Best Practices in Performance Based Funding Models

January 2019

In the following report, Hanover provides information about best practices and trends (e.g., challenges, different variations in models) in performance-based funding (PBF) models among higher education institutions. Hanover focuses on states and public institutions that have adopted this type of funding model.

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Recommendations

Based on an analysis of performance-based funding best practices, challenges and trends, Hanover recommends that higher education institutions:

1. **With input from stakeholders, develop a performance-based budget (PBB) that is aligned with the strategic plan and allocates sufficient funds to incentivize change.**

   The PBF formula should reward units who are meeting the institution's strategic goals and priorities (e.g., increasing student credit hours); the reward should be significant enough to gain the attention, shape priorities, and shape the actions of faculty, staff, and leadership.

2. **Plan and test the formula-based PBB in advance of the official roll-out.**

   Sources suggest a year adjustment period, during which the current funding structure is maintained and the institution collects data from/provides reports to units about how their future spending would hypothetically be impacted under the new model. Use mixed methods to collect and assess performance progress and outcomes in the planning and implementation process.

Key Findings: Introduction

Performance-based budgeting (PBB) or performance-based funding (PBF) allocates funds based on performance metrics.

These funding models allocate funds via: Output-based formulas (i.e., incorporating performance metrics into the institution's funding formula); performance set-asides (i.e., setting aside a percentage of the institution's budget for PBF, for which institutional units then compete); and performance contracts (i.e., custom agreements between senior administration and individual units through which funding is guaranteed if the unit meets specified goals). PBB models are common across four-year institutions within state public higher education systems. Nearly all state formulas ensure that their model reflects institutional missions. Further, most states utilize formula-driven models as opposed to targets, whereby institutions must meet certain thresholds to receive PBFs.

Key Findings: Best Practices

✓ **Align performance metrics with strategic goals.**

Any allocation formula should be directly tied to goals outlined in the institution's strategic plan and its core priorities. In other words, the PBF formula should measure how and reward units who are meeting the institution's strategic goals and priorities.

✓ **Gain support from and involve key stakeholders early on in the process.**

Early involvement of key stakeholders in the planning process is key to the successful development and implementation of a PBB plan. Key stakeholders may include board members, faculty/staff, business partners, and students. In addition to providing vital buy-in for the new plan, these stakeholders can provide important insights regarding whether performance metrics and goals area realistic and attainable.

✓ **Consider department-specific objectives and capabilities.**

Carefully consider department-specific goals and resources. For example, a formula that prioritizes STEM initiatives may place humanities departments at a disadvantage. Additionally, non-instructional units, which generate less revenue than instructional units, which may require different metrics for success. For example, an institution may choose to use qualitative data, such as assessing services through student surveys, to ascertain funding allocation through PBB.

✓ **Ensure adequate PB funding to create incentives that are strong enough to change institutional behavior over time.**

Generally, models that allocate performance money from the base budget, as opposed to creating supplemental funding, are more likely to result in stronger incentives. Additionally, the share of institution-wide funding must be significant enough to gain the attention, shape priorities, and shape the actions of faculty, staff, and leadership in ways that align with the institution's goals and priorities. Finally, these funds should be recurring to promote sustainability as oftentimes supplemental PB funding is the first thing to that institutions reduce or eliminate during tight budget climates and that positive results take multiple years (e.g., seven or more) to materialize.

Key Findings: Best Practices

✓ **To that end, institutions should develop formula-driven PBBs.**

Use a formula-driven funding structure instead of pre-set targets and goals. The former utilizes a set of rules for fund distribution, such as awarding a larger share of PBF to high-performing departments, while the latter requires that units meet pre-set targets or goals, which are difficult to appropriately set given shifting goals, resources, and future circumstances for individual units. Additionally, units may not be incentivized towards continuous improvement if the goal is met.

✓ **Use mixed methods to collect and assess performance progress and outcomes.**

Develop and identify metrics that units can easily report and administrators can clearly measure. Institutions should avoid metrics that are ambiguous, easy to distort, or may be inconsistently reported by units. Metrics should measure both progress and completion, as focusing solely on completion of performance goals can create unfair and inflexible targets for units with varying capabilities or that serve larger proportions of at-risk students.

✓ **Allow for adjustment and reflection periods.**

Institutions should allow for adjustment and reflection periods as well as provide short-term rewards during PBB planning and implementation. Sources suggest a year of adjustment during which the institution maintains its current funding structure, but collects data from, and provides reports to, individual units about how their future spending would hypothetically be impacted under the new PBF formula. Institutions may also choose to gradually phase in the PBF model while subjecting the formula to frequent evaluation and making adjustments as needed.

✓ **Plan for unintended consequences.**

Address unintended consequences that may result from poor planning, convoluted metrics, unforeseen circumstances, and other issues. Examples include disadvantaging units with strong non-traditional and underrepresented student populations, as well as incentivizing units to make admissions criteria more selective to meet graduation outcomes or other targets

Spotlight: State University System of Florida

Institutions receive a portion of PBF from SUS based on excellence points (1-10) and percentage improvement in 10 areas.

1. Percent of Bachelor's Graduates Employed ($25,000+) and/or Continuing their Education Further 1 Yr after Graduation
2. Median Wages of Bachelor's Graduates Employed Full-time One Year After Graduation
3. Net Tuition & Fees per 120 Credit Hours
4. Four Year Graduation Rate Full-time FTIC
5. Academic Progress Rate 2nd Year Retention with GPA Above 2.0
6. Bachelor's Degree's Awarded in Areas of Strategic Emphasis (includes STEM)
7. University Access Rate Percent of Undergraduates with a Pell-grant
8. Graduate Degrees Awarded in Areas of Strategic Emphasis (includes STEM)
9. Percent of Bachelor's Degrees without Excess Hours
10. Board of Trustees Choice

Spotlight: Ohio Department of Higher Education

Institutions receive a portion of PBF from DHE based on performance in three areas, with an emphasis on at-risk students.

30%	50%	20%*
Course Completions (aka Completed FTE)	**Degree Completion**	**Set-Asides** *if applicable

Overview of Higher Education Funding Models

There are six main types of funding models for institutions of higher education:

- Incremental Budgeting (i.e., budgets are 'rolled-over' on an annual basis)
- Zero-Based Budgets (i.e., spending is cleared and re-justified on an annual basis)
- Activity-Based Budgeting (i.e., awards financial resources based on activities that bring in the most revenue)
- Responsibility Center Management (i.e., units are responsibility for their own expenses)
- Centralized Budgeting (i.e., upper administration is responsible for budgeting decisions)
- Performance-Based Budgeting (PBB, i.e., funding based on performance metrics)

It is important to note that funding models are not mutually exclusive and many institutions employ hybrid approaches that combine features across these models.

PBB models generally rely on performance measures to allocate either incremental revenues or base budgets.

According to the Center for American Progress (CAP), institutions may implement PBB in one of three ways. Output-based funding formulas incorporate performance metrics into the institution's funding formula. These models provide financial incentives for institutional units (e.g., departments, schools, and centers) to reach positive outcomes in particular areas, such as increasing student credit hours (SCH) or reducing attrition rates. CAP notes that "output-based formulas are often weighted to recognize differences in institutional mission and student population" when implemented at the state level.

Performance set-asides, on the other hand, allocate a percentage of the institution's budget for performance-based funding (PBF). Institutional units then compete for shares of that performance funding pool by meeting or exceeding goals, such as surpassing enrollment targets. Finally, performance contracts act as personalized agreements between senior administration and individual units through which a certain level of funding is guaranteed if the unit meets specified goals. For example, an agreement between a school of health sciences and senior administrators may require that the former exceed the prior fiscal years' research activities to receive additional PBF.

Performance-Based Budgeting (PBB) Types

Output-based funding

Performance set-asides

Performance contracts

Performance-Based Budgeting (PBB) Overview

Definition:

PBB funds based on performance, which is determined by a number of defined outcome standards. The most effective performance budgets will show "how dollars fund day-to-day tasks and activities, how these activities are expected to generate certain outputs, and what outcomes should then be the result."

Benefit:

PBB should give an institution a good idea of how money is expected to translate into results. Performance-based systems are often imposed on public systems of education as a result of greater accountability demands. Linking the funding of public institutions to the results they deliver lends an increased level of transparency to expenditures among institutions reliant upon public financial support.

Drawback:

The budget process must include time for the review of performance measures and time for discussion of performance against expectations, and then allocate dollars against those outcomes.

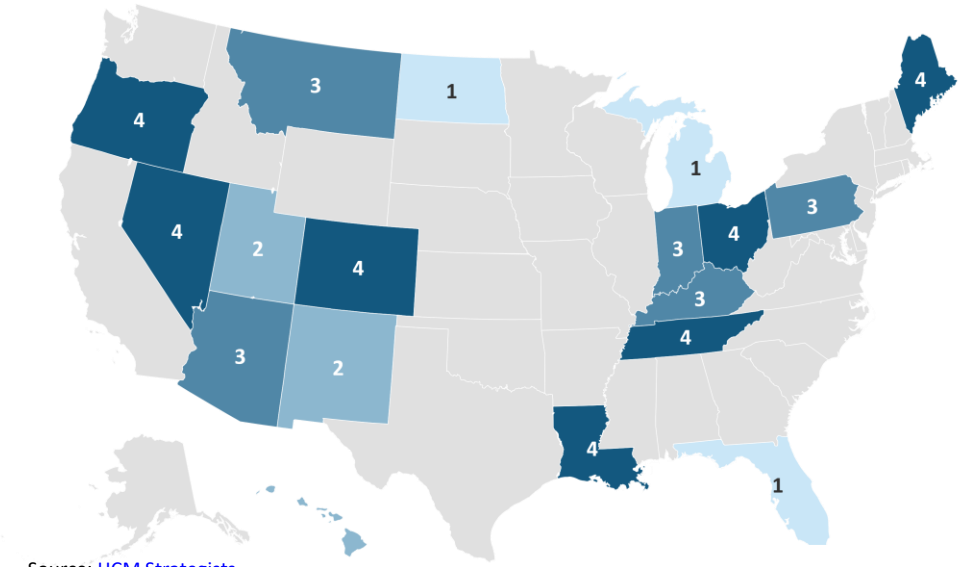
Source: Hanover Research, StrategiSYS

PBB Integration at the State Level

PBB models are common across four-year institutions within state public higher education systems.

Nationally, 18 states use outcomes-based funding (OBF) models for four-year public institutions as of FY2018. Considering funding types listed to the right, 33.4 percent of these 18 states fall under a type 1 (rudimentary) or type 2 funding model, 27.8 percent under a type 3 funding model, and 38.9 percent under a type 4 (robust) funding model. All states (save for ND) ensure that their OBF reflects institutional missions and that underrepresented student success is prioritized (save for FL and ND). Further, most states utilize formula-driven OBF, which "use a structured set of rules to distribute funding… For example, a model may award a certain dollar amount for each additional outcome produced… [ultimately creating] incentives for continuous improvement" according to HCM Strategists, a business management consulting firm. Four states – AZ, FL, HI, and PA – however, use targets, whereby institutions must meet certain thresholds (e.g., student enrollment volume) to receive their PBF. These thresholds are often difficult to ascertain given the vast amount of information about current and future resources as well as unforeseen circumstances.

PBB Typology for Four-Year Institutions by State, FY18



Source: HCM Strategists

Type	Description
I	• State may have completion/attainment goals and related priorities • Model reliant on new funding only • Low level of state funding (under 5%), based on sector analysis • Institutional mission not reflected through varied weights, scaling or metrics • Total, volume-based, degree/credential completion metric not included • Outcomes for underrepresented students not prioritized • Target/recapture approach likely • May not yet have been sustained for two or more consecutive fiscal years
II	• State may have completion/attainment goals and related priorities • Recurring dollars/base funding at least a portion of funding source • Low level of state funding (under 5%), based on sector analysis • Institutional mission not reflected through varied weights, scaling or metrics • Total, volume-based, degree/credential completion metric included • Outcomes for underrepresented students may be prioritized • Target/recapture approach likely • May not yet have been sustained for two or more consecutive fiscal years
III	• State has completion/attainment goals and related priorities • Recurring dollars/base funding at least a portion of funding source • Moderate level of state funding (5-24.9%), based on sector analysis • Institutional mission reflected through varied weights, scaling or metrics • Total, volume-based, degree/credential completion metric included • Outcomes for underrepresented students prioritized • May not be formula-driven • Not sustained for two or more consecutive fiscal years
IV	• State has completion/attainment goals and related priorities • Recurring dollars/base funding at least a portion of funding source • High level of state funding (above 25%), based on sector analysis • Institutional mission reflected through varied weights, scaling or metrics • Total, volume-based, degree/credential completion metric included • Outcomes for underrepresented students prioritized • Formula-driven/provides incentives for continuous improvement • Sustained for two or more consecutive fiscal years

Best Practices

Align performance metrics with the institution's strategic goals.

HCM Strategists, LLC asserts that any PB allocation formula should be directly tied to goals outlined in the institution's strategic plan. Indeed, all financial policies, including PBB plans, should directly parallel institutional priorities and needs. In other words, the PBF formula should measure how and reward units who are meeting overarching strategic goals and priorities.

Gain support from and involve key stakeholders early on in the process.

According to the Center for American Progress (CEP), a public policy research and advocacy organization, higher education leaders agree that early involvement of key stakeholders in the planning process is key to the successful development and implementation of a PBB plan. Key stakeholders may include "board members, legislative offices, institutional leaders, faculty members, businesses, and education organizations" as well as students. In addition to providing vital buy-in for the new plan, these stakeholders can provide important insights regarding whether performance metrics and goals area realistic and attainable.

Consider department-specific objectives and capabilities.

Institutions must carefully consider department-specific goals and resources and define expectations accordingly. For example, a formula that prioritizes STEM initiatives may place humanities departments at a disadvantage, and a formula that emphasizes graduation rates may impede a unit that focuses on non-traditional students and continuing education. Additionally, non-instructional units, which generate less revenue than instructional units, may require different metrics for success. For example, an institution may choose to use qualitative data, such as assessing services through student surveys, to ascertain funding allocation through PBB. The graphic at right how various states have accounted for diverse missions across institutions.

Defining Key Stakeholders

Likely key stakeholders for performance-based funding models

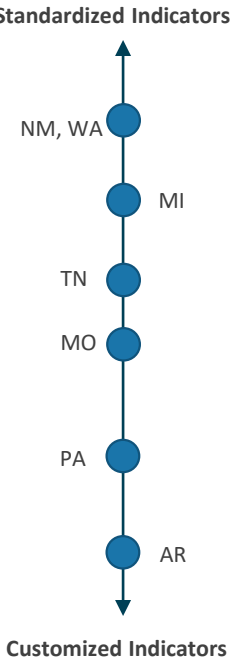
Accounting for Diverse Missions

States that account for diverse missions among PBB for the FY2018

Tennessee
- Every institution assessed on same 10 indicators
- Indicators weighted differently for research vs. access missions

Missouri
- Schools pick one of a set of KPI options for four success indicators
- Define a fifth institution-specific metric

Pennsylvania
- All schools measured on five standard indicators
- Schools define two additional metrics that reflect their mission



Source: EAB

Best Practices

Ensure adequate PBF to create incentives that are strong enough to change institutional behavior over time.

CEP also asserts that PBF "models that allocate performance money from the base budget, as opposed to creating supplemental funding, are more likely to result in stronger incentives." HCM Strategists claims that the share of institution-wide funding must be significant enough to gain the attention, shape priorities, and shape the actions of faculty, staff, and leadership in ways that align with the institution's goals and priorities. At the state-level, PBF from governmental subsidies accounted for approximately 11.5 percent of the revenue earned from tuition and fees per bachelor's degree in Oregon and 12.4 percent in Tennessee, which provides a rough estimate of how much some states appropriate towards PBB. In the next section, Hanover explores the percentage/amount of PBF that select institutions have deemed strong enough to reach their strategic goals and performance objectives.

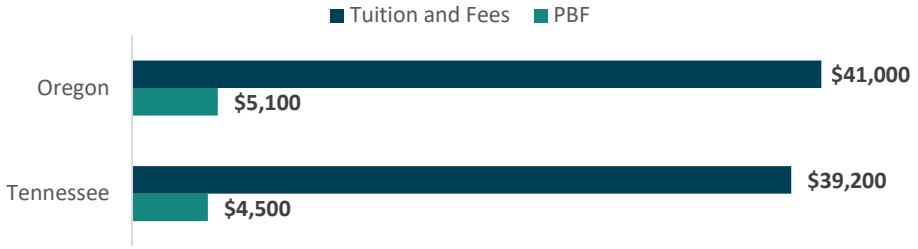
Additionally, these funds should be recurring to promote sustainability as oftentimes supplemental PBF is the first thing that institutions reduce or eliminate during tight budget climates. Studies show that implementation of PBBs show limited results during early years but significant impact on factors such as degree conferral volume when the policies are sustained for multiple years. Per Research for Action (RAP), Indiana's PBB is based on incremental change, where the government allocates a small percentage of institutional funding towards performance, the amount of which will increase as performance metrics are met and exceeded, as happened between FY2016 (5 percent) and FY 2018 (5.2 percent). HCM Strategists states that "this clear commitment and sustainability provides incentives for institutions to focus target strategies that increase outcomes reflected in the formula. These findings indicate that, if given sufficient time for implementation, the more immediate institutional responses to financial incentives translate into longer-term student outcomes."

To that end, institutions should develop formula-driven PBBs.

HCM Strategists suggests using a "formula-driven funding structure instead of pre-set targets and goals." The former utilizes a set of rules for fund distribution, such as awarding a larger share of PBF to high-performing departments, while the latter requires that units meet pre-set targets or goals, which are difficult to appropriately set given shifting goals, resources, and future circumstances for individual units. Additionally, units may not be incentivized towards continuous improvement if the goal is met.

PBF vs. Tuition Revenue per Bachelor's Degree

PBF compared to average state tuition/fee revenue associated with one bachelor's degree as of 2017/2018 in OR and TN



Source: HCM Strategists (tuition/fees from College Board)

Comparison of Formula- and Target-Driven PBF

Comparison of formula-based and target/goal-driven PBF models

Target-Based Approaches

-Often establish benchmarks that don't require units to continuously improve.

-Take a punitive nature that can have dramatic effects on certain institutions.

Formula-Based Models

-Ensures all units can benefit from the funding model.

-Encourages continuous improvement and sustained investments.

"An example of a poorly designed target is the University Access Rate metric in the performance funding model for Florida's universities. The goal for achieving excellence for this metric is set at 30 percent of undergraduates receiving a Pell grant. This does not reward institutions with significantly higher numbers of Pell students, nor does it motivate institutions to continue to expand access to this population."

Source: Adapted from HCM Strategists

Metrics Commonly Used in PBF Models

PBF metrics across state-level funding policies

Metrics	Examples	
Course Completion	• Earned SCH	• Dual-enrollment completers
Progression	• Students reaching earned credit hour benchmarks	• Retain students • Gateway course completions
Completion	• Certificate completers • Degree completers	• Student transfers
Efficiency	• Degrees/certificates per FTE • Graduation/completion rates	• Time to degree • Credits at completion
Workforce	• Non-credit workforce training • Job placement/continuing education	• Licensures/certifications • Apprenticeships • Wages
Research/ Public Service	• Research expenditures	• Public service expenditures
Cost/ Affordability	• Core expense ratio • Faculty:admin salary ratio • Average cost to student	• Tuition and fees as a percent of statewide median family income
Priority Fields	• STEM+H degrees	• High-demand fields
Priority Populations	• Traditionally underserved minorities • Low-income students • Adult students	• First-generation students • Veterans • Academically underprepared students
Other	• Closing freshman access gaps • General education assessment • Licensure/Certification/Major field assessment	• Student/Employer satisfaction surveys • Program accreditation • Other • Faculty diversity

Source: Verbatim from HCM Strategists

Best Practices

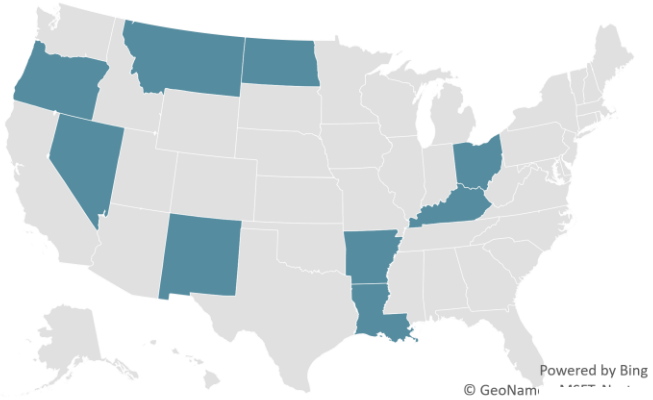
Use mixed methods to collect and assess performance progress and outcomes.

HCM Strategists suggests that at the outset, institutions should identify metrics that units can easily report and administrators can clearly measure. Institutions should avoid any metrics that are ambiguous, easy to distort, or may be inconsistently reported by units. For example, Unit A reported 100 degree completions out of 200 students (55 percent graduation rate), while Unit B reported 50 degree completions out of 52 students (96 percent graduation rate). Any PBF formula should state whether funds will be allocated based on graduation volume, in which case Unit A would receive a greater proportion of funds, or graduation rates, in which Unit B would receive the greater proportion. Further, any PBF policy should limit the number of metrics that it tracks. The figure left provides examples of clear metrics that state-wide PBB policies currently use to determine funding allocations among public institutions.

Finally, CEP advises that institutions "use indicators that measure both progress (course completion, momentum, credit attainment) and completion (degrees conferred, program completion), with an emphasis on progress." Focusing on completion of performance outcomes can create unfair and inflexible targets for units that have varying capabilities or that serve larger proportions of at-risk students.

States Using Course Completion in PBF Metrics

State using course completion, such as earned student credit hours (SCH), in PBF metrics (FY 2018)



Source: HCM Strategists

Best Practices

Allow for adjustment and reflection periods, and plan for unintended consequences.

In the vein of sustainability, sources agree that PBF structures are not a quick fix. To that end, a study of state PBBs shows that most took seven years or longer to achieve a positive effect on student completions. Thus, institutions should allow for adjustment and reflection periods while providing short-term rewards during PBB planning and implementation. CEP suggests a year-long adjustment phase, during which the institution maintains its current funding structure but collects data from, and provides reports to, individual units about how their future spending would hypothetically be impacted under the new PBF formula. Institutions may also choose to gradually phase in the PBF model while subjecting the formula to frequent evaluation and making adjustments as needed. HCM Strategists also recommended rewarding progress and short-term success milestones to encourage progress and ease transition pains.

Institutions should also address unintended consequences that may result from poor planning, convoluted metrics, unforeseen circumstances, and other issues. Examples are listed below.

State PBBs that Prioritize Underrepresented Populations

States that prioritize underrepresented student populations within four-year public institution PBBs (FY 2018)

"Well-developed… models include factors that **promote the success of traditionally underrepresented student populations**, such as minority students, low-income students, adult students and academically underprepared students. These populations are often prioritized in models to counteract the concern that [PBF] may introduce incentives to restrict access, to recognize that underrepresented students may require more resources to educate, and to acknowledge that the success of these populations is needed in order for states to meet state attainment and completion goals and workforce needs. These populations are **most often prioritized through separate metrics or through additional 'bonus points' for existing metrics**."

Low-Income Students	Under-represented Minority Students	Adult Students	Academically Under-represented Students	Veterans	Native Americans /Hawaiians	First-Generation Students	Rural Students
AR	AR	AR	AR	MT	HI	OH	OR
CO	KY	LA	LA	OR	MT		
HI	NV	ME	OH				
IN	OH	MT					
KY	OR	OH					
LA	PA	TN					
MI							
MT							
NV							
NM							
OH							
OR							
TN							
UT							

Source: HCM Strategists

Potential Unintended Consequences

- Disadvantaging units with strong non-traditional and underrepresented student populations
- Incentivizing units to make admissions criteria more selective to meet graduation outcomes or other targets
- Increasing short-term certificates to meet completion or other targets
- Lowering academic standards and expectations, such as reducing required credits to meet SCH goals
- Lowering Academic Quality and Expectations

Source: Third Way, HCM Strategists

PBF in the State University System of Florida

Institutions receive a portion of PBF from SUS based on excellence points (1-10) and percentage improvement in 10 areas. "The amount of the state investment appropriated by the Legislature and Governor for performance funding [is] matched by an amount reallocated from the university system base budget. These "institutional base" funds are the cumulative recurring state appropriations the Legislature has appropriated to each institution."

State Investment Funding Allocation

1. Each university metric is evaluated based on Excellence or Improvement and has ten benchmarks ranging from low to high. The lowest benchmark receives one point, while the highest receives ten points. The higher point value for Excellence or Improvement on each metric are counted in the university's total score.
2. The state investment will be allocated based on points earned, with a maximum of 100 points possible.
3. A university is required to earn more than 50 points in order to be eligible to receive the state investment.
4. A university not meeting the required point threshold or the three lowest scoring universities will not receive any of the state investment.
5. A university that is not one of the three lowest scoring institutions and has earned more than the required point threshold will receive the state investment funds proportional to their existing base funds with the highest scoring universities eligible for additional state investment funds.
6. All ties within the scoring will be broken using the Board's approved tiebreaker procedure.

Institutional Base Funding Allocation

1. A prorated amount will be deducted from each university's base recurring state appropriation.
2. A university earning more than 50 points will have their institutional investment funding restored.
3. A university scoring 50 points or less will have to submit an improvement plan to the Board of Governors and show improvement according to that approved plan in order to have their institutional investment funding restored.

Fast Facts

2012	Planning begins with input from university presidents, provosts, BoTs, and others
2014	PBF model approved by Board of Governors
10	Number of performance metrics for all institutions; two of which are customizable
11	Institutions included in PBF model

Source: Verbatim from State University System of Florida

PBF Performance by Institution 2018/2019

Metric	1	2	3	4	5	6	7	8	9	10	Total
FAMU	7	6	10	5	3	7	10	9	5	10	72
FAU	8	9	10	3	7	10	9	10	8	10	84
FGCU	8	9	7	2	4	10	7	10	8	10	75
FIU	7	9	10	10	10	9	10	9	6	10	90
FSU	7	8	10	10	10	7	6	8	10	10	86
NCF	10	4	10	10	1	10	6	4	10	10	75
UCF	7	9	2	5	7	10	9	10	8	10	77
UF	9	10	8	10	10	10	6	10	10	10	93
UNF	8	8	1	1	4	10	7	9	10	10	68
USF	8	8	6	10	6	10	9	10	9	10	86
UWF	6	8	10	6	7	10	9	10	10	10	86

Source: State University System of Florida

PBF Metrics 2018/2019

Excellence Points	10	9	8	7	6	5	4	3	2	1
Improvement	**5.0%**	**4.5%**	**4.0%**	**3.5%**	**3.0%**	**2.5%**	**2.0%**	**1.5%**	**1.0%**	**0.5%**
Metric	**Target**									
1. Percent of Bachelor's Graduates Employed ($25,000+) and/or Continuing their Education Further 1 Yr after Graduation	72.8%	70.5%	68.3%	66.0%	63.7%	61.4%	59.2%	56.9%	54.6%	52.3%
2. Median Wages of Bachelor's Graduates Employed Full-time One Year After Graduation	$40,700	$38,200	$35,700	$33,200	$30,700	$28,200	$25,700	$23,200	$20,700	$18,200
3. Net Tuition & Fees per 120 Credit Hours	$9,000	$10,000	$11,000	$12,000	$13,000	$14,000	$15,000	$16,000	$17,000	$18,000
4. Four Year Graduation Rate Full-time FTIC	50.0%	48.8%	47.5%	46.3%	45.0%	43.8%	42.5%	41.3%	40.0%	38.8%
5. Academic Progress Rate 2nd Year Retention with GPA Above 2.0	90.0%	88.8%	87.5%	86.3%	85.0%	83.8%	82.5%	81.3%	80.0%	78.8%
6. Bachelor's Degree's Awarded in Areas of Strategic Emphasis (includes STEM)	50.0%	47.5%	45.0%	42.5%	40.0%	37.5%	35.0%	32.5%	30.0%	27.5%
7. University Access Rate Percent of Undergraduates with a Pell-grant	42.0%	38.0%	34.0%	30.0%	26.0%	22.0%	18.0%	14.0%	10.0%	6.0%
8.A. Graduate Degrees Awarded in Areas of Strategic Emphasis (includes STEM)	60.0%	57.5%	55.0%	52.5%	50.0%	47.5%	45.0%	42.5%	40.0%	37.5%
8.B. Freshmen in Top 10% of Graduating High School Class (Alternative metric for NCF only)	50.0%	47.5%	45.0%	42.5%	40.0%	37.5%	35.0%	32.5%	30.0%	27.5%
9 Percent of Bachelor's Degrees without Excess Hours	80.0%	77.5%	75.0%	72.5%	70.0%	67.5%	65.0%	62.5%	60.0%	57.5%
10. Board of Trustees Choice (Only those related to Completion shown)										
10.B. FAU - Bachelor's Degrees Awarded to Minorities	40.0%	38.0%	36.0%	34.0%	32.0%	30.0%	28.0%	26.0%	24.0%	22.0%
10.B. FGCU - Bachelor's Degrees Awarded to Minorities	452	450	448	446	444	442	440	438	436	434
10.B. FIU - Bachelor's Degrees Awarded to Minorities	40.0%	37.5%	35.0%	32.5%	30.0%	27.5%	25.0%	22.5%	20.0%	17.5%
10.D. NCF - Percent of Undergraduate Seniors Participating in a Research Course	100.0%	99.5%	99.0%	98.5%	98.0%	97.5%	97.0%	96.5%	96.0%	95.5%
10.E. UCF - Number of Bachelor's Degrees Awarded Annually	12,300	12,250	12,200	12,150	12,100	12,050	12,000	11,950	11,900	11,850
10.G. UNF - Percent of Undergraduate FTE in Online Courses	13.0%	12.0%	11.0%	10.0%	9.0%	8.0%	7.0%	6.0%	5.0%	4.0%

Source: State University System of Florida

Data Integrity Process

The integrity of data provided to the Board of Governors is critical to the performance-based funding (PBF) decision-making process.

To provide assurance that data submitted for this process is reliable, accurate, and complete, the Board of Governors developed a Data Integrity Certification process in June 2014. University presidents and boards of trustees were directed to task their chief audit executives to perform an audit of university processes which ensure the completeness, accuracy, and timeliness of data submissions to the Board of Governors. Audits are to be conducted in accordance with professional auditing standards and submitted to the Board of Governors for their annual meeting in March.

Additionally, university presidents and boards of trustees are required to execute a Data Integrity Certification affirmatively certifying each representation. The audit results provide a basis of the president's and chair's certification. When the president and board chair cannot make the certification as prepared, a written explanation is required.

Spotlight: Methodology for Metrics #6 and #8

Programs of Strategic Emphasis (PSE) align degree program offerings with the economic development and workforce needs of the State.

The Percentage of Degrees Awarded in Programs of Strategic Emphasis is based on data that universities submit to the Board office as part of the Degrees Awarded table on the Degrees Awarded (SIFD) file submission. Degree data are collected three times a year at the end of each term. The SUDS* data elements used to determine the Percentage of Degrees Awarded in Programs of Strategic Emphasis are:

- Degree Program Category
- Degree Program Fraction of Degree Granted
- Reporting Institution
- Term Degree Granted
- Degree Level Granted
- Major Indicator

Formula:

 # degrees awarded in Programs of Strategic Emphasis / Total degrees in all fields

Spotlight: Methodology for Metrics #4 and #5

In 2011, the Board of Governors included retention and graduation rate metrics in its 2012-2025 System Strategic Plan, and in 2014, the importance of the retention and graduation rate data was further elevated by their inclusion in a new PBF Model. .

Retention and graduation rate data are finalized using the Retention submission. The Board's Office of Data & Analytics (ODA) unit builds the Retention file annually using data from the Admission (ADM), Student Instruction File (SIF) and the Degrees Awarded (SIFD) submissions previously submitted by university Data Administrators. Once Retention has been built, each university Data Administrator reviews the Retention data and works with ODA staff to make edits before university Data Administrators approve and submit the final data to ODA. After universities have approved the Retention submission, the Board's ODA staff calculate the number of students in a cohort (which serves as the denominator) and the number of those same students who are retained or graduated by a specified year (which serves as the numerator). ODA staff then provide the results of the retention and graduation rate data analysis to each university Data Administrator for their review and approval prior to the data being shared with, and approved by, each university Board of Trustee and the Board of Governors as part of the Accountability Plan process.

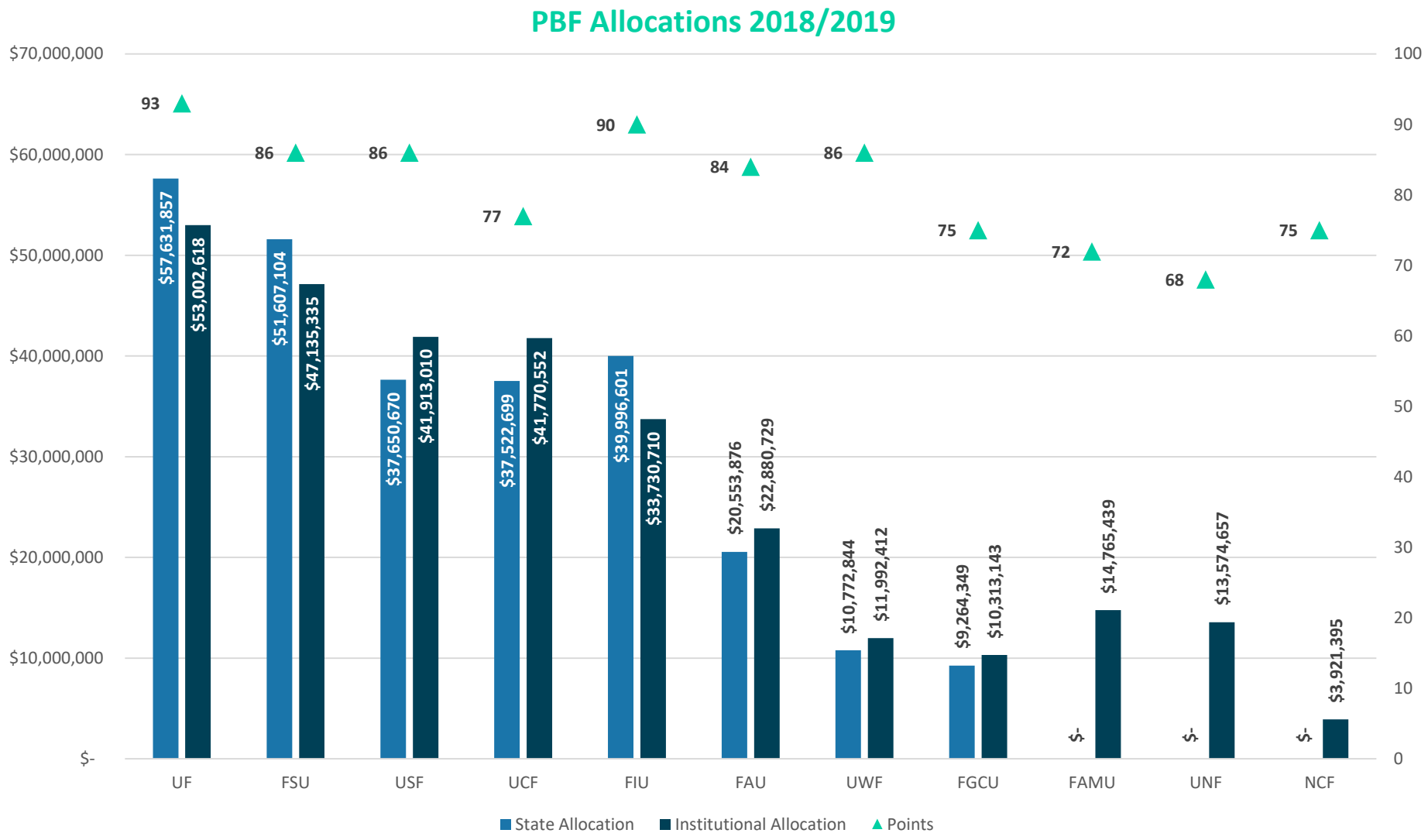
Second Year Retention Rates	# of FT students in cohort enrolled during second fall term / Total # of FT students in cohort
Four Year Graduation Rates	# of FT students in cohort who graduated within four years / Total # of FT students in cohort

Source: All text verbatim from Retention and Graduation Rates and Programs of Strategic Interest methodology documents as well as the Board of Governors

Note: The State University System of Florida Board of Governors maintains a student unit record database titled the State University Database System (SUDS). This database contains over 400 data elements about students, faculty and programs at SUS institutions. This database informs both of the sample methodologies shown above.

Case Studies: State University System of Florida

Best Practices in Performance Based Funding Models



Source: State University System of Florida

Note: Each university contributed a portion of their institutional budget, for a total of $295 million, to be allocated based on performance. Universities that scored 51 points or higher receive their full institutional funding restored.

Overview of PBF in Ohio

In 2012, Governor Kasich proposed shifting the state's funding formula for higher education so that it rewards student success and completion.

Funding for higher education is appropriated in each fiscal year by the Ohio General Assembly. Department of Higher Education staff work closely with the Office of Budget and Management, the Ohio General Assembly and Ohio's institutions of higher education to develop, refine and implement the biennial budget for higher education. The State Share of Instruction (SSI) is Ohio's primary mechanism of subsidizing the instructional costs at Ohio's public institutions of higher education for the purpose of reducing the cost of tuition for Ohio residents. SSI funding in each fiscal year is allocated to public institutions according to a PBF formula that incentivizes student course and degree completion, among other things (Verbatim from Ohio Department of Higher Education).

University PBF Methodology Overview 2018/2019

30%
Course Completions
(aka Completed FTE)

50%
Degree Completion

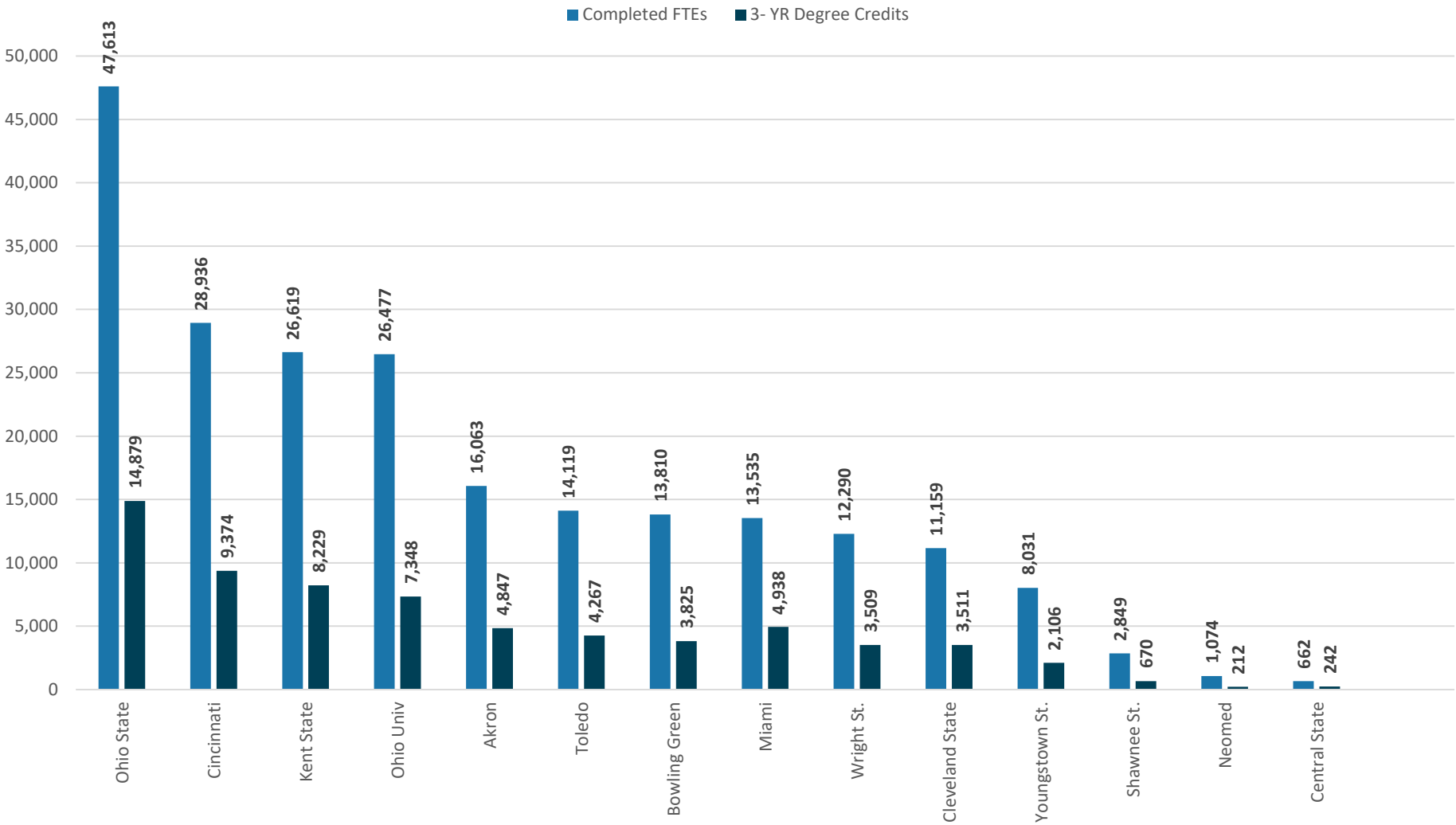
20%*
Set-Asides
*if applicable

PBF by Institution FY 2018

Universities	Course Completions		Degree Attainment Earnings				Set Asides		Total
	FTE Completion	At-Risk (AR) Earnings	Resident Degree Credits	Non Resident Degree Credits	Resident Degree Credits AR	Non Res Degree Credits AR	Doc Set Aside	Medical Earnings (FTE)	FY18 Actual
Akron	$ 34,201,192	$ 825,364	$ 47,046,419	$ 4,690,661	$ 8,324,344	$ 52,723	$ 10,570,981	$ -	$ 105,711,686
Bowling Green	$ 27,390,151	$ 628,516	$ 34,830,809	$ 3,187,357	$ 5,365,434	$ 68,494	$ 5,769,009	$ -	$ 77,239,771
Cincinnati	$ 60,358,103	$ 1,066,075	$ 73,099,208	$ 21,486,045	$ 7,905,179	$ 255,321	$ 30,290,443	$ 17,010,533	$ 211,470,907
Cleveland State	$ 26,565,173	$ 599,481	$ 33,082,248	$ 4,659,788	$ 5,780,266	$ 109,882	$ 4,694,575	$ -	$ 75,491,413
Central State	$ 1,096,483	$ 67,681	$ 1,635,558	$ 130,285	$ 1,259,282	$ 53,176	$ -	$ -	$ 4,242,466
Kent State	$ 49,433,765	$ 1,821,113	$ 66,557,405	$ 8,839,993	$ 16,407,608	$ 278,959	$ 13,455,487	$ -	$ 156,794,331
Miami	$ 25,312,854	$ 490,805	$ 36,047,339	$ 4,742,416	$ 3,204,883	$ 22,692	$ 4,957,101	$ -	$ 74,778,089
Neomed	$ 2,541,678	$ 898	$ 3,137,266	$ 53,798	$ 8,583	$ -	$ 250,000	$ 14,396,630	$ 20,388,853
Ohio State	$ 97,436,709	$ 1,550,276	$ 132,966,938	$ 17,460,159	$ 11,015,091	$ 110,704	$ 81,396,055	$ 42,405,506	$ 384,341,439
Ohio Univ	$ 50,299,928	$ 1,153,369	$ 62,936,024	$ 9,104,333	$ 9,091,454	$ 169,478	$ 11,077,450	$ 17,087,520	$ 160,919,556
Shawnee St.	$ 5,197,116	$ 226,995	$ 6,338,211	$ 236,921	$ 1,229,871	$ 15,169	$ -	$ -	$ 13,244,283
Toledo	$ 30,371,963	$ 571,744	$ 37,315,394	$ 7,230,456	$ 4,931,869	$ 161,821	$ 9,682,686	$ 18,975,542	$ 109,241,475
Wright St.	$ 25,992,055	$ 630,302	$ 31,044,708	$ 6,233,739	$ 5,156,295	$ 26,014	$ 6,647,840	$ 10,301,637	$ 86,032,590
Youngstown St.	$ 15,588,387	$ 556,415	$ 20,222,461	$ 1,506,709	$ 4,648,679	$ 104,351	$ 636,684	$ -	$ 43,263,687
SUBTOTAL	$ 451,785,558	$ 10,189,035	$ 586,259,989	$ 89,562,660	$ 84,328,838	$ 1,428,785	$ 179,428,312	$ 120,177,367	$ 1,523,160,544
	Course Completions Total	$ 461,974,593		Degree Attainment Total		$ 761,580,272	SA Total	$299,605,679	

Source: Ohio Department of Higher Education

Course Completion and Degree Attainment by Institution FY 2018



Source: Ohio Department of Higher Education

Course Completion Methodology

To add stability and predictability to the SSI [aka PBB] allocations, all allocations are based on FTE's that are lagged one-year.

Therefore, the Department of Higher Education will provide a summary of the subsidy course completions (completed FTE) by Subject and Level for the three years ending in the year preceding that for which SSI is being calculated. The FTE data come from the HEI system and can be viewed in the SSI spreadsheet in the tab called 'subject level'.

A subsidy FTE is defined as 30 semester credit hours or 45 quarter credit hours. Medical, Veterinary Medicine, and Dental Health FTE are based on student enrollments and are not included in the general FTE, but in the Med set-asides. Three-year averages of subsidy eligible completed FTE and at-risk subsidy eligible completed FTE counts are generated for each eligible combination of institution, subject field, and level of instruction. For Fiscal Year 2018 SSI, the FTE data from fiscal years 2017, 2016, and 2015 are used in the calculation. For Fiscal Year 2019 SSI, the FTE data from fiscal years 2018, 2017, and 2016 are used in the calculation.

At-Risk Students are given additional weighted FTEs based upon the difference in completion rates for at-risk students compared to the course completion rates for students who are not determined to be at risk. The at-risk FTEs are multiplied by two factors, a model-specific weight and an institution-specific index to determine the weighted at-risk FTE.

At-Risk Student Categories

1. **Financial:** Smallest expected family contribution (EFC) <$2,190 in any year
2. **Academic:** ACT < 17 in either English or Math or student completed any developmental course in any year at any school if they had no ACT score.
3. **Age:** Over 22 when they started college.
4. **Race:** African American, Hispanic or American Indian.
5. **First generation status:** Mother and Father's highest level of educational attainment is self reported as High School or Middle/Junior High School on the FAFSA.

Source: All text verbatim from Ohio Department of Higher Education

Spotlight: Caveats for At-Risk Students

While veteran students and first-generation students are identified priorities for the state, [universities do not identify] these student populations in their funding formula.

Data availability, analysis of outcomes, and correlations with other factors were considered in determining which categories to include in the funding formula. Overall analysis of each student category is provided below:

- **First-Generation College Students:** Data analysis indicates that first generation student status is not a strong predictor for a student not graduating. This is true when compared to other student categories or overall graduation rates. At the university level the overall graduation rate is 60 percent and the first generation rate is 51.3 percent. However, when compared with other factors, first generation students did not merit the need to be included as at-risk. Data show a strong correlation between the identified low-income indicators for both sectors and first-generation students. This supports initial analysis conducted to inform the identified at-risk categories for [the] funding formula. It is also important to note that the identification of students as first-generation is provided through the Free Application for Federal Student Aid (FAFSA). Given the strong correlation between low-income and first-generation students, the use of the low-income definition can be seen as a proxy for first-generation status and provides greater consistency in reporting across students and colleges.

- **Veterans:** The data for veteran students is very limited. There is inconsistency across institutions both in collection and identification of veteran students with many institutions not even collecting this information. The primary source of data for the Board of Regents is the Veteran's Services Office. This could introduce potential selection bias in the data analysis, as it is only capturing veterans who seek out services. Additionally, the number of students in the veteran's cohort available for analysis by the BOR makes up less than 10 one percent of the overall student population in both the community college and university sectors. With the data available, BOR conducted analysis on the significance of veteran status on completion and graduation. Veteran students at universities had a lower graduation rate (51.7%) than the overall student cohort (60%) but were not as low as students in other student categories including over 22 at start, minority students and academically underprepared. Again the number of students identified in the veteran cohort is very small (356 students at the university level).

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