





















Pennsylvania's State System of Higher Education **Collaborative Pricing and Regional Affordability Task Group**

Pricing Strategies for Affordability: A Conceptual Framework

May 16, 2018

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Pennsylvania's State System of Higher Education Pricing Strategies for Affordability: A Conceptual Framework

Executive Summary

In December 2017, the Collaborative Pricing and Regional Affordability Task Group was established to develop recommendations that align flexible pricing strategies with university efforts to achieve regional affordability. The task group proposes the following recommendations for tuition policy based on the concept that State System universities will serve more Pennsylvanians if their pricing strategies are flexible and student-centered, recognizing differences in each university's region, program offerings, and characteristics of the individual student—especially the student's ability to pay.

Draft Task Group Recommendations for Pricing Strategy

Undergraduate, In-State Tuition

The task group recommends a policy framework to allow for:

- Universities to determine their own tuition strategies and discounting rates/practices, within
 parameters. University tuition strategies may incorporate the wide variety of practices used
 across the nation in public higher education, including linear tuition models, tuition window
 models, and tuition guarantees, but all must include net price strategies to minimize financial
 barriers to student access and success.
- Presidents to justify to the Board of Governors, upon recommendation by the chancellor, the tuition rate, rate structure, and net price strategies proposed for their university.
- The Board to delegate tuition setting and discounting to presidents within approved strategies.
- The Board to approve a "basic tuition rate" for those universities that do not have an approved alternative pricing strategy, to be set at the three-year historical average increase in the System's basic tuition rate. The Board may change this rate for the upcoming year no later than at the regular April Board meeting prior to the start of the new academic year.
- The chancellor, in consultation with the presidents, will establish the expectations and framework for sharing information in support of these strategic pricing proposals.

Undergraduate, Out-of-State Tuition

The System's policy regarding out-of-state tuition plans has been successful and is similar to practices in 21 other states, allowing universities the ability to establish their out-of-state pricing. Therefore, the task group recommends that the setting of out-of-state tuition be delegated to the university presidents, in accordance with the statutory requirement for a price differential between in-state and out-of-state tuition.

Graduate Tuition

The task group recommends that the Board of Governors establish a minimum in-state graduate tuition rate (per credit hour), and that the setting of alternative graduate tuition rates be delegated to the university presidents rather than the current policy's delegation to the chancellor. In addition, presidents will set out-of-state graduate tuition, in accordance with the statutory requirement for a price differential between in-state and out-of-state tuition.

Pennsylvania's State System of Higher Education Pricing Strategies for Affordability: A Conceptual Framework

Introduction

In December 2017, the Collaborative Pricing and Regional Affordability Task Group was established to develop recommendations that align flexible pricing strategies with university efforts to achieve regional affordability. It was anticipated that the work of the task group would culminate in recommended revisions to Board of Governors policies and/or System procedures/standards related to pricing.

Although this report primarily focuses on pricing approaches for in-state undergraduate tuition, recommendations are also provided for out-of-state and graduate tuition.

Hypothesis

State System universities will serve more Pennsylvanians if their pricing strategies are flexible and student-centered, focused on characteristics of the individual student—especially the student's ability to pay.

Each student has their own perception of a university's value based on a combination of quality and affordability. Affordability may carry a greater weight within the perceived value for a student with fewer financial resources and can be a barrier for a student's ability to attend a post-secondary institution.

To highlight differences in perceptions of affordability, following (see Figure 1) are three case studies of students, each coming from a family of four (two parents and one sibling). All three students are planning to attend the same state-owned university in Pennsylvania, will live in on-campus housing, and will have a meal plan. The estimated combined tuition, mandatory fees, room, and board at this university for the academic year totals \$20,350.

Each student has completed the Free Application for Federal Student Aid (FAFSA), which is the primary assessment of the family's financial strength to pay for one year of higher education. For each FAFSA completer, the U.S. Department of Education generates the Expected Family Contribution (EFC) that estimates how much a student and their family can afford to pay toward the student's education each year. The EFC is the major determinant for most forms of need-based aid, including federal Pell grants, state grants, loans, and institutional aid. The maximum expected family contribution to receive a Pell grant in 2017-18 is \$5,328. (U.S. Department of Education, 2017) Each example includes both anticipated state and federal grants—resources that do not have to be repaid—and the availability of federal student loans, which is part of the student's ongoing financial obligation.

Definition: Value Proposition

Students and parents associate a value proposition to higher education institutions when determining if the value of the degree is worth the cost. The key components of the value proposition are quality and affordability.

Quality includes perceptions regarding academic reputation, academic rigor, academic programs, preparation for post-college life, student completion and other measures of student success, location, social and athletic environment, facilities, housing, mission, etc. (Maguire, 2013)

Affordability has a different meaning for each individual based on their available financial resources and ability to pay. Affordability models recognize limits to appropriate financial burdens based on financial need assessments and tied to reasonable work commitments during school and reasonable debt levels for repayment afterward. (Prescott, 2014)

Figure 1: Examples of Affordability Based on Student's Ability to Pay

Jack

Jack's family combined adjusted gross income is \$36,000. According to the results of Jack's FAFSA, the family's EFC is zero (0). Jack's **financial aid package** is as follows:

Pell grant:	\$5,920
PHEAA grant:	3,508
FSEOG grant:	1,000
Federal Direct Loan:	3,500
(subsidized)	
Federal Direct Loan:	2,000
(unsubsidized)	
Federal Work Study:	2,000
TOTAL AID:	\$17,928

BILL

Price	\$20,350	
Available Aid*	-15,928	
Remaining Bill	\$4,422	
*Excludes work study as it is paid to		
the student as work is performed.		

With Jack's financial aid package, and the fact that federal work study does not deduct from his bill since it is paid to him throughout the year based on hours worked on campus, Jack and his family will have to pay \$4,422 per year out of pocket to attend college. With a family adjusted gross income of \$36,000 and a zero EFC, his family is unsure how to afford his education.

12% of the family's adjusted gross income will need to be used to pay for school.

Maria

Maria's family has an adjusted gross income of \$62,500. As a result of Maria's FAFSA, the family's EFC is \$5,372. Maria's **financial aid package** is as follows:

Pell grant:	\$0
PHEAA grant:	3,508
FSEOG grant:	0
Federal Direct Loan:	3,500
(subsidized)	
Federal Direct Loan:	2,000
(unsubsidized)	
Federal Work Study:	2,000
TOTAL AID:	\$11,008

BILL

Price	\$20,350	
Available Aid*	<u>-9,008</u>	
Remaining Bill	\$11,342	
*Excludes work study as it is paid to		
the student as work is performed.		

With Maria's financial aid package, and the fact that federal work study does not deduct from her bill since it is paid to her throughout the year based on hours worked on campus, Maria and her family will have to pay \$11,342 per year out of pocket to attend college. With a family adjusted gross income of \$62,500, and an EFC of \$5,372, her family is unsure how to afford her education.

18% of the family's adjusted gross income will need to be used to pay for school.

Sam

Sam's family filed the FAFSA and, with an adjusted gross income of \$119,000 and no assets, the family's EFC is \$27,696. Sam's financial aid package is as follows:

\$0

\$14,850

Pell grant:

Remaining Bill

PHEAA grant:	0
FSEOG grant:	0
Federal Direct Loan:	0
(subsidized)	
Federal Direct Loan:	5,500
(unsubsidized)	
Federal Work Study:	0
TOTAL AID:	\$5,500
BILL	
Price	\$20,350
Available Aid	-5,500

With Sam's financial aid package, Sam and his family will have to pay \$14,850 per year out of pocket to attend college, which is significantly less than his EFC of \$27,696.

12% of the family's adjusted gross income will need to be used to pay for school.

Even though the remaining bill for both Sam's and Jack's families is 12% of income, affordability will be a greater challenge for Jack's family, as they have very limited disposable income.

The three scenarios presented in Figure 1 provide a very different picture of affordability in each student's financial situation. A data-driven tuition discounting strategy could help make higher education more affordable to families like Maria's by offering additional financial aid to help offset the burden on her family. (For an illustration of these concepts, see Appendix A.) In addition, tuition discounting strategies can be used to help universities meet other goals, such as diversity or enrollment in particular programs of study.

The research conducted by the task group leads it to believe that this hypothesis is true, as presented in the remainder of this concept paper.

Background

The founding legislation of Pennsylvania's State System of Higher Education, Act 188 of 1982, specifies that the Board of Governors (Board) set tuition, that a tuition differential must exist between in-state and out-of-state tuition, that the president in conjunction with the student association sets the activity fee, and that the councils of trustees set all other university fees. To carry out this statutory authority, 12 Board of Governors policies and two System procedures/standards have been approved over the years that provide parameters for the setting and administration of tuition, fees, waivers, and scholarships.

Historically, the Board would set in-state undergraduate tuition as a single full-time rate that applied to students enrolled in 12-18 credits at any of the 14 State System universities. Universities were prohibited from using their operating funds for financial aid, since Pennsylvania's extensive state grant program, combined with federal aid and loan programs, typically could cover the costs of attending a System university for those with the greatest financial challenges. As state and federal grant levels have not maintained their purchasing power and economic downturns have placed greater financial challenges on families and the Commonwealth, State System universities have been providing limited institutional aid from their operating budgets since 2009, primarily based on demonstrated need.

Beginning in 2014, the State System began recognizing the differences in regional demographics, student demand, and each university's value proposition by allowing some local flexibility in pricing strategies. Through these alternative pricing structures, four universities now charge all in-state students based on the number of credits in which they are enrolled (with no full-time rate) and two universities are providing tuition guarantees to each new entering class of students.

Background: State System's Historical Tuition Setting

Historically, each July, the Board of Governors would set the tuition rate for the upcoming fall as follows:

UNDERGRADUATE

In-state—One rate for all 14 universities.

Full-time rate for 12–18 credits. Part-time per-credit rate for 0–12 and >18 credits.

Out-of-state—150% of in-state rate, unless university has an alternative plan approved for a higher rate.

GRADUATE

In-state—One per-credit rate for all 14 universities; no full-time rate. Chancellor may approve alternative rates for certain high-cost/high-demand programs.

Out-of-state—150% of in-state rate.

DISTANCE EDUCATION

In-state—Same as above, unless an alternative rate is approved by the chancellor for specific programs.

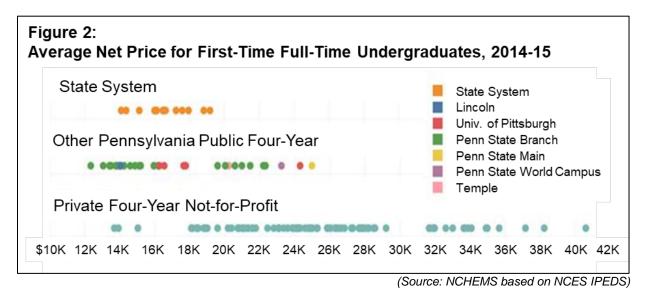
Out-of-state—Set by the president, at least 2% above the in-state rate.

Beginning in 2014, to promote increased enrollment and/or more closely align price with program costs, the Board of Governors approved universities to test methods of local pricing strategies targeting the net costs borne by a student. As a result, in January 2017, the Board amended tuition policy to allow for local tuition strategies. The above tuition structure currently applies to all universities, unless an alternative rate has been approved by the Board.

(Board Policy 1999-02-A, Tuition, 2017)

In 2017, the System contracted with the National Center for Higher Education Management Systems (NCHEMS) to conduct a review of the System. As part of its review, NCHEMS found:

- The State System universities have the largest share of low-income students among first-time freshmen in Pennsylvania, apart from the community colleges. Over time, however, more State System university students are coming from wealthier backgrounds. As a proportion of student enrollments System-wide, this increase in relatively affluent students contrasts with a decline in the share of students from middle-income backgrounds. (NCHEMS, 2017)
- The State System universities are generally—but not always—the low-cost alternative for baccalaureate education in the state. Figure 2 shows the average net price (which accounts for the full costs of attendance after grant aid) of first-time full-time students in 2014-15. The State System universities (shown in orange) are clustered among the least-expensive four-year institutions in the state; however, there are several private and state-related institutions that are able to remain competitive in net price with State System universities by implementing tuition discounting strategies. (NCHEMS, 2017)



Based on these findings, NCHEMS suggested the State System should:

- Adopt a strategic financing model that is a better fit for the varied circumstances facing the State System universities and that provides incentives for collaboration over competition. Rather than setting specific tuition amounts, the Board should set ranges for each university within which the council of trustees will have authority to set specific amounts.
- Recognize there are substantial differences among universities and regions and leave room
 in the authorized roles and actions of individual universities to capitalize on their strengths,
 serve their region's specific needs, and provide incentives for local flexibility and ingenuity.
- Focus on affordability at each of the State System universities...address affordability for lowand median-income students, at a minimum. (NCHEMS, 2017)

These findings served as the catalyst for the creation of the task group and its efforts to develop a new tuition strategy for Pennsylvania undergraduate students that recognizes differences in each university's value proposition due to regional demographics, mix of academic offerings, and each student's ability to pay.

Methodology

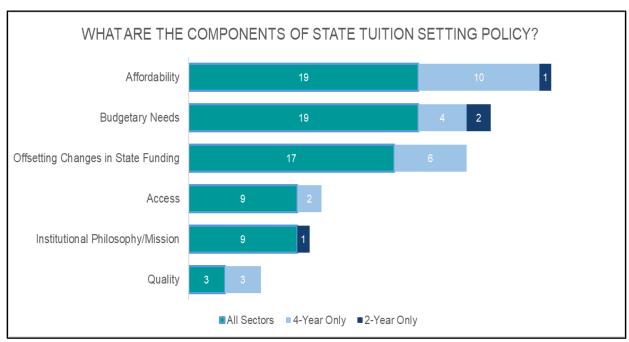
The task group researched pricing practices of other states, utilizing web-based resources of other systems and state higher education coordinating boards, and national resources such as the State Higher Education Executive Officers' (SHEEO) "State Tuition, Fees, and Financial Assistance," and the College Board's "Trends in College Pricing" and "Trends in Student Aid." In addition, members of the task group attended Academic Impression's workshop on Aligning Enrollment and Tuition Discounting Strategies, and the task group participated in a retreat hosted by EAB, focusing on higher education pricing practices and financial aid optimization. Appendix B includes some of the resources utilized by the task group.

National Landscape

Tuition pricing strategies (Primary source: SHEEO)

Public university systems across the country set tuition and fees each year for their institutions. For many, these actions occur in the late spring, often after appropriations have been determined through the state legislative process; however, some states set tuition or tentative tuition rates earlier in the year and/or set tuition for multiple years at a time (e.g., Alaska, as reflected in Appendix B). The policies, strategies, and authority by which this is done vary significantly. According to a recent study by SHEEO entitled "The State Imperative: Aligning Tuition Policy with Strategies for Affordability," most states adhere to a set of principles as a guide for policymakers in setting tuition rates. Figure 3 reflects that the most common tuition philosophies center around maintaining affordability for students and ensuring that institutional budget requirements are met. (Armstrong, 2017)

Figure 3:



(Source: SHEEO)

While affordability is an important consideration, very few states (32 percent of SHEEO's survey respondents) have a unified strategy for affordability. Discussions have been occurring in many states regarding specialized affordability strategies, but few have actually been implemented. The most common affordability strategy implemented to date by states or systems has been tuition guarantee programs, with 12 states having at least some public universities offering a pricing guarantee to students (see Appendix C). Other affordability strategies that are discussed but rarely adopted include tuition rollbacks, pay it forward plans, and debt-free college. (Armstrong, 2017)

State systems employ a variety of pricing practices in setting undergraduate tuition. These practices fall into two categories: differentiation in price based on certain student/program characteristics, and models based on the number of credits attempted. These practices are not mutually exclusive.

All states adopt different rates of tuition for in-state and out-ofstate students, recognizing the state funding subsidy for state residents. Of those responding to SHEEO's survey, 21 states indicated that the out-of-state tuition differential is set by the university. (Armstrong, 2017)

Other forms of differential tuition are based on academic program (particularly for high-cost programs or programs whose graduates have potential for a higher income), location, student or course level, whether or not the course is credit-bearing, and by cohort. Figure 4 presents the variety of differential tuition practices, as reflected in the responses to SHEEO's survey. (Armstrong, 2017)

Affordability Strategies
Considered by States/Systems
in last 5 years

Tuition guarantees allow students to pay the same tuition rate for the duration of their program or typically up to four years. (12 states)

Tuition rollbacks refer to state increases in appropriations to public institutions in exchange for institutions lowering their tuition rates. (5 states)

Pay it forward students pay no tuition while enrolled in college in exchange for having a portion of their wages garnished after graduation to pay back their financed education. (7 considered; none implemented)

Debt-free college uses financial aid and work-study to ensure that the student does not incur any debt upon graduation. (Ohio)

(Source: SHEEO)

Figure 4:

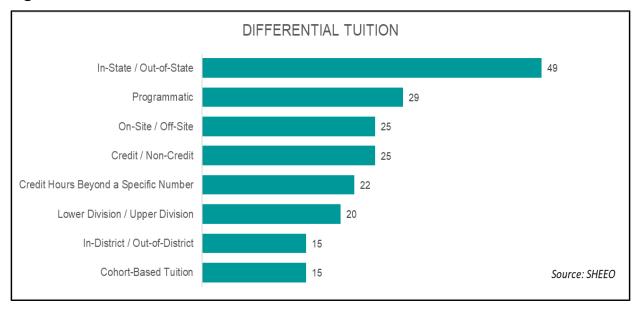


Figure 5 presents system uses of a linear tuition model vs. tuition window model.

- Linear Tuition or Per-Credit Tuition Models refer to tuition being charged for each credit for which a student is enrolled, regardless of the number of credits attempted.
- Tuition Window or Full-Time Rate Range Models refer to bands of tuition rates based on a
 range of credit hours for which a student is enrolled (also referred to as flat tuition). Tuition
 windows vary, ranging from a low of 6 credits to a high with no ceiling. More typically,
 windows may begin at 12 or 15 credits and be capped at 17 or 18 credits.

Based on the SHEEO survey responses, 26 states use a mix of linear tuition and tuition window models at their public four-year institutions. (Armstrong, 2017)

LINEAR VS. TUITION WINDOW MODELS

DO INSTITUTIONS IN YOUR STATE HAVE LINEAR OR TUITION WINDOW MODELS?

Institutions Charge a Linear Tuition Model

Institutions Charge a Tuition Window Model

30

4

2-Year

4-Year

Both Sectors

Figure 5:

(Source: SHEEO)

Tuition Discounting (Primary sources: Academic Impressions and EAB)
Although most states/systems have not implemented the high-profile affordability strategies mentioned above, most public higher education institutions/systems utilize institutional financial aid strategies to increase access, affordability, and completion. Public higher education institutions, as evidenced by the State System universities, continue to improve productivity and efficiencies, increase student success and completion rates, and realign academic program offerings to meet workforce needs and student demand—all with reduced public resources and growing unfunded mandates. To keep a higher education affordable in this environment requires both a resolute commitment to limiting increases in price and the strategic investment of scarce university resources through the appropriate distribution of institutional aid to those individuals who would not otherwise be able to afford to attend. (Prescott, 2014)

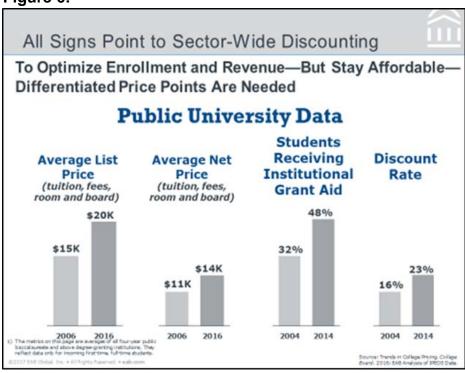
The provision of financial aid through university resources, referred to as tuition discounting, often focuses on the student's ability to pay; however, it may also be a tool to increase the perceived quality of an institution when also incorporating academic preparedness, other student skills and abilities, demand for certain academic programs, and other student characteristics into discounting strategies. Doing so gives the university the ability to adjust the profile of its student body in ways that will increase its value proposition—in both perceived quality and affordability.

Historically a private higher education concept, public universities have been employing tuition discounting to a greater extent in recent years, as state funding has been reduced and remains constricted, costs continue to increase, and affordability has become a barrier for some low-/middle-income students and prospective students. This response to increase the university's value proposition to the student and combat affordability highlights that a "one size fits all" approach to pricing is no longer effective in promoting student success and access. Each student has their own perception of a university's value based on a combination of quality, reputation, and affordability. Affordability may carry a greater weight within the perceived value for a student with fewer financial resources.

When tuition discounting is used as a tool to address affordability, the primary measure of the student's ability to pay is based on the federal needs analysis that results from the student's annual completion of the FAFSA. As highlighted earlier, for each FAFSA completer, the U.S. Department of Education generates the EFC (expected family contribution) that estimates how much a student and their family can afford to pay toward the student's education each year. The EFC is the major determinant for most forms of need-based aid, including federal Pell grants, state grants, loans, and institutional aid.

Figure 6 reflects the increase in use of tuition discounting by public universities over the most recently available 10-year period. Due to tuition discounting, in 2016 the annual net price a student paid for a public four-year university averaged \$14,000, compared to the average sticker price of \$20,000 for all public universities. Almost half of the students attending public universities received institutional financial aid, resulting in an overall average tuition discount rate of 23 percent. (EAB, Current Higher Education Landscape, 2018)

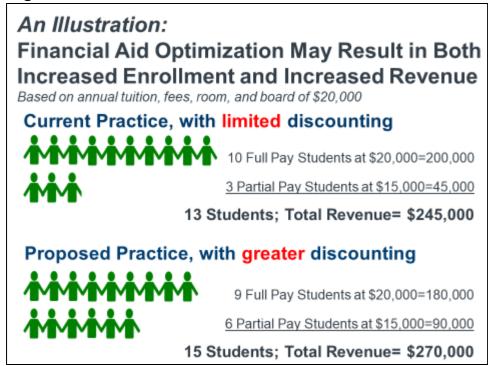
Figure 6:



In comparison, current System policy allows for about 12 percent of tuition to be discounted, and approximately 27 percent of State System students receive institutional financial aid.

Affordability is a critical determining factor for some prospective students. Tuition discounting can be used to optimize both enrollment and net tuition revenue, while maintaining affordability, through differentiated net price to the student. Figure 7 provides a theoretical illustration of how the current practice of assessing essentially the same tuition rate to students, with little tuition discounting, may result in lower enrollment and therefore, lower net tuition revenue than if a university allowed more students to enroll at a reduced net price. If the value proposition can be

Figure 7:



addressed, more of those individuals for whom affordability is a critical factor will see the value of attending the university and enroll. For example, giving an average discount of \$5,000 off an annual cost of \$20,000 for tuition, mandatory fees, room and board, may result in more students choosing to attend the university, paying for most of their tuition, and possibly purchasing student housing and dining services. The overall impact on the university may be both increased enrollment and net revenue.

Institutional financial aid policies and practices impact a student's net price—the price the student pays after discounts. Such practices incorporate the use of private gifts, restricted or unrestricted, for donor-based scholarships, whether held by the university or its affiliates (foundations, student organizations, etc.). Often scholarships may be housed in university departments and are awarded at the discretion of department leaders. To optimize the impact of scholarship awards as part of complete financial aid packages, the university financial aid offices must coordinate the award of all university-related scholarships, regardless of which part of the organization has control over those resources. However, not all discounting is a result of available scholarship funds. More often discounting is foregone revenue, as the university decides to reduce a student's price without providing aid from another fund source. Although this practice may be tracked by identifying a "pool of funds," the end result is less revenue to the university.

Net revenue—tuition net of discounts—and financial aid optimization models can be very unique from school to school. Most are sensitive enough to vary from student to student, with the goal of making a university affordable to students from various academic, financial, and family backgrounds; thus helping with student success to graduation. It balances the ability of some families to pay with the needs of some who cannot pay, better enabling State System universities to serve all students, including those facing the greatest financial challenges—the lower- and middle-income classes. Flexible pricing strategies focused on net price can support marketing and enrollment management goals by shaping the composition of the student body to

desired outcomes. For example, financial aid optimization may be used to target high need/high performing students.

Optimizing the use of university financial aid resources requires complex, multiyear student data analytics—utilizing financial need, majors/programs of study, ethnicity, geography, markets, region, demographics, academic profile, etc.—in order to develop a discounting plan that supports the university's enrollment management goals. This analysis utilizes significant, historical institutional data and requires analytical maturity; therefore, discounting plans are often developed with the assistance of an external consultant who has expertise in financial aid optimization strategies. Discounting strategies are a balancing act of enrollment, aid to students, and net tuition revenue, all of which must be in alignment to leverage university resources effectively in order to reduce barriers to student success.

Financial aid optimization requires a multiyear commitment in order to produce an analysis with high statistical significance and to continue to modify the strategy based on new data and continued results. In order to be effective, the university must usually have available 3–5 years of institutional student data with the necessary fields from which the methodology will be developed. When a tuition discount is offered to a student, the discount needs to be a multiyear commitment to support students beyond the first year of school.

With a commitment to financial aid optimization, affordability moves from being focused on price, to being focused on net price. If prospective students complete the FAFSA in a timely manner, it would be possible for them to receive an estimated financial aid award package soon after they have been accepted by the university, as is the practice of most competitors. Most System universities send award packages to prospective students in December or January; however, the System's current timing of tuition and fee decisions does not support the sharing of relevant or accurate price or net price information in these award packages.

To aid in recruiting and providing students and families with meaningful information on the cost of attending a System university before the student needs to commit, both the Board of Governors and councils of trustees should approve tuition and fee rates as early as possible. Some states set a tentative tuition rate almost two years in advance in order to support student financial planning.

Definition: Discount Rate

There are various definitions for discount rate. The following proposed definition combines explanations from both NACUBO (National Association of College and University Business Officers) and the College Board. Both of these organizations have partnered together to produce a nationally recognized periodic report on tuition discounting practices.

How to Calculate Discount Rate:

Total institutional grant aid Total gross tuition and fee revenue

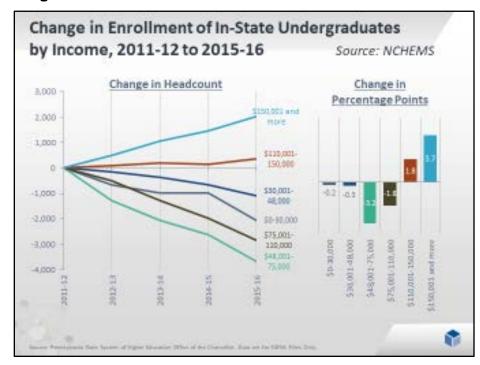
Definitions

Institutional grant aid includes grants awarded by the institution on the basis of students' financial need, academic merit, athletics, or any other criteria an institution may use. It includes any grants that were funded by restricted and unrestricted endowment income. It excludes: federal or state grant aid, private scholarships, institutional matches for externally funded student aid grants, transfers from the current fund to student loan funds, tuition waivers/tuition remission, tuition benefits for institutional employees or their dependents, or tuition exchange programs. Sources of institutional financial aid include restricted and unrestricted gifts from annual funds, revenue from restricted and unrestricted endowments, and the college's general (or foregone) revenues. The discount rate is for all undergraduate students.

(College Board, 2017; NACUBO 2016)

Done properly, financial aid optimization will provide more equitable opportunities for students. In traditional pricing practices, often lower-income students are helping to fund higher-income

Figure 8:



students. Financial aid optimization provides a better balance between the ability of some to pay and the lack of ability of others to pay, thereby helping the System to reverse the trend in recent years of declining enrollments of low-/middle-income students (see Figure 8), by increasing affordability and access. (NCHEMS, 2017)

It also helps each university become unique in its marketplace, reducing competition among System universities as each adopts different strategies for certain markets. Employing net pricing strategies will allow universities to leverage their location—most students live

within 50 miles—as well as their distinctive role and scope. Universities continue to differentiate in mission, offerings, and market niche; financial aid optimization should capitalize on these differences, reducing destructive competition.

Aligning enrollment and tuition discounting strategies cannot be accomplished at a system level; there is not a "one size fits all" approach, since there are many factors that influence an individual institution's costs, net tuition revenue, and enrollment. Levels of discount that an individual university can support may be affected by location, competition, demographics of student body, majors/programs and their demand, institutional mission, strategic directions, enrollment management and marketing plans, and more. Universities will need to identify specific institutional priorities and needs to develop the discounting plan that is the right fit for that particular university.

Concepts on which to Build a Pricing Strategy that Ensures Affordability within Institutional Pricing Flexibility

The task group adopted the following concepts on which to build its recommendations.

- "One Price for All" is a barrier to access, affordability, and student success. Independent, differentiated pricing strategies may improve student success.
- Affordability is a larger component of the value proposition for those with fewer resources;
 affordability has a different definition for each individual.
- Flexibility does not always equal increased price.
- Regional pricing recognizes regional economic differences in costs, household income, cost
 of living, and average buying power within the region.

- Enrollment, aid to students, and net revenue all need to be aligned.
- Net price is driven by price charged, availability of aid, and what the student can pay.
- Affordability is based on the net cost to student compared to ability to pay.
- Aid optimization maximizes enrollment and net revenue.

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- Presidents to justify to the Board, upon recommendation by the chancellor, the tuition rate, rate structure, and net price strategies proposed for their university.
- The Board to delegate tuition setting and discounting to presidents within approved strategies.
- The Board to approve a "basic tuition rate" for those universities that do not have an approved alternative pricing strategy, to be set at the three-year historical average increase in the System's basic tuition rate. The Board may change this rate for the upcoming year no later than at the regular April Board meeting prior to the start of the new academic year.
- The chancellor, in consultation with the presidents, will establish the expectations and framework for sharing information in support of these strategic pricing proposals.

Example Framework

The task group agreed that a framework or "template for decision-making" by which universities can develop their pricing structures should be completed by each university for the review of the chancellor. It will also serve as supporting material for recommendations submitted for consideration by the Board. The framework will be designed to support the Board's delegation of tuition setting authority and must include a description of the proposed multiyear pricing strategy, supported by proven strategies founded in research; an analysis of the cost, benefit, and risk to the university based on a range of possible outcomes; and a demonstration of adequate administrative capacity, administrative capability, and financial capacity.

The goal of the template is to highlight how the pricing strategy will improve student success and leverage university success in a collaborative fashion. Even if some strategies might result in serving fewer students, that outcome needs to be compared to how universities may need to reduce academic offerings due to budget constraints if new pricing strategies are not adopted.

The pricing strategy must include a biennial review to ensure it is meeting the goals and outcomes of the university's pricing strategy. The review must address net revenue, enrollment, net price, affordability, and student success. Student success must at least include measures for persistence and graduation and other indicators identified in the forthcoming student success matrix. Even so, universities may need to make yearly adjustments to their pricing models to respond to changing conditions or missed predictions.

Undergraduate, Out-of-State Tuition

Out-of-state pricing practices were also discussed, with the following observations:

- Since 1999, the Board has approved university-specific out-of-state tuition plans that utilize
 various rates and recognize marketing efforts based on geographic location and/or
 academic preparedness or program. Over the years, universities have revised their plans to
 better align with enrollment goals and marketing plans. Some of the changes have been
 successful; those that were unsuccessful were later modified. Universities have shown the
 ability to manage, analyze, and revise out-of-state tuition strategies to enhance revenue and
 enrollment.
- The System should reevaluate the Board's out-of-state undergraduate tuition floor of 150 percent of the in-state rate. This level was established to ensure the policy objective of not subsidizing out-of-state students. The System monitors this objective annually by comparing the average cost to educate an undergraduate student to the out-of-state average student net revenue. Consideration should be given to a marginal cost rationale rather than a minimum out-of-state tuition rate based on average cost.

The System's policy regarding out-of-state tuition plans has been successful and is similar to practices in 21 other states, giving universities the ability to establish their out-of-state pricing. Therefore, the task group recommends that the setting of out-of-state tuition be delegated to the university presidents, in accordance with the statutory requirement for a price differential between in-state and out-of-state tuition.

Graduate Tuition

In 2007, the Board of Governors revised graduate tuition policies so that all graduate tuition would be charged on a per-credit basis, regardless of the number of credits in which a graduate student is enrolled. It also delegated to the chancellor the ability to set alternative tuition rates for certain high-cost or high-demand graduate programs upon the recommendation of the president. Currently, 44 graduate programs at 9 universities have been approved for an alternative tuition rate.

The task group recommends that the Board of Governors establish a minimum in-state graduate tuition rate (per credit hour), and that the setting of alternative graduate tuition rates be delegated to the university presidents, rather than the current policy's delegation to the chancellor. In addition, presidents will set out-of-state graduate tuition, in accordance with the statutory requirement for a price differential between in-state and out-of-state tuition.

Collaborative Pricing

In order for the System to best serve the Commonwealth's and students' needs, the universities must work together to provide educational opportunities, especially in underserved academic programs and regions. Doing so requires collaboration, not only among System universities, but also with other partners, such as other universities, community colleges, school districts, and corporations.

State System universities have built an environment of collaboration, providing educational opportunities in various settings. These programs (see Appendix D) include:

- Joint majors, minors, and concentrations across System universities.
- Community college transfer/completion programs.
- Shared off-campus regional learning centers (e.g., Chincoteague Bay Field Station, Center City Philadelphia, Dixon University Center, and Cranberry Township Regional Alliance Learning Center).
- Dual-enrolled high school students and other arrangements with local school districts.
- Contracted educational services for local corporations.

Universities rely on a variety of flexible pricing practices in order to be effective with these educational collaboratives. Within current Board policy parameters, universities have sought and received approval from the chancellor for alternative pricing in support of most of these programs. For example:

- Dual-enrolled high school students may pay a significantly reduced tuition per credit on a space available basis.
- All System universities participate in the Passport Program, providing scholarships to top community college transfers.
- Corporations may pay a flat amount per course that at least covers instructional costs.
- Joint majors in high-demand fields may have a separatelyapproved tuition rate.

For universities to be more responsive to prospective collaborations with entities outside of the State System, the task group recommends that the authority to set tuition for collaborative programs be delegated to the presidents. However, it is recommended the authority to set alternative tuition rates for joint intra-System programs continue to rest with the chancellor.

Collaboration should be encouraged, not only through pricing flexibility, but also through revenue sharing. Universities that share students will need to determine the appropriate ways to share the costs and revenue associated with serving those students; the authority to do so is vested with the presidents. It is suggested that, in order to eliminate barriers to shared programs and courses, the Consortium Services Task Group should consider developing seamless, efficient models for serving students who enroll in courses at multiple System universities.

As the task group begins its second phase of work—reviewing how resources are allocated—it will consider incentives for collaboration in the distribution of state appropriations.

Collaboration

Definition

Working together to meet the Commonwealth's and student's needs for higher education, especially in underserved programs and regions.

NCHEMS Observations and Recommendations included several statements regarding collaboration:

The State System should be "promoting collaboration in order to better mobilize the System's collective assets." (NCHEMS, 2017, pg. 7)

The System's "rigid pricing structure combines with a funding allocation mechanism within the State System that promotes competition among campuses—rather than collaboration—and fails to account for key differences in institutional contexts." (NCHEMS, 2017, pg. 23)

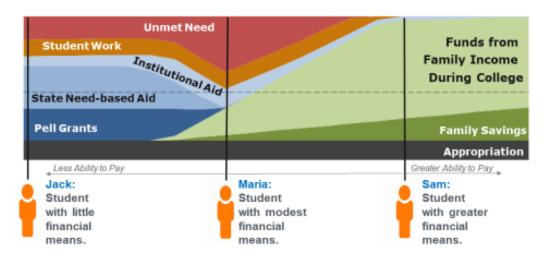
Universities should be restructured, "retaining their institutional identity and core capacities while increasing the academic programs offered in collaboration with other State System institutions, community colleges, and other postsecondary providers." (NCHEMS, 2017, pg. 32)

The System should "establish a revenue-sharing policy that promotes collaboration across campuses..." (NCHEMS, 2017, pg. 42)

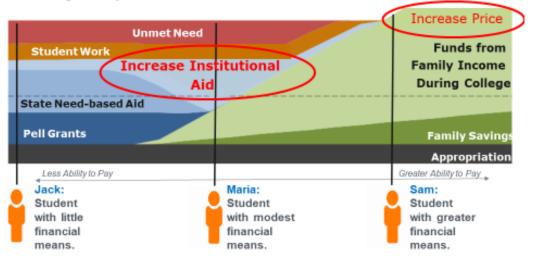
Appendix A Affordability and Ability to Pay

Note: These examples display sources of funding for each student's education, based upon their financial situations. Unmet need reflects the amount the student owes beyond the expected family contribution (EFC) and other sources. Student loans are excluded; they may be a resource available to address unmet need but still represent a student's cash outlay as they will be repaid by the student over time.

Affordability from the perspective of the family's ability to pay Resources available to pay for education



Impact of Greater Pricing Flexibility Some may pay more in order to create more ability to provide institutional aid



Source: Washington Student Achievement Council.

Graphic is not proportional to Pennsylvania's resources as state grant eligibility exceeds the Pell grant cut off.

Appendix B Highlights of Concepts/Practices from other States

(See "References" for sources used in this appendix.)

Processes

Ohio—Ohio law allows higher education institutions to adopt tuition guarantee programs. Four-year institutions interested in doing so are required to submit the rules that govern the proposed tuition guarantee programs to the chancellor for approval prior to its implementation.

- Institutions should submit the rules and board resolution to the chancellor's office.
- Institutions are encouraged to work with the chancellor prior to official Board of Trustees action in the event the chancellor has concerns or suggested modifications to the program rules.

Once the submission is complete, the chancellor's staff will make a recommendation within a reasonable time. Following the required two-week public comment period, the chancellor may approve the request.

Maryland—Tuition rate guidelines are negotiated between the chancellor and presidents each winter and proposed to the Board of Regents. If universities propose a percentage change that differed from the guidelines, it needs to be justified. After the Board approves the consolidated operating budget request, tuition and mandatory fees may be altered only by agreement of the Board. The governor approves the state's budget in April; tuition is approved by the Board in May.

Kentucky—In June/July of the prior year, universities send tuition increase recommendations to the Council on Postsecondary Education. Kentucky has two major research universities, several regional comprehensives, and trade/technical colleges. The Council sets a ceiling for each institution's tuition and mandatory fee increases. Universities typically recommend increases close to the ceiling. The local board makes the final decision. Kentucky ties tuition increases to the financial needs of the universities, including mandatory increases for pensions and differences in wealth of service areas. The state legislature passes two-year budgets. The local board approves tuition rate adjustments for two years, but reserves the right to make changes in the second year. Tuition is set by March 31 every year.

Virginia—Each university's Board of Visitors may set tuition and fee charges at levels it deems to be appropriate for all resident student groups based on, but not limited to, competitive market rates.

Oklahoma—The State Regents set student fees and tuition at institutions in the System. By January 1 of each year, the State Regents submit a report of tuition and fees approved for the current academic year to the governor and legislature. The annual report includes data on the impact of any tuition and fee increases on the ability of students to meet the costs of attendance, enrollment patterns, availability of financial aid, and any other data considered relevant by the State Regents.

Factors and Guidelines

Maine—The Board of Trustees establishes tuition and fee rates using the following factors and guidelines whenever possible:

 Qualified residents should have reasonable access to the System's higher education institutions. "Reasonable access" considerations include the availability of financial aid, state funding levels, and various other economic factors.

- 2. All institutions should attempt to effectively contain costs as a way of limiting increases in tuition and fee rates.
- 3. Tuition, fee, and room and board rates should be competitive.
- 4. Tuition rates should take into consideration annual state funding levels.
- 5. Tuition increases should be balanced to maintain quality while still supporting access and attainment.
- 6. Tuition rates should reflect institutional mission.
- 7. As a public institution, nonresidents should pay more than residents.

Kentucky—Tuition policy is responsive to access and marketplace; that is, the policy shall be based in large part on tuition rates at benchmark (peer) institutions in neighboring states and shall consider the need for economic access to higher education for Kentucky residents. The Council shall conduct periodic surveys consistent with the following tuition-setting principles:

- Maintain tuition levels for Kentucky residents as a reasonable percentage of per capita personal income (PCPI), with concomitant recommendations for adequate funding for needbased student financial aid to ensure economic access to higher education.
 - Use all council-approved benchmark institutions as points of reference for determining tuition.
 - Differentiate tuition rates by type of institutions (community colleges, regional/master's degree-granting universities, and doctoral degree-granting universities).
 - o Provide for stability of tuition rate increases from biennium to biennium (i.e., minimize fluctuations).
- A resident tuition objective, expressing tuition as a percentage of PCPI, is set for each type
 of institution.

Oklahoma—In its deliberation on the establishment of resident tuition rates for undergraduate and graduate education, the State Regents shall balance the affordability of public higher education with the provision of available, diverse, and high-quality learning opportunities, giving consideration to the level of state appropriations, the state economy, the per capita income and cost of living, the college-going and college-retention rates, and the availability of financial aid in Oklahoma.

Virginia—The 2016 General Assembly enacted legislation to enable institutions to offer "alternative tuition or fee structures to students that result in lower costs of attendance...." The legislation change encourages Virginia public institutions to lower the cost of attendance through features such as flat-rate tuition, discounted student fees or student fee and student services flexibility. As a result, Virginia's universities have been adopting various pricing strategies, approved by each university's Board of Visitors, including per-credit tuition, flat-rate tuition, and tuition guarantees.

Washington—Vision: "Every Washington resident who desires and is able to attend postsecondary education should be able to cover educational costs." As a result of the 2015 legislative session, the state funding for public higher education increased \$191 million, and tuition was rolled back 20 percent. Tuition increases are tied to increases in the state's median wage. Under this policy, for example, the proposed tuition for FY 2017 at research institutions would be nearly 23 percent of the median wage.

Timing

Alaska—Rates are approved by the Board of Regents after November 1 annually, approximately 21 months before implementation date, but they can change at any time. If the legislature funds the universities, tuition may be reduced. Tuition rates are based on three-year average inflation

rate adjustment provided by the university's chief financial officer. Discussion occurs only when the Board considers a president's recommendation for a tuition rate that differs from the inflationary rate, based on costs and/or availability of other revenue.

Georgia—Tuition rates for all University System of Georgia (USG) institutions and programs are approved annually no later than the May meeting by the Board of Regents to become effective the following fall semester.

Graduate Tuition

Georgia—Each institution that offers graduate programs requests a "core" graduate tuition rate that shall apply to all graduate courses and programs, based on market comparators for in-state and out-of-state tuition. Each institution may request separate graduate tuition rates for specialized programs.

Kentucky—For Graduate, Professional, & Online Courses—Public universities submit market-competitive rates for graduate, professional, and online courses, as approved by their respective boards, to the Council for approval.

How tuition is charged

Alaska—Tuition rates may vary among lower division, upper division, and graduate courses; central urban campuses, community colleges, and extended community campuses and other sites; residents and nonresidents; distance and on-site delivery, and different programs or courses. Students will be charged tuition on a per-credit-hour basis depending on the level of the courses taken, rather than upon the student's class standings.

Institutional Aid

Maryland—Each institution of the System is encouraged, to the extent feasible and prudent, to use institutional financial resources to supplement federal, state, and private financial resources in aiding students of all types who, in the absence of such support, may be unable to enroll in the institution. Institutional financial aid should also support the institution's particular mission and student clienteles. Each university must have policy guidelines for awarding institutional aid that identify aid targets for certain student groups. Each university submits a report to the Board every October regarding the amount and proportion of aid funds awarded for each student category and the current university guidelines. Tuition increase requests must indicate the proportions of new undergraduate tuition revenues that will be allocated to institutional financial aid.

Virginia—State financial aid appropriations are given to the universities to distribute; some is awarded based on need, but some may be awarded based on merit.

Oklahoma—For any increase in the tuition rates, the State Regents demonstrates a reasonable effort to effect a proportionate increase in the availability of need-based student financial aid. The State Regents is responsible for disbursing state aid (similar to PHEAA).

Appendix C Tuition Guarantee Practices in Other States

(See "References" for sources used in this appendix.)

Pricing guarantee programs (sometimes referred to as "locked rate" or "fixed rate" plans) exist at over 300 universities across the country. Some are mandated by state law; others are adopted by individual universities—public or private. Illinois was the first state to mandate tuition guarantees in 2005, and was joined most recently by North Carolina in 2016.

The rationale for adopting tuition guarantee programs varies, but the primary reasons for most center on improving price predictability and student success. Guarantee programs established by a specific university also have the added value of creating university distinction that may influence prospective student choice. Many factors contribute to successful guarantee programs, including the implementation of other student success initiatives and the predictability/volatility of state funding and standard tuition rate increases. Pennsylvania's relatively stable and predictable funding environment and the System's commitment to affordability may provide a greater level of predictability for multiyear pricing commitments than has been experienced in some other states.

The institutions with such programs include colleges and universities in 21 states and Washington, DC. The states included: AK, AL, AZ, CO, FL, ID, IL, KS, MD, ME, MI, MO, NC, NJ, NY, OH, OK, PA, TN, TX, VT, & WI. A partial listing of the public colleges and universities with guaranteed tuition programs includes:

- Northern Arizona University: The Pledge
- Ohio University: Ohio Guarantee
- Oklahoma Universities: Locked Rate
 - State law requires universities to provide an option to students for a "locked rate" or annual rate
- Texas A&M University:
 - The entire Texas A&M University System moved to locked rate tuition in 2014.
- Texas Tech University: Fixed Tuition
- University of Colorado: Out-of-State Tuition Guarantee
- University of Dayton: Four-Year Tuition Plan
- University of Illinois: Guaranteed Tuition Plan
 - o Since 2004, all public universities in Illinois provide guaranteed tuition
- University of Kansas: Tuition Compact
- University of North Carolina: Fixed Tuition Program
 - "NC General Statute 116-143.9 required, beginning with the fall 2016 semester, tuition rates at all UNC institutions will be fixed for eight consecutive semesters for all bachelor's degree-seeking freshmen who are in-state residents ..."
- University of Texas
 - o at Dallas: All students have participated since 2007
 - All other UT campuses participate by law as of 2014
- Western Oregon University: Tuition Choice—Tuition Promise or annual tuition
- College of William and Mary
- University of Virginia—optional tuition guarantee

In January 2017, the Board of Governors was provided with:

- Analyses of tuition guarantee programs and their impact on retention and graduation at Northern Arizona University and University of Texas at Dallas; and,
- A review of state laws that mandates guaranteed tuition in Illinois, Texas, and Oklahoma.

One of the more recent states to adopt a voluntary approach to tuition guarantees is Ohio. Below are highlights of Ohio's experience with this program.

Ohio Tuition Guarantees Overview

Beginning in 2013, Ohio law allows higher education institutions to adopt tuition guarantee programs. All guarantee programs must be approved by the university's board of trustees, then submitted to the system's chancellor for consideration; a two-week public comment period is required before final consideration by the chancellor. All tuition, fee, room, and board rates are set by each university's board of trustees. Of the 14 public universities, the following nine have adopted tuition guarantee programs: Ohio University, Miami University, The Ohio State University, Bowling Green State University, The University of Akron, The University of Toledo, Wright State University, Cleveland State University, and Shawnee State University.

All universities' programs have the following in common.

- Participation is mandatory for all first-time, degree-seeking undergraduate students (new or transfers).
- All programs cover in-state tuition, fees, room, and board rates
- All cover four years
- Subsequent cohort increases in tuition will be based on
 - Average rate of inflation for previous sixty-month period,
 - o Limits that may be imposed by the General Assembly,
 - Rate increase will be benchmarked against other Ohio four-year institutions' four-year rolling cost averages
- Automatic extensions of their guaranteed cohort price will be granted to those students called to military service.
- If an extension of the guaranteed cohort price is being requested, it must be done no later than one semester before the rate is to expire.
- If a student does not meet undergraduate degree requirements and does not receive an extension, they will be placed into the next unexpired cohort (cohort +1). If additional time is still needed, they will be placed into the next unexpired cohort (cohort +2).
- Universities are authorized to make modifications for effective and efficient administration of the program.

Some have unique program characteristics, such as:

- Students who have completed an undergraduate program may enroll in graduate level coursework at the tuition rate until their cohort period expires.
- Eligible students may complete as many undergraduate degrees, majors, minors, and/or certificates as they choose within their cohort period.
- Students enrolling in degree programs that require more than four years to complete will receive an extension of the cohort period for one additional year.
- Some guarantees apply to certain university campuses.
- Some guarantees apply to in-state and out-of-state tuition.

Appendix D Current State System Collaborations with Flexible Pricing

Below are examples of some of the methods by which System universities collaborate to meet student demand and encourage student success in certain programs and regions that incorporate alternative pricing strategies for student success.

Intra-System Academic Programs

Two joint programs have similar pricing structures that charge tuition at 130 percent of the graduate per-credit tuition rate and waive all other fees (with the exception of the Technology Tuition Fee). This helps to ensure student success by maximizing any tuition reimbursements received from an employer, allowing students to complete either program with minimal out-of-pocket expense. The decision to offer these as joint programs leverages the strengths of the respective universities in the delivery of the programs and increases efficiencies by avoiding unnecessary duplication.

- Kutztown and Millersville Universities—Doctor of Social Work (DSW). Program is delivered online with the face-to-face learning component (one weekend per session) alternating between the two universities (eight sessions in program).
- Millersville and Shippensburg Universities—Doctor of Education in Education Leadership (Ed.D.)
 - o Course distribution is almost evenly divided between two universities.
 - o Shippensburg provides superintendent certification course sequence.
 - Millersville provides foundation and research courses.
 - o Introductory course is team taught by one professor from each university.
 - Dissertation sequence is led alternately by professors on each campus, with dissertation committees having representation from both universities.
 - Supporting courses can come from either campus.

Similarly, Clarion and Edinboro Universities have a joint online Doctor of Nursing Practice (DNP) degree program as well as a joint Master of Science in Nursing-Family Nurse Practitioner certificate program that provide nonclinical courses online. Both programs have pricing structures that charge tuition above the regular graduate per-credit tuition rate, 130 percent and 110 percent respectively; universities charge their own fees. This allows the universities to offer these high cost/high demand programs, as they can recoup a greater portion of the costs of delivering the program.

Partnerships

- High Schools
 - Most System universities have partnerships with several school districts in their respective areas to offer reduced tuition rates for high school students to participate in university classes. Most of these agreements are on a space available basis, resulting in no additional cost to the university, but creating a recruitment pipeline.
 - The State System has partnered with Milton Hershey School to ensure all Milton Hershey graduates are domiciled in Pennsylvania and eligible for in-state tuition. In addition, *East Stroudsburg, Indiana, Mansfield, Millersville, and Shippensburg Universities* partner with the school to offer more focused and sustained support in the transition from high school to college for these students.

o Indiana and Slippery Rock Universities have become Preferred College Partners in the Pittsburgh Promise Initiative. The Pittsburgh Promise Initiative is a last-dollar scholarship program that provides up to \$5,000 per year, for four years, to students who have graduated from a Promise-eligible high school and meet other requirements. Preferred Partners in this initiative provide grants for room, board, or books to Promise-eligible students who are accepted to their institution.

Community Colleges

- o In 2001, the State System entered into a partnership with all Pennsylvania community colleges to provide annual full tuition waivers, known as the Special Academic Passport. Two outstanding students from each community college and Lackawanna College, as nominated annually by their presidents, are eligible for free tuition at the System university of their choice. These students are also members of the All Pennsylvania Academic Team, which is a program honoring academically talented and civic-minded students.
- o Indiana University (IUP) has a degree completion partnership with the Community College of Allegheny County (CCAC), Boyce campus, where students can earn a bachelor's degree in any business major while remaining on the community college campus. Students pay CCAC tuition rates for CCAC courses and IUP tuition rates and fees for IUP courses.
- o Shippensburg University charges a reduced tuition rate to out-of-state students who transferred from neighboring Maryland community college.

Other four-year universities

 West Chester University has developed collaborations, partnerships, and education abroad opportunities with several universities in China in order to expand the university's global footprint.

Businesses

Shippensburg University has created a Mechanical Engineering program that will generate much needed engineers for the Volvo plant that was recently relocated to the Shippensburg area, as well as several other manufacturing plants in the region. This program has led to several students receiving internships at the Volvo plant, graduates gaining employment at the plant, and plant employees earning degrees at the university.

References

- Anderson, J. (2016). *Market Position and Discount Rate: Knowing Where You Are.* [PDF document]. PowerPoint presentation at Academic Impressions Workshop, *Aligning Your Enrollment and Tuition Discounting Strategies*. Denver, CO.
- Armstrong, J., Carlson, A., & Laderman, S. (2017). *The State Imperative: Aligning Tuition Policy with Strategies for Affordability.* State Higher Education Executive Officers. Retrieved from http://www.sheeo.org/sites/default/files/State_Tuition_Fees_Financial_Assistance_2017.pdf.
- College Board (2017). *Trends in College Pricing*. Retrieved from https://trends.collegeboard.org/college-pricing.
- College Board (2017). *Trends in Student Aid.* Retrieved from https://trends.collegeboard.org/student-aid.
- Commonwealth of Kentucky Website. *Tuition* [PDF documents]. Retrieved February 2018 from http://cpe.ky.gov/policies/tuition.html.
- EAB (April 2018). Board of Governors Workshop: *Current Higher Education Landscape* [PowerPoint slides]. Commissioned by Pennsylvania's State System of Higher Education.
- EAB (April 2018). Board of Governors Workshop: *Net Price: Financial Aid Optimization* [PowerPoint slides]. Commissioned by Pennsylvania's State System of Higher Education.
- Kabbaz, M. S. (2018). Leveraging Financial Aid in Strategic Discounting [PowerPoint slides]. Presented at Academic Impressions Workshop, Aligning Your Enrollment and Tuition Discounting Strategies. Denver, CO.
- Laderman, S., Carlson, A., & SHEEO Staff (2018). *State Higher Education Finance (SHEF) Fiscal Year 2017.* State Higher Education Executive Officers. Retrieved from http://sheeo.org/projects/shef-%E2%80%94-state-higher-education-finance.
- Maguire Associates, Inc. (March 2013). 2012 Pricing Elasticity and Brand Value Study. Commissioned by Pennsylvania's State System of Higher Education.
- National Association of College and University Business Officers. *The 2016 Tuition Discounting Study*. Retrieved from https://www.nacubo.org/research/2017/nacubo-tuition-discounting-study#The+2016+Tuition+Discounting+Study.
- National Association of College and University Business Officers. *The 2017 Tuition Discounting Study Survey Instrument*. Retrieved from https://www.nacubo.org/Research/2011/2017-Tuition-Discounting-Study-Survey-Instrument.
- Ohio Department of Higher Education Website. *Tuition and Fees*. Retrieved March 2018 from https://www.ohiohighered.org/educators/tuition-fees.

- Pennsylvania's State System of Higher Education, Board of Governors Meeting Agenda Item #9, *Alternative Tuition Rate Structure, East Stroudsburg University of Pennsylvania*, p 108-114, January 25, 2018. Retrieved from http://www.passhe.edu/inside/bog/Pages/Agendas.aspx.
- Pennsylvania's State System of Higher Education, Board of Governors Policy 1999-0-A, Tuition, 2017. Retrieved from http://www.passhe.edu/inside/policies/BOG_Policies/Policy%201999-02-A.pdf.
- Prescott, Brian T. and Longanecker, David A., Western Interstate Commission for Higher Education (March 2014). States in the Driver's Seat: Leveraging State Aid to Align Policies and Promote Access, Success, and Affordability. Retrieved from: https://www.wiche.edu/content/states-driver%E2%80%99s-seat-leveraging-state-aid-align-policies-and-promote-access-success-and
- Sharpe, R., Webster, M., & Washington Student Achievement Council (March 2016). Affordability Framework: Understanding, measuring and improving higher education affordability for Washington students. Retrieved from https://wsac.wa.gov/sites/default/files/2016.03.23%20Framework.pdf.
- State Council of Higher Education for Virginia (August 2017). 2017-18 Tuition and Fees Report; Tuition and Fees at Virginia's State-Supported Colleges and Universities [PDF document]. Retrieved February 2018 from http://www.schev.edu/docs/default-source/Reports-and-Studies/2017/tuition-and-fees-report-2017-18d557ba50bece61aeb256ff000079de01.pdf.
- The National Center for Higher Education Management Systems (July 2017). *Pennsylvania State System of Higher Education: Strategic System Review Findings & Recommendations*. Retrieved from https://storage.googleapis.com/wzukusers/user-27513532/documents/59a5e3e9bc5ccC0k6RV5/PASSHE%20Report.FINAL%20170828.secured.pdf.
- The Oklahoma State System of Higher Education Website (September 2017). *FY 2017-2018 Tuition and Fee Rates* [PDF document]. Retrieved February 2018 from https://www.okhighered.org/studies-reports/tuition-fees/fy18-tuition-fees.pdf.
- United States Department of Education (October 18, 2016). 2017-2018 Federal Pell Grant Payment and Disbursement Schedules. DCL ID: GEN-16-19. Retrieved April 2018 from https://ifap.ed.gov/dpcletters/GEN1619.html.
- University of Alaska System. *Regents' Policy, Part V-Finance and Business Management, Chapter 05.10–Tuition and Student Fees* [PDF document]. Retrieved February 2018 from http://www.alaska.edu/bor/policy/05-10.pdf.

University of Maine System Website. *Tuition Rates*. Retrieved February 2018 from http://www.maine.edu/admissions-aid/tuition-rates/.

University System of Georgia Website. *Board of Regents Policy Manual, Section 7.3: Tuition and Fees.* Retrieved February 2018 from https://www.usg.edu/policymanual/section7/C453.

University System of Maryland Website. Section VIII: Fiscal and Business Affairs. Retrieved February 2018 from https://www.usmd.edu/regents/bylaws/SectionVIII/.