Finance and Administrative Policy Advisory Council (FAAP AC)

Strategic Review of Public Higher Education Financing: Comparative State Analysis

April 19th, 2022

Draft for Discussion

Commonwealth's Vision for the System of Public Higher Education Financing

Guiding principles can help shape the public higher education financing system

System advances student access to high quality, affordable education

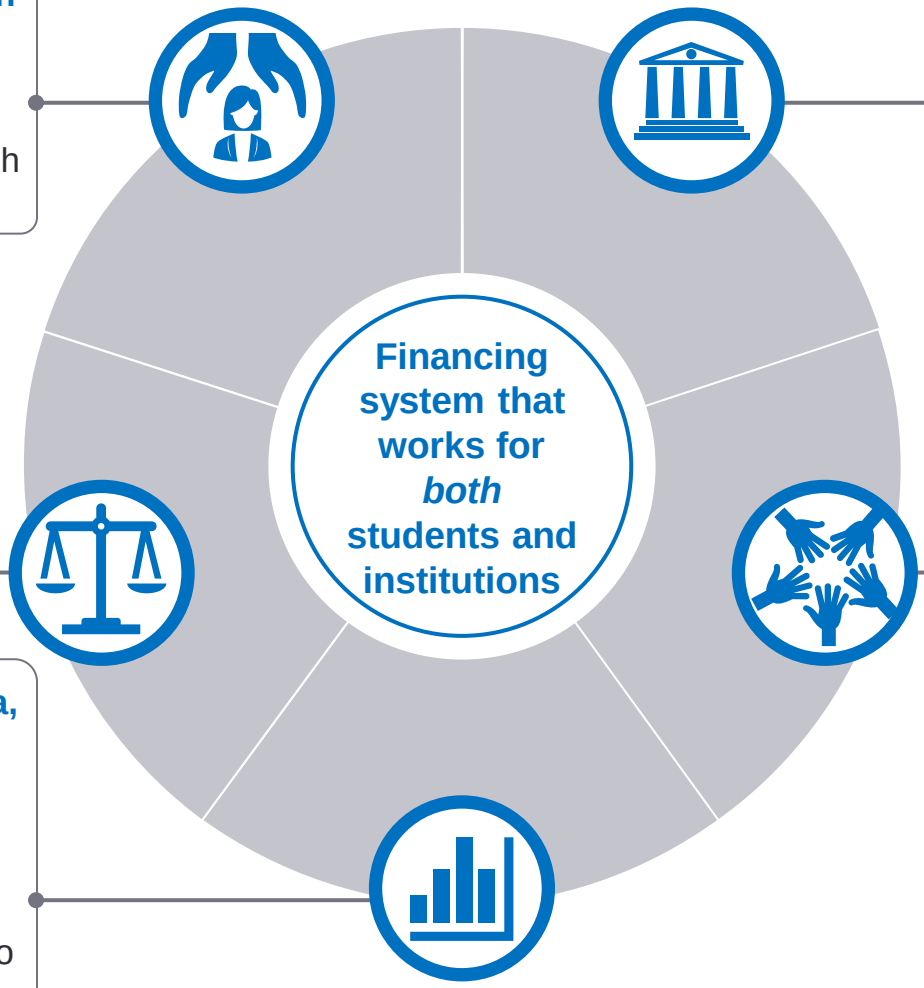
The system supports students from all backgrounds in accessing and affording high quality higher education

System promotes equity in student outcomes

The system supports bridging gaps in retention, graduation, and post-grad outcomes (e.g., student success and employment) by student subgroup

System is transparent and rooted in data, providing stakeholders with sufficient ability to plan

The drivers of state funding are clear and well understood by institutions, students, parents, and policymakers, allowing them to plan based on known parameters



System recognizes institutional context

The system takes into account institutional missions, contexts, and regional geography, including diversity of student populations and distinct needs

System recognizes innovation and collaboration

The system fosters innovation and collaboration to meet student success goals, including collaboration within segments, regions, and with outside stakeholders such as K-12 and industry

Draft for Discussion

Project Update

Today we are focusing on the comparative state analysis

1 Current state assessment

- Baseline understanding of how public higher education in MA is financed now:
  - Existing policies / legislation / funding formulas for higher ed
- Sources of funding (federal, state, direct from students including student debt) and trends over time, by segment and by institution
- Enrollment trends over time, by segment and institution

2 Comparative state analysis

- Selection of states to include in comparison
- Relevant comparison analytics, e.g.:
  - Financing strategies
  - State funding levels (e.g., per enrolled FTE, as % of total state spending)
  - Student outcomes

3 Scenario development & assessment

- Scenarios of potential impacts of major change vectors on students, institutions, workforce, and higher ed financing:
  - Demographic shifts in MA/region
  - COVID-19
  - Potential federal policy changes

4 Student impact analysis

- Analysis of student-level funding (federal Pell grants, state MASSGrant Plus)
- Analysis of student impacts, overall and by subgroup, and in the context of the DHE's Equity Agenda, e.g.:
  - Access (matriculation)
  - Affordability (trends in student debt to pay for higher education)
  - Outcomes (retention, graduation)

5 Alternative financing approaches

- Identification of alternative approaches to public financing of higher education
- Assessment of impacts of these alternatives on:
  - Students
  - Institutions
  - Workforce / regional economy
  - Innovation
  - Costs

Focus of today's presentation

Agenda

- **Comparative Benchmarking Executive Summary**
- Comparative Analysis: Institutional Allocations
- Comparative Analysis: Financial Aid
- Appendix

Phase Overview: Comparative State Analysis

Phase 2 focuses on state higher education funding models and financial aid strategies

Comparative state analysis goals

1. Illuminate a range of possible **state funding models** for public higher education

2. Provide an overview of **how different models and/or policies work** and the **intentions** behind them

3. Synthesize available evidence on the **efficacy** of the models and/or policies in achieving their intended outcomes

Key terms

State appropriations: The overall levels of funding that states authorize for specific purposes

State institutional allocations: How states choose to distribute funds between different institutions

State financial aid: State funds that are distributed either directly to students or via institutions to support students in meeting the cost of attendance

Today, the state of Massachusetts contributes ~$1.9 billion annually to financing public higher education

Total MA state funding for public higher education, by category

In FY21, public higher education in Massachusetts received ~$1.9 billion in state funding

Institutional allocations

$1.2 billion

Institutional allocations are **single line item amounts received by individual institutions**[1] for current expenses, not specific projects or programs

Fringe benefits

$430 million

FY21 fringe rate of ~36% is applied to state appropriations. The funds are used to cover state employee benefits

State financial aid programs

$130 million[2,3]

State financial aid covers all programs through which the state awards money to provide financial aid for higher education

Administration and other grants

$34 million

Administration and other grants includes funding the department of higher education and grants for other non-operating projects and initiatives

Capital funding[4]

$153 million

Capital funding includes funds intended primarily for acquisition or construction of capital assets for higher education institutions

Focus of analysis

1. UMass receives one institutional allocation to fund all campuses
2. Includes the addition of an estimate for total waivers to students attending public institutions based on FY2020 (excluding UMass waivers, since UMass has tuition remittance)
3. MASSGrant funds for students attending private institutions and Gilbert Grant funds are excluded from this total
4. Capital Funding is calculated based on estimated bond funding from DCAM

Source: MMARS; DCAM; State financial aid file

Adjusting for institutional mix and cost of living, MA is positioned 19th in state & local funding per FTE and 28th in financial aid per FTE [1,2,3,4]

State funding metrics for comparison

State & local funding per FTE[1,2,3,4] *FY20*	Public financial aid per FTE[1,4] *FY20*
▸ MA state and local support for higher education is ~$8.7k per FTE…	▸ MA state support for higher ed is ~$463 per FTE…
▸ …compared to a national average of ~$8.6k	▸ …compared to a national average of ~$830
Massachusetts is positioned 19th	**Massachusetts is positioned 28th**

State & local funding per FTE and public financial aid per FTE have been adjusted by the State Higher Education Executive Officers (SHEEO) Association's proprietary cost of living and education mix index. They are not intended to directly tie back to actuals reported by states.

1. FTE represents full-time equivalent enrollments (undergraduate and graduate)
2. Education revenues consists of state and local appropriations and tuition revenues
3. State appropriations includes fringe benefits disbursed by the state treasurer and excludes capital funding
4. SHEEO appropriations numbers are adjusted by a cost of living and education mix index

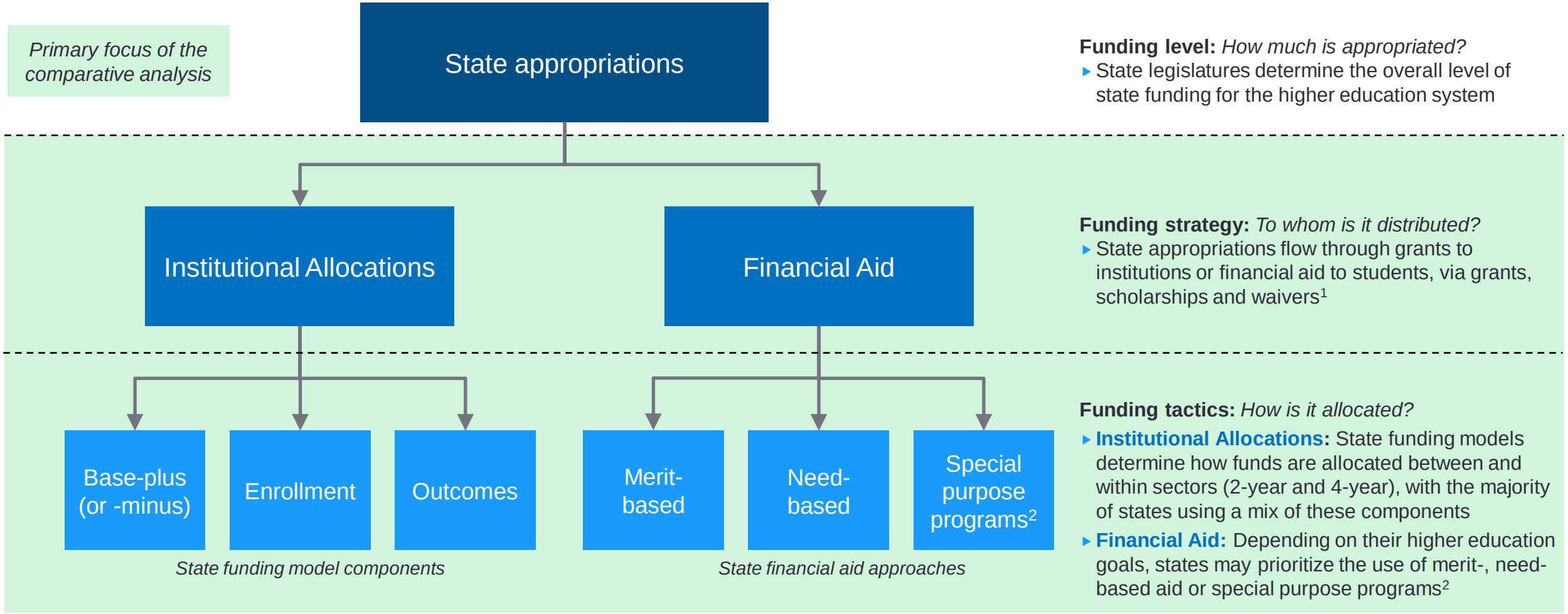
Source: SHEEO

Draft for Discussion

When considering how to fund public higher education, states have a range of funding options to consider; there is no dominant approach within these strategies nationally

State funding for public higher education

Primary focus of the comparative analysis



Funding level: *How much is appropriated?*

- State legislatures determine the overall level of state funding for the higher education system

Funding strategy: *To whom is it distributed?*

- State appropriations flow through grants to institutions or financial aid to students, via grants, scholarships and waivers[1]

Funding tactics: *How is it allocated?*

- **Institutional Allocations:** State funding models determine how funds are allocated between and within sectors (2-year and 4-year), with the majority of states using a mix of these components
- **Financial Aid:** Depending on their higher education goals, states may prioritize the use of merit-, need-based aid or special purpose programs[2]

1. State appropriations for higher education also cover operating funds for Departments of Higher Education, capital projects and fringe benefits for state employees
2. Special purpose programs are programs which states identify as pertaining to one or more of the following categories: tuition equalization, workforce development, retraining, post-service, parent or spouse service, disability, sending students to other states for specialized programs not available in state, and other

In determining a funding strategy, states decide how to allocate funds between and within institutional allocations and financial aid

Institutional Allocations

- Most states use a **mix of the three allocation models** to fund their public higher education system. There are often meaningful differences between the funding model for the 2-year and 4-year sectors, and where formulas are implemented, weights are typically used for specific populations of interest for the state's equity or workforce development agenda
  - **Base-plus (or –minus)** is a model where allocations are based on incremental adjustments to prior year allocations
  - **Enrollment-based** (i.e., input / volume-based) formulas are commonly used in the **2-year sector**, with 71% of U.S. 2-year systems using an enrollment component in FY21. This approach to funding is perceived as aligning with the goals of 2-year institutions to serve a broad, inclusive population, and allowing for equity and workforce-based weightings
  - **Outcomes-based formulas** have been implemented in ~2/3 of states, using completion, equity and/or workforce metrics; however, the proportion of funds allocated by formulas vary widely (e.g., from 0.1% in Illinois to 100% in Ohio) and some states are inconsistent in the application of the formula (i.e., applying it one year but not the next)
    - Outcomes-based funding models have **yielded a range of outcomes** across public higher education (both intended and unintended), as measured by completion rates, equity measures and behavioral impacts

Financial Aid

- Over the last decade, states have allocated, on average, **~10% of total state higher education appropriations to financial aid** for students in public institutions, the vast majority (~60%) via need-based programs. MA is **below national averages** in both the proportion of total state higher education appropriations spent on aid (~4%) and the level of financial aid distributed per FTE (~$463 in MA vs. the national average of ~$830)
- Trends in the deployment of financial aid include:
  - Growing implementation of **promise programs** (operating statewide in 33 states by 2021), most often in the form of last-dollar, direct-to-student financial aid programs
  - **Consolidation of grant aid programs**

Agenda

- Comparative State Analysis Executive Summary
- **Funding Strategy: Institutional Allocations**
  - **Funding Tactics Overview**
  - Base-plus (or-minus)
  - Enrollment-based funding
  - Outcomes-based funding
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In constructing models for institutional allocations, states have different goals: transparency / predictability, support of an overall vision, and a desire to drive outcomes

Create transparency, predictability & accountability

- Establishing a clear funding model can:
  - Create predictability for institutions
  - Allow for more strategic decision making
  - Provide stakeholders with clarity on how higher education is supported by the state
  - Create accountability for the state and institutions by making funding allocations and levels more visible to stakeholders

Support broader vision

- Funding models can be used to:
  - Support and communicate a state's broader vision for higher education
  - Clearly identify priorities by tying funding to specific elements of a formula
- E.g., many states communicate their vision for greater equity by including equity metrics in funding models(e.g., Pell graduation rate)

Incentivize behaviors

- Funding models provide states with an opportunity to:
  - Incentivize specific behaviors from institutions, potentially driving desired outcomes
- E.g., many outcomes-based models provide institutions with additional funding for raising completion rates or job placement after graduation

There are three dominant funding tactics for institutional allocations; this analysis will primarily focus on those that differ from the current majority tactic in Massachusetts

Focus of analysis

	Base-plus (or –minus)	Enrollment-based	Outcomes-based funding
Description	▸ State funding is **based on incremental adjustments to prior year allocations** for individual institutions based on factors like inflation and cost of living adjustments ▸ Adjustments can result in funding increases or decreases	▸ State funding is allocated by a formula **based on a defined set of inputs** such as, number of students served, enrollment demographics and levels of student need ▸ Typically designed to allocate higher levels of resources to institutions serving populations with higher levels of need	▸ State funding is allocated by a formula **based on institutional performance using a set of pre-determined metrics**, most commonly some combination of retention, course completion and graduation ▸ Often includes weights or multipliers for outcomes for specific populations of interest (low-income, URMs, etc.)

Most states use a funding model that has a mixture of components from these three categories. The focus of this analysis is on developing a deeper understanding of models that emphasize enrollment- or outcomes-based components

Source: SRI: "State's Methods of Funding Higher Education."; SHEEO: "Developing Financial Aid Metrics In State Data Systems."

Draft for Discussion

Across states there are several key themes that emerge around funding tactics for institutional allocation, approach by sector and implementation

Inclusion of a mix of: base-plus (or -minus), enrollment, and outcomes

- States with formula funding **almost always** (Ohio being the exception) **include a mixture of base funding, enrollment-based funding and outcomes-based funding,** with only 12 and 3 states having no formula in place for 4-years, and 2-years respectively in 2021

Differentiation by sector

- The 2-year and 4-year sectors have meaningful differences in formulas, with **only 33% of states leveraging similar funding tactics between the two sectors**

Weighting based on equity and workforce metrics

- **A majority of state funding formulas (enrollment- and outcomes-based) include weights for specific populations** of interest for the state's equity agenda and workforce development

Phased in formula implementation

- When states adjust their funding models, the process often **takes place over the course of several years**, **with a period of "hold-harmless"** for institutions

Wide range of consistency in application

- Implementation of outcomes-based funding models often **vary over time based on overall state funding levels** for higher education **and the political environment**

Large variance in % outcomes-based

- While a majority of states now have some element of outcomes-based funding, there is a **very wide range in funds allocated by outcomes ranging from <%1 up to %100[1]**

1. In 2019, Illinois allocated only 0.1% of funding on outcomes

Source: Research for Action; State Departments of Higher Education; InformEd States

All formulas Only outcomes-based

The states selected for comparison focus on models that are well established, highlight innovation and represent a diverse set of formulas

State selection process

1 Established models

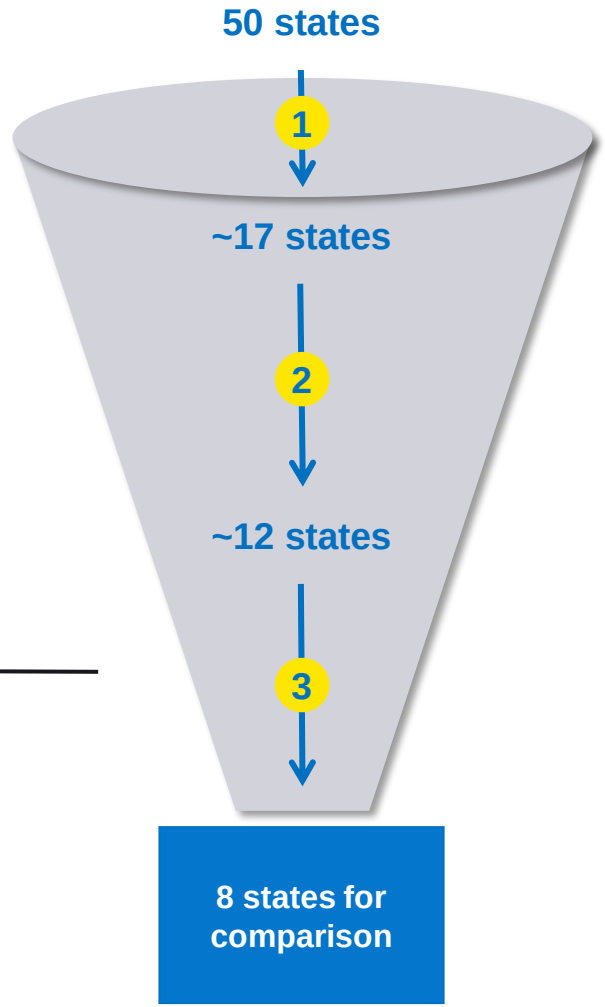
- Selected states have had **models in existence long enough to have sufficient documentation** and in some cases **efficacy research**
  - All selected states (except California) have models established in 2015 or earlier

2 Diversity of models

- The selected states **highlight a range of funding models** across multiple dimensions:
  - Formula percentages based on outcomes, enrollment and base-plus (or -minus)
  - Differences in funding towards 2-year and 4-year sectors within states
  - Use of specific equity and workforce development metrics

3 Innovative approaches

- These states also include a number of **differentiated structures and metrics that push traditional thinking** on formula funding, e.g.,
  - Models heavily weighted towards outcomes-based funding (Ohio, Tennessee, Oregon)
  - State matching of incentive funds (Florida)
  - Employment and workforce development metrics (Tennessee, Louisiana, Florida, California)



The state institutional funding allocation methods analyzed in selected states represent a range of funding tactics across both the 2-year and 4-year segments

High allocation ··· Low allocation

Public institution state institutional allocation funding tactics

State	Total allocations, 2-year institutions			Total allocations, 4-year institutions		
	Base-plus (minus)	Enrollment-based	Outcomes-based	Base-plus (minus)	Enrollment-based	Outcomes-based
Massachusetts						
California[1,2,3]						
Florida[2]						
Louisiana						
New York[2]						
Ohio						
Oregon[2]						
Tennessee						
Washington						

1. The University of California System uses enrollment only, while the California State University System uses base-plus (-minus) and enrollment
2. These states have some element of local funding for community colleges. Detailed percentages in the appendix
3. California's 4-year sector allocations are based on the CSU system

Source: The Education Trust; State Departments of Higher Education

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States use varying levels of base-plus (or -minus) funding, typically adjusting a historical base level per institution up or down incrementally each year

Base-plus (or -minus) funding

Overview

- States with a **base-plus (or -minus) component** to their funding model **rely on making incremental adjustments** to the prior year's institutional allocation (the "base")
- In some instances, the base is intentionally set when the model is adopted; however, it is often the product of historical allocations

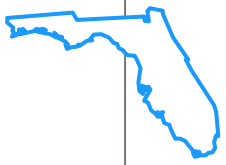
Annual adjustments

- Adjustments to the base allocation are made during annual budgeting and may be based on a variety of factors including:
  - Economic conditions (e.g., overall funding, inflation, etc.)
  - Enrollment levels
  - Policy priorities
  - Mandated cost increases (e.g., collective bargaining obligations)

In both Florida and Washington, the state legislature has final authority over proposed increases or decreases to base allocations

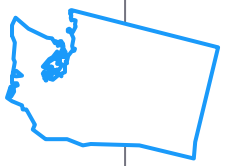
State examples

Florida



- 75% of 4-year institutional allocations are base-plus (or -minus)
- **Initial base** was set based on historical **allocations from the prior enrollment-based funding model**
- Incremental adjustments to the base allocations are made on an annual basis, **largely reflecting broader economic conditions**
- The Florida Board of Governors makes a recommendation to legislature and Governor. The recommendation incorporates individual institution needs, along with regional and state needs (e.g., state nursing shortages)

Washington



- 100% of 4-year institutional allocations are base-plus (or -minus)
- **Universities work directly with the state budget office** to develop a request that starts with the prior year allocation and then adds incremental funding based on a variety of factors (e.g., **enrollment, inflation, new policy priorities**[1], etc.)
- Enrollment changes influence university requests, but funding levels are not directly tied to enrollment changes via a formula calculation

1. Examples include: Creating a computer science degree program at Eastern Washington University, and establishing BS programs in Mechanical and Civil engineering at University of Washington Tacoma

Source: State commissioner interviews; State University System of Florida; Florida Board of Governors: Performance Funding Model Overview; Florida Department of Education: Florida College Performance Based Funding; University of Washington

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Enrollment-based formulas are used most commonly in the 2-year sector, providing predictability and supporting student-level funding, weighted by student type

Key themes of enrollment-based funding models

High prevalence in the 2-year sector

- In FY21, **71% of 2-year systems had an enrollment component in the funding formula** compared to **only 36% of 4-year systems**. Of the 2-year models, ~40% were either a mix of base-plus (or –minus) and enrollment or purely enrollment driven
- Over time, **the number of states using enrollment as a component in their 2-year system has remained relatively flat** (an average of 34 over the last 20 years); however, an increasing number now use hybrid models
- Use of enrollment-based funding in the 2-year sector aligns with the notion of 2-year institutions striving to serve a broad, inclusive population

Funding predictability for institutions

- Enrollment-based formulas **generally use a three-year rolling average** to determine institutional funding levels[1], allowing institutions **to avoid major swings and surprises in funding**
- As a metric, **enrollment is perceived as simple and easy to understand and track** compared to more complex outcome measures such as workforce participation

Student-level funding weighted by student type

- States using an enrollment-based allocation formula may **include equity measures** that **assign higher funding for enrollment of particular student populations,** e.g., under-represented minorities and low-income students
- By attaching funding to individual students, states often explicitly, if not implicitly, **recognize differences in educational needs for particular populations,** and or state workforce goals[2]

1. Enrollment formulas may use a stop-loss provision when phased-in, but generally rely on a rolling average (e.g., Oregon) to smooth funding once the formula is in place
2. Workforce goals may be emphasized through weighting for students majoring in specific high demand subject areas

Source: InformED; State commissioner interviews

There are several structures that states may adopt as part of the enrollment-based components of their funding formulas

	Structure of enrollment-based funding	
	Per student	**Proportional to relative enrollment**
Overview of structure	▸ States assign a value per student (FTE or headcount) and provide funding based on that value ▸ May include a "stop-loss" or floor to prevent large declines in funding if enrollment drops	▸ States allocate funds for the enrollment-based portion of their formula based on relative proportions of total enrollment between institutions
Key impacts	▸ Institutions receive predictable, additional funding for each incremental change in enrollment ▸ As state enrollment grows, enrollment-based funding also grows in lock-step ▸ Requires strong state-level commitment to fund	▸ Institutions are in competition with one another for a fixed bucket of total dollars ▸ Total enrollment-based funding levels are determined independent of overall state enrollments
State spotlight	▸ **California's** 4-year inst. receive funding on an FTE basis – The amount of FTE funding is based on historical funding levels and does not vary by student type ▸ **New York's** 2-year institutions receive per FTE funding, but the state has established a funding floor after recent declines in enrollment	▸ **Louisiana's** enrollment-based funding is allocated based on calculating an individual institution's weighted "student cost to educate" as a proportion of the total system's costs to educate

Source: State commissioner interviews; Oregon Higher Education Coordinating Commission; Louisiana Board of Regents; Washington State Board for Community Colleges and Technical Colleges

States may consider several features when designing enrollment-based models, including rolling averages, cost-to-educate weighting and equity weighting

	Additional features of enrollment-based models		
	Rolling averages	**Cost-to-educate weighting**	**Equity weighting**
Overview of feature	▸ States can use a **multi-year rolling average** to calculate metrics like headcount or FTE	▸ States may weight different student credit-hours according to the **costs incurred by the institution** for supplying those credits to students	▸ States may assign funding weights to students from **high-interest student sub-groups** (e.g., **URM, Pell**)
Key impacts	▸ Provides **stability and predictability** to institutional financing by blunting the impact of single-year dips in enrollment ▸ Incentivizes institutions to **think long-term** about their enrollment levels	▸ **Reduces financial strain** on institutions that educate students in high-cost fields like healthcare ▸ Empowers institutions to **expand offerings** in higher-cost fields	▸ **Reinforces financial support** for institutions serving high-priority subgroups ▸ Rewards institutions for **diversifying their student body**
State spotlight	▸ **Washington and Oregon** use a three-year rolling average FTE count	▸ **Louisiana** uses factors including faculty salary, class size, number of credit-hours per FTE, facilities size, and others to calculate the costs associated with educating students	▸ **California** awards 20% of overall funding to 2-year institutions based on relative headcount of students receiving a Pell grant, a Promise grant and students granted an exemption from non-resident tuition based on attending high school in CA

Source: State commissioner interviews; Oregon Higher Education Coordinating Commission; Louisiana Board of Regents; Washington State Board for Community Colleges and Technical Colleges

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State funding models differ significantly both in terms of the percent of funding allocated based on outcomes and key determinants for funding

State	% outcome-based funding	Key outcomes-based funding features									
		Key outcomes metrics			Equity metrics					Work-force metrics	Model differentiators
		Credit hours	Graduation rate	Subject weighting	Low income	URM[4]	Adult learners	Under-prepared[5]	Other		
Mass.,[1] 2-year/4-year	~1-2%	✓	✓	✓	✓	✓			✓	✓	▸ Includes adjustments based on factors including retention rates, and institution-based financial aid
California, 2-year	10%	✓	✓	✓	✓					✓	▸ Includes a student success metric on # of students attaining the regional livable wage
Florida, 4-year	~25%	✓	✓	✓	✓					✓	▸ Includes a matching portion of funds from the state which institutions can earn as a bonus ▸ Includes an array of workforce metrics
Louisiana, 2-year/4-year	~20%	✓	✓	✓	✓	✓	✓			✓	▸ Outcomes metrics include employment in 4/5 star jobs based on LED[3] rating
Ohio, 2-year/4-year	100%	✓	✓		✓	✓	✓	✓			▸ 100% outcomes-based funding
Oregon, 4-year	~83%	✓	✓	✓	✓	✓			✓		▸ Largely outcomes driven (based on degrees / completions) with built-in equity checks
Tennessee, 2-year/4-year	~85%	✓	✓		✓		✓	✓		✓	▸ Majority outcomes-based, but also has bonus funds available for specific state initiatives
Washington, 2-year	~5%	✓	✓	✓		✓					▸ Primarily enrollment driven, with a small percentage awarded on outcomes
New York, 4-yr (SUNY/CUNY)	*Not applicable, no outcomes-based component in the funding formula*										

Note: 2-year, 4-year indicates sector model being detailed

1. Formulas in Massachusetts are inactive and exclude UMass system, which does not have formula funding
2. The Florida formula allows states to earn allocation above "100%", meaning the total percent from formula may exceed 25%
3. Louisiana Economic Development
4. Under-represented minorities
5. Typically defined by ACT/SAT scores

Source: The Education Trust; State Departments of Higher Education

Equity and workforce development metrics are increasingly being incorporated in outcomes-based funding-formulas

	Equity metrics	Workforce development metrics
Example metrics	▸ Graduation rates, first year retention rates, completed credit hour benchmarks can be calculated and incorporated by the following subgroups (not every formula includes every breakdown): – Pell recipient students – Under-represented minorities – Students 25 years and older – Students from rural areas (defined by county of origin[1]) – Students who are military veterans	▸ Degrees completed in high-priority fields (e.g., STEM, health, and education) ▸ Percentage of students employed full-time one year after graduation ▸ Non-credit contact hours completed through business partnerships ▸ Number of completers in programs that lead to high-quality jobs[2] (e.g., Engineering, computer programming, operations management, etc.)
Example states	▸ Students from several of **Tennessee's** priority subgroups, are assigned weights for outcomes Academically unprepared: based on ACT scores Adult learners: 25 years or older Low-income: Pell-eligible ▸ Outcomes are scaled by premiums for students in these populations, 80%, 100% and 120% for a student belonging to one, two or all three of the populations, respectively	▸ **Florida's** workforce-related metrics include: – Count of degrees in programs of strategic emphasis (e.g., STEM, health, and education) – Percent of bachelor's graduates enrolled or employed full-time (earning $30,000+ or continuing their education) one year after graduation – Median wages of bachelor's graduates employed one year after graduation

1. Counties are defined as rural if they are ten or more miles from the centroid of a population center of 40,000 people or more
2. High-quality is defined by metrics from state boards of economic development

Source: State commissioner interviews; State University System of Florida; The Education Trust; Ohio Board of Higher Education; Tennessee Higher Education Commission; Tennessee Comptroller of the Treasury; LA Works

Several states have seen increases in desired outcomes following the implementation of their outcomes-based models

Outcomes highlighted from state interviews

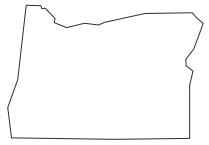
Florida

- **Students have been earning degrees faster** following a change in their formula's graduation metric from graduation in 150% time to graduation in 100% time
- **Enrollment growth at state universities has slowed** after moving away from an enrollment-based model, reflecting a desired outcome of the formula
- There have been **increased partnerships with industry** through alignment of workforce metrics such as weightings for degrees in nursing and engineering

Louisiana

- The number of degrees awarded has increased while time to degree has decreased. For four-year institutions there has been a **14% increase in student degree completion in 5 years along with a 6% increase in total degree production since 2017**
- Institutions are **spending more money on student support services** that help ensure students are able to complete degree programs

Oregon



- Over the past decade, since implementing the formula, the state has seen an **average growth in degree completion per 1000 FTEs of ~2.3% annually, with overall growth of ~26%** in the 4-year sector
- The state has put a strong emphasis on equity weights in the 4-year sector formula and since implementation has seen a **10% compounded annual growth rate in degrees awarded to under-represented minorities**

Source: State data provided by state officials during interviews

Outcomes-based funding models have yielded a range of results, both intended and unintended, that states can learn from in constructing their own model

	Completion rates	Equity measures	Behavioral impacts
Intended	▸ Formulas that have **prioritized cohort-specific improvement over topline data** saw positive impacts on credit and on-time completion outcomes ▸ **Weighting that incentivizes specific subject areas e.g., STEM degrees**, have proven successful	▸ **Point systems that reward credit completion** by high-need students, improve outcomes, and acknowledge the role of minority serving institutions ▸ **Equity bonuses** have been shown to mitigate unintended consequences of reducing URM / low-income enrollment	▸ **Tying a higher share of funding to outcomes** has allowed universities to implement long-term, stable enrollment strategies without concern for recessionary dips
Unintended	▸ **Lack of specificity on degree-levels in metrics** has resulted in institutions emphasizing degrees with the shortest time to completion	▸ State models **without a meaningful share of equity bonus funding** can lead to institutions increasing selectivity and changing aid policies to recruit more affluent students	▸ Well resourced institutions are better positioned than struggling institutions **to optimize enrollment strategy to further maximize funding**
Leading practices suggested by academic research	**Specific goals for graduation rate improvement**, accounting for student demographics, help align state and institution priorities	**Sufficiently weighting URM / Pell success rates** when setting equity bonus funding metrics can help mitigate a bias toward "easier to educate" students	**Transparency and phase-in timelines** that consider institutions' "starting points" can create for more predictable and equitable transition years

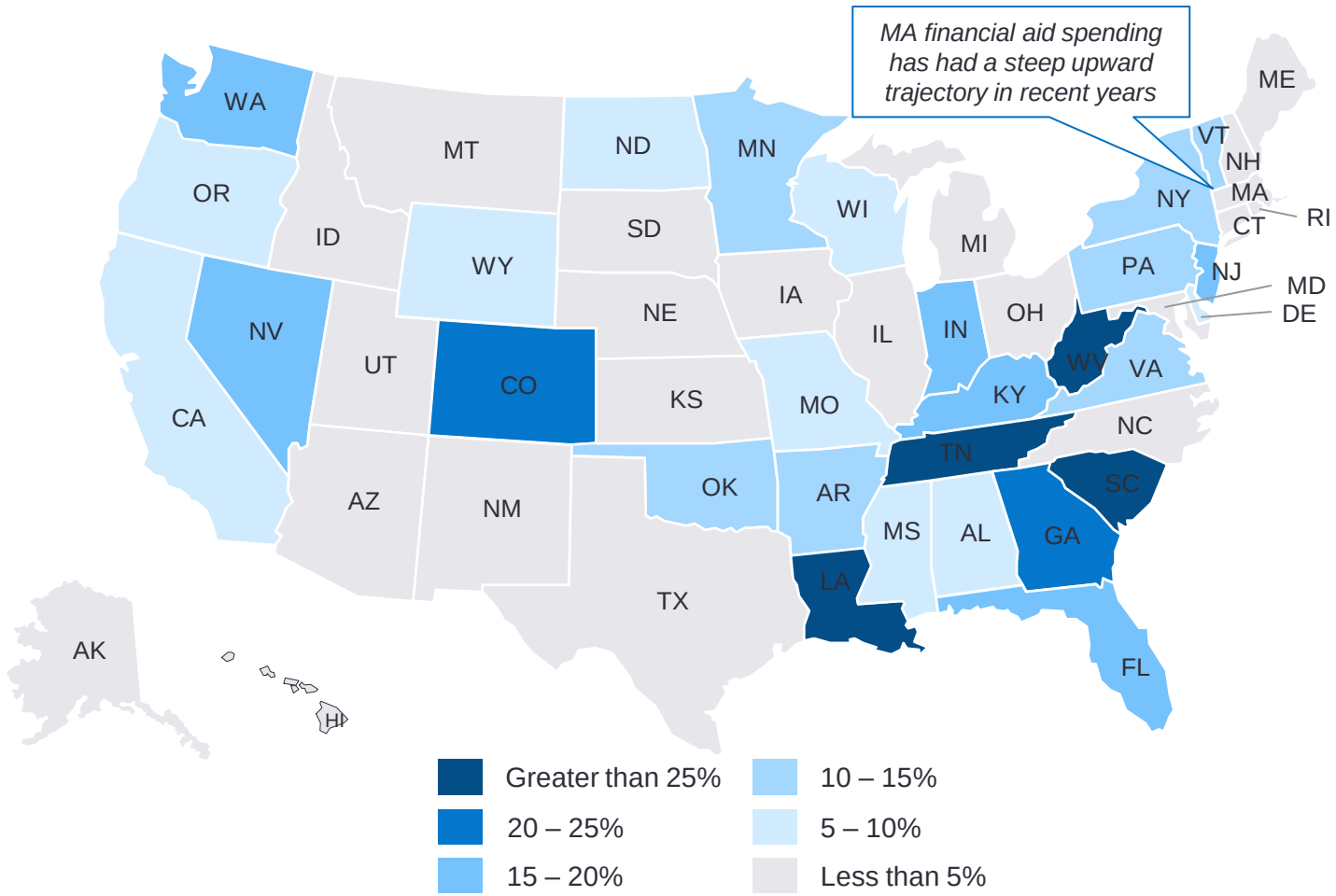
Source: Performance-Based Funding in American Higher Education: A Systematic Synthesis of the Intended and Unintended Consequences (Ortagus et al., 2020)

Agenda

- Comparative State Analysis Executive Summary
- Funding Strategy: Institutional Allocations
- **Funding Strategy: Financial Aid**
- Appendix

State financial aid policies impact public education financing, and policies vary widely across the country

State public financial aid as a share of total state and local higher education appropriations, 2020



Highlights

- On average, states allocate **~10% of total state higher education appropriations[1] to financial aid** for students in public institutions. This figure has remained steady over the last decade
- **30 states have a need-based grant as their largest financial aid program**
- 42 states have **a majority** of their financial aid **distributed through their largest grant program**
- **37 states offer more annual financial aid per FTE** to students **attending 4-year institutions than** to those attending **2-year institutions**
  - 22 states offer more than twice as much financial aid per FTE to 4-year than to 2-year students
- States may use **direct to student aid or aid that is distributed by institutions**

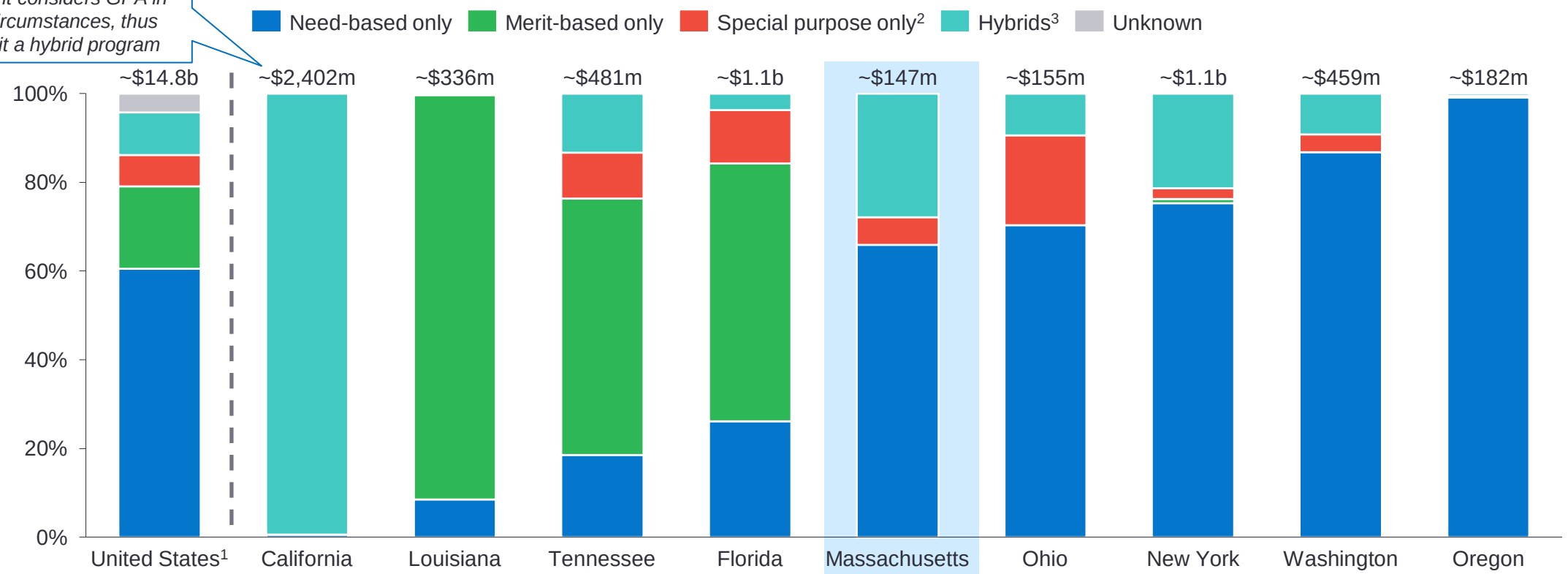
1. Higher education appropriations include all state and local support available for public higher education operating expenses. It excludes research, hospitals and medical education

Source: SHEEO; National Association of State Student Grant & Aid Programs (2019-20); Education Commission of the States

Relative to the national average, MA spends a lower percent of higher ed funding on financial aid, but directs more of it to need-based aid

California's Cal Grant program is predominantly need-based, however it considers GPA in some circumstances, thus making it a hybrid program

State student grant and financial aid dollars, by type and selected states, 2019-2020



% state HED funding spent on aid	**10%**	**9%**	**33%**	**25%**	**17%**	**4%**	**11%**	**5%**	**17%**	**8%**

1. Calculated as a weighted average
2. Special purpose programs are programs which states identify as pertaining to one or more of the following categories: tuition equalization, workforce development, retraining, post-service, parent or spouse service, disability, sending students to other states for specialized programs not available in state, and other
3. Hybrid programs are defined as programs that are a mix of two or more of the following categories: need-based, merit-based, or special purpose

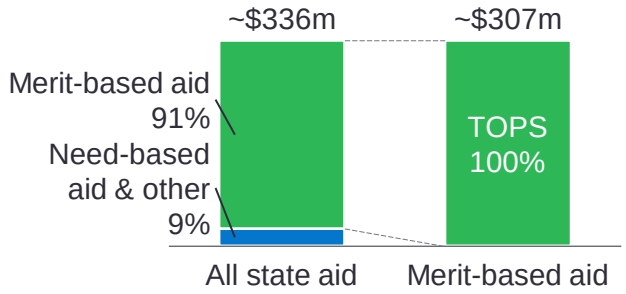
Source: National Association of State Student Grant & Aid Programs (2019-20)

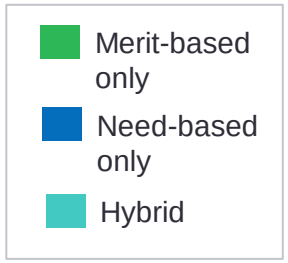
California invests in need-based aid while Louisiana prioritizes merit-based aid; approaches reflect states' differences in program goals

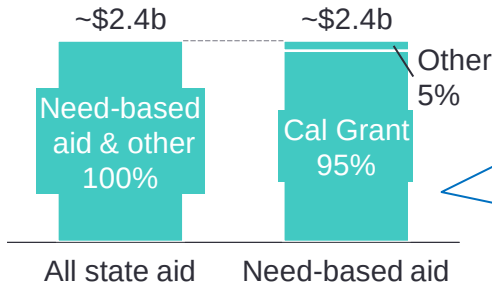
Merit-based aid spotlight: Louisiana

Need-based aid spotlight: California

State aid overview







*California's Cal Grant program is **predominantly need-based**, however it considers GPA in some circumstances, thus making it a hybrid program*

Spotlight program overview

- **Louisiana's Taylor Opportunity Program for Students (TOPS)** is the state's flagship merit-based aid program
- **California's Cal Grant A, B, and C** is considered the United States' largest state-level need-based aid program[1]

Key metrics for disbursing aid

- Primarily student achievement metrics, e.g.,
  - GPA
  - Standardized test scores
  - Community service
- Primarily student financial need, e.g.,
  - Submission of FAFSA or Cal Dream App
  - Family assets
  - Family income

Program goals

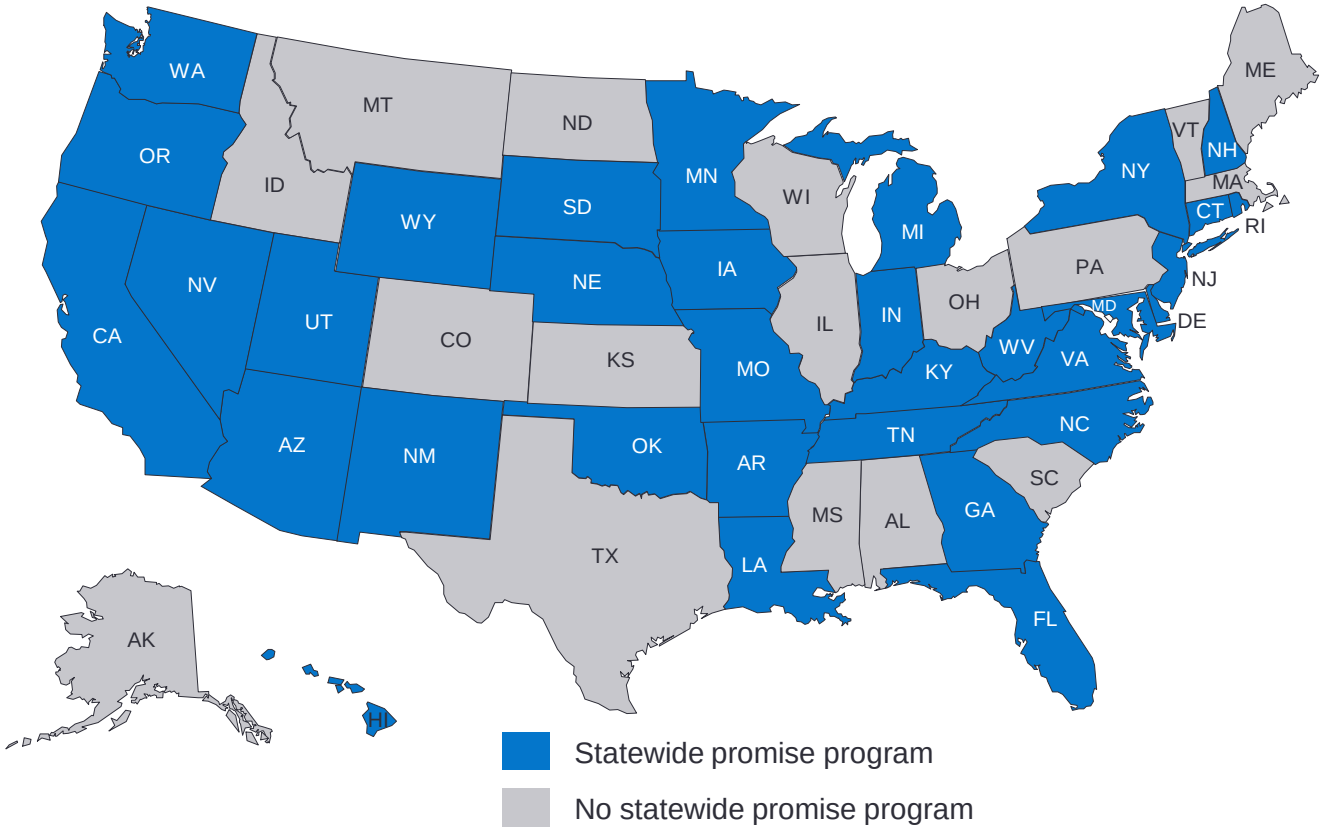
- The Louisiana Board of Regents' goals for TOPS include:
  - "Provide **financial incentives as a reward** for good academic performance"
  - "Keep Louisiana's **best and brightest in the State** to pursue postsecondary educational opportunities and become productive members of Louisiana's workforce"
- The California Student Aid Commission's vision for the Cal Grant program include the following goals:
  - "Make education beyond high school **financially accessible** to all Californians"
  - "A California that invests in educational opportunity, **fosters and active, effective citizenry**, and provides a higher quality of social and economic life for its citizens"

1. Cal Grant programs have minimum threshold requirements for eligibility

Source: National Association of State Student Grant & Aid Programs (2019-20); SHEEO; Pew Charitable Trust; Louisiana Board of Regents; Brookings Institution; California Student Aid Commission

States are increasingly implementing state-wide promise programs that offer tuition-free or debt-free higher education for in-state students

States with a statewide promise program, 2021



Highlights

- Promise programs are financial aid programs that generally offer students grants to cover **up to 100% tuition and fees** at postsecondary institutions within the state
  - Statewide promise programs are often implemented as an element of a **"tuition-free college" or "debt-free college"** policy
  - Some promise programs have **eligibility requirements** that may include family income, GPA minimums, or SAT/ACT scores
- Fully implemented statewide promise programs are a **relatively new financial aid innovation**
  - Tennessee and Oregon were the first states to adopt statewide promise programs in 2014 and 2015, respectively
  - Promise programs are gaining popularity, with **33 states and Washington, D.C. having active statewide programs** in 2021
- There is a **wide range in what costs promise programs cover, and what eligibility requirements they have for students.** For example:
  - A majority of the programs cover tuition, but not living costs
  - Only eight programs provide 4 years of tuition and include bachelor's programs at 4-year universities
  - Fourteen programs exclude adult and returning students

Source: Tennessee Comptroller of the Treasury; Oregon Higher Education Coordinating Commission; Statesman Journal; College Promise; Education Trust: A Promise Worth Keeping

States often use first dollar or last dollar financial aid to structure their promise program, with last dollar programs being more commonly used

	First dollar programs	Last dollar programs
Description	*State funds provided to students **before** any other grant or financial aid is awarded*	*State funds provided to students only **after** other sources of aid (e.g., Pell) are awarded*
Award process	State does not take into account other grants / funds the student may get when calculating award	State calculates award in the context of the students' other awarded funds
Advantages for states	▸More predictable award ▸Higher proportion of funds go to the lowest income students ▸More likely to reduce opportunity gaps	▸Lower cost to the state ▸More targeted deployment of funds
Potential dis-advantages for states	▸Higher cost to the state ▸May over-award funds beyond what students need	▸Higher administrative capacity required to determine awards ▸Higher risk of award delays
Example states	▸IN, OK, LA	▸RI, TN, NY

Insights from first dollar and last dollar programs

- Older programs that resembled promise programs were typically first dollar programs; **the majority of newer statewide promise programs are last dollar programs and cover two-year institutions only**
- Last-dollar programs chiefly benefit lower-middle and middle-income students who cannot maximize other sources of aid
  - Lower income students can maximize benefits from federal aid and other sources, thus receiving relatively less last dollar aid to cover the full cost of tuition
- Early data suggests that **last-dollar promise programs have mixed effectiveness** in raising various postsecondary metrics, particularly over a longer time horizon
  - After the implementation of the Tennessee Promise, the state saw:
    - Increased overall college attendance, greater credit accumulation, retention, and rate of earning credentials for participants compared to peers
  - After the implementation of the Oregon Promise, the state saw:
    - No sustained expansion of access, enrollment or retention, despite an initial boost in enrollment
    - An increase in the speed of credential attainment

Source: National Association of State Student Grant & Aid Programs; National Conference of State Legislatures; Economic Opportunity Institute; Edmit; Student Affairs Administrators in Higher Education

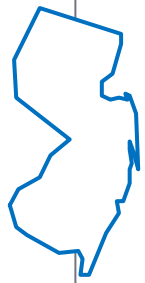
Consolidated grant aid programs and applications promote greater transparency and predictability for students and institutions

Benefits of aid program consolidation

- **Students have fewer financial aid program applications and requirements to navigate**, both of which are frequent barriers for students with the highest levels of need
  - e.g., a review of financial in Virginia found that one of their non-need, non-merit based programs gave more funds to students with families earning over $100,000 than those earning between $50,000-$100,000
- Fewer sources of aid allow for a **simpler and clearer prediction of how much a student will be able to receive** in aid across programs
  - e.g., with a more limited number of programs, a state could develop a look-up table with expected aid amounts for a given family income
- **Systems of financial aid** with multiple aid programs prioritizing specific sub-student populations have the potential to **divert aid away from the most in-need students**

Smaller, targeted aid programs *can be used effectively alongside larger consolidated programs to drive enrollment or completions in particular programs or workforce needs (e.g., teachers, nursing) or institutional segments (e.g., community colleges)*

State example



- New Jersey **distributes ~90% of aid through a single need-based program**
- RAND Corporation found **significant increases in on-time graduation rates**, and **enrollment of the lowest income recipients** as a result of New Jersey's program

Source: Rand Corporation; National Association of Student Financial Aid Administrators; Higher Ed School Finance Inequity and Inadequacy in Virginia; Southern Regional Education Board

Agenda

- Comparative State Analysis Executive Summary
- Funding Strategy: Institutional Allocations
- Funding Strategy: Financial Aid
- **Appendix**
  - **Supporting Data**
  - **Selected State Funding Formula Spotlights**

Massachusetts is positioned slightly above the national average on appropriations per FTE, but is below on financial aid metrics

	Institutional revenue metrics (FY20)[1]				Financial aid metrics (FY20)[1]		
	State & local appropriations per FTE	Total state & local appropriations	State & local share of total education revenues[2]	Tuition share of total education revenues	State public financial aid per FTE	Total state public financial aid	Public financial aid as % of state & local appropriations
National average	**$8.6k**	**$1,893m**	**52.7%**	**48.3%**	**$830**	**$182m**	**9.6%**
Massachusetts	$8.7k	$1,369m	59.8%	40.2%	$463	$73m[3]	4.4%
MA position	19th	22nd	16th	37th	28th	29th	34th

Institutional revenue and financial aid metrics have been adjusted by the State Higher Education Executive Officers (SHEEO) Association's proprietary cost of living and education mix index. As a result, they are not intended to directly tie back to actuals reported by states.

1. All institutional revenue and financial aid metrics are adjusted by the SHEEO cost of living index (COLI) and education mix index (EMI)
2. Education revenues include all state and local appropriations and tuition revenue
3. This data is from SHEEO and differs from internal MA data which puts total FY20 state financial aid to students attending public institutions at $117m

Source: SHEEO; IPEDS

State financial metrics by state & local funding per FTE in public higher education, adjusted for cost of living and institutional mix[1] (1/2)

		Institutional revenue metrics (FY20)[1]				Financial aid metrics (FY20)[1]		
Posi-tion	State	State & local appropriations per FTE	Total state & local appropriations	State & local share of total education revenues[2]	Tuition share of total education revenues[2]	Financial aid per FTE	Total financial aid	Public financial aid as % of state & local appropriations
	D.C.	$21.3k	$68m	78%	22%	$1,409	$4m	4.7%
1	Wyoming	$21.8k	$472m	85.6%	14.5%	$1,261	$27m	6.3%
2	Illinois	$17.7k	$5,515m	69.4%	31.9%	$835	$261m	5.2%
3	Alaska	$16.1k	$243m	76.8%	23.2%	$859	$13m	4.4%
4	Hawaii	$14.7k	$512m	75.1%	24.9%	$159	$6m	0.8%
5	New Mexico	$14.3k	$1,018m	78.1%	21.9%	$238	$17m	1.8%
6	New York	$12.3k	$6,425m	66.1%	33.9%	$1,362	$714m	11.2%
7	Connecticut	$12.k	$974m	49.9%	50.1%	$350	$29m	2.4%
8	Tennessee	$11.k	$2,050m	62.2%	39.4%	$2,328	$435m	24.9%
9	North Carolina	$10.7k	$4,330m	67.6%	32.4%	$353	$142m	3.8%
10	Nebraska	$10.5k	$774m	60.6%	40.9%	$234	$17m	2.3%
11	Georgia	$10.3k	$3,712m	66.6%	33.4%	$2,017	$723m	21.5%
12	Idaho	$9.9k	$547m	71.4%	28.6%	$411	$23m	4.5%
13	California	$9.5k	$15,325m	77.3%	22.7%	$975	$1,567m	8.5%
14	Nevada	$9.4k	$680m	75.6%	24.4%	$1,427	$103m	15.3%
15	North Dakota	$8.9k	$290m	48.5%	51.5%	$525	$17m	6.0%
16	Missouri	$8.8k	$1,441m	53.3%	46.7%	$632	$103m	8.6%
17	Maryland	$8.8k	$1,948m	53.4%	46.6%	$456	$101m	4.5%
18	Arkansas	$8.8k	$977m	64.0%	52.7%	$935	$104m	12.6%
19	Massachusetts	$8.7k	$1,369m	59.8%	40.2%	$463	$73m	4.4%
20	Washington	$8.6k	$1,985m	59.4%	40.6%	$1,489	$343m	16.6%
21	Utah	$8.4k	$1,074m	56.3%	43.7%	$233	$30m	2.8%
22	Wisconsin	$8.3k	$1,709m	54.2%	45.8%	$563	$116m	7.1%
23	Texas	$8.1k	$8,728m	59.6%	40.4%	$275	$294m	3.7%
24	Maine	$8.1k	$276m	52.7%	47.3%	$395	$13m	4.7%

States ordered by this metric

All revenue and aid metrics are adjusted by SHEEO's COLI/EMI indices[1]

Selected for further analysis

1. All institutional revenue and financial aid metrics are adjusted by the SHEEO cost of living index (COLI) and education mix index (EMI)
2. Education revenues include all state and local appropriations and tuition revenue

Source: SHEEO; IPEDS

State financial metrics by state & local funding per FTE in public higher education, adjusted for cost of living and institutional mix[1] (1/2)

		Institutional revenue metrics (FY20)[1]				Financial aid metrics (FY20)[1]		
Posi-tion	State	State & local appropriations per FTE	Total state & local appropriations	State & local share of total education revenues[2]	Tuition share of total education revenues[2]	Financial aid per FTE	Total financial aid	Public financial aid as % of state & local appropriations
25	Minnesota	$8.1k	$1,453m	44.8%	55.2%	$734	$132m	9.7%
26	Alabama	$8.0k	$1,652m	37.1%	67.1%	$459	$94m	6.7%
27	New Jersey	$7.7k	$2,024m	51.4%	48.6%	$1,475	$386m	17.1%
28	Florida	$7.7k	$4,867m	76.6%	23.4%	$1,333	$841m	17.4%
29	South Dakota	$7.7k	$246m	47.9%	55.1%	$304	$10m	4.3%
30	Michigan	$7.6k	$2,726m	33.5%	66.5%	$15	$5m	0.2%
31	Kentucky	$7.5k	$1,063m	46.4%	55.3%	$1,196	$169m	18.0%
32	Kansas	$7.4k	$956m	50.5%	49.5%	$115	$15m	1.6%
33	Mississippi	$7.2k	$911m	46.4%	53.6%	$320	$41m	5.6%
34	Oregon	$7.k	$961m	47.0%	53.0%	$657	$91m	8.2%
35	Rhode Island	$6.9k	$207m	41.4%	58.6%	$252	$8m	3.2%
36	Montana	$6.8k	$238m	47.4%	52.6%	$68	$2m	1.0%
37	Iowa	$6.6k	$792m	38.8%	61.2%	$206	$25m	3.2%
38	South Carolina	$6.6k	$1,109m	38.2%	64.9%	$2,164	$364m	34.3%
39	Virginia	$6.5k	$1,967m	43.2%	57.4%	$904	$273m	13.7%
40	Ohio	$6.4k	$2,476m	39.6%	60.4%	$273	$105m	4.8%
41	Oklahoma	$6.4k	$808m	42.4%	57.6%	$810	$102m	14.6%
42	Indiana	$6.4k	$1,566m	39.4%	62.0%	$1,061	$260m	17.5%
43	Louisiana	$6.1k	$1,017m	52.9%	47.1%	$1,851	$306m	33.0%
44	Delaware	$6.0k	$212m	24.9%	75.9%	$441	$16m	6.4%
45	West Virginia	$5.9k	$386m	48.1%	59.6%	$1,440	$94m	25.3%
46	Arizona	$5.5k	$1,725m	40.5%	62.1%	$36	$11m	0.7%
47	Pennsylvania	$5.4k	$1,743m	33.6%	66.4%	$727	$234m	13.4%
48	Colorado	$5.1k	$944m	32.6%	67.4%	$1,140	$209m	20.4%
49	New Hampshire	$4.3k	$150m	29.1%	70.9%	$101	$4m	2.1%
50	Vermont	$3.4k	$70m	18.7%	84.6%	$467	$10m	12.3%

States ordered by this metric

All revenue and aid metrics are adjusted by SHEEO's COLI/EMI indices[1]

Selected for further analysis

1. All institutional revenue and financial aid metrics are adjusted by the SHEEO cost of living index (COLI) and education mix index (EMI)
2. Education revenues include all state and local appropriations and tuition revenue

Source: SHEEO; IPEDS

MA is well-positioned in postsecondary attainment, but is broadly in-line with state averages for most enrollment / graduation metrics

	Enrollment metrics									Outcome metrics			
	% of total state enrollment in state public institutions *(FY20 FTE)*	Under-graduate % of public enrollment in state institutions *(FY20 FTE)*[1]	Graduate % of public enrollment in state institutions *(FY20 FTE)*[1]	Public 2-yr state institution enrollment growth *(FY15–FY20 FTE) (CAGR)*	Public 4-yr state institution enrollment growth *(FY15–FY20 FTE) (CAGR)*	% of public enrollment attending state 2-yr institution *(FY20 FTE)*	% of public enrollment attending state 4-yr institution *(FY20 FTE)*	URM % public enrollment in state institutions *(Fall 2020 headcount)*	Pell-eligible % of public enrollment[2] in state institutions *(2019)*	Post-secondary attainment rate[3] *(2019)*	Overall grad. rate[2] *(2020)*	URM grad. rate[2] *(2020)*	Pell grad. rate[2] *(2020)*
National average[4]	**70%**	**91%**	**9%**	**-2.4%**	**0.9%**	**40%**	**60%**	**46%**	**41%**	**44%**	**49%**	**37%**	**38%**
Massachusetts	36%	90%	10%	-4.9%	0.1%	30%	70%	31%	41%	56%	49%	32%	38%
MA position	49th	35th	16th	45th	20th	28th	23rd	24th	22nd	1st	23rd	33rd	21st

1. Undergraduate and graduate proportions are based on IPEDS reported estimated values
2. Statistics are calculated only for first-time, full-time, degree-seeking undergraduate students
3. Postsecondary attainment rate is for ages 25-64
4. Post-secondary attainment national average is from the Lumina Foundation; All other outcomes averages are calculated as weighted averages, weighting by the number of students in the target population in each state

Source: IPEDS; NCES; Lumina

States ordered by percent of total state enrollment in public institutions (1/2)

		States ordered by this metric	Enrollment metrics								Outcome metrics			
Position	State	% of total state enrollment in state public institutions *(FY20 FTE)*	Under-graduate % of public enrollment in state institutions *(FY20 FTE)*[1]	Graduate % of public enrollment in state institutions *(FY20 FTE)*[1]	Public 2-yr state institution enrollment growth *(FY15–FY20 FTE) (CAGR)*	Public 4-yr state institution enrollment growth *(FY15–FY20 FTE) (CAGR)*	% of public enrollment attending state 2-yr institution *(FY20 FTE)*	% of public enrollment attending state 4-yr institution *(FY20 FTE)*	URM % public enrollment in state institutions *(Fall 2020 headcount)*	Pell-eligible % of public enrollment[2] in state institutions *(2019)*	Post-secondary attainment rate[3] *(2019)*	Overall grad. rate[2] *(2020)*	URM grad. rate[2] *(2020)*	Pell grad. rate[2] *(2020)*
	DC	4%	90%	10%	-	-3.1%	0%	100%	76%	56%	66%	23%	17%	14%
1	WY	98%	94%	6%	-1.5%	-1.7%	52%	48%	13%	31%	41%	46%	32%	38%
2	NM	95%	90%	10%	-3.9%	-3.1%	46%	54%	62%	54%	36%	37%	33%	31%
3	AK	93%	88%	12%	-	-5.5%	0%	100%	21%	35%	40%	32%	20%	20%
4	MT	91%	92%	8%	-3.4%	-1.8%	12%	88%	32%	32%	45%	46%	30%	38%
5	MS	89%	93%	7%	-1.1%	-0.5%	38%	62%	50%	57%	35%	46%	37%	38%
6	NV	89%	93%	7%	-	1.5%	45%	55%	39%	43%	34%	42%	36%	34%
7	AR	88%	89%	11%	-3.1%	-0.4%	27%	73%	32%	48%	33%	45%	32%	35%
8	TX	86%	90%	10%	-3.3%	3.4%	44%	56%	60%	46%	40%	41%	35%	34%
9	ND	85%	90%	10%	0.3%	-2.0%	30%	70%	19%	26%	49%	54%	29%	40%
10	WA	85%	93%	7%	-1.8%	0.0%	19%	81%	23%	32%	48%	53%	42%	43%
11	MI	85%	89%	11%	-4.7%	-1.1%	30%	70%	22%	36%	42%	52%	32%	37%
12	OK	85%	90%	10%	-2.9%	-1.0%	51%	49%	28%	43%	35%	41%	29%	30%
13	AL	84%	86%	14%	-1.4%	1.9%	26%	74%	39%	42%	37%	48%	34%	32%
14	LA	84%	89%	11%	-0.6%	0.6%	26%	74%	47%	50%	33%	44%	31%	32%
15	KS	83%	90%	10%	-2.0%	-0.6%	37%	63%	25%	37%	45%	49%	36%	38%
16	OR	83%	91%	9%	-5.0%	-0.4%	37%	63%	20%	40%	45%	44%	34%	34%
17	SD	82%	91%	9%	0.1%	-1.9%	18%	82%	39%	32%	45%	55%	22%	44%
18	MD	80%	89%	11%	-3.8%	1.3%	34%	66%	48%	35%	50%	50%	37%	35%
19	SC	80%	91%	9%	-3.9%	0.9%	31%	69%	33%	37%	41%	47%	32%	33%
20	HI	79%	93%	7%	-4.0%	-1.6%	41%	59%	15%	37%	46%	39%	28%	33%
21	WI	79%	93%	7%	-1.4%	-0.1%	27%	73%	21%	28%	46%	59%	37%	45%
22	NC	79%	92%	8%	-2.5%	1.5%	42%	58%	42%	43%	45%	55%	44%	44%
23	CA	78%	94%	6%	-0.4%	2.4%	29%	71%	55%	45%	44%	52%	41%	47%
24	GA	78%	87%	13%	-0.7%	2.4%	52%	48%	48%	46%	43%	45%	35%	35%

1. Undergraduate and graduate proportions are based on IPEDS reported estimated values
2. Statistics are calculated only for first-time, full-time, degree-seeking undergraduate students
3. Postsecondary attainment rate is for ages 25-64

Source: SHEEO; IPEDS; Lumina

Selected for further analysis

States ordered by percent of total state enrollment in public institutions (2/2)

		States ordered by this metric	Enrollment metrics								Outcome metrics			
Position	State	% of total state enrollment in state public institutions (FY20 FTE)	Under-graduate % of public enrollment in state institutions (FY20 FTE)[1]	Graduate % of public enrollment in state institutions (FY20 FTE)[1]	Public 2-yr state institution enrollment growth (FY15–FY20 FTE) (CAGR)	Public 4-yr state institution enrollment growth (FY15–FY20 FTE) (CAGR)	% of public enrollment attending state 2-yr institution (FY20 FTE)	% of public enrollment attending state 4-yr institution (FY20 FTE)	URM % public enrollment in state institutions (Fall 2020 headcount)	Pell-eligible % of public enrollment[2] in state institutions (2019)	Post-secondary attainment rate[3] (2019)	Overall grad. rate[2] (2020)	URM grad. rate[2] (2020)	Pell grad. rate[2] (2020)
25	NJ	77%	91%	9%	-3.7%	1.6%	36%	64%	42%	44%	51%	48%	34%	39%
26	IN	77%	86%	14%	-2.4%	4.8%	21%	79%	23%	35%	38%	56%	38%	40%
27	OH	75%	89%	11%	0.7%	-0.8%	35%	65%	22%	35%	41%	51%	31%	34%
28	CO	72%	88%	12%	-0.1%	0.7%	26%	74%	29%	30%	52%	52%	40%	38%
29	DE	72%	91%	9%	-	-0.6%	24%	76%	43%	32%	43%	62%	45%	33%
30	NE	71%	88%	12%	-3.1%	1.3%	31%	69%	20%	36%	48%	52%	36%	43%
31	IA	71%	93%	7%	-2.6%	-0.3%	44%	56%	14%	33%	45%	54%	34%	40%
32	FL	70%	92%	8%	1.3%	0.5%	49%	51%	53%	46%	42%	53%	46%	45%
33	KY	70%	91%	9%	-2.3%	-1.1%	31%	69%	19%	44%	36%	49%	35%	38%
34	TN	66%	91%	9%	0.8%	-0.1%	32%	68%	35%	49%	39%	40%	28%	31%
35	VA	65%	88%	12%	-3.8%	0.9%	32%	68%	34%	33%	50%	60%	46%	44%
36	ME	61%	93%	7%	-2.1%	-0.1%	29%	71%	9%	45%	45%	41%	30%	33%
37	IL	60%	88%	12%	-4.4%	-1.3%	52%	48%	45%	44%	47%	47%	32%	37%
38	WV	60%	89%	11%	-4.3%	-1.3%	18%	82%	9%	42%	32%	46%	31%	36%
39	MO	59%	90%	10%	-3.9%	-1.7%	34%	66%	22%	40%	41%	48%	31%	35%
40	AZ	59%	91%	9%	-2.4%	5.0%	37%	63%	41%	35%	39%	48%	36%	36%
41	VT	58%	92%	8%	-4.1%	2.3%	18%	82%	7%	22%	49%	66%	54%	55%
42	MN	54%	92%	8%	-2.8%	-1.0%	40%	60%	22%	36%	52%	51%	26%	39%
43	ID	54%	90%	10%	2.2%	0.1%	28%	72%	16%	39%	40%	43%	36%	36%
44	PA	53%	90%	10%	-3.4%	-1.0%	25%	75%	27%	29%	44%	49%	30%	37%
45	NY	51%	92%	8%	-5.1%	0.5%	38%	62%	48%	55%	50%	43%	31%	35%
46	CT	50%	90%	10%	-3.8%	0.0%	30%	70%	38%	43%	50%	48%	30%	32%
47	RI	45%	93%	7%	-0.6%	-0.3%	30%	70%	27%	43%	46%	55%	39%	42%
48	UT	44%	93%	7%	-2.3%	1.7%	21%	79%	15%	29%	46%	43%	28%	35%
49	MA	36%	90%	10%	-4.9%	0.1%	30%	70%	31%	41%	56%	49%	32%	38%
50	NH	26%	92%	8%	-1.6%	-1.5%	28%	72%	9%	30%	49%	60%	49%	51%

1. Undergraduate and graduate proportions are based on IPEDS reported estimated values
2. Statistics are calculated only for first-time, full-time, degree-seeking undergraduate students
3. Postsecondary attainment rate is for ages 25-64

Source: SHEEO; IPEDS; Lumina

Selected for further analysis

The eight states for which in-depth profiles were developed present a range of values across financial metrics, with some above and some below Massachusetts[1]

State	Institutional revenue metrics (FY20)[1]				Financial aid metrics (FY20)[1]		
	State & local appropriations per FTE	Total state & local appropriations	State & local share of total education revenues[2]	Tuition share of total education revenues[2]	State public financial aid per FTE	Total state public financial aid	Public financial aid as % of state & local appropriations
National average	**$8.6k**	**$1,893m**	**52.7%**	**44.0%**	**$746**	**$182m**	**9.6%**
New York	$12.3k	$6,425m	66.1%	33.9%	$1,362	$714m	11.2%
Tennessee	$11.0k	$2,050m	62.2%	39.4%	$2,328	$435m	24.9%
California	$9.5k	$15,325m	77.3%	22.7%	$975	$1,567m	8.5%
Massachusetts	**$8.7k**	**$1,369m**	**59.8%**	**40.2%**	**$463**	**$73m[3]**	**4.4%**
Washington	$8.6k	$1,985m	59.4%	40.6%	$1,489	$343m	16.6%
Florida	$7.7k	$4,867m	76.6%	23.4%	$1,333	$841m	17.4%
Oregon	$7.0k	$961m	47.0%	53.0%	$657	$91m	8.2%
Ohio	$6.4k	$2,476m	39.6%	60.4%	$273	$105m	4.8%
Louisiana	$6.1k	$1,017m	52.9%	47.1%	$1,851	$306m	33.0%

States ordered by this metric

All revenue and aid metrics are adjusted by SHEEO's COLI/EMI indices[1]

1. All institutional revenue and financial aid metrics are based adjusted by the SHEEO cost of living index (COLI) and education mix index (EMI)
2. Education revenues include all state and local appropriations and tuition revenue
3. This data is from SHEEO and differs from internal MA data which puts total FY20 state financial aid to students attending public institutions at $117m

Source: SHEEO; IPEDS

Of the states profiled, MA has the highest post-secondary attainment rate, but is in the middle of the group based on graduation rate

State	Enrollment metrics: % of total state enrollment in state public institutions (FY20 FTE)	Enrollment metrics: Under-graduate % of public enrollment in state institutions (FY20 FTE)[1]	Enrollment metrics: Graduate % of public enrollment in state institutions (FY20 FTE)[1]	Enrollment metrics: Public 2-yr state institution enrollment growth (FY15–FY20 FTE) (CAGR)	Enrollment metrics: Public 4-yr state institution enrollment growth (FY15–FY20 FTE) (CAGR)	Enrollment metrics: % of public enrollment attending state 2-yr institution (FY20 FTE)	Enrollment metrics: % of public enrollment attending state 4-yr institution (FY20 FTE)	Enrollment metrics: URM % public enrollment in state institutions (Fall 2020 headcount)	Enrollment metrics: Pell-eligible % of public enrollment[2] in state institutions (2019)	Outcome metrics: Post-secondary attainment rate[3] (2019)	Outcome metrics: Overall grad. rate[2] (2020)	Outcome metrics: URM grad. rate[2] (2020)	Outcome metrics: Pell grad. rate[2] (2020)
National average	**70%**	**91%**	**9%**	**-2.4%**	**0.9%**	**40%**	**60%**	**46%**	**41%**	**44%**	**49%**	**37%**	**38%**
Washington	85%	93%	7%	-1.8%	0.0%	19%	81%	23%	32%	48%	53%	42%	43%
Louisiana	84%	89%	11%	-0.6%	0.6%	26%	74%	47%	50%	33%	44%	31%	32%
Oregon	83%	91%	9%	-5.0%	-0.4%	37%	63%	20%	40%	45%	44%	34%	34%
California	78%	94%	6%	-0.4%	2.4%	29%	71%	55%	45%	44%	52%	41%	47%
Ohio	75%	89%	11%	0.7%	-0.8%	35%	65%	22%	35%	41%	51%	31%	34%
Florida	70%	92%	8%	1.3%	0.5%	49%	51%	53%	46%	42%	53%	46%	45%
Tennessee	66%	91%	9%	0.8%	-0.1%	32%	68%	35%	49%	39%	40%	28%	31%
New York	51%	92%	8%	-5.1%	0.5%	38%	62%	48%	55%	50%	43%	31%	35%
Massachusetts	**36%**	**90%**	**10%**	**-4.9%**	**0.1%**	**30%**	**70%**	**31%**	**41%**	**56%**	**49%**	**32%**	**38%**

States ordered by this metric

1. Undergraduate and graduate proportions are based on IPEDS reported estimated values
2. Statistics are calculated only for first-time, full-time, degree-seeking undergraduate students
3. Postsecondary attainment rate is for ages 25-64

Source: SHEEO; IPEDS; Lumina

California community colleges use a predominantly enrollment-based funding model; a small portion of the model is outcomes-based

Public higher education overview

1.63m
Total students
FTEs in public institutions

53% → **117** public two-years

47% → **36** public four-years

Vision for higher education

California Community College (CCC) Vision for Success: California has set education and equity goals for its community colleges to achieve by the end of 2022:

- **Educational attainment:** Increase by 20% the number of students annually who complete their program and acquire associates degrees, credentials, certificates, or skillsets that prepare them for careers
- **Transferring students to four-year programs:** Increase by 35% the number of students who transfer to a UC or CSU institution annually
- **Career placement:** Increase the percent of CTE students who report being employed in their field of study to improved rate of 76 percent
- **Closing achievement gaps:** Eliminate disparities in achievement, especially among underrepresented student groups and students in regions with relatively low educational attainment among adults

State public institution financing model

2-year | 4-year

For California Community Colleges, the **Student Centered Funding Formula (SCFF)** is a mixed system that funds institutions according to student-based metrics according to the following schedule:

Key formula components

- **~70% enrollment base allocation**: primarily based on the number of enrolled students
- **~20% supplemental allocation:** based on the relative number of students receiving a Pell Grant, College Promise Grant, or students covered by California AB 540
- **~10% student success allocation**: based on outcomes that include degree completion numbers, numbers of students who transfer to four-year programs, numbers of students completing transfer-level math and English in first postsecondary year, number of students who attain the regional living wage, and several other success metrics

California's 4-year sector uses a largely enrollment-based model (~90-95% of total allocations) that gives institutions funds on a per FTE basis with no distinction for equity components or between undergraduate and graduate students. The additional ~5-10% is based on one-time programs or initiatives

Source: IPEDS; College Scorecard; California Community Colleges; Foundation for California Community Colleges; State commissioner interviews

Florida's state university funding model has institutions earn back portions of their allocation based on outcomes

Public higher education overview

641k
Total students
FTEs in public institutions

49% → **28** public two-years

51% → **15** public four-years

Vision for higher education

Department of Education 2020-25 Strategic Plan: Florida has set a series of quantifiable goals across various education attainment metrics, with an identified "Ambitious, yet Achievable" target by 2024.

- **Postsecondary continuation rate:** Goal of 73% of Florida high school graduates who enroll in postsecondary education
- **Postsecondary completion rate:** Goal of 56.2% of Florida College System enrollees and 98.9% of district post-secondary enrollees graduating within 150% program time
- **Associate degree articulation rate:** Goal of 73% of Associate of Arts graduates pursuing education to the next postsecondary level
- **Postsecondary employment rate:** Goal of 79% of program completers employed under purview of Florida DoE

State public institution financing model

Following the Great Recession, the state transitioned the 4-year funding formula away from enrollment-based to outcomes-based, but left the 2-year formula based on enrollment reflecting differences in segment goals

2-year | 4-year

Florida utilizes a formula-based allocation that varies significantly between community colleges and state universities with **~25% of state university funding tied to outcomes**, compared to **>5% of community college funding based on outcomes**

Key formula components: State Universities

- **~75% guaranteed base allocation**: based on historical funding levels from the prior enrollment-based model with annual adjustments reflecting broader economic conditions
- **~25% Institutional investment**: Portion of base allocation not guaranteed, but must be **earned back by institutions** based on performance across 10 metrics including % BA graduates employed one year after graduation, net tuition and fees, 4-year graduation rate, and others, including one metric of the institution's choice
- **State investment**: Additional state funds set aside to match the 25% institutional investment

Some metrics are designed to target equity goals, e.g., University Access Rate, which is % Pell

Process

- Institutions must **achieve a threshold of 70-points out of 100** to receive their institutional investment
- Institutions are eligible for their proportion of the state investment **based on either absolute performance or improvement from prior years**

Source: State commissioner interviews; IPEDS; College Scorecard; State University System of Florida; Florida Board of Governors: Performance Funding Model Overview; Florida Department of Education: Florida College Performance Based Funding

Louisiana's state allocation model combines base allocations, enrollment centered cost allocations and outcomes-based funding

Public higher education overview

170k
Total students
FTEs in public institutions

28% → **14** public two-years

72% → **17** public four-years

Vision for higher education

Board of Regents Master Plan for Public Postsecondary Education: Louisiana has established a master plan that aims to have 60 percent of working-age residents aged 25-64 hold a degree or high-value credential by 2030. The master plan was adopted in 2019 with the following specific goals:

- **Student success:** enrolling and graduating more students through expansion and improvement of education pipeline
- **Innovation:** both research and academic curricula should be innovative, utilizing new and different approaches to work
- **Equity**: Louisiana seeks to close attainment gaps among students

This weighting includes a factor based on relative proportions of underrepresented minorities served

In years when the overall budget is reduced, funds do not flow through the model and are instead allocated based on historical proportions

State public institution financing model

2-year | 4-year

Louisiana utilizes a formula based allocation that **combines a large base allocation with enrollment and outcome-driven measures** for both community colleges and state universities

Key formula components

- **~58% base allocation:** based on historical funding levels
- **~17% cost allocation:** based on weighted student credit hours per institution and related costs for providing those services[1]
- **~25% outcomes:** Points awarded for outcomes are measured across four dimensions:
  - **Completers**: retention/progression, certificates/degrees, cross enrollment/transfer, time-to-award
  - **Research**: Grant funded research
  - **Workforce**: # of completers leading to 4 and 5 star jobs[2]
  - **Equity Completers**: completion on Pell, 25 and above and underrepresented minorities

Process

- For outcome-driven funding, **total points at each institution are divided into total points at all 4- or 2-year institutions** to determine a proportional allocation

1. Student credit hours are multiplied by a calculation of unit cost for providing instruction in different subject areas based on salary and benefits costs for related instructors, class sizes and support services
2. Based on information from Louisiana Economic Development (LED)

Source: IPEDS; College Scorecard; Louisiana Board of Regents; State commissioner interviews

Louisiana enrollment-based spotlight: The formula includes enrollment-based funds built from cost per student credit hour

Louisiana spotlight: enrollment-based funding

Louisiana's funding formula *(2-year, 4-year)* =

Base funding *(~58%)*

- Based on historical funding levels

+ **Enrollment funding** *(~17%)*

- Based on weighted student credit hours per institution and related costs for providing those services

+ **Outcomes-based funding** *(~25%)*

- Points awarded for outcomes are measured across four dimensions: completers, research, workforce and equity completers

The model is only used in years when overall funding increases. In other years institutions receive funds pro-rata according to their prior year allocations

Goals of the model

- **Balance funding between cost- and outcomes-based components to avoid dramatic swings** in funding between institutions, while incentivizing outcomes
- The enrollment-based, "cost portion" of the funding model is designed to cover the state's share of the cost necessary for an institution to achieve its mission

Enrollment cost calculations

- **A base Student Credit Hour (SCH) cost is established for an undergraduate liberal arts student credit hour** by considering elements such as: faculty salaries of peer institutions, retirement costs and health benefits, current average class size, etc.[1]
- **SCH costs are then weighted based on a cost matrix** developed by the Texas Higher Education Formula to account for the higher cost to provide certain subject area courses

The calculation also includes components for related operations and maintenance and general support

Enrollment allocations

- A **two-year rolling average of weighted student credit hour costs is used** to determine each institution's relative share of overall enrollment-based funds
- The two-year and four-year sector allocate enrollment-based funds from two separate pools of funds and are thus do not compete with one another

1. All elements include: faculty salaries of peer institutions, retirement costs and health benefits, current average class size, annual student workloads, and an additional customary calculation for institutional instruction, research, academic support and student services

Source: Louisiana Board of Regents

New York state universities are largely funded based on enrollment; CUNY and SUNY have experimented with outcomes-based funding

Public higher education overview

536k
Total students
FTEs in public institutions

38% → **41** public two-years

62% → **40** public four-years

Vision for higher education

SUNY Strategic Plan 2010 & Beyond: The State University of New York system aspires to prepare students for future career and learning opportunities with an emphasis on values including student-centered learning, community engagement, diversity, collaboration, and educational integrity.

CUNY Master Plan 2016-2020: The City University of New York system emphasizes pathways to educational achievement including maximizing affordability, catering to diversity, availability online, and strong student support. Additionally, the master plan highlights academic momentum and transfer opportunities for students to continue their academic journey.

State public institution financing model

2-year | 4-year

There are no equity bonuses applied for different sub-groups

Key formula components: community colleges

- **Enrollment-based funding**: the state appropriates funds based on a per-FTE methodology. Funds are then allocated to individual institutions based on a model that is largely FTE driven, but also includes components for institution square footage, and instructional costs
- **Hold harmless provision**: community colleges will receive a minimum funding amount roughly equivalent to 2022 levels should enrollment decrease over time, thus creating a "floor" for funding

Key formula components: SUNY and CUNY

- **Base funding**: institutions receive state funds based on historical funding levels with adjustments over time

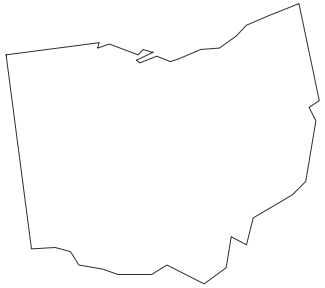
Process

- New York appropriates to 2-year institutions and 4-year institutions using separate lump-sums for each sector, which are then allocated to institutions using the same general methodology used to determine the lump-sum funding amount

Source: IPEDS; College Scorecard; CUNY; SUNY; New York Office of Higher Education; SHEF

Ohio uses an outcomes-based formula to allocate 100% of institutional allocations for both state universities and community colleges

Public higher education overview



406k
Total students
FTEs in public institutions

27% → **41** public two-years

73% → **20** public four-years

Vision for higher education

Department of Higher Education Attainment Goal 2025: Ohio has set the statewide goal that calls for 65 percent of Ohioans equipped with a degree, certificate, or other high-value postsecondary credential by 2025. The goal was established in 2020 and contains the following elements:

- **Access & affordability:** affordable routes to degrees with minimal debt should be available and communicated to Ohioans
- **Academic success & completion:** Ohioans should have the knowledge and skills to complete their program on time and start their career or new education experience remediation free
- **Workforce alignment & partnerships**: career-centered learning and work-study opportunities that prepare Ohioans for in-demand careers

Ohio implemented the formula over the course of 3 years, providing a phased stop-loss provision

Both course and milestone/degree completion are weighted for risk factors[1]

The state general assembly also allocates additional funds to select schools (e.g., HBCUs) to correct for unintended consequences from the model

State public institution financing model

2-year | 4-year

Ohio's state allocation model for both community colleges and state universities, **State Share of Instruction (SSI)** is **entirely outcomes-based**, based on **course completion, milestone/degree completion and success points or advanced degrees**, with variation in metric specifics based on sector goals

Key formula components

- **~50% Course/degree Completion**: based on each institutions most recent 3-year average and weighted by statewide average model costs
- **~25-30% Milestone/degree Completion**: based on a lagged 3-year average and weighted by statewide average degree costs
- **~20-25% Success points/Advanced degrees**:
  - **2-year:** count of students completing 12-24-36 student credit hours of college level coursework, based on lagged 3 year average, with no cost basis
  - **4-year:** FTE enrollment in medical or doctoral programs based on most recent 3-year average, weighted by statewide average degree costs

Process

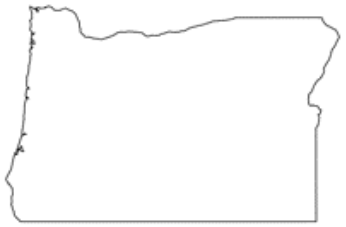
- For each funding component institutions are **allocated funds based on their relative performance** to other institutions in their sector

1. Risk factors include: financial and academic preparation, age and minority status

Source: IPEDS; College Scorecard; Ohio Department of Higher Education; State commissioner interviews

Oregon uses a funding model for state universities that combines base plus (or -minus) allocations with ~80% outcomes-based allocations

Public higher education overview



138k
Total students
FTEs in public institutions

43% → **17** public two-years

57% → **9** public four-years

Vision for higher education

Oregon's 40-40-20 Education Goal: Goal of having 40% of Oregonians complete 4-year degree, 40% of Oregonians complete a 2-year degree, and 20% of Oregonians achieve a high school diploma or equivalent by 2025. Established by Oregon legislature in 2017.

Oregon's Adult Education and Training Goal: Goal of having ~300k adult Oregonians achieve new degrees or certificates by 2030 and reducing educational attainment gaps among URM, rural, and low-income groups by half by 2030. Established by the Higher Education Coordinating Commission in 2018.

State public institution financing model

2-year | 4-year

The state has maintained a largely enrollment-based (~93%) model for the 2-year sector in recognition of the sector's more diverse goals (e.g., skill development and certificates)

Oregon utilizes a **formula based allocation approach called the Student Success and Completion Model (SSCM) for state university** allocations, while community college allocations are primarily enrollment driven

Key formula components: State Universities

- **~17% Mission Differentiation**: based on historical funding levels adjusted for inflation based on the CPI. One line for each institution to support their unique mission and programming
- **~33% Activity-Based Funding**: distributed based on student credit hours completed at institutions, using a program and course level specific cost weighting system
- **~50% Outcomes-Based Funding**: A combination of degrees weighted by level/discipline and completions by transfer status, all for resident students only

Additional weighting is added for under-represented students: low-income (Pell), URM, rural and veteran students, and for degrees in priority areas[1]

Process

- For each funding component **all institutions' points are totaled and then divided into the total available funds** for that component to arrive at a **$/point figure** on which to fund Institutions

1. Priority degree areas include: STEM, Healthcare and Bilingual Education

Source: IPEDS; College Scorecard; Oregon Higher Education Coordinating Commission; State commissioner interviews

Oregon enrollment-based spotlight: Oregon uses an enrollment-based funding model for its two-year sector

Oregon 2-year sector spotlight: enrollment-based funding

Oregon's funding formula *(2-year)* = **Categorical funding** *(~2%)* + **Base funding** *(~5%)* + **Enrollment funding** *(~93%)*

Based on annual definitions for reimbursable FTEs. In 2021, one reimbursable FTE = 510 clock hours for residents of Oregon or border states

- Funds taken off the top of total appropriations to supports system level contracts and strategic initiatives[1]

- Stable funding for basic institution operations
- Weighted to provide sufficient funds to smaller institutions

- Based on:
  - Total Public Resources (TPR)
  - Three-year weighted average
  - Growth Management

Goals of the model

- **Access**: Funding follows the student
- **Quality**: Adequate funding per student
- **Equality**: Equalization of public resources per student using "growth management"
- **Stability**: Including base funding and using a three-year weighted average

Growth management factor

- Compares reimbursable FTEs for an institution to prior year data to **set a cap on growth in fundable FTEs[2]**
- The intention of the growth management factor is to **limit the speed with which institutions can increase funding via enrollment growth**

FTE weighted average

Year	Weighting
3 years prior	30% * FTE
2 years prior	30% * FTE
Prior year	40% * FTE
Total	100% funded FTEs

1. Categorical funding examples include: funding for prisoners taking courses, initiatives to increase distance learning, and other state-wide initiatives
2. Growth management caps are based on the prior year reimbursable FTEs multiplied by an annual growth factor (AGF) established by the Higher Education Coordinating Commission

Source: Oregon Higher Education Coordinating Commission

Tennessee's funding model for 2- and 4-year institutions is based on institutional outcomes: credit hours and degrees/certificates awarded

Public higher education overview

178k
Total students
FTEs in public institutions

36% → **13** public two-years

64% → **10** public four-years

Vision for higher education

Drive to 55: Goal of reaching 55% of Tennesseans with a college degree or certificate by 2025. Established by the governor in 2013.

Tennessee Higher Education Master Plan: 2015-2025, was adopted by the Tennessee Higher Education Commission (THEC) to serve as a guide for the state in achieving the Drive to 55. Key focus areas include:

- **Accessibility & Affordability:** ensure all students can take advantage of educational opportunities regardless of various potential hardships
- **Completion & Transparency**: Clarify institutional offerings and implement interventions to support students in completing programs
- **Outreach to adults & preparing for future work:** Reengage adults, especially those unemployed, in additional education and prepare Tennessee for the future by increasing majors suited for high-demand jobs

State public institution financing model

2-year | 4-year

Tennessee utilizes a formula based allocation that combines a small base allocation with **similar outcomes measures for both community colleges and state universities**

Key formula components

- **~15%** of points are allocated **based on an institution's fixed costs** relative to total fixed costs for all institutions[1]
- **~80%** based primarily on a combination of **weighted credit hour completion, certificates/degrees awarded and certificates/degrees per 100 FTES**
- Some variation in formulas for CC's and State U's, particularly job placement and workforce related components for CC's and research related elements for State U's

Additional premiums are incorporated for focus populations, and results are weighted by institutional mission[2]

- **~5%** based on **Quality Assurance Funds,** additional incentive funds institutions can earn by meeting QAF standards laid out by the state every 5 years (e.g. institutional satisfaction, job market placement, etc.)

Process

- Each institution's **percent change in points is multiplied by the institution's share of appropriations in the prior year** to calculate their new share

The model was phased in with a series of one-time payments to institutions during the transition years to avoid sudden shifts

1. Fixed costs include: maintenance and operations, utilities, equipment replacement, and education and general space. Fixed costs are calculated using a 5-year average.
2. Focus populations include: Adult learners (over 25), Low-income and academically unprepared. Outcomes are scaled by premiums for students in these populations, 80%, 100% and 120% for a student belonging to one, two or all three of the populations

Source: IPEDS; College Scorecard; Tennessee Higher Education Commission; Tennessee Comptroller of the Treasury; Research for Action; State commissioner interviews

Tennessee outcomes spotlight: Academic research shows mixed results for both Tennessee's completion and equity outcomes

Tennessee spotlight: outcomes-based funding

Tennessee's funding formula *(2-year, 4-year)* = **Institutional fixed costs**[1] *(~15%)* + **Outcomes-based** *(~80%)* + **Quality Assurance Funds** *(~5%)*

Additional premiums are incorporated for focus populations, and results are weighted by institutional mission[2]

	Completion rates	Equity
Metrics	▸ Credit hour completion ▸ Certificates / degrees awarded ▸ Certificates / degrees awarded per 100 FTEs	▸ Premiums for focus populations (adult learners – 25+, low-income and academically underprepared)
Efficacy findings	▸ There is no conclusive evidence of widespread system increases in completion rates: – Certificate completions increased within the 2-year segment following the increase of PBF in 2010 (Ortagus et al, 2020); Tennessee officials recognized certificates were not providing workforce value and redefined the formula so only certain technical certificates were included – Positive impacts were experienced on full-time 4-year bachelor degree completions (Research for Action, 2017) – Negative impacts were felt on part-time completion rates across associate degrees (within 3- and 4-years) and credit accumulation in the 2-year segment (Research for Action, 2017)	▸ Performance-based funding did not narrow completion gaps among under-represented minorities (Chan, Mabel & Mbekeani, 2020) – There was no overall impact on bachelor degree attainment – However, disparities in certificate and associate degree attainment at 2-year institutions were exacerbated, widening degree inequities

Other impacts of the model cited by Tennessee officials included an increase in competition between institutions and mission creep at 4-year institutions who sought to become research-focused to access PhD incentives

1. Based on institutional fixed costs relative to total fixed costs for all institutions. Fixed costs include: maintenance and operations, utilities, equipment replacement, and education and general space. Fixed costs are calculated using a 5-year average.
2. Focus populations include: Adult learners (over 25), Low-income and academically unprepared. Outcomes are scaled by premiums for students in these populations, 80%, 100% and 120% for a student belonging to one, two or all three of the populations

Source: Tennessee Higher Education Commission; Tennessee Comptroller of the Treasury; Research for Action; State commissioner interviews

Washington uses a base-plus (or –minus) allocation for 4 institutions and a formula that is largely enrollment driven for 2-year institutions

Public higher education overview

273k
Total students
FTEs in public institutions

51% → **34** public two-years

49% → **9** public four-years

Vision for higher education

Washington State Goal for Educational Attainment: Washington has established a statewide goal that calls for 70 percent of the state's 25-44 year old residents to have a postsecondary credential by 2023. The goal was adopted by the state legislature and signed by the governor in 2013.

WSAC Strategic Action Plan: To achieve the state's educational attainment goal, the Washington Student Achievement Council has identified high-priority areas:

- **Affordability & enrollment:** residents should have a clear, accessible pathway to enroll in higher education that accounts for financial barriers
- **Student support & completion:** student should have access to strong resources and should persist to full completion of their program

State public institution financing model

2-year | 4-year

Washington's 4-year institutions work with the state budget office to develop a request based on the prior year allocation plus non-formulaic incremental funding

Washington has a formula based allocation for community colleges that is **primarily enrollment driven**, with a **small portion allocated on outcomes.** State university funding is largely a base plus (or –minus) model

Key formula components

For 4-year institutions, funding is negotiated directly between individual institutions and the legislature. **Each institution receives a block of funding based partially on the prior year and partially on enrollments**

For 2-year institutions, funding is provided to **the State Board for Community and Technical Colleges (SBCTC),** which then **allocates based on a formula**

- **~95% of the allocation formula is driven by enrollment** targets based on a three year average with weighting for priority populations
- **~5% is applied via the Student Achievement Initiative (SAI),** which gives institutions "momentum" points for **credits, specific subject completions and certificates/degrees awarded.** Institutions are provided funds based on their total points (less completions), points per students, and completions

Additional points are allocated for minority students completing credits and/or degrees/certificates

Source: IPEDS; College Scorecard; Washington Institute for Public Policy; Washington State Board for Community Colleges and Technical Colleges; Washington Student Achievement Council; State commissioner interviews