



2018-19 Appropriations Request



Pennsylvania's
STATE SYSTEM
of Higher Education



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Pennsylvania's State System of Higher Education
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February 2018

Pennsylvania's State System of Higher Education: Investing in the Commonwealth's Future

Fiscal Year 2018-19 Appropriations Request

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Did You Know?



The State System is redesigning itself.

As part of our System Redesign efforts, we adopted strategic priorities, launched seven task groups, eliminated outdated policies, and streamlined the academic program approval process to move new programs from concept to reality more quickly. There's even more to come.

10

State System universities are a top choice for PA students.

10 of the 25 largest universities in Pennsylvania are part of the State System, which serves more than 100,000 students—the largest provider of higher education in the Commonwealth.



State System universities provide a quality education.

Our universities provide quality educational experiences through innovative programs and real-world experiences. The vast majority of academic programs are additionally accredited by professional organizations nationally—an important stamp of approval that benefits graduates as they move on to successful careers or continue onto graduate school.

\$8,000 Less!

State System universities are the most affordable option.

Our universities are the most affordable among all four-year options in PA. The average price of attendance is as much as \$8,000 less than at any state-related university (except Lincoln), and even lower when compared to most private institutions. On average, our alumni graduate with less student debt than graduates from other universities in PA.



The State System is leading the way with STEM-H programs.

Occupations in science, technology, engineering, mathematics, and health (STEM-H) fields are projected to grow by 176,000 jobs by 2024. STEM-H is the number one area of study and accounts for more than a quarter of all enrolled students. Nearly half of all new programs added in the past five years are STEM-H focused, and enrollment in STEM-H majors has increased by 40%. Last year alone, we produced 6,700 STEM-H graduates.



State System graduates enter high-paying, in-demand careers.

Here are some examples: on average our I.T. graduates earn \$10,000 more, our physics graduates earn \$3,000 more, and our liberal arts graduates earn \$2,000 more than their counterparts nationwide. What's more, alumni survey data indicate an impressive job placement rate of 92% among System graduates.



The State System prepares students for PA.

Most of our students come from Pennsylvania, and most will stay here after graduation. They are supported by dedicated faculty, staff, and administrators helping to prepare them—your sons and daughters—to be PA's next generation of leaders in business, health, education, the arts, and beyond.



The State System provides a real return on investment.

We generate \$11 of economic impact for every \$1 of state investment—producing more than \$6.7 billion annually in economic activity for their host communities all across Pennsylvania. In addition to its own 12,000 employees, our universities support about 62,000 external jobs statewide.



Pennsylvania's State System of Higher Education: *Investing in the Commonwealth's future*

The 14 universities that comprise Pennsylvania's State System of Higher Education have been part of the Commonwealth's rich history for more than a century; the state's investment in these universities helps keep them affordable, accessible, and relevant to their more than 100,000 students—the vast majority of whom are Pennsylvania residents.

The universities are vital contributors to their communities and regions. Indeed, every resident of Pennsylvania benefits either directly or indirectly from the contributions the universities make. Since its inception nearly 35 years ago, the State System has been committed to achieving its mission of providing students a high-quality education at the lowest possible cost.

The State System universities serve not only their students, but also the Commonwealth—providing employers in every part of the state with the highly educated workforce they need to thrive. They continually adapt to changes in the economic landscape to ensure graduates are prepared for the future.

That is why the Board of Governors more than a year ago undertook a top-to-bottom strategic review of the System's operations, with an eye toward the future.

At the conclusion of that review, the Board committed itself to pursuing a “transformative System redesign that will have the greatest positive impact for students, enhance the efficiency and effectiveness of the System, and ensure strategic changes that support the System's long-term success.”



Considering the recommendations of a nationally recognized consultant and input received from hundreds of stakeholders, including students, faculty, staff, trustees, elected officials, community leaders, alumni, and others interested in the future of the universities and the System as a whole, the Board identified three major priorities to guide that redesign:

- **Ensuring student success**
- **Leveraging the unique strengths of each university**
- **Transforming the governance and leadership structure**

It is the goal across the System that every student graduates in a timely manner with a path forward for a lifetime of success—for themselves and their families.

Each State System university has unique strengths that make it stand out. Through greater collaboration with their sister institutions across the System, they can further capitalize on those strengths on behalf of students and the Commonwealth. Every resident of Pennsylvania will benefit from the collective success of the State System and its member universities in achieving all of their goals.

Consider that nearly 90 percent of State System university students are Pennsylvania residents. More than 520,000 State System university alumni live here, working and raising their families, contributing every day to Pennsylvania's future.

The State System is the largest provider of higher education in the state; these 14 universities graduate more students than any other sector of higher education in Pennsylvania. Moreover, they do it at the lowest overall cost to students.

State System university students succeed. According to the most recent alumni survey:

- **92 percent of graduates are working;**
- **82 percent are working in a field related to their program of study;**
- **72 percent are working in Pennsylvania.**

The annual appropriation received from the Commonwealth is an investment in Pennsylvania's future; an investment that produces an enormous rate of return.

Each \$1 in state funding received by the universities generates nearly \$11 in economic activity—in each of the campus communities, throughout their regions, and across the Commonwealth. This activity is responsible for nearly 62,000 jobs across Pennsylvania—over and above the more than 12,000 individuals employed by the universities themselves.

The Commonwealth's investment is vital to the universities' success. More important, it is vital to student success, and to Pennsylvania's success.

Historically, the vast majority of students who have attended the State System universities

have been young men and women enrolling right out of high school. That is changing.

Today, more than ever, other adults—including more than a million Pennsylvanians who have some college experience but no certificate nor degree—also need the higher education opportunities that State System universities offer.

Investment is needed to provide educational opportunities for this group of individuals, many of whom are looking to advance their careers or to learn new skills so they can ensure their place in a changing economy.

State System universities in recent years have sought to realign their offerings to match the needs of this new generation of students and their future employers. The schools have added dozens of new programs in the high-growth, high-demand areas of science, technology, engineering, and mathematics (STEM) and allied health.

Many of the new programs are offered online so students can participate in them from anywhere, at any time. Several universities have established regional locations, taking their programs to where they are needed—often in partnership with employers and other educational institutions, including community colleges.

The universities have an important tool to guide these important efforts. Working with the Georgetown University Center on Education and the Workforce, the State System developed the *Workforce Intelligence Toolkit*, a collection of data-based resources the universities are using to plan for the future and to further increase their impact on Pennsylvania's economy.

The universities are using the data as they develop new degree programs that will prepare students for successful careers in high-demand fields where there are not currently enough potential employees to fill all of the available job openings.

New programs have been designed and introduced recently in areas such as biomedical, environmental, and mechanical engineering; statistics and data science; health information management; occupational therapy; and respiratory care.

Pennsylvania can be proud of its public universities as they serve the Commonwealth and its citizenry in a variety of ways that go beyond the traditional classroom. As the State System looks toward an even brighter future,

it seeks your continued investment in the students, in the universities, and in Pennsylvania.

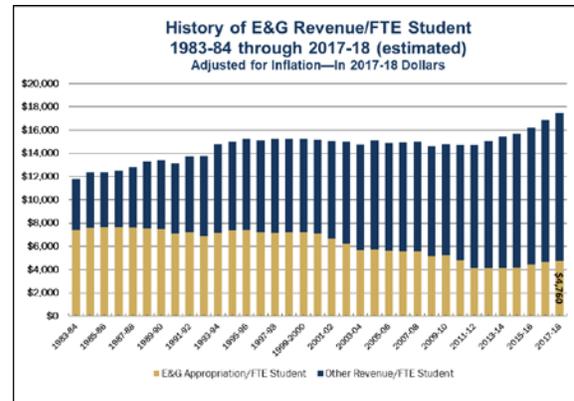
The Board of Governors at its meeting on October 19, 2017, approved a 2018-19 appropriation request of \$526.2 million, an increase of \$73.1 million, to fund fully the State System's anticipated mandatory cost increases in the next fiscal year. A detailed description of the appropriation request follows.

2018-19 Appropriation Request for Pennsylvania's State System of Higher Education *Fiscal Year Financial Plan Overview*

Today, Pennsylvania's State System of Higher Education receives \$453.1 million in state appropriations. Over the past three years, the Commonwealth's budget has provided the System with a combined increase in appropriations of \$40.4 million (9.8 percent), following six years of reduced or stagnant state appropriations. The State System is appreciative of the increased support provided by the General Assembly and Governor Wolf, and acknowledges the continued fiscal challenges facing the Commonwealth.

System universities began 2017-18 with a System-wide budgetary gap of approximately \$38 million, resulting from the expectation that mandatory cost increases would exceed available revenue. This has necessitated the continuation of a variety of cost-saving strategies, some of which have been utilized for more than a decade. Through these initiatives, the universities have eliminated an estimated \$360 million in base budget costs over the last 13 years. They will continue these efforts, including streamlining administrative processes and academic offerings; strategically redirecting resources; implementing efficiency initiatives; and aggressively managing physical, financial, and human resources.

In addition to the targeted cost savings mentioned above, universities continually reinvest existing resources into new, higher priority strategic areas, and into high need areas such as new academic programs, strategic enrollment management, student success and affordability, instructional technology expansion and campus-wide technology upgrades, distance education, and academic facilities renovation. These efforts are essential to ensure the continued alignment of academic programs with workforce needs while attracting, retaining,



and graduating students of diverse backgrounds—serving them through various delivery modalities and student-focused learning.

It is against this backdrop that the System has developed its 2018-19 Educational and General (E&G) financial plan. The System's fiscal emphasis continues to be on addressing the structural gap between revenues and expenses through strategic business model changes to ensure financial sustainability, relevancy of academic programs, and student success.

Enrollment

The System's fiscal year 2018-19 enrollment is projected to stay essentially at the same level as 2017-18. It should be noted that enrollment projections vary significantly by university, in accordance with university strategic enrollment expectations and regional demographic trends.

Employee Complement

The System has worked diligently in recent years to manage its human resources, filling only essential positions as they become vacant. With annual workforce cost increases outpacing anticipated revenue increases, the

System continues to align human and fiscal resources with the strategic directions and operational responsibilities of the System to meet the needs of both students and the Commonwealth. Through a combination of furloughs, voluntary separations, and retirements, the System has reduced the number of permanent employees by 260 in the past year and by more than 1,100 in the last eight years.

Given the combined impact of the fiscal climate, changes in student demand, and the ongoing need to address program relevancy, several universities are in the midst of program realignment and workforce planning efforts that might result in eliminating positions over and above the complement changes reflected in this document. Such complement adjustments typically are excluded from appropriation request estimates, as universities are at various stages in the planning process. In some cases, compensation estimates have been reduced to reflect this commitment to workforce reduction; in other cases, universities continue to reflect Planned Use of Carryforward as a placeholder until university plans have been finalized.

Anticipated Revenue

Tuition and Fees—Assuming no change in the System’s tuition rates, university revenue estimates reflect a \$5.5 million increase in tuition and fee revenue attributed to projected increases in enrollment at nine universities, changes in the mix of students (e.g., full-time versus part-time, residency, and student level), and implementation of alternative pricing strategies.

State Appropriation—The state appropriation reflects the System’s projected need, which has resulted in a request for \$526.2 million—an increase of \$73.1 million.

All Other Revenue—Most universities do not anticipate increases and/or continuation of certain miscellaneous revenue sources until these revenues are received. In addition, they limit expenditures supported by these specific revenue streams in their budget estimates.

Planned Use of Carryforward

Typical initiatives funded with carryforward include implementation of new academic programs, major equipment purchases and upgrades, facilities improvements, and transitions through demographic changes. Universities also reflect a Planned Use of Carryforward in 2017-18 to partially fund ongoing expenses as a transitional tool, while implementing multiyear realignments of programs and workforce needs. The reduced reliance on carryforward in 2018-19 supports a corresponding anticipated reduction in expenditures through sustainable restructuring and completion of one-time capital projects and academic initiatives.

Anticipated Expenditures

Salaries and Wages—State System universities operate in a competitive environment for faculty and staff. In order to continue to recruit and retain a talented work force, pay increases associated with all employee groups in accordance with collective bargaining agreements have been addressed in the 2017-18 and 2018-19 estimates. Compensation for 2018-19 also incorporates an increase of 58 FTE positions—net of retirements and attrition—mostly faculty and staff related to projected enrollment growth, the start of 30 new and reorganized academic programs, student success and retention, and university compliance.

Many of these positions have been repurposed based on critical needs analyses that universities conduct when positions are vacated. These combined changes in compensation requirements and complement will generate an estimated increase in employee salaries and wages of \$33.6 million, or 4.0 percent, in 2018-19. These pay adjustments also generate a corresponding fiscal impact on Social Security and retirement benefit costs.

Employee Benefits—For the first time in many years, the System’s anticipated increases in retirement and healthcare costs are projected to be similar to overall inflation, rather than at the significantly higher rates that have become customary. Overall, 2018-19 employee benefits expenditures are expected to increase \$15.5 million, or 3.8 percent.

Approximately half of the System’s employees participate in one of the two primary Commonwealth pension programs, State Employees’ Retirement System (SERS) and Public School Employees’ Retirement System (PSERS), as their retirement vehicle. In accordance with Commonwealth budget guidelines, the most common SERS employer contribution rate is projected to increase 0.3 percent to 34.54 percent of salaries. PSERS rates are expected to increase 2.2 percent. Retirement rates associated with the alternative retirement programs remain the same, although retirement and Social Security costs increase as salaries and wages increase. The combined fiscal impact of pension rate changes alone will cost the System an additional \$2.4 million in 2018-19; total retirement costs are expected

to increase \$6.3 million, or 4.6 percent.

Of those employees who receive health benefits, approximately 65 percent are enrolled in the System’s healthcare program. The employer share of healthcare rates for active and annuitant employees within the System-managed programs is projected to increase an average of 3.0 percent next year for employees and retirees, based upon a combination of national trends, the System’s healthcare experience, participation in the wellness program, and the anticipated change in complement.

The remaining 35 percent of System employees receive healthcare through the Pennsylvania Employees Benefit Trust Fund (PEBTF). The Commonwealth budget guidelines include a 2.8 percent increase in the 2018-19 employer contribution rates to the fund. Contribution rates for retiree healthcare will remain at the same level as 2017-18. Combined healthcare costs are anticipated to increase \$6.4 million, or 3.5 percent.

Student Financial Aid—Given the growing emphasis on affordability, retention, enrollment management, and the net price to the student, universities have increased their E&G investment in financial aid. Significant growth in the use of institutional unrestricted resources for student aid is reflected in 2017-18, corresponding with the recent flexibility provided by Board of Governors policy and expectations regarding affordability and pricing. E&G student aid expenditures in 2018-19 are expected to grow \$2.0 million, or 3.8 percent, to almost \$56 million, representing a 63 percent increase over five years in university-funded

assistance going directly to students and their families.

All Other Basic Operating Expenditures—Given the current fiscal environment, universities continue to limit nonmandatory spending. Therefore, anticipated expenditures for all other services, supplies, and materials are projected to remain stable.

The System's 2018-19 utilities costs are anticipated to increase \$600,000, or 2.2 percent, to address anticipated rate adjustments and additions to university square footage. Rate increases will be partially offset by energy conservation efforts derived through energy savings contracts and some universities converting to more efficient energy sources.

In total, expenditures on services, supplies, institutional aid for students, and utilities are estimated to increase \$500,000, or 0.1 percent.

Capital Expenditures and Transfers—Capital expenditures and transfers, which primarily represent each university's investment in its physical resources from the E&G budget, are projected to increase by \$11.3 million, or 17.0 percent, of which \$10.2 million is attributed to debt reduction and \$1.1 million is associated with specific facilities projects.

As described above, the System's anticipated 2018-19 expenditure requirements are driven primarily by known and anticipated mandatory cost increases in salaries and wages, pension programs, and healthcare costs. Assuming no change in the System's E&G appropriation or tuition rates, the System-wide expenditure requirements, partially offset by university

revenue adjustments, result in a 2018-19 requirement of \$73.1 million.

E&G Appropriation

Additional support from the Commonwealth is critical to the continued success of Pennsylvania's public universities and the students they serve. A \$73.1 million increase in the State System's E&G appropriation would ensure continued access to and affordability of a high-quality education for the citizens of this Commonwealth. Only through additional investment could the Board of Governors be able to advance student success and hold down the cost of tuition while providing an excellent educational experience.

A greater investment from the Commonwealth in its public universities will lead to greater affordability and cost predictability for Pennsylvania students and their families. Pennsylvania traditionally has ranked low in its funding of students in public higher education, even with its commitment to state-funded financial aid. This year's average State System appropriation per student is \$4,760, or 62 percent of the national average.

A commitment from the Commonwealth to increase its investment in State System students by \$73.1 million would increase this funding per student to over \$5,500, moving the System closer to the national average of \$7,642 per student at public degree-granting institutions.

Funding of the System's 2018-19 financial requirements is essential for continued progress toward meeting these expectations and ensuring a high-quality, affordable education for the coming year and for years to come. A funding commitment at this level from the Commonwealth for its students at state-owned universities will facilitate making the fundamental changes that are essential to ensure Pennsylvania students succeed. (See *Appendix A-3*)

2018-19 Governor’s Budget Recommendation

The Governor’s budget for 2018-19 recommends the State System receive an E&G appropriation of \$468.1 million, an increase of \$15.0 million from the current fiscal year. The System is grateful for the increased funding recommended by Governor Wolf—especially at a time when the Commonwealth is facing significant challenges—and is appreciative that both the Governor and the General Assembly recognize the immense value of the State System and continue to support its universities and students. This support represents an important investment in Pennsylvania’s future—one that pays huge dividends for the entire Commonwealth.

The System’s budget request of \$526.2 million represents an increase of \$73.1 million, the amount necessary to fund fully the State System’s anticipated mandatory cost increases in the next fiscal year. If the System were to receive the Governor’s recommended appropriation increase of \$15.0 million, the remaining budget gap would be approximately \$58.1 million.

Additional support from the Commonwealth is critical to ensure that Pennsylvania’s public universities can continue to serve the needs of students, their future employers and the entire Commonwealth. The State System is committed to providing a high-quality education that is affordable to students, and that prepares each for a successful future.

The Governor’s budget also includes continued funding for deferred maintenance provided through the Keystone Recreation, Park and Conservation Fund (Key ’93). This funding source, allocated from realty transfer tax revenue, was established in 1993 specifically to help address the System’s \$1.8 billion deferred maintenance backlog in academic facilities. The Governor’s budget estimates the System’s allocation of Key ’93 funds will increase by more than \$3.2 million, to a total of nearly \$18.7 million next year. Although relatively small in comparison to the deferred maintenance backlog, these funds are an integral component of each university’s facility management plan. (See *Appendix B-17*)

2018-19 Line Item Appropriation Request for Cheyney University of Pennsylvania's Keystone Honors Academy (Supported by a General Fund Appropriation to PHEAA)

The Cheyney University Keystone Honors Academy is an initiative developed by the State System in collaboration with the Commonwealth of Pennsylvania and the Pennsylvania Department of Education and in partnership with the U.S. Department of Education's Office of Civil Rights. The intent was to provide continuing support for the Academy and to provide scholarships for approximately 200 honor students. The current appropriation of \$1.8 million funds approximately 75 to 100 student scholarships annually and provides for limited programmatic support.

The Keystone Academy is a structured living and learning community for high-achieving students, many of whom are first-generation college students. Students learn leadership skills by serving as tutors, resident assistants, and leaders of campus clubs and organizations. The Academy also provides students with cultural and intellectual programs.

The Keystone Academy is a proven success in attracting, retaining, and graduating high-achieving Pennsylvania students. According to the most recent data available, 63 percent of Keystone Honors students graduate in four years; 60 percent of Keystone Academy graduates have gone on to graduate school.

The State System collaborates with the Pennsylvania Higher Education Assistance Agency (PHEAA) for the funding of the Academy and its scholarship program. The scholarship program provides students, who are Pennsylvania residents, with last-dollar scholarships to cover the cost of tuition, fees, room, board, and a one-time distribution of a laptop computer. The scholarships are for a maximum of eight semesters for freshmen and prorated for transfer students. A limited portion of

funding is used to support administration of the program.

Cheyney University's investment plan for the future envisions increasing the number of high-achieving students by maximizing the use of existing cornerstones such as the Keystone Honors Academy.

On behalf of the System, PHEAA requested a \$4 million 2018-19 appropriation for the Cheyney Keystone Academy to provide access and opportunity to twice as many Pennsylvania residents as are currently served through this program. The funds would provide additional scholarships and continued enhancements to the academic and extracurricular environment for these students who would not otherwise be able to attend Cheyney University. The Keystone Academy and its last-dollar scholarship program are vital to the current and future students of Cheyney University and the Commonwealth at large.

The Governor recommends level funding for this program, with level state appropriations at \$1.8 million and an augmentation from PHEAA of \$0.5 million. (See Appendix A-4)

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Appendix A

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Appendix A-1

Pennsylvania's State System of Higher Education Mission Statement

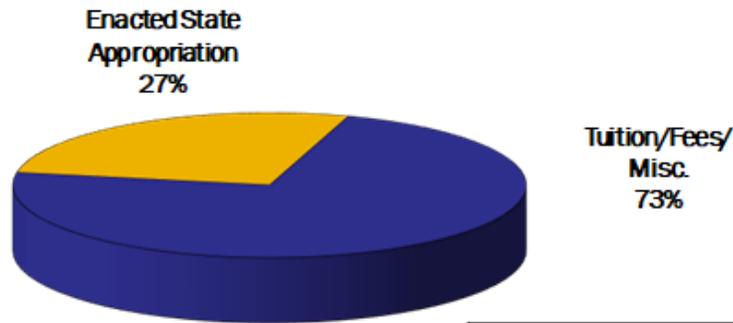
“The State System of Higher Education shall be part of the Commonwealth’s system of higher education. Its purpose shall be to provide high quality education at the lowest possible cost to students. The primary mission of the System is the provision of instruction for undergraduate and graduate students to and beyond the master’s degree in the liberal arts and sciences and in applied fields, including the teaching profession.”

Act 188 of 1982

Appendix A-2

Pennsylvania's State System of Higher Education
 Summary of Sources and Uses
 FY 2017-18 Educational and General Budget

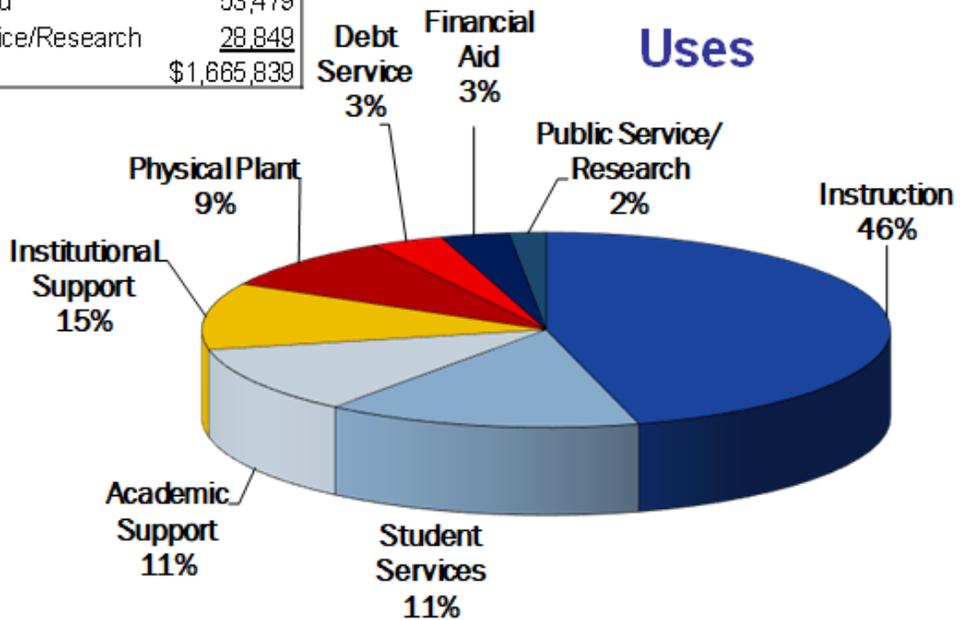
Sources



Uses of Revenue	(\$000)
Instruction	\$760,778
Institutional Support	246,664
Academic Support	187,207
Student Services	184,255
Physical Plant	148,170
Debt Service	56,435
Financial Aid	53,479
Public Service/Research	28,849
Total	\$1,665,839

Sources of Revenue	(\$000)
Enacted State Appropriation	\$453,108
Tuition/Fees/Misc.	1,212,731
Total	\$1,665,839

Uses



Appendix A-3

**Pennsylvania's State System of Higher Education
Summary of Educational and General (E&G) Budget**

(Dollar Amounts in Thousands)

	Actual 2016-17	Current 2017-18	Budget Request 2018-19	Governor's Budget 2018-19
Source of Funds				
State E&G Appropriation ¹	\$444,224	\$453,108	\$526,200	\$468,108
Augmentation:				
Educational and General ²	1,166,670	1,212,731	1,200,612	1,200,612
Revenue Shortfall ¹				58,092
Total	\$1,610,894	\$1,665,839	\$1,726,812	\$1,726,812
Use of Funds				
Personnel Expenditures	\$1,208,526	\$1,251,402	\$1,300,580	\$1,300,580
Operating Expenditures	322,538	347,626	348,137	348,137
Capital Assets/Transfers	79,830	66,810	78,095	78,095
Total	\$1,610,894	\$1,665,839	\$1,726,812	\$1,726,812
Students (FTE)³				
Undergraduate	85,943.03	83,330.30	83,232.70	83,232.70
Graduate	11,535.92	11,850.54	11,929.39	11,929.39
First Professional	NA	NA	NA	NA
Total	97,478.95	95,180.84	95,162.09	95,162.09
Employees (Unrestricted FTE)	12,013.60	11,968.37	11,978.86	11,978.86

¹Reflects the Educational and General Appropriation enacted for FY 2016-17 and FY 2017-18 and the System's appropriation request for FY 2018-19. The Governor's recommendation of \$468.1 million for FY 2018-19 provides a \$15.0 million or 3.3 percent increase in the Educational and General Appropriation. This recommendation results in a budgetary shortfall of \$58.1 million for FY 2018-19.

²The augmentation does not include an assumption of a tuition rate increase in FY 2018-19; however, the Board of Governors will set tuition at its July 2018 meeting, based upon the System's financial requirements and state appropriations at that time.

³FTE Student is defined as follows: annual undergraduate credit hours produced divided by 30 credit hours; annual graduate credit hours produced divided by 24 credit hours.

Note: Numbers may not add due to rounding.

Appendix A-4

**Pennsylvania Higher Education Assistance Agency (PHEAA)
Appropriation for Cheyney Keystone Academy
of Pennsylvania's State System of Higher Education**
(Dollar Amounts in Thousands)

Source of Funds	Actual 2016-17	Current 2017-18	Budget Request 2018-19	Governor's Budget 2018-19
Special Purpose Appropriation ¹	\$1,813	\$1,813	\$4,000	\$1,813
Other (PHEAA Augmentation) ¹	0	500	0	500
Revenue Shortfall	0	0	0	0
Total	\$1,813	\$2,313	\$4,000	\$2,313
Use of Funds				
Personnel Expenditures	\$266	\$348	\$393	\$393
Operating Expenditures ²	1,547	1,965	3,607	1,920
Capital Assets/Transfers	0	0	0	0
Total	\$1,813	\$2,313	\$4,000	\$2,313
Students (Fall Headcount)				
Undergraduate ³	123	117	150	117
Graduate	NA	NA	NA	NA
First Professional	NA	NA	NA	NA
Total	123	117	150	117
Employees (FTE)	4.00	4.50	5.00	5.00

¹The Governor's recommendation of a \$1.813 million appropriation and \$500,000 PHEAA augmentation in FY 2018-19 provides level funding for the Keystone Academy Appropriation. If no additional funding is received, fewer Keystone Academy scholarships will be awarded, as reflected in the revised expenditures and students.

²Primarily scholarships. In addition, the appropriation also supports other direct program costs; and beginning in FY2017-18, will also cover related indirect costs.

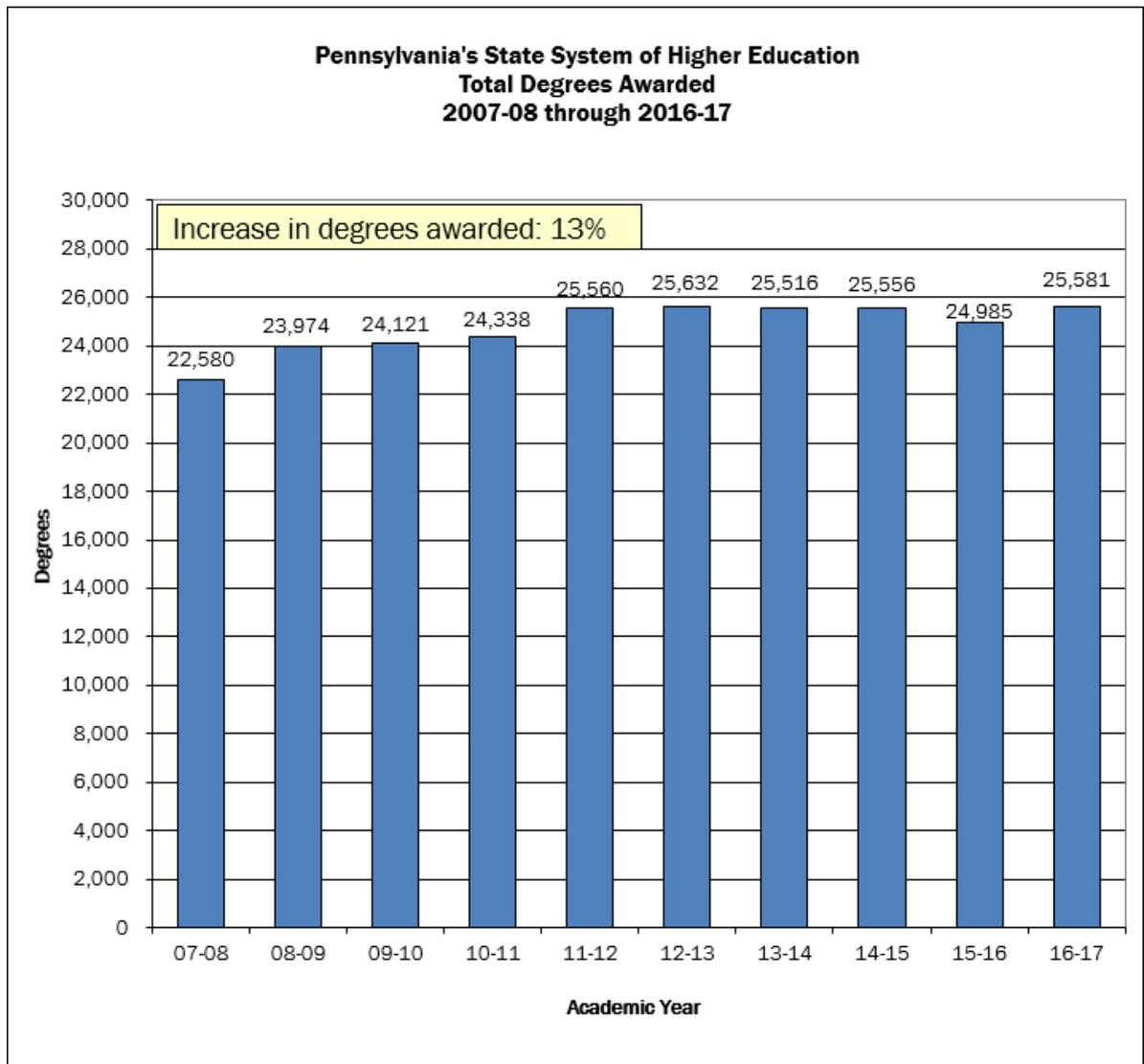
³If FY2018-19 is funded at the requested level, 150 students may be served through this program. Over the last four years, on average, 80 Keystone Academy students received the Keystone Academy Scholarships. In fall 2017, 78 students were scholarship recipients.

Note: The line item appropriation has been funded as a special program within PHEAA's budget since FY 1999-2000. It is critical to the recruitment and retention of students at Cheyney University and is vital to the success of the institution and its students.

Appendix A-5

**Pennsylvania's State System of Higher Education
Academic Program Data**

Program Measure	Actual 2016-17	Projected 2017-18	Projected 2018-19
Associates Degrees Awarded	467	478	489
Bachelors Degrees Awarded	19,609	19,518	19,426
Graduate Degrees Awarded	5,505	5,486	5,468
Total Degrees Awarded	25,581	25,482	25,383



Appendix A-6

Pennsylvania's State System of Higher Education Fall Applications, Acceptances, and Enrollments for First-Time Freshmen of Students Domiciled in Pennsylvania, by Race

	2008	2009	2010	2011	2012	2013 ¹	2014	2015	2016 ⁴	2017
BLACK or AFRICAN AMERICAN										
Applications	15,108	15,412	17,334	16,158	14,801	10,779	12,543	13,624	13,809	14,392
Acceptances	6,321	6,236	6,656	6,682	6,501	6,871	7,854	8,830	8,980	9,516
Enrollments	1,830	1,873	1,802	1,852	1,913	2,013	2,095	1,994	1,981	2,021
Percent Accepted	41.8%	40.5%	38.4%	41.4%	43.9%	63.7%	62.6%	64.8%	65.0%	66.1%
Percent Accepted Who Enroll	29.0%	30.0%	27.1%	27.7%	29.4%	29.3%	26.7%	22.6%	22.1%	21.2%
Percent Applied Who Enroll	12.1%	12.2%	10.4%	11.5%	12.9%	18.7%	16.7%	14.6%	14.3%	14.0%
AMERICAN INDIAN OR ALASKA NATIVE										
Applications	208	261	197	176	91	79	135	150	186	210
Acceptances	113	143	128	86	38	52	81	107	111	128
Enrollments	46	62	44	22	13	16	25	36	27	41
Percent Accepted	54.3%	54.8%	65.0%	48.9%	41.8%	65.8%	60.0%	71.3%	59.7%	61.0%
Percent Accepted Who Enroll	40.7%	43.4%	34.4%	25.6%	34.2%	30.8%	30.9%	33.6%	24.3%	32.0%
Percent Applied Who Enroll	22.1%	23.8%	22.3%	12.5%	14.3%	20.3%	18.5%	24.0%	14.5%	19.5%
ASIAN										
Applications	1,062	1,244	1,223	1,177	1,190	1,134	1,199	1,169	1,417	1,521
Acceptances	669	784	740	724	729	783	888	896	1,097	1,209
Enrollments	209	211	175	164	179	209	208	201	223	213
Percent Accepted	63.0%	63.0%	60.5%	61.5%	61.3%	69.0%	74.1%	76.6%	77.4%	79.5%
Percent Accepted Who Enroll	31.2%	26.9%	23.6%	22.7%	24.6%	26.7%	23.4%	22.4%	20.3%	17.6%
Percent Applied Who Enroll	19.7%	17.0%	14.3%	13.9%	15.0%	18.4%	17.3%	17.2%	15.7%	14.0%
HISPANIC										
Applications	2,774	2,862	3,323	5,079	4,069	3,553	4,542	4,687	4,962	5,765
Acceptances	1,532	1,606	1,776	3,075	2,387	2,563	3,234	3,504	3,665	4,376
Enrollments	502	559	647	984	788	866	983	1,002	956	1,130
Percent Accepted	55.2%	56.1%	53.4%	60.5%	58.7%	72.1%	71.2%	74.8%	73.9%	75.9%
Percent Accepted Who Enroll	32.8%	34.8%	36.4%	32.0%	33.0%	33.8%	30.4%	28.6%	26.1%	25.8%
Percent Applied Who Enroll	18.1%	19.5%	19.5%	19.4%	19.4%	24.4%	21.6%	21.4%	19.3%	19.6%
NATIVE HAWAIIAN or OTHER PACIFIC ISLANDER²										
Applications			61	42	65	29	55	60	62	59
Acceptances			30	32	40	22	38	38	36	46
Enrollments			11	14	14	12	17	6	8	15
Percent Accepted			49.2%	76.2%	61.5%	75.9%	69.1%	63.3%	58.1%	78.0%
Percent Accepted Who Enroll			36.7%	43.8%	35.0%	54.5%	44.7%	15.8%	22.2%	32.6%
Percent Applied Who Enroll			18.0%	33.3%	21.5%	41.4%	30.9%	10.0%	12.9%	25.4%
WHITE										
Applications	52,460	53,598	57,208	55,592	52,126	44,978	43,447	42,737	42,120	41,835
Acceptances	36,249	38,062	39,801	39,964	38,025	36,784	36,438	36,342	35,698	36,082
Enrollments	14,688	15,266	15,349	14,995	13,768	13,460	13,292	12,426	11,822	11,639
Percent Accepted	69.1%	71.0%	69.6%	71.9%	72.9%	81.8%	83.9%	85.0%	84.8%	86.2%
Percent Accepted Who Enroll	40.5%	40.1%	38.6%	37.5%	36.2%	36.6%	36.5%	34.2%	33.1%	32.3%
Percent Applied Who Enroll	26.0%	28.5%	26.8%	27.0%	26.4%	29.9%	30.6%	29.1%	28.1%	27.8%

Appendix A-6 (continued)

**Pennsylvania's State System of Higher Education
Fall Applications, Acceptances, and Enrollments for First-Time Freshmen
of Students Domiciled in Pennsylvania, by Race**

	2008	2009	2010	2011	2012	2013 ¹	2014	2015	2016 ⁴	2017
RACE/ETHNICITY UNKNOWN										
Applications	5,844	6,064	3,208	2,614	2,414	793	1,080	844	1,418	1,215
Acceptances	3,161	3,205	1,551	1,270	1,131	567	849	662	1,072	941
Enrollments	1,076	1,097	457	417	274	176	211	184	211	212
Percent Accepted	54.1%	52.9%	48.3%	48.6%	46.9%	71.5%	78.6%	78.4%	75.6%	77.4%
Percent Accepted Who Enroll	34.0%	34.2%	29.5%	32.8%	24.2%	31.0%	24.9%	27.8%	19.7%	22.5%
Percent Applied Who Enroll	18.4%	18.1%	14.2%	16.0%	11.4%	22.2%	19.5%	21.8%	14.9%	17.4%
TWO OR MORE RACES²										
Applications			1,656	2,001	2,292	1,885	2,315	2,509	2,662	2,761
Acceptances			932	1,192	1,389	1,450	1,763	1,937	2,098	2,195
Enrollments			358	435	500	545	596	664	645	652
Percent Accepted			56.3%	59.6%	60.6%	76.9%	76.2%	77.2%	78.8%	79.5%
Percent Accepted Who Enroll			38.4%	36.5%	36.0%	37.6%	33.8%	34.3%	30.7%	29.7%
Percent Applied Who Enroll			21.6%	21.7%	21.8%	28.9%	25.7%	26.5%	24.2%	23.6%
Nonresident Alien³										
Applications							8	2	9	11
Acceptances							8	2	9	8
Enrollments							1	1	5	5
Percent Accepted							100.0%	100.0%	100.0%	72.7%
Percent Accepted Who Enroll							12.5%	50.0%	55.6%	62.5%
Percent Applied Who Enroll							12.5%	50.0%	55.6%	45.5%
TOTAL										
Applications	77,456	79,441	84,210	82,839	77,048	63,230	65,324	65,782	66,093	3,991
Acceptances	48,045	50,036	51,614	53,025	50,240	49,092	51,153	52,318	52,235	3,146
Enrollments	18,351	19,068	18,843	18,883	17,449	17,297	17,428	16,514	15,880	870
Percent Accepted	62.0%	63.0%	61.3%	64.0%	65.2%	77.6%	78.3%	79.5%	79.0%	78.8%
Percent Accepted Who Enroll	38.2%	38.1%	36.5%	35.6%	34.7%	35.2%	34.1%	31.6%	30.4%	27.7%
Percent Applied Who Enroll	23.7%	24.0%	22.4%	22.8%	22.6%	27.4%	26.7%	25.1%	24.0%	21.8%

¹Methodology changed in 2013 to count only completed applications in calculation.

²Native Hawaiian/Pacific Islander and Two or More Races first reported in 2010. Prior to 2010, Pacific Islander was reported with Asian.

³Beginning in 2014, NRA applicants who meet state domicile requirements are included in Pennsylvania counts. Previously, they were considered out-of-state students.

⁴Fall 2016 AAE data for Clarion was revised after the 2017-18 Legislative Booklet was published. Data was adjusted for 2018-19 Budget Booklet.

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Appendix B

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Appendix B-1

An Analysis of the Economy Facing tomorrow's Workforce Pennsylvania Industry Projections, 2016 - 2026

Gap Analysis Value Proposition

Makes 'Workforce Intelligence' a part of higher education data culture.

Provides another perspective for strategic planning, program alignment, marketing, enrollment, and career advisement.

Helps close the information gap that exists around the regional skills gap.

Helps universities to be regional stewards by providing critical information that aids regional engagement and economic development strategies.



As a major producer of college-educated workers in the Commonwealth, Pennsylvania's State System of Higher Education is a key contributor to the economic future of the state and its residents. The State System is committed to aligning its overall programming with the needs of the Commonwealth. As a part of this commitment, the System continues its analysis of the economic landscape that faces the talent it produces.

State System universities have widely used the results of the 2014 to 2024 Gap Analysis that was released in Fall 2016. This body of research was recently celebrated by the University Economic Development Association (UEDA), winning the 2017 Awards of Excellence Judges' Award.

The 2016-2026 Gap Analysis Project builds upon the earlier gap analysis research conducted by the State System with multiple areas of improvement including insight into:

- **Risk of automation** with actionable information on occupations that will face changes in detailed work activity due to automation.
- **Assessing the impact of the Gig Economy** to comment on skilled occupations that will be impacted by the shared economy.

The 2016-2026 Gap Analysis Project has successfully completed the first step in the research that includes a thorough analysis of Pennsylvania's industries and occupations projected to 2026. This Appendix provides an overview of these findings addressing the following questions:

- Which specific industries will drive industry growth in Pennsylvania projected to 2026?
- What is the outlook for skilled jobs to 2026?

The next phase of research for the 2016 to 2026 Gap Analysis will be released in Spring 2018 and address the following questions for Pennsylvania and its regions:

- What is the education and talent supply?
- Which program areas and occupations are related?
- Where are workforce gaps expected in the future?

Appendix B-1 (continued)

Pennsylvania’s Industry Projections to 2026 Explained

Pennsylvania is projected to add nearly 300,000 new jobs to its economy over the next 10 years, for 4.9% employment growth between 2016 and 2026. Many of the service-providing sectors will drive the increase, accounting for 90 percent of the projected growth in the state, while some sectors, such as manufacturing, are projected to decline.

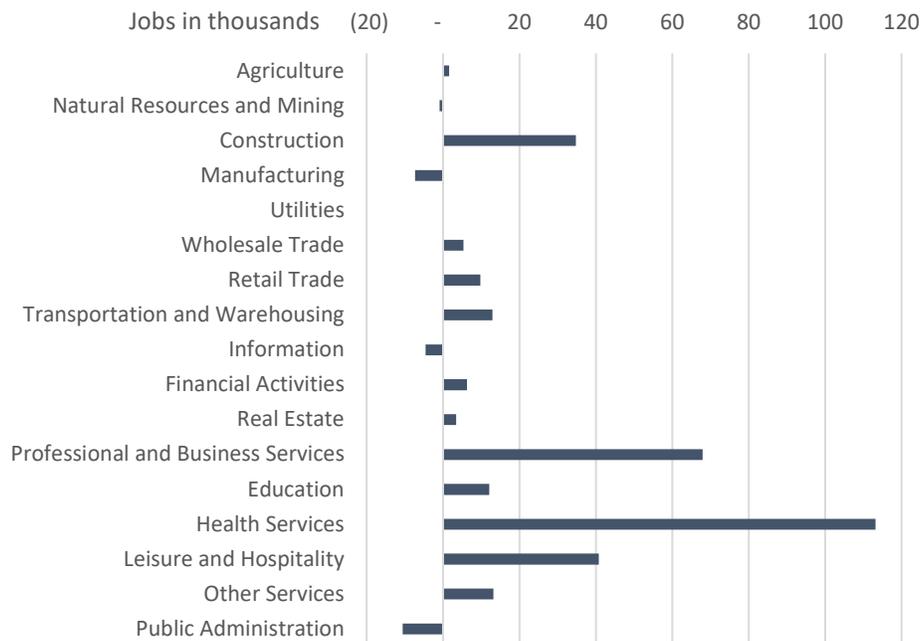
What this means for Pennsylvania’s Higher Education Sector

The service-providing industries require many skilled workers with postsecondary degrees, in industries such as education and health services, financial and real estate activities, professional and business services, and leisure and hospitality.

Some details about the projected growth in Pennsylvania are as follows:

- The largest growth industries include Health Services (113,000 new jobs), Professional and Business Services (68,000 new jobs), and Leisure and Hospitality (41,000 new jobs).
- Pennsylvania’s growth is being fueled by fast growing sectors, projected to grow by more than 20 percent over the next 10 years, and include: Specialty Hospitals (31%), Utility System Construction (28%), Facilities Support Services (24%), Outpatient Care Centers (24%), and Other Financial Investment Activities (22%).

Pennsylvania’s Industry Projections, 2016-2026



2016-2026 PA Industry Projection Highlights

300,000
new jobs by 2026

113,000
new jobs in the health services sector

31%
growth in Specialty Hospitals

68,000
new jobs in the professional and business services sector

24%
growth in Facilities Support Services

35,000
new jobs in the construction industry

Appendix B-1 (continued)

Pennsylvania's Occupations Projections to 2026 Explained

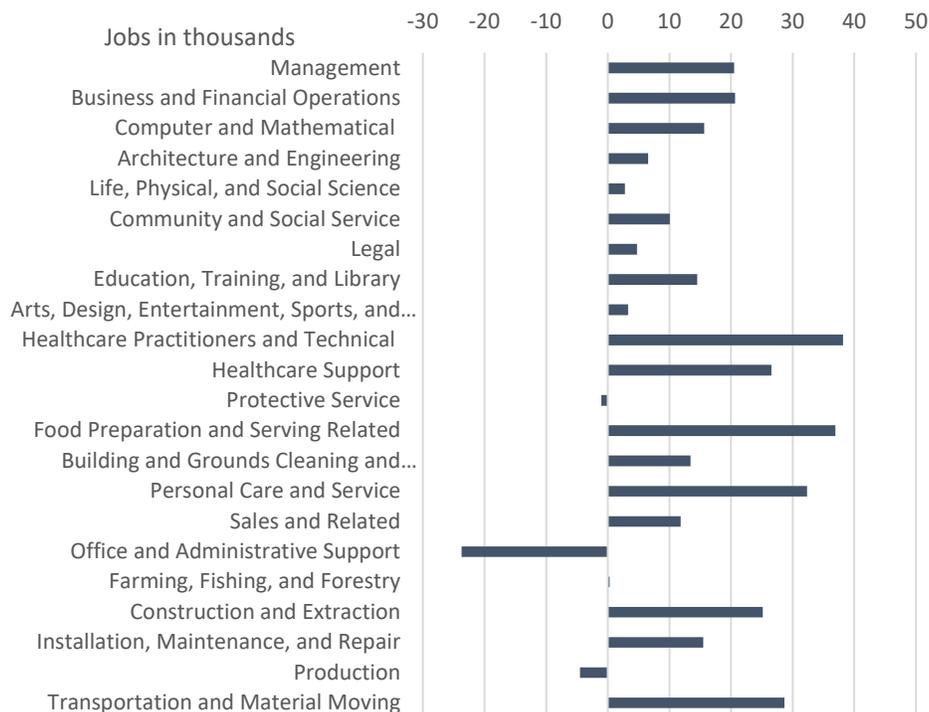
The growth in the service industries translates into increases for the occupations employed within each respective service sector. When combined with demand to replace those who retire or leave the labor force, total jobs openings to 2026 will be 590,000.

What this means for Pennsylvania's Higher Education Sector

As a result of new and replacement demand, Pennsylvania will see strong demand for skilled workers through 2026. Select details of occupational growth include:

- High-skilled jobs are projected to grow at a faster rate of 7.3% compared to middle-skill and low-skilled jobs, which are projected to grow more slowly at 4.7% and 3.8%, respectively.
- STEM jobs (a subset of skilled jobs) show growth of 9.1% while self-employed occupations are projected to grow by 7.5%. Health practitioner & technical and health support occupations are projected add nearly 65,000 new jobs for 11% growth.
- The largest growth occupations include Personal care aides (19,500), Combined food preparation and serving workers (18,400), Registered nurses (15,000), Laborers and freight, stock, and material movers (11,400), and Home health aides (9,900).
- Occupations projected to see rapid growth by 2026 include: Wind turbine service technicians (70%), Statisticians (30%), Physician assistants (27%), Nurse practitioners (26%), and Software developers, applications (26%)

Pennsylvania's Occupation Projections, 2016-2026



2016-2026 PA Occupation Projection Highlights

590,000

job openings by 2026

190,000

new skilled jobs

7.3%

growth in high-skill jobs

9%

growth in STEM jobs

11%

growth in health practitioner & technical and health support occupations

7.5%

growth in self-employed jobs to 2026

Appendix B-2

Pennsylvania's State System of Higher Education ***New academic programs designed to address*** ***workforce needs, ensure student success***

Pennsylvania's State System of Higher Education and its 14 universities offer a collection of academic programs that address the needs of both citizens and employers in the Commonwealth. The universities continually review their existing programs to ensure their relevancy in the evolving marketplace and to align with student demand. New programs are designed to address emerging student and workforce needs.

Several of the new programs most recently introduced by the universities were developed specifically in response to findings included in the supply/demand "gap analysis" conducted on behalf of the State System to gauge the current and future needs of employers across Pennsylvania. They will help prepare students for successful careers in high-demand fields where there currently are not enough potential employees to fill all of the available job openings.

Ensuring student success is the No. 1 priority identified by the Board of Governors as part of the ongoing System Redesign. That redesign will carry forward the System's long tradition of adapting to serve the needs of the Commonwealth.

From their historic roots as normal schools and teachers colleges, the State System universities have grown into comprehensive universities, greatly expanding their array of academic programs, the majority of which are accredited by professional organizations regionally and nationally.

While collectively the universities still produce the largest number of new teachers in the state, education no longer represents the largest major. STEM-H (science, technology, engineering, mathematics, and health-related fields), now the most popular area of study, accounts for 28 percent of the graduates receiving a bachelor's degree from a System university in the 2016-2017 academic year. Business, the second most popular field of study, accounted for 21 percent of the graduates receiving a bachelor's degree.

The number of graduates with STEM-H degrees is expected to continue to rise. Anticipating the Commonwealth's needs, almost 40 percent of the new bachelor's degree programs developed and introduced by the State System universities within the previous five years have been in the STEM-H fields.

Academic program review not only can result in the development of new programs, but also can affect existing programs, as well. All degree programs are subject to periodic review. As the result of that review, a program may continue unchanged, may be updated and reorganized, or may be either placed in moratorium or discontinued entirely.

Over the last five years, the 14 State System universities combined have introduced or reorganized 138 new degree, minor, and certificate programs. At the same time, the universities either have placed in moratorium or discontinued 269 programs no longer in demand. The results of the latest round of reviews completed in 2017 follows:

- Thirty degree programs were reorganized. Reorganized programs are those that have been significantly revised or updated to meet new career and/or certification requirements and market demands.
- Twelve degree programs were placed in moratorium. A program placed in moratorium does not admit new students. While a program is in moratorium, the university conducts an assessment to determine whether a redesign of the program would be appropriate or whether it should be discontinued. Normally, the period of moratorium lasts no more than five years. Students enrolled in a program when it is placed in moratorium are able to complete their degree.
- Nineteen degree programs were discontinued. Discontinued programs no longer have any students enrolled in them and are eliminated from the curriculum.
- Eighteen new bachelor's, master's, and doctoral degree programs were approved by the Board of Governors in the last 12 months. Before a new program is approved, it must meet stringent standards that include a demonstrated need in the Commonwealth and evidence that students will enroll in sufficient numbers to sustain it. New programs are designed to meet new student and workforce demands. Many of the newly approved programs are being or will be offered online, where they will be available to students anywhere/anytime. All new programs are subject to a formal review after five years; in order to continue, a program must demonstrate sustained enrollment and evidence of appropriate student learning outcomes.

A brief summary of new degree programs approved in the last year follows.

New Degree Programs

Bloomsburg University of Pennsylvania

- **Bachelor of Science in Business Administration in international business**

This degree, which Bloomsburg University began offering in the fall 2017 semester, will prepare students with a wider set of skills and a global mindset. Graduates will be able to pursue successful careers with profit, nonprofit, and government organizations in an increasingly global, interconnected world. It will combine liberal arts learning with the functional business disciplines, experiential learning, and leadership training.



California University of Pennsylvania

- **Bachelor of Science in statistics and data science.**



This program, which Cal U will offer beginning in fall 2018, will prepare students for entry-level professional employment opportunities as manufacturing engineers, industrial engineers, research and development engineers, field engineers, quality control inspectors, robotics technicians, CNC programmers, and a variety of other manufacturing technology positions. It will provide students with knowledge and skills in the key areas of statistics, computer programming, mathematics, data analytics, and database technology. The program will integrate a variety of industry standard technologies into each course to provide students with appropriate preparation in leading-edge software programs and systems used in the field.

Clarion University of Pennsylvania

- **Bachelor of Science in respiratory care**

This program, which will replace the university's current associate's degree program, was designed to be completed in three years. It will help fill the need for a larger number of respiratory therapists with

baccalaureate degrees to serve as educators, researchers, managers, clinical specialists, and in other roles throughout the healthcare system, including as respiratory care equipment and supplies sales representatives. All of the occupations are included on the current statewide and regional "high priority occupations lists" published by Pennsylvania's Center for Workforce Information and Analysis. Clarion will offer this new degree beginning this fall to both traditional students and to already credentialed professionals who need the flexibility to complete their bachelor's degree online.



Edinboro University of Pennsylvania

- **Master of Business Administration**



This program, which Edinboro will offer beginning in fall 2018, will serve individuals who hold or seek management positions in various organizations and students for whom a graduate degree is an entry requirement for their career. Erie County has a skills gap that is not being met by northwest Pennsylvania, eastern Ohio, or western New York colleges and universities, according to a study conducted by the Education Advisory Board. Students will be able to take courses both in a traditional classroom setting and online in an accelerated format. The program will begin with a concentration in business administration, with possible expansion into a variety of other areas, including accounting, finance, communication studies, education, and criminal justice. Students will be able to take some courses at either Clarion or Slippery Rock universities if it better meets their schedules and/or their areas of interest.

East Stroudsburg University of Pennsylvania

- **Master of Arts in communication**

This program, which East Stroudsburg will offer beginning in fall 2018, will address a rapidly growing need throughout the Lehigh Valley as well as in neighboring New Jersey and New York. It will include a combination of traditional face-to-face courses and online offerings, and will be targeted to both currently enrolled undergraduates as well as professionals working within driving distance who are seeking a master's degree for professional development and/or for improved employment prospects. Various organizations that have conducted market studies have indicated "vast regional job openings" in public relations, applied communication, political communication, and advertising. The State System's gap analysis projects 78,000 new jobs in professional, technical, and management fields that require skills and dispositions consistent with the communication discipline.



Indiana University of Pennsylvania

- **Bachelor of Science in environmental engineering**



This degree, which IUP introduced in January, combines a solid grounding in college level basic sciences and mathematics with environmental engineering and technical courses. The program will prepare students to apply scientific and mathematical principles to the design, development, and operational evaluation of systems controlling living environments, and to monitor controlling factors in the natural environment. These systems include pollution control, waste and hazardous material disposal, health and safety protection, conservation, life support, and requirements for protection of special materials and related work environments.

- **Master of Science in strategic communication**

This degree, which IUP will offer beginning in fall 2018, will serve current and aspiring communication professionals by combining writing, research, and production. It will prepare students to pursue a variety of careers or for career advancement in professional communication, including crisis communication, communication management, political communication, health communication, and strategic online messaging. A recent search of job announcements seeking professionals for positions in “strategic communication” resulted in 495 position openings in the greater Pittsburgh area and 2,135 position openings across the Commonwealth.

- **Doctor of Philosophy in business**

This program is being offered in a weekend, cohort-based format for working professionals in the Pittsburgh region. The program was designed to be offered on a part-time basis, consisting of two years of coursework, a comprehensive examination, and a dissertation. It is the first program in the region that will enable working professionals to complete their doctorate in a convenient and cost-effective format, allowing them either to transition into academic positions at universities or to enhance their abilities and credentials related to modern business data analytics and strategic analysis to advance their careers in business and industry.

Kutztown University of Pennsylvania

- **Bachelor of Science in social media theory and strategy**



This program, which Kutztown began offering in August 2017, will prepare graduates with the skills needed for careers rooted in social media content development, management, administration, marketing, and analysis. Degree recipients will be able to apply social media knowledge to lead generation, public advocacy, digital marketing management, concept promotion, e-commerce, digital content marketing, pay per click (PPC) ad construction, and evaluation and content marketing.

Millersville University of Pennsylvania

- **Bachelor of Science in manufacturing engineering technology**

This degree, which Millersville will begin offering in fall 2018, will emphasize automated manufacturing, robotics, and computer aided drafting and design, often collectively referred to as computer integrated manufacturing (CIM). Laboratory courses, which will be a key component of the new program, will require students to design, develop, and construct projects independently as well as in small groups. The curriculum will emphasize technologies commonly used by major corporations. Upper level students will be encouraged to participate in a cooperative education or internship experience to enhance their knowledge in technical areas within an industrial environment.

Millersville
University

- **Bachelor of Science in music business technology**

This program, which also will be offered beginning in fall 2018, will include three concentrations: music production, music management, and audio technology. It responds to marketplace and student demands, especially locally. More music industry related businesses are moving into the Lancaster area because of the expansion of international businesses such as Clair Global and the associated businesses at Rock Lititz. The region supports a thriving arts and entertainment industry that serves local residents as well as tourists, including venues such as American Music Theatre, Sight & Sound, Hershey Entertainment, and a wide range of music and theater venues.

Shippensburg University of Pennsylvania

- **Doctor of Business Administration**

This degree, which will be offered beginning in fall 2018 through Shippensburg University's John L. Grove College of Business, will be the only accredited DBA degree offered by a public college or university in the region. It was designed to accommodate the schedules of full-time working and executive-level individuals by utilizing a variety of delivery methods and to be offered at a nationally competitive price. The program will seek to attract a variety of potential applicants, including recent graduates of Master's of Business Administration programs, mid-level managers and executives seeking career development, local and regional educators, international students, and career-military personnel exploring a second career.



- **Bachelor of Science in mechanical engineering**

This program, which Shippensburg also will offer beginning in fall 2018, will prepare students for a wide variety of careers, including in the design and manufacturing of mechanical and electromechanical components and systems. The curriculum will include a focus on professional engineering practice and access to the latest Computer Assisted Design (CAD) and Computer Assisted Manufacturing (CAM) tools, with an emphasis on design for manufacturability, modeling, simulation, process control, and rapid prototyping. It will balance theory and hands-on practice that will prepare students to be effective and practical engineers when they graduate.

- **Bachelor of Science in sustainability**

This program, which will be offered starting in fall 2018, will prepare graduates to be environmental scientists with expertise in sustainability, coupled with technical skills in geographic information systems (GIS) and real-world work experience through required internships.

Slippery Rock University of Pennsylvania

- **Doctorate of Occupational Therapy**

Slippery Rock will offer this program beginning in June at its facility in Harrisville, which also houses the university's physician assistant program. It will prepare graduates to be practitioners in the high-demand field of occupational therapy. The new program will



build on the success of the university's existing master's programs in related fields such as exercise science, therapeutic recreation, and athletic training; and, because it will be the only program of its kind in the State System, will provide many opportunities for articulation

agreements with other System universities. The degree will be offered as a 36-month, year-round program for students who hold a bachelor's degree or who are enrolled in one of the university's current 3+3 pre-occupational therapy undergraduate tracks.

- **Master of Science in health information management**

This degree will join two existing graduate programs in data analytics and health informatics as data-oriented supplements to the university's health and wellness focus. The 33-credit professional degree program will complement the existing programs, focusing on designing, storing, and utilizing data for daily operational decisions.

Courses, which will be offered in a blended format, will be held at the Regional Learning Alliance just outside of Pittsburgh beginning in fall 2018. Flexible scheduling will accommodate working practitioners.

- **Bachelor of Fine Arts in acting**

This program, which will be offered beginning in fall 2019, will provide not only the typical broad-based education in all aspects of theater, but also the rigorous professional training in the skills needed by students who desire to enter directly into the competitive fields of regional theater and musical theater. It will use a focused conservatory-style approach. A separate concentration will be available for students seeking training in non-musical theater, providing the necessary physical and vocal training, as well as the thorough and rigorous immersion in current acting technique that the profession requires.

West Chester University of Pennsylvania

- **Bachelor of Science in biomedical engineering**

This program, which West Chester will offer beginning in fall 2018, will build on the university's expertise in the health and life sciences, including its existing pharmaceutical product development major.

Biomedical engineering has emerged as a professional discipline largely in response to the increasing dependence of modern healthcare on complex diagnostic, screening, monitoring, prosthetics, surgical instrumentation, and biotechnology. The new program will offer tracks in biosystems, bioinstrumentation and imaging; biomolecular and biochemical; biomechanics; and biomaterials and tissues.



Appendix B-3

Pennsylvania's State System of Higher Education *Investing in Student Success, Campus Safety*

Student success is reflected in graduation rates, student debt, and post-graduation employment. Helping to ensure that success requires universities to address many non-academic factors, from campus safety to alcohol and drug use to mental health issues.

National leaders in the field of college access, retention, and graduation emphasize that universities have a responsibility to provide students with the support they need to achieve. The National Bureau of Economic Research has stated that college graduation and persistence is directly linked to greater expenditures on student services that contribute to students' emotional and physical well-being and to their intellectual, cultural, and social development.

Demographic factors such as age, socioeconomic status, race, military status, ethnicity, and gender can have a significant impact on student success. The 14 State System universities enroll the largest percentage of Pennsylvania residents who are Pell grant recipients, among all four-year higher education institutions in the state. Pell grant recipients represent those with the greatest financial need. As a group, these students also often have a greater need for additional academic and other support services. In order to provide an educated workforce that is prepared to meet the needs of the Commonwealth and its citizens, the State System must be able to further invest in these vital services.

The national response to addressing sexual misconduct, sexual violence, and harassment at universities has had an extraordinary impact on the administrative and financial operations of State System universities. With the Board of Governors leading the effort, the universities are enhancing and creating the safest environments possible for students, employees, and visitors.

Each university has expended significant resources to develop policies and procedures to address federal Title IX sexual harassment/assault issues. Financial and human resources have been repositioned to address the appointment of Title IX coordinators on each campus, to address ongoing awareness and prevention education for students and employees, and to train staff in how to facilitate Title IX investigations and grievance procedures.

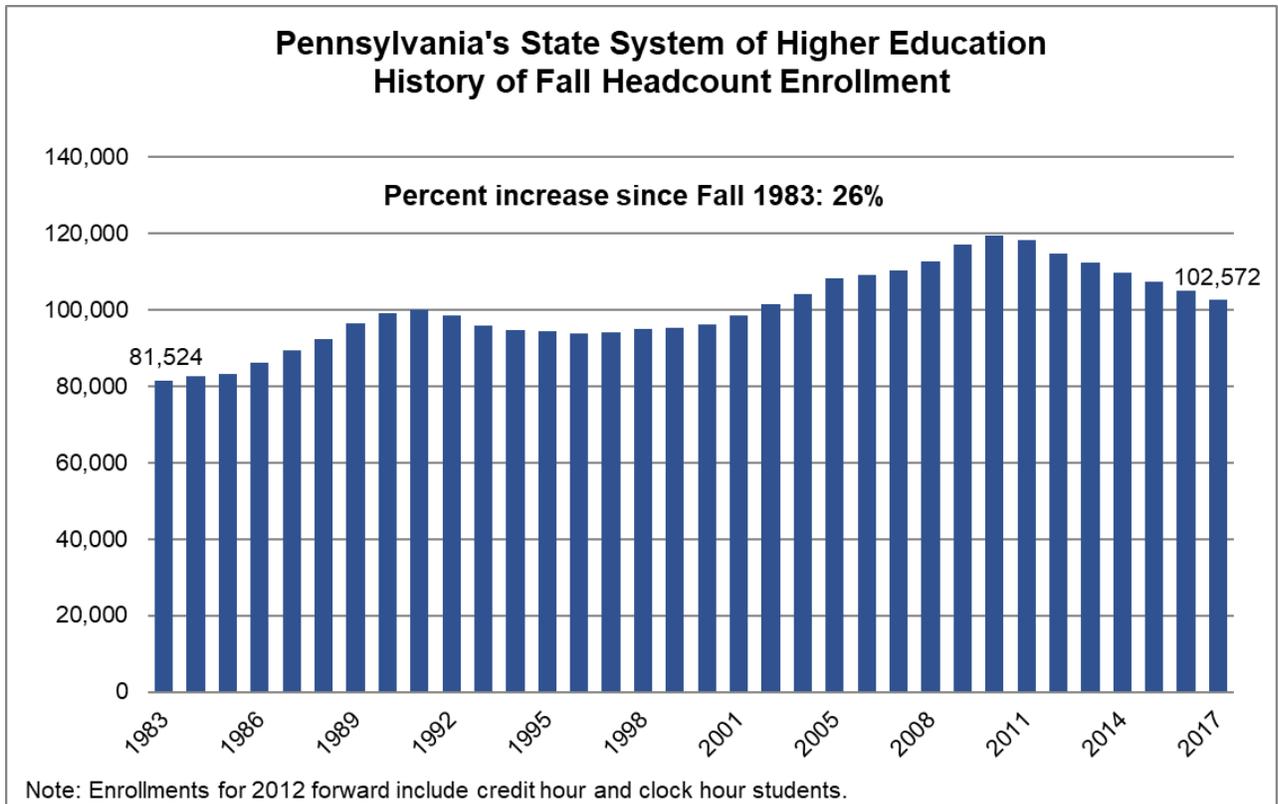
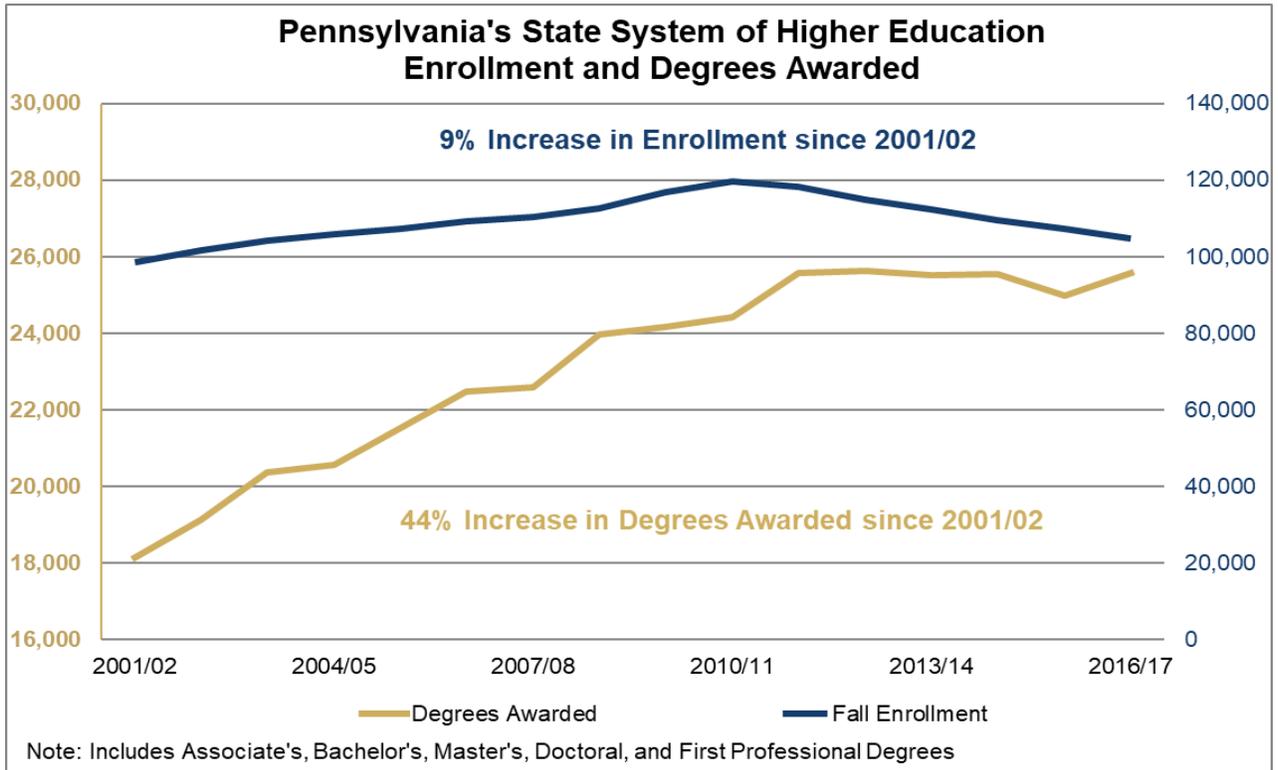
Going forward, the universities will need to add victim advocate positions, employ appropriately trained investigators, conduct campus climate surveys, and address survey findings.

The State System will continue to take a strategic and deliberate approach to educating about and responding to safety issues and to collaborating to proactively address safety and compliance concerns.

Campus Safety

- State System universities have 75 percent fewer incidents of serious crimes than the state average.
- The number of serious crimes on the university campuses is about one-third of what it was in 1986, and continues to decline.
- University police are commissioned, trained, armed, and have similar jurisdiction rights as municipal police.

Appendix B-4



Source: State System Student Data Warehouse (SIMS), Fall Preliminary Census, Official Reporting Date: End of the 15th day of classes

Appendix B-5

Pennsylvania's State System of Higher Education Fall Headcount Enrollment by University

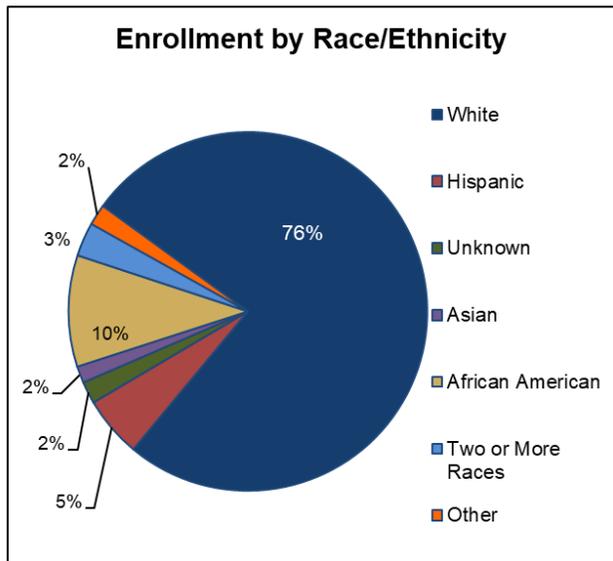
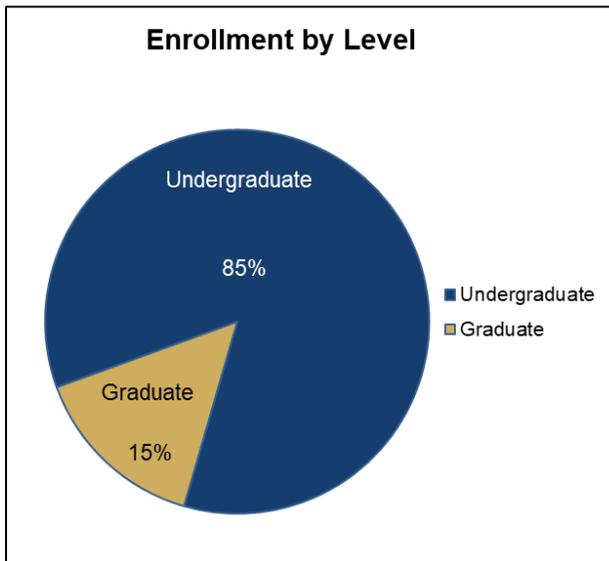
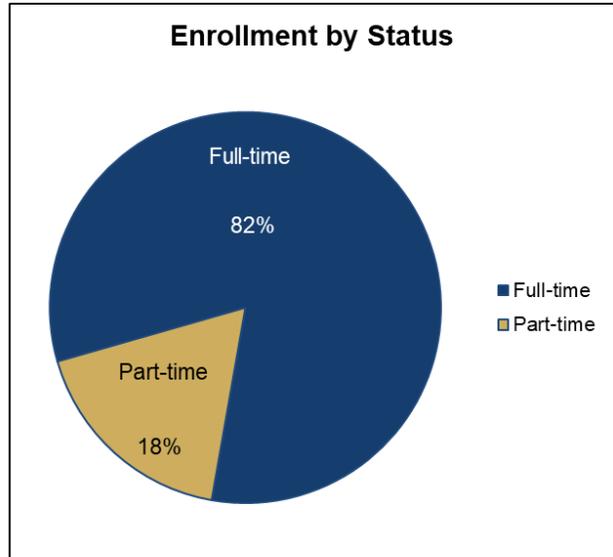
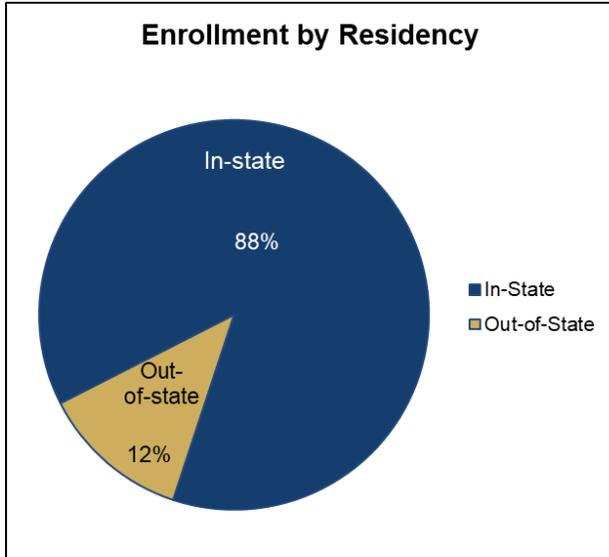
University	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Bloomsburg	8,745	8,855	9,512	10,091	10,159	9,950	10,127	9,998	9,777	9,658	9,287
California	8,206	8,519	9,017	9,400	9,483	8,608	8,243	7,978	7,854	7,553	7,788
Cheyney	1,436	1,488	1,488	1,586	1,200	1,284	1,212	1,022	711	746	755
Clarion	6,795	7,100	7,346	7,315	6,991	6,520	6,080	5,712	5,368	5,224	5,225
East Stroudsburg	7,053	7,234	7,576	7,387	7,353	6,943	6,778	6,820	6,828	6,830	6,742
Edinboro	7,686	7,671	8,287	8,642	8,262	7,462	7,098	6,837	6,550	6,181	5,575
Indiana	14,018	14,310	14,638	15,126	15,132	15,668	14,997	14,571	14,035	13,114	12,562
Kutztown	10,295	10,393	10,634	10,707	10,283	9,804	9,513	9,218	9,000	8,513	8,329
Lock Haven	5,241	5,266	5,329	5,451	5,366	5,328	5,260	4,917	4,607	4,220	3,827
Mansfield	3,338	3,422	3,569	3,411	3,275	3,155	2,988	2,752	2,393	2,209	1,922
Millersville	8,306	8,320	8,427	8,729	8,725	8,368	8,279	8,047	7,988	7,927	7,748
Shippensburg	7,765	7,942	8,253	8,326	8,183	7,724	7,548	7,355	7,058	6,989	6,581
Slippery Rock	8,325	8,458	8,648	8,852	8,712	8,559	8,347	8,495	8,628	8,881	8,895
West Chester	13,219	13,619	14,211	14,490	15,100	15,411	15,845	16,086	16,606	17,006	17,336
System Totals	110,428	112,597	116,935	119,513	118,224	114,784	112,315	109,808	107,403	105,051	102,572

Source: State System Student Data Warehouse (SIMS), Fall Preliminary Census, Official Reporting Date: End of the 15th day of classes

Note: Includes all Census enrollments--undergraduate, graduate, full-time, and part-time. Enrollments for 2012 forward include credit hour and clock hour students.

Appendix B-6

Pennsylvania's State System of Higher Education
Fall 2017 Enrollment Demographics
Headcount: 102,301*



Source: State System Student Data Warehouse (SIMS), Fall Preliminary Census, Official Reporting Date: End of the 15th day of classes
*Note: Fall Census Headcount enrollment (undergraduate, graduate, full-time, and part-time). Credit hour only; excludes Clock hour students.

Appendix B-7

**Pennsylvania's State System of Higher Education
Students and Alumni by Pennsylvania County, Fall 2017**

County	Enrolled Students	Living Alumni
Adams	641	3,784
Allegheny	6,623	53,132
Armstrong	673	4,782
Beaver	1,013	7,921
Bedford	183	1,434
Berks	3,382	22,575
Blair	546	3,929
Bradford	501	3,614
Bucks	3,743	21,754
Butler	1,918	15,483
Cambria	973	6,555
Cameron	48	267
Carbon	421	2,651
Centre	684	5,125
Chester	6,283	34,392
Clarion	784	4,132
Clearfield	867	4,772
Clinton	548	3,146
Columbia	1,007	5,921
Crawford	852	6,596
Cumberland	2,241	15,896
Dauphin	1,790	12,623
Delaware	4,322	20,726
Elk	318	2,084
Erie	2,781	17,729
Fayette	1,032	7,366
Forest	35	291
Franklin	1,376	6,894
Fulton	79	489
Greene	273	1,429
Huntingdon	190	1,313
Indiana	1,537	8,367
Jefferson	570	3,561
Juniata	118	747
Lackawanna	907	5,655
Lancaster	4,486	31,093

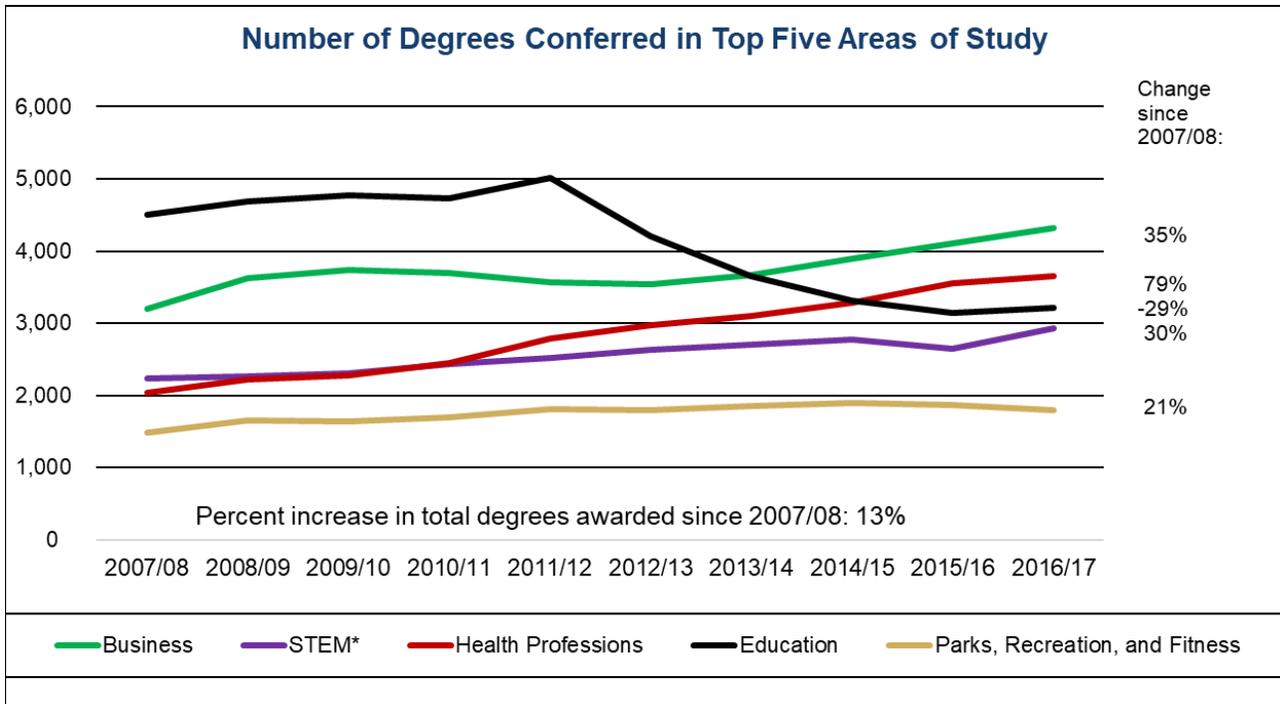
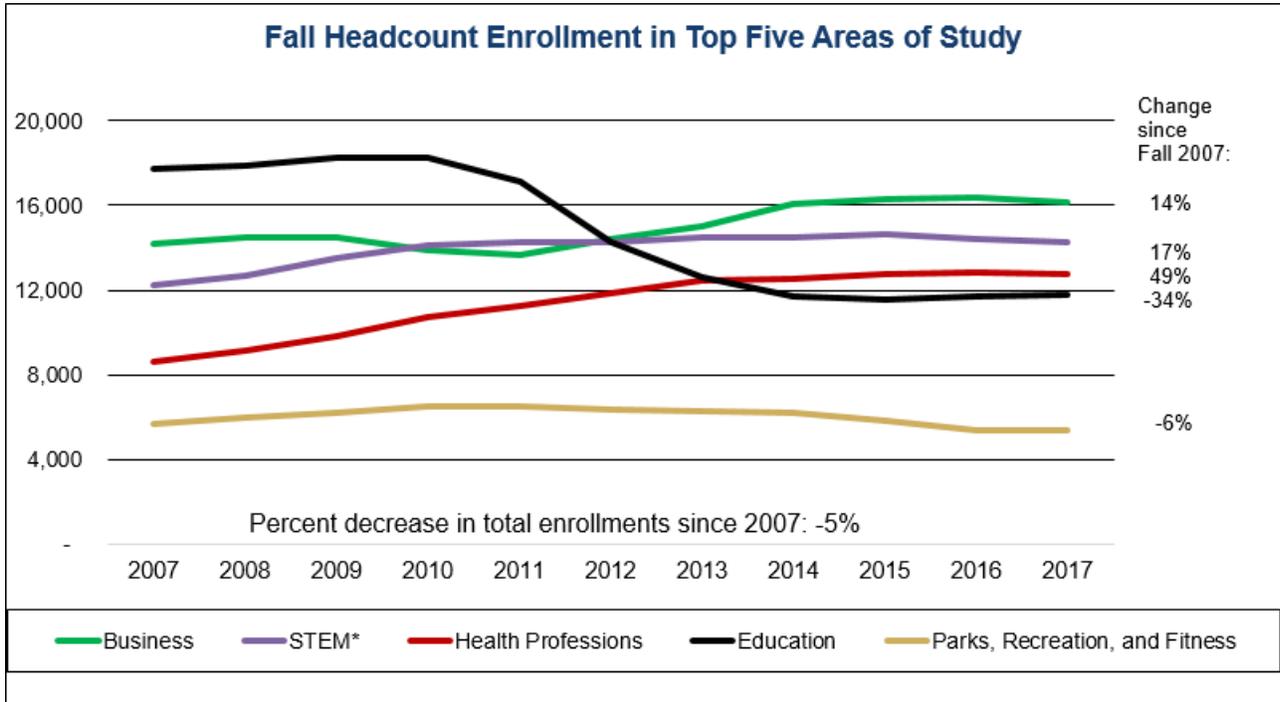
County	Enrolled Students	Living Alumni
Lawrence	737	5,242
Lebanon	733	5,562
Lehigh	2,618	17,564
Luzerne	1,331	9,178
Lycoming	972	6,906
McKean	303	1,846
Mercer	956	7,055
Mifflin	246	1,494
Monroe	2,428	7,699
Montgomery	5,094	32,453
Montour	297	1,483
Northampton	2,276	14,189
Northumberland	852	5,278
Perry	253	1,902
Philadelphia	5,116	16,891
Pike	576	1,524
Potter	100	832
Schuylkill	1,042	6,254
Snyder	263	1,648
Somerset	328	2,689
Sullivan	30	277
Susquehanna	171	1,271
Tioga	502	3,309
Union	326	1,980
Venango	759	5,014
Warren	302	2,305
Washington	1,930	13,783
Wayne	334	1,636
Westmoreland	2,334	21,464
Wyoming	108	753
York	2,773	16,516
Total Pennsylvania	89,835	564,225
Non-Pennsylvania	12,466	239,548
Grand Total	102,301	803,773

Note: Fall Census, data based on geo-coding of student/alum address. Excludes clock hour students.

Source: State System Student Data Warehouse (SIMS), Fall Preliminary Census, Official Reporting Date: End of the 15th day of classes

Appendix B-8

Pennsylvania's State System of Higher Education



Source: State System Student Data Warehouse (SIMS), Final Completions Data
 *STEM = Science, Technology, Engineering, and Mathematics majors.

Appendix B-10

Pennsylvania's State System of Higher Education
New Fall Undergraduate (UG) Transfer Students

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Ten Year Change	% of 2017 Total Transfers
A. Community Colleges													
Community College of Allegheny County	395	402	424	445	435	391	398	422	400	359	398	0.8%	6.4%
Community College of Beaver County	68	77	83	79	72	69	61	55	68	75	60	-11.8%	1.0%
Bucks County	134	161	167	169	205	190	161	203	156	139	166	23.9%	2.7%
Butler County	198	188	226	186	219	229	230	205	191	210	188	-5.1%	3.0%
Pennsylvania Highlands	53	20	30	45	48	44	54	56	49	42	48	-9.4%	0.8%
Delaware County	303	334	357	354	417	441	431	419	439	443	414	36.6%	6.7%
Harrisburg Area	435	478	506	604	571	529	596	501	494	495	400	-8.0%	6.4%
Lehigh Carbon	217	199	217	243	188	214	224	163	178	165	200	-7.8%	3.2%
Luzerne County	144	131	128	163	130	124	137	121	109	112	70	-51.4%	1.1%
Montgomery County	194	198	260	278	295	304	273	268	270	258	257	32.5%	4.1%
Northampton County	271	325	352	452	364	352	397	351	355	384	373	37.6%	6.0%
Community College of Philadelphia	65	81	82	77	87	78	117	97	136	156	128	96.9%	2.1%
Reading Area	119	110	121	124	93	126	106	91	87	89	68	-42.9%	1.1%
Westmoreland County	177	143	159	184	182	142	167	185	156	151	153	-13.6%	2.5%
Total Community Colleges	2,773	2,847	3,112	3,403	3,306	3,233	3,352	3,137	3,088	3,078	2,923	5.4%	47.0%
Percent of Minority Community College Students	10.8%	11.9%	12.7%	15.0%	15.9%	18.9%	20.1%	21.2%	22.8%	24.2%	24.3%		
Community Colleges as % of Transfer Total	41.7%	43.0%	42.1%	44.4%	44.6%	44.2%	45.5%	45.0%	46.0%	46.3%	47.0%		
Community Colleges as % of Total New UG Students	10.4%	10.4%	10.7%	11.6%	11.5%	11.8%	12.4%	11.8%	12.1%	12.4%	12.1%		
B. State-Related													
Lincoln	8	7	7	9	4	9	4	2	4	3	4	-50.0%	0.1%
Penn State	361	364	432	384	387	355	344	265	281	326	239	-33.8%	3.8%
Pitt	139	130	132	123	118	104	166	114	90	106	107	-23.0%	1.7%
Temple	47	42	63	49	72	70	48	43	56	40	60	27.7%	1.0%
Total State-Related	555	543	634	565	581	538	562	424	431	475	410	-26.1%	6.6%
State-Related as % of Total	8.3%	8.2%	8.6%	7.4%	7.8%	7.4%	7.6%	6.1%	6.4%	7.1%	6.6%		
C. Intra-system Transfers	682	626	656	765	729	718	714	722	654	582	592	-13.2%	9.5%
D. Other Colleges and Universities	2,641	2,612	2,990	2,935	2,789	2,823	2,747	2,694	2,541	2,514	2,288	-13.4%	36.8%
Total New Undergraduate Transfer Students	6,651	6,628	7,392	7,668	7,405	7,312	7,375	6,977	6,714	6,649	6,213	-6.6%	100.0%
Percent of Minority Transfer Students	12.1%	12.0%	13.2%	16.2%	16.7%	20.5%	21.2%	22.5%	24.6%	23.9%	24.2%		
New Transfer Students as Percent of Total New UG	24.9%	24.1%	25.4%	26.2%	25.8%	26.6%	27.3%	26.2%	26.2%	26.8%	25.7%		

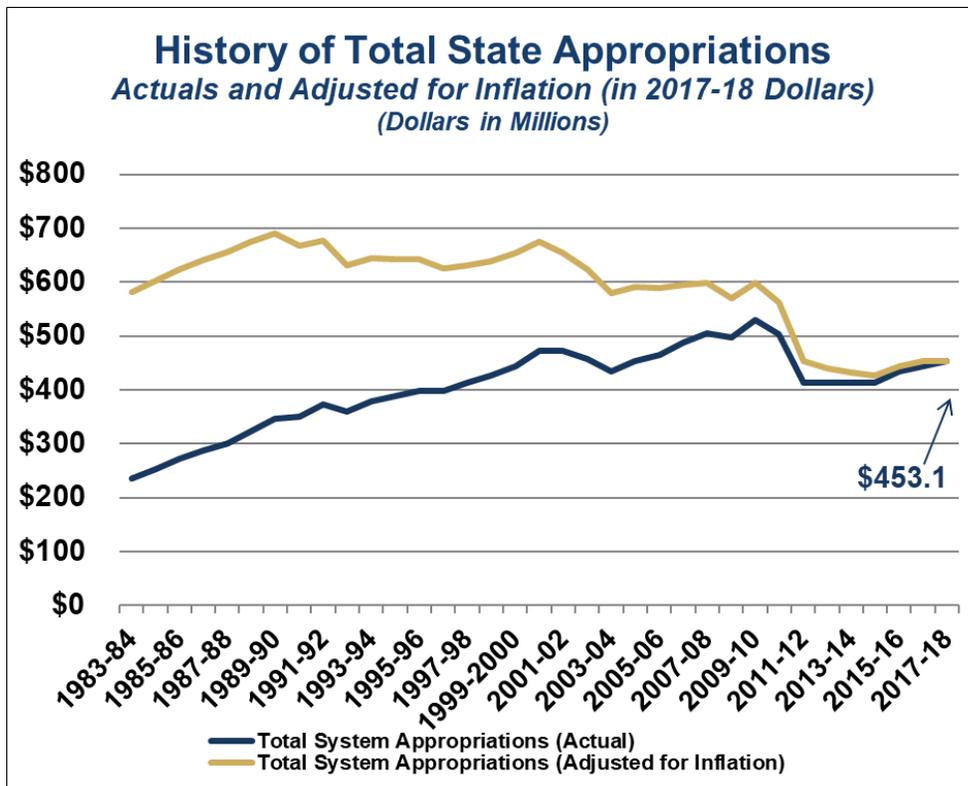
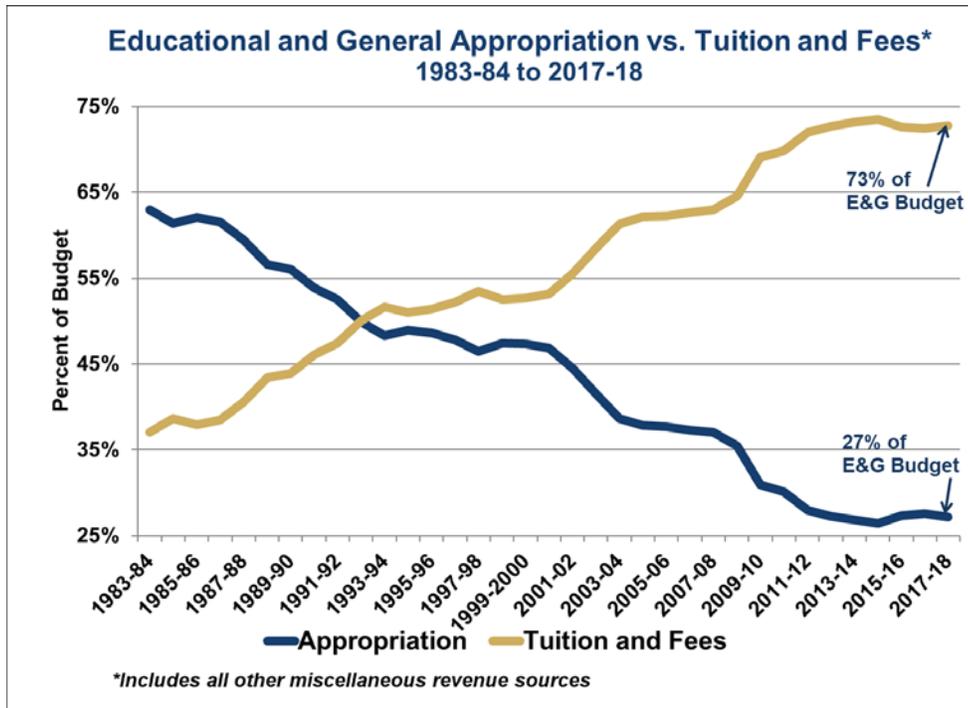
Note: Minority students include Two or More Races

Source: State System Student Data Warehouse (SIMS), Fall Preliminary Census, Official Reporting Date: End of the 15th day of classes

2008, 2009, and 2010 historical data has been revised to include updated information. Prior years are as reported previously.

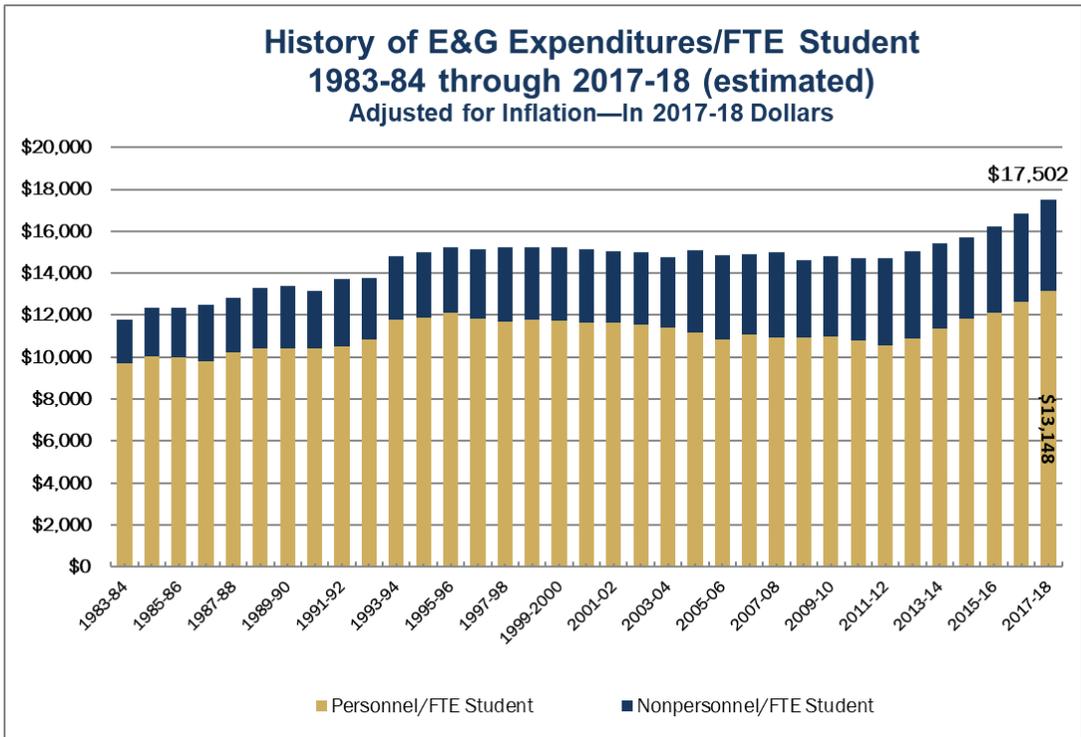
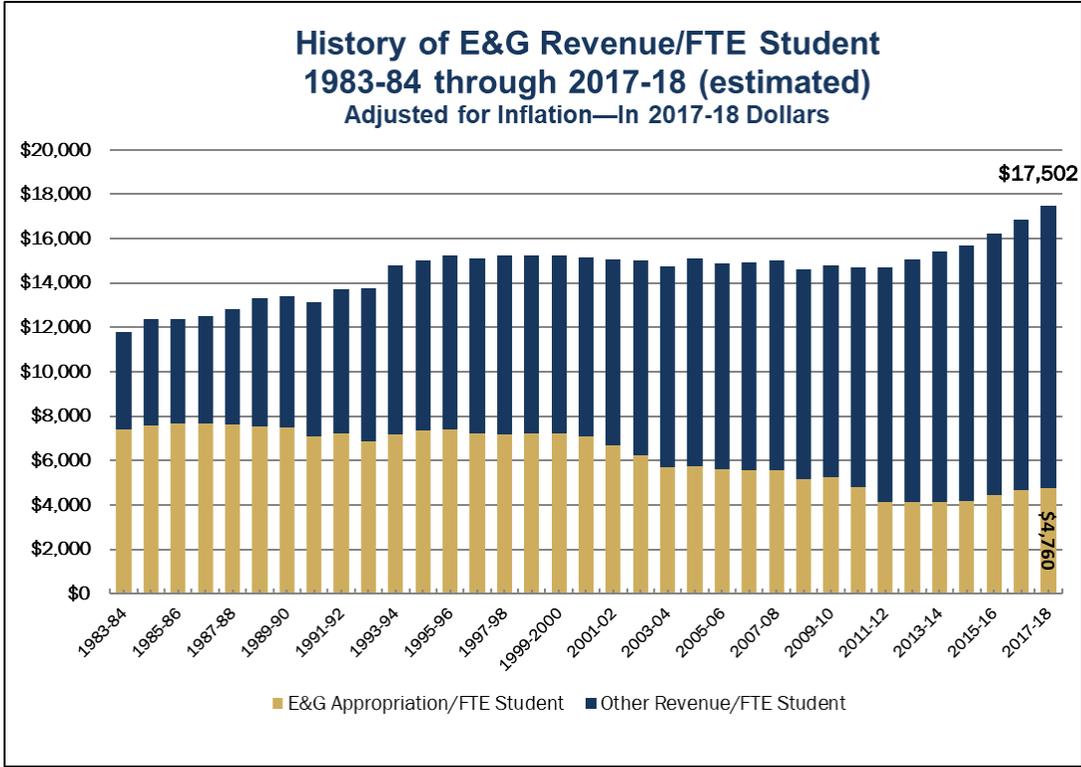
Appendix B-11

Pennsylvania's State System of Higher Education



Appendix B-12

Pennsylvania's State System of Higher Education
History of E&G Revenue and Expenditures

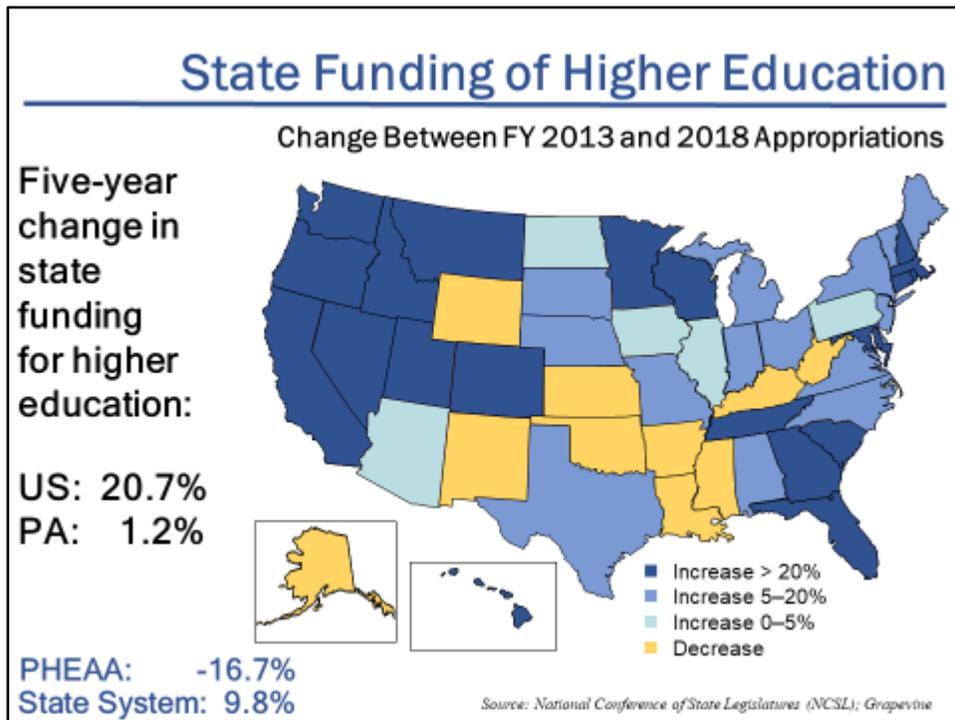
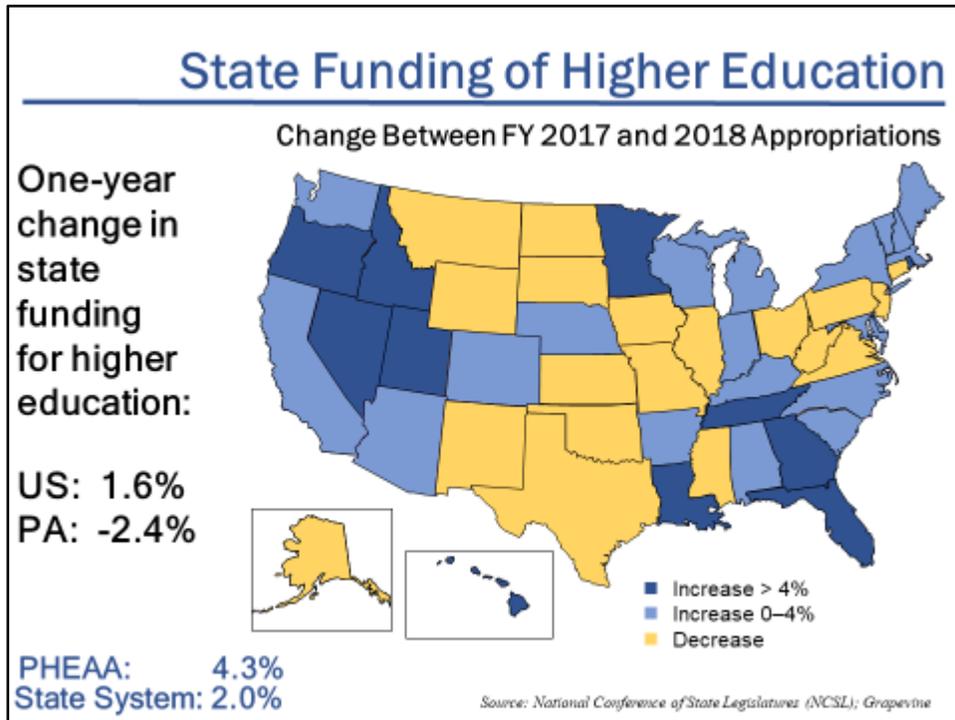


Appendix B-13

**Pennsylvania's State System of Higher Education
History of State Appropriations and Tuition Rates**

Fiscal Year	E&G Appropriation	% Change From Prior Year	% Of Total E&G Budget	Total Appropriations	% Change From Prior Year	Resident Under-graduate Tuition Rate	\$ Change From Prior Year	% Change From Prior Year	Total Annualized FTE Enrollment
1983-84	\$235,053,000	2.0%	63%	\$235,053,000	2.0%	\$1,480			78,273
1984-85	\$250,051,000	6.4%	61%	\$252,723,000	7.5%	\$1,570	\$90	6.1%	78,575
1985-86	\$263,803,000	5.5%	62%	\$272,115,000	7.7%	\$1,600	\$30	1.9%	78,773
1986-87	\$279,381,000	5.9%	62%	\$287,756,000	5.7%	\$1,680	\$80	5.0%	81,001
1987-88	\$295,350,000	5.7%	59%	\$300,805,000	4.5%	\$1,830	\$150	8.9%	84,462
1988-89	\$311,594,000	5.5%	57%	\$322,699,000	7.3%	\$2,078	\$248	13.6%	86,643
1989-90	\$338,496,000	8.6%	56%	\$345,281,000	7.0%	\$2,178	\$100	4.8%	90,243
1990-91	\$343,526,321	1.5%	54%	\$349,491,000	1.2%	\$2,278	\$100	4.6%	92,560
1991-92	\$370,960,000	8.0%	53%	\$373,625,000	6.9%	\$2,628	\$350	15.4%	93,210
1992-93	\$357,976,000	-3.5%	50%	\$359,352,000	-3.8%	\$2,828	\$200	7.6%	91,415
1993-94	\$372,085,000	3.9%	48%	\$379,023,000	5.5%	\$2,954	\$126	4.5%	88,460
1994-95	\$386,320,278	3.8%	49%	\$386,520,000	2.0%	\$3,086	\$132	4.5%	87,168
1995-96	\$396,890,000	2.7%	49%	\$398,587,000	3.1%	\$3,224	\$138	4.5%	86,522
1996-97	\$396,890,000	0.0%	48%	\$398,487,000	0.0%	\$3,368	\$144	4.5%	86,106
1997-98	\$411,513,000	3.7%	47%	\$413,142,000	3.7%	\$3,468	\$100	3.0%	87,288
1998-99	\$424,887,000	3.2%	47%	\$426,570,000	3.3%	\$3,468	\$0	0.0%	88,017
1999-2000	\$437,634,000	3.0%	47%	\$443,858,000	4.1%	\$3,618	\$150	4.3%	89,354
2000-01	\$450,763,000	3.0%	47%	\$471,821,000	6.3%	\$3,792	\$174	4.8%	91,057
2001-02	\$452,763,000	0.4%	44%	\$471,821,000	0.0%	\$4,016	\$224	5.9%	93,559
2002-03	\$439,181,000	-3.0%	41%	\$457,667,000	-3.0%	\$4,378	\$362	9.0%	95,998
2003-04	\$417,222,000	-5.0%	39%	\$434,784,000	-5.0%	\$4,598	\$220	5.0%	97,456
2004-05	\$433,435,000	3.9%	38%	\$453,628,000	4.3%	\$4,810	\$212	4.6%	98,735
2005-06	\$445,354,000	2.7%	38%	\$465,197,000	2.6%	\$4,906	\$96	2.0%	100,390
2006-07	\$467,622,000	5.0%	37%	\$487,873,000	4.9%	\$5,038	\$132	2.7%	102,443
2007-08	\$483,989,000	3.5%	37%	\$504,240,000	3.4%	\$5,177	\$139	2.8%	103,359
2008-09	\$477,322,000	-1.4%	35%	\$497,168,470	-1.4%	\$5,358	\$181	3.5%	105,566
2009-10	\$444,470,000	-6.9%	31%	\$530,423,000	6.7%	\$5,554	\$196	3.7%	109,637
2010-11	\$444,470,000	0.0%	30%	\$503,355,000	-5.1%	\$5,804	\$250	4.5%	112,030
2011-12	\$412,751,000	-7.1%	28%	\$412,751,000	-18.0%	\$6,240	\$436	7.5%	109,741
2012-13	\$412,751,000	0.0%	27%	\$412,751,000	0.0%	\$6,428	\$188	3.0%	106,977
2013-14	\$412,751,000	0.0%	27%	\$412,751,000	0.0%	\$6,622	\$194	3.0%	104,459
2014-15	\$412,751,000	0.0%	26%	\$412,751,000	0.0%	\$6,820	\$198	3.0%	102,323
2015-16	\$433,389,000	5.0%	27%	\$433,389,000	5.0%	\$7,060	\$240	3.5%	99,868
2016-17	\$444,224,000	2.5%	27%	\$444,224,000	2.5%	\$7,238	\$178	2.5%	97,479
2017-18	\$453,108,000	2.0%	27%	\$453,108,000	2.0%	\$7,492	\$254	3.5%	95,181

Pennsylvania's State System of Higher Education State Funding for Higher Education: 1-, 5-Year Change



Appendix B-15

PENNSYLVANIA'S STATE SYSTEM OF HIGHER EDUCATION

Cost of Attendance and Net Price

Fall 2015 First-time, Full-time Freshmen

	Pennsylvania's State System of Higher Education Total Averages	PA State Related Total Averages*	Selected PA Private Peer Total Averages**
Average Cost of Attendance (includes books and miscellaneous personal expenses)	\$24,477	\$30,668	\$47,964
Total number of students in First-time, Full-time Cohort	18,806	26,393	11,743
Total Number of the Cohort receiving any type of financial aid	16,762	21,070	10,993
Percent of the Total Cohort receiving any type of financial aid	89%	80%	94%
Percent of the Total Cohort receiving any Federal, State, Local or Institutional Grant Aid***	59%	61%	92%
Average total award amount of Federal, State, Local or Institutional Grant Aid	\$5,994	\$9,251	\$21,322
Percent of the Total Cohort receiving Institutional Grant Aid	27%	53%	91%
Average total award amount of Institutional Grant Aid	\$2,815	\$6,918	\$18,868
Percent of the total Cohort receiving Student Loan Aid	79%	60%	72%
Average total award amount of Student Loan Aid	\$8,233	\$8,667	\$9,272
Average Total Net Price for Those Receiving Aid - (Cost of Attendance minus Average Grants)	\$18,482	\$21,418	\$26,642
with Loans - (Cost of Attendance minus Average Grants and Loans)	\$10,249	\$12,751	\$17,371

*Weighted average of main and branch campuses. For those that do not have on-campus housing, off-campus rates were used to determine Cost of Attendance.

**Weighted average of Delaware Valley College, DeSales University, Geneva College, Lebanon Valley College, Mercyhurst College, Misericordia University, Mount Aloysius College, Philadelphia University, Robert Morris University, Saint Francis University, Seton Hill University, Thiel College, Ursinus College, Villanova University, Waynesburg University, Westminster College, Widener University-Main Campus, Wilkes University, and York College.

***Grant Aid-All "free" financial aid to the student; that which does not need to be repaid. Includes need-based and merit-based awards, such as Pell grants, PHEAA grants, scholarships, waivers, tuition discounts, etc.

Source: IPEDS Fall 2015 Tuition (based on First-time, Full-time, On-campus), IPEDS 2015-2016 Student Financial Aid. NOTE: Most recent data available.

Appendix B-16

Pennsylvania Higher Education Assistance Agency (PHEAA) State Grant Awards
All Undergraduate Programs (Excluding Summer School)

Year	Independent		State System	State-Related	Number of Awards			Business & Technical	Total PA	Out-of-State	Total
	4-Year	2-Year			Community Colleges	Nursing	Technical				
2010-11	47,100	3,412	35,223	37,350	25,041	1,074	12,020	161,220	13,053	174,273	
2011-12	48,323	3,570	36,503	38,658	35,764	1,098	11,283	175,199	13,630	188,829	
2012-13	48,551	3,540	33,400	36,191	31,315	1,137	10,247	164,381	12,375	176,756	
2013-14	46,395	3,394	31,743	33,928	28,224	1,156	9,929	154,769	9,484	164,253	
2014-15	45,211	3,546	31,773	33,718	27,240	1,123	9,125	151,736	9,675	161,411	
2015-16	41,972	3,335	30,400	31,464	23,202	968	6,721	138,062	5,198	143,260	
2016-17	40,455	2,582	28,934	29,598	22,410	813	5,309	130,101	4,776	134,877	

Value of Awards

Year	Independent		State System	State-Related	Community Colleges	Nursing	Business & Technical	Total PA	Out-of-State	Total
	4-Year	2-Year								
2010-11	\$123,154,986	\$8,015,549	\$78,257,066	\$91,687,606	\$14,841,175	\$2,184,034	\$24,918,481	\$343,058,897	\$4,499,881	\$347,558,778
2011-12	\$149,001,696	\$10,136,377	\$99,796,407	\$116,389,863	\$27,621,794	\$2,807,642	\$28,043,851	\$433,797,630	\$5,692,492	\$439,490,122
2012-13	\$154,943,909	\$9,694,541	\$86,563,092	\$111,365,064	\$29,547,335	\$3,044,721	\$26,627,407	\$421,786,069	\$5,236,611	\$427,022,680
2013-14	\$151,678,344	\$9,728,287	\$91,584,343	\$110,527,312	\$29,872,717	\$3,058,023	\$26,412,919	\$422,861,945	\$4,902,903	\$427,764,848
2014-15	\$135,968,598	\$9,358,661	\$85,391,838	\$101,608,390	\$26,767,110	\$2,885,565	\$22,879,034	\$384,859,196	\$4,771,184	\$389,630,380
2015-16	\$139,076,524	\$9,874,881	\$85,537,267	\$103,252,807	\$25,746,922	\$2,729,820	\$18,386,469	\$384,604,690	\$2,761,213	\$387,365,903
2016-17	\$136,193,414	\$7,476,051	\$83,164,859	\$98,336,295	\$26,611,912	\$2,223,516	\$14,543,872	\$368,549,919	\$2,517,717	\$371,067,636

Full-Year Average Award

Year	Independent		State System	State-Related	Community Colleges	Nursing	Business & Technical	Total PA	Out-of-State	Total
	4-Year	2-Year								
2010-11	\$2,939	\$2,853	\$2,436	\$2,739	\$936	\$2,468	\$2,795	\$2,523	\$364	\$2,343
2011-12	\$3,540	\$3,522	\$3,007	\$3,397	\$1,250	\$3,140	\$3,456	\$3,022	\$443	\$2,810
2012-13	\$3,671	\$3,452	\$2,878	\$3,491	\$1,569	\$3,326	\$3,576	\$3,143	\$448	\$2,927
2013-14	\$3,741	\$3,644	\$3,197	\$3,654	\$1,793	\$3,381	\$3,675	\$3,333	\$551	\$3,151
2014-15	\$3,430	\$3,330	\$2,996	\$3,385	\$1,708	\$3,168	\$3,398	\$3,097	\$525	\$2,922
2015-16	\$3,751	\$3,658	\$3,145	\$3,682	\$1,950	\$3,585	\$3,697	\$3,375	\$572	\$3,261
2016-17	\$3,780	\$3,666	\$3,197	\$3,729	\$2,018	\$3,564	\$3,719	\$3,407	\$569	\$3,295

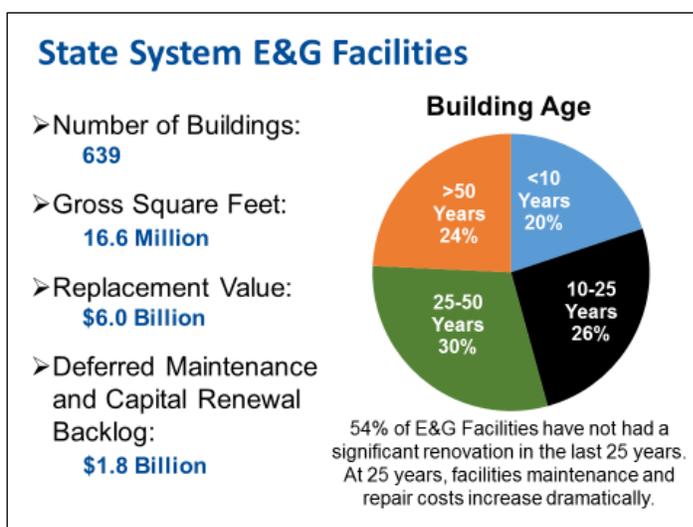
Source: PHEAA State Grant Program Year-by-Year Summary Statistics Report

Appendix B-17

Pennsylvania's State System of Higher Education Educational and General (E&G)* Facilities Highlights

Challenges for State System University Facilities

- Fifty-four percent of the State System's E&G facilities have not had a major renovation in 25 years and require a significant capital investment.
- State System universities have historic facilities, which are less efficient to operate and tend to be more costly to maintain and repair.
- Commonwealth procurement requirements such as the Separations Act and Prevailing Wage increase construction durations and costs. Other Pennsylvania higher education sectors do not have these requirements.
- Although the universities invest annually in their facilities, the State System does not have sufficient resources to do so in the most cost-effective manner.



Funding Sources for Buildings and Infrastructure

- **University Operating Funds**—These funds are used for maintenance and operations of the physical plant including grounds, janitorial, preventative maintenance, repairs, and deferred maintenance (including Key'93 funds). Last year State System universities spent about \$37 million on repairs and modernization of its facilities; national models suggest at least \$80 million should be invested annually in this area to keep up with deferred maintenance.
- **Key'93**
 - Enacted by Act 50 of 1993, funded with revenue from the Real Estate Transfer Tax.
 - Funding eliminated in FY 2009-10 and FY 2010-11; restored in FY 2011-12.
 - Used to address deferred maintenance backlog requirements.
 - It is estimated that \$1 spent to immediately address small deferred maintenance requirements saves \$4 in capital renewal costs.
 - FY 2017-18 funding is \$15.4 million; historically funded as high as \$18 million.
- **Commonwealth Capital Funds**—From FY 2000-01 to FY 2008-09 the Commonwealth provided the State System \$65 million annually for capital projects. In FY 2009-10, capital funding was increased to \$130 million per year; it returned to \$65 million in FY 2011-12 and currently remains at that level. These funds are spent largely on renovation or replacement of existing buildings. Because universities have not been able to adequately fund life cycle maintenance from operating funds, the capital funds have been essential to limiting deferred maintenance backlog growth.

**Educational and General facilities house the instructional, academic support, and administrative functions; and exclude housing, dining, student unions, and recreation centers.*

Appendix B-17 (Continued)

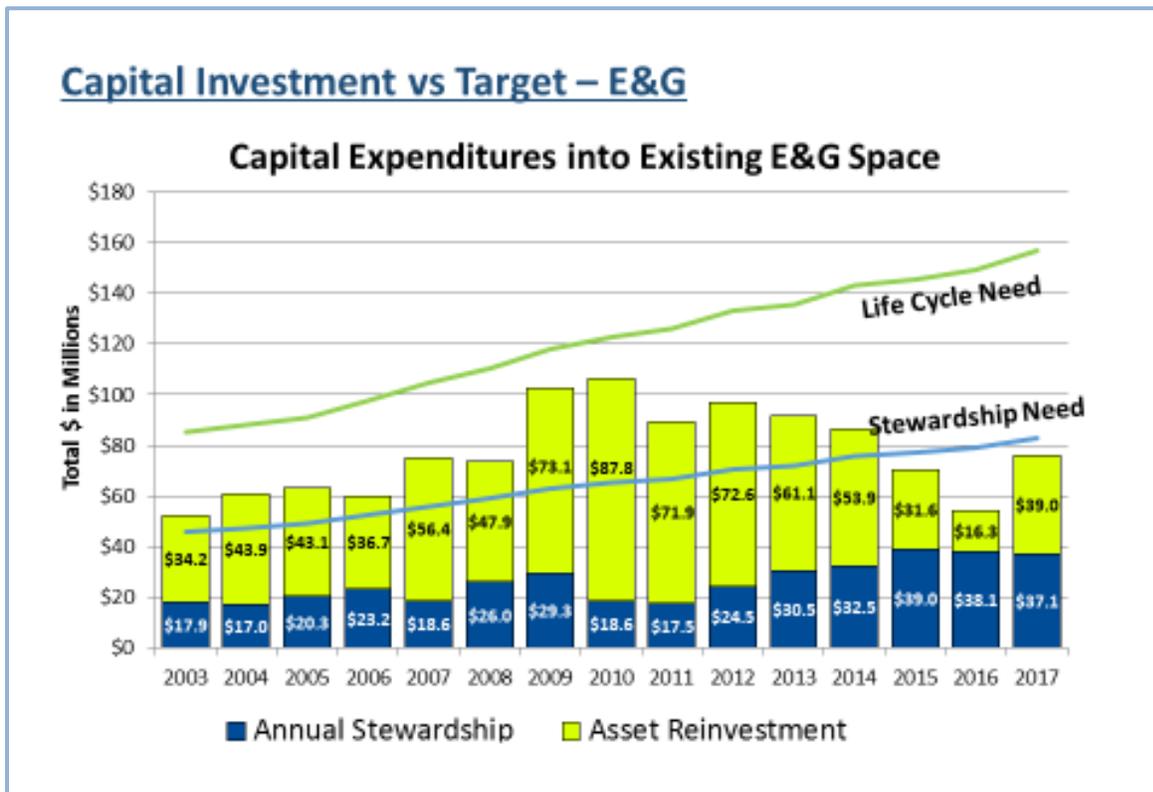
Pennsylvania’s State System of Higher Education Educational and General (E&G)* Facilities Highlights

Funding Requirements for E&G Buildings and Infrastructure

According to Sightlines, a national firm that specializes in the benchmarking of higher education facilities, the State System is not investing adequately in its facilities.

National standards suggest the State System invest at least \$150 million annually in its E&G buildings to prevent further degradation of the facilities. This amount includes a blend of “annual stewardship” (university operating budgets and Key’93 funds or equivalent for recurring maintenance and repair) and “asset reinvestment” (capital funds to address building life cycle renewal and replacement requirements).

The temporary increases in capital funding in recent years helped minimize the impact of underfunding the annual stewardship. However, in FY 2014-15 through FY 2016-17 the combined investment in both annual stewardship and asset reinvestment fell short of the combined annual life cycle and stewardship need by about \$80 million each year. Continued facility investment at this level will result in significant increases to the State System’s E&G deferred maintenance backlog, which is currently estimated at \$1.8 billion.



*Educational and General facilities house the instructional, academic support, and administrative functions; and exclude housing, dining, student unions, and recreation centers.

Appendix B-18

**Pennsylvania's State System of Higher Education
Energy Cost Savings**

Estimated Cost Avoided Through State System's Energy Conservation Effort Since 2005/06								
Fiscal Year	Million Square Feet	mmBTU	Total Energy Cost for Fiscal Year	\$/mmBTU	Energy Utilization Index (EUI)	Annual EUI Reduction	Cumulative EUI Reduction	Cost Avoided
2005-06	26.45	3,796,335	\$43,720,415	11.52	145,749	4.9%	10.9%	\$5,460,000
2006-07	26.56	3,810,074	\$45,411,400	11.92	143,446	1.6%	12.4%	6,400,000
2007-08	26.72	3,648,264	\$46,053,980	12.62	136,517	4.8%	16.6%	9,160,000
2008-09	26.55	3,510,905	\$47,424,753	13.51	132,234	3.1%	19.2%	11,270,000
2009-10	27.40	3,213,945	\$41,807,009	13.01	117,288	14.1%	28.3%	16,530,000
2010-11	29.68	3,503,409	\$43,636,255	12.46	118,026	10.7%	27.9%	16,870,000
2011-12	32.93	3,499,504	\$40,873,698	11.68	106,261	9.4%	35.1%	22,080,000
2012-13	31.30	3,499,504	\$41,950,885	11.99	110,621	-4.1%	32.4%	19,900,000
2013-14	32.36	3,741,928	\$42,333,481	11.31	115,623	-4.5%	29.4%	17,590,000
2014-15	32.75	3,520,894	\$39,495,798	11.22	107,516	7.0%	34.3%	20,630,000
2015-16	31.96	3,286,024	\$35,988,733	10.95	101,728	5.4%	37.8%	21,680,000
2016-17	32.56	3,367,070	\$35,429,811	10.52	103,418	-1.7%	36.8%	20,640,000
Total								\$188,210,000

EUI (Energy Utilization Index) = Btu/square foot

Avoided cost = (EUI_{current}-EUI_{base year})(MSF_{current})(\$/mmBTU_{current})

The base-line year for calculations is 2002/03

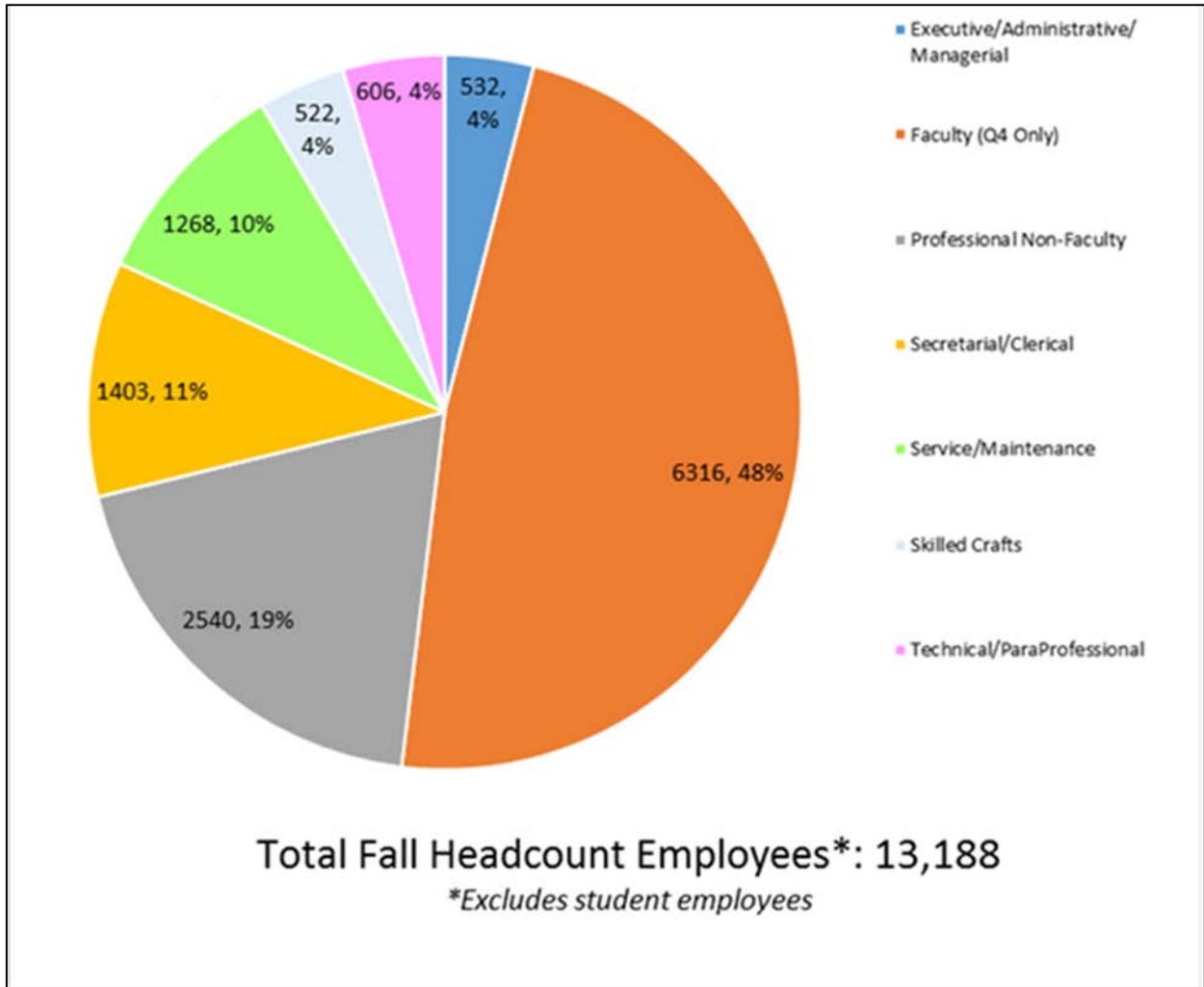
Estimated Cost Avoided Through State System's Energy Procurement Efforts			
Fiscal Year	Electricity	Natural Gas	Total
2005-06	\$0	\$3,248,000	\$3,248,000
2006-07	0	1,424,000	1,424,000
2007-08	0	1,990,000	1,990,000
2008-09	0	1,144,000	1,144,000
2009-10	1,771,000	1,127,000	2,898,000
2010-11	6,273,000	162,000	6,435,000
2011-12	1,199,000	257,000	1,456,000
2012-13	1,850,000	601,000	2,451,000
2013-14	5,868,000	1,246,000	7,114,000
2014-15	1,869,000	318,000	2,187,000
2015-16	12,116,000	631,000	12,747,000
2016-17	4,323,790	910,593	5,234,383
Total	\$35,269,790	\$13,058,593	\$48,328,383

Avoided cost estimate based on difference from procured energy cost and published rate from the local distribution company for the estimated energy needs over the life of the contract period. Savings listed are for the term of the contract period; many contracts are for multiple years.

Appendix B-19

Pennsylvania's State System of Higher Education
Employee Demographics

Fall Employee Headcount by EEO Job Category



Pennsylvania's State System of Higher Education Retirements by Fiscal Year										
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 YTD**
APSCUF (Faculty)	121	107	250	112	204	112	190	132	182	86
AFSCME	94	98	154	104	115	101	213	176	114	68
All Others*	49	88	92	65	75	69	85	86	93	53
Total	264	293	496	281	394	282	488	394	389	207

*Includes nonrepresented employees and represented employees in the APSCUF - Coaches, SCUPA, OPEIU, SPFPA, PSSU and PDA unions.

**Year to Date (YTD) data as of 1/6/2018

Appendix B-20

**Pennsylvania's State System of Higher Education
Impact of Projected Employer Retirement Contribution Rates**

Employer Pension Contribution Rates

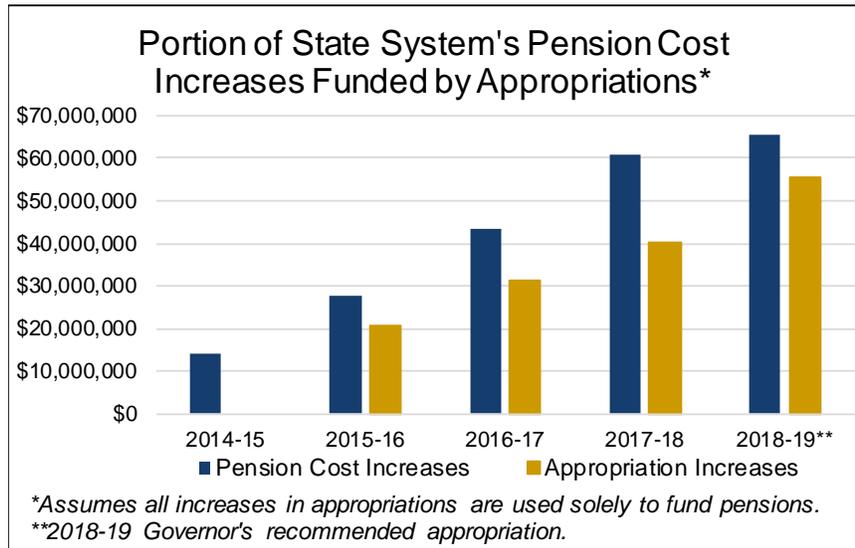
Fiscal Year	SERS (Class AA)	PSERS
2010-11	4.11%	2.82%
2011-12	6.99%	4.33%
2012-13	10.51%	6.18%
2013-14	15.12%	8.47%
2014-15	19.92%	10.70%
2015-16	24.86%	12.92%
2016-17	29.95%	15.02%
2017-18	34.44%	16.29%
2018-19	34.54%	16.72%
2019-20	34.13%	17.18%
2020-21	34.02%	16.84%

Source: SERS and PSERS Comprehensive Annual Financial Reports

Enrollment in Retirement Plans	Percent of Total
SERS*	42%
PSERS*	8%
Alternative Retirement Plans (ARP)**	50%

*Defined benefit plans

**Defined contribution plans



Note: Since the enactment of Act 120-2010, the System's additional retirement costs will be approaching \$100 million by fiscal year 2018-19, the year in which the SERS employer contribution rates are expected to peak.

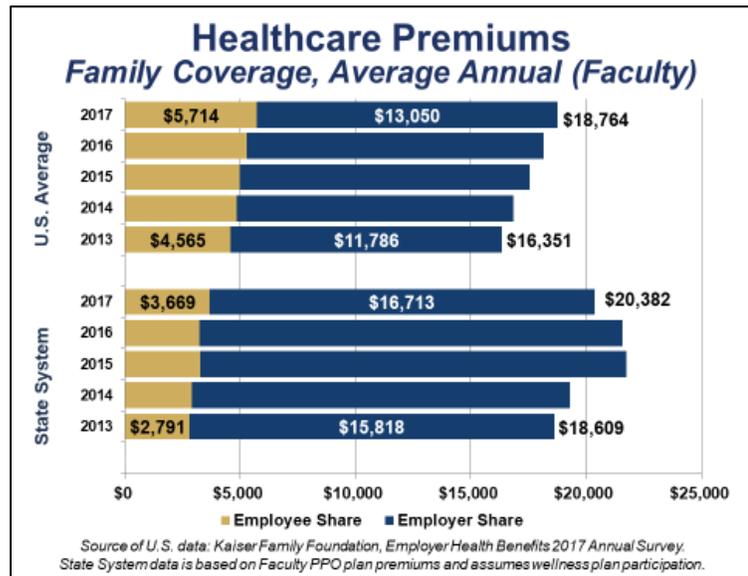
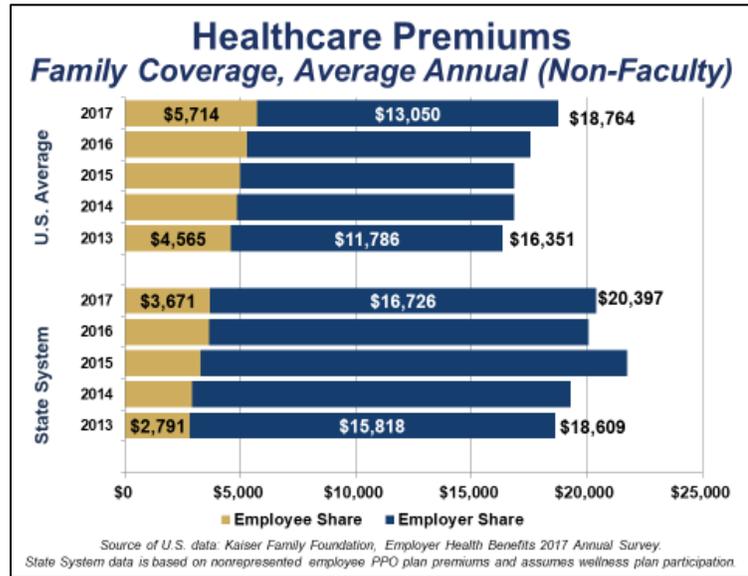
Appendix B-21

Pennsylvania's State System of Higher Education Healthcare Premiums

The State System operated two different healthcare programs in 2017. Combined, the plans covered about two-thirds of all System employees; the Pennsylvania Employee Benefit Trust Fund (PEBTF) covered the remainder of those eligible to receive healthcare coverage.

The State System health plan that covers nonrepresented employees and members of two of its smaller union groups (*Non-Faculty*) was redesigned at the beginning of 2016. The redesigned plan incorporated several changes, including higher member cost-sharing for certain medical services, along with an increased employee premium contribution. Those plan changes helped the State System to contain its healthcare costs—and are continuing to do so—at a time when employer spending on a national level for health plans continues to rise, as illustrated in the top chart on the right.

The other health plan operated by the State System, specific only to faculty and athletic coaches, was modified for 2017 through negotiations with the union representing both employee groups. While providing slightly different coverages than the plan designed for nonrepresented employees, the plan covering faculty and coaches also includes changes in member cost-sharing and higher employee premium contributions. As a result, the cost of both plans is nearly identical. By helping to hold overall costs down, these changes saved the State System more than \$1,600 for each employee enrolled in family coverage last year.



Appendix B-22

**Pennsylvania's State System of Higher Education
Dixon University Center Actual Annualized FTE Employees and Current Year Budget
System-wide Offices Located in Harrisburg and Philadelphia**

	Actual 2015-16 FTE	Actual 2016-17 FTE	Estimated* 2017-18 FTE	2017-18 Budget
Office of the Chancellor (1/2 of 1%)	40.59	36.91	36.23	\$8,872,032
Shared Services (a)	76.40	80.51	80.90	21,643,911
Other (b)	33.64	33.67	33.85	11,156,636
Total	150.63	151.09	150.98	\$41,672,579

**As of January 4, 2018*

(a) When cost effective, the System's universities and the Office of the Chancellor participate in shared service centers rather than managing individual offices across the System to perform similar functions. Currently, there are shared services for functions such as: payroll, benefits administration, labor relations, legal services, construction support, and administrative information systems. In addition to the above figures, universities and the Office of the Chancellor are anticipated to spend approximately \$13 million in strategically sourced contracts that reduce the overall cost of services and commodities.

(b) Includes site support functions, externally funded restricted grant activity, academic programming support for the nine universities that offer academic programs at the Dixon University Center, positions supported by Board-allocated resources, and other miscellaneous positions funded from alternative sources.

Additional Detail for "Other" Positions:	2015-16	2016-17	2017-18
Site Support Functions	14.86	14.76	14.71
Academic Programs at Dixon University Center **	5.31	5.38	5.20
Restricted Activity (funded externally)	2.25	3.42	3.50
Office of Internal Audit and Risk Assessment	7.00	6.67	6.64
Other	4.22	3.44	3.80
Total	33.64	33.67	33.85

***Academic programs are offered at the Dixon University Center by the following System universities: Bloomsburg, Indiana, Lock Haven, Millersville, and Shippensburg. In addition, Elizabethtown College, Evangelical Seminary, Immaculata University, and Lebanon Valley College offer programs there.*

Note: In 2017-18, 2.76 employees (included in Shared Services) provide operational support at the State System @ Center City, Philadelphia location for academic programs for Bloomsburg and West Chester Universities.

Appendix B-23

Pennsylvania's State System of Higher Education Programs and Services for Military Members and Veterans

State System universities offer a wide range of programs and services for military members, veterans, and their families. Their efforts continue to receive national recognition. Victory Media, publisher of *G.I. Jobs* magazine, this year named 13 of the universities "Military Friendly® Schools," a designation awarded annually to colleges, universities, and trade schools in recognition of their efforts to ensure the academic success of military service members, veterans, and their spouses. Several of the universities have qualified for this select honor roll for multiple years in a row.



Additionally, *Military Advanced Education & Transition* magazine's 2017 Guide to Top Colleges and Universities, which compares schools based on their military culture, financial assistance, flexibility, and on-campus and online support provided to students serving in the military, includes six State System universities.



Slippery Rock and West Chester Universities recently were awarded a competitive grant of more than \$272,000 to establish the Troops to Teachers program, which will provide accelerated training toward teaching certification for veterans with bachelor's degrees. The universities are partnering with Allegheny Intermediate Unit, Delaware County Intermediate Unit, Pittsburgh Public Schools, and Chester Upland School District to provide a year-long residency program for these new educators. Veterans can earn a Pennsylvania instructional certificate to teach mathematics and the sciences in grades 7-12 and foreign languages across the K-12 spectrum. Veterans must hold at least a bachelor's degree and register on the National Troops to Teachers registry to participate. Certification costs are discounted and application processing is expedited.



All 14 universities provide military veterans with preference in course scheduling. The universities also offer in-state tuition rates to qualified veterans and their dependents regardless of state residency status under the Veterans Access, Choice, and Accountability Act.

Below are more examples of the individual programs and services State System universities provide to military members, veterans, their spouses, and dependents:

- **Bloomsburg University's** Office of Military and Veterans Resources provides former and current military students, their spouses, and their dependents assistance when seeking different forms of financial aid through their respective branch of service, including through the GI Bill, Federal Tuition Assistance, and the Educational Assistance Program. The university also provides a military-specific academic adviser for other issues. Bloomsburg was awarded Silver Level status as a Military Friendly® school this year. The university ranked in the top 10 percent of colleges, universities, and trade

schools in the country working to embrace military service members, veterans, and spouses as students and helping to ensure their success on campus. To help meet the needs of military students, the university also established a military students' lounge. The BU Student Veterans Association offers opportunities for social and educational activities and is involved in fundraisers to benefit organizations such as the Wounded Warrior Foundation and the American Red Cross.

- **California University of Pennsylvania's** dedicated Office of Military and Veterans Affairs provides resources for veterans, assists with benefits, and provides support for current and former service members and their eligible family members. In addition, service members around the world are enrolled in 100 percent online degree programs through Cal U Global Online, which offers a discounted tuition rate for active-duty military, veterans, and their eligible dependents. Cal U has been recognized as a Military Friendly School for the past eight years; it also is recognized as a Vietnam War Commemoration Commemorative Partner. California will host its sixth annual German Armed Forces Proficiency Badge testing in March; active-duty service members from across the country will undergo rigorous competition to earn this sought-after award, one of the few foreign awards approved for U.S. service members.
- **Cheyney University** welcomes all veterans, eligible dependents, members of the National Guard and Reserves, and active duty personnel and is committed to meeting their educational and campus community goals. The Office of the Registrar provides information about GI Bill and other available educational benefits and is the office where veterans, eligible dependents, members of the National Guard, and selected reserves may apply for their benefits.
- **Clarion University** strives to support the transition of students from the military to higher education. The university has a director of veteran services and a Veteran Service Office staffed by student veteran workers, along with an adjacent veterans' lounge. The VSO is the advocate for student veterans on campus, assisting in coordination with registration, financial services, GI Bill, disability services, admissions, and tutoring services. The VSO performs GI Bill certifications and reviews and makes recommendations for transfer credits based on military experience and training. It is also involved with new student and new faculty orientation, ensuring the awareness of veteran programs and sensitivity to veteran issues. A Campus Veterans Committee includes representatives from administrative offices across campus. The university maintains a Student Veterans of America Club on its Clarion Campus and a Veterans Club on the Venango Campus. The university has teamed with Butler VA to provide mental health care for student veterans via a Tele-Health Program. Clarion's Department of Library Science is collaborating with the Library of Congress to conduct interviews for the Veterans History Project.
- **East Stroudsburg University's** Student Veterans Center is a one-stop shop that assists students with everything from applying for financial aid and veterans' benefits to registering for classes and helping to ensure they are prepared for graduation. It processes all veteran education benefits, including Federal Tuition Assistance, the Educational Assistance Program, GI Bill, and ROTC scholarships for Army and Air Force. The center, which is a designated Green Zone, also hosts a series of weekly meetings for veterans on a variety of topics ranging from employment opportunities to



healthcare. The Veterans Task Force meets regularly to identify issues that student veterans are experiencing, and implements strategies to help alleviate some of these issues and concerns. ESU extends credit for military training and service, DANTE's, and CLEP tests. The Veterans of ESU club is part of the Student Veterans of America and three members attended the SVA Conference in Texas in January 2018. ESU is part of the National Association for Veterans and Program Administrators, A's for Vets, Monroe County Veterans Association, and the NEPA Veterans Education Representatives group.

- **Edinboro University** has been recognized among the top 15 percent of higher education institutions nationwide in service to veterans, earning *G.I. Jobs' Military Friendly®* designation in each of the last eight years. At the center of the university's support for veterans and military families is the EU Veterans Success Center, which is now in its sixth year. The center serves as a one-stop shop for assistance to veterans, active military, and military dependents, providing expert guidance for all GI Bill programs and other services. Also, Edinboro University and the Erie Veterans Affairs Medical Center have partnered to make VA Telehealth Services available to veterans through the university's Ghering Health Center and through the organization's mobile applications.
- **Indiana University of Pennsylvania's** Military and Veterans Resource Center (MVRC) serves as a one-stop shop, providing a wide range of services for military, veterans, and military-affiliated students and family members. Student workers who are veterans or military-affiliated staff the center. More than 4,000 individuals have visited the MVRC since its opening, and staff members have helped more than 500 IUP students to use their GI Bill benefits. The center also coordinates special Veterans' Day events and campus-wide programming. IUP has an active Veterans Outreach Committee that meets regularly to improve university services to students who are veterans, a Veterans Support Group, and a Student Veterans Organization. IUP has one of the largest Reserve Officers Training Corps (ROTC) in Pennsylvania, commissioning its 2,000th cadet in May 2015 and counting 12 generals among its ROTC graduates. The IUP ROTC program has earned the MacArthur Award, a national award given to the top programs in the country. IUP ROTC is also a three-time recipient of the Governor's Trophy, presented to the most outstanding military science program at a Pennsylvania college or university. IUP is a Yellow Ribbon university and is recognized routinely by military publications for excellence.
- **Kutztown University** provides a military-supportive atmosphere in a thriving campus environment. This supportive atmosphere starts with a committed and knowledgeable staff and a centrally located Veterans Services Center, a USO-style resource center that provides a place where students can study, relax, and meet other military-affiliated students. A single point-of-contact provides assistance and coordinates needed services for students and staff. To make the pursuit of academic goals more manageable, veteran's liaisons offer services such as veteran benefits guidance (i.e. GI Bill, TA, EAP), financial assistance, academic advising, career planning, counseling, and disability services. Military-related leadership and student-organization opportunities exist such as Army ROTC, an active Military Club @ KU, the Women Veterans Committee, and SALUTE Veterans National Honor Society. Graduating student-veterans receive Patriotic honor cords for their achievement.



Faculty and staff participate in Veterans Green Zone sensitivity training and an advisory board consisting of administrators, faculty, staff, student-veterans, and local VA and veteran-related organizations meet regularly to improve university services. Additionally, KU awards credit for military training, CLEP and DAN TES, and participates in the MyCAA spouse program.

- **Lock Haven University's** veterans' advisory group meets monthly to coordinate university efforts in identifying and meeting the needs of student veterans as well as veterans in the community. The group coordinates Veterans' Appreciation Month activities celebrated in November, including an on-campus Community Veterans' Expo, a Veteran Pinning Ceremony, and LHU Army ROTC's Commemorative Run. In addition, LHU's Student Veterans' Organization serves as a liaison for student veterans, providing a variety of resources and special services, including personal and financial counseling. A student veterans' lounge is available for all military and veteran students.
- **Mansfield University** waives the application fee for all veterans. The Office of Military and Veterans Affairs offers counseling to enrolled veterans on benefits, career resources, and more. MU is a Yellow Ribbon Program participant. Mansfield University's Veteran's Support Group is comprised of campus and surrounding community professionals who meet regularly to discuss and implement ways to support military and veteran students, faculty, and staff. The MU chapter of Student Veterans of America (MUSVO) is open to all students, faculty, and staff who have served or are serving in the military. MUSVO offers a program that pairs each incoming student veteran with a current student veteran as a mentor. The group also offers several programs throughout the year for veterans and the entire campus community. The university's Military Resource Center has computers, study space, a television, refrigerator, and microwave for student veterans to use. Several scholarships have been established at MU to provide recognition and financial assistance to veterans and active-duty personnel.
- **Millersville University** provides an organization and resources for veterans to receive academic support and assistance in attending, transitioning through, and successfully graduating from college. Housed on campus at the Mercer House, the Veterans Resource Center and the Student Veterans Association welcome veterans to share their experiences and explore opportunities for resources and leadership on campus and in the community. It also serves as a source of fellowship and support for families of soldiers who are currently deployed or preparing for deployment. A veterans' coordinator on staff handles paperwork for individuals applying for educational benefits from the Department of Veterans Affairs and ensures that veterans receive all of the benefits they are entitled to, including qualifying for the in-state tuition rate. Millersville coordinates with the VA's work-study program to ensure that the students staffing the VRC are also GI-Bill recipients, and a Veterans' Task Force meets regularly to assess changes in options or needs. Millersville was recognized for being among the 2017 Military Friendly® Employers and Schools and was honored with the Seven Seals Award by the Employer Support of the Guard and Reserve. Millersville participates in the Concurrent Admissions Program with the Army, Army Reserves, and Army National Guard. In addition, Millersville offers a two-part, four-year program in military science, ROTC.
- **Shippensburg University** offers a variety of programs and assistance-based services for military service members, veterans, and their dependents. These services are centralized through the Veterans Service Office, whose mission is to help simplify the transition to continuing education. The Veterans Resource Center in the student union

building is a relaxing place to study, eat, and converse with like-minded students. Additional learning and outreach opportunities for student veterans include an active Student Veterans of America chapter and the Army ROTC Raider Battalion. The campus is an easy commute from Letterkenny Army Depot, U.S. Army War College in Carlisle, Navy Support Activity in Mechanicsburg, National Guard Training Center at Fort Indiantown Gap, and Army Medical Command installation at Fort Detrick.

- **Slippery Rock University** sponsors a Student Veterans' Center, providing veterans, veteran-dependents, active duty personnel, reserve and National Guard members, and ROTC cadets a place to gather, share information, and relax. The center's location in the Smith Student Center Success Suite supports a synergy and integration among student veterans, the Student Government Association, and other student organizations. The SRU Student Veterans Association offers opportunities for social and educational activities and is involved in fundraisers to benefit organizations such as the Wounded Warrior Foundation and the American Red Cross. SRU is utilizing grant money from the U.S. Department of Veterans Affairs for an equine-assisted recreation program, which provides recreational therapy to veterans at the University's Storm Harbor Equestrian Center. Slippery Rock was the first university in the country to participate in the Veterans Administration's Telehealth system. Students are eligible to participate in the Army Reserve Officers' Training Corps (ROTC) program. The university annually promotes several "Salute to the Military" activities at which former, current, and future military personnel are recognized and receive free admission. Slippery Rock University has received a grant from the Pennsylvania Department of Education to prepare military veterans for teaching jobs in school districts and subjects that are in need of certified teachers.
- **West Chester University** offers scholarships for returning veterans and provides a variety of services through its Veterans Center and the Student Veterans Group, including a weekly support group. The Veterans Center regularly connects with West Chester VFW Post 106 for breakfast, support, and networking. Students are eligible to participate in the Army Reserve Officers' Training Corps (ROTC) program through a formal cross-enrollment agreement with the Widener University Department of Military Science and in the Air Force Reserve Officer Training Corps (AFROTC) through an agreement with Saint Joseph's University. The Greg and Sandra Weisenstein Veterans Center at West Chester strives to create an intentional culture of understanding, acceptance, and success for veterans, active military, and those who support them. The Veteran Center facilitates communication among campus offices to provide a coordinated system of service for a meaningful transition from the military to college.



Military Friendly® Schools (as designated by Victory Media, publisher of *G.I. Jobs* magazine): Bloomsburg, California, Clarion, East Stroudsburg, Edinboro, Indiana, Kutztown, Lock Haven, Mansfield, Millersville, Shippensburg, Slippery Rock, and West Chester Universities

Top Schools (as designated by KMI Media Group, publisher of *Military Advanced Education & Transition* magazine's 2018 Guide to Top Colleges and Universities): California, Clarion, Edinboro, Kutztown, Mansfield, and West Chester Universities

2017-18 Yellow Ribbon Program participants (with U.S. Department of Veterans Affairs): East Stroudsburg, Indiana, Kutztown, Lock Haven, Mansfield, and West Chester Universities

Appendix B-24

Pennsylvania's State System of Higher Education Information Technology Investments

The State System received a request on February 5, 2018, to provide a 10-year history of its spending on information technology, to include the major projects or systems it operates. The investment of each university in technology is ubiquitous, ranging from “smart” classrooms and instructional laboratories, to student learning/enrollment management and information systems, to campus-wide connectivity, to hundreds of ancillary systems that support various unique campus-based functions. Some highlights of their activity and System-wide technology initiatives are provided in this appendix.

In addition to these university-based information technology efforts, the System provides a coordinated approach in several key technology areas when it is considered cost-effective and/or necessary to meet the information needs of the universities, the System, and the Commonwealth. These initiatives are described below and are followed by a summary of the 10-year spend on these System-wide information technology initiatives. These technology initiatives have been funded almost exclusively with tuition and fee revenue, with the exception that in both 2009-10 and 2010-11, the Board of Governors allocated \$5 million of the System's Program Initiatives line item for the Shared Administrative System implementation.

Highlighted System-wide Technology Initiatives

Keystone Library Network (KLN)

The Keystone Library Network (KLN) provides a coordinated framework for cost-effective collaboration in the sharing, procurement, and effective provision of information resources to students, faculty, and staff at State System universities. This is accomplished through the consortia purchase and coordinated delivery of information resources and the provision of an integrated, shared library automation system for the benefit of all System students and faculty. The System also collaborates with the State Library and other universities to leverage buying power and to increase access to materials to all Pennsylvanians. This annual investment includes the cost of the library system; the operation of this system by Shippensburg University of Pennsylvania and the Office of the Chancellor; and the provision of online library content in the form of databases, e-books, and library services hosted by vendors.

Distance Education

The System-wide distance education initiative supports the individual and collective efforts of the System universities to expand online/distance learning consistent with the System's strategic plan. This coordinated effort is an effective way to move forward strategically, both individually and collectively, in the area of distance education in light of software, hardware, and technology costs; to keep abreast of best practices; and to develop collaborative programs. This initiative enhances the universities' online and distance education offerings by:

- Supporting and providing oversight for online portals, enabling potential students to find distance education programs and courses offered by State System universities.
- Facilitating System-wide collaborative purchases of hardware, software, technical support, software licensing fees, and training opportunities for university faculty, staff, and students.
- Managing the System-wide Desire2Learn (D2L) Learning Management System (LMS) and Helpdesk licenses/contracts; working strategically with LMS administrators to

ensure stable environments; planning product deployments, upgrades, and patches; ensuring full utilization of the D2L, HelpDesk, and related tools; conducting cost analyses; and proposing/managing budgets.

SSHEnet

SSHEnet is the high-speed, state-of-the-art, private digital wide area network (WAN) that delivers System-wide IP-based applications and services to the State System and its affiliates. SSHEnet supports secure applications (e.g., Enterprise Resource Planning systems and payroll), private applications (e.g., videoconferencing and email), and public applications available on the Internet and Internet2. SSHEnet is configured to provide the State System with a robust, diverse, and redundant network to support the growing bandwidth demands on all System campuses.

SSHEnet is the main throughway for access to such mission-critical services as distance education; the Keystone Library Network; the Shared Administrative System for finance, procurement, and human resources/payroll processing; business intelligence solutions for Web-based reporting and analytics; the enterprise portal for Employee Self-Service (ESS) and Manager Self-Service (MSS); System-wide videoconferencing capabilities used by faculty and staff to deliver instruction; and access to Internet2. The model of aggregating WAN services provides the opportunity to leverage best pricing from Internet Service Providers (ISP) and data service providers, and to reduce ongoing operational costs.

Shared Administrative System

The Shared Administrative System (SAS) is an integrated software application hosted on an SAP platform that supports business office operations such as budget, accounting, procurement, human resources, payroll, and benefits administration, etc., on behalf of each university and the Office of the Chancellor. The SAS is also used widely at the universities for employees to manage/review budgets, make purchase requests, review pay statements, manage/approve leave requests, enroll in benefit programs, etc. The SAS also includes a robust business intelligence component that provides reporting and analytical capabilities used for decision support at both the university and System levels. Since the SAS supports universities' business operations using similar functional processes, some of the universities have begun to implement changes to business organization to provide consolidated processing and support for a group of universities.

System Student Data Warehouse and Executive Information System

Developing a technologically modern student data warehouse and leveraging business intelligence to use this data as an enterprise-wide asset are critical services delivered by the System's student data warehouse project, known as Strategic Information Management System (SIMS). Three essential services provided by SIMS to the System and its 14 universities are:

- Development of a secure platform that collects, stores, and reports student data from the System's 14 universities, replacing a legacy data collection system and providing modern data warehouses for each of the System's 14 universities to securely store confidential student data.
- Implementation of a comprehensive business intelligence strategy that assists with production of decision analytics.
- Data governance to manage student data, including data security, data quality, and data definitions.

As a result of the student information modernization as well as the State System's **Workforce Intelligence Toolkit** (a set of strategies to gauge Pennsylvania's workforce needs), the System has released a comprehensive analytics landscape that seeks to increase student success and regional responsiveness through the effective use of data, analytics, and information. This landscape includes an analytical toolset to improve access to key information for the State System's numerous stakeholders.

Analytic tools that bring together statistics, trends, and demographics for understanding and reporting higher education data, such as Analyst, Base SAS and SAS Visual Analytics, have been procured for System and university use. These tools, which provide a self-service environment for visual data analysis and access to complex data sets, include:

- **Analyst:** A one-stop tool for State System stakeholders to get an overview of regional industry, occupation, demographic, and instructional-program data.
- **State System's Academic Portfolio:** A dashboard that connects student demand to workforce demand.
- **Persistence/Graduation Dashboard:** An interactive dashboard focusing on student persistence and graduation within the System's universities.
- **Enrollments/Completions Dashboard:** Covers student enrollments and completions, and provides IPEDS data on non-System institutions for comparison.
- **Alumni Insight Data:** Provides extensive information on where State System alumni are living, who their employers are, what skills and certifications they have, and more.

State System Career Coach

The State System's Career Coach pilot was funded through the Walmart Foundation's State Giving Program, which strives to award grants that have a long-lasting, positive impact on communities. The Career Coach is a user-friendly online tool that empowers students to connect real career opportunities to university-specific programs by presenting easy-to-understand labor market data. Four universities are piloting this tool (Bloomsburg, California, Edinboro, and Millersville). Because the tool provides unlimited access for end users, other universities may access the Career Coach data as well.

Other System-wide Software IT Licenses and Maintenance Contracts

When the combined purchasing power of the System universities can drive down costs and/or increase services, the System strategically procures information technology hardware, software licenses, and maintenance/service agreements. Contracts in place include Microsoft, Adobe, Data Miner, Red Hat Site, and Economic Modeling.

Instructional Technology, Supported by the Technology Tuition Fee

The Board of Governors established the technology tuition fee in 2002. Charged to all students, the fee was established to ensure each university would be able to offer a high-quality, relevant education, providing future employers with graduates who have state-of-the-art technology skills. The technology tuition fee revenue is used (1) to acquire, install, and maintain up-to-date and emerging technologies to enhance student-learning outcomes; (2) to provide equitable access to technology resources; and (3) to ensure, ultimately, that System graduates are competitive in the technologically sophisticated workplace. All hardware, software, databases, and other capital equipment procured with these revenues support student-learning experiences.

Examples of technology tuition fee uses include:

- Smart classrooms, including renovations to support technology-intensive learning
- Computer labs
- Technology-intensive scientific equipment
- Learning content and content management software
- Electronic media and library databases
- Distance learning hardware/software and course/program development
- Curriculum development costs for technology-based courses/programs
- Training, technical assistance, and technology maintenance
- Access to broadband and technology services
- Online student academic support services
- Security solutions to protect student and institutional data

**Pennsylvania's State System of Higher Education
System-Wide Information Technology Initiatives**

	Fiscal Year										
	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10	
Keystone Library Network (KLN) ¹	\$4,191,495	\$4,063,918	\$4,038,550	\$4,092,932	\$3,655,527	\$3,438,736	\$3,222,545	\$3,133,784	\$2,905,829	\$2,583,457	
Distance Education ²	2,583,981	2,583,981	2,586,485	2,507,654	1,959,440	2,438,728	2,527,846	2,074,698	3,422,029	5,631,768	
SSHNet ³	2,262,261	2,262,261	2,250,697	2,251,441	2,224,832	1,837,599	2,108,019	1,874,093	2,217,676	2,007,293	
Shared Administrative System (SAP) ⁴	9,052,435	9,052,435	9,418,596	9,011,384	8,564,443	7,960,101	7,776,285	7,886,699	9,679,826	10,159,083	
System Student Data Warehouse and Executive Information System	3,553,171	3,553,171	3,102,672	2,060,508	1,535,207	1,784,912	976,761	400,762	478,981	615,771	
Other System-Wide IT Software Licenses and Maintenance Contracts	3,417,862	3,035,956	2,363,065	3,540,561	2,399,824	2,224,462	1,754,859	1,259,451	1,322,867	1,280,195	
Instructional Technology Supported by the Tuition Technology Fee	50,671,459	50,641,301	50,220,732	50,123,143	49,328,306	43,833,159	43,334,607	43,039,235	30,119,953	25,986,567	
Total	\$75,732,664	\$75,193,023	\$73,980,797	\$73,587,623	\$69,667,579	\$63,517,697	\$61,700,922	\$59,668,722	\$50,147,161	\$48,264,134	

¹Includes library database costs paid at the Office of the Chancellor on behalf of the universities.

²Includes the learning management system (LMS) and other related software costs paid at the Office of the Chancellor on behalf of the universities.

³Includes bandwidth and port/circuit costs paid at the Office of the Chancellor on behalf of the universities.

⁴In both 2009-10 and 2010-11, the Board of Governors allocated \$5 million of the System's Program Initiatives Line Item for this project implementation.

⁵Includes System-wide contracts for items such as various software licenses,¹ technical support for hardware and software, maintenance and support, anti-malware and antivirus software, etc.

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