

# The Brookings Institution

Metropolitan Policy Program  
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## Higher Education In Pennsylvania: A Competitive Asset For Communities

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# Higher Education as a Competitive Asset

I

The state must bolster its economic competitiveness by reinvesting in older places and in high-wage service industries

II

One of the best assets to accomplish this is the state's many higher ed institutions

III

The role of higher ed institutions in helping to promote economic prosperity are many

IV

The state can take a few steps to help bolster the role of higher ed in community redevelopment



What is the general link between higher education and economic competitiveness?



First, the shift to a knowledge economy is placing greater reliance on highly-educated and highly-skilled workers

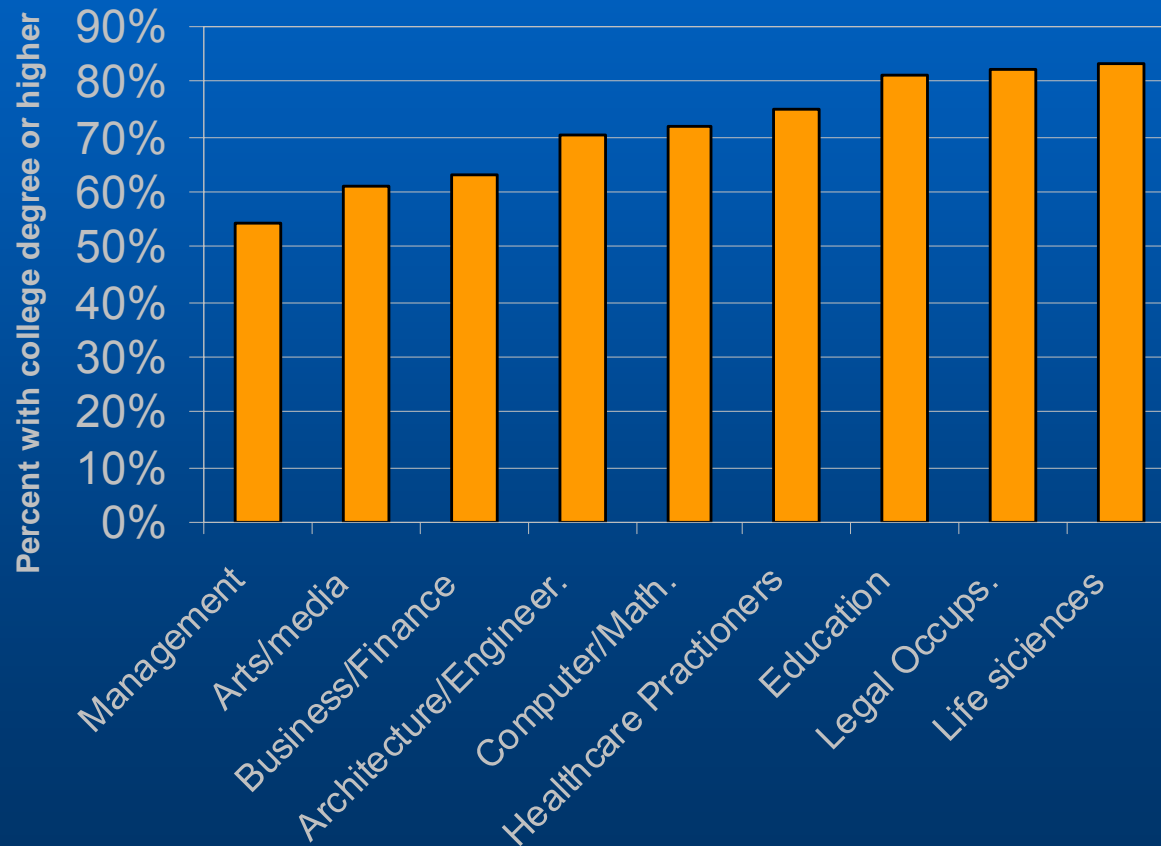
- Ideas, innovation, and creativity now drive the economy
- Success requires large numbers of people with a college education and high skills



# Many service positions today are filled by college graduates

Percentage of Workers with a College Degree or Higher, select occupations, 2002

Source: National Education and Attainment, National Bureau of Labor

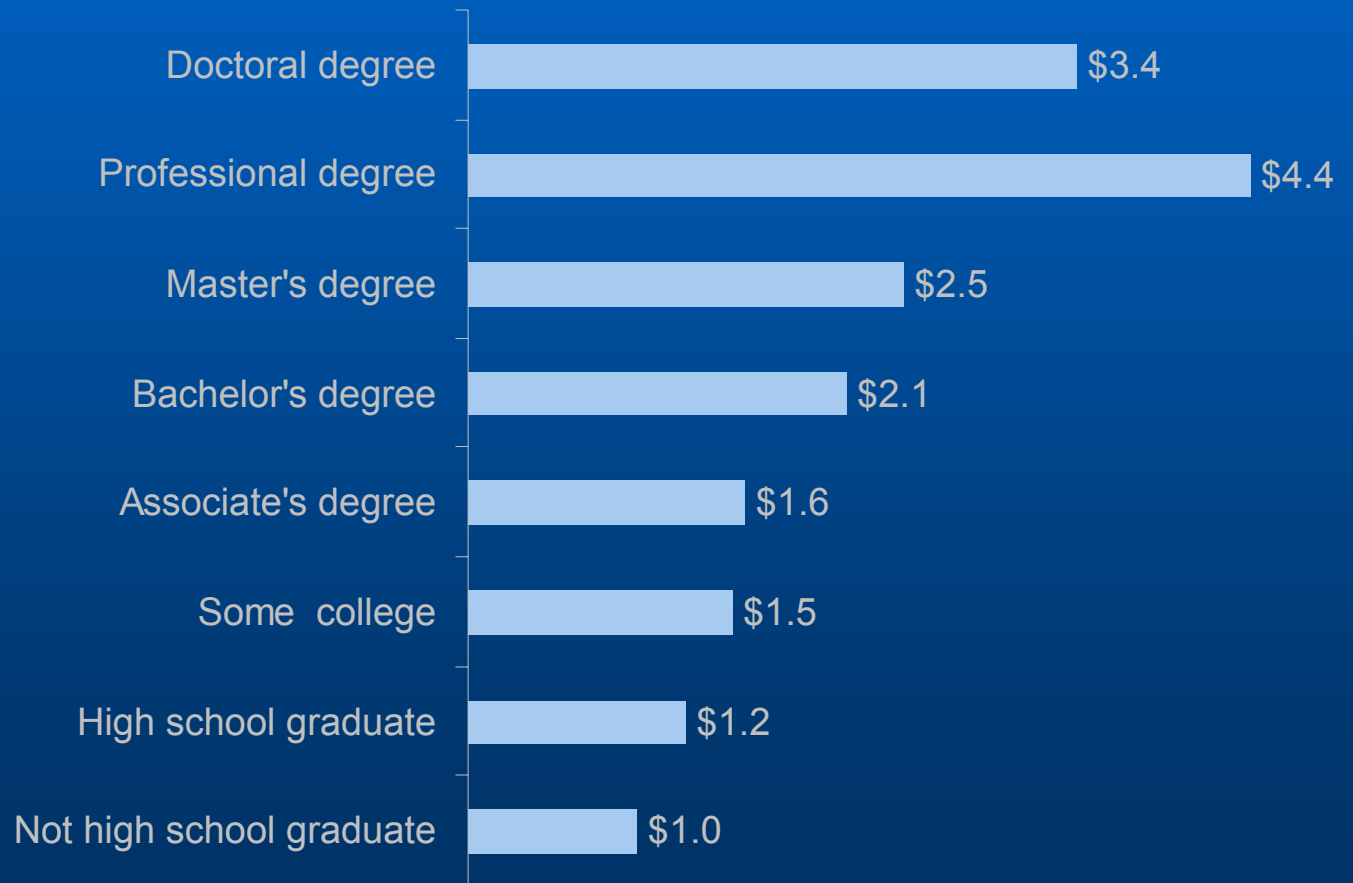




# And a degree matters to income. Nationally, the more you learn, the more you earn

Work-life earnings estimates (millions), 1979-1999

Source:  
“The Big Payoff:  
Educational  
Attainment and  
Estimates of Work-  
Life Earnings,”  
U.S. Census Bureau





To attract or retain educated workers, educated workers are often drawn to places with:

- Vibrant and distinctive downtowns
- Plentiful amenities
- A “thick” job market
- A positive, tolerant culture



Here, the challenge is that the transition from a manufacturing to a services economy may be problematic, leaning towards low wage sectors

- Wal-Mart is the largest private employer in 28 states
- In 2000, over 61 percent of Pennsylvania's workers were employed in low wage jobs (avg. less than \$27,000 per year) compared to 50 percent nationally
- Meanwhile, many older communities are struggling to hold on to jobs, people, and amenities





There has been some good economic progress since 2000, but challenges remain



## Pennsylvania is the 6th most populous state in the union

Population,  
2004

Source:  
U.S. Census Bureau,  
Population Estimates

	Population	Rank
California	33,871,648	1
Texas	20,851,820	2
New York	18,976,457	3
Florida	15,982,378	4
Illinois	12,419,293	5
<b>Pennsylvania</b>	<b>12,281,054</b>	<b>6</b>
Ohio	11,353,140	7
Michigan	9,938,444	8
Georgia	8,186,453	9
New Jersey	8,414,350	10



...but ranks 46<sup>th</sup> among the 50 states for population growth between 2000 and 2004, a slight improvement in overall ranking (48<sup>th</sup>) between 1990 and 2000

Percent change in population, 2000 to 2004

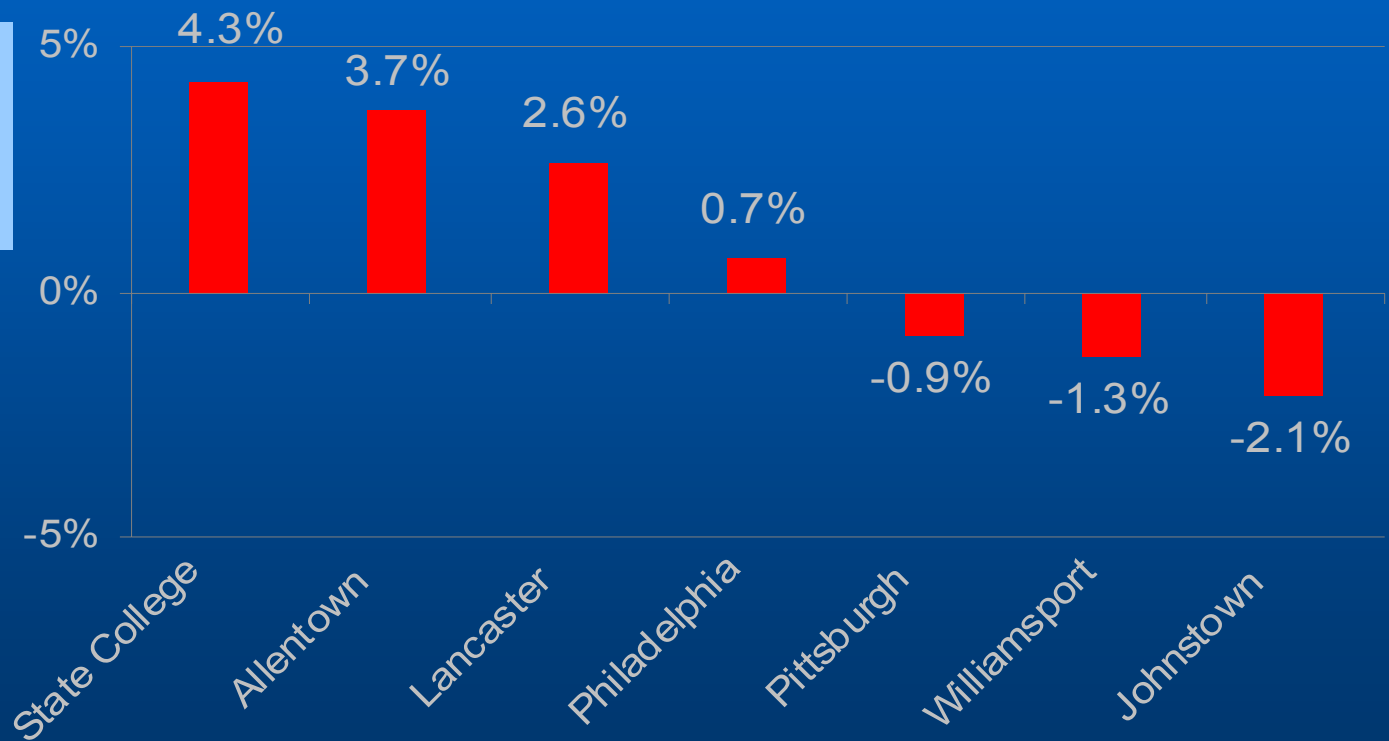
Source:  
U.S. Census Bureau,  
Population Estimates

	Population Change	Rank
Michigan	1.8%	41
Kansas	1.7%	42
New York	1.3%	43
Massachusetts	1.1%	44
Louisiana	1.0%	45
<b>Pennsylvania</b>	<b>1.0%</b>	<b>46</b>
Iowa	1.0%	47
Ohio	0.9%	48
West Virginia	0.4%	49
North Dakota	-1.2%	50
<b>United States</b>	<b>4.3%</b>	



## Population growth within the state since 2000 is uneven; some metropolitan areas are growing while others are losing population

Population change for  
selected PA metros,  
2000 to 2003



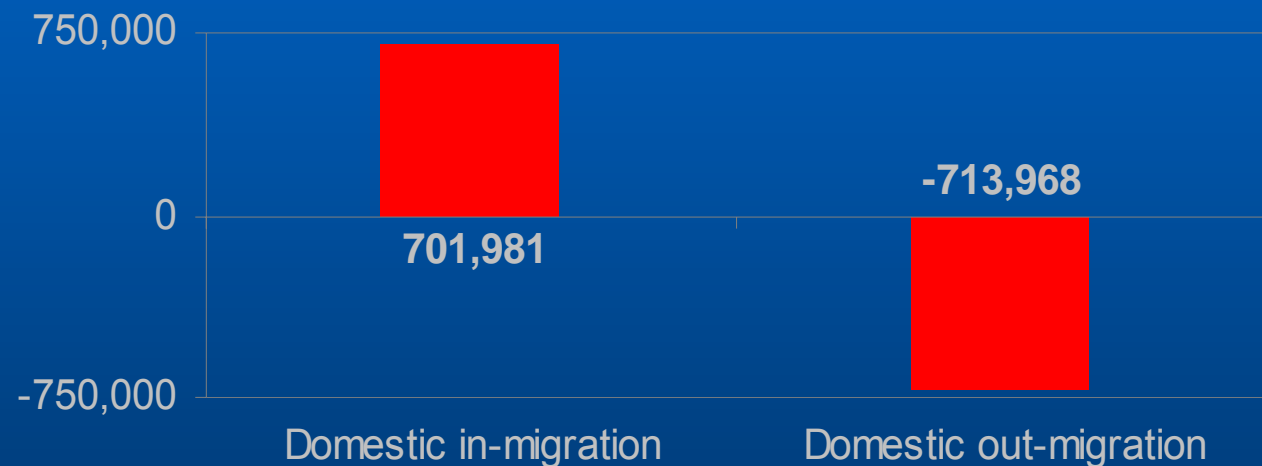
Source: Population  
Estimates



Between 2000 and 2004, net out-migration continued; the state lost another 12,000 residents to other parts of the U.S.

Domestic in-migration  
and out-migration,  
2000 to 2004

Source: IRS





Good news: Pennsylvania added nearly 60,000 non-farm jobs between 2000 and 2004, ranking 40<sup>th</sup> among 50 states in employment growth between (up from 45<sup>th</sup> in 2000)

	Percent change in employment growth	Rank
Percent change in nonfarm employment growth, 2000 to 2004	<b>Pennsylvania</b>	<b>0.9%</b>
	Oklahoma	0.8%
	Missouri	0.7%
	Iowa	0.4%
	Kentucky	0.1%
	Mississippi	0.1%
	Indiana	-0.6%
	Massachusetts	-1.3%
	Ohio	-1.4%
	Illinois	-1.4%
Michigan	-2.9%	
	<b>U.S.</b>	<b>2.1%</b>

Source: Bureau of  
Economic Analysis



In short, since the economy's downturn in 2000, the state is:

- still experiencing sluggish population growth
- facing continued net out-migration of residents
- stagnant incomes, similar to that of the nation as a whole
- generating new jobs, at a relatively better pace than previous decade



# Higher Education as a Competitive Asset

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The state must bolster its economic competitiveness by reinvesting in older places and in high-wage service industries

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One of the best assets to accomplish this is the state's many higher ed institutions

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The role of higher ed institutions in helping to promote economic prosperity are many

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The state can take a few steps to help bolster the role of higher ed in community redevelopment





# We looked at higher education institutions as defined by the Pennsylvania Department of Education

## **4-year institutions**

Private Colleges & Universities, State Universities, State-Related Commonwealth Universities (including Branch Campuses), Private Stated-Aided Institutions, Other College or University

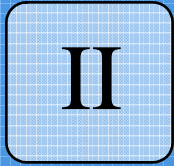
## **2-year institutions**

Community Colleges, Private 2-year colleges, Specialized Associate Degree Granting, Colleges of Technology

## **Other institutions**

Business Program, Trade Program, Private Licensed School, Other Approved School

Categories not included in this study: correspondence schools, theological seminaries, administrative offices



Pennsylvania's system of higher education is substantial and reaches communities of varying size and type

The Commonwealth ranks among the top of states in its large number of higher education institutions

Post-secondary institutions are located in the vast majority -- almost 80 percent -- of Pennsylvania's counties

Higher education institutions are heavily concentrated in Pennsylvania's metropolitan areas and older communities



Pennsylvania has the highest number of public four-year institutions in the country (45) and the third highest total number of institutions of higher learning (260)

Post-secondary institutions, by state: 2001-2002

State	Public 4-year Postsecondary Institutions	Public 2-year Postsecondary Institutions	Private 4-year Postsecondary Institutions	Private 2-year Postsecondary Institutions	Total Number of Institutions	Institutions Per 1,000,000 Capita
California	32	111	186	84	413	12.19
New York	41	39	167	62	309	16.28
<b>Pennsylvania</b>	<b>45</b>	<b>23</b>	<b>98</b>	<b>94</b>	<b>260</b>	<b>21.17</b>
Texas	42	67	56	33	198	9.50
Ohio	19	42	70	47	178	15.68
Florida	12	28	83	43	166	10.39
Minnesota	11	41	40	22	114	23.17
Tennessee	10	13	45	19	87	15.29
New Jersey	14	19	20	4	57	6.77
Vermont	5	1	17	4	27	44.35
Wyoming	1	7	0	1	9	18.23

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



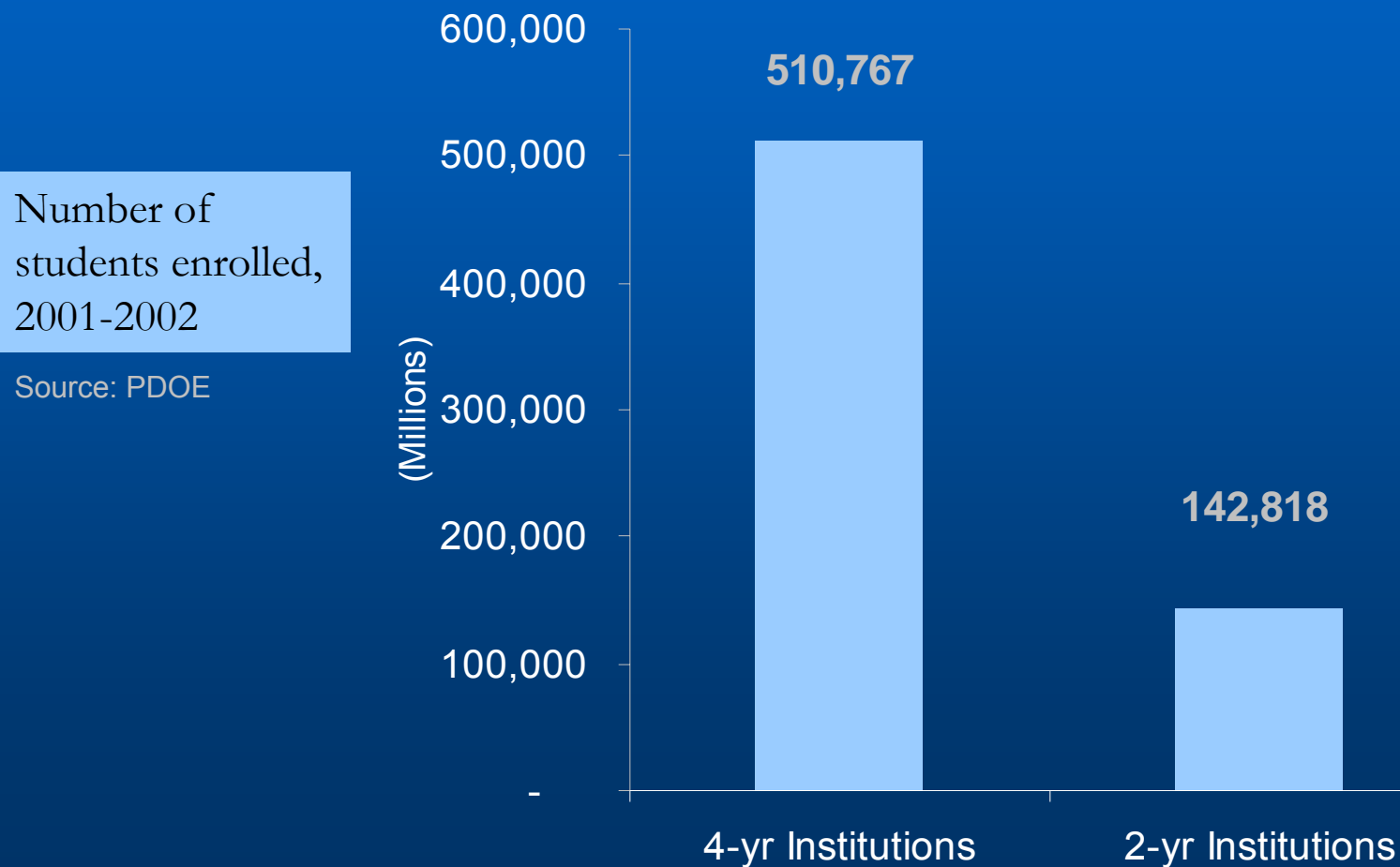
If including vocational schools, there are more than 500 higher educational institutions in the state

Category	Number of Institutions	Share of Total Institutions
4 Year Colleges & Universities	148	29.4%
2 Year Colleges	102	20.2%
Other Higher Education	254	50.4%
<b>Total</b>	<b>504</b>	<b>100.0%</b>

Chart 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



## In 2002, over 650,000 students are enrolled in the states' four- and two-year institutions





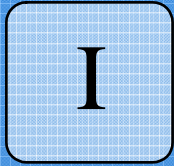
However, most colleges and universities in the state are quite small

- Only four institutions have enrollments over 20,000

*University of Pennsylvania*  
*Penn State (State College)*  
*Temple University*  
*University of Pittsburgh*

- Average enrollment at four-year schools: 3,450
- Average enrollment at two-year schools: 1,400

Chart 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



Pennsylvania's system of higher education is substantial and reaches communities of varying size and type

The Commonwealth ranks among the top of states in its large number of higher education institutions

Nearly 80 percent of Pennsylvania's counties are home to at least one post-secondary institutions

Higher education institutions are heavily concentrated in Pennsylvania's metropolitan areas and older communities



Seventy-nine percent of Pennsylvania's counties have at least one college, university, or vocational school; 70 percent have at least one four-year school

Number of institutions  
by type (select counties)

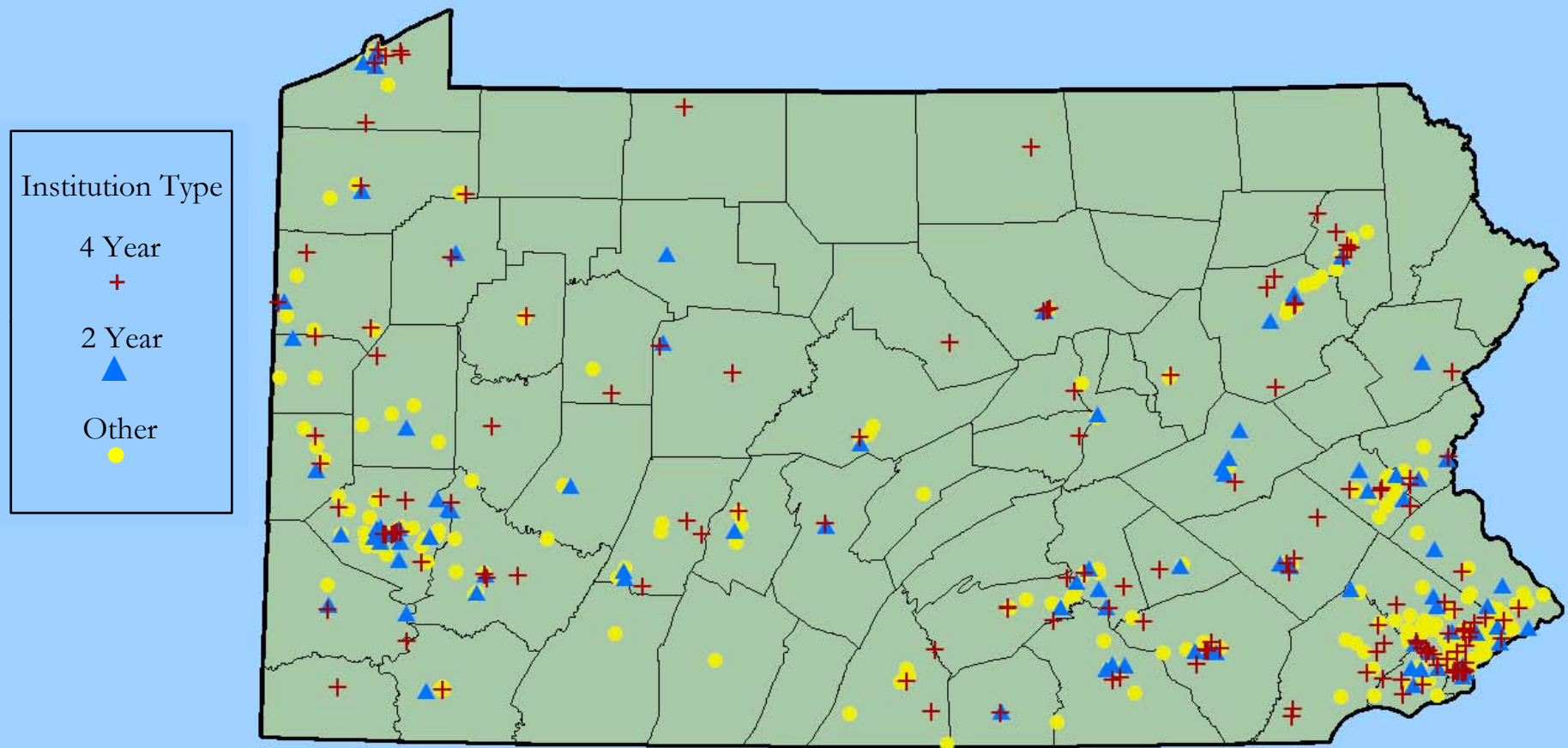
Source: Pennsylvania Department of  
Education

Counties in PA	4 Year Colleges & Universities	2 Year Colleges	Other Education Institutions	Total
Philadelphia	19	9	47	75
Allegheny	10	18	27	55
Montgomery	11	6	20	37
Delaware	10	5	10	25
Lancaster	6	4	10	20
Lehigh	4	4	12	20
Erie	6	4	8	18
Westmoreland	5	6	6	17
Lackawanna	6	1	7	14
Dauphin	3	4	4	11
Cambria	3	2	4	9
Beaver	2	1	4	7
Centre	1	1	3	5
<b>All counties</b>	<b>148</b>	<b>102</b>	<b>254</b>	<b>504</b>

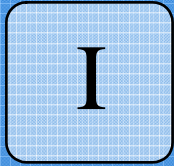




## Pennsylvania's 504 institutions of higher education are well-distributed across the state



Source: U.S. Census Bureau and the Pennsylvania Department of Education



Pennsylvania's system of higher education is substantial and reaches communities of varying size and type

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Post-secondary institutions are located in the vast majority -- almost 80 percent -- of Pennsylvania's counties

Higher education institutions are heavily concentrated in Pennsylvania's metropolitan areas and older communities



## Almost 90 percent of all post-secondary institutions are located in Pennsylvania's 14 metropolitan areas

Metro Area	Number of Institutions	Share of Total Institutions	Share of 4 Year Colleges & Universities	Share of State Population
<b>In Metro Areas</b>	<b>447</b>	<b>88.7%</b>	<b>85.8%</b>	<b>84.6%</b>
Allentown	29	5.8%	4.7%	5.2%
Altoona	5	1.0%	0.7%	1.1%
Erie	18	3.6%	4.0%	2.3%
Harrisburg	27	5.4%	6.0%	5.1%
Johnston	10	2.0%	2.0%	1.9%
Lancaster	20	4.0%	4.1%	3.8%
Newburg	1	0.20%	0.0%	0.4%
Philadelphia (PA only)	171	33.9%	32.2%	31.3%
Pittsburgh	96	19.1%	14.8%	19.2%
Reading	11	2.2%	2.7%	3.0%
Scranton	30	5.9%	8.1%	5.1%
Sharon	8	1.6%	2.0%	1.0%
State College	5	1.0%	0.7%	1.1%
Williamsport	5	1.0%	2.0%	1.0%
York	11	2.2%	1.3%	3.1%
<b>Non-Metro</b>	<b>57</b>	<b>11.3%</b>	<b>14.2%</b>	<b>15.4%</b>

Source: Pennsylvania Department of Education



And nearly 74 percent of higher ed institutions are found in the state's many older communities

## Share of Total Higher Ed Institutions

### **OLDER**

Cities

**73.6%**

38.5%

Boroughs

21.8%

1st Class Townships

13.3%

### **OUTER**

2nd Class Townships

**26.4%**

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**100%**



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### III

The role of higher education institutions are many

#### Inherent economic roles:

- ✓ As educators
- ✓ As major employers
- ✓ As spenders/procurers



## Inherent economic value: Higher Ed as educators of the state's future workforce

- In 2001, nearly 79 percent of Pennsylvania residents who received a baccalaureate degree the year before attended a school in the state
- 22.4 percent of 25+ year olds have a college degree or higher, ranking the state 30<sup>th</sup>
- 29.1 percent of 25-34 year olds have a B.A. or higher, ranking the state 16<sup>th</sup>

Source: The Federal Reserve Bank of Cleveland, *Economic Trends*, 2004. Analysis based on data collected from the National Center for Education Statistics Baccalaureate and Beyond Survey



## Further, promoting higher education has economic payoffs

- Reduces unemployment rates
  - In 2004, a Pennsylvania resident with a BA was twice as likely to be employed than a PA resident with a high school diploma
- Increases incomes
  - In 2004, a PA college graduate earned \$51,162 compared to \$24,422 for a high school graduate
- Increases consumer spending; boosts state and local revenues

Source: Institute for Higher Education Policy, 2005



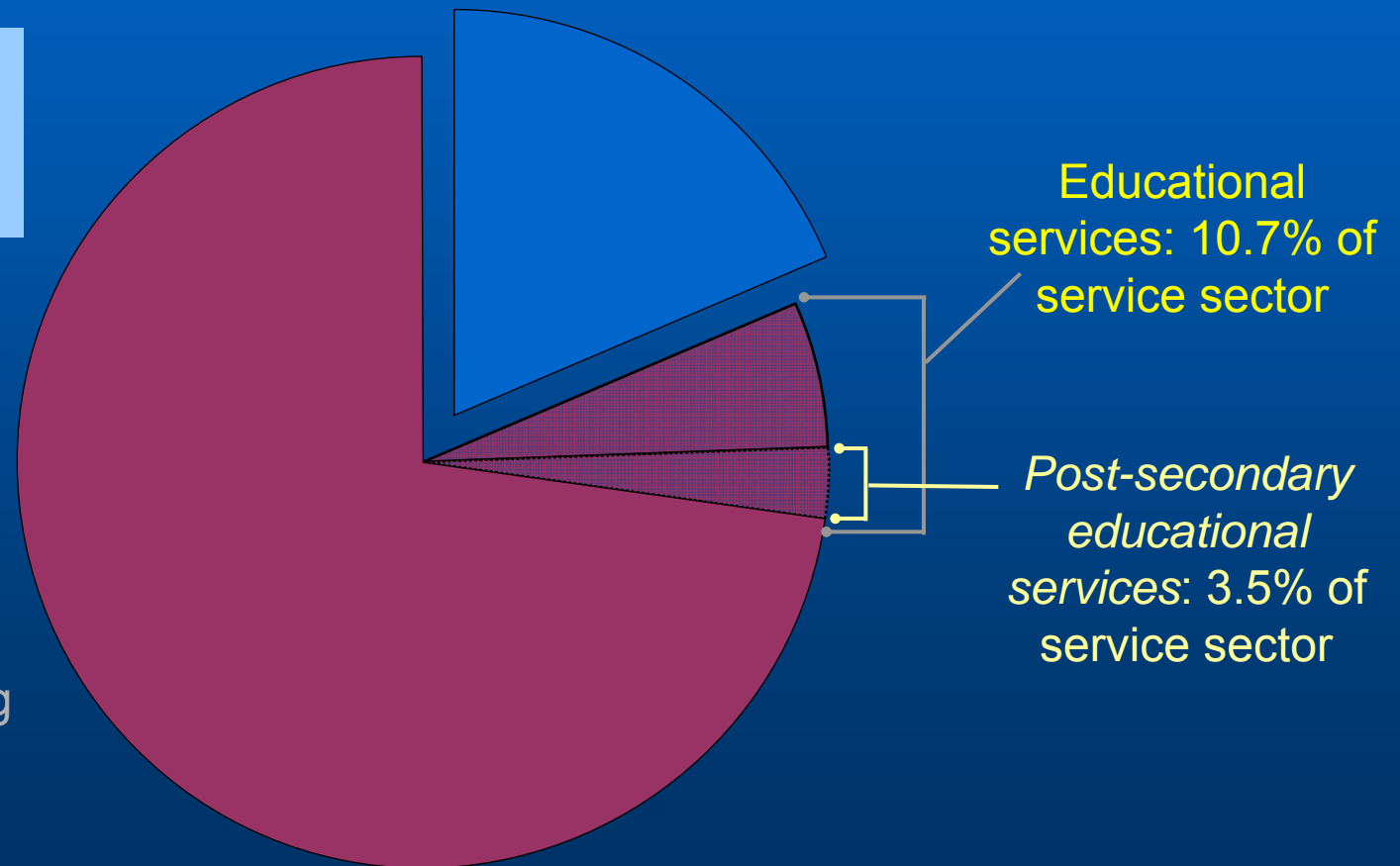


**Inherent economic value: Higher Ed as employers...** Over 158,000 people worked for post-secondary institutions in 2003, making up 3.5 percent of the state's service economy

Shares of total employment, by select sector, 2003

Source: BLS Quarterly Census of Employment and Wages

■ Service sector  
■ Goods producing sector

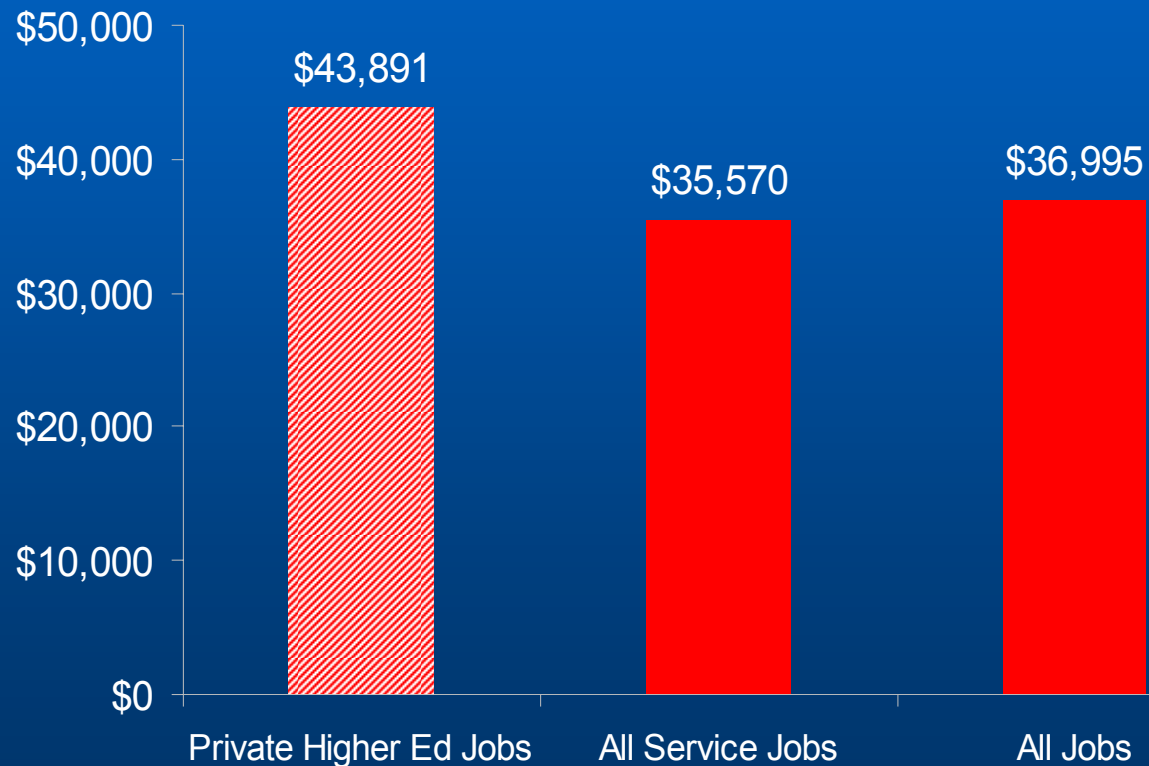




...as generators of good-paying job. While the education sector may be small, it generates quality jobs

Average annual wages in PA by sector, 2003

Source: Bureau of Labor Statistics





## ...and as major local employers

- 36 percent of state's 4- and 2-year institutions are among the top 50 employers in counties; 10 percent are in the top 10
- Six of Pennsylvania's state universities are among the largest 5 employers in their county (e.g., Clarion, Bloomsburg, Mansfield)
- University of Pittsburgh, Gettysburg College, and Bucknell University are the second largest employers in their counties
- Temple and U-Penn are among the top five employers in the city of Philadelphia

Source: Pennsylvania Department of Education and the Pennsylvania Department of Labor & Industry



## Inherent economic value: Higher Ed as overall economic engines, serving as purchasers of goods and services and investors/owners in real estate

PA's **independent institutions of higher learning** directly employ 71,000 people statewide, spend \$3.1 billion per year in direct purchases; and students, staff, visitors add nearly \$4 billion; these schools planned on spending \$486 million on construction and renovation in 2004-2005

A 2004 **Penn State** study found that the total economic impact of the university's 24 campuses was \$6.1 billion annually; locally, faculty and staff at Erie campus spent \$12.3 million in the county

An October 2005 study by **Widener University** found the economic impact of its expenditures to be worth nearly \$407 million for the Philadelphia area and over \$27 million for the Harrisburg area



The role of higher education institutions are many

### Inherent economic roles:

- ✓ As educators
- ✓ As major employers
- ✓ As spenders/procurers

### Emerging, pro-active economic roles:

- ✓ Tech transfer and commercialization
- ✓ Small business development
- ✓ Community revitalization



## Research institutions are increasingly focused on commercialization and business creation

**Penn State** has offices/programs focused on business assistance and technology transfer, including:

- \* a technical assistance office for helping small businesses
- \* a 118-acre innovation park
- \* a commercialization office that spins-off firms from university-based research

**Carnegie Mellon's** Center for Technology Transfer has helped spawn 50 firms since 1993—70 percent have remained in the Pittsburgh area

In the 2003 fiscal year, the **University of Pennsylvania** tied for fourth among universities nationwide in business start-ups created



A number of smaller institutions, including community colleges, have formed partnerships with industry to promote entrepreneurship and innovation

## *Franklin and Marshall College*

→ **F&M** is the first university in the state to receive Keystone Innovation Zone (KIZ) status

→ The KIZ includes a partnership with Lancaster General Hospital, James Street Improvement District, the county's workforce and economic development agencies

→ KIZ will focus on healthcare, biotechnology, communication/information technology, and agriculture/food processing

→ The designation is intended to spur business development and investment, as well as create 50,000 new square feet of real estate in northwest Lancaster City



Finally, higher ed institutions are increasingly engaging in community revitalization...

## *University of Pennsylvania*

→ By 1990s, UPenn was situated in a distressed neighborhood; crime rates were high, buildings were vacant, shops were closing

→ In the mid-1990s, UPenn launched a partnership with West Philadelphia to comprehensively turn around the neighborhood: safer streets, new retail, better housing, better public schools

→ The results are wide, deep, and visible: Penn is the major commercial developer on 40<sup>th</sup> and Walnut, with large grocery store, small merchants, art cinema

→ Penn has facilitated faculty and staff to purchase homes in University City; Penn has also rehabbed 20 vacant properties and returned them to the private marketplace





...and in downtown revitalization

## *Seton Hill University*

→ The university has partnered with the City of Greensburg, the Westmoreland Trust, and the Greensburg Salem School District to create a vibrant arts and cultural district downtown

→ With a \$5 million grant from the state's Redevelopment Assistance Capital Program (RACP) and other funds, the university is set to begin construction of a 72,000 square foot Center for the Arts this spring

→ The arts theatre and music hall will be used by the university and the larger local community



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## Establish a Higher Education Advisory Board

**GOAL:** Create a unified vision for how the overall impact of higher education can and should be leveraged

### **ACTION STEPS:**

- Establish a Higher Education Advisory Board, composed of state agencies, higher education (including community colleges) and local leaders
- Like the state planning board, issue recommendations to the governor on how to better partner with higher ed to meet the state's economic goals, esp. in community redevelopment



## *Ohio Governor's Commission on Higher Education and the Economy*

→ In 2003, Governor Taft charged Commission to suggest ways that the state can maximize its return on its investment in higher education

→ Commission developed nine recommendations focusing on leadership; access and success; research and commercialization; and accountability

→ Commission has identified several priority areas to get started, including the creation of a private sector-led Ohio Business Alliance for Higher Education and the Economy



## Target state investments near colleges and universities

**GOAL:** Promote redevelopment around fixed community assets, like eds and meds

### **ACTION STEPS:**

- Build upon new Keystone Principles and Criteria for Growth, Investment, and Resource Conservation
- Expand “preferential criteria” to include a preference for projects in proximity to and/or in partnership with anchor institutions



## Create a new grant program to facilitate university partnerships in community development

**GOAL:** Provide resources to universities to partner in community redevelopment efforts

### **ACTION STEPS:**

- Establish a new grant program modeled after the federal community outreach partnership grants or the grants to HBCUs
- Ensure eligible activities such as: land acquisition, housing renovations, entrepreneurship, and community planning



## Consider establishing a state “payment-of-lieu-of-taxes” (PILOT) program

**GOAL:** Provide some fiscal relief to municipalities to enhance their capacity in university partnerships

### **ACTION STEPS:**

- Establish a PILOT program modeled after the one in Connecticut—there, the state pays municipalities approximately 77 percent of projected lost property tax revenues



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