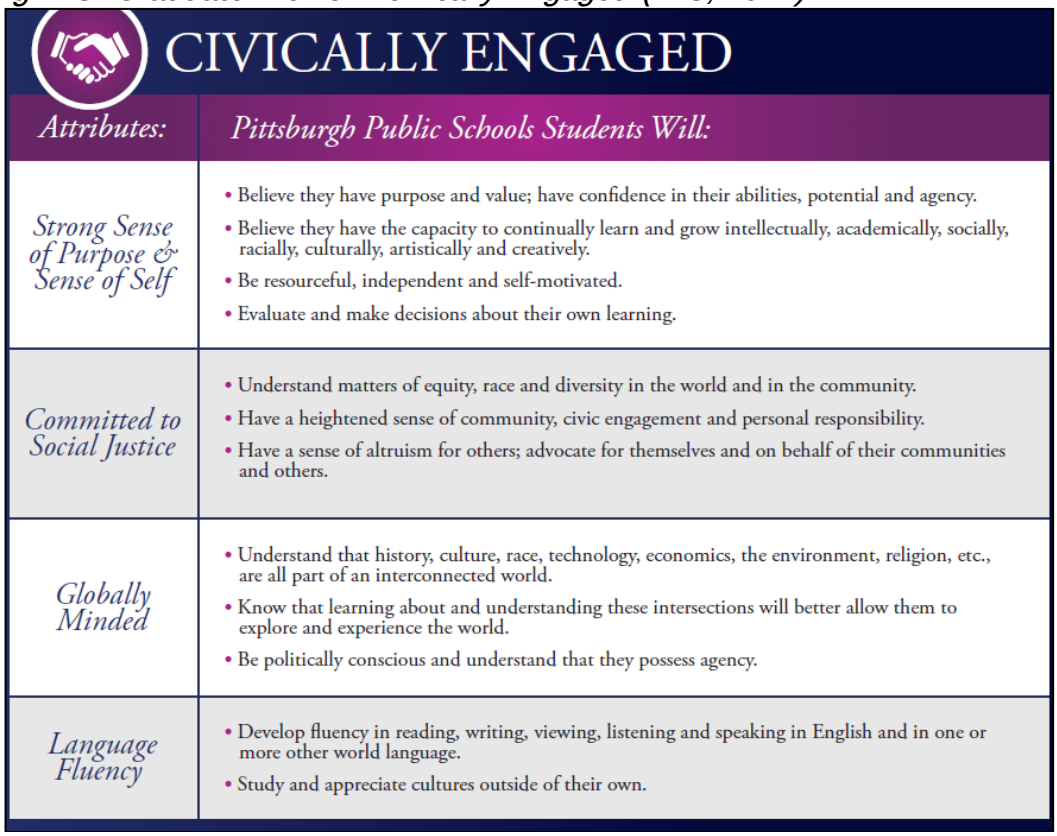


PERSONALLY PREPARED

Attributes:	*Pittsburgh Public Schools Students Will:*
Plan for the Future	• Have an actionable plan for the future. • Experience internships, service learning and/or career fields, post-secondary options of interest and develop interviewing skills. • Research various pathways towards goals. • Continually reflect and make adjustments to their plan as they research, learn and explore.
Critical & Creative Thinkers	• Be intellectually curious, question assumptions and evaluate information and perspectives. • Use reason, analysis, and creativity to solve problems, make decisions, and draw conclusions. • Seek and question new knowledge and information. • Approach situations with an entrepreneurial spirit.
Physical & Social-Emotional Wellness	• Make healthy decisions. • Develop healthy habits that enhance their physical, mental social and emotional well-being. • Have life balance and productively adapt to change and challenges.
Resilient	• Have the resilience and stamina to persist in challenging or adverse situations, to achieve goals, and learn from experiences. • Develop a growth mindset.
Problem Solvers	• Be able to solve authentic, complex and real world problems. • Be able to innovate to solve problems using critical and creative thinking.
Collaborative	• Have the leadership and inter-personal skills to be able to meaningfully collaborate with others in a variety of settings and for a variety of purposes.
Technologically Fluent	• Use digital media and technology to communicate, solve problems, synthesize information and create new knowledge. • Thoughtfully and ethically manage their digital identity.
Financially Literate	• Understand personal financial responsibilities and actions. • Make responsible financial plans and decisions.

Figure B.3

Pittsburgh PS "Graduate Profile"—Civically Engaged (PPS, 2021)



CIVICALLY ENGAGED

Attributes:	*Pittsburgh Public Schools Students Will:*
Strong Sense of Purpose & Sense of Self	• Believe they have purpose and value; have confidence in their abilities, potential and agency. • Believe they have the capacity to continually learn and grow intellectually, academically, socially, racially, culturally, artistically and creatively. • Be resourceful, independent and self-motivated. • Evaluate and make decisions about their own learning.
Committed to Social Justice	• Understand matters of equity, race and diversity in the world and in the community. • Have a heightened sense of community, civic engagement and personal responsibility. • Have a sense of altruism for others; advocate for themselves and on behalf of their communities and others.
Globally Minded	• Understand that history, culture, race, technology, economics, the environment, religion, etc., are all part of an interconnected world. • Know that learning about and understanding these intersections will better allow them to explore and experience the world. • Be politically conscious and understand that they possess agency.
Language Fluency	• Develop fluency in reading, writing, viewing, listening and speaking in English and in one or more other world language. • Study and appreciate cultures outside of their own.

Appendix C: CIRC Classrooms, Butler County

Figure C.1

CIRC Classroom in Butler County (Seneca Valley SD)

Figure C.2
CIRC Classroom in Butler County (Seneca Valley SD)

Appendix D: Benchmarking School District Data

This section provides district-by-district school data, achievement data, and demographic characteristics for each of the school districts located within the benchmarking communities as well as those within Beaver County. Data on home values, median household incomes, and other assorted values are also provided. These data are based on the primary zip code within each school district. Data were pulled from multiple sources, including State DoE repositories, the US Census Bureau, and the Niche National School District Database.

Table D.1
Beaver County School Districts—Part I

	Aliquippa School District	Ambridge Area School District	Beaver Area School District	Big Beaver Falls Area School District
Student Enrollment	1010	2397	2005	1710
Elementary schools	1	3	2	2
Middle schools	0	1	1	1
High schools	1	1	1	1
Reading Proficiency 3rd, 8th, 10th	29%	58%	80%	52%
Math Proficiency 3rd-8th, 10th	13%	35%	68%	27%
FRL	96.6%	39.0%	16.7%	97.2%
Student-Teacher Ratio	12	14	16	14
Average Teacher Salary	$67597	$71768	$68834	$66149
% First or Second Year Teachers	4.2%	0.0%	11.3%	3.3%
Expenses Per Student	$21653	$20337	$14130	$15518
Median Household Income	$31985	$41377	$37348	$32899
Median Rent	$643	$697	$544	$631
Median Home Value	$75800	$71400	$135600	$70600

Table D.2
Beaver County School Districts—Part II

	Blackhawk School District	Central Valley School District	Freedom Area School District
Student Enrollment	2322	2302	1322
Elementary schools	3	2	1
Middle schools	1	1	1
High schools	1	1	1
Reading Proficiency 3rd, 8th, 10th	72%	72%	58%
Math Proficiency 3rd-8th, 10th	59%	54%	42%
FRL	26.7%	27.8%	47.5%
Student-Teacher Ratio	15	15	14
Average Teacher Salary	$74706	$78092	$64169
% First or Second Year Teachers	4.1%	6.9%	10.2%
Expenses Per Student	$15418	$15611	$15668
Median Household Income	$93750	$80982	$60350
Median Rent	$769	$956	$992
Median Home Value	$197100	$175200	$183200

Table D.3
Beaver County School Districts—Part III

	Hopewell Area School District	New Brighton Area School District	Riverside Beaver County
Student Enrollment	2109	1360	1429
Elementary schools	3	1	1
Middle schools	1	1	1
High schools	1	1	1
Reading Proficiency 3rd, 8th, 10th	67%	59%	75%
Math Proficiency 3rd-8th, 10th	48%	34%	54%
FRL	31.5%	75.6%	33.9%
Student-Teacher Ratio	14	13	15
Average Teacher Salary	$79784	$69464	$78505
% First or Second Year Teachers	6.0%	5.1%	0.7%
Expenses Per Student	$18776	$15859	$15651
Median Household Income	$67109	$48125	$72308
Median Rent	$1041	$576	$734
Median Home Value	$138400	$87200	$149300

Table D.4
Beaver County School Districts—Part IV

	Rochester Area School District	South Side Area School District	Western Beaver County School District
Student Enrollment	698	979	757
Elementary schools	1	1	1
Middle schools	1	1	1
High schools	1	1	1
Reading Proficiency 3rd, 8th, 10th	59%	72%	71%
Math Proficiency 3rd-8th, 10th	31%	52%	50%
FRL	84.7%	21.2%	39.5%
Student-Teacher Ratio	11	12	14
Average Teacher Salary	$70294	$79083	$69857
% First or Second Year Teachers	1.4%	11.6%	2.2%
Expenses Per Student	$23106	$20962	$17293
Median Household Income	$57807	$70833	$66129
Median Rent	$698	$1104	$689
Median Home Value	$141100	$215400	$150700

Table D.5
Allegan County School Districts—Part I

	Allegan Public Schools	Fennville Public Schools	Hopkins Public Schools	Martin Public Schools
Student Enrollment	2423	1305	1657	613
Elementary schools	5	1	2	1
Middle schools	1	1	1	0
High schools	2	1	1	1
Reading Proficiency 3rd, 8th, 10th	44%	34%	57%	51%
Math Proficiency 3rd-8th, 10th	34%	27%	54%	39%
FRL	54.5%	74.7%	34.3%	51.5%
Student-Teacher Ratio	18	17	19	17
Average Teacher Salary	$56713	$52541	$52896	$49870
% First or Second Year Teachers	6.3%	20.9%	19.8%	16.3%
Expenses Per Student	$10495	$11238	$9930	$13889
Median Household Income	$45722	$52850	$65455	$49750
Median Rent	$835	$741	$670	$625
Median Home Value	$122100	$97900	$123500	$115700

Table D.6
Allegan County School Districts—Part II

	Otsego Public Schools	Plainwell CS	Wayland Union Schools
Student Enrollment	2330	2815	3054
Elementary schools	3	3	3
Middle schools	1	1	2
High schools	1	1	1
Reading Proficiency 3rd, 8th, 10th	67%	58%	56%
Math Proficiency 3rd-8th, 10th	52%	48%	56%
FRL	32.0%	33.5%	40.1%
Student-Teacher Ratio	18	19	19
Average Teacher Salary	$55491	$54745	$53847
% First or Second Year Teachers	1.6%	3.7%	10.5%
Expenses Per Student	$9702	$9989	$10395
Median Household Income	$46446	$59449	$54886
Median Rent	$727	$687	$779
Median Home Value	$116700	$131400	$126400

Table D.7
Butler County School Districts—Part I

	Butler Area School District	Karns City Area School District	Mars Area School District	Moniteau School District
Student Enrollment	6291	1363	3402	1232
Elementary schools	6	2	2	1
Middle schools	2	0	2	0
High schools	1	1	1	1
Reading Proficiency 3rd, 8th, 10th	69%	68%	85%	65%
Math Proficiency 3rd-8th, 10th	52%	47%	66%	46%
FRL	38.6%	39.8%	5.6%	45.1%
Student-Teacher Ratio	14	13	17	14
Average Teacher Salary	$15376	$72445	$65933	$66034
% First or Second Year Teachers	3.4%	3.8%	7.8%	5.5%
Expenses Per Student	$15376	$15690	$14367	$14967
Median Household Income	$64995	$72260	$128484	$61875
Median Rent	$885	$633	$1803	$746
Median Home Value	$165000	$151200	$396500	$168800

Table D.8
Butler County School Districts—Part II

	Seneca Valley School District	Slippery Rock Area School District	South Butler County School District
Student Enrollment	7247	1953	2243
Elementary schools	4	2	2
Middle schools	3	1	1
High schools	1	1	1
Reading Proficiency 3rd, 8th, 10th	79%	75%	70%
Math Proficiency 3rd-8th, 10th	63%	61%	51%
FRL	12.4%	33.8%	25.6%
Student-Teacher Ratio	14	14	15
Average Teacher Salary	$81558	$70344	$65870
% First or Second Year Teachers	5.5%	10.4%	3.0%
Expenses Per Student	$16661	$14382	$13580
Median Household Income	$87813	$50606	$61543
Median Rent	$1068	$747	$1049
Median Home Value	$240700	$194400	$218300

Table D.9
Cameron County School Districts—Part I

	Brownsville ISD	Harlingen Consolidated ISD	La Feria ISD
Student Enrollment	44402	18365	3320
Elementary schools	37	17	3
Middle schools	12	6	2
High schools	9	7	1
Reading Proficiency 3rd, 8th, 10th	47%	46%	39%
Math Proficiency 3rd-8th, 10th	56%	53%	52%
FRL	95.9%	77.0%	84.0%
Student-Teacher Ratio	15	15	15
Average Teacher Salary	$53378	$52128	$53400
% First or Second Year Teachers	6.7%	10.6%	9.2%
Expenses Per Student	$10803	$11393	$10656
Median Household Income	$38588	$39752	$32011
Median Rent	$736	$737	$704
Median Home Value	$90000	$87500	$55600

Table D.10
Cameron County School Districts—Part II

	Los Fresnos Consolidated ISD	Point Isabel ISD	San Benito Consolidated ISD
Student Enrollment	10739	2352	10520
Elementary schools	9	2	11
Middle schools	3	1	4
High schools	1	1	2
Reading Proficiency 3rd, 8th, 10th	54%	41%	37%
Math Proficiency 3rd-8th, 10th	64%	38%	45%
FRL	77.2%	87.4%	84.0%
Student-Teacher Ratio	16	16	16
Average Teacher Salary	$49257	$52116	$46949
% First or Second Year Teachers	5.6%	15.0%	14.3%
Expenses Per Student	$9877	$17976	$10692
Median Household Income	$45677	$32598	$27460
Median Rent	$863	$724	$703
Median Home Value	$105400	$108500	$57000

Table D.11
Cameron County School Districts—Part III

	Rio Hondo ISD	Santa Maria ISD	Santa Rosa ISD
Student Enrollment	1907	636	1107
Elementary schools	2	1	1
Middle schools	1	1	1
High schools	1	1	1
Reading Proficiency 3rd, 8th, 10th	38%	26%	40%
Math Proficiency 3rd-8th, 10th	39%	27%	45%
FRL	86.7%	97.1%	86.5
Student-Teacher Ratio	14	11	13
Average Teacher Salary	$51475	$34444	$45297
% First or Second Year Teachers	9.0%	35.9%	5.0%
Expenses Per Student	$14079	$14745	13038
Median Household Income	$35143	$30694	38758
Median Rent	$664	$583	733
Median Home Value	$69500	$34100	$85800

Table D.12
Dauphin County School Districts—Part I

	Central Dauphin SD	Derry Township SD	Halifax Area SD	Harrisburg City SD
Student Enrollment	11996	3492	956	6540
Elementary schools	13	3	2	5
Middle schools	4	1	1	4
High schools	2	1	1	2
Reading Proficiency 3rd, 8th, 10th	59%	82%	67%	23%
Math Proficiency 3rd-8th, 10th	42%	67%	43%	12%
FRL	45.5%	11.0%	30.3%	77.7%
Student-Teacher Ratio	15	13	11	14
Average Teacher Salary	$71336	$71969	$64811	$72321
% First or Second Year Teachers	7.3%	4.7%	4.9%	8.8%
Expenses Per Student	$16224	$17556	$22435	$24189
Median Household Income	$52306	$69688	$53995	$39685
Median Rent	$1055	$1058	$727	$856
Median Home Value	$157100	$272100	$168800	$80800

Table D.13
Dauphin County School Districts—Part II

	Lower Dauphin SD	Middletown Area SD	Millersburg Area SD
Student Enrollment	3667	2395	785
Elementary schools	5	3	1
Middle schools	1	1	1
High schools	1	1	1
Reading Proficiency 3rd, 8th, 10th	72%	56%	65%
Math Proficiency 3rd-8th, 10th	55%	40%	52%
FRL	23.5%	54.9%	30.3%
Student-Teacher Ratio	13	13	12
Average Teacher Salary	$68297	$65292	$67092
% First or Second Year Teachers	6.3%	8.4%	1.1%
Expenses Per Student	$15657	$19920	$18189
Median Household Income	$60318	$51759	$51324
Median Rent	$763	$941	$641
Median Home Value	$217300	$119700	$101300

Table D.14
Dauphin County School Districts—Part III

	Steelton-Highspire SD	Susquehanna Township SD	Upper Dauphin Area SD
Student Enrollment	1344	2884	1122
Elementary schools	1	2	1
Middle schools	0	1	1
High schools	1	1	1
Reading Proficiency 3rd, 8th, 10th	21%	49%	63%
Math Proficiency 3rd-8th, 10th	6%	32%	40%
FRL	99.7%	47.9%	43.9%
Student-Teacher Ratio	15	14	17
Average Teacher Salary	$63150	$70921	$87570
% First or Second Year Teachers	11.6%	17.9%	12.0%
Expenses Per Student	$14476	$17352	$16167
Median Household Income	$61758	$68674	$63611
Median Rent	$1058	$1123	$626
Median Home Value	$155000	$16600	$139100

Table D.15
The Pittsburgh Public School District

	Pittsburgh Public Schools
Student Enrollment	22,665
Elementary schools	41
Middle schools	26
High schools	12
Reading Proficiency 3rd, 8th, 10th	49%
Math Proficiency 3rd-8th, 10th	31%
FRL	64.7%
Student-Teacher Ratio	12
Average Teacher Salary	$82,012
% First or Second Year Teachers	4.6%
Expenses Per Student	$29015
Median Household Income	$12483
Median Rent	$954
Median Home Value	$265256

Table D.16
York County School Districts—Part I

	Central York SD	Dallastown Area SD	Dover Area SD	Eastern York SD
Student Enrollment	5745	6360	3516	2412
Elementary schools	5	6	4	3
Middle schools	1	1	1	1
High schools	1	1	1	1
Reading Proficiency 3rd, 8th, 10th	61%	72%	63%	75%
Math Proficiency 3rd-8th, 10th	35%	52%	51%	58%
FRL	28.1%	30.4%	39.2%	42.1%
Student-Teacher Ratio	15	16	15	14
Average Teacher Salary	$73622	$100575	$76296	$75851
% First or Second Year Teachers	6.5%	5.7%	10.1%	5.0%
Expenses Per Student	$14706	$15605	$16037	$16496
Median Household Income	$64595	$69451	$76618	$54205
Median Rent	$1081	$1041	$894	$842
Median Home Value	$174200	$191900	$147300	$120400

Table D.17
York County School Districts—Part II

	Hanover Public SD	Northeastern SD	Northern York County SD	Red Lion Area SD
Student Enrollment	1990	3881	3224	5087
Elementary schools	3	6	4	7
Middle schools	1	1	1	1
High schools	1	1	1	1
Reading Proficiency 3rd, 8th, 10th	62%	73%	69%	60%
Math Proficiency 3rd-8th, 10th	45%	57%	46%	46%
FRL	61.0%	36.6%	22.6%	36.3%
Student-Teacher Ratio	16	15	15	15
Average Teacher Salary	$77705	$78718	$63724	$72809
% First or Second Year Teachers	13.4%	0.8%	10.1%	6.8%
Expenses Per Student	$16093	$16,720	$14878	$15609
Median Household Income	$51909	$60459	$96090	$82736
Median Rent	$843	$882	$937	$1166
Median Home Value	$155300	$126400	$244200	$197300

Table D.18
York County School Districts—Part III

	South Eastern SD	South Western SD	Southern York County SD	Spring Grove Area SD
Student Enrollment	2516	4247	2964	3924
Elementary schools	3	4	3	3
Middle schools	2	1	1	2
High schools	1	1	1	1
Reading Proficiency 3rd, 8th, 10th	70%	67%	73%	74%
Math Proficiency 3rd-8th, 10th	52%	53%	54%	59%
FRL	27.8%	22.6%	21.1%	35.9%
Student-Teacher Ratio	12	15	15	16
Average Teacher Salary	$74898	$74147	$80197	$79150
% First or Second Year Teachers	4.9%	12.8%	3.0%	2.8%
Expenses Per Student	$18940	$14417	$16361	$16381
Median Household Income	$76528	$65496	$86209	$53625
Median Rent	$894	$1138	$1275	$937
Median Home Value	$235500	$155300	$237000	$165500

Table D.19
York County School Districts—Part IV

	West Shore SD	West York Area SD	York City SD	York Suburban SD
Student Enrollment	7731	2936	6389	3094
Elementary schools	9	3	8	4
Middle schools	3	1	8	1
High schools	2	1	1	1
Reading Proficiency 3rd, 8th, 10th	66%	57%	25%	78%
Math Proficiency 3rd-8th, 10th	49%	37%	11%	59%
FRL	31.8%	47.8%	22.9%	30.5%
Student-Teacher Ratio	15	14	16	14
Average Teacher Salary	$72154	$74219	$73264	$84506
% First or Second Year Teachers	4.3%	1.6%	12.4%	1.0%
Expenses Per Student	$13560	$19602	$22673	$19106
Median Household Income	$80683	$62241	$33906	$61300
Median Rent	$992	$1013	$846	$1313
Median Home Value	$222700	$164700	$75900	$154500

Appendix E: Benchmarking Economic and Workforce Profiles

This section provides county-by-county economic and workforce profiles for each of the benchmarking communities. All data was pulled from the Asia Society's *Mapping the Nation* Database (2021). Data is aggregated at the U.S. county level. Allegheny County (PA) is provided for purposes of summarizing data for Pittsburgh (PA).

Table E.1
Beaver County (PA) Economic Profile—Estimated Sales Value of Imports and Exports of Goods

Estimated Sales Value of Imports & Exports of Goods	
Total	$252,818,766
Foreign-Owned Companies	$235,318,766
U.S.-Owned Companies	$17,500,000
Estimated Value of Exports	
Chemicals, Plastics, & Rubber Products	$278,908,445
Computers, Electronics, & Electrical Equipment	$55,145,368
Crops, Animals, & Marine Products	$2,542,744
Food & Beverages	$242,085
Forestry & Wood Products	$44,742
Machinery	$13,130,917
Metals & Metal Products	$292,968,373
Miscellaneous Goods	$9,489,704
Oil, Gas, Minerals, & Ores	$8,700,077
Paper, Printing, & Related Products	$398,929
Petroleum, Coal, & Nonmetallic Mineral Products	$86,118,905
Textiles, Apparel, & Leather Products	$1,436,199
Transportation Equipment	$132,008
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$937,053
# of International Scholars at Higher Education Institutions	0
# of International Students (Undergraduate & Graduate) at Higher Education Institutions	31

Table E.2
Beaver County (PA) Economic Profile—Jobs, Companies, and Workforce

Economic Indicator	
% of Total Population that is Foreign Born (2011 Estimate)	1.76%
Total Employees at Companies Importing & Exporting Goods	1,935
Total Estimated Sales Value of Imports & Exports of Goods	$252,818,766
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$937,053
Total Jobs Related to Services Exports	528
# of Individuals Speaking a Language other than English at Home	6,658
Post-Secondary Language Enrollment: Total Students	217
Total Number of Companies Importing & Exporting Goods	31
Foreign-Owned Companies: Total #	22
U.S.-Owned Companies: Total #	9
Total Employees at Companies Importing & Exporting Goods	1,935
Employees: Foreign-Owned Companies	1,762
Employees: U.S.-Owned Companies	173

Table E.3
Beaver County (PA) Economic Profile—Jobs and Value of Services Exports

Jobs Related to Services Exports	
Total Jobs	528
Business, Professional, & Technical Services	206.5932
Financial Services	4.7304
Insurance Services	0.8651
Installation, Maintenance, & Repair	42.3906
Royalties	29.5679
Telecommunications, Computer, & Information Services	0.88
Transportation Services	7.5298
Travel Services	235.8403
Value of Services Exports	
Business, Professional, & Technical Services	$54,615,420
Financial Services	$1,246,512
Insurance Services	$232,899
Installation, Maintenance, & Repair	$13,461,839
Royalties	$22,900,033
Telecommunications, Computer, & Information Services	$541,138
Transportation Services	$3,245,070
Travel Services	$29,383,153

Table E.4
Allegan County (MI) Economic Profile—Estimated Sales Value of Imports and Exports of Goods

Estimated Sales Value of Imports & Exports of Goods	
Total	$3,209,219,000
Foreign-Owned Companies	$5,590,000
U.S.-Owned Companies	$3,203,629,000
Estimated Value of Exports	
Chemicals, Plastics, & Rubber Products	$713,667,939
Computers, Electronics, & Electrical Equipment	$32,272,697
Crops, Animals, & Marine Products	$42,389,776
Food & Beverages	$169,917,655
Forestry & Wood Products	$3,589,624
Machinery	$112,818,414
Metals & Metal Products	$95,542,199
Miscellaneous Goods	$53,924,064
Oil, Gas, Minerals, & Ores	$271,018,716
Paper, Printing, & Related Products	$11,152,802
Petroleum, Coal, & Nonmetallic Mineral Products	$4,887,910
Textiles, Apparel, & Leather Products	$181,116
Transportation Equipment	$30,424,437
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$0
# of International Scholars at Higher Education Institutions	0
# of International Students (Undergraduate & Graduate) at Higher Education Institutions	0

Table E.5
Allegan County (MI) Economic Profile—Jobs, Companies, and Workforce

Economic Indicator	
% of Total Population that is Foreign Born (2011 Estimate)	3.31%
Total Employees at Companies Importing & Exporting Goods	11,477
Total Estimated Sales Value of Imports & Exports of Goods	$3,209,219,000
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$0
Total Jobs Related to Services Exports	270
# of Individuals Speaking a Language other than English at Home	6,346
Post-Secondary Language Enrollment: Total Students	0
Total number of Companies Importing & Exporting Goods	10
Foreign-Owned Companies: Total #	5
U.S.-Owned Companies: Total #	5
Total Employees at Companies Importing & Exporting Goods	11,477
Employees: Foreign-Owned Companies	36
Employees: U.S.-Owned Companies	11,441

Table E.6
Allegan County (MI) Economic Profile—Jobs and Value of Services Exports

Jobs Related to Services Exports	
Total Jobs	270
Business, Professional, & Technical Services	49.7163
Financial Services	0.7731
Insurance Services	0.4761
Installation, Maintenance, & Repair	31.0345
Royalties	99.9006
Telecommunications, Computer, & Information Services	0.1769
Transportation Services	3.8642
Travel Services	84.2403
Value of Services Exports	
Business, Professional, & Technical Services	$14,335,795
Financial Services	$202,032
Insurance Services	$128,184
Installation, Maintenance, & Repair	$9,855,522
Royalties	$55,139,299
Telecommunications, Computer, & Information Services	$70,267
Transportation Services	$1,529,937
Travel Services	$10,495,436

Table E.7
Butler County (PA) Economic Profile—Estimated Sales Value of Imports and Exports of Goods

Estimated Sales Value of Imports & Exports of Goods	
Total	$666,631,000
Foreign-Owned Companies	$90,830,000
U.S.-Owned Companies	$575,801,000
Estimated Value of Exports	
Chemicals, Plastics, & Rubber Products	$220,565,635
Computers, Electronics, & Electrical Equipment	$164,980,961
Crops, Animals, & Marine Products	$4,937,560
Food & Beverages	$834,587
Forestry & Wood Products	$4,794,956
Machinery	$74,285,109
Metals & Metal Products	$227,047,631
Miscellaneous Goods	$96,651,039
Oil, Gas, Minerals, & Ores	$18,942,746
Paper, Printing, & Related Products	$14,788,470
Petroleum, Coal, & Nonmetallic Mineral Products	$150,302,021
Textiles, Apparel, & Leather Products	$197,112
Transportation Equipment	$14,187,339
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$2,503,737
# of International Scholars at Higher Education Institutions	5
# of International Students (Undergraduate & Graduate) at Higher Education Institutions	105

Table E.8
Butler County (PA) Economic Profile—Jobs, Companies, and Workforce

Economic Indicator	
% of Total Population that is Foreign Born (2011 Estimate)	1.98%
Total Employees at Companies Importing & Exporting Goods	7,772
Total Estimated Sales Value of Imports & Exports of Goods	$666,631,000
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$2,503,737
Total Jobs Related to Services Exports	847
# of Individuals Speaking a Language other than English at Home	5,753
Post-Secondary Language Enrollment: Total Students	635
Total number of Companies Importing & Exporting Goods	49
Foreign-Owned Companies: Total #	33
U.S.-Owned Companies: Total #	16
Total Employees at Companies Importing & Exporting Goods	7,772
Employees: Foreign-Owned Companies	489
Employees: U.S.-Owned Companies	7,283

Table E.9
Butler County (PA) Economic Profile—Jobs and Value of Services Exports

Jobs Related to Services Exports	
Total Jobs	847
Business, Professional, & Technical Services	307.3475
Financial Services	7.6983
Insurance Services	21.4283
Installation, Maintenance, & Repair	67.1699
Royalties	61.9505
Telecommunications, Computer, & Information Services	53.9626
Transportation Services	9.6717
Travel Services	317.8808
Value of Services Exports	
Business, Professional, & Technical Services	$65,205,470
Financial Services	$2,024,815
Insurance Services	$5,768,854
Installation, Maintenance, & Repair	$21,330,889
Royalties	$42,155,974
Telecommunications, Computer, & Information Services	$29,553,738
Transportation Services	$3,526,301
Travel Services	$39,604,511

Table E.10
Cameron County (TX) Economic Profile—Estimated Sales Value of Imports and Exports of Goods

Estimated Sales Value of Imports & Exports of Goods	
Total	$398,551,083
Foreign-Owned Companies	$304,981,083
U.S.-Owned Companies	$93,570,000
Estimated Value of Exports	
Chemicals, Plastics, & Rubber Products	$16,207,376
Computers, Electronics, & Electrical Equipment	$260,588,791
Crops, Animals, & Marine Products	$26,630,104
Food & Beverages	$24,648,716
Forestry & Wood Products	$114,786
Machinery	$122,338,680
Metals & Metal Products	$87,637,727
Miscellaneous Goods	$70,418,822
Oil, Gas, Minerals, & Ores	$246,099
Paper, Printing, & Related Products	$28,237,418
Petroleum, Coal, & Nonmetallic Mineral Products	$38,796,846
Textiles, Apparel, & Leather Products	$22,394,574
Transportation Equipment	$528,360,574
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$12,545,547
# of International Scholars at Higher Education Institutions	0
# of International Students (Undergraduate & Graduate) at Higher Education Institutions	452

Table E.11
Cameron County (TX) Economic Profile—Jobs, Companies, and Workforce

Economic Indicator	
% of Total Population that is Foreign Born (2011 Estimate)	25.02%
Total Employees at Companies Importing & Exporting Goods	3,223
Total Estimated Sales Value of Imports & Exports of Goods	$398,551,083
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$12,545,547
Total Jobs Related to Services Exports	1,396
# of Individuals Speaking a Language other than English at Home	266,364
Post-Secondary Language Enrollment: Total Students	2,105
Total number of Companies Importing & Exporting Goods	87
Foreign-Owned Companies: Total #	62
U.S.-Owned Companies: Total #	25
Total Employees at Companies Importing & Exporting Goods	3,223
Employees: Foreign-Owned Companies	2,224
Employees: U.S.-Owned Companies	999

Table E.12
Cameron County (TX) Economic Profile—Jobs and Value of Services Exports

Jobs Related to Services Exports	
Total Jobs	1,396
Business, Professional, & Technical Services	162.8293
Financial Services	91.2106
Insurance Services	18.5049
Installation, Maintenance, & Repair	136.4233
Royalties	8.0358
Telecommunications, Computer, & Information Services	6.5806
Transportation Services	90.5031
Travel Services	881.4391
Value of Services Exports	
Business, Professional, & Technical Services	$26,870,842
Financial Services	$24,032,962
Insurance Services	$4,981,807
Installation, Maintenance, & Repair	$43,323,442
Royalties	$17,478,227
Telecommunications, Computer, & Information Services	$5,047,003
Transportation Services	$67,755,893
Travel Services	$109,817,773

Table E.13
Dauphin County (PA) Economic Profile—Estimated Sales Value of Imports and Exports of Goods

Estimated Sales Value of Imports & Exports of Goods	
Total	$5,960,771,357
Foreign-Owned Companies	$254,578,529
U.S.-Owned Companies	$5,706,192,828
Estimated Value of Exports	
Chemicals, Plastics, & Rubber Products	$12,805,765
Computers, Electronics, & Electrical Equipment	$208,062,706
Crops, Animals, & Marine Products	$657,884
Food & Beverages	$244,733,615
Forestry & Wood Products	$451,175
Machinery	$57,153,611
Metals & Metal Products	$92,896,625
Miscellaneous Goods	$58,978,851
Oil, Gas, Minerals, & Ores	$200,393
Paper, Printing, & Related Products	$2,060,399
Petroleum, Coal, & Nonmetallic Mineral Products	$1,485,097
Textiles, Apparel, & Leather Products	$3,105,532
Transportation Equipment	$45,071
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$8,244,396
# of International Scholars at Higher Education Institutions	171
# of International Students (Undergraduate & Graduate) at Higher Education Institutions	744

Table E.14
Dauphin County (PA) Economic Profile—Jobs, Companies, and Workforce

Economic Indicator	
% of Total Population that is Foreign Born (2011 Estimate)	5.83%
Total Employees at Companies Importing & Exporting Goods	17,211
Total Estimated Sales Value of Imports & Exports of Goods	$5,960,771,357
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$8,244,396
Total Jobs Related to Services Exports	2,448
# of Individuals Speaking a Language other than English at Home	25,996
Post-Secondary Language Enrollment: Total Students	828
Total number of Companies Importing & Exporting Goods	47
Foreign-Owned Companies: Total #	34
U.S.-Owned Companies: Total #	13
Total Employees at Companies Importing & Exporting Goods	17,211
Employees: Foreign-Owned Companies	3,347
Employees: U.S.-Owned Companies	13,864

Table E.15
Dauphin County (PA) Economic Profile—Jobs and Value of Services Exports

Jobs Related to Services Exports	
Total Jobs	2,448
Business, Professional, & Technical Services	479.003
Financial Services	55.6483
Insurance Services	295.3007
Installation, Maintenance, & Repair	77.9838
Royalties	13.3191
Telecommunications, Computer, & Information Services	79.9258
Transportation Services	89.5786
Travel Services	1,357.61
Value of Services Exports	
Business, Professional, & Technical Services	$105,086,371
Financial Services	$17,454,571
Insurance Services	$79,499,674
Installation, Maintenance, & Repair	$24,765,042
Royalties	$26,457,246
Telecommunications, Computer, & Information Services	$52,533,449
Transportation Services	$34,845,428
Travel Services	$169,143,106

Table E.16
Allegheny County (PA)—Pittsburgh Economic Profile—Estimated Sales Value of Imports and Exports of Goods

Estimated Sales Value of Imports & Exports of Goods	
Total	$35,306,726,722
Foreign-Owned Companies	$2,818,352,468
U.S.-Owned Companies	$32,488,374,254
Estimated Value of Exports	
Chemicals, Plastics, & Rubber Products	$338,190,016
Computers, Electronics, & Electrical Equipment	$921,319,150
Crops, Animals, & Marine Products	$9,598
Food & Beverages	$34,343,840
Forestry & Wood Products	$22,810
Machinery	$174,200,719
Metals & Metal Products	$473,556,137
Miscellaneous Goods	$144,310,284
Oil, Gas, Minerals, & Ores	$128,040,908
Paper, Printing, & Related Products	$11,978,053
Petroleum, Coal, & Nonmetallic Mineral Products	$623,585,555
Textiles, Apparel, & Leather Products	$16,533,344
Transportation Equipment	$74,821,850
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$358,665,705
# of International Scholars at Higher Education Institutions	2,575
# of International Students (Undergraduate & Graduate) at Higher Education Institutions	12,164

Table E.17
Allegheny County (PA)—Pittsburgh Economic Profile—Jobs, Companies, and Workforce

Economic Indicator	
% of Total Population that is Foreign Born (2011 Estimate)	4.67%
Total Employees at Companies Importing & Exporting Goods	122,013
Total Estimated Sales Value of Imports & Exports of Goods	$35,306,726,722
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$358,665,705
Total Jobs Related to Services Exports	12,907
# of Individuals Speaking a Language other than English at Home	79,607
Post-Secondary Language Enrollment: Total Students	6,456
Total number of Companies Importing & Exporting Goods	294
Foreign-Owned Companies: Total #	206
U.S.-Owned Companies: Total #	88
Total Employees at Companies Importing & Exporting Goods	122,013
Employees: Foreign-Owned Companies	17,177
Employees: U.S.-Owned Companies	104,836

Table E.18
Allegheny County (PA)—Pittsburgh Economic Profile—Jobs and Value of Services Exports

Jobs Related to Services Exports	
Total Jobs	12,907
Business, Professional, & Technical Services	3,572.45
Financial Services	589.084
Insurance Services	732.7507
Installation, Maintenance, & Repair	243.295
Royalties	164.0981
Telecommunications, Computer, & Information Services	602.9293
Transportation Services	352.1406
Travel Services	6,650.05
Value of Services Exports	
Business, Professional, & Technical Services	$891,892,205
Financial Services	$189,997,508
Insurance Services	$197,268,246
Installation, Maintenance, & Repair	$77,262,324
Royalties	$206,545,503
Telecommunications, Computer, & Information Services	$326,252,849
Transportation Services	$141,373,547
Travel Services	$828,524,237

Table E.19
York County (PA) Economic Profile—Estimated Sales Value of Imports and Exports of Goods

Estimated Sales Value of Imports & Exports of Goods	
Total	$4,729,233,287
Foreign-Owned Companies	$667,910,299
U.S.-Owned Companies	$4,061,322,988
Estimated Value of Exports	
Chemicals, Plastics, & Rubber Products	$122,070,498
Computers, Electronics, & Electrical Equipment	$144,252,730
Crops, Animals, & Marine Products	$10,253,138
Food & Beverages	$198,835,722
Forestry & Wood Products	$6,766,467
Machinery	$556,366,196
Metals & Metal Products	$195,753,572
Miscellaneous Goods	$183,619,081
Oil, Gas, Minerals, & Ores	$3,858,043
Paper, Printing, & Related Products	$131,677,041
Petroleum, Coal, & Nonmetallic Mineral Products	$40,921,258
Textiles, Apparel, & Leather Products	$10,273,283
Transportation Equipment	$438,742,245
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$3,694,107
# of International Scholars at Higher Education Institutions	15
# of International Students (Undergraduate & Graduate) at Higher Education Institutions	143

Table E.20
York County (PA) Economic Profile—Jobs, Companies, and Workforce

Economic Indicator	
% of Total Population that is Foreign Born (2011 Estimate)	3.57%
Total Employees at Companies Importing & Exporting Goods	40,879
Total Estimated Sales Value of Imports & Exports of Goods	$4,729,233,287
Economic Contributions of International Students & Dependents to U.S. Economy 2014-15	$3,694,107
Total Jobs Related to Services Exports	1,776
# of Individuals Speaking a Language other than English at Home	26,754
Post-Secondary Language Enrollment: Total Students	847
Total number of Companies Importing & Exporting Goods	115
Foreign-Owned Companies: Total #	79
U.S.-Owned Companies: Total #	36
Total Employees at Companies Importing & Exporting Goods	40,879
Employees: Foreign-Owned Companies	4,296
Employees: U.S.-Owned Companies	36,583

Table E.21
York County (PA) Economic Profile—Jobs and Value of Services Exports

Jobs Related to Services Exports	
Total Jobs	1,776
Business, Professional, & Technical Services	494.9484
Financial Services	15.5343
Insurance Services	7.454
Installation, Maintenance, & Repair	297.5978
Royalties	72.5772
Telecommunications, Computer, & Information Services	26.4804
Transportation Services	48.5125
Travel Services	812.8717
Value of Services Exports	
Business, Professional, & Technical Services	$117,776,715
Financial Services	$4,391,733
Insurance Services	$2,006,728
Installation, Maintenance, & Repair	$94,507,053
Royalties	$57,211,368
Telecommunications, Computer, & Information Services	$17,069,242
Transportation Services	$17,811,185
Travel Services	$101,275,020