



THE ECONOMIC IMPACT OF AICUP SCHOOLS

Independent, Nonprofit Colleges & Universities In Pennsylvania



Association of
Independent Colleges & Universities
of Pennsylvania

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assess. analyze. assert!

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The 90+ AICUP Schools Represented in this Report

- | | | |
|--|---|--|
| Albright College | Harcum College | Pennsylvania College of Health Sciences |
| Allegheny College | Harrisburg University of Science and Technology | PA Institute of Technology |
| Alvernia University | Haverford College | Philadelphia College of Osteopathic Medicine |
| Arcadia University | Holy Family University | Point Park University |
| Bryn Athyn College | Immaculata University | Robert Morris University |
| Bryn Mawr College | Johnson College | Rosemont College |
| Bucknell University | Juniata College | Saint Francis University |
| Cabrini University | Keystone College | Saint Joseph's University |
| Cairn University | King's College | Saint Vincent College |
| Carlow University | La Roche University | Salus University |
| Carnegie Mellon University | La Salle University | Seton Hill University |
| Cedar Crest College | Lackawanna College | Susquehanna University |
| Chatham University | Lafayette College | Swarthmore College |
| Chestnut Hill College | Lake Erie College of Osteopathic Medicine | Thiel College |
| Clarks Summit University | Lancaster Bible College | Thomas Jefferson University |
| Delaware Valley University | Lebanon Valley College | University of Pennsylvania |
| DeSales University | Lehigh University | University of Scranton |
| Dickinson College | Lycoming College | University of the Arts |
| Drexel University | Manor College | University of the Sciences |
| Duquesne University | Marywood University | Ursinus College |
| Eastern University | Mercyhurst University | Valley Forge Military College |
| Elizabethtown College | Messiah University | Villanova University |
| Franklin & Marshall College | Misericordia University | Washington & Jefferson College |
| Gannon University | Moore College of Art & Design | Waynesburg University |
| Geisinger Commonwealth
School of Medicine | Moravian University | Westminster College |
| Geneva College | Mount Aloysius College | Widener University |
| Gettysburg College | Muhlenberg College | Wilkes University |
| Gratz College | Neumann University | Wilson College |
| Grove City College | Peirce College | Wistar Institute |
| Gwynedd Mercy University | Pennsylvania Academy of the Fine Arts | York College of PA |
| | Pennsylvania College of Art and Design | |

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Association of
Independent Colleges & Universities
of Pennsylvania

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AICUP SCHOOLS MAKE AN IMPACT

\$3.4B

in student spending impact annually

195,525

jobs supported & sustained in Pennsylvania

\$1.1B

generated in state & local taxes

90+

colleges & universities

\$24B

Annual Economic Impact

279,000+

students attend annually

137 YEARS

on average in a community

79,000+

degrees, certificates, & diplomas awarded annually



The economic impact of AICUP schools is extraordinary. With an impact of \$24 billion, the positive force generated on our campuses can be felt across every corner of the state.

Kent Trachte
President, Lycoming College
Chair, AICUP 2019-20



In 2018, independent, nonprofit colleges and universities in Pennsylvania (AICUP schools) generated an economic impact of **\$24 billion** throughout the Commonwealth: **\$12.5 billion** direct and **\$11.5 billion** indirect and induced. This economic impact is the result of operational spending, capital spending (3-year average), payroll and benefits paid to employees, student spending, and visitor spending.

AICUP schools support a combined total of **195,525 jobs** throughout the Commonwealth, nearly 94,000 of those jobs being on-campus. This includes 121,836 direct jobs and 73,689 indirect and induced jobs.

In Fiscal Year 2018 (FY18), AICUP schools generated an estimated **\$1.1 billion** in tax revenue through local and statewide spending. **\$471.4 million** of that total comes from direct tax revenue contributions and **\$614.5 million** comes from indirect and induced tax revenue contributions generated through operations, capital, students, and visitors.

It is estimated that student spending from those attending AICUP schools contributes an additional **\$3.4 billion** to the Pennsylvania economy per year. Nearly half of this revenue comes from out-of-state students who chose to pursue a degree at an AICUP school.

AICUP SCHOOLS REPRESENT

46% of all low income, Pell-eligible students seeking bachelor degrees

45% of all bachelor degree-seeking STEM students

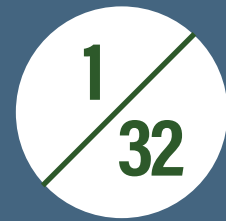
49% of all non-traditional students seeking a four-year degree

54% of all four-year degree-seeking minority students

At AICUP schools

68% of students choose a career-directed major

Source: AICUP



1 out of every 32 jobs in the Commonwealth is created, supported, or sustained by an AICUP school



\$1 out of every \$31 in the Pennsylvania economy is supported by an AICUP school

Pennsylvania has an exceptional and under-recognized asset - its 90+ AICUP schools - which together give the Commonwealth a significant competitive advantage over other states. These AICUP schools graduate over 75,000 students a year; more than 25% with STEM majors. They graduate over 50% of the minority students seeking a 4-year degree in Pennsylvania and enroll more than 40% of all the lower income students who qualify for PHEAA need-based grants. These AICUP schools truly serve publicly, though they are funded privately.

Tom Foley
President, AICUP

ABOUT AICUP SCHOOLS

With a unique identity that distinguishes each college and university as a pillar of higher education within their respective communities, connecting all of the members of the Association of Independent Colleges and Universities of Pennsylvania (AICUP) with a single thread is difficult. Each school was founded on a long-held spirit of independence, which distinguishes this historic group from their publicly-funded higher education counterparts in the state. While these schools are the result of a diverse set of histories and are representative of broad-spectrum learning opportunities, one can still easily recognize their impact to the students they prepare for success and the communities they call home.

The 90+ colleges and universities reviewed for this report are part of the social fabric of their communities and are strong contributors to their local economies. The students graduating from these institutions are making an economic impact within the Commonwealth both during their time on campus as well as throughout their careers.

AICUP's member institutions provide access to a balanced blend of liberal arts and career-directed education. Their focus is on collaboration with local businesses through internships and/or educational partnerships, with the goal of preparing a well-rounded graduate that is ready to serve their community and begin a successful career. These local institutions are preparing and training adults to meet current workforce needs both now and in the future.

From traditional liberal arts colleges to major research universities, from faith-related institutions to some of the nation's most prestigious law and medical schools AICUP schools represent a broad-spectrum of history and inclusion. Pennsylvania's nonprofit, independent colleges and universities are making a lasting impact on the Commonwealth. Combining a unique curriculum with storied campuses in cities, suburbs, and rural regions, these schools are recognized through their back stories and are helping to shape the future of the Pennsylvania economy.

AICUP Schools are:

The top employer in

2

counties

**Among the top 10
employers in**

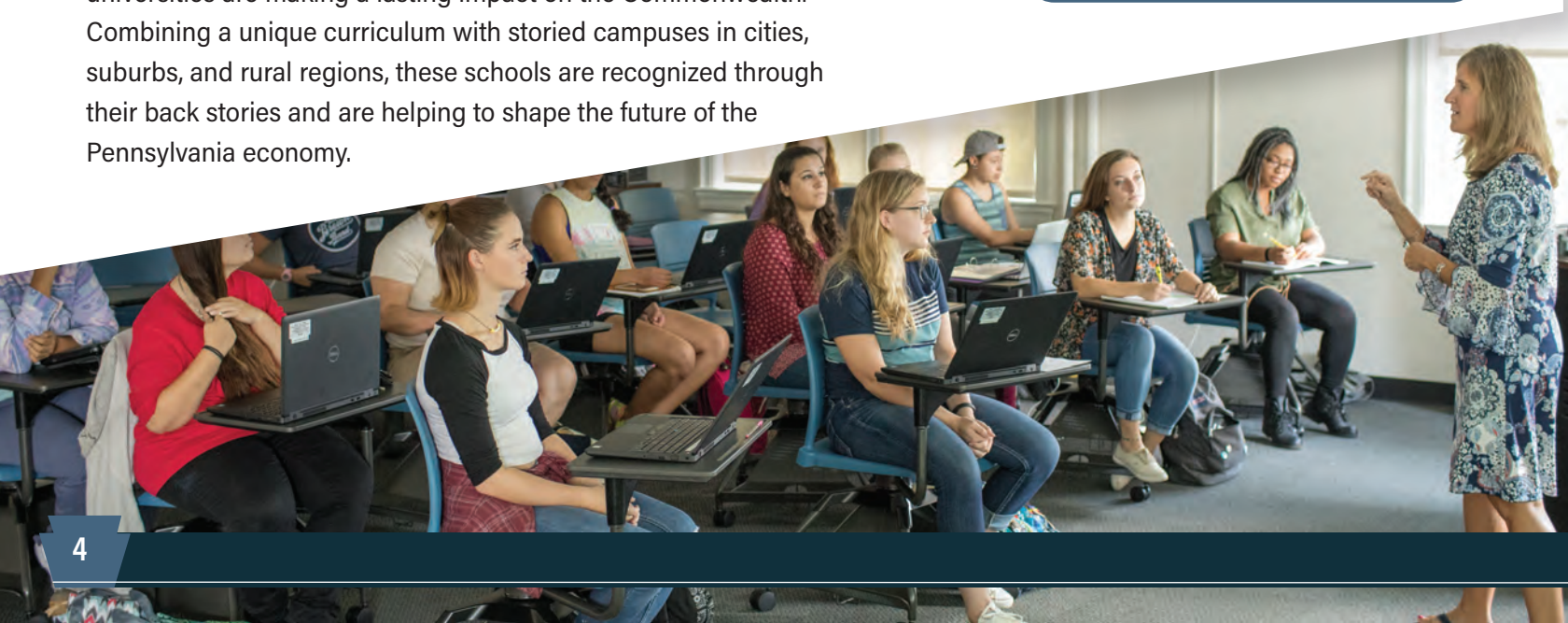
14

counties

**Among the top 25
employers in**

22

counties



ABOUT AICUP SCHOOLS

AICUP is the only statewide organization that exclusively represents the interests of independent, nonprofit higher education within the Commonwealth. AICUP's priorities include advocacy, business efficiency, research, and communications.



Our colleges and universities strive to be civically engaged and economically impactful. We have moved away from the typical Ivory Tower model by sharing our expertise, research, resources, and problem-solving skills to improve communities and boost local economies. We are using our power as educational and economic anchors to benefit our communities.

John Fry
President, Drexel University



METHODOLOGY

This economic study, prepared by Parker Philips, measures the economic contribution of AICUP's 90+ college and university members, referenced in this report as AICUP schools or Pennsylvania's independent, nonprofit colleges and universities.

The veracity of the data and methodology is consistent with industry standard protocols for conducting an effective economic contribution study that is conservative. The data is an independent assessment of AICUP schools' overall contribution to the Pennsylvania economy and the report is designed to make the data analysis accessible to all readers.

This analysis seeks to quantify the combined economic contribution of these institutions as a result of operational, capital, and student and visitor spending including operating budget, payroll, benefits for employees for Fiscal Year 2018 (FY18) and a 3-year average of capital spending. The primary tool used in the performance of this study is the I-O model and dataset developed and maintained by the IMPLAN Group, LLC.

Primary operational and capital expenditure data as well as employee and student headcount data used in this study was obtained through a survey facilitated by AICUP.

Secondary data was used to estimate spending by visitors and students (full-time and part-time) exclusive of tuition and fees. In the event that a member school did not respond, publicly available data from the Integrated Postsecondary Education Data System (IPEDS), annual reports, specific college and university websites, and audited financials were used to fill in the data. Additional information about the IMPLAN methodology and its application in this study is available in Appendix B.

AICUP Study Profile

DATA SOURCES:

Primary Data from AICUP Schools
Secondary Data

STUDY TYPE:

Economic Contribution Analysis

GEOGRAPHY:

Commonwealth of Pennsylvania
Eight Pennsylvania Regions

STUDY YEAR:

Fiscal Year 2018 (FY18)

We are creating intellectual capital in our own backyard and preserving that pipeline of highly skilled and trained workers so they can stay in our community and be a part of a strong, local economy.

Anthony Campisi
President, CEO
Gladfelter Insurance Group

CONTRIBUTING TO THE STATEWIDE ECONOMY

What does the economic impact contribution analysis show?

In 2018, the independent, nonprofit colleges and universities of Pennsylvania (AICUP schools) generated an economic impact of **\$24 billion** throughout the Commonwealth: **\$12.5 billion** direct and **\$11.5 billion** indirect and induced.^{1,2} This impact is the result of operational spending, capital spending (3-year average), payroll and benefits paid to employees, and student and visitor spending. Nearly **200,000 jobs** (1 out of every 32) in the Commonwealth is created, supported, or sustained by an AICUP school.

These impacts extend across the state through rural, suburban, and urban communities. AICUP schools are integral to their local communities and the statewide economy. Their presence and longevity (an average of 137 years in their respective communities) have offered economic stability even in times of economic turmoil.



DIRECT

Impacts generated as a result of spending by AICUP schools on operations, capital expenditures, and pay and benefits, student spending, and visitor spending.³



INDIRECT

The increase in demand for goods and services in industry sectors that supply or support the colleges or universities, their students, and visitors. Often referred to as the supply chain.



INDUCED

The third wave of impact created as a result of household spending by employees of AICUP schools, their employees, students, and suppliers. Induced impacts estimate the effect of increased household income including housing, household goods, entertainment, food, clothing, transportation, and other categories of personal spending.



¹ In 2017, Pennsylvania gross domestic product was \$752,071,000,000. Pennsylvania is the 6th largest economy in the United States.

² A number of independent, nonprofit universities and medical colleges in Pennsylvania manage or are affiliated with hospitals and other health care facilities. Communities throughout Pennsylvania rely on these organizations for high-quality medical care and medical research as well as jobs for local residents and business development opportunities. These health facilities contribute an estimated \$24.3 billion in additional economic impact to the State of Pennsylvania and support over 100,000 jobs.

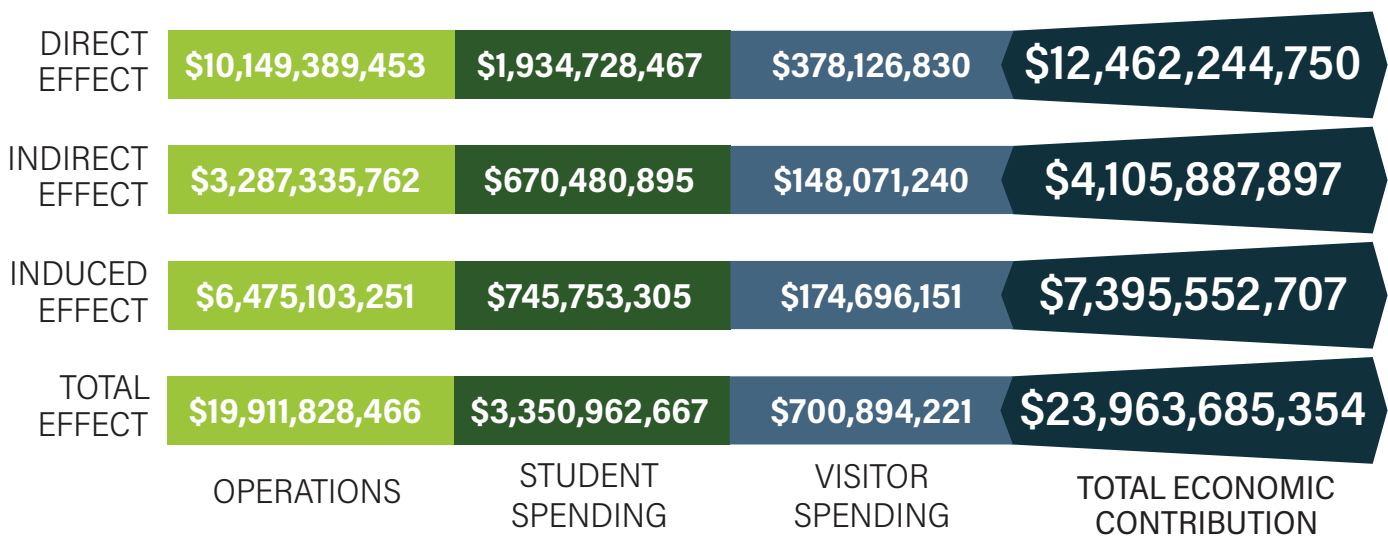
³ Direct impacts include operational spending, student spending, and visitor spending. Based on operations alone, Pennsylvania's independent colleges and universities have a direct impact of 93,766 jobs and \$10.1 billion.

CONTRIBUTING TO THE STATEWIDE ECONOMY

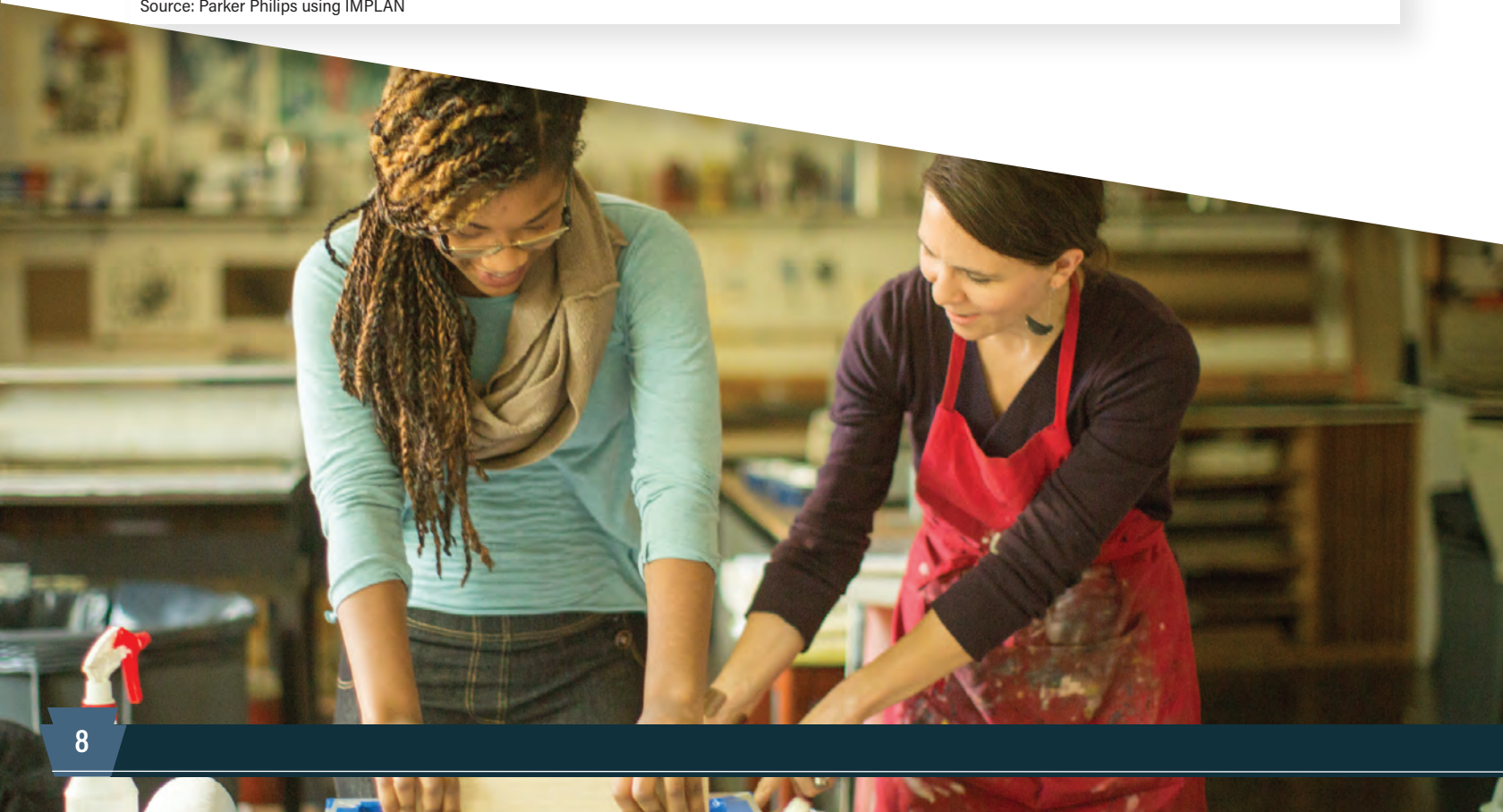
The combined spending of Pennsylvania's independent, nonprofit colleges and universities (AICUP schools) significantly expands the local economy through both direct and indirect means. The direct day-to-day expenditures of the colleges and universities combined with student and visitor spending have a ripple effect throughout the local and statewide economy.

Based on operations at the colleges and universities, the direct labor income generated as a result of staff and faculty totaled **\$6.2 billion** (\$6,181,130,342). The \$6.2 billion in wages paid directly to the employees of the colleges and universities ripples through the economy to generate **\$3.1 billion** in indirect and induced labor income resulting in a total labor income impact of **\$9.3 billion**.

AICUP SCHOOLS | ECONOMIC CONTRIBUTION

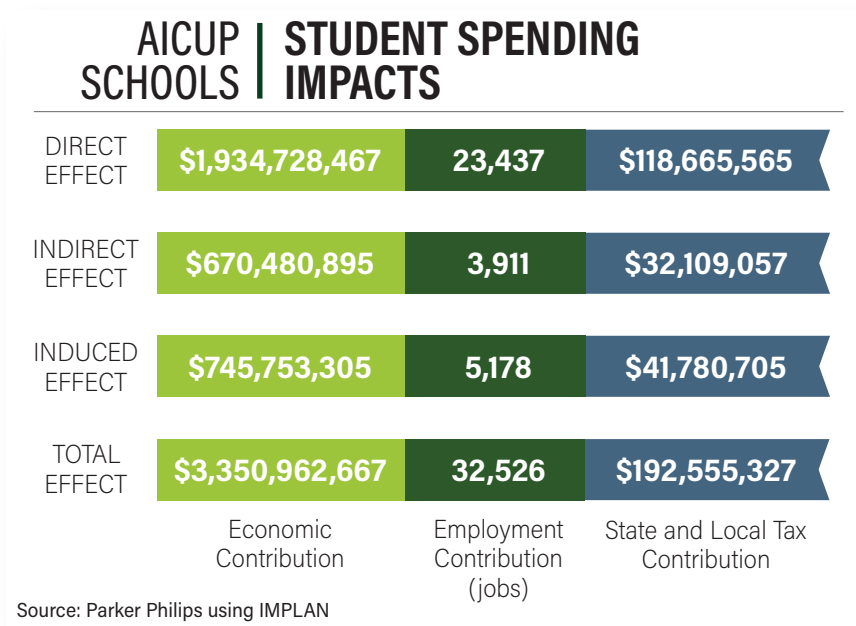


Source: Parker Philips using IMPLAN



STUDENT & VISITOR SPENDING IMPACT

Students & Campus Visitors Create Impact Beyond Operations

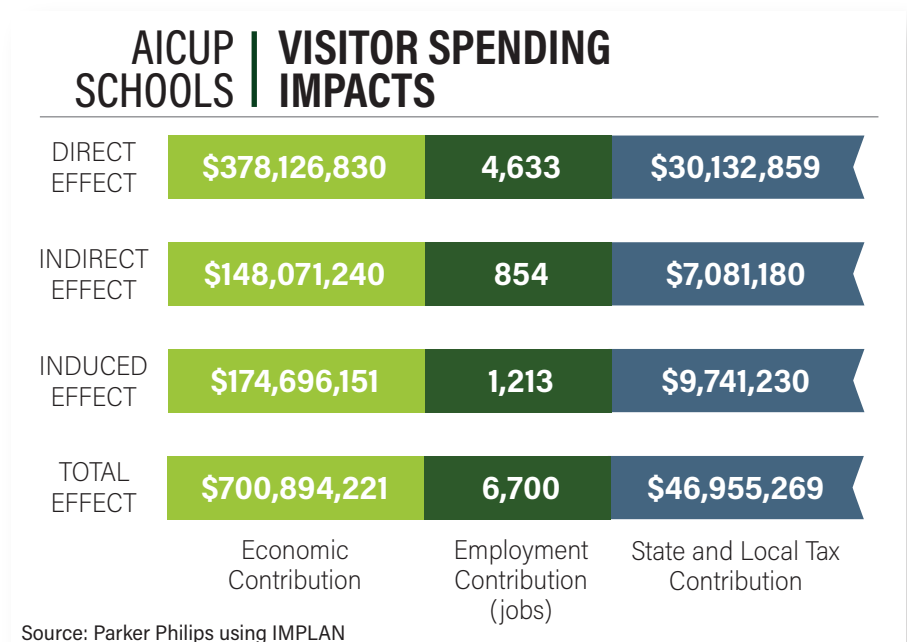


Student spending, exclusive of tuition, fees, and on-campus housing, plays a significant role in the impact that Pennsylvania independent, nonprofit colleges and universities (AICUP schools) have on their local economies.⁴ More than 290,000 students enrolled in courses across 90+ campuses during 2018, and their spending included off-campus housing, food, entertainment, retail purchases, personal care, and more.

These significant economy boosters can oftentimes be most easily recognized when students return to campus after summer break and holidays. In many of Pennsylvania's smaller campuses, the local economy hinges on the viability and success of the college or university. Student spending impacts were calculated to reflect the cost of living on- and off-campus.

Student spending resulted in an economic impact of \$3.4 billion, supporting 32,526 jobs and creating \$192.6 million in state and local taxes.

AICUP schools draw visitors to campus for meetings, conferences, performances, athletic events, festivals, parents' weekends, and more. These events attract visitors both from the community as well as the surrounding regions, and these visitors spend money. The impact of this additional spending by non-university employees generates an annual impact of **\$700.9 million**, supporting **6,700 jobs**, and contributing **\$47 million** in state and local taxes.

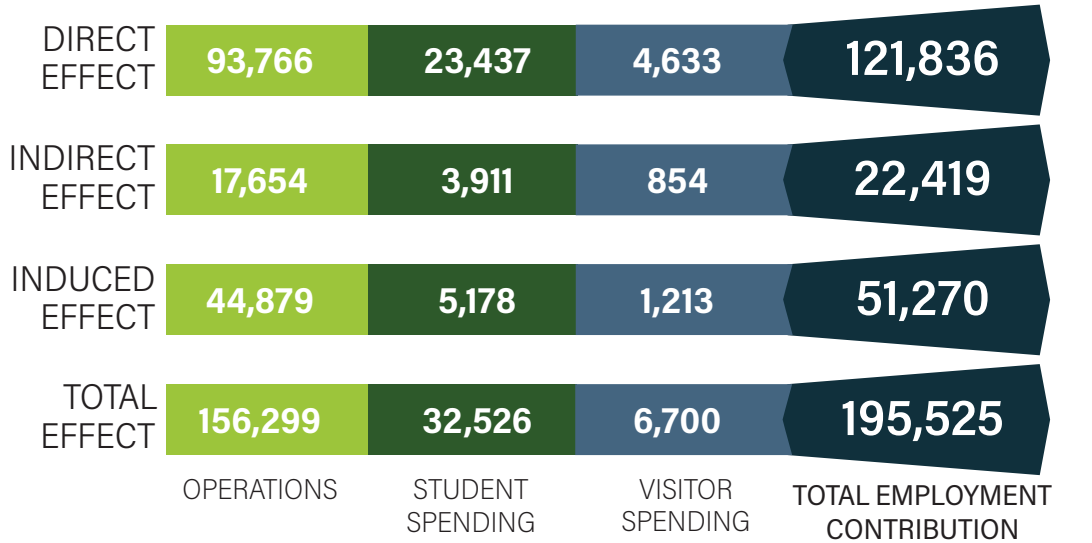


⁴ For the purposes of this study, student spending and visitor spending has been included in the direct portion of the impact and not backed out into the induced segment of the impact.

CREATING, SUPPORTING & SUSTAINING JOBS IN PA

Pennsylvania's independent, nonprofit colleges and universities (AICUP schools) support a combined total of nearly **200,000 full-time and part-time jobs** (195,525 jobs) throughout the Commonwealth. Based on operations alone, these colleges and universities created, supported, and sustained **156,299 jobs** (93,776 direct and 62,533 indirect/induced). Spending by their students living on- and off-campus supported **32,526 jobs** (23,437 direct and 9,089 indirect/induced) and visitor spending supported **6,700 jobs** in the local economy (4,633 direct and 2,067 indirect/induced).

AICUP SCHOOLS | COMBINED EMPLOYMENT CONTRIBUTION (jobs)



Source: Parker Philips using IMPLAN

Based on analysis by industry sector, other jobs supported in the Pennsylvania economy outside of the higher education sector include real estate, retail, and services (e.g., restaurants, child care centers, and health care).



AICUP schools have been bulwarks during times of societal change and workforce pipelines in times good and bad; they have provided access to a wealth of community events and activities that would otherwise simply not be available in the towns, boroughs, cities, and counties in which they thrive.

Richard Jewell
 Director, Berkeley Research Group
 Former President, Grove City College

GENERATING STATE & LOCAL TAX REVENUES

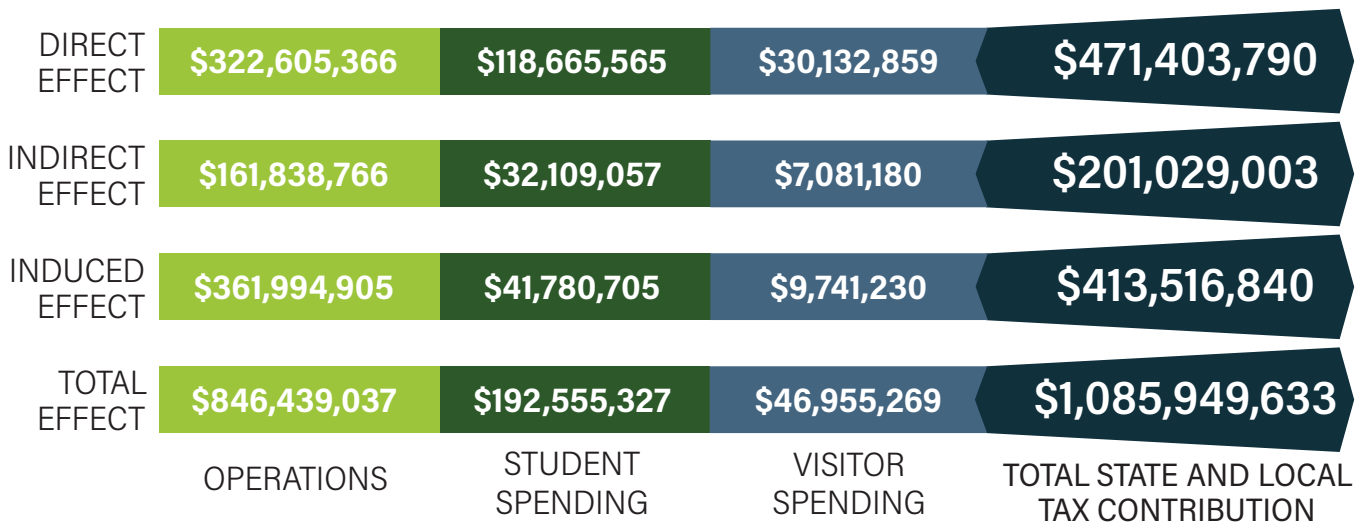
Pennsylvania's independent, nonprofit colleges and universities (AICUP schools) and their constituencies contribute to the local and statewide tax base. In FY18, the colleges and universities added an estimated **\$1.1 billion** (\$471.4 million direct and \$614.5 million indirect/induced) through local spending (operational, capital, students, and visitors) as well as direct and indirect support of jobs. The presence of these colleges and universities strengthens the local and statewide economies by generating over a billion dollars in tax contributions.

AICUP schools have been a part of the Commonwealth's higher education landscape for hundreds of years—these 90+ schools average 137 years each in their local communities. They have lent their home towns stability and often-times, these AICUP schools have grown and developed alongside them.

Barbara Mistick
President, National Association of Independent Colleges/Universities
Former President, Wilson College

AICUP schools are a significant part of a strong tax base through their spending and employment. Specific taxes, generated at the state and local level, include employee and employer contributions to state and local social insurance funds, sales taxes, personal property taxes, taxes paid on motor vehicle licenses, and payments of fines and fees.

AICUP SCHOOLS | COMBINED STATE & LOCAL TAX CONTRIBUTION



Source: Parker Philips using IMPLAN

COMPETITIVE RESEARCH AWARDS

Pennsylvania's independent, nonprofit colleges and universities (AICUP schools) compete for federal grants and research awards with the rest of the institutions of higher education in the United States. These dollars bring fresh, new investments into the Commonwealth. It is important to note that these federal dollars would go to other states without the high-quality faculty, staff, and students competing and winning these funds.



AICUP colleges and universities are embedded in each of our respective communities; we were started in the community and serving our community is foundational to our day-to-day operations and mission. None of the colleges have real boundary markers – if you are a community member, you can join the library, take classes, use the pool, go to concerts, visit the art museum.

The impact from an economic and quality of life perspective is realized by students, staff, faculty, and residents in our neighborhoods.

Lewis E. Thayne
President, Lebanon Valley College



While not an exhaustive list of all external research awards to the combined 90+ AICUP schools, the total amount of funding received from the National Institutes of Health (NIH) and the National Science Foundation (NSF) awards totaled over **\$1.2 billion** in 2018.

The economic impact of spending these research dollars in the Commonwealth has generated an estimated **\$1.9 billion** in economic impact, supported **16,074 jobs**, and generated **\$82.9 million** in state and local tax revenue.



COMPETITIVE RESEARCH AWARDS

AICUP SCHOOLS | 2018 CUMULATIVE RESEARCH AWARDS

AICUP School	NIH Award	NSF Award
Albright College		\$627,322
Allegheny College		\$1,446,427
Arcadia University		\$352,500
Bryn Mawr College	\$362,500	\$2,045,148
Bucknell University	\$133,604	\$5,575,605
Cabrini University		\$649,773
Carlow University		\$926,918
Carnegie Mellon University	\$25,514,808	\$226,053,388
Chatham University		\$264,326
Chestnut Hill College		\$235,900
Drexel University	\$39,961,705	\$59,804,536
Duquesne University	\$1,819,445	\$2,921,525
Elizabethtown College		\$914,544
Franklin and Marshall College	\$90,732	\$3,570,413
Gannon University		\$999,885
Gettysburg College		\$2,050,571
Gwynedd Mercy University		\$626,820
Haverford College		\$3,247,941
Juniata College		\$1,735,984
La Roche University		\$607,000
La Salle University		\$583,260
Lafayette College		\$1,963,726
Lebanon Valley College		\$174,999
Lehigh University	\$5,649,979	\$49,298,063
Lycoming College		\$1,243,501
Moravian University		\$107,253
Muhlenberg College		\$787,786
Neumann University		\$74,835
Philadelphia College of Osteopathic Medicine	\$157,092	\$771,054
Robert Morris University		\$1,356,848
Saint Francis University		\$31,919
Saint Vincent College		\$606,528
Salus University	\$410,427	
Susquehanna University		\$2,931,886
Swarthmore College	\$90,762	\$2,794,418
Thomas Jefferson University	\$64,919,393	
University of Pennsylvania	\$511,419,097	\$156,956,401
University of Scranton		\$846,517
University of the Sciences	\$769,300	\$883,887
Ursinus College		\$1,442,440
Villanova University		\$10,921,169
Westminster College		\$2,018,569
Widener University	\$21,600	\$588,626
Wistar Institute	\$30,002,196	



Source: www.grants.nih.gov and www.nsf.gov

ALUMNI MAKE AN IMPACT

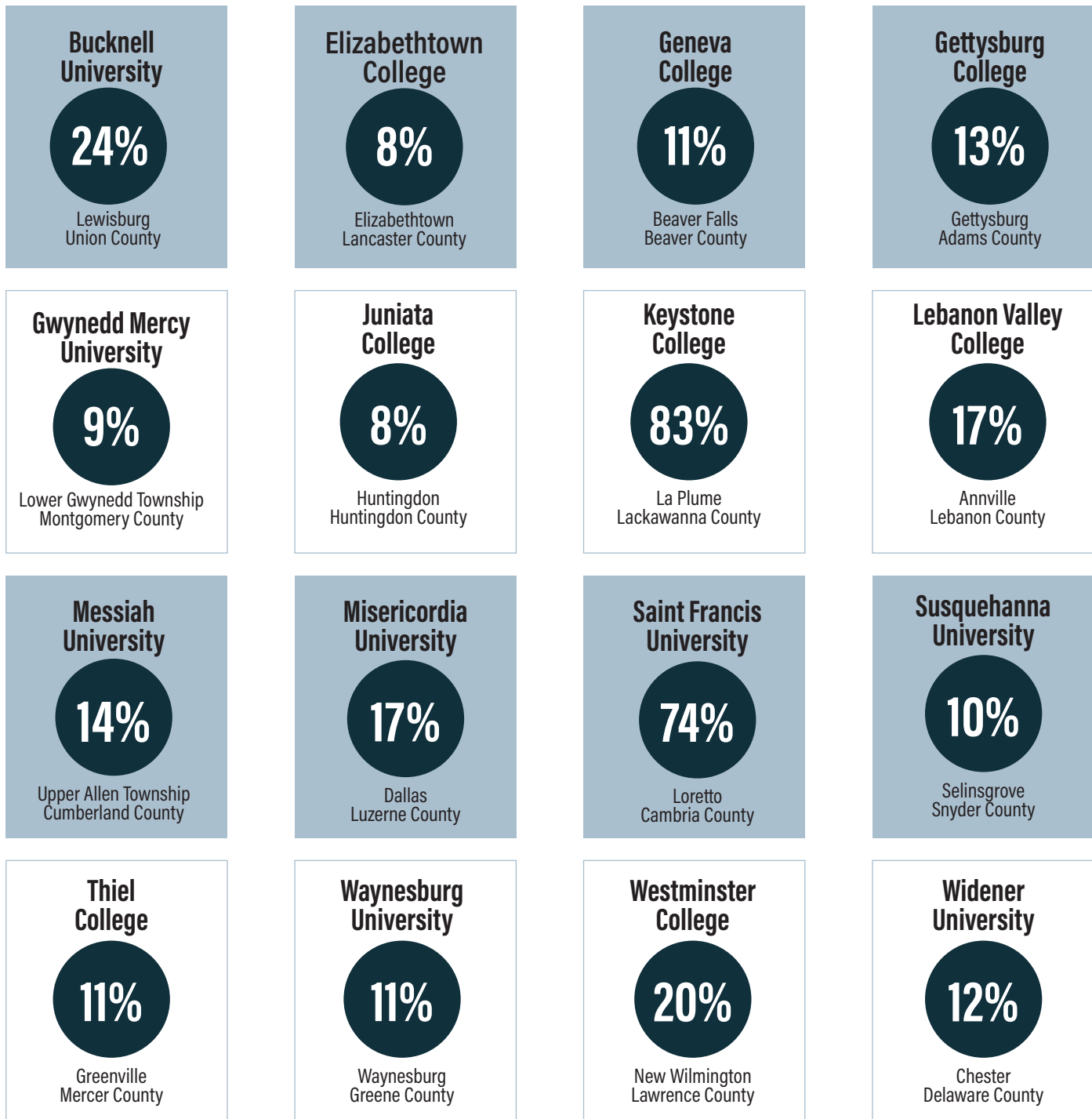
Each year, over 75,000 students graduate from one of Pennsylvania's 90+ independent, nonprofit colleges and universities (AICUP schools). Based upon the additional income earned post-high school by one class, with an estimated 57% of students remaining in the state to work after graduation, **\$1.5 billion** will be added to the economy. If this 57% remains in the state to work over a typical career path of 40 years, the total economic impact of one class is projected to be **\$45.7 billion**.

Our graduates enjoy a strong hire rate and I'd love to keep them all here. While they don't all stay, our local internship programs help to keep a lot of them here after they graduate. When businesses are looking at the Central Pennsylvania region, we can point directly to Harrisburg University as the way to deliver the needs they have.

David Shankweiler
Harrisburg University, Board of Trustees

AICUP Schools are Employment Anchors in their Communities

Percent of Total Jobs Per Locality



Source for these percentages: total persons employed in municipality from U.S. Census Bureau, 2016-2020 American Community Survey 5-year estimates, Table B08604. Total persons employed by college/university from National Center for Education Statistics, IPEDS Human Resources Survey 2020.



Saint Vincent College, through our strong Benedictine tradition, prepares our graduates to make a real and positive difference in a challenging world through hard work, morality, skill, and service. Saint Vincent College is an integral part of Latrobe and is a true community asset.

Christopher Donahue
CEO, Federated Investors



STAFF, FACULTY & STUDENTS GIVE BACK

\$58.9M
annually

in charitable
donations

5.3M
hours

spent
volunteering

\$68.4M
value

of volunteer
time

\$127.3M
total

combined impact
of charitable giving
& volunteerism

Based upon assumptions derived from the U.S. Census Bureau and the Points of Light Foundation⁵ regarding donation amounts and volunteerism rates by age, income level, and employment status, it is estimated that staff, faculty, and students from AICUP schools give more than **\$58.9 million annually** in charitable donations and volunteer for **5.3 million hours** valued at **\$68.4 million**. The combined impact of charitable giving and volunteerism totals **\$127.3 million**. These benefits are in addition to the \$24 billion annual impact.

The way that each college and university gives back to their community is as diverse as the 90+ AICUP schools, but all are rooted in the core value of improving the well-being of the Commonwealth's citizenry. AICUP members provided examples that help illustrate the creativity and character shown through a wide variety of charitable endeavors.

AICUP schools have a deep commitment to their local communities to help them grow and prosper. Every one of the 90+ AICUP schools are integrated into their local communities. Listed on the next few pages are some examples of how AICUP schools impact their communities.

⁵ For the purposes of this study, it is assumed that 24.9% of staff and faculty donate \$2,064 annually and 14.9% of students donate \$250 each year. Volunteer impacts are based upon assumptions found in the U.S. Census survey of charitable giving, and the value of a volunteer hour (estimated at \$23.56 per hour) was obtained from the Points of Light Foundation. For the purposes of this breakout analysis, it was assumed that 27.2% of staff and faculty volunteer for 51 hours and 23.3% of students volunteer for 60 hours annually.



We prepare students to have an impact on the world in big and small ways. We strive to celebrate what is right with the world. At La Roche University, we have a focus on doing what is best for the world, rather than being the best in the world. That change in language to 'best for' makes a big difference to our students, staff, and faculty in fulfilling a mission of service and grace.

Sister Candace Introcaso
President, La Roche University



The Bucknell University **Small Business Development Center** (SBDC) provides no cost, confidential consulting to entrepreneurs and small businesses in six local counties. The center works through every phase of business development and helps to implement successful strategies for growth and prosperity.

Carnegie Mellon University (CMU) offers a **free, on-line computer science curriculum** for high school students. The curriculum was developed in response to a lack of educational standards for computer science. It is currently being piloted in 40 schools and will be available for general classroom use in the fall.



Carlow University partners with the University of Pittsburgh Medical Center (UPMC) to provide highly specialized education for **Profusion and Intraoperative Neuro Monitoring Professionals**. This is a unique partnership in the U.S. that fulfills an important need in the healthcare sector.

In 2017, Cedar Crest College acquired the **Mayfair Festival of the Arts** after a one-year hiatus in the festival's 30 year existence in the Lehigh Valley. Cedar Crest provides the festival free-of-charge to the community, and students, faculty, and staff volunteers their time to the planning, implementation, and operations of the festival.

Drexel University aims to create a shared economy with West Philadelphia using **strategies to hire, buy, and build with local partners**: increasing the number of benefits-eligible employees who are West Philadelphia residents, increasing their purchasing with West Philadelphia suppliers, and working with local labor and construction suppliers for building and renovation projects.



Chatham University created the **Bonner Leaders Program** to provide support to non-profit organizations that are understaffed and in need of students to help them fulfill their missions. Each Bonner student provides 8-10 hours per week at their site during the academic year and are paid through federal work study funding. Program partners participate at no cost to their organization.

Duquesne University School of Pharmacy has become a leader in the Pittsburgh region in the **treatment of childhood asthma**. Their childhood asthma program provides screenings on more than 1,000 children in the region annually. These screenings occur in some of the Pittsburgh region's most underserved communities as part of a comprehensive effort to improve community health.

IMPACTING COMMUNITIES

Gannon University recently opened the **Gannon Little Knights Pro Bono Pediatric Occupational Therapy Clinic**, a free clinic that offers both experience to occupational therapy students but also a place for children to receive occupational therapy whose parents cannot afford it otherwise.



Grove City College partners with downtown developer Olde Town Grove City, the Chamber of Commerce, and the United Way to build and strengthen the community. The College recently embarked on a major grant-funded service learning initiative, the **Project for Rural Ministry**, which seeks to strengthen small communities through assisting local pastors and churches.

The **Language in Motion (LiM) program** at Juniata College allows college students that know another language or culture to create and deliver interactive presentations in K-12 schools to expand, enrich, and energize language and culture teaching and learning. The program involves 77 teachers at 22 partner schools, and in 2017-18 there were 38 student presenters.

The Lycoming College **Gateway building** involves the revitalization of Williamsport's East End and Old City neighborhoods. The College has worked closely with the city of Williamsport and Lycoming County to secure more than \$25 million in funding for improvements to the public infrastructure, which is geared toward the stimulation of small business development in the area.

The Mercyhurst University-led **Erie Innovation District (EID)** hosted nine startup companies in its inaugural year; the outcome being five electing to retain business operations in Erie. The EID also worked with partner Singularity University to infuse Secure Smart City™ technologies in the city designed to protect against security threats and vulnerabilities.



In the 2015-16 academic year, La Salle University students performed **more than 31,000 hours of community service** with a total contribution worth about \$740,000. La Salle University was named a lead institution in civic engagement and has also been recognized by the Carnegie Foundation for Colleges and Universities for its institutional focus on community engagement.

Harrisburg University (HU) hosts e-sports competitions, concerts, and conferences on and around campus, which are open to the public, that pump millions of dollars into the local economy each year. HU also just broke ground on a new **17-story, \$150 million educational tower** that will bring scores of construction jobs to the city as well as an additional 1,000 students to the area.

The Landis Center for Community Engagement at Lafayette College hosts the **Landis' Aspirations program** with the Easton Area School District. More than 1,700 district students, over 20%, have participated in Aspiration programs at the College. Aspirations raises students' belief that attending college is possible and their potential is beyond their expectations.



IMPACTING COMMUNITIES

The **Women with Children Program (WWC)** at Misericordia University (now a statewide model) empowers economically disadvantaged single mothers by providing the opportunity to complete a college degree, creating brighter futures for themselves and for their children. Through this program, the roadblocks to higher education are removed and the completion of a college degree becomes a reality.

Peirce College partners with the Urban League of Philadelphia in the **Urban Tech Jobs Program**—a Department of Labor training program. This program offers accelerated training to unemployed and underemployed adults in Information Technology Certifications including Microsoft, CompTIA, and Cisco.



The opening of the **\$60 million Pittsburgh Playhouse** at Point Park University is another part of the Academic Village Initiative realized. This initiative has assisted in removing blight, reactivating and preserving historic buildings, as well as introducing newly built, state-of-the-art facilities to the City of Pittsburgh's core.

In 2012, Robert Morris University launched the **Moon Township Economic Development Group**, a round table organization that includes local elected officials, business owners, real estate developers, and civic leaders who discuss areas of concern and opportunity in Moon Township and surrounding communities.

Salus University's "**Looking Out for Kids**" (LOFK) initiative provides complimentary vision care services and eyeglasses to under-insured and uninsured children in Philadelphia and its surrounding communities. Those requiring further testing are transported to The Eye Institute of Salus University for a comprehensive eye exam and provided with two pairs of glasses all at no cost.



University of Pennsylvania (Penn) contributes over \$800,000 to the neighboring Sadie Alexander Mossell Elementary School. In addition, the \$1 million annual investment by the **Netter Center for Community Partnerships** enables an array of local initiatives, including tutoring public school students and proving health and nutrition programs inside the public schools of Philadelphia.



IMPACTING COMMUNITIES

The **Autism Collaborative Centers of Excellence (ACCE)** Executive Hub recently opened at the University of Scranton. The University will serve as the hub for a 13-county area with the goal of developing a comprehensive approach to identifying and treating Autism Spectrum Disorder and building a coordinated regional care and support system.



The partnership between York College of Pennsylvania and the Yorktowne Hotel has paved the way for **cross-discipline experiential learning**. Students from hospitality management, communications, and engineering are working together with professionals to solve the challenges faced by the hotel to ensure its accessibility to all in the community.

Villanova University's Special Olympics Committee organizes the **largest student-run Special Olympics event in the world**. Villanova is the official host of Special Olympics Pennsylvania Fall State Games during which the campus hosts over 1,000 athletes, 400 coaches, and 5,000 volunteers. All housing and meals for the weekend are provided by Special Olympics PA and Villanova.



Wilkes University coordinates **The Big Event**, a volunteer event coordinated through student government. Last year it featured 437 participants; 42 different clubs, sports, and organizations; 27 different sites; and 2,987 cumulative community service hours. This event involves everyone in Wilkes-Barre, from the local business association to the Mayor and the City Council.



REGIONAL IMPACT BREAKOUT

ERIE AND NORTHWEST

\$931,877,593
generated in economic impact

7,965
jobs supported and sustained

\$43,407,921
in state and local tax revenue

- Allegheny College
- Gannon University
- Grove City College
- Lake Erie College of Osteopathic Medicine
- Mercyhurst University
- Thiel College

METRO PITTSBURGH

\$5,180,467,361
generated in economic impact

34,846
jobs supported and sustained

\$231,374,105
in state and local tax revenue

- Carlow University
- Carnegie Mellon University
- Chatham University
- Duquesne University
- Geneva College
- La Roche University
- Point Park University
- Robert Morris University
- Saint Vincent College
- Seton Hill University
- Washington & Jefferson College
- Waynesburg University
- Westminster College

NORTH CENTRAL

\$843,857,821
generated in economic impact

5,798
jobs supported and sustained

\$37,105,238
in state and local tax revenue

- Bucknell University
- Lycoming College
- Susquehanna University

LEHIGH VALLEY

\$2,124,474,326
generated in economic impact

16,119
jobs supported and sustained

\$95,505,006
in state and local tax revenue

- Albright College
- Alvernia University
- Cedar Crest College
- DeSales University
- Lafayette College
- Lehigh University
- Moravian University
- Muhlenberg College

SOUTH CENTRAL

\$350,355,149
generated in economic impact

3,023
jobs supported and sustained

\$16,172,479
in state and local tax revenue

- Juniata College
- Mount Aloysius College
- Saint Francis University

CAPITAL AREA

\$1,945,295,898
generated in economic impact

16,327
jobs supported and sustained

\$88,628,688
in state and local tax revenue

- Dickinson College
- Elizabethtown College
- Franklin & Marshall College
- Gettysburg College
- Harrisburg University of Science and Technology
- Lancaster Bible College
- Lebanon Valley College
- Messiah University
- Pennsylvania College of Art & Design
- Pennsylvania College of Health Sciences
- Wilson College
- York College of Pennsylvania

SCRANTON/WILKES-BARRE

\$1,289,055,071
generated in economic impact

11,512
jobs supported and sustained

\$60,315,712
in state and local tax revenue

- Clarks Summit University
- Geisinger Commonwealth School of Medicine
- Johnson College
- Keystone College
- King's College
- Lackawanna College
- Marywood University
- Misericordia University
- University of Scranton
- Wilkes University

METRO PHILADELPHIA

\$11,298,302,135
generated in economic impact

99,934
jobs supported and sustained

\$513,440,484
in state and local tax revenue

- Arcadia University
- Bryn Athyn College
- Bryn Mawr College
- Cabrini University
- Cairn University
- Chestnut Hill College
- Delaware Valley University
- Drexel University
- Eastern University
- Gwynedd Mercy University
- Gratz College
- Harcum College
- Haverford College
- Holy Family University
- Immaculata University
- La Salle University
- Manor College
- Moore College of Art & Design
- Neumann University
- Peirce College
- Pennsylvania Academy of the Fine Arts
- Pennsylvania Institute of Technology
- Philadelphia College of Osteopathic Medicine
- Rosemont College
- Saint Joseph's University
- Salus University
- Swarthmore College
- Thomas Jefferson University
- University of the Arts
- University of Pennsylvania
- University of the Sciences
- Ursinus College
- Valley Forge Military College
- Villanova University
- Widener University
- Wistar Institute

CONCLUSION

In many cases, Pennsylvania's independent, nonprofit colleges and universities (AICUP schools) are the bedrock of their communities. Their history and traditions are woven into the local identity, and those communities rely upon these schools for their success. Their buildings house history while the new construction is a sign of growth and change. Campus life is an academic pursuit that paves the way for the next generation of Pennsylvania's workforce by focusing on a strong blend of liberal arts and career-directed disciplines. The contributions of these 90+ AICUP schools exceeds simple financial benefit—these schools provide a local home to musical performances, lectures, sporting events, service, and comradery. These independent, nonprofit colleges and universities are creating Pennsylvania's next civic and corporate leaders.

It is truly extraordinary when you consider the effect that Pennsylvania's independent, nonprofit colleges and universities have on our Commonwealth's economy. With an impact of \$24 billion in purely economic terms, the positive force generated on these 90+ campuses reaches into every corner of the state. Beyond the economic impact, these institutions of higher learning are bettering their communities through creativity, partnership, service, and stability. Michele and I have experienced that impact personally through our direct engagement at a number of these schools, most especially during Michele's 15 years as chair of the board at her alma mater, Seton Hill University.

Tom and Michele Ridge
Former Governor and First Lady of Pennsylvania

APPENDIX A: TERMS & DEFINITIONS

Study Year	FY 2018 (July 1, 2017 - June 30, 2018)
Dollar Year	Presented in 2018 dollars.
Total Economic Output/ Economic Impact	Includes organizational spending on operations, capital expenditures, labor income expenditures, and value-added to the economy as a result of expenditures made by an organization. It is the combined impact of direct, indirect, and induced impacts.
Direct Economic Impact	All direct expenditures made by an organization due to an organization's operating expenditures. These include operating expenditures, capital expenditures, and pay and benefits for expenditures.
Indirect Economic Impact	The indirect impact includes the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money is spent outside of the local economy, either through imports or by payments to value added (multiplier effect).
Induced Economic Impact	The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not lost to the regional economy. This money is recirculated through the household spending patterns causing further local economic activity (multiplier effect).
Multiplier Effect	The multiplier effect is the additional economic impact created as a result of the organization's direct economic impact. Local companies that provide goods and services to an organization increase their purchasing by creating a multiplier (indirect/ supply chain impacts). Household spending generated by employees of the organization and the organization's suppliers create a third wave of multiplier impact (induced/household spending impacts).
Government Revenue/ State and Local Tax Impact	Government revenue or tax revenue that is collected by governmental units at the state and local level in addition to those paid directly by an organization. This impact includes taxes paid directly by the organization itself, employees of the organization, and vendors who sell products to the organization and at the household level.
Direct Employment	Total number of employees, both full-time and part-time, at the organization based on total jobs, not FTEs.
Indirect Employment	Additional jobs created as a result of an organization's economic impact. Local companies or vendors that provide goods and services to an organization increase their number of employees as purchasing increases, thus creating an employment multiplier.
Induced Employment	Additional jobs created as a result of household spending by employees of an organization and the employees of vendors. This is another wave of the employment multiplier.

APPENDIX B: DATA & METHODS

The economic analysis used both primary and secondary data sources to complete the study. Each AICUP member was provided with the opportunity to provide financial information (operating expenditures, three-year capital spending average, total employees (including graduate student employees) and direct taxes paid. In total, 57 colleges and universities responded to the data request resulting in an overall response rate of 62%. For those colleges and universities not responding to the request, a profile on their institution was compiled from IPEDS data, annual reports, published audited financials, website research, and published economic impact studies.

This primary and secondary data was utilized to complete the input-output models in IMPLAN. Each college and university was modeled individually and includes the following components: operational expenditures, capital expenditures, visitor spending, and student spending. The individual colleges and universities were then aggregated together at the state-level and broken out into regions.

The study approach and economic impact findings are a conservative estimate of impact and is based on actual financial information. It is a snapshot of the economic impact of Pennsylvania's independent, nonprofit colleges and universities (AICUP Schools).

Overview and the IMPLAN Model

The most common and widely accepted methodology for measuring the economic impacts of economic sectors is input-output (I-O) analysis. At its core, an I-O analysis is a table that records the flow of resources to and from companies/organizations and individuals within a region at a given time. For a specified region like a state or the nation, the input-output table accounts for all dollar flows between different sectors of the economy in a given time period. With this information, a model can then follow how a dollar added into one sector is spent and re-spent in other sectors of the economy, generating outgoing ripples of subsequent economic activity. This chain of economic activity generated by one event is called the "economic multiplier" effect.

The primary tool used in the performance of this study is the I-O model and dataset developed and maintained by IMPLAN Group LLC (formerly Minnesota IMPLAN Group, Inc.). IMPLAN is a widely-accepted and used software model first developed by the U.S. Forest Service in 1972. The data used in the baseline IMPLAN model and dataset come largely from Federal government databases. The input-output tables themselves come from the U.S. Bureau of Economic Analysis. Much of the annual data on labor, wages, final demand, and other market data comes from the U.S. Bureau of Labor Statistics, the U.S. Census Bureau, and other government sources.

Government agencies, companies, and researchers use IMPLAN to estimate the economic activities associated with spending in a particular industry or on a particular project. The IMPLAN model extends conventional I-O modeling to include the economic relationships between government, industry, and household sectors, allowing IMPLAN to model transfer payments such as taxes.

The model works by tracking the flow of resources to and from companies/organizations and individuals within a specified region. Producers of goods and services must secure labor, raw materials, and other services to produce their product. The resources transferred to the owners of that labor or those raw materials and services are then spent to secure additional goods and services or inputs to the products they sell. For example, an organization in a region may develop a company that produces trains with a value of \$1 million. However, to produce that product, they may be required to spend \$500,000 in wages and benefits, \$200,000 to suppliers of parts, \$100,000 for electricity, \$50,000 for transportation of goods and raw materials to and from the plant, and \$50,000 in various professional services associated with operating a business (e.g., attorneys and accountants). The suppliers will, in turn, spend those resources on labor and raw materials necessary to produce the trains. Workers and the owners of the company will buy goods and services from other firms in the area (e.g. restaurants, gas stations, and taxes). The suppliers, employees, and owners of this second tier will, in turn, spend those resources on other goods and services either within the study region or elsewhere. The cycle continues until all of the money leaves the region.

APPENDIX B: DATA & METHODS

IMPLAN Methodology

The model uses national production functions for over 450 industries to determine how an industry spends its operating receipts to produce its commodities. These production functions are derived from U.S. Census Bureau data. IMPLAN couples the national production functions with a variety of county-level economic data to determine the impacts at a state and congressional district level.

To estimate these regional impacts, IMPLAN combines national industry production functions with county-level economic data. IMPLAN collects data from a variety of economic data sources to generate average output, employment, and productivity for each industry in a given county. IMPLAN combines this data to generate a series of economic multipliers for the study area. The multiplier measures the amount of total economic activity generated by a specific industry's spending an additional dollar in the study area. Based on these multipliers, IMPLAN generates a series of tables to show the economic event's direct, indirect, and induced impacts to gross receipts, or output, within each of the model's more than 450 industries.

The model calculates three types of effects: direct, indirect, and induced. The economic impact of AICUP schools is the sum of these three effects.

Considerations Concerning IMPLAN

There are three important points about the use of IMPLAN (or any other input-output model):

1. It is a fixed price model. The model assumes that changes in consumption are not limited by capacity and do not affect prices. This simplifying assumption does not cause a problem for the analysis presented here because this is a snapshot of these colleges and universities in a specific year.
2. Similar to many studies using this type of model, the direct impacts are not calculated by the model, they are a reflection of actual spending levels and patterns as a result of AICUP schools. Changing the level of direct spending allows us to calculate the magnitude of the indirect and induced effects associated with the level of spending.
3. Because the model continues to calculate additional spending until all of the money leaves the region (i.e., "leakage"), the larger and more economically diverse the region, the longer it will take for spending to leave the region, and the larger the impact is likely to be. For example, employees of AICUP schools may spend some amount of their income on buying a car. If they are in a state or community that has no plant that produces cars, this spending will leave the region and the multiplier effect will stop. At the national level, some portion of that same spending by that same individual may go to a national auto producer. Therefore, that spending would lead to more spending at the national level than would be captured by a more regional model. This leads us to assume that the national impact will be larger than the sum of the individual states and the individual state impact will be larger than the sum of the impacts in its congressional districts.

APPENDIX C: FAQs

WHAT IS AN ECONOMIC CONTRIBUTION ANALYSIS?

Technically, this study is a contribution analysis. The study quantifies the economic contribution of Pennsylvania's independent, nonprofit colleges and universities that are members of AICUP in terms of economic impact, jobs, and local and state tax revenue. The study calculates how spending by AICUP member colleges and universities, employees, visitors, and students contribute to the economy of Pennsylvania. It examines how expenditures create additional impact in the economy both directly and through the multiplier.

An economic contribution analysis quantifies the broader and more general case of how economic activity cycles through an existing economy. For the purposes of this study, an economic contribution is defined as the gross changes in Pennsylvania's existing economy that can be attributed to non-profit, independent colleges and universities (AICUP schools). Contribution analysis is a type of study that tracks how the gross spending activity of AICUP schools and their constituencies cycle through the economy and accumulate through the multiplier. The AICUP economic contribution analysis does not consider how spending at one college or university may crowd out spending at another college or university. This type of analysis is one of the most common analysis that is performed and is very often mislabeled as an economic impact study. Please note, while the terms used to express the contribution of AICUP schools to the statewide economy are referred to as impact, this is a contribution analysis.

Spending by students, staff, and faculty who are explicitly participating in activities associated with these institutions' output represents a "stemming from effect" and could also be considered a direct effect of the industry. For example, students who attend classes and spend \$10 on lunch at a local restaurant are a stemming from effect of the college or university. This contribution analysis then follows the direct economic activity and associated stemming from effects through the economy. The economic model is built to represent the structure and degree of interconnectedness in the economy with the output of each sector broken down and attributed to expenditures on intermediate inputs or to value-added components such as labor, taxes, and returns to capital. Output multipliers, which are sector and region specific, are derived from the appropriate model and relate an industry's economic activity (or changes in the industry's economic activity) to gross sales in the other sectors of the regional economy.

The contribution analysis does not account for the fact that if a student attending class at a college or university was a local, then the \$10 they spent on lunch potentially represents \$10 they are not spending at another restaurant elsewhere in their town. The direct effect in a contribution analysis includes purchases by local students and non-local students and is neither a measure of changes to the state's economic base nor a measure of the value added to the region above what was paid to input suppliers.

WHAT SHOULD YOU REMEMBER ABOUT THE STUDY WHEN YOU READ IT?

- It is a point-in-time calculation of impact for Fiscal Year 2018.
- It quantifies the amount of impact that AICUP schools produce each year.
- The economic numbers can fluctuate year to year based on operational spending, capital spending, pay and benefits, number of employees, and number of students.
- This is an economic contribution analysis which casts a broader net to calculate impact than an economic impact study.
- These are conservative numbers and adhere to industry respected protocols.

WHAT METHODOLOGY WAS USED TO COMPLETE THIS STUDY?

IMPLAN data and software were used to conduct this economic contribution analysis. The IMPLAN database is built utilizing county, state, ZIP code, and federal economic statistics that are specialized by region, not estimated from national averages to measure the contribution or impact of an organization's economic activity.

APPENDIX C: FAQs

WHAT WERE THE MULTIPLIERS FOR THIS STUDY?

The multipliers used in this study range from 1.8 to 2.1. The multipliers are derived through the input-output models created using the IMPLAN software based upon industries selected during the modeling process.

WHAT DATA DOES THIS STUDY UTILIZE TO CALCULATE THE ECONOMIC IMPACT?

PRIMARY DATA utilized in this analysis was obtained from AICUP member institutions and includes (FY18):

- Operating expenditures
- Capital expenditures (3-year average)
- Pay and benefits by employee type
- Number and types of students (all in-state and out-of-state students included)
- Visitor numbers for individual colleges and universities
- Alumni data from individual colleges and universities
- Volunteerism
- Charitable giving

SECONDARY DATA was utilized to estimate the following:

- Operational, capital, and pay and benefits expenditures for those that did not participate in the survey data collection phase
- Student spending habits (full-time students and part-time students, excluding tuition and fees)
- Visitor spending habits
- Volunteerism
- Charitable giving
- Alumni data

WHAT ARE THE COMMUNITY BENEFITS IMPACTS BASED UPON?

Charitable giving impacts are based upon assumptions found in the U.S. Census Bureau donor data. These models do not assume 100% participation rate for staff, faculty, and students and are based on averages. Some colleges and universities had primary data available on volunteerism, and in those cases actual hours were used in the calculation. For the purposes of this study, it is assumed that 24.9% of staff and faculty donate \$2,064 annually and 14.9% of students donate \$250 each year.

Volunteer impacts are based upon assumptions found in the U.S. Census Bureau data and the value of a volunteer hour was obtained from the Points of Light Foundation and is estimated at \$23.56 per hour. For the purposes of this breakout analysis, it was assumed that 27.2% of staff and faculty volunteer for 51 hours annually and 23.3% of students volunteer 60 hours.

WHY DID AICUP COMMISSION A STUDY?

Pennsylvania's independent, nonprofit colleges and universities have a number of tools helpful in explaining this type of higher education. This independent study is one way to help explain the worth of AICUP schools. In trying to quantify the value of an independent, nonprofit education to both internal and external constituents, it is important to document the financial and societal gains realized throughout the state.

HOW DOES THIS ECONOMIC CONTRIBUTION STUDY COMPARE TO OTHERS WE HAVE SEEN PUBLISHED?

The veracity of the data and methodology is consistent with industry standard protocols for conducting an effective economic impact study that is conservative. The data is an independent assessment of AICUP schools' overall contribution to the Pennsylvania economy. The report is designed to make the data analysis accessible to all readers.

AICUP SCHOOLS



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