

# PERFORMANCE BASED FUNDING COUNCIL

FINAL REPORT

MAY 5, 2025



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## **Executive Summary**

Act 90 of 2024 established the Performance-based Funding Council and presented it with a clear purpose: funding the state related universities – the Pennsylvania State University, University of Pittsburgh, and Temple University – by developing a process to distribute state funding that utilizes performance-based metrics designed to increase degree attainment, encourage affordability in higher education, meet workforce needs, and grow the economy.

The Council began its work in January 2025 and held hearings in Harrisburg and at each of the three institutions to hear from budget experts, higher education funding researchers, labor market researchers, business leaders, higher education administrators in other states, university officials, and students. This testimony reiterated the need for a predictable, transparent model that drives outcomes important to the Commonwealth, including increasing student access and attainment.

The Performance-based Funding Council makes the following recommendations for a performance-based funding model to implement strategies that improve outcomes to the Governor, General Assembly, Department of Education and State Board of Higher Education:

- 1. Make the Council permanent to oversee the performance-based funding model.
- 2. Apply the performance-based model for new funds beginning in fiscal year 2026-2027, use existing funds as a base allocation and provide institutional advancement funding in fiscal year 2025-2026.
- 3. Determine a performance allocation for each university based upon a fixed amount and each university's share of the total weighted student count. The weighted student count for each university includes undergraduate enrollments, progression at 60 credits, Pell-eligible students, students from low-matriculating high schools, community college transfers, and high-priority occupation degrees awarded.
- 4. Determine each university's performance-based allocation by evaluating performance based upon 4year graduation rates, 6-year graduation rates, 6-year Pell-eligible graduation rates, and high-priority occupation degrees and incentivizing college affordability and rewarding improvement.

These recommended changes are detailed in this report, which also includes information about the Council and its work. Pursuant to Act 90 of 2024, the Council will begin drafting legislation to implement the recommended changes for the General Assembly to consider.

# State-Related Universities in Pennsylvania

Pennsylvania is home to a higher education sector consisting of State-related institutions, the Pennsylvania State System of Higher Education (PASSHE), independent colleges and universities, and community colleges. "State-related" universities are not owned by the Commonwealth but have a special status conferred by law. These institutions receive direct state appropriations and, in turn, offer in-state tuition rates for Pennsylvania residents.

Three of Pennsylvania's four State-related universities – the Pennsylvania State University (Penn State), the University of Pittsburgh (Pitt), and Temple University (Temple) -- are major research universities. Currently,

State-related universities are funded by direct appropriations that fall into a special category called non-preferred appropriations. Under the Pennsylvania Constitution, any direct appropriation to an educational or charitable institution not under the absolute control of the Commonwealth must be made in separate bills and receive a two-thirds vote from each chamber of the General Assembly to become law.

State funding for general support for Penn State, Pitt, and Temple remained level between fiscal year 2019-20 and fiscal year 2024-25. Historically, funding adjustments have typically taken the form of uniform percentage increased based on each institution's existing base funding, rather than being guided by a specific model or performance benchmarks. Recognizing the opportunity to explore more strategic resource allocation methods, the General Assembly created the Performance-based Funding Council through Act 90 of 2024. Lincoln University was excluded from the performance-based funding process.

As of 2023, 30 states utilize some form of performance-based distribution for the funding of higher education, running more than \$7.881 billion through said formulas. How those states distribute the money varies, with some states, like Tennessee, running all their funding through a performance-based formula and others, like Florida, running some of their funds through a formula. On average, states across the country allocate approximately 9.45% of their General Fund spending for public higher education, with Pennsylvania below the national average at 4.57%.

The table below provides a snapshot of the three State-related universities subject to the performance-based funding process in Pennsylvania:

University	Number of Campuses	Number of Pennsylvania resident, Undergraduate students (Fall 2024)	State appropriation for General Support (FY 2024-25)
Pennsylvania State University	24	43,236	\$242,096,000
University of Pittsburgh	5	8,243	\$151,507,000
Temple University	6	13,778	\$158,206,000

#### Council Information

### Act 90 of 2024 and the Charge of the Council

Act 90 of 2024 established the Performance-based Funding Council (Council) to develop a process to distribute funding to Penn State, Temple, and Pitt using performance-based metrics designed to increase degree attainment, encourage affordability in higher education, meet workforce needs and grow the economy.

The Council was tasked with considering the following metrics when developing the model:

- A fixed amount per State-related university to ensure ongoing operations.
- Incentive funding.
- Performance thresholds.
- The two-year and four-year graduation rate for first-time college students.

- The number and percentage of Pennsylvania undergraduate students enrolled who received a Pell Grant during the previous school year.
- The six-year graduation rate for students who are awarded a Pell Grant in their first year.
- The four-year graduation rate for baccalaureate students.
- Student retention rates.
- Bachelor's degree production per 100 full-time enrolled students.
- Net tuition and fees per 120 credit hours.
- Postgraduation employment rates and salaries, including wage thresholds that reflect the added value of an associate or baccalaureate degree.
- The number of students who attain credentials in high-priority occupations in this Commonwealth.
- The number of nontraditional students enrolled in programs aligned to high-priority occupations in this Commonwealth.
- The number of high school students who are dual enrolled and the number of credits earned.
- The number of students who transfer to a State-related university with at least 24 college-level credit hours and the time to degree at the receiving institution.
- Other metrics provided by each State-related university.
- Other metrics related to higher education that the Council deems appropriate.

#### Members of the Council

The Council consists of five voting members and three non-voting members. Any action taken by the Council requires two-thirds - or 4 out of 5 - of the voting members.

The Council consisted of the following voting members:

- Representative Jesse Topper, Chair
- Senator Jay Costa
- Senator Wayne Langerholc, Jr.
- Representative Peter Schweyer
- Angela Fitterer, Executive Deputy Secretary of the Pennsylvania Department of Education, Former Acting Secretary of the Pennsylvania Department of Education

The Council consisted of the following non-voting members:

- Dr. Sara Thorndike, CPA, MBA, Ed. D, Penn State University, Senior Vice President for Finance and Business, Treasurer, Chief Financial Officer
- Dr. Dwayne Pinkey, University of Pittsburgh, Senior Vice Chancellor for Administration and Finance / Chief Financial Officer
- Mr. Ken Kaiser, Temple University, Senior Vice President and Chief Operating Officer

# Hearings and Testifiers

January 14, 2025 – Harrisburg	Senate Hearing Room #1, North Office
	Building, State Capitol Complex
Presenters:	Affiliation:
Panel 1	
Lynette Kuhn, Deputy Secretary for	Pennsylvania Department of Education
Postsecondary & Higher Education	
Jessica Sites, Director, Bureau of Financial	Pennsylvania Department of Education
Operations	
Dr. Andrew Armagost, Office of Fiscal Policy and	Office of the Budget
Program Direction	
Nathan Hench, Senior Vice President for Public	Pennsylvania Higher Education Assistance Agency
Affairs, Guaranty, & Strategy	
Elizabeth McCloud, Vice President for State Grant	Pennsylvania Higher Education Assistance Agency
& Special Programs	
Panel 2	
Andrew Smalley, Senior Policy Specialist	National Conference of State Legislators
Dr. Justin Ortagus, Associate Professor of Higher	University of Florida
Education Administration & Policy, & Director of	
the Institute of Higher Education	
Charles Ansell, Vice President for Research, Policy	Complete College America
and Advocacy	

January 21, 2025 – State College	Room 504 Engineering Collaborative Research and Education Building, Pennsylvania State
	University
Presenters:	Affiliation:
Panel 1:	
Dr. Sara Thorndike, Senior Vice President for	Penn State University
Finance & Business/ Treasurer.	
Panel 2:	
Dr. Steven Gentile, Executive Director	Tennessee Higher Education Commission
Russell VanZomeren, Senior director, Fiscal Policy	Tennessee Higher Education Commission
Panel 3:	
Mike Fowler, Student and President of Lion	Penn State University
Caucus	
Dr. Tracy Langkilde, Interim Executive Vice	Penn State University
President and Provost	
Greg Scott, President and CEO	Centre County Chamber of Commerce

January 30, 2025 – Philadelphia	Event Space, Room 102, Temple University, Charles Library
Presenters:	Affiliation:
Panel 1:	
David Marino, Vice President of Finance and Treasurer	Temple University
Panel 2:	
Radhey Patel, Student	Temple University
Ray Epstein, Student	Temple University
Panel 3:	
Patrick Clancy, President & CEO	Philadelphia Works, Inc.
Chellie Cameron, President & CEO	Greater Philadelphia Chamber of Commerce
Nikki Pumphrey, Vice President of Talent and	Greater Philadelphia Chamber of Commerce
Workforce	
Panel 4:	
Daniel Kuba, Deputy Secretary for Workforce	Pennsylvania Department of Labor and Industry
Development	

February 19, 2025 – Pittsburgh	2700 Posvar Hall, University of Pittsburgh
Presenters:	Affiliation
	Attiliation
Panel 1:	
Dr. Dwayne Pinkney, Executive Senior Vice	University of Pittsburgh
Chancellor for Administration and Finance and	
Chief Financial Officer	
Panel 2:	
Tim Jones, Senior Vice Chancellor,	State University System of Florida
Finance/Administration and CFO for the Board of	
Governors	
Panel 3:	
Emilia Matucci, Executive Director	Pennsylvania School Counselors Association
Kellie Kane, Associate Vice Provost for	University of Pittsburgh
Enrollment, Executive Director of Admissions	
Joe McCarthy, Provost	University of Pittsburgh
Jamie Gilligan, Undergraduate Student	University of Pittsburgh

#### Recommendations

The Performance-based Funding Council makes the following recommendations – as required under section 2032-L(i)(4) of the Public School Code of 1949 - to the Governor, General Assembly, State Board of Higher Education, and the Department of Education:

- 1. Make the Council permanent to oversee the performance-based funding model.
- 2. Apply the performance-based model to new funds and use existing funds as a base allocation.
- 3. Enact the performance-based funding model in fiscal year 2025-2026 with the goal of full implementation by fiscal year 2026-2027.
- 4. Determine a maximum performance allocation for each university based upon a fixed amount and each university's share of the total weighted student count, which includes undergraduate enrollments, progression at 60 credits, Pell-eligible students, students from low-matriculating high schools, community college transfers, and high-priority occupation degrees awarded.
- 5. Determine each university's performance allocation by evaluating performance based upon 4-year graduation rates, 6-year graduation rates, 6-year Pell-eligible graduation rates, and high-priority occupation degrees and incentivizes college affordability and rewards improvement.

These recommendations are detailed below and are followed by a visual of the proposed model.

#### Recommendation 1: Make the Council permanent

Throughout the public hearings the Council learned about performance-based funding models in other states. The Council heard directly from administrators in both Tennessee and Florida about how the models in their states evolved over time. It is reasonable to expect Pennsylvania's model will also require adjustments to account for unforeseen issues or a changing landscape, particularly in the first few years. Therefore, the Council recommends the General Assembly consider making the Performance-based Funding Council permanent, instead of reconstituting every five years. By making the Council permanent, the Council can oversee the model and make the necessary adjustments to metrics, benchmarks, and goals.

In addition, all the data contained in this report is a snapshot in time. As the implementation of this model takes hold, the numbers and data sources are likely to change. The Department of Education, tasked with collecting certain data under Act 69 of 2024, should ensure they are collecting the data necessary to run this model from each of these universities.

Recommendation 2: Apply the performance-based model to new funds with an implementation goal of fiscal year 2026-2027

In order to best implement this model, the Council recommends that the model be placed into law during the fiscal year 2025-2026 budget and that the implementation of the model itself start with fiscal year 2026-2027. The Council recommends that the General Assembly consider providing an advance investment to the three universities so that they can begin to measure the priorities that will result in them making progress towards the goals set by these recommendations and the overall higher education goals of this Commonwealth.

In consideration of the legislative goal of predictability, the Council recommends that new funds for performance be subject to the performance-based funding model. Each university should continue to receive, as a base allocation, the amount the university received in the final fiscal year 2024-2025 budget.

#### Recommendation 3: Determine a maximum performance allocation

The Council recommends using a combination of equal division of funds plus a weighted student count that takes into account the in-state student enrollment for each institution, as well as additional "weights" for certain student populations to promote the legislature's interest in increasing access, improving affordability, and meeting workforce demand and growing the economy.

Research suggests that one of the unintended outcomes of performance-based funding can be a decrease in access, particularly for underserved students, due to gamification. Therefore, the Council suggests an additional weight of one (1) for both Pell-eligible students and students who graduate from low-matriculation high schools (defined as a college matriculation rate of 40% or less; see list in Appendix). These student weights serve as a disincentive for universities to restrict access in order to improve performance.

To encourage affordability, the Council recommends two other student weights. Universities have an opportunity to increase their share of available funding – for example increase their weighted student count - by accepting more community college transfers. Additionally, because students spend more money on tuition and living expenses when they get behind on credits, the Council recommends including a weight for the number of students who have earned 60 credits by the start of their third year. The recommended weight for both community college transfers and progression at 60 credits is one (1).

Finally, to reward universities for producing educated workers for jobs the Commonwealth needs to be filled, the Council recommends including a weight of one (1) for students who graduate with degrees in high-demand fields. The definition of "in-demand" degrees should align with the list of Classifications of Instructional Program (CIP) codes developed by the Pennsylvania Higher Education Assistance Agency (PHEAA) for the Grow PA Scholarship Grant Program included as an appendix. These majors were chosen for their level of skill required and the expected family-sustaining wages paid.

#### Recommendation 4: Determine the amount earned based upon performance

#### Performance Allocation

The Council recommends consideration of several performance factors:

- 4-year graduation rates;
- 6-year graduation rates;
- Pell-eligible students 6-year graduation rates; and,
- High-priority occupation degree production.

The Council recommends focusing on Pennsylvania resident students, meaning the graduation rates and workforce production look only at in-state students.

The Council suggests setting a graduation rate goal - 4-year, 6-year and Pell Recipient 6-year - of 5% over the prior year's data sets for each university. These goals are achievable and reasonable based off historical

graduation data from each of the universities. As newer data comes in from the universities, the General Assembly or Council may want to consider different goals than those recommended in this report. Adjustment of the goals for universities is one of the adjustable levers included in these recommendations.

In order to align the performance goals with the Commonwealth's higher education strategy, the Council recommends weighting the performance in the 4-year graduation rates at 1.5. By including a higher weight on 4-year graduation rates, the Council hopes to incentivize each university to prioritize increasing their 4-year graduation rates.

In order to determine a university's percent towards their goal, the Council looked at the graduation data for instate students provided by the universities against the goals set. For example, the University of Pittsburgh's 4-year graduation goal is 72% and their 4-year graduation rate is 67%, therefore the University of Pittsburgh, with their 66% 4-year graduation rate, is 92% percent towards the 4-year graduation rate goal proposed by the Council.

For high-priority occupation degrees and the high-priority rate, the Council used the Grow PA CIP Code list developed by the Pennsylvania Higher Education Assistance Agency (PHEAA) and included as appendix in this report. In order to determine each university's rate for high-priority occupation degree production, the Council looked at the number of high-priority occupation degrees awarded against a target number of degrees. To calculate the target number of degrees, the Council suggests using statewide short-term occupational employment forecasts, as published by the Pennsylvania Department of Labor and Industry, to determine total occupational demand in Grow PA aligned to Pennsylvania high-priority occupations. The Council then sets a high-priority degree production goal based on each university's share of total statewide bachelor's degrees awarded compared against total Grow PA-aligned occupational demand and applies a 70% target benchmark. For example, Temple University is 77% towards their high-priority occupation degree production goal. This is calculated by taking the total number of Grow PA aligned bachelor's degrees awarded divided by the high-priority occupation degree production goal.

#### Improvement and Affordability Bonus

The Council is recommending some portion of the funds be set aside to award improvement and affordability bonuses for each university who (1) has a percent increase in any of their performance metrics over the prior year and (2) keeps increases in the university's cost of attendance for in-state students under the Higher Education Price Index (HEPI). HEPI is produced annually by the Commonfund Institute using publicly reported data that is published by government and economic agencies and is an inflation index designed to assist educational managers in understanding and planning for the future of their institution's finances. The first part of the bonus is determined by summing all positive percent increases over the prior year across each performance metric. For example, Penn State would receive 1% in the bonus pool for their increases. The second part of the bonus would award 5% to a university who keeps their total cost of in-state attendance under the Higher Education Price Index. For example, the University of Pittsburgh's 2% in-state increase in the cost of tuition is under the 4% Higher Education Price Index and therefore would be awarded 5% in the bonus category. The two bonus percents would be added together and the 5% for improvement and affordability bonuses would be allocated to the universities who achieved bonus points based on their share of total bonus points earned.

# Model Visual

The Governor's proposed 2025-2026 budget allocated \$60,000,000 for performance-based funding, and for purposes of this report, \$60,000,000 was used to illustrate the functionality of the model.

T								
PENN STATE								
			HIGH-DEMAND			PRIOR		
	5 YEAR	GROW-PA DEGREES	DEGREE	UNI		YEAR	2023-24 GROW PA	INC/DEC TO GOAL (IF
eights METRIC	COUNCIL RATE	AWARDED	PRODUCTION GOAL	L RATE	PERCENT TOWARD GOAL	RATE	DEGREES AWARDED	NEGATIVE, RETURN 0)
1.5 4-YEAR GRAD RATE	61.1%	S		57.1%	93.5%	56.1%		1.00%
1 6-YEAR GRAD RATE	76.7%	5		71.7%	93.5%	71.7%		0.00%
1 PELL 6-YEAR GRAD RATE	64.5%	5		59.8%		59.5%		0.30%
1 HIGH-DEMAND DEGREE RATE		9,642	10,20		94.5%		9,639	0.00%
4.5 AVE		0,0:-			94%			1.30%
PITT								
FILL								
			HIGH-DEMAND			PRIOR		
	5 YEAR	GROW-PA DEGREES		UNI		YEAR	2023-24 GROW PA	INC TO GOAL (IE
. ISTRIC	COUNCIL RATE	AWARDED	PRODUCTION GOAL		PERCENT TOWARD GOAL	RATE	DEGREES AWARDED	
METRIC			PRODUCTION GOAL					
4-YEAR GRAD RATE	71.5%			65.5%		66,5%		0.00%
6-YEAR GRAD RATE	81.2%			75.4%		76.2%		0.00%
PELL 6-YEAR GRAD RATE	68.4%			63.1%		63.4%		0.00%
HIGH-DEMAND DEGREE RATE		3,149	9 3,56	3	88.4%		3,268	3.78%
AVE					91%			3.78%
TEMPLE								
			HIGH-DEMAND			PRIOR		
	5 YEAR	GROW-PA DEGREES		UNI		YEAR	2023-24 GROW PA	INC TO GOAL (IF
455010		AWARDED			DEDCEME TOWARD COAL	RATE	DEGREES AWARDED	
METRIC	COUNCIL RATE		PRODUCTION GOAL		PERCENT TOWARD GOAL			
4-YEAR GRAD RATE	64.1%			58.6%		59.1%		0.00%
6-YEAR GRAD RATE	84.2%			76.3%		79.2%		0.00%
PELL 6-YEAR GRAD RATE	76.1%			70.5%		71.1%		0.00%
HIGH-DEMAND DEGREE RATE		3,198	8 4,14	17	77.1%		2,927	0.00%
AVE	<del></del>				88%		<del></del>	0.00%
SHTED STUDENT COUNT		1	1	1]	1	1	L L	
	FT FALL					PROGRESSION (AT		
	PA UNDER	EST PELL C	OMM COLLEGE	STUDENTS LOW	6	0 CREDITS EARNED	,	%
	GRAD ENROLL	RECIPIENT	TRANSFERS	(40%) MATRIC HS	GROW PA DEGREES	RETAINED)	TOTAL	WGT STUDENTS
N STATE	43,233	10,981	817	2,985	6,261	6,237	70,514	57
T T T T T T T T T T T T T T T T T T T	15,482	3,406	333	644	2,269	3,058		
IPLE	· ·		653	497	2,209			
	14,503	6,149				2,538		
AL	73,218	20,536	1,803	4,126	10,829	11,833	122,345	100.
RMULA								
	\$60,000,000							
	\$00,000,000		0.65	050/		F0/		100

FORMULA							
	\$60,000,000						
		0.65	95%		5%		100.0%
		0.35	\$57,000,000		\$3,000,000		\$ 60,000,000
	PERFORMANCE ALLOCATION		IMPROVEMENT AND AFFORDABILITY				
			PERFOMANCE				
		PERCENT TOWARD	TOTAL	BONUS POINTS	BONUS	TOTAL	
UNI	MAX ALLOCATION	GOAL	(A)	AWARDED	(B)	(A+B)	% TOTAL
PENN STATE	\$28,003,826	94%	\$26,191,990	6%	\$941,283	\$27,133,273	49.1%
PITT	\$14,278,953	91%	\$13,038,327	9%	\$1,311,667	\$14,349,994	26.0%
TEMPLE	\$14,717,221	88%	\$13,000,353	5%	\$747,050	\$13,747,403	24.9%
TOTAL	\$57,000,000		\$52,230,670	20%	\$3,000,000	\$55,230,670	100.0%

# **Appendix**

A summary of each hearing is below. Please visit <u>www.performancebasedfundingcouncil.com</u> for the full testimony provided and videos of each hearing.

#### Performance-Based Funding Council Hearing #1 Summary

Location: Hearing Room 1, North Office Building	Host: General Assembly			
Harrisburg, Pennsylvania 17120				
Date: Tuesday, January 14, 2025 Time: 10am				
Hearing Topic: Performance-Based Funding Council Hearing				

#### **PANEL ONE:**

Lynette Kuhn, Deputy Secretary for Postsecondary and Higher Education, Pennsylvania Department of Education (PDE), Ms. Jessica Sites, Director, Bureau of Budget and Fiscal Management, Pennsylvania Department of Education, Dr. Andrew Armagost, Special Advisor to the Secretary of the Budget, Pennsylvania Office of the Budget, Mr. Nathan Hench, Senior Vice President for Public Affairs, Guaranty, and Strategy, Pennsylvania Higher Education Assistance Agency (PHEAA), and Ms. Elizabeth McCloud, Vice President for State Grant and Special Programs, Pennsylvania Higher Education Assistance Agency provided a high-level overview of ongoing efforts to improve student data tracking and align state grant programs with workforce needs. PDE, PHEAA, and the Office of the Budget discussed current data limitations, particularly post-graduation outcomes, and highlighted partnerships with the Department of Labor & Industry to better track employment and support initiatives like Grow PA. Questions were raised about FAFSA completion rates, defining student success, and how existing systems can support long-term monitoring of grant recipients and their impact on the state workforce.

Ms. Lynette Kuhn stated that the funding formula should allow for predictability. It should be transparent, it should be outcome driven to align with the priorities of the Commonwealth, and it should promote resources and incentives to increase student access and attainment.

PDE is tasked with providing technical assistance to the Council in addition to collecting, analyzing and reviewing funding formulas to inform the Council's recommendations. Currently, PDE has very limited access to track students for performance metrics.

Dr. Andrew Armagost provided the Council with the history of state appropriations for the State-related universities, student numbers, and funding per student. These institutions received approximately \$552 million annually since the 2019-20 fiscal year. This funding is appropriated through the non-preferred appropriation process, which requires a two-third vote in both chambers of the General Assembly pursuant to Article III, Section 30 of the Pennsylvania Constitution.

The three institutions reported to the Budget Office having enrolled 152,000 full-time, equivalent students, of which 116,000 are students receiving some financial aid. Of those students, 93,000 were Pennsylvania residents during the 2023-24 fiscal year. As a result, the three institutions received approximately \$3,728 per full-time equivalent student, or \$5,793 per in-state student enrolled.

Mr. Hench stated that during PHEAA's review of the legislation, it identified several data elements that are not currently collected by PHEAA from post-secondary institutions on all undergraduate students; however, PHEAA

does report on outcome measures for select cohorts of Pennsylvania State Grant recipients using data periodically acquired by the National Student Clearinghouse. Once a student graduates, most Commonwealth agencies lose track of them, and the Commonwealth doesn't have the ability or the capability to track them into an employment.

PHEAA is working with Department of Labor and Industry on identifying high-priority occupations for its Grow PA Grant Program and has engaged with the Independent Fiscal Office because part of the legislation requires a sustainable salary for the jobs which map to those programs of study. PHEAA is developing a system to track those students' post-graduation to ensure that the student complies with the requirements of working in a high-priority occupation in Pennsylvania.

Ms. McCloud told the Council that one of the best sources of institutional data on all students is accessible through the Integrated Postsecondary Education Data System (IPEDS) through the National Center for Education Statistics (NCES), through the U.S. Department of Education. Ms. McCloud cautioned that IPEDS data is limited. IPEDS focuses heavily on first time, full-time students and is less helpful in tracking outcomes for students that move from one institution to another.

#### **Key Takeaways:**

- 1. Agencies highlighted efforts to improve data tracking on student outcomes and workforce alignment.
- 2. Current systems effectively track students during college but have limited visibility post-graduation.
- 3. Partnerships with the Department of Labor and Industry aim to monitor employment outcomes, especially through programs like Grow PA which will require post-graduation tracking and employment verification.
- 4. Key concerns included FAFSA completion rates, defining student success, and enhancing long-term tracking mechanisms.

#### **PANEL TWO:**

Mr. Andrew Smalley, Senior Policy Specialist, National Conference of State Legislatures (NCSL), Dr. Justin Ortagus, Associate Professor of Higher Education Administration & Policy, and Director of the Institute of Higher Education, University of Florida, Charles Ansell, Vice President for Research, Policy, and Advocacy, Complete College America all discussed their experiences with performance-based models across the country. States are increasingly adopting performance-based funding models that tie higher education dollars to measurable outcomes such as degree completion, job placement, and institutional improvement. While widely used, the impact of performance-based funding has been mixed, with concerns about unintended consequences for institutions. Experts emphasize the importance of careful metric selection, phased implementation, and aligning funding with state-specific goals to support student and institutional success.

Mr. Smalley stated that NCSL has seen the trend of performance-based funding proliferate in a few different ways. Over 30 states have adopted some form of performance-based funding, tying a portion of higher education dollars to outcomes like degree completion, job placement, and institutional performance, but there is a wide variation in how the formulas work.

Mr. Smalley presented two examples from states that enacted performance-based funding models. Kentucky developed their model in 2016 with a working group similar to this Council. This was in parallel with their 60 by 30 attainment goals, 60% degree attainment by 2030. Broadly the formula is 40% based on student success, which is four metrics around degree attainment and student progression based on credit hours. There's also a share of credit hours earned that has a weighted formula that considers differences among programs, including 10% broadly for maintenance, 10% for administration, and 10% for broader academic support. So, there's a

couple mechanisms at work in this formula, some that have been modified over time related to hold harmless provisions and funding floors.

Colorado's formula has three components. There's an ongoing base which can be increased outside of the formula if the state determines there's a need for an institution. Then there's also the temporary additional funding component. But the bulk of funding is distributed through performance funding using the following metrics: resident full-time enrollment; first generation resident headcount enrollment; credential production; Pell-eligible student share; retention rate; 4-year graduation rate; and 6-year graduation rate. Colorado's formula uses a system where each performance metric measures the improvement over time within an institution by creating a weighted average of the four most recent years of data versus older years. They are aiming to measure institutional improvement based on their state plan.

Dr. Ortagus presented the factors that are known about performance-based funding in higher education. Performance-based funding is generally defined as a policy linking a percentage of state funds, typically state general funds, to institutional outcomes.

The percentage of funding linked to performance has grown over time and varies widely across states. Some states allocate less than 2%, Louisiana allocates 30%, Tennessee allocates over 87%, and North Dakota allocates 100%.

Dr. Ortagus stated that the conversation needs to shift from whether performance funding works to how do we get it right. His work has focused on the dynamics and complexities in performance funding to better understand what works and what needs improvement by looking at not only those intended outcomes related to graduation and retention, but also some unintended consequences. The overwhelming majority of studies show that performance funding either has no effect or a modest positive effect on retention and graduation at four-year institutions. However, performance funding can lead to unintended consequences by restricting access. Bonus metrics can mitigate potential unintended consequences by being mindful of what could happen to different subgroups of students in the design of the policy.

Mr. Ansell stated that college completion is the biggest predictor of economic mobility. There are reforms that work to help combat the fact that time is the enemy of college completion, reforms such as credit for workbased learning or college enrollment while in high school.

We should scale these reforms in policy by creating funding models that center on the goal of college completion. A state should start with determining the number of graduates it needs, develop completion targets for funding purposes, and then size the gap against the current rate. For example, by 2031, 65% of jobs in Pennsylvania will require some college education. Pennsylvania is at 54%, which is basically the national average. But it represents a gap to be closed that performance funding can incentivize.

Mr. Ansell stated that colleges and universities subject to performance-based formulas find themselves in a bit of a catch 22. They need funds for the reforms that improve graduation rates, but they cannot access funds without demonstrating improvement first. He suggests that college and universities get upfront dollars to implement proven strategies rather than after the fact rewards.

- 1. Over 30 states have adopted some form of performance-based funding, tying a portion of higher education dollars to outcomes like degree completion, job placement, and institutional performance, but there is a wide variation in how the formulas work.
- 2. Nationally, about 10% of funding at four-year institutions is tied to performance metrics.
- 3. Common metrics include: degree/credential completion; retention and progression rates; graduation rates; transfer success; research outcomes; efficiency measures; and employment and wage outcomes. Some states have looked at creating efficiency measures to look at administrative costs.
- 4. Evidence on performance-based funding effectiveness is mixed; lower levels of funding show little impact, while more aggressive models can create challenges for institutions. Some states allocate less than 2%, Louisiana allocates 30%, Tennessee allocates over 87%, and North Dakota allocates 100%.
- 5. States are refining their performance-based funding models with safeguards such as hold-harmless provisions, performance-based bonuses, and metrics focused on institutional improvement rather than competition.
- 6. Experts emphasized the importance of aligning PBF with state-specific goals, economic needs, and student success pathways, particularly through thoughtful metric selection and phased implementation.
- 7. Adequately funding higher education is nothing without accountability.

#### Performance-Based Funding Council Hearing #2 Summary

Location: Engineering Collaborative Research and	Host: Pennsylvania State University			
Education (ECoRE) Building (Room 504)				
556 White Course Drive				
University Park, PA 16802				
Date: Tuesday, January 21, 2025 Time: 10 am				
Hearing Topic: Performance-Based Funding Council Hearing – Pennsylvania State University				

#### **PANEL ONE:**

**Dr. Sara Thorndike, Senior Vice President for Finance and Business/Treasurer, Penn State University** testified on the need for a more transparent and consistent approach to higher education funding in Pennsylvania. She emphasized that Penn State's state funding has remained largely unchanged since 2000 and advocated for a performance-based funding model that prioritizes enrollment, student progression, completion rates, and workforce outcomes. Dr. Thorndike also underscored the importance of ensuring that funding is allocated in a manner that reflects Penn State's role in higher education and aligns per-student funding more closely with peer institutions.

#### **Key Takeaways:**

- 1. Pennsylvania's higher education funding model is outdated and would benefit from greater predictability.
- 2. A performance-based funding approach should emphasize enrollment, student retention, degree completion, and workforce readiness.
- 3. Ensuring equitable per-student funding distribution is important to maintaining a competitive higher education system.
- 4. Greater funding predictability is essential for effective institutional budget planning and long-term stability.

#### **PANEL TWO:**

**Dr. Steven Gentile, Executive Director, Tennessee Higher Education Commission, and Russell VanZomeren, Senior Director, Fiscal Policy, Tennessee Higher Education Commission** outlined Tennessee's shift from an enrollment-based funding model to an outcomes-based approach over the past 15 years. This model prioritizes student retention, timely degree completion, and alignment with institutional missions. By incorporating data from both public and private institutions, Tennessee has established an evidence-based approach to higher education funding. Institutions also play a role in periodic formula reviews and fostering stakeholder engagement. While the model has improved funding fairness, challenges persist, including delayed recognition of enrollment growth and the complexity of the formula.

- 1. Tennessee adopted an outcomes-based funding model focused on student retention, degree completion, and institutional mission alignment.
- 2. A comprehensive data system tracks performance, with institutions providing input in periodic formula reviews.

- 3. No "hold harmless" provisions exist, requiring institutions to meet performance targets to maintain funding.
- 4. Safeguards prevent selective enrollment, and post-graduation job success is tracked through labor data integration.

#### **PANEL THREE:**

**Mr. Michael Fowler, Penn State Student, President, Lion Caucus**, highlighted the university's strong alumni network and experiential learning, advocating for performance-based funding to sustain its success.

**Dr. Tracy Langkilde, Interim Executive Vice President and Provost, Penn State University,** discussed retention, graduation rates, and the university's funding formulas. She also outlined the Academic Portfolio and Program Review initiative to align programs with workforce needs.

**Mr. Greg Scott, President and CEO of the Centre County Chamber,** emphasized Penn State's role in workforce development, advocating for performance-based funding to support key fields like energy and advanced manufacturing.

- 1. State Funding and Performance-Based Models
  - Mr. Fowler and Dr. Langkilde emphasized the importance of state funding for Penn State's success and advocated for a performance-based funding model to align investment with workforce needs.
- 2. Enrollment and Retention Trends
  - Penn State saw enrollment growth in 2024, with increases in minority and first-generation students, while retention and graduation rates improved across all demographics.
- 3. Academic Program and Workforce Alignment
  - The university's APR initiative ensures academic offerings meet workforce demands through program evaluation, workforce trend monitoring, and student demand data.
- 4. Economic Development and Talent Retention
  - Penn State supports economic growth through research and workforce development, with internships and networking opportunities vital for retaining graduates in Pennsylvania.

#### Performance-Based Funding Council Hearing #3 Summary

Location: Charles Library	Host: Temple University			
Event Space, Room 102				
1900 N. 13th Street				
Philadelphia, Pennsylvania 19122				
Date: Tuesday, January 30, 2025 Time: 10 am				
Hearing Topic: Performance-Based Funding Council Hearing – Temple University				

#### **PANEL ONE:**

David Marino, Vice President of Finance and Treasurer, Jason Kurichi, Associate Vice President, Budget and Planning, and Jodi Levine Laufgraben, Senior Advisor to the Provost from Temple testified that a proposed model should be transparent and based off a limited number of metrics. A proposed model should also recognize the uniqueness of each institution. When developing the model, it should be developed thoughtfully and should consider four guiding principles that should be considered in any model adopted.

#### **TESTIMONY HIGHLIGHTS:**

The testifiers on behalf of Temple discussed the four guiding principles that should be considered in a performance-based funding model. Those principles are aligning metrics with the Commonwealth's strategic goals, rewarding either improvement or sustained excellence, keeping metrics clear and simple and acknowledging the unique missions of the different institutions. Mr. Marino also stressed that performance metrics should be used for new, additive funds from the Commonwealth.

#### **Key Takeaways:**

- 1. Success of their students is most important.
- 2. Simple metrics are key.
- 3. Avoid reallocating existing funds, the model should be funded through new, additive funds.
- 4. Need to incentivize improvements and not create unintended consequences.
- 5. Regularly review and refinement of the model will benefit the universities and the Commonwealth.
- 6. 62% of Temple's students are Pennsylvania residents.

#### **PANEL TWO:**

Mr. Radhey Patel, Senior, Student, Temple University and Ms. Ray Epstein, Senior, Student Body President, Temple University testified about why they choose Temple University and what the university has meant to them.

#### **TESTIMONY HIGHLIGHTS:**

Ms. Epstein spoke about how she felt empowered by how professors engaged with students. Temple taught Ms. Epstein that there is no such thing as reaching too far. Mr. Patel spoke of the abundance of extra curriculars, in addition to academics, that has been instrumental in propelling his career. Mentors for both students influenced their decision to attend Temple. Ms. Epstein voiced support for demographics being considered as part of the metrics. Mr. Patel thought equity and education was important to look at.

- 1. Temple has helped its students develop their skills and set them up for the future.
- 2. Commonwealth funding is crucial to support the programs that Temple uses to advance the mission of uplifting those in North Philadelphia.

#### **PANEL THREE:**

Mr. Patrick Clancy, President and CEO, Philadelphia Works, Inc. and Ms. Chellie Cameron, President and CEO, Greater Philadelphia Chamber of Commerce, and Nikki Pumphrey, Vice President of Talent and Workforce, Greater Philadelphia Chamber of Commerce testified at the hearing. Ms. Cameron stated that the access to skilled talent is a key driver of her member's businesses, and the chamber seeks partnerships with those who train the talent. Mr. Clancy spoke of the value of a Temple education as a parent and as someone involved who deals daily with the workforce and economic development needs of the Commonwealth.

#### **TESTIMONY HIGHLIGHTS:**

Temple exemplifies how the unique mission of universities needs to be considered in the metrics, Ms. Cameron testified. The metrics should include degree attainment for high demand fields. By tracking degree attainment, the metrics can make sure degrees are meeting the workforce demand. Also important to look at retention and graduation rates. Ms. Cameron stated that the efforts of the Performance-based Funding Council can enhance Pennsylvania's economic competitiveness by strengthening the connection between higher education outcomes and workforce needs. Temple is helping prepare the workforce in the high demand fields, according to Ms. Cameron.

Mr. Clancy testified about the work Temple does in the community, including their work through the Lenfest Center, which prepares youth in Philadelphia for careers in IT support. He also cautioned that there needs to be access to data to measure the success of the performance.

#### **Key Takeaways:**

- 1. There are more jobs in Pennsylvania that require some higher education training than those who currently have that training.
- 2. Degree attainment in high demand fields can help address workforce needs.
- 3. Retention and graduation rates should be part of the metrics in a performance-based model.
- 4. It is critical that people in the community see where they belong and the careers that are in front of them.

#### **PANEL FOUR:**

Mr. Daniel Kuba, Deputy Secretary for Workforce Development, Pennsylvania Department of Labor and Industry walked through the workforce and what happens to students when they complete their education. The department looks at not only current demand but what the industries of the future are.

#### **TESTIMONY HIGHLIGHTS:**

Mr. Kuba discussed the shift from having a degree which gets you in the door to the constant learning and educating throughout a professional career. Working with partners, such as chambers of commerce and universities, allows the department to better track the workforce to ensure potential workers are prepared for the jobs available and that they are making sustainable wages.

In order to track the success of a student, we need to have data available on what happens once the student leaves a university. Pennsylvania has been working to better track this data so the Commonwealth knows the outcomes once a student graduates. Some institutions of higher education already track that data, but not all of them.

- 1. The focus needs to be not just on the current demand but the demands of the future.
- 2. As best as can be done, the Commonwealth needs to track what happens to the students once they leave a university.

#### Performance-Based Funding Council Hearing #4 Summary

Location: 2700 Posvar Hall	Host: University of Pittsburgh		
230 S. Bouquet Street,			
Pittsburgh, Pennsylvania 15213			
Date: Wednesday, February 19, 2025 Time: 10 am			
Hearing Topic: Performance-Based Funding Council Hearing – University of Pittsburgh			

#### **PANEL ONE:**

Mr. Dwayne Pinkney, Executive Senior Vice Chancellor for Administration and Finance and Chief Financial Officer, University of Pittsburgh acknowledged the importance of the work of the PBFC and the need for the Commonwealth to update its State-related universities appropriations practices. He also stated that performance-based funding will help the state focus on broad economic goals, improving student outcomes, and ensuring accountability and transparency of how state resources are used.

#### **PANEL TWO:**

Mr. Tim Jones, Senior Vice Chancellor, Finance/Administration and CFO for the Board of Governors, State University System of Florida (SUS) presented on the performance-based funding model, metrics, formula and process used by the State University System of Florida. The performance model is based on a set of guiding principles and aligned with a strategic plan to achieve excellence or improvement over its twelve universities.

The SUS uses a 100-point model with ten metrics each year to demonstrate excellence or improvement in each category. Nine of the metrics are predetermined and the tenth is chosen by each school's board of trustees.

Each school receives a base allocation, and new funding is subject to the performance model. Performance-based funding was adopted in 2012, SUS funding began being allocated in 2014 based on the ten metric model and has been updated twice since.

#### **PANEL THREE:**

Ms. Emilia Matucci, Executive Director, Pennsylvania School Counselors Association and high school counselor at East Allegheny High School, Ms. Kellie Kane, Associate Vice Provost for Enrollment and Executive Director of Admissions, University of Pittsburgh, and Ms. Jamie Gilligan, Undergraduate Student, University of Pittsburgh was the last panel of the day and was a focus on the professional assistance that students receive in high school and as university students to navigate which programs suit them and will provide good opportunities to find careers in fields that are fulfilling for them and needed for the Commonwealth's economic success.

Emilia Matucci began by describing the work that her and her colleagues do to guide students through college exploration and applications. They also help with navigating college entrance requirements, financial aid options, and scholarship opportunities, ensuring that students and their families make informed financial decisions. Perhaps most importantly to the PBFC, counselors aid students in choosing schools, programs and majors that suit their career interests and opportunities. Choosing a path to a career can be mutually important to both the student and the needs of the state to fill badly needed positions that are also good paying, family sustaining jobs.

Kellie Kane of Pitt highlighted the many ways that students matriculate through postsecondary education; some choosing career paths immediately upon entering universities, while other may take some time to find what

suits them best. In both cases universities provide professional personal assistance, career finding tools, and outside-the-classroom organizational support to assist students find a career path that suits each best.

Ms. Kane also noted Pitt's emphasis on recruiting rural students and the success of earning the Rural Postsecondary and Economic Development (RPED) federal grant (\$2.2M over four years) to promote the development of high-quality career pathways aligned to high-skill, high-wage and in-demand industry sectors and occupations in the region. Due to these efforts, the Fall 2024 first-year class included 18% more students from rural counties in PA than Fall 2023 – 476 compared to 402 – representing over 16% of PA first-year students enrolling.

Jamie Gilligan, a Pitt undergraduate student in nursing focused on the importance of Pitt's in-state tuition discount and how it attracted her to the university and kept her in Pennsylvania. She said that the combination of the tuition reduction and the advantages of staying close to home were keys factors in her postsecondary education choices. She also discussed how Pitt's nursing program aligned with her career interests and filled desperately needed healthcare jobs in the region.

#### **Public Comments**

Name	Jolie
Last	Elder
Email	jolieae@yahoo.com
Organization	former Pennsylvanian/ half-stake homeowner
Municipality	York

#### Comment

Representative Schweyer asked repeatedly for a metric other than Pell to identify "at risk" students. Could that category be two of the following: 1st generation, Pell grant, lower SAT score, high-risk high school? On that last item, Pennsylvania probably knows which high schools are better and which are not? Perhaps craft an "at risk" high school list, based on percentage of graduates attending college and/or percentage of students achieving a high school diploma? The list would need to be updated periodically.

Could the tuition metric please be tied to median household income? That seems like a stronger metric than level of debt at graduation.

University alumni should be expected to give back to their institutions. Thus, could percentage of alumni donating be one of the metrics? Could either total overall amount or average donation per alumni be a metric? Would the state of Pennsylvania be willing to match alumni giving, perhaps at 25 or 50 cents for every dollar? Or maybe a sliding scale where the state would match at a higher rate if the alumni gave more generously? If alumni do not think an institution is worthy of their support, why should Pennsylvania taxpayers make up the difference?

I like the idea of required requirements and optional requirements. Tabletop games sometimes have these, where there are goals for everyone in the game as well as individual goals for each player. I liked when Senior Vice Chancellor Tim Jones said the school picks the metric, but the state determines the benchmark.

Another measure of a university's quality is its ability to attract the very best students. Perhaps include a metric regarding valedictorians and salutatorians, students in the top 1% or 2% of their high school class, or students with high SAT scores? Pennsylvanians pay significant school taxes for K-12 education. Pennsylvania should not be the farm team for Sun Belt workforce talent.

Tracking where recent graduates live and work could be a metric. In his testimony, Senior Vice Chancellor Tim Jones said internships made a significant difference in whether recent graduates stayed in the state. Encouraging internships with Pennsylvania companies could be a metric.

In researching higher education, I noticed not every institution reports data both in aggregate and broken out by campus. For universities with significant branch campuses, should they be required to report data granularly? Identify how metrics apply to the whole system as well as branches.

Should there be a metric regarding financial health? Perhaps something related to endowment versus debt? The Wall Street Journal had an article about university spending that did not make Pennsylvania look good: https://www.wsj.com/articles/state-university-tuition-increase-spending- 41a58100

From watching the public hearings, it is clear the committee is carefully researching and considering Pennsylvania's metrics for performance-based funding. I look forward to reading your report in April. Thank you for your commitment.

# **Classifications of Instructional** Program (CIP) Codes Grow PA Grant Program & Grow PA Waiver Program



Below are code lists for the Grow PA Scholarship Grant (Grow PA Grant) Program and the Grow PA Tuition Waiver (Grow PA Waiver) Program. Note that the title of the program listed below may not be a direct match to the program of study at your institution as programs of study may vary in naming conventions between institutions. Your institution will verify the correct program of study CIP code as part of the certification of your eligibility.

**NOTE:** Actual majors available may vary based on your institution.

#### **CIP Code List**

CIP Code	CIP Title
01.0101	Agricultural Business & Management, General
01.0102	Agribusiness/Agricultural Business Operations
01.0105	Agricultural/Farm Supplies Retailing & Wholesaling
01.0199	Agricultural Business & Management, Other
01.0201	Agricultural Mechanization, General
01.0302	Animal/Livestock Husbandry & Production
01.0307	Horse Husbandry/Equine Science & Management
01.0308	Agroecology & Sustainable Agriculture
01.0309	Viticulture & Enology
01.0601	Applied Horticulture/Horticultural Operations, General
01.0603	Ornamental Horticulture
01.0606	Plant Nursery Operations & Management
01.0802	Agricultural Communication/Journalism
01.0901	Animal Sciences, General
01.0903	Animal Health
01.0905	Dairy Science
01.0999	Animal Sciences, Other
01.1004	Viticulture & Enology
01.1101	Plant Sciences, General
01.1102	Agronomy & Crop Science
01.1103	Horticultural Science
01.1105	Plant Protection & Integrated Pest Management
01.1302	Pre-Veterinary Studies
01.8201	Veterinary Administrative Services, General
01.8202	Veterinary Office Management/Administration
01.8301	Veterinary/Animal Health Technology/Technician & Veterinary Assistant
01.8399	Veterinary/Animal Health Technologies/ Technicians, Other
03.0103	Environmental Studies
03.0104	Environmental Science
03.0208	Natural Resources Law Enforcement & Protective Services
03.0209	Energy & Environmental Policy
09.0702	Digital Communication & Media/Multimedia

CIP Code	CIP Title
09.0901	Organizational Communication, General
10.0399	Graphic Communications, Other
11.0101	Computer & Information Sciences, General
11.0102	Artificial Intelligence
11.0103	Information Technology
11.0104	Informatics
11.0105	Human-Centered Technology Design
11.0201	Computer Programming/Programmer, General
11.0202	Computer Programming, Specific Applications
11.0203	Computer Programming, Vendor/Product Certification
11.0204	Computer Game Programming
11.0205	Computer Programming, Specific Platforms
11.0401	Information Science/Studies
11.0501	Computer Systems Analysis/Analyst
11.0701	Computer Science
11.0801	Web Page, Digital/Multimedia & Information Resources Design
11.0802	Data Modeling/Warehousing & Database Administration
11.0803	Computer Graphics
11.0804	Modeling, Virtual Environments & Simulation
11.0901	Computer Systems Networking & Telecommunications
11.0902	Cloud Computing
11.1001	Network & System Administration/Administrator
11.1002	System, Networking & LAN/WAN Management/ Manager
11.1003	Computer & Information Systems Security/ Information Assurance
11.1004	Web/Multimedia Management & Webmaster
11.1005	Information Technology Project Management
12.0510	Wine Steward/Sommelier
13.0101	Education, General
13.0201	Bilingual & Multilingual Education
13.0299	Bilingual, Multilingual & Multicultural Education, Other
13.0501	Educational/Instructional Technology

CIP Code	CIP Title
13.0601	Educational Evaluation & Research
13.0603	Educational Statistics & Research Methods
13.0604	Educational Assessment, Testing & Measurement
13.0608	Institutional Research
13.0699	Educational Assessment, Evaluation & Research, Other
13.1001	Special Education & Teaching, General
13.1003	Education/Teaching of Individuals with Hearing Impairments Including Deafness
13.1004	Education/Teaching of the Gifted & Talented
13.1005	Education/Teaching of Individuals with Emotional Disturbances
13.1006	Education/Teaching of Individuals with Intellectual Disabilities
13.1007	Education/Teaching of Individuals with Multiple Disabilities
13.1008	Education/Teaching of Individuals with Orthopedic & Other Physical Health Impairments
13.1009	Education/Teaching of Individuals with Vision Impairments Including Blindness
13.1011	Education/Teaching of Individuals with Specific Learning Disabilities
13.1012	Education/Teaching of Individuals with Speech or Language Impairments
13.1013	Education/Teaching of Individuals with Autism
13.1014	Education/Teaching of Individuals Who are Developmentally Delayed
13.1015	Education/Teaching of Individuals in Early Childhood Special Education Programs
13.1016	Education/Teaching of Individuals with Traumatic Brain Injuries
13.1017	Education/Teaching of Individuals in Elementary Special Education Programs
13.1018	Education/Teaching of Individuals in Junior High/ Middle School Special Education Programs
13.1019	Education/Teaching of Individuals in Secondary Special Education Programs
13.1099	Special Education & Teaching, Other
13.1201	Adult & Continuing Education & Teaching
13.1202	Elementary Education & Teaching
13.1203	Junior High/Intermediate/Middle School Education & Teaching
13.1205	Secondary Education & Teaching
13.1206	Teacher Education, Multiple Levels
13.1207	Montessori Teacher Education
13.1208	Waldorf/Steiner Teacher Education
13.1209	Kindergarten/Preschool Education & Teaching
13.1210	Early Childhood Education & Teaching
13.1211	Online Educator/Online Teaching
13.1212	International Teaching & Learning
13.1213	Science, Technology, Engineering & Mathematics (STEM) Educational Methods
13.1301	Agricultural Teacher Education
13.1302	Art Teacher Education

13.1303 Business & Innovation/Entrepreneurship Teacher Education 13.1304 Driver & Safety Teacher Education 13.1305 English/Language Arts Teacher Education 13.1306 Foreign Language Teacher Education 13.1307 Health Teacher Education 13.1308 Family & Consumer Sciences/Home Economics Teacher Education 13.1309 Technology Teacher Education/Industrial Arts Teacher Education 13.1310 Sales & Marketing Operations/Marketing & Distribution Teacher Education 13.1311 Mathematics Teacher Education 13.1312 Music Teacher Education 13.1314 Physical Education Teaching & Coaching 13.1315 Reading Teacher Education 13.1316 Science Teacher Education 13.1317 Social Science Teacher Education 13.1318 Social Studies Teacher Education 13.1319 Technical Teacher Education 13.1320 Trade & Industrial Teacher Education 13.1321 Computer Teacher Education 13.1322 Biology Teacher Education 13.1323 Chemistry Teacher Education 13.1324 Drama & Dance Teacher Education 13.1325 French Language Teacher Education 13.1326 German Language Teacher Education 13.1327 Health Occupations Teacher Education 13.1328 History Teacher Education 13.1329 Physics Teacher Education 13.1330 Spanish Language Teacher Education 13.1331 Speech Teacher Education 13.1332 Geography Teacher Education 13.1333 Latin Teacher Education 13.1335 Psychology Teacher Education 13.1337 Earth Science Teacher Education 13.1338 Environmental Education 13.1339 Environmental Education
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13.1310 Sales & Marketing Operations/Marketing & Distribution Teacher Education 13.1311 Mathematics Teacher Education 13.1312 Music Teacher Education 13.1314 Physical Education Teaching & Coaching 13.1315 Reading Teacher Education 13.1316 Science Teacher Education 13.1317 Social Science Teacher Education 13.1318 Social Studies Teacher Education 13.1319 Technical Teacher Education 13.1320 Trade & Industrial Teacher Education 13.1321 Computer Teacher Education 13.1322 Biology Teacher Education 13.1323 Chemistry Teacher Education 13.1324 Drama & Dance Teacher Education 13.1325 French Language Teacher Education 13.1326 German Language Teacher Education 13.1327 Health Occupations Teacher Education 13.1328 History Teacher Education 13.1329 Physics Teacher Education 13.1331 Speech Teacher Education 13.1332 Geography Teacher Education 13.1333 Latin Teacher Education 13.1335 Psychology Teacher Education 13.1337 Earth Science Teacher Education 13.1338 Environmental Education
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13.1315 Reading Teacher Education 13.1316 Science Teacher Education/General Science 13.1317 Social Science Teacher Education 13.1318 Social Studies Teacher Education 13.1319 Technical Teacher Education 13.1320 Trade & Industrial Teacher Education 13.1321 Computer Teacher Education 13.1322 Biology Teacher Education 13.1323 Chemistry Teacher Education 13.1324 Drama & Dance Teacher Education 13.1325 French Language Teacher Education 13.1326 German Language Teacher Education 13.1327 Health Occupations Teacher Education 13.1328 History Teacher Education 13.1330 Spanish Language Teacher Education 13.1331 Speech Teacher Education 13.1332 Geography Teacher Education 13.1333 Latin Teacher Education 13.1335 Psychology Teacher Education 13.1337 Earth Science Teacher Education 13.1338 Environmental Education
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13.1316         Teacher Education           13.1317         Social Science Teacher Education           13.1318         Social Studies Teacher Education           13.1319         Technical Teacher Education           13.1320         Trade & Industrial Teacher Education           13.1321         Computer Teacher Education           13.1322         Biology Teacher Education           13.1323         Chemistry Teacher Education           13.1324         Drama & Dance Teacher Education           13.1325         French Language Teacher Education           13.1326         German Language Teacher Education           13.1327         Health Occupations Teacher Education           13.1328         History Teacher Education           13.1329         Physics Teacher Education           13.1330         Spanish Language Teacher Education           13.1331         Speech Teacher Education           13.1332         Geography Teacher Education           13.1333         Latin Teacher Education           13.1335         Psychology Teacher Education           13.1337         Earth Science Teacher Education           13.1338         Environmental Education           13.1339         Communication Arts & Literature Teacher
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13.1337 Earth Science Teacher Education 13.1338 Environmental Education 13.1339 Communication Arts & Literature Teacher
13.1338 Environmental Education  13.1339 Communication Arts & Literature Teacher
13.1339 Communication Arts & Literature Teacher
1 13.13.39
13.1399 Teacher Education & Professional Development, Other Specific Subject Areas
13.1401 Teaching English as a Second or Foreign Language/ ESL Language Instructor
13.1402 Teaching French as a Second or Foreign Language
13.1499 Teaching English or French as a Second or Foreign Language, Other
14.0101 Engineering, General
14.0401 Architectural Engineering
14.0801 Civil Engineering, General
14.0802 Geotechnical & Geoenvironmental Engineering
14.0803 Structural Engineering

CIP Code	CIP Title
14.0804	Transportation & Highway Engineering
14.0805	Water Resources Engineering
14.0899	Civil Engineering, Other
14.0901	Computer Engineering, General
14.0903	Computer Software Engineering
14.0999	Computer Engineering, Other
14.1101	Engineering Mechanics
14,1801	Materials Engineering
14.1901	Mechanical Engineering
14.2401	Ocean Engineering
14.2701	Systems Engineering
14.3301	Construction Engineering
14.3401	Forest Engineering
14.3501	Industrial Engineering
14.3601	Manufacturing Engineering
14.3701	Operations Research
14.4101	Electromechanical Engineering
15.0401	Biomedical Technology/Technician
45.0704	Occupational Safety & Health Technology/
15.0701	Technician
15.0703	Industrial Safety Technology/Technician
15.0799	Quality Control & Safety Technologies/Technicians, Other
15.1001	Construction Engineering Technology/Technician
15.1201	Computer Engineering Technology/Technician
15.1202	Computer/Computer Systems Technology/ Technician
15.1204	Computer Software Technology/Technician
15.1501	Engineering/Industrial Management
15.1503	Packaging Science
16.0101	Foreign Languages & Literatures, General
16.0300	East Asian Languages, Literatures, and Linguistics, General
16.0301	Chinese Language and Literature
16.0302	Japanese Language and Literature
16.0303	Korean Language and Literature
16.0399	East Asian Languages, Literatures, and Linguistics, Other
16.0402	Russian Language and Literature
16.0500	Germanic Languages, Literatures, and Linguistics, General
16.0501	German Language and Literature
16.0599	Germanic Languages, Literatures, and Linguistics, Other
16.0900	Romance Languages, Literatures, and Linguistics, General
16.0901	French Language and Literature
16.0902	Italian Language and Literature
16.0905	Spanish Language and Literature
16.0999	Romance Languages, Literatures, and Linguistics, Other

CIP Code	CIP Title
16.1001	American Indian/Native American Languages, Literatures, and Linguistics
16.1101	Arabic Language and Literature
16.1102	Hebrew Language and Literature
16.1200	Classics and Classical Languages, Literatures, and Linguistics, General
16.1202	Ancient/Classical Greek Language and Literature
16.1203	Latin Language and Literature
16.1299	Classics and Classical Languages, Literatures, and Linguistics, Other
16.1409	Hawaiian Language and Literature
16.1499	Southeast Asian and Australasian/Pacific Languages, Literatures, and Linguistics, Other
16.1601	American Sign Language (ASL)
16.1602	Linguistics of ASL and Other Sign Languages
19.0101	Family and Consumer Sciences/Human Sciences, General
19.0203	Consumer Merchandising/Retailing Management
19.0401	Family Resource Management Studies, General
19.0706	Child Development
19.0707	Family & Community Services
19.0708	Child Care & Support Services Management
19.0709	Child Care Provider/Assistant
19.0799	Human Development, Family Studies & Related Services, Other
19.0901	Apparel & Textiles, General
19.0905	Apparel & Textile Marketing Management
22.0302	Legal Assistant/Paralegal
23.0101	English Language & Literature, General
26.0101	Biology/Biological Sciences, General
26.0401	Cell/Cellular Biology & Histology
26.0509	Infectious Disease & Global Health
26.0908	Exercise Physiology & Kinesiology
26.1006	Environmental Toxicology
26.1103	Bioinformatics
26.1104	Computational Biology
26.1199	Biomathematics, Bioinformatics, and Computational Biology, Other
27.0101	Mathematics, General
27.0301	Applied Mathematics, General
27.0303	Computational Mathematics
27.0304	Computational & Applied Mathematics
27.0305	Financial Mathematics
27.0306	Mathematical Biology
27.0399	Applied Mathematics, Other
27.0501	Statistics, General
27.0502	Mathematical Statistics & Probability
27.0503	Mathematics & Statistics
27.0599	Statistics, Other
27.0601	Applied Statistics, General
30.0101	Biological and Physical Sciences

CIP Code	CIP Title
30.0801	Mathematics & Computer Science
30.1601	Accounting & Computer Science
30.3001	Computational Science
30.3101	Human Computer Interaction
30.3601	Cultural Studies and Comparative Literature
30.3801	Earth Systems Science
30.3901	Economics & Computer Science
30.4101	Environmental Geosciences
30.4501	History and Language/Literature
30.4801	Linguistics & Computer Science
30.7001	Data Science, General
30.7099	Data Science, Other
30.7101	Data Analytics, General
30.7102	Business Analytics
30.7103	Data Visualization
30.7104	Financial Analytics
30.7199	Data Analytics, Other
31.0301	Parks, Recreation, and Leisure Facilities Management, General
31.0399	Parks, Recreation & Leisure Facilities Management, Other
31.0505	Exercise Science & Kinesiology
40.0101	Physical Sciences, General
40.0501	Chemistry, General
40.0512	Cheminformatics/Chemistry Informatics
40.0801	Physics, General
42.2703	Developmental & Child Psychology
42.2710	Developmental & Adolescent Psychology
42.2803	Counseling Psychology
42.2804	Industrial & Organizational Psychology
43.0100	Criminal Justice & Corrections, General
43.0102	Corrections
43.0103	Criminal Justice/Law Enforcement Administration
43.0104	Criminal Justice/Safety Studies
43.0107	Criminal Justice/Police Science
43.0110	Juvenile Corrections
43.0111	Criminalistics & Criminal Science
43.0114	Law Enforcement Investigation & Interviewing
43.0115	Law Enforcement Record-Keeping & Evidence Management
43.0116	Cyber/Computer Forensics & Counterterrorism
43.0117	Financial Forensics & Fraud Investigation
43.0119	Critical Incident Response/Special Police Operations
43.0120	Protective Services Operations
43.0121	Suspension & Debarment Investigation
43.0122	Maritime Law Enforcement
43.0199	Corrections & Criminal Justice, Other
43.0402	Criminalistics & Criminal Science

CIP Code	CIP Title
43.0403	Cyber/Computer Forensics & Counterterrorism
43.0405	Financial Forensics & Fraud Investigation
44.0401	Public Administration
44.0402	Public Works Management
44.0503	Health Policy Analysis
44.0701	Social Work
44.0702	Youth Services/Administration
44.0703	Forensic Social Work
44.0799	Social Work, Other
45.0101	Social Sciences, General
45.0199	Social Sciences, Other
45.0601	Economics, General
45.0602	Applied Economics
45.0603	Econometrics and Quantitative Economics
45.1001	Political Science and Government, General
45.1002	American Government and Politics (United States)
45.1003	Canadian Government and Politics
45.1099	Political Science and Government, Other
46.0412	Building/Construction Site Management/Manager
46.0499	Building/Construction Finishing, Management & Inspection, Other
50.0101	Visual & Performing Arts, General
50.0101	
50.0401	Digital Arts  Design & Visual Communications, General
50.0401	Commercial & Advertising Art
50.0404	Industrial & Product Design
50.0409	Graphic Design
50.0410	Illustration
50.0410	Design & Applied Arts, Other
50.0701	Art/Art Studies, General
50.0901	Music, General
51.0701	Health/Health Care Administration/Management
51.0702	Hospital & Health Care Facilities Administration/
51.0704	Management
51.0704	Health Unit Manager/Ward Supervisor
51.0705	Medical Office Management/Administration
51.0706	Health Information/Medical Records Administration/Administrator
51.0707	Health Information/Medical Records Technology/ Technician
51.0709	Medical Office Computer Specialist/Assistant
51.0713	Medical Insurance Coding Specialist/Coder
51.0717	Medical Staff Services Technology/Technician
51.0718	Long Term Care Administration/Management
51.0719	Clinical Research Coordinator
51.0720	Regulatory Science/Affairs
51.0721	Disease Registry Data Management
51.0722	Healthcare Innovation
51.0723	Healthcare Information Privacy Assurance & Security

CIP Code	CIP Title
51.0799	Health & Medical Administrative Services, Other
51.0802	Clinical/Medical Laboratory Assistant
51.0803	Occupational Therapist Assistant
51.0806	Physical Therapy Assistant
51.0808	Veterinary/Animal Health Technology/Technician & Veterinary Assistant
51.0908	Respiratory Care Therapy/Therapist
51.0910	Diagnostic Medical Sonography/Sonographer & Ultrasound Technician
51.1001	Blood Bank Technology Specialist
51.1002	Cytotechnology/Cytotechnologist
51.1003	Hematology Technology/Technician
51.1004	Clinical/Medical Laboratory Technician
51.1005	Clinical Laboratory Science/Medical Technology/ Technologist
51.1007	Histologic Technology/Histotechnologist
51.1008	Histologic Technician
51.1010	Cytogenetics/Genetics/Clinical Genetics Technology/Technologist
51.1011	Renal/Dialysis Technologist/Technician
51.1099	Clinical/Medical Laboratory Science & Allied Professions, Other
51.1104	Pre-Veterinary Studies
51.1105	Pre-Nursing Studies
51.1107	Pre-Occupational Therapy Studies
51.1501	Substance Abuse/Addiction Counseling
51.1502	Psychiatric/Mental Health Services Technician
51.1503	Clinical/Medical Social Work
51.1506	Clinical Pastoral Counseling/Patient Counseling
51.1508	Mental Health Counseling/Counselor
51.1510	Infant/Toddler Mental Health Services
51.1513	Trauma Counseling
51.2001	Pharmacy
51.2002	Pharmacy Administration & Pharmacy Policy & Regulatory Affairs
51.2007	Pharmacoeconomics/Pharmaceutical Economics
51.2008	Clinical, Hospital & Managed Care Pharmacy
51.2009	Industrial & Physical Pharmacy & Cosmetic Sciences
51.2011	Pharmaceutical Marketing & Management
51.2201	Public Health, General
51.2202	Environmental Health
51.2206	Occupational Health & Industrial Hygiene
51.2208	Community Health & Preventive Medicine
51.2210	International Public Health/International Health
51.2211	Health Services Administration
51.2213	Patient Safety & Healthcare Quality
51.2214	Public Health Genetics
51.2299	Public Health, Other
51.2311	Kinesiotherapy/Kinesiotherapist

CIP Code	CIP Title
51.2706	Medical Informatics
51.2799	Medical Illustration & Informatics, Other
51.3203	Nursing Education
51.3206	Arts in Medicine/Health
51.3299	Health Professions Education, Ethics & Humanities, Other
51.3801	Registered Nursing/Registered Nurse
51.3802	Nursing Administration
51.3803	Adult Health Nurse/Nursing
51.3805	Family Practice Nurse/Nursing
51.3806	Maternal/Child Health & Neonatal Nurse/Nursing
51.3808	Nursing Science
51.3809	Pediatric Nurse/Nursing
51.3810	Psychiatric/Mental Health Nurse/Nursing
51.3811	Public Health/Community Nurse/Nursing
51.3812	Perioperative/Operating Room & Surgical Nurse/ Nursing
51.3813	Clinical Nurse Specialist
51.3814	Critical Care Nursing
51.3815	Occupational & Environmental Health Nursing
51.3816	Emergency Room/Trauma Nursing
51.3817	Nursing Education
51.3818	Nursing Practice
51.3819	Palliative Care Nursing
51.3820	Clinical Nurse Leader
51.3821	Geriatric Nurse/Nursing
51.3822	Women's Health Nurse/Nursing
51.3824	Forensic Nursing
51.3899	Registered Nursing, Nursing Administration, Nursing Research & Clinical Nursing, Other
52.0101	Business/Commerce, General
52.0201	Business Administration & Management, General
52.0202	Purchasing, Procurement/Acquisitions & Contracts Management
52.0203	Logistics, Materials & Supply Chain Management
52.0204	Office Management & Supervision
52.0205	Operations Management & Supervision
52.0206	Non-Profit/Public/Organizational Management
52.0208	E-Commerce/Electronic Commerce
52.0210	Research & Development Management
52.0211	Project Management
52.0212	Retail Management
52.0213	Organizational Leadership
52.0214	Research Administration
52.0215	Risk Management
52.0216	Science/Technology Management
52.0299	Business Administration, Management & Operations, Other
52.0301	Accounting
52.0303	Auditing

CIP Code	CIP Title
52.0304	Accounting & Finance
52.0305	Accounting & Business/Management
52.0399	Accounting & Related Services, Other
52.0601	Business/Managerial Economics
52.0701	Entrepreneurship/Entrepreneurial Studies
52.0703	Small Business Administration/Management
52.0704	Social Entrepreneurship
52.0799	Entrepreneurial & Small Business Operations, Other
52.0801	Finance, General
52.0803	Banking & Financial Support Services
52.0804	Financial Planning & Services
52.0806	International Finance
52.0807	Investments & Securities
52.0808	Public Finance
52.0809	Credit Management
52.0810	Financial Risk Management
52.0899	Finance & Financial Management Services, Other
52.1001	Human Resources Management/Personnel Administration, General
52.1002	Labor & Industrial Relations
52.1003	Organizational Behavior Studies
52.1004	Labor Studies
52.1005	Human Resources Development
52.1006	Executive/Career Coaching
52.1099	Human Resources Management & Services, Other
52.1101	International Business/Trade/Commerce
52.1201	Management Information Systems, General
52.1206	Information Resources Management
52.1207	Knowledge Management

CIP Code	CIP Title		
52.1299	Management Information Systems & Services, Other		
52.1301	Management Science		
52.1302	Business Statistics		
52.1304	Actuarial Science		
52.1399	Management Sciences & Quantitative Methods, Other		
52.1401	Marketing/Marketing Management, General		
52.1701	Insurance		
52.1801	Sales, Distribution & Marketing Operations, General		
52.1802	Merchandising & Buying Operations		
52.1804	Selling Skills & Sales Operations		
52.1899	General Merchandising, Sales & Related Marketing Operations, Other		
52.1902	Fashion Merchandising		
52.1904	Apparel & Accessories Marketing Operations		
52.1905	Tourism & Travel Services Marketing Operations		
52.1906	Tourism Promotion Operations		
52.1907	Vehicle & Vehicle Parts & Accessories Marketing Operations		
52.1908	Business & Personal/Financial Services Marketing Operations		
52.1909	Special Products Marketing Operations		
52.1910	Hospitality & Recreation Marketing Operations		
52.1999	Specialized Merchandising, Sales & Related Marketing Operations, Other		
52.2001	Construction Management, General		
52.2002	Construction Project Management		
52.2099	Construction Management, Other		
52.2101	Telecommunications Management		
54.0101	History, General		
54.0102	American History (United States)		

# Thaddeus Stevens College of Technology CIP Code List

CIP Code	CIP Title		
04.0901	Architectural Technology/Technician		
10.0305	Graphic and Printing Equipment Operator, General Production		
14.0903	Computer Software Engineering		
14.4201	Mechatronics, Robotics, and Automation Engineering		
15.0201	Civil Engineering Technologies/Technicians		
15.0506	Water Quality and Wastewater Treatment Management and Recycling Technology/ Technician		
15.0805	Mechanical Engineering/Mechanical Technology/ Technician		
15.1302	CAD/CADD Drafting and/or Design Technology/ Technician		
46.0101	Mason/Masonry		
46.0201	Carpentry/Carpenter		
46.0415	Building Construction Technology/Technician		

CIP Code	CIP Title		
46.0503	Plumbing Technology/Plumber		
47.0101	Electrical/Electronics Equipment Installation and Repair		
47.0105	Industrial Electronics Technology/Technician		
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology		
47.0603	Autobody/Collision and Repair Technology/ Technician		
47.0604	Automobile/Automotive Mechanics Technology/ Technician		
47.0605	Diesel Mechanics Technology/Technician		
48.0501	Machine Tool Technology/Machinist		
48.0508	Welding Technology/Welder		
48.0511	Metal Fabricator		
48.0703	Cabinetmaking and Millwork		
52.0299	Business Administration, Management & Operations, Other		

## Pennsylvania College of Technology Code List

CIP Code CIP Title				
01.0605	Landscaping and Groundskeeping			
03.0511	Forest Technology/Technician			
04.0201	Architecture			
04.0901	Architectural Technology/Technician			
04.0902	Architectural and Building Sciences/Technology			
11.0101	Computer & Information Sciences, General			
11.0804	Modeling, Virtual Environments & Simulation			
11.0901	Computer Systems Networking & Telecommunications			
11.1003	Computer & Information Systems Security/ Information Assurance			
11.1006	Computer Support Specialist			
12.0501	Baking and Pastry Arts/Baker/Pastry Chef			
12.0503	Culinary Arts/Chef Training			
14.0801	Civil Engineering, General			
14.3201	Polymer/Plastics Engineering			
15.0406	Automation Engineer Technology/Technician			
15.0407	Mechatronics, Robotics, and Automation Engineering Technology/Technician			
15.0499	Electromechanical Technologies/Technicians, Other			
15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician			
15.0607	Plastics and Polymer Engineering Technology/ Technician			
15.0613	Manufacturing Engineering Technology/ Technician			
15.0614	Welding Engineering Technology/Technician			
15.0702	Quality Control Technology/Technician			
15.0801	Aeronautical/Aerospace Engineering Technology/ Technician			
15.0803	Automotive Engineering Technology/ Technician			
15.1201	Computer Engineering Technology/ Technician			
15.1301	Drafting and Design Technology/Technician, General			
15.1302	CAD/CADD Drafting and/or Design Technology/Technician			
26.0102	Biomedical Sciences, General			
31.0599	Sports, Kinesiology and Physical Education/ Fitness, Other			
43.0103	Criminal Justice/Law Enforcement Administration			
43.0302	Crisis/Emergency/Disaster Management			
46.0302	Electrician			
46.0402	Concrete Finishing/Concrete Finisher			
46.0412	Building/Construction Site Management/ Manager			
46.0415	Building Construction Technology/Technician			
-0.0413	Danama Construction Technology/ Technician			

CIP Code	CIP Title			
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology			
47.0302	Heavy Equipment Maintenance Technology/ Technician			
47.0603	Autobody/Collision and Repair Technology/ Technician			
47.0604	Automobile/Automotive Mechanics Technology/Technician			
47.0605	Diesel Mechanics Technology/Technician			
47.0608	Aircraft Powerplant Technology/Technician			
48.0501	Machine Tool Technology/Machinist			
48.0508	Welding Technology/Welder			
48.0511	Metal Fabricator			
49.0202	Construction/Heavy Equipment/ Earthmoving Equipment Operation			
50.0402	Commercial & Advertising Art			
50.0404	Industrial & Product Design			
50.0409	Graphic Design			
51.0602	Dental Hygiene/Hygienist			
51.0701	Health/Health Care Administration/ Management			
51.0799	Health & Medical Administrative Services, Other			
51.0806	Physical Therapy Assistant			
51.0909	Surgical Technology/Technologist			
51.0911	Radiologic Technology/Science - Radiographer			
51.0912	Physician Assistant			
51.1101	Pre-Dentistry Studies			
51.1105	Pre-Nursing Studies			
51.1199	Health/Medical Preparatory Programs, Other			
51.2308	Physical Therapy/Therapist			
51.3801	Registered Nursing/Registered Nurse			
51.3803	Adult Health Nurse/Nursing			
52.0201	Business Administration & Management, General			
52.0301	Accounting			
52.0302	Accounting Technology/Technician and Bookkeeping			
52.1907	Vehicle & Vehicle Parts & Accessories Marketing Operations			
52.2001	Construction Management, General			

# In-Demand Occupations Codes Grow PA Grant Program & Grow PA Waiver Program



Below are code lists for the Grow PA Scholarship Grant (Grow PA Grant) Program and the Grow PA Tuition Waiver (Grow PA Waiver) Program. After completing their eligible program of study, a Grow PA recipient must obtain employment in one of these in-demand occupations to meet the program's work requirement.

SOC Code	SOC Title		
11-1021	General & Operations Managers		
11-2021	Marketing Managers		
11-2022	Sales Managers		
11-3021	Computer & Information Systems Managers		
11-3031	Financial Managers		
11-9013	Farmers, Ranchers & Other Agricultural Managers		
11-9021	Construction Managers		
11-9051	Food Service Managers		
11-9111	Medical & Health Services Managers		
13-1020	Buyers & Purchasing Agents		
13-1021	Buyers & Purchasing Agents, Farm Products		
13-1022	Wholesale & Retail Buyers, Except Farm Products		
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products		
13-1031	Claims Adjusters, Examiners & Investigators		
13-1041	Compliance Officers		
13-1051	Cost Estimators		
13-1071	Human Resources Specialists		
13-1081	Logisticians		
13-1082	Project Management Specialists		
13-1111	Management Analysts		
13-1151	Training & Development Specialists		
13-1161	Market Research Analysts & Marketing Specialists		
13-2011	Accountants & Auditors		
13-2051	Financial & Investment Analysts		
13-2052	Personal Financial Advisors		
13-2061	Financial Examiners		
13-2072	Loan Officers		
15-1211	Computer Systems Analysts		
15-1212	Information Security Analysts		
15-1232	Computer User Support Specialists		
15-1252	Software Developers		
15-1253	Software Quality Assurance Analysts & Testers		
15-1254	Web Developers		
15-1255	Web & Digital Interface Designers		
15-2011	Actuaries		
15-2031	Operations Research Analysts		
15-2041	Statisticians		

SOC Code	SOC Title	
15-2051	Data Scientists	
17-2051	Civil Engineers	
17-2112	Industrial Engineers	
17-2141	Mechanical Engineers	
19-5011	Occupational Health & Safety Specialists	
21-1011	Substance Abuse & Behavioral Disorder Counselors	
21-1014	Mental Health Counselors	
21-1018	Substance Abuse, Behavioral Disorder & Mental Health Counselors	
21-1021	Child, Family & School Social Workers	
21-2011	Clergy	
21-2021	Directors, Religious Activities & Education	
23-1011	Lawyers	
23-2011	Paralegals & Legal Assistants	
25-1071	Health Specialties Teachers, Postsecondary	
25-1072	Nursing Instructors & Teachers, Postsecondary	
25-2011	Preschool Teachers	
25-2021	Elementary School Teachers	
25-2022	Middle School Teachers	
25-2023	Career/Technical Education Teachers, Middle School	
25-2031	Secondary School Teachers	
25-2032	Career/Technical Education Teachers, Secondary School	
25-2051	Special Education Teachers, Preschool	
25-2052	Special Education Teachers, Kindergarten & Elementary School	
25-2055	Special Education Teachers, Kindergarten	
25-2056	Special Education Teachers, Elementary School	
25-2057	Special Education Teachers, Middle School	
25-2058	Special Education Teachers, Secondary School	
27-1024	Graphic Designers	
27-2021	Athletes & Sports Competitors	
29-1071	Physician Assistants	
29-1122	Occupational Therapists	
29-1123	Physical Therapists	
29-1126	Respiratory Therapists	
29-1127	Speech-Language Pathologists	

SOC Code	SOC Title		
29-1128	Exercise Physiologists		
29-1131	Veterinarians		
29-1141	Registered Nurses		
29-1171	Nurse Practitioners		
29-2010	Clinical Laboratory Technologists and Technicians		
29-2011	Medical and Clinical Laboratory Technologists		
29-2012	Medical and Clinical Laboratory Technicians		
29-2032	Diagnostic Medical Sonographers		
29-2056	Veterinary Technologists & Technicians		
29-2061	Licensed Practical & Licensed Vocational Nurses		
29-9021	Health Information Technologists & Medical Registrars		
29-9091	Athletic Trainers		
31-2011	Occupational Therapy Assistants		
31-2021	Physical Therapist Assistants		
33-3012	Correctional Officers & Jailers		
33-3051	Police & Sheriff's Patrol Officers		
41-1012	Supervisors - Non-Retail Sales Workers		
41-3021	Insurance Sales Agents		
41-3031	Securities, Commodities & Financial Services Sales Agents		
41-3091	Sales Representatives - Services		
41-4011	Sales Representatives, Technical & Scientific Products		
41-4012	Sales Representatives		
41-9022	Real Estate Sales Agents		

SOC Code	SOC Title		
43-1011	Supervisors—Office & Administrative Support Workers		
43-4061	Eligibility Interviewers, Government Programs		
43-5061	Production, Planning & Expediting Clerks		
43-6011	Executive Secretaries & Administrative Assistants		
47-1011	Supervisors—Construction & Extraction Workers		
47-2031	Carpenters		
47-2073	Operating Engineers		
47-2111	Electricians		
47-2141	Painters, Construction & Maintenance		
47-2152	Plumbers, Pipefitters & Steamfitters		
47-4051	Highway Maintenance Workers		
49-1011	Supervisors - Mechanics, Installers & Repairers		
49-3023	Automotive Service Technicians & Mechanics		
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers		
49-9041	Industrial Machinery Mechanics		
49-9062	Medical Equipment Repairers		
51-1011	Supervisors—Production & Operating Workers		
51-4041	Machinists		
51-4121	Welders, Cutters, Solderers & Brazers		
51-9161	CNC Tool Operators		
51-9162	CNC Tool Programmers		
53-1047	Supervisors—Transportation & Material Moving Workers		
53-3032	Heavy & Tractor-Trailer Truck Drivers		

# Low Matriculation High Schools

	County	School District	Less than 30% college going rate	% College Going
1	Schuylkill	Gillingham Charter School	Gillingham Charter School	0%
2	Allegheny	Pittsburgh SD	Pittsburgh Conroy	0%
3	Allegheny	Pittsburgh SD	Pittsburgh Pioneer	0%
4	Dauphin	Lower Dauphin SD	Price	0%
5	York	Crispus Attucks CS	Crispus Attucks Charter School	2%
6	Huntingdon	New Day CS	New Day Charter School	3%
7	Mercer	Keystone Education Center CS	Keystone Education Ctr Charter School	5%
8	Allegheny	Pittsburgh SD	Pittsburgh Oliver	9%
9	Philadelphia	Philadelphia City SD	Widener Memorial HIGH SCHOOL	9%
10	Jefferson	Jefferson County-DuBois AVTS	Jefferson County-DuBois AVTS	10%
11	Philadelphia	Philadelphia City SD	Philadelphia Learning Academy - North	11%
12	Beaver	Midland Innovation & Technology CS	Midland Innovation & Technology Charter School	12%
13	Allegheny	Spectrum CS	Spectrum Charter School	12%
14	Allegheny	Pittsburgh SD	Pittsburgh Online Academy	13%
15	Fayette	Connellsville Area Career & Technical Center	Connellsville Area Career & Technical Center	14%
16	Lancaster	Lancaster SD	Phoenix Academy	14%
17	Dauphin	Harrisburg City SD	Harrisburg High School	14%
18	Columbia	Columbia-Montour AVTS	Columbia-Montour AVTS	15%
19	Delaware	Chester-Upland SD	Chester High School	15%
20	Philadelphia	Philadelphia City SD	Randolph A. Philip AVT High School	16%
21	Philadelphia	ASPIRA Bilingual Cyber CS	ASPIRA Bilingual Cyber Charter	16%
22	Dauphin	Harrisburg City SD	Cougar Academy	16%
23	Philadelphia	Philadelphia City SD	Philadelphia Learning Academy - West	16%
24	Allegheny	Passport Academy CS	Passport Academy Charter School	17%
25	Philadelphia	Youth Build Phila CS	Youth Build Phila Charter School	18%
26	Cambria	Greater Johnstown SD	Greater Johnstown School District's Cyber Academy	18%
27	Erie	Erie City SD	Erie high school	19%
28	Philadelphia	Philadelphia City SD	Edison-Fareira High School	19%

29	Erie	Perseus House CS of	Perseus House Charter School of	19%
20	Dhile delmhie	Excellence	Excellence	20%
30	Philadelphia	Mastery CS-Gratz Campus	Simon Gratz High School-Mastery Charter	
31	Philadelphia	Philadelphia City SD	Strawberry Mansion High School	20%
32	Chester	Insight PA Cyber CS	Insight PA Cyber Charter School	21%
33	Allegheny	The New Academy CS	The New Academy Charter School	21%
34	Montgomery	Norristown Area SD	Roosevelt Campus of the Norristown Area High School	21%
35	Montgomery	Agora Cyber CS	Agora Cyber Charter School	21%
36	Potter	Northern Potter SD	Northern Potter Jr-Sr High School	23%
37	Chester	Achievement House CS	Achievement House Cyber Chart	23%
38	Philadelphia	Philadelphia City SD	Martin Luther King High School	23%
39	Westmoreland	Dr Robert Ketterer CS Inc	Dr Robert Ketterer Charter School Inc	24%
40	Dauphin	Commonwealth Charter Academy CS	Commonwealth Charter Academy	24%
41	Clearfield	Harmony Area SD	Harmony High School	24%
42	Bucks	Center for Student Learning	Center for Student Lrng Charter	24%
		CS at Pennsbury	School Pennsbury	
43	Philadelphia	Philadelphia City SD	Mastbaum Area Vo-Tech School	24%
44	Dauphin	Reach Cyber CS	Reach Cyber Charter School	25%
45	Philadelphia	Esperanza Cyber CS	Esperanza Cyber Charter School	25%
46	Lawrence	Lawrence County CTC	Lawrence County CTC	25%
47	Blair	Central PA Digital Learning Foundation CS	Central PA Digital Lrng Fndtn	26%
48	Somerset	Shade-Central City SD	Shade High School	26%
49	Armstrong	Lenape Tech	Lenape Technical School	26%
50	Lancaster	La Academia Partnership CS	La Academia Partnership Charter School	26%
51	Northumberland	Milton Area SD	Milton High School	26%
52	Philadelphia	Philadelphia City SD	Philadelphia Virtual Academy	27%
53	Beaver	New Brighton Area SD	New Brighton Area Senior High School	27%
54	Somerset	Turkeyfoot Valley Area SD	Turkeyfoot Valley Area High School	27%
55	Allegheny	Pennsylvania Distance Learning CS	Pennsylvania Distance Learning	28%
56	Lebanon	Lebanon SD	Lebanon High School	28%
57	Philadelphia	Philadelphia City SD	Kensington Creative & Performing Arts High School	28%
58	Philadelphia	Philadelphia City SD	Roxborough High School	29%
59	Philadelphia	Philadelphia City SD	Overbrook High School	29%
60	York	York Co School of Technology	York County Sch of Technology	30%

61	Cambria	Greater Johnstown SD	Greater Johnstown High School	30%
62	York	York City SD	William Penn High School	30%
63	Washington	Avella Area SD	Avella Area Junior-Senior High School	31%
64	Crawford	Penncrest SD	Maplewood High School	31%
65	Beaver	Pennsylvania Cyber CS	Pennsylvania Cyber Charter Sch	31%
66	Allegheny	Urban Pathways 6-12 CS	Urban Pathways 6-12 Charter Sc	31%
67	Philadelphia	Philadelphia City SD	John Bartram High School	31%
68	Warren	Warren County SD	Youngsville Middle-Senior High School	31%
69	Philadelphia	Philadelphia City SD	WILLIAM L SAYRE HIGH SCHOOL	31%
70	Dauphin	Steelton-Highspire SD	Steelton-Highspire Jr-Sr Hs	31%
71	Philadelphia	Philadelphia City SD	Benjamin Franklin High School	31%
72	Carbon	Carbon Career & Technical Institute	Carbon Career Technical Inst	32%
73	Forest	Forest Area SD	West Forest High School	32%
74	Clarion	Clarion-Limestone Area SD	Clarion-Limestone Area High School	32%
75	Dauphin	Dauphin County Technical School	Dauphin County Technical Sch	32%
76	Philadelphia	Philadelphia City SD	Frankford High School	32%
77	Schuylkill	Shenandoah Valley SD	Shenandoah Valley High School	32%
78	Philadelphia	Philadelphia City SD	Dobbins AVT HS	32%
79	Washington	Bethlehem-Center SD	Bethlehem Center High School	32%
80	Juniata	Juniata County SD	Juniata High School	32%
81	Luzerne	West Side CTC	West Side Career & Tech Center	32%
82	Venango	Oil City Area SD	Oil City Area Senior High School	33%
83	Crawford	Penncrest SD	Saegertown High School	33%
84	Philadelphia	Philadelphia City SD	Penn Treaty High School	33%
85	Lancaster	Pequea Valley SD	Pequea Valley High School	33%
86	Fayette	Albert Gallatin Area SD	Albert Gallatin Area Senior High School	33%
87	Potter	Austin Area SD	Austin Area Junior-Senior High	33%
88	Forest	Forest Area SD	East Forest High School	33%
89	Bucks	Morrisville Borough SD	Morrisville High School	33%
90	Philadelphia	Philadelphia City SD	Samuel Fels High School	33%
91	Philadelphia	Philadelphia Electrical & Tech CHS	Philadelphia Elec/Tech Chtr High School	33%
92	Bradford	Northeast Bradford SD	Northeast Bradford Jr-Sr High School	34%
93	Beaver	Rochester Area SD	Rochester area High School	34%
94	Lancaster	Columbia Borough SD	Columbia High School	34%
95	Montgomery	Pennsylvania Virtual CS	Pennsylvania Virtual Charter	34%

96	Allegheny	South Allegheny SD	South Allegheny High School	34%
97	Clarion	Union SD	Union High School	34%
98	Allegheny	Pittsburgh SD	University Prep 6-12 Milliones	34%
99	Mercer	Farrell Area SD	Farrell Area High School	34%
100	Venango	Valley Grove SD	Rocky Grove High School	34%
101	Northumberland	Warrior Run SD	Warrior Run High School	34%
102	Lehigh	Allentown City SD	William Allen High School	35%
103	Tioga	Northern Tioga SD	Williamson Junior-Senior High School	35%
104	Philadelphia	Universal Audenried CS	Universal Audenried Charter High School	35%
105	Clinton	Sugar Valley Rural CS	Sugar Valley Rural Charter Sch	35%
106	Beaver	Aliquippa SD	Aliquippa High School	35%
107	Schuylkill	Williams Valley SD	Williams Valley Jr-Sr High School	35%
108	Philadelphia	Philadelphia City SD	South Philadelphia High School	35%
109	Mifflin	Mifflin County SD	Mifflin County High School	36%
110	Beaver	Big Beaver Falls Area SD	Beaver Falls senior High School	36%
111	Huntingdon	Southern Huntingdon County SD	Southern Huntingdon Co H/M Sch	36%
112	Adams	Bermudian Springs SD	Bermudian Springs High School	36%
113	Greene	West Greene SD	West Greene High School	36%
114	Philadelphia	Philadelphia City SD	high School of the Future	36%
115	Philadelphia	Philadelphia City SD	The U School: Innovative Lab	36%
116	Franklin	Tuscarora SD	James Buchanan High School	36%
117	Philadelphia	Philadelphia City SD	Kensington High School	36%
118	McKean	Port Allegany SD	Port Allegany Junior-Senior High School	37%
119	Philadelphia	Philadelphia City SD	Olney High School	37%
120	Crawford	Conneaut SD	Conneaut Area Senior High Schl	37%
121	Erie	Union City Area SD	Union City Area High School	37%
122	Clearfield	DuBois Area SD	DuBois Area High School	37%
123	Washington	Washington SD	Washington High School	37%
124	Warren	Warren County SD	Sheffield Area Middle High School	37%
125	Indiana	River Valley SD	River Valley High School	37%
126	Bradford	Towanda Area SD	Towanda Junior Senior High Sch	37%
127	Westmoreland	Jeannette City SD	Jeannette Junior Senior High School	37%
128	Philadelphia	Philadelphia City SD	Philadelphia Military Academy	37%
129	Fayette	Brownsville Area SD	Brownsville Area Senior High School	37%
130	Bedford	Everett Area SD	Everett Area High School	38%
131	McKean	Otto-Eldred SD	Otto-Eldred High School	38%
132	Chester	21st Century Cyber CS	21st Century Cyber Charter School	38%

133	Warren	Tidioute Community CS	Tidioute Community Charter sch	38%
134	Lebanon	Northern Lebanon SD	Northern Lebanon High School	38%
135	Clearfield	Moshannon Valley SD	Moshannon Valley High School	38%
136	Bedford	Bedford Area SD	Bedford High School	38%
137	Perry	Susquenita SD	Susquenita High School	38%
138	Blair	Claysburg-Kimmel SD	Claysburg-Kimmel High School	38%
139	Clearfield	West Branch Area SD	West Branch Area High School	38%
140	Lancaster	Solanco SD	Solanco High School	38%
141	Union	Mifflinburg Area SD	Mifflinburg Area High School	38%
142	Greene	Southeastern Greene SD	Mapletown Junior-senior High School	38%
143	Indiana	Purchase Line SD	Purchase Line junior-senior High School	38%
144	Washington	Bentworth SD	Bentworth Senior High School	39%
145	Mercer	Lakeview SD	Lakeview High School	39%
146	Somerset	North Star SD	North Star High School	39%
147	Erie	Corry Area SD	Corry Area High School	39%
148	Greene	Central Greene SD	Waynesburg Central High School	39%
149	Erie	Wattsburg Area SD	Seneca High School	39%
150	Franklin	Chambersburg Area SD	Chambersburg Career Magnet Sch	39%
151	Somerset	Meyersdale Area SD	Meyersdale Area High School	39%
152	Tioga	Northern Tioga SD	Cowanesque Valley High School	39%
153	Huntingdon	Mount Union Area SD	Mount Union Area High School	40%
154	Franklin	Chambersburg Area SD	Chambersburg Area Senior High School	40%
155	Erie	Iroquois SD	Iroquois Junior-Senior High School	40%
156	Philadelphia	Philadelphia City SD	Vaux Big Picture high School	40%
157	Venango	Titusville Area SD	Titusville Senior High School	40%
158	Schuylkill	Pine Grove Area SD	Pine Grove Area High School	40%
159	York	Dover Area SD	Dover Area High School	40%
160	Lehigh	Allentown City SD	Louis E Dieruff High School	40%
161	Perry	West Perry SD	West Perry High School	40%
162	Mercer	Commodore Perry SD	Commodore Perry High School	40%
163	Franklin	Waynesboro Area SD	Waynesboro Area Senior High School	40%
164	Erie	Fort LeBoeuf SD	Fort LeBoeuf Senior High School	40%
165	Venango	Franklin Area SD	Franklin Area Sr High School	40%
166	Berks	Reading SD	Reading High School	40%
167	Bradford	Wyalusing Area SD	Wyalusing Valley Jr-Sr High School	40%
168	Washington	McGuffey SD	McGuffey High School	40%
169	Philadelphia	Philadelphia City SD	Linc - Learning In New Context	40%
170	Clarion	Redbank Valley SD	Redbank Valley Jr-Sr High School	40%

171	Dauphin	Upper Dauphin Area SD	Upper Dauphin Area High School	40%
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