

"It is vital that state leaders recognize the number, location, and impact of the Commonwealth's institutions of higher learning, and the important role all these schools can play in their communities."



METROPOLITAN POLICY PROGRAM THE BROOKINGS INSTITUTION

Higher Education in Pennsylvania: A Competitive Asset for Communities

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Ranking near the top of the nation on many measures of higher education, Pennsylvania's plethora of public and private colleges, universities, and vocational schools represent a major economic asset to the Commonwealth.

Already there are many partnerships between these institutions and their host communities, which are mostly located in the state's metropolitan and older jurisdictions. However, as a whole, Pennsylvania's higher education assets remain underleveraged. This paper surveys Pennsylvania's higher education landscape and its economic impact, proposing a number of policy approaches to boost town and gown collaboration especially on community revitalization—for the mutual benefit of both institutions and communities and, ultimately, the state.

I. Introduction

n 2003, the Brookings Institution released a report on how to enhance Pennsylvania's economic competitiveness. "Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania" called for the state to rejuvenate its many distinctive cities, towns, and older suburbs and to invest in the high quality service industries often located there. The Commonwealth's institutions of higher learning are among those industries.

The logic is clear. In a state troubled by deindustrialization, slow population growth, and continuing disinvestment in its core communities, Pennsylvania's college and universities are major fixed assets providing myriad benefits to the state and its localities. Over 500 higher education institutions, including vocational schools, are located in municipalities across the Commonwealth. Beyond their role as educators, these institutions are vital to many local and regional economies, as trainers of the future workforce, as incubators of firms, and as employers, purchasers, and real estate developers.

And yet while it is generally understood that Pennsylvania's large number of post-secondary schools have important impacts throughout the state, their true value—both real and potential—has not been fully tapped. Beyond their inherent impact, higher education institutions of all types and sizes can be key engines of growth and revitalization and active participants in the renewal of the state's older, often struggling, communities. They can help breathe life into faltering downtowns, for example, significantly influence neighborhood planning and development, stimulate new local enterprises, and support volunteer and community service programs. Perhaps most significantly, they can be civic leaders, actively participating in decision-making about improving the health and vitality of their regions.

This study examines higher education in Pennsylvania, and how its role in community and economic development—particularly in the state's older cities and towns—might be better leveraged. The report begins by examining the size and location of the colleges, universities, and vocational schools in the Commonwealth, describing, in general terms, their intrinsic economic effects. It then demonstrates that much more could be done to advance and expand these institutions' local and regional influence, as exemplified by a number of best case examples of unique efforts currently underway in communities throughout the state. Finally, the report offers recommendations on how local, regional, and state leaders can partner with postsecondary institutions to develop strategies aimed at ensuring that all schools become fully engaged participants in local redevelopment and the overall economic future of their hometown communities.

II. Methodology

his report primarily relied on data from two major sources: the U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) and the Pennsylvania Department of Education (PDE).

The study used both data sets to determine the total number of institutions in the Commonwealth. The data contained in Table 1, "Public and Private Four-Year and Two-Year Education Institutions, by State: 2001–2002," is from the U.S. Department of Education's National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics, 2001–02" survey. Using this data enabled us to rank Pennsylvania against other states. The list of Pennsylvania higher education institutions used in the remainder of this study is from the Pennsylvania Department of Education, which provided more detailed location information necessary for our analysis.

PDE and IPEDS use different institution classification systems that result in different institution counts. PDE classifies institutions into 16 categories. We simplified these categories by eliminating Administrative Offices, Theological Seminaries, and Correspondence Programs and reclassified the remaining categories into Four-Year Colleges and Universities, Two-Year Colleges, and Other Higher Education Institutions. Four-Year Colleges and Universities are defined as all schools PDE categorized as State Universities, State-Related Commonwealth Universities (including branch campuses), Private Colleges & Universities, Private Stated-Aided Institutions, or Other Colleges or Universities. Two-Year Colleges are defined as all schools categorized as Community Colleges, Private Two-Year Colleges, Specialized Associate Degree Granting institutions, or Colleges of Technology. Other Higher Education Institutions are defined as all schools listed as a Business Program, Trade Program, Private Licensed School, or Other Approved School. Using this classification system, there are 148 four-year institutions, 102 two-year institutions, and 254 other higher education institutions, for a total of 504.

IPEDS classifies institutions by control of institution (Public or Private), four-year or twoyear, and Carnegie Classification of Institutions of Higher Education type (Baccalaureate, Master's, Doctor's, or Other). Unlike PDE, the focus of IPEDS classification is not on whether a higher education institution is a college or university. For example, IPEDS includes in their Private Two-Year Institution category Business Programs, Trade Programs, and Private Licensed Schools, institutions that we counted as "Other Higher Education Institutions" in our classification scheme. As a result, IPEDS' two-year schools total 117, while, using PDE, ours total only 102. We cannot fully account for the differences in the number of four-year institutions, which total 143 using IPEDS and 148 using PDE data. Given these discrepancies, the total number of two- and four-year institutions in the state equals 260 using IPEDS data and 250 using PDE data. We did not use IPEDS to collect any data on "Other Higher Educational Institutions."



Public Public Private Private Rank by Institutions Four-Year Two-Year Four-Year Two-Year Total Total Rank by Per Postsecondary Postsecondary Number of Number of Total 1,000,000 Institutions Postsecondary State Institutions Institutions Institutions Institutions Institutions Institutions Population Capita Per Capita Alabama 4,447,100 16.86 Alaska 626,932 12.76 Arizona 5,130,632 14.42 Arkansas 2,673,400 17.21 California 33,871,648 12.19 Colorado 4,301,261 17.44 Connecticut 3,405,565 13.21 Delaware 12.76 783,600 Florida 15,982,378 10.39 Georgia 8,186,453 15.64 Hawaii 1,211,537 17.33 Idaho 1,293,953 10.82 Illinois 12,419,293 14.82 Indiana 6,080,485 16.12 Iowa 2,926,324 21.53 2,688,418 Kansas 23.06 Kentucky 4,041,769 19.55 Louisiana 4,468,976 19.02 Maine 1,274,923 25.88 Maryland 5,296,486 11.71 6,349,097 Massachusetts 18.74 Michigan 9,938,444 10.77 Minnesota 4,919,479 23.17 Mississippi 2,844,658 14.41Missouri 5,595,211 21.27 Montana 902,195 26.60 Nebraska 22.21 1,711,263 Nevada 1,998,257 7.51 New Hampshire 1,235,786 20.23 New Jersey 8,414,350 6.77 New Mexico 1,819,046 24.19 New York 18,976,457 16.28 North Carolina 8,049,313 15.03 North Dakota 642,200 32.70 Ohio 11,353,140 15.68 Oklahoma 3,450,654 15.07 Oregon 3,421,399 16.66 Pennsylvania 12,281,054 21.17Rhode Island 1,048,319 13.35 South Carolina 4,012,012 15.45 South Dakota 754,844 34.44 Tennessee 5,689,283 15.29 Texas 20,851,820 9.50 Utah 2,233,169 10.75 Vermont 608,827 44.35 7,078,515 Virginia 14.13 Washington 5,894,121 13.57 West Virginia 1,808,344 20.46 Wisconsin 5,363,675 12.86 Wyoming 493,782 18.23

Table 1. Public and Private Four-Year and Two-Year Education Institutions, by State: 2001–2002

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics, 2001–02" survey.

III. The Location and Presence of Higher Educational Institutions in Pennsylvania

ennsylvania has an extensive system of public and private colleges, universities, and vocational schools located in large, small, urban, and rural communities throughout the state.

A. Pennsylvania has more higher education institutions than most other states

According to the U.S. Department of Education, in 2001, Pennsylvania boasted approximately 260 public and private colleges and universities, including 45 public four-year institutions (including branch campuses), 98 private four-year schools, and 117 public and private two-year colleges.¹ These numbers are significant: While the sixth-largest state, Pennsylvania ranks first in the total number of public four-year institutions, third in the total number of public and private four-year and two-year institutions, and twelfth in its per capita total number of public and private four- and two-year institutions. Pennsylvania actually ranks first among the country's 16 most populous states based on its per capita number of institutions; California, Texas, and New York—the three largest U.S. states—rank 42nd, 48th, and 24th, respectively.

In the fall of 2001, over 650,000 students were enrolled in the 250 four-year and two-year colleges and universities as classified using PDE data.² These schools range considerably in size, with Pennsylvania State University's main campus enrolling over 41,000 students and several of the state's two-year—and a handful of four-year—schools enrolling under 100. In fact, the average enrollment for four-year and two-year institutions in the state is approximately 3,400 and 1,400 students, respectively. More than half of four-year schools, and nearly 90 percent of two-year schools, have less than 2,000 students. Only four institutions—the University of Pennsylvania and the main campuses of Pennsylvania State University, Temple University, and the University of Pittsburgh—have enrollments over 20,000.

Pennsylvania also has approximately 254 other post-secondary institutions located in communities throughout the Commonwealth.³ These institutions—which are grouped here into an "Other Higher Education Institutions" category—are commonly referred to as vocational schools. While generally much smaller—and more ephemeral—than four-year and two-year colleges and universities, in the aggregate these business programs, trade programs, private licensed schools, and other approved schools offer important training opportunities for both young and mid-career workers.

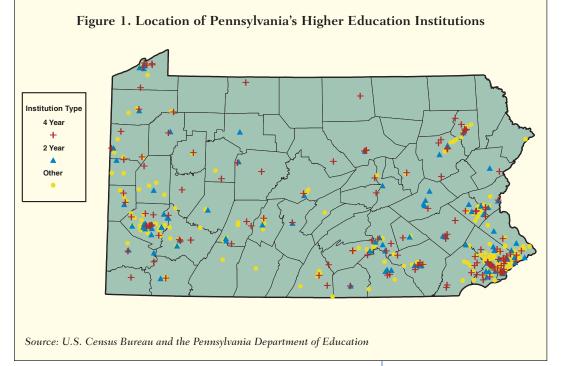
	Number of	Share of	Known
Category	Institutions	Institutions	Enrollment
Four-Year Colleges and Universities	148	29.37%	510,767
Two-Year Colleges	102	20.24%	142,818
Other Higher Education	254	50.40%	NA
Total	504	100.00%	653,585

Table 2. Summary of Pennsylvania Higher Education Institutions by Institution Category

Source: Institution Count: Pennsylvania Department of Higher Education, author's calculations; Enrollment: U.S Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) College Opportunities On-line (COOL) database.

B. Post-secondary institutions are found in almost 80 percent of the Commonwealth's counties, with more than half located in southeastern and southwestern Pennsylvania

Of the 504 four-year, two-year, and "other" higher education institutions for which we have location data, 274, or over half, are located in the populous southeastern and southwestern regions of the state. Approximately 15.5 percent and 13.5 percent are located in northeastern and south-central Pennsylvania, respectively, with the remaining 16.7 percent sprinkled throughout the more rural central and northwestern parts of the state.



Fifty-three of Pennsylvania's

67 counties—79 percent—have at least one college, university, or vocational school located within its borders. Forty-seven counties (70 percent) have at least one four-year school, while 36 (54 percent) have at least one two-year school. While counties in the Pittsburgh and Philadelphia metropolitan areas boast the largest number of institutions, several other counties throughout the state are also home to multiple schools. Lancaster County, for example, has six four-year institutions, four two-year institutions, and 10 vocational schools; Lehigh County also has a total of 20 schools, while Erie County has 18.

C. Further, Pennsylvania's higher educational institutions are heavily concentrated in its metropolitan areas and older communities

The vast majority of schools—almost 90 percent—are located in Pennsylvania's 14 metropolitan areas. This concentration slightly exceeds the share of state residents living in these areas, which is 84.6 percent. Just over half of all schools are located in the Philadelphia (34 percent) and Pittsburgh (19 percent) metro areas; the Allentown, Harrisburg, and Scranton areas each boast between 5 and 6 percent.

Moreover, Pennsylvania's higher education institutions are heavily clustered in its established communities.⁴ Cities, boroughs, and first-class townships around the Commonwealth encompass approximately 58 percent of the state's population, but are home to 74 percent of all higher ed institutions. These communities contain 77 percent of its four-year institutions, just over three-quarters of its two-year institutions, and almost 71 percent of its vocational schools. In fact, over 64 percent of Pennsylvania's cities and over 37 percent of its first-class townships have at least one institution of higher education within their borders. Over 80 percent of 4-year and 2-year students—more than a half million in total—attend school in these communities.

In short, Pennsylvania is fortunate to have a very large number of institutions rooted in large and small communities throughout the state. Together, these many institutions represent a major competitive asset for the state and its communities.

C. C. DA	Number of Four-Year	Number of	Number of Other	-
Counties in PA	Colleges and Universities	Two-Year Colleges	Education Institutions	Tota
Adams County	1	1	1	3
Allegheny County Armstrong County	10 1	18 0	27 0	55
Beaver County	2	1	4	7
	0	0	4	/
Bedford County	4	3	3	
Berks County	4	1	3	10
Blair County				
Bradford County	0	0	0	(
Bucks County	3	4	13	20
Butler County	1	1		6
Cambria County	3	2	4	9
Cameron County	0	0	0	(
Carbon County	0	0	0	(
Centre County	1	1	3	10
Chester County	5	0	7	12
Clarion County	1	0	1	2
Clearfield County	2	1	0	3
Clinton County	1	0	0	1
Columbia County	1	0	1	2
Crawford County	2	1	3	6
Cumberland County	5	1	7	13
Dauphin County	3	4	4	11
Delaware County	10	5	10	25
Elk County	0	1	0]
Erie County	6	4	8	18
Fayette County	1	1	5	
Forest County	0	0	0	(
Franklin County	2	0	6	8
Fulton County	0	0	0	(
Greene County	1	0	0]
Huntingdon County	1	1	0	2
Indiana County	1	1	4	(
Jefferson County	1	0	1	2
Juniata County	0	0	0	(
Lackawanna County	6	1	7	14
Lancaster County	6	4	10	20
Lawrence County	1	2	3	(
Lebanon County	1	1	1	3
Lehigh County	4	4	12	20
Luzerne County	5	2	8	15
Lycoming County	3	1	0	4
McKean County	1	0	0]
Mercer County	3	1	3	7
Mifflin County	0	0	1]
Monroe County	1	0	0	1
Montgomery County	11	6	20	37
Montour County	0	0	0	(
Northampton County	3	3	4	1(
Northumberland County		1	1	2
Perry County	0	0	0	(
Philadelphia County	19	9	47	75
Pike County	0	0	1]
Potter County	0	0	0	(
Schuylkill County	1	3	1	1
Snyder County	1	0	1	2
Somerset County	0	0	1	
Sullivan County	0	0	0	(
Susquehanna County	0	0	0	(
lioga County	1	0	1	
Union County	1	0	0	-
Venango County	1	1	0	-
Warren County	0	0	0	(
Washington County	2	1	1	4
Wayne County	0	0	0	(
Westmoreland County	5	6	6	17
Wyoming County	0	0	0	17
York County	2	4	5	11
Total	148	102	254	50 4

Table 3. Summary of Pennsylvania Higher Education Institutions by County

Metro Area	Total Number of Institutions	Share of Total Institutions	Share of Four- Year Colleges & Universities	Share of Two-Year Colleges	Share of Other Higher Education Institutions	Share of State Population
In Metro Areas	447	88.69%	85.81%	86.27%	91.34%	84.60%
Allentown	29	5.75%	4.70%	5.94%	6.30%	5.20%
Altoona	5	0.99%	0.67%	0.99%	1.18%	1.10%
Erie	18	3.57%	4.03%	3.96%	3.15%	2.30%
Harrisburg	27	5.36%	6.04%	5.94%	4.72%	5.10%
Johnston	10	1.98%	2.01%	1.98%	1.97%	1.90%
Lancaster	20	3.97%	4.05%	3.92%	3.94%	3.80%
Newburg	1	0.20%	0.00%	0.00%	0.39%	0.40%
Philadelphia (PA only)	171	33.93%	32.21%	23.76%	38.98%	31.30%
Pittsburgh	96	19.05%	14.77%	27.72%	18.11%	19.20%
Reading	11	2.18%	2.68%	2.97%	1.57%	3.00%
Scranton	30	5.95%	8.05%	2.97%	5.91%	5.10%
Sharon	8	1.59%	2.01%	0.99%	1.57%	1.00%
State College	5	0.99%	0.67%	0.99%	1.18%	1.10%
Williamsport	5	0.99%	2.01%	0.99%	0.39%	1.00%
York	11	2.18%	1.34%	3.96%	1.97%	3.10%
Non-Metro	57	11.31%	14.19%	13.73%	8.66%	15.40%
State Total	504					

Table 4. Summary of Pennsylvania Higher Education Institutions by Metropolitan Area

Source: Pennsylvania Departement of Higher Education, author's calculations

Table 5. Summary of Pennsylvania Higher Education Institutions by Municipality Type

	Total Number of Institutions	Share of Total Institutions	Share of Four- Year Colleges & Universities	Share of Two-Year Colleges	Share of Other Higher Education Institutions	Share of State Population
Older Pennsylvania	371	73.61%	77.03%	75.49%	70.87%	58.30%
Cities	194	38.49%	37.84%	46.08%	35.83%	25.40%
Boroughs	110	21.83%	22.15%	17.82%	23.23%	20.80%
1st-Class Townships	67	13.29%	16.78%	11.88%	11.81%	12.10%
2nd-Class Townships	133	26.39%	22.82%	24.75%	29.13%	41.70%
State Total	504					

Source: Pennsylvania Departement of Higher Education, author's calculations

IV. The Real and Potential Economic Value of Higher Education Institutions

ennsylvania's higher education institutions—its universities, liberal arts colleges, community colleges, and vocational schools—are fixed enterprises with massive resources and wide-ranging impacts. The substantial educational and employment—not to mention social and cultural—benefits these institutions bestow on their surrounding areas make it readily apparent that they are an important economic sector that needs to be on the radar screen of all state and local leaders.

A. Higher education institutions have inherent economic impacts on the Commonwealth and its communities

Pennsylvania's many colleges, universities, and vocational schools provide significant economic returns to the state and its communities simply by virtue of their role as educators, employers, and procurers of goods and services.

1. Colleges, universities and vocational schools educate the state's future workforce

First and foremost, Pennsylvania's colleges and universities are helping to educate the Commonwealth's future workforce. According to a 2004 report by the Federal Reserve Bank of Cleveland, the Commonwealth is doing a decent job retaining students immediately after they graduate from college. Specifically, while the state is an overall net exporter of college students—12,000 students graduating in 2000 left the state in 2001—63.8 percent of students who graduated in 2000 from Pennsylvania schools remained in the state a year later, ranking the Commonwealth among the middle 25 of all states. On the flip side, in 2001 nearly 79 percent of Pennsylvania residents who received a baccalaureate degree the year before attended a school in the state.⁵

These numbers illustrate the importance of Pennsylvania's colleges and universities in educating their residents who have earned degrees. What they don't reflect is that, with an older population and blue collar history, Pennsylvania's overall college attainment rates are actually lower than the national average. This may be changing, however: According to recent analysis by the Pennsylvania Economy League, Pennsylvania ranks 14th among all states based on the share of high school students who go directly on to college.⁶ And while only 22.4 percent of Pennsylvania's residents over age 25 possess a bachelor's degree or higher—ranking the state 30th—29.1 percent of the state's 25- to 34-year olds have earned such a degree, ranking it 16th. An additional 15.8 percent of the over 25 population has at least some college, low by national standards and indicative of the need to increase the share of residents who have received some training beyond high school.⁷

As the economy becomes ever more dependent on skilled, creative, and highly-educated employees, Pennsylvania's many two- and four-year colleges and universities, as well as vocational schools, will play an increasingly important role in providing students with the training they need to compete. Additionally, the state can't rely on attracting educated workers from other states. With an aging workforce and a net out-migration of residents, educating Pennsylvanians—and getting them to stay—is key to ensuring future workforce needs are met.⁸ This will be particularly essential in certain sectors and occupations such as health care and high technology, which are experiencing growing demands for workers across a range of education and skill levels.⁹

2. Higher education helps reduce unemployment rates, grow incomes, and bolster state and local revenues

While a high school degree was sufficient to enter the middle class in the manufacturing economy, an associate degree or above is now the ticket to family prosperity. A higher degree goes a long way in improving graduates' employment opportunities and increasing their incomes, which in turn provides economic and fiscal benefits to the state and localities.

According to a recent report by the Institute for Higher Education Policy, in 2004 the unemployment rate for Pennsylvania residents with a bachelor's degree was almost half that of those with only a high school diploma.¹⁰ What's more, those with a bachelor's degree had significantly higher personal incomes than those who didn't go beyond high school: \$51,162 compared to \$24,422. Those residents with even some college had personal incomes over \$9,000 greater than those with no post-secondary education.¹¹

Higher incomes, of course, not only contribute to family wealth and well-being, but also allow more dollars to be circulated throughout the state and local economies, generating revenues that can be spent on economic development, schools, infrastructure improvement, and other needs.



Percent Population Percent Population Percent Percent Aged 25+ 25-34 with Population 25+ Population 25-34 with Bachelor's **Bachelor's Degree** With at Least With at Least State Degree or Higher Rank or Higher Rank Some College* Rank Some College* Rank Alabama 19.4% 19.0% 44 21.8% 41 31 32.3% 24 Alaska 24.7% 20 21.3% 43 26.6%2 39.1% 4 23.5% 22.9% 37 24.5% 8 33.7% 18 24 Arizona Arkansas 16.7% 49 18.8% 47 17.4% 46 29.7% 35 California 12 26.3% 28 23.0% 15 29.1% 39 26.6% Colorado 32.7% 2 34.8% 3 23.6% 13 31.7% 27 Connecticut 31.4% 3 35.3% 2 18.2% 43 27.3% 46 Delaware 25.0% 19 29.7% 13 19.2% 32 29.0% 40 Florida 22.3% 31 23.3% 34 21.3% 20 32.7% 21 24.3% 27.7% 21 18.9% 28.6% Georgia 22 36 43 Hawaii 26.2% 13 26.5% 25 23.9% 10 36.1% 11Idaho 21.7% 35 22.0% 40 25.7% 5 37.8% 5 Illinois 14 32.3% 9 20.0% 28 29.7% 34 26.1% Indiana 19.4% 43 23.4% 33 18.5% 39 31.0% 29 27.8% Iowa 21.2% 38 2021.0% 22 36.1% 10 25.8% 29.8% 21.3% 21 34.1% Kansas 16 12 15 Kentucky 17.1% 47 20.8% 45 16.9% 47 29.8% 33 18.7% 45 21.0% 44 17.5% 45 29.4% 37 Louisiana Maine 22.9% 27 22.9% 38 19.9% 29 32.1% 25 34.2% 18.5% 40 28.9% Maryland 31.4% 41 4 6 Massachusetts 33.2% 1 41.4% 18.6% 37 25.5% 50 1 Michigan 21.8% 34 26.0% 29 22.0% 17 34.8% 13 27.4% 10 34.5% 5 23.9% 1137.2% 8 Minnesota Mississippi 16.9% 48 18.3% 48 20.2% 26 33.5% 19 26.8% 19.1% 31.7% Missouri 21.6% 36 23 33 26 24.4% 21 23.7% 12 36.9% 9 Montana 26.6% 24 Nebraska 23.7% 23 29.7% 14 23.3% 14 37.6% 6 18.2% 46 17.3% 50 24.2% 9 32.4% 22 Nevada New Hampshire 28.7% 8 30.2% 11 21.7% 18 32.4% 23 34.7% 26.4% New Jersey 29.8% 5 4 16.8% 48 49 New Mexico 23.5% 25 20.1%21.5% 19 33.9% 46 17 New York 27.4% 11 33.3% 7 18.4%41 27.4% 45 North Carolina 22.5% 28 26.4% 27 20.4% 25 31.2% 28 North Dakota 22.0% 32 28.8% 18 26.6% 3 43.6% 1 39 25.9% Ohio 21.1% 30 18.6% 38 30.8% 30 Oklahoma 20.3% 41 21.6% 42 20.6% 24 33.2% 20 Oregon 25.1% 18 26.5% 26 24.6% 7 34.0% 16 Pennsylvania 22.4% 30 29.1% 16 15.8% 49 26.9% 48 Rhode Island 25.6% 17 29.2% 15 18.3% 42 30.1% 32 South Carolina 20.4% 40 22.6% 39 19.7% 30 30.5% 31 South Dakota 21.5% 37 27.4% 22 23.0% 37.2% 7 16 Tennessee 19.6% 42 23.0% 36 18.1% 44 29.1% 38 Texas 23.2% 26 23.7% 32 20.1% 27 29.6% 36 Utah 26.1% 15 25.4% 31 28.0% 40.2% 3 1 29.4% Vermont 7 31.2% 10 19.1% 34 28.5% 44 Virginia 29.5% 33.1% 19.1% 35 28.8% 42 6 8 9 Washington 27.7%28.9% 17 25.7% 6 35.3% 12 West Virginia 14.8% 50 17.6% 49 14.7% 50 27.2% 47 23 34.2% Wisconsin 22.4% 29 27.9% 19 20.8% 14 21.9% 23.1% 26.0% 40.7% 33 35 4 2 Wyoming **United States** 24.4% 27.5% 20.3% 30.5%

Table 6. Educational Attainment by State, 2000

Source: 2000 Census

"*The "some college" category includes those individuals who have taken 1 or more years of college courses, but do not have a degree, and those who have attained an Associates Degree

3. Post-secondary schools are often major local employers, providing quality jobs throughout the state

Pennsylvania's post-secondary institutions provide large numbers of jobs to residents in a wide array of occupations requiring varying degrees of skill.

In 2003, more than 476,000 people worked in Pennsylvania's educational services sector over 158,000 of them employed by post-secondary institutions.¹² Over 149,000 people worked for the state's four-year and two-year colleges and universities, and more than 9,700 people were employed by technical and trade schools and business, computer, and management training schools. Together, Pennsylvania's post-secondary institutions employ more than 3.5 percent of all service sector workers in the state; nationwide, higher education institutions employ a just slightly lower 3.2 percent of all service sector workers.¹³

In fact, many of these institutions are among the largest employers in their community. Ninety (36 percent) of the state's 250 four-year and two-year schools are among the top 50 employers in their county; 25 (10 percent) are in the top ten. Breaking this down even further, nearly half of all four-year schools are among the top 50 employers in their county and just over 10 percent are among the top five.¹⁴ Six of Pennsylvania's state universities, for example, are among the largest five employers in their county.¹⁵ The University of Pittsburgh, Gettysburg College, and Bucknell University are the second largest employers in Allegheny, Adams, and Union counties, respectively, while the University of Pennsylvania and Temple both rank among the top five employers in the city of Philadelphia.¹⁶

Overall, higher education is a vital economic sector in the Commonwealth which pays comparatively high wages to its employees. According to a 2005 report by The Association of Independent Colleges and Universities of Pennsylvania (AICUP), independent colleges and universities alone rank fourth among Pennsylvania's largest industry sectors based on their over all payroll of over \$4 billion per year, with revenues that rank it 10th among the state's Fortune 500 Companies.¹⁷ The average annual wage of those employed by private higher education institutions in Pennsylvania in 2003 was \$43,891 compared with \$35,570 for all Pennsylvania service sector workers, and \$36,995 for all people employed in the state.¹⁸

4. These institutions also have significant spending power and inject substantial revenue into the economy

Finally, Pennsylvania's institutions of higher education generate considerable other direct and indirect economic effects on their surrounding neighborhoods, cities, and regions. These schools wield substantial purchasing power, invest heavily in real estate and infrastructure, and inject significant revenue into their surrounding communities, the benefits of which ultimately redound to the Commonwealth as a whole.

While it would be nearly impossible to conduct a full and accurate assessment of these impacts on all communities in the state, the available data paint a pretty clear portrait of their overall magnitude. At a national level, for example, the more than 1,900 schools located in urban areas spent a total of \$136 billion on salaries and goods and services in 1996 alone—an amount nine times greater than all federal spending on business development that year. These schools also held more that \$100 billion in land and buildings, a number that increases each year as campuses expand and real estate appreciates.¹⁹

Several recent studies conducted by Pennsylvania higher education associations and institutions—as well as a local newspaper—help illustrate how these impacts play out on a local and state level:

Economic Impact of Independent Institutions. The 2005 AICUP study cited above reports that Pennsylvania's independent institutions of higher learning directly employ more than 71,000 people statewide, with an additional 210,000 state jobs depending on an independent school. These schools spend approximately \$8.5 million per day on everything from energy to food service to paper products, or \$3.1 billion in direct purchases per year; students, staff, and visitors spend an additional almost \$4 billion per year on personal items, food, and entertainment. Moreover, these colleges and universities together planned to spend \$486 million on construction and renovation projects in 2004 and 2005. When

adding in the indirect impacts from all this spending—the additional amount spent locally, again and again, by the recipients of all those direct expenditures—the total impact on the state from independent colleges and universities is estimated to be approximately \$18.3 billion. These schools annually inject approximately \$849 million into the Scranton-Wilkes Barre metro, for example, \$1.1 billion into the Harrisburg area, and \$11.3 billion into greater Philadelphia.²⁰

- **Economic Impact of Pennsylvania State University and its Branch Campuses.** In October, 2004 Penn State released a report detailing the economic effect of its 24 campuses on the Commonwealth and its 67 counties. The study found that the total state economic impact of the university was \$6.1 billion annually. This includes \$2.7 billion in direct spending on capital improvements, goods, services, and supplies, as well as student, employee, and visitor spending. It also includes an additional \$3.5 billion in indirect economic impacts accruing to the economy through the multiplier effect. The report provides detailed data on local campus impacts as well. Penn State spent \$13.8 million on capital improvements, goods and services, and supplies in Somerset County alone in 2003, for example. That same year, faculty and staff at the Erie campus spent \$12.3 million in the county, students in York spent \$12.6 million, and Penn State visitors to Lycoming County generated another \$45.8 million.²¹
- **Economic Impact of Individual Local Institutions.** Several other assessments help to further illustrate the regional impacts of Pennsylvania's public and private schools. In 2003, for example, *The Morning Call* newspaper in Allentown conducted their own assessment of the effect of 11 Lehigh Valley area institutions—including one research university, three state universities, two community colleges, and several private schools—and found that their combined impact was over \$1 billion.²² An October 2005 study by Widener University found its total economic impact attributable to expenditures to be \$406.7 million for the Philadelphia area, and an additional \$27.1 million for the Harrisburg region.²³ And more rural Bucknell University determined that it spent a total of \$112 million on employee and student salaries, goods and services, health care, and facilities and equipment in 2003–2004, a number which reaches \$183 million when adding in the multiplier effect. This does not include the \$3.2 million that visitors to Bucknell poured into the local Lewisburg economy during this period, nor the local expenditures of the schools' 3,500-plus students.²⁴

Although each of these studies focuses on a different time period using different methodologies, as a group they illustrate the significant economic effects of Pennsylvania's post-secondary schools.

B. Higher education institutions can expand their impact by actively engaging in the civic and economic life of their communities

The above snapshot documents the significant presence of post-secondary institutions in Pennsylvania's metropolitan areas and older communities, and demonstrates their intrinsic economic impacts. But despite these schools' vast amount of intellectual, social, physical, and monetary capital, many still lack the capacity to become truly engaged civic actors in their regions, or have yet to recognize the potential benefits.

Some institutions simply remain isolated enclaves, with little interaction with their surrounding areas. Others may be actively involved in regional business development or workforce issues, for example, but have limited relationships with other civic organizations. In still other cases, town-gown relations are actually antagonistic, with chronic disputes over land use issues and student housing and behavior impeding constructive discussion about how institutions and communities might mutually benefit from a stronger, more productive relationship.²⁵

The level and nature of university-community relations is in part a function of history, capacity, and leadership, on both sides of the campus boundary. But it is also heavily influenced by the institutional goals and administrative structures of different types of schools. The very mission of large research universities, for example, typically demands that they engage in collaborative partnerships around innovation and entrepreneurship, though this doesn't necessarily extend to neighborhood and community development activities. Similarly, the primary purpose of community colleges is to train the local workforce, often in consort with local industry, even if they may not be otherwise engaged in helping to foster local economic growth. Small liberal arts colleges don't by and large have a natural orientation to interact with their local community at all, as their focus on academically-oriented undergraduate education doesn't necessarily require that students, faculty, or the administration stray too far beyond the edge of campus. And vocational schools are essentially like any other private sector firm, and thus may see little benefit in community outreach activities beyond those that directly further their business objectives.

This is beginning to change, however, with the pragmatic interests of both institutions and their surrounding communities causing long-standing barriers—whatever their source—to break down in favor of greater collaboration on local planning and economic development issues. Increased competition for students and faculty, for example, combined with growing needs to expand and upgrade facilities outside the existing campus borders means that colleges and universities have a strong-self interest in enhancing the quality and safety of their surrounding neighborhoods. Municipalities, for their part, are recognizing that despite the tax exempt status of colleges and universities, these schools are a strong anchor around which to focus revenue-generating redevelopment, and their many students and employees represent major potential consumers of new local goods and services. Both institutions and localities see myriad benefits in expanding university-industry partnerships, and connecting university-led research to local entrepreneurial activity.

As a result, a growing number of post-secondary institutions across the country—and in Pennsylvania—have committed unprecedented levels of administrative support, funding, academic resources, and, perhaps most importantly, institutional leadership toward the physical, social, and economic renewal of the neighborhoods and regions of which they are a part. The "best practice" examples described below help demonstrate the varied contributions some institutions are already making in the Commonwealth.

1. Research institutions are increasingly focused on commercialization and business creation

One of the most widely touted ways universities are contributing to state and local economies is through the commercialization of research and the development of industry clusters, and states and regions throughout the country have increasingly begun to focus on policies and practices to facilitate these processes. In Pennsylvania, for example, the Ben Franklin Technology Partners' (BFTP) four regional centers in the state have for over two decades provided resources to a number of colleges and universities to develop technology-driven enterprises in the Commonwealth. The state has also launched a new Keystone Innovation Zone (KIZ) program, which specifically focuses on aligning the combined resources of educational institutions, private businesses, commercial lending institutions, venture capital networks, and foundations to increase the rate of technology transfer and create new entrepreneurial opportunities.

Through Ben Franklin and other local and regional industry partnerships, several of Pennsylvania's large research universities—including Penn State, Carnegie Mellon, Penn, Lehigh, Pitt, Temple, Drexel, Thomas Jefferson University, and others—have become heavily engaged in the growth and development of business and industry in the state. Penn State, for example, has numerous support offices and programs focused on business assistance and technology transfer, including a technical assistance office focused on helping small businesses in the state, a 118 acre innovation park, and a research commercialization office that creates spin-off firms from university-based research.²⁶ Carnegie Mellon's University's Center for Technology Transfer has helped spawn 50 start-up companies since 1993, 70 percent of which have remained in the Pittsburgh area, and continues to spin off an average of five firms per year.²⁷ And a 2003 survey by the Association of University Technology Managers found that the University of Pennsylvania tied for fourth among universities nationwide in start-ups created in that fiscal year.²⁸

While large-scale research and knowledge-transfer initiatives such as these are essential to

state and regional efforts to develop new clusters of firms and jobs, they have generally been limited to the state's big research institutions, which, aside from Penn State, are primarily located in Philadelphia and Pittsburgh. These efforts often overshadow the many other ways that colleges and universities—of all sizes and types—are involved in community and economic development in cities, towns, and suburbs throughout Pennsylvania.

2. Several other schools around the Commonwealth are engaged in smaller-scale business development activities in their communities

A number of smaller colleges and universities have partnered with industry to promote entrepreneurship and spur innovation in their cities and regions.

Franklin and Marshall College, in Lancaster, is the first university in the state to receive **Keystone Innovation Zone** (KIZ) status. In partnership with Lancaster General Hospital (LGH), the James Street Improvement District, the county's workforce and economic development agencies, and other local organizations, the KIZ will focus on healthcare, biotechnology, communication/information technology, and agriculture/food processing. Several of these sectors will be supported by F & M's \$40 million Life Sciences Building as well as new investments in LGH. The zone is intended to spur business development and investment, as well as create 50,000 new square feet of real estate, in northwest Lancaster City.²⁹ The university and hospital also just announced plans to redevelop the Armstrong World Industries site, which borders the KIZ. The development is intended to create a "new urban" environment, with four city blocks of retail, offices, and residential space, as well as new athletic fields for the college.³⁰

Other schools throughout the state offer various types of **small business assistance**, largely through the Pennsylvania Small Business Development Centers (SBDC) program. Since its inception in 1980, SBDC has evolved into a network of 16 university-based centers, providing entrepreneurs with information and tools to build successful enterprises.³¹ Bucknell University's SBDC, for example, provides free-of-charge business and engineering consulting services to small firms in several surrounding counties, including start-up businesses looking to locate in downtown Lewisburg.³² The center offers assistance in accounting, business plan preparation, marketing, and other basic business needs, as well as free engineering and product development help for more technology-oriented entrepreneurs. In 2003, the Bucknell SBDC provided services to approximately 329 companies and investors.³³

Lehigh Carbon Community College is also involved in promoting **entrepreneurialism** in their region. In 2003, LCCC—in partnership with the Lehigh Valley Chamber of Commerce and the Community Action Development Corporation— received state grant funds to establish the Entrepreneurial Success Center (ESC) in downtown Allentown. Though originally targeted toward woman and minorities, welfare recipients, and displaced workers, the ESC has evolved over time to focus on both new and established entrepreneurs of all ages and backgrounds, offering a range of services to their clients. Through their Self Employment Assistance (SEA) program, for example, the college and its partners offer extensive business assistance training, one-on-one consultation, and networking opportunities to help start-up business get off the ground. The ESC also offers a youth program, including a summer camp, and hopes in the future to open an on-campus center targeted to burgeoning student entrepreneurs.³⁴

3. Colleges and universities are also involved in a range of community revitalization efforts

Entrepreneurship training and business development are only some of the ways colleges and universities are engaged in their communities. Several other schools have launched initiatives, often in partnership with their city or town, to improve local land use, reinvigorate downtown and neighborhood retail and housing markets, and promote increased community involvement of student and faculty.

The University of Pennsylvania is one of the most extensive, and highly publicized, examples of a large university helping to revitalize its surrounding community. Located in a distressed area suffering from high crime, low-performing public schools, vacant housing, and deteriorating commercial corridors, for decades Penn was an island, and university-community relations

were severely strained. By the mid-1990s this began to change, however. Recognizing that the existing state of affairs was untenable, then President Judith Rodin began to work closely with Penn's Board of Trustees to develop and oversee the West Philadelphia Initiatives, a major commitment of university leadership and resources to address a comprehensive number of **neighborhood revitalization** issues, including public safety, housing, retail development, local employment, and school quality. In the ten years since, Penn has been actively involved in several major real estate projects, including new retail facilities, has created a new university-assisted public school in the area, and has increased neighborhood business and resident participation in construction projects and university procurement and purchasing. As a result, crime is down, real estate values are up, and the economic and physical environment of the West Philadelphia neighborhood is considerably improved.³⁵

Though Penn's efforts are unique in their scope and scale, several other institutions around the state, including small and medium-sized universities and liberal arts colleges, are also working to leverage their impact on their surrounding cities and regions.

Less than 14 miles outside of Philadelphia, Widener University has made a commitment to contribute to the vitality and well-being of the city of Chester, an economically distressed community. Widener's Office of Community Engagement, part of the president's office, collaborates with many of the university's schools and programs to support **community development and service learning activities.** These include tutoring and mentoring programs for local youth, free summer enrichment programs for middle school students, and an annual volunteer fair that encourages students and employees to dedicate their time towards community service activities. Two of the University's signature community development initiative. Founded in 2000, SWCS provides free direct social work services to community residents, and free or low-cost capacity building services to community-based human service and educational organizations. The recently launched Sun Hill Leadership Development Training initiative focuses on developing community organizing and capacity-building skills for residents in a neighborhood bordering the university campus, empowering them to address revitalization issues in their community.³⁶

Other schools have become active in **downtown revitalization** efforts. Thirty-five miles outside of Pittsburgh, for example, the small City of Greensburg has partnered with Seton Hill University, the Westmoreland Trust, and Greensburg Salem School District to expand cultural events, facilities, and educational opportunities downtown. Located on a hill overlooking downtown, Seton Hill was until recently largely removed from the Greensburg community. This is beginning to change, however. With a \$5 million grant from the state's Redevelopment Assistance Capital Program (RACP) and other funds, this spring the university will break ground downtown on a 72,000 square foot Center for the Arts that will include an interconnected theater and music building with classroom, rehearsal, and performance space to be used by both the school and the local community. The college is also working to build student housing in the city, as well as a visitor center that will be operated by students in its tourism and hospitality program. Overall, this effort is an exceptional example of how community leaders have come together to renew a small community, and, in this case, ultimately fulfill a long held vision of creating a vibrant arts and cultural district in the downtown area."³⁷

Not far from Seton Hill, on the outskirts of Greensburg, the University of Pittsburgh at Greensburg established the Smart Growth Partnership of Westmoreland County (SGPWC) in 2001. Housed at the university, this non-profit group focuses on promoting effective **comprehensive planning and smart growth.** Since its inception, the organization has been working with the county's cities, townships, and boroughs to promote land-use strategies that will spur economic revitalization and improve the quality of growth in the region. To this end, SGPWC conducted a Smart Growth Analysis for the City, and worked with the Westmoreland County Planning and Development Office to develop its first comprehensive plan. The organization offers technical assistance on planning related issues to organizations throughout the area, and is involved in several educational outreach activities, both on campus and within the larger community."³⁸

Finally, Allegheny College's Center for Economic and Environmental Development (CEED) is a distinctive example of a community-college partnership focused on **local and regional sustainability issues.** Launched in 1997, CEED engages students, faculty, and various organizations within the Meadville area and beyond on a range of environmental projects involving watershed and forest management, energy conservation, environmental education, sustainable entrepreneurship and agriculture, and environmental writing and art. In 1998, CEED helped create the Northwest Pennsylvania Woodland Association (NWPWA), which improves regional woodlot management practices and matches certified sustainable wood products with green buyers around the state. CEED also manages the Creek Connections program, a unique partnership with over 50 secondary schools that provides intensive, hands-on learning about water quality through student testing of waterways in Pennsylvania and Southwest New York. These and other center programs have won numerous awards in recent years, including the Governor's Award for Environmental Excellence.³⁹

Ultimately, sustained efforts like those described above can benefit both localities and higher education institutions, and thus represent an important opportunity for municipalities and schools throughout Pennsylvania. And unlike promoting tech transfer or commercialization, engaging in community reinvestment is a more attainable economic development role for many smaller colleges and universities located in the state's many older communities. As yet, however, university partnerships in community redevelopment remain for the most part the exception and not the norm.

V. State Policy Implications: Leveraging the Role of Higher Education in Community and Economic Development

ack to Prosperity," contended that improving Pennsylvania's competitiveness requires the state to reinvest in its cities, older townships, and urban and rural boroughs and invest in those industries that promote their revitalization. To this end, it is vital that state leaders recognize the number, location, and impact of the Commonwealth's institutions of higher learning, and the important role all these schools—large and small, public and private—can play in their communities.

The potential influence of higher education—and the level and type of university-community collaboration necessary to leverage it—certainly varies from school to school and locality to locality. The onus is thus on regional academic, civic, business, and governmental leaders to determine how they can most effectively partner to determine desired outcomes—be it a more vibrant downtown, higher-quality neighborhoods, increased local purchasing by institutions, or expanded entrepreneurship opportunities—and design a cooperative plan for how to achieve them. While there is no one-size-fits-all prescription for this process, it undoubtedly demands the focus and commitment of all players, as well as the capacity to initiate, develop, and implement a targeted set of activities.

The Commonwealth ought to make building this capacity a major priority of its community and economic development policies and programs. To be sure, the state already has several programs that support community-university relationships in one form another, including KIZ, RACP, Ben Franklin, Community Action Team (CAT), and the new Job Ready Pennsylvania initiative. But additional focus is needed on creating additional ways to elevate the position of post-secondary schools as true economic and community development leaders, and on making resources available to ensure all schools and communities with demonstrated leadership and a well-developed vision can carry out activities that would most benefit them. Toward this end, the Commonwealth might consider the following:

1. Establish a Higher Education Advisory Board. The Governor should create a Higher Education Advisory Board, co-chaired by the Department of Community and Economic Development and the Department of Education, and involving representatives of the three primary higher education organizations in the state—the Pennsylvania State System of Higher Education, the Association of Independent Colleges and Universities of Pennsylvania, and the Pennsylvania Commission for Community Colleges—as co-leaders for the college and university sector. The board should also include leaders from specific educational institutions, as well as from local civic, economic development, or community development organizations. Currently the state interacts with colleges and universities in myriad but ad hoc ways, tapping their role as investors in capital projects, as investors in students, as investors in research, as investors in workforce and skills training, and as investors in communities. But there is no unified vision for how the overall impact of these schools can and should be leveraged. A Higher Education Advisory Board would provide a forum for bringing together leaders from multiple state cabinet agencies with those from public and private post-secondary schools to develop a set of priorities and actions that the state can take, both administratively and with legislative action. Such an advisory board, like the reinstated State Planning Board, could issue a report to the governor with a set of recommendations on how colleges and universities can be better partners in meeting the state's economic development goals, especially in promoting community reinvestment.

2. Target State Investments near Colleges and Universities. In the fall of 2005, Gov.

Rendell's Economic Development Cabinet announced a set of principles and criteria by which to determine how state agencies should target investments throughout the Commonwealth. Specifically, the criteria are to be used by Commonwealth agencies for evaluating applications for state grants and loans. These Keystone Principles and Criteria for Growth, Investment, and Resource Conservation represent a major step forward in coordinating state investments and making sure that existing state funds are spent in an efficient and quality manner, while leveraging existing assets and infrastructure.

However, the "preferential criteria" should be expanded to include preferences for projects that are in close proximity to and/or are carried out in direct partnership with anchor institutions such as colleges and universities, and medical facilities. Including post-secondary institutions among site locations worthy of preferential consideration in funding decisions is an excellent mechanism for persuading municipalities to collaborate with university leaders on appropriate projects, and could help catalyze the development of long-standing, institutionalized university-community partnerships. Further, encouraging development around fixed institutions will in many cases dovetail with other preferential criteria—including projects located in distressed cities, boroughs, and townships, infill and mixed use developments, and others—and thus help the Commonwealth to meet its stated goal of "fostering sustainable economic development and conservation of resources."

3. Create a New Grant Program to Facilitate University Partnerships in Community **Development.** An increasing number of colleges and universities are interested in getting more involved in neighborhood reinvestment strategies but do not have the resources or financial capacity to do so in a meaningful way. Thus, Pennsylvania should establish a new "Community-University Partnership Program," modeled after two successful federal programs, that provides grant funds to institutions of higher learning to start or expand community-based partnerships. This new state grant program could base its eligible activities on those of the U.S. Department of Housing and Urban Development's Community Outreach Partnership Center (COPC) program—which provides grants to schools to engage in a multitude of activities in urban areas, from job training to housing initiatives to community planning-and/or its Historically Black Colleges and Universities (HBCU) program, which also allows for property acquisition, construction, and rehabilitation, among other neighborhood outreach and revitalization activities.⁴⁰ Eligible grant recipients could be any public or private college, university, or vocational school in the Commonwealth that partners with one or more local entities to pursue eligible activities. To demonstrate their commitment, applicants would be required to put forth matching funds that would then be leveraged by program grant awards.

4. Consider establishing a state "payment-in-lieu-of-taxes" (PILOT) program to enhance municipal capacity in university partnerships. The tax-exempt status of colleges and universities is based on the recognition that such institutions serve a vital public purpose, and helps provide them with the support needed to pursue their basic mission of education, research, and service. However, many of Pennsylvania's colleges and universities are located in fiscally struggling cities, boroughs, and smaller older communities with limited tax bases. To help mitigate some of this hardship and provide added fiscal capacity for municipalities to join higher education institutions in redevelopment projects, Pennsylvania should examine the possibility of creating a state payment-in-lieu-of-taxes (PILOT) program similar to that employed in Connecticut.

Under such a program, the state would award grants to municipalities with colleges and universities to help offset revenue losses incurred from these schools' tax-exempt status. In Connecticut, for example, the state pays municipalities approximately 77 percent of projected property taxes, based on assessed values, were college, university, and hospital property taxable. A PILOT program like this would provide a fiscal boost to many of the Commonwealth's older communities. As importantly, however, such a state program would explicitly acknowledge that higher education institutions benefit all Pennsylvanians—not just those that happen to live in the particular jurisdiction in which such schools are located.⁴¹

5. Hold an Annual Forum on Higher Education and Communities. Finally, the Commonwealth should sponsor an annual event focused on post-secondary institutions and their role in helping to renew communities and regions. Such a conference could bring together leaders from academic institutions and vocational schools, local and state government, business and industry, and other stakeholder organizations from Pennsylvania and around the country to share information and viewpoints, discuss mutual priorities, identify common problems, and highlight best practice partnerships and activities from throughout the year. The event could help galvanize the creation of new community-university partnerships, as well as provide a venue for identifying additional opportunities for state engagement and assistance.

VI. Conclusion

n a 2001 speech at the University of Pittsburgh, Ira Harkavy, director of the Center for Community Partnerships at the University of Pennsylvania, noted that, "At all levels, there is increasing pressure that higher education, given its role, needs to make a greater contribution."⁴² Post-secondary institutions and communities around the country are certainly recognizing this, and many have begun to break out of old molds that have for too long impeded their incentive and ability to form cooperative, productive relationships with one another. As these entities engage in the hard work of establishing and carrying out a shared vision for reinvigorating their neighborhoods and regions, the Commonwealth needs to do its part to ensure that they have the support needed to see their efforts through. In the end, it, too, will reap the rewards.

Endnotes

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- Based on Pennsylvania Department of Education (PDE) data downloaded in July 2004. For further explanation, see the "Methodology" section of this report.
- 4. Consistent with the Back to Prosperity report, this analysis groups the Commonwealth's cities, boroughs, and first-class townships together as "older Pennsylvania." These three types of communities—so identified in the state's municipal classification system—have population densities more than 10 times those of second-class townships, and represent in most cases the historic locus of settlement in Pennsylvania.
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- 14. Pennsylvania Department of Labor and Industry, author's calculations; data from first quarter, 2005.
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