State Funding Approaches for Public Colleges and Universities in the Midwest

MIDWESTERN HIGHER EDUCATION COMPACT

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EXECUTIVE SUMMARY

Operating revenue for public higher education is derived from several sources, such as state appropriations, tuition, room and board, and contracts. State funding in particular constitutes a large share of revenue and is consequently critical for improving enrollment, completion, and labor market outcomes. However, states differ in how institutions are funded, and some approaches may be more effective than others.[1] This report examines the ways in which 12 Midwestern states[2] provide operating funding for public colleges and universities. An overview of possible tradeoffs and outcomes research on these approaches is provided to help policymakers craft more effective funding formulas. Key findings of the report are previewed below.

Types of Funding Approaches

States use various approaches in funding public institutions. One approach allows legislators or state higher education agencies to allocate funds as they see fit without using a funding formula. Another approach utilizes an explicit funding formula based on incremental change (a percentage change based on last year's funding), enrollment levels (normally tied to the number of full-time equivalent students, with some variations for a student's credential level or field of study), or performance (tied to student outcomes). These three types of formulas can be used simultaneously within a single budget. Finally, states can also choose whether to provide funding directly to colleges or to allow state higher education agencies or system boards to allocate funds.

Funding Approaches in the Midwest

In Fiscal Year 2021, every two-year system in the Midwest had a funding formula, but some four-year systems did not use a formula (see Table 1). The two most common funding approaches used for public four-year institutions in the Midwest were incremental-only models and incremental-plus-performance models. In contrast, incremental models were frequently combined with enrollment and performance funding models in the two-year sector. Performance funding components were almost equally present in both sectors. Finally, 9 of the 13 four-year systems and 5 of the 12 two-year systems operated under funding approaches that directly allocated funds to colleges.

TABLE 1. State funding approaches for public four-year colleges and universities, Fiscal Year 2021

Funding Approach	Public four-year systems (13 systems in Midwest)	Public two-year systems (12 systems in Midwest)
No Formula	3	0
Incremental only	4	0
Enrollment only	0	0
Performance only	1	1
Incremental + Performance	4	2
Incremental + Enrollment	1	6
Enrollment + Performance	0	1
Incremental + enrollment + Performance	0	2
Direct funding to colleges	9	5

[1] States also differ in their funding for financial aid programs (e.g., need-based grant aid), though broader financing strategies are not addressed here.

[2] Consistent with the U.S. Census Bureau's regional designations, the Midwest is defined to include Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

Performance-Based Funding Metrics

In Fiscal Year 2020, approximately half of Midwestern states tied funding to student outcomes (six states in the four-year sector and seven in the two-year sector). The most common metrics under performance funding were progression toward a credential and the number of credentials awarded. Other common metrics are to encourage timely graduation, incentivize colleges to graduate more students in STEM and health majors, and support the completion of historically underrepresented groups such as students from lower-income families, minority students, and adult learners.

Potential Tradeoffs

In selecting a funding approach, policymakers face tradeoffs in terms of reducing volatility, promoting equity, and meeting state higher education goals. Incremental funding models can help reduce changes in funding that colleges face from year to year but can lock in existing resource disparities across institutions and do not consider institutional performance. Enrollment-based models tend to be most advantageous for growing institutions, which can improve funding equity between institutions. However, enrollment-based models are prone to funding volatility and may only partially be aligned with state higher education goals. Performance-based models can be aligned with state goals and can be designed to take completion equity into account, but they can increase funding volatility and resource disparities across colleges.

Outcomes Research

Nearly all the research on the effectiveness of funding approaches has focused on performance funding models. This research has generally found no effect or modest positive or negative effects of performance funding on the number of credentials completed. Some research has noted concerns about unintended consequences of performance funding, such as increased admissions selectivity and reduced diversity. Introducing equity metrics that explicitly reward colleges for serving students from underrepresented groups has the potential to mitigate but not necessarily eliminate these unintended consequences. The only study to examine all types of funding models found that tying funds to performance metrics or incremental budgeting produces fewer bachelor's degrees than solely funding based on student enrollment.

POLICY OPTIONS

- It is critical for funding formulas to be consistent and predictable so that institutions have the ability to make improvements. Volatility in funding can impede institutional operations that are already committed to ongoing costs such as facilities and labor.
- Formulas can be designed to address important state goals such as increasing educational attainment, promoting operational efficiencies, and supporting students who have been historically underserved in higher education and the colleges which predominantly serve them.
- It is important to evaluate the effectiveness of enrollment-based formulas in meeting state goals. Early research indicates that funding primarily based on enrollment may be equally or more effective in producing degrees compared to other funding models. A key challenge is to phase in funding reductions when enrollment declines to allow colleges the opportunity to adjust their operations in advance of a reduced allocation.
- Performance-based funding models provide a means of accountability and transparency but generate limited improvements in student outcomes. It is crucial to guard against unintended consequences that can limit access for students from underrepresented groups.

State Funding Approaches for Public Colleges and Universities in the Midwest

States currently provide nearly $100 billion in direct funding each year to support public higher education with the goals of economic development and social mobility (Laderman & Heckert, 2021). Among other sources of operating revenue such as tuition and contracts, state funding plays a crucial role in improving college enrollment, completion, and labor market outcomes, particularly for students from groups who have traditionally been underrepresented in higher education (Bound et al., 2019; Chakrabarti et al., 2020; Deming & Walters, 2017; Monarrez et al., 2021). But with state funding inherently limited by state economic conditions, tax revenues, balanced budget requirements, and other financial priorities, it is crucial to understand the most effective ways to allocate funding to meet state goals.

In the current economic environment of uncertainty in future state revenues, high inflation, and the lingering effects of the coronavirus pandemic, understanding and implementing effective state allocations to public higher education is more important than ever.[3] This report provides details on how the 12 Midwestern states[4] allocate funding to public colleges and universities. It also provides an overview of some possible tradeoffs of funding approaches as well as a summary of research on the effects of different funding mechanisms. The report concludes with policy considerations for developing and revising funding formulas for public two- and four-year institutions.

TYPES OF FUNDING APPROACHES

Policymakers across the nation use various mechanisms to distribute funds for higher education. These strategies range from those relying heavily on historical allocations to those implementing complex formulas (see the Addendum for a full description of funding formulas used across the nation). In addition, states can choose to distribute funding directly through the state legislature or allocate funds for a coordinating/system board to distribute. Frequently-used mechanisms include one or more of the following components:

1. No funding formula, in which the legislature or governing/coordinating board allocates funding as it sees fit, and funds distributed to colleges within a sector are not typically based on a clear mechanism.
2. Incremental models in which all colleges within a system, sector, or state get the same percentage increase or decrease in funding from previous years, regardless of changes in enrollment. Under these models, all institutions within a sector commonly receive an increase or decrease of within one percentage point of each other. In other cases, there is a clear stop-loss provision that ties at least a portion of state funding to last year's allocation.
3. Enrollment-based models that tie funding to enrollment, with the most common model basing funding on the number of full-time equivalent students. Variations account for the level of the student (such as undergraduate or graduate), field of study, or whether headcount enrollment is also considered.
4. Performance-based funding (PBF) models that tie funding to outcomes such as credits completed, credentials awarded, and labor market outcomes, with additional weight often placed on the success of students from historically underrepresented groups in higher education).

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[3] This report does not address broader higher education finance strategies that frequently include funding for state financial aid programs (e.g., need-based grant aid). For information about grant aid programs, see Gross et al. (2019). *State grant aid: An overview of programs and recent research.* MHEC.

[4] Consistent with the U.S. Census Bureau's regional designations, the Midwest is defined to include Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

PREVALENCE OF FUNDING APPROACHES

Funding approaches vary across states in the Midwest and frequently differ between four-year and two-year sectors within states due to the sectors being in separate systems (such as a public university system and a community college system). This section describes each state's funding approach by sector using the above typology.

Four-Year Institutions

Table 1 shows how public four-year institutions in Midwestern states received general state appropriations (excluding capital appropriations and student financial aid) in Fiscal Year 2021, along with a national comparison.[5] The table also shows whether institutions receive funding directly from the state legislature instead of through a coordinating or system board. In a year affected by the COVID-19 pandemic, three Midwestern states and a total of nine states nationwide had no funding formula whatsoever for the four-year sector. Iowa, Nebraska, and South Dakota typically have no formula. Most states with no formulas tend to have a smaller number of public universities, thereby reducing the complexity of allocations.

TABLE 1. State funding approaches for public four-year colleges and universities, Fiscal Year 2021

State	No Formula	Incremental only	Enrollment only	Performance only	Incremental + Performance	Incremental + Enrollment	Enrollment + Performance	Incremental + enrollment + Performance	Direct funding to colleges
Illinois		X							X
Indiana					X				X
Iowa	X								X
Kansas					X				X
Michigan		X							X
Minnesota (U of MN)		X							
Minnesota (MN State)						X			
Missouri		X							X
Nebraska	X								
North Dakota					X				X
Ohio				X					X
South Dakota	X								X
Wisconsin					X				
Midwest (13 systems)	3	4	0	1	4	1	0	0	9
National (55 systems)	9	13	6	1	14	7	2	3	41

Source: Lingo, M., Kelchen, R., Baker, D., Rosinger, K., Ortagus, J., & Wu, J. (2021). *The landscape of state funding formulas for public colleges and universities.* InformEd States. Note. Several states outside of the Midwest that typically have funding formulas suspended them during the pandemic. A few states had multiple systems of higher education within a sector with different allocation formulas. They are counted separately in this table. There are some slight updates from the original source for how a few Midwestern states were classified based on feedback from state higher education officials.

[5] There are more observations than states, as Minnesota is listed twice due to separate formulas for the University of Minnesota and Minnesota State University systems. This also happens in several other states outside of the Midwest.

Four Midwestern systems used incremental-only funding models[6], while four other systems used a combination of incremental and performance-based models. These were the most common mechanisms nationally, with 13 and 14 systems, respectively, using them in Fiscal Year 2021. The Minnesota State system was one of seven systems nationwide to combine incremental and enrollment-based formulas, while Ohio was the only fully performance-based funding system in the country. No Midwestern states used less common enrollment-only, enrollment plus performance, or hybrid models that combined incremental, enrollment, and performance. Finally, nine of the 13 systems in the Midwest allocated funding directly to public universities through legislation, with Minnesota, Nebraska, and Wisconsin being the only exceptions. This was also the norm nationally, with 41 of 55 systems doing so.

Two-Year Colleges

States employ distinctive funding approaches for public two-year colleges. As seen in Table 2, all Midwestern states and all but three two-year systems nationwide operate under some kind of funding formula. Additionally, only five Midwestern states (Indiana, Iowa, Michigan, North Dakota, and Ohio) directly allocate funds to community and technical colleges. This is likely due to the larger number of two-year institutions and more similar offerings across colleges that readily support funding formulas.

TABLE 2. State funding approaches for public two-year colleges, Fiscal Year 2021

State	No Formula	Incremental only	Enrollment only	Performance only	Incremental + Performance	Incremental + enrollment	Enrollment + Performance	Incremental + enrollment + Performance	Direct funding to colleges
Illinois							X		
Indiana					X				X
Iowa						X			X
Kansas								X	
Michigan						X			X
Minnesota						X			
Missouri						X			
Nebraska						X			
North Dakota					X				X
Ohio				X					X
South Dakota						X			
Wisconsin								X	
Midwest (12 systems)	0	0	0	1	2	6	1	2	5
National (52 systems)	3	3	7	2	8	12	7	10	24

Source: Lingo, M., Kelchen, R., Baker, D., Rosinger, K., Ortagus, J., & Wu, J. (2021). *The landscape of state funding formulas for public colleges and universities.* InformEd States. Note. Several states outside of the Midwest that typically have funding formulas suspended them during the pandemic. A few states had multiple systems of higher education within a sector with different allocation formulas. They are counted separately in this table. There are some slight updates from the original source for how a few Midwestern states were classified based on feedback from state higher education officials.

[6] Illinois is listed as having an incremental funding formula, but the Illinois Board of Higher Education has requested a performance funding system that has not been funded by the legislature.

The most common funding mechanism for public two-year colleges in Midwestern states is a pairing of incremental and enrollment models. This was used by 6 of the 12 Midwestern states and in 12 of the 52 two-year systems nationwide. Kansas and Wisconsin also added performance to the mix of incremental and enrollment funding, creating a combination funding model that is becoming more common across the country (ten systems nationwide). North Dakota and Indiana combined incremental and performance funding (eight systems nationwide), while Illinois was one of seven systems nationwide combining enrollment and performance models. Ohio was the only state in the Midwest that solely allocated funds based on performance metrics. No Midwestern states used enrollment-only models (seven nationwide) or incremental-only models (three nationwide).

PERFORMANCE-BASED FUNDING METRICS

Given the considerable variation in metrics used in performance-based funding models, this section provides details on the PBF model characteristics for public universities and two-year colleges in Midwestern states as of Fiscal Year 2020.[7]

Four-year Institutions

Table 3 shows that six Midwestern states (Indiana, Kansas, Michigan, North Dakota, Ohio, and Wisconsin) had funded PBF systems for public universities in 2020, with Illinois and Missouri having proposed systems that were unfunded. Nationwide, 22 states had funded PBF systems. Every Midwestern state with PBF except North Dakota, whose PBF system is entirely based on student credit hours completed, rewarded some colleges for the number of credentials awarded and the number of STEM and/or health credentials awarded. Every Midwestern state but Michigan had a measure of progression toward earning a credential, such as credit hours enrolled per student, credit hours accumulated per student, and year-to-year retention. These metrics were in the vast majority of PBF systems nationwide. Four Midwestern states with PBF models (all but North Dakota and Ohio) also rewarded colleges based on timely graduation, that is, whether students graduate within a certain number of years. Timely graduation metrics were present in 13 four-year systems nationally.

Turning to student equity metrics, North Dakota was the only Midwestern state that did not incentivize completions in at least one of the three most popular categories nationwide (low-income, minority, and adult students).[8] Four other Midwestern states with PBF and 19 of the 22 states with PBF for public universities distributed funds to colleges in part based on the number of students from low-income families who completed credentials. Three Midwestern states (Kansas, Ohio, and Wisconsin) had metrics for minority student completions (including groups such as American Indian, Black, and Hispanic/Latinx), along with 16 states nationwide. Finally, Kansas and Ohio were among the eight states nationally that had metrics for successfully serving adult learners.

[7] Some states such as Kansas allow colleges to choose among a set of qualifying indicators for PBF. In the current typology, states are counted in a metric category if the metric is required or listed among the state's qualifying indicators for PBF.
[8] A smaller number of states also incentivize categories such as first-generation, veteran, or academically underprepared students. Because those are uncommon, they are excluded from this analysis.

TABLE 3. Performance funding model characteristics for public four-year colleges and universities, Fiscal Year 2020

State	Any PBF	Progression to Credential	Timely Graduation	Number of Credentials	STEM/ Health Credentials	Low-income	Minority	Adult
Illinois								
Indiana	X	X	X	X	X	X		
Iowa								
Kansas	X	X	X	X	X		X	X
Michigan	X		X	X	X	X		
Minnesota								
Missouri								
Nebraska								
North Dakota	X	X						
Ohio	X	X		X	X	X	X	X
South Dakota								
Wisconsin	X	X	X	X	X	X	X	
Midwestern frequency	6	5	4	5	5	4	3	2
National frequency	22	17	13	20	17	19	16	8

Source. Ortagus, J., Rosinger, K., & Kelchen, R. (2021). *InformEd States performance-based funding policies dataset. InformEd States.*
Note. Only PBF systems that were funded in the fiscal year are included. Each sector within a state is counted only once in this table. States are counted in a metric category if the metric is required or listed among the state's qualifying indicators for PBF. There are some slight updates from the original source for how a few Midwestern states were classified based on feedback from state higher education officials.

Two-year Colleges

There are both similarities and differences in performance-based funding models among public four-year and two-year systems. As shown in Table 4, seven Midwestern states had funded PBF systems for community colleges in Fiscal Year 2020, and a total of 30 states nationwide had funded PBF in the two-year sector. Every Midwestern state with a PBF model had incentives for progression toward a credential, and all but North Dakota rewarded the number of credentials. These two metrics were present in 26 of 30 systems nationwide. Transfer rates are a common progression metric in the nation for two-year colleges, as they are tracked in 14 states. Michigan, the University of Wisconsin System, and Illinois, for example, have requirements to measure transfer rates from two-year to four-year institutions. Four Midwestern states (Indiana, Kansas, Ohio, and Wisconsin) were among the 19 nationwide with metrics for STEM and/or health credentials, and Indiana and Kansas were the only two Midwestern states with timely graduation metrics. The latter was the least common outcome rewarded nationwide (12 states).

TABLE 4. Performance funding model characteristics for public two-year colleges, Fiscal Year 2020

State	Any PBF	Progression to Credential	Timely Graduation	Number of Credentials	STEM/ Health Credentials	Low-income	Minority	Adult
Illinois	X	X		X		X		X
Indiana	X	X	X	X	X	X		
Iowa								
Kansas	X	X	X	X	X		X	X
Michigan	X	X		X				
Minnesota								
Missouri								
Nebraska								
North Dakota	X	X						
Ohio	X	X		X	X	X	X	X
South Dakota								
Wisconsin	X	X		X	X	X	X	X
Midwest frequency	7	7	2	6	4	4	3	4
National frequency	30	26	12	26	19	20	13	11

Source. Ortagus, J., Rosinger, K., & Kelchen, R. (2021). *InformEd States performance-based funding policies dataset. InformEd States.*
Note. Only PBF systems that were funded in the fiscal year are included. Each sector within a state is counted only once in this table. States are counted in a metric category if the metric is required or listed among the state's qualifying indicators for PBF. There are some slight updates from the original source for how a few Midwestern states were classified based on feedback from state higher education officials.

In the two-year sector, metrics based on student characteristics were less common than in the four-year sector. The most common equity metric gauged the number of completions among students from low-income families, which was present in four Midwestern states (Illinois, Indiana, Ohio, and Wisconsin) and 20 states nationwide. Four states (Illinois, Kansas, Ohio, and Wisconsin) had adult student metrics, and three (Kansas, Ohio, and Wisconsin) had minority student metrics. These were present in 11 and 13 systems nationally, respectively.

Although equity metrics are less common, PBF models for public two-year systems are more likely to have workforce development metrics than are PBF models for four-year systems. Nationally, 11 two-year PBF models had job placement metrics, 3 had apprenticeship metrics, and 5 had metrics related to postgraduation wages (Syverson et al., 2020). Two Midwestern states – Missouri and Wisconsin – had workforce development metrics in their funding models for public two-year colleges (ECS, 2020). Missouri and Wisconsin Technical Colleges both have requirements to measure job placement. Missouri also accounts for postgraduation wages in their funding model for two-year colleges.[9]

POTENTIAL TRADEOFFS

State funding approaches for higher education come with tradeoffs that result in different strengths and weaknesses. Three commonly cited tradeoffs involve funding volatility, equity, and alignment with state goals (Hearn, 2015). For example, a strength of incremental models is the ability to make ad hoc funding adjustments to reduce the volatility of appropriations from year to year, with large cuts being a particular concern. As higher education funding is used as the balancing wheel in state budgets, public colleges and universities are accustomed to large cuts during recessions and modest increases in following years (Delaney & Doyle, 2018).[10] However, institutional budgets are largely committed to ongoing costs such as facilities and labor, making it challenging for leaders to respond to funding volatility (Graham & Donaldson, 2020). Colleges respond to funding cuts by increasing tuition, but these increases are typically much smaller than the amount of lost revenue (Webber, 2017). Moreover, research has shown that funding cuts generated by volatility in funding can negatively affect student outcomes (Chakrabarti, 2021; Dougherty & Natow, 2015).

Nonetheless, while incremental models tend to reduce funding volatility, this can come at the expense of promoting inequity. If a state has longstanding funding inequities – which often exist between minority-serving institutions and flagship public universities (Harris, 2021) – then incremental models will likely preserve such funding disparities. Incremental models also frequently lack incentives that align institutions with state goals for higher education (e.g., improving operational efficiencies).

In contrast, both enrollment-based and performance-based models may be more susceptible to funding volatility but can better accommodate equity priorities and state goals. For example, by tying funding to an objective measure, enrollment-based models can be used to promote equity in institutional funding and help colleges meet the costs of educating more students. Moreover, enrollment-based models can be aligned with some state goals, such as incorporating incentives for institutions to expand enrollment in critical workforce areas (e.g., nursing). However, large changes in funding can result from significant shifts in enrollment. Some states have attempted to address this problem by phasing in funding reductions when enrollment declines, which allows institutions more time to adjust operations to new fiscal realities.

Performance-based models can also be aligned with state goals and more directly focus on equity in student completions in states that include the success of students from historically underrepresented groups as one of their metrics. As elaborated below, if equity metrics are not part of a performance-based model, there may be unintended consequences that disproportionately affect underrepresented students. In addition, performance-based models can increase funding volatility when institutions compete against each other for resources or when each

[9] For another resource on performance funding models, see Snyder et al. (2020).
[10] Some states have not completely restored funding following recent recessions (Rosinger et al., 2022).

year's appropriations depend on both their performance and the performance of others. To reduce this concern, states frequently include stop-loss provisions in their funding models that limit how much money a college can lose from the previous year's appropriations.

OUTCOMES RESEARCH

This section provides a brief overview of research on the outcomes of funding formulas with a particular focus on how formulas impact overall funding levels and student outcomes.[11] Some researchers have examined the fiscal implications of using a formula rather than not (e.g., Leslie & Ramie, 1986; Tandberg, 2010a, 2010b; Toutkoushian & Shafiq, 2010). The hypothesis is that the presence of a funding formula will result in some protection from funding cuts due to a clearly-defined budget request and the political goodwill that a funding mechanism may generate with legislators. Accordingly, Toutkoushian and Shafiq (2010) found that systems with a funding formula tended to benefit from greater overall state appropriations than did systems without a funding formula. In contrast, Tandberg (2010b) found no relationship between the presence of a funding formula and state appropriations.

There is a large body of research examining the effects of PBF on student outcomes. Most of this research has found no effects, modest positive effects, or negative effects of PBF on enrollment and completions (Ortagus et al., 2020). For example, Tandberg et al. (2014) examined the effects of PBF on the number of associate degrees produced nationwide. They found positive effects in six states, negative effects in four states, and null effects in nine states. However, PBF continues to proliferate due to the trust that additional transparency and accountability garners among legislators and other stakeholders (Kelchen, 2018b). In Fiscal Year 2020, about 10% of state funding nationwide was allocated based on performance metrics (Rosinger et al., 2022).

A key concern with PBF policies is the potential to produce unintended consequences. Past research has demonstrated that PBF can reduce the number of students from historically underrepresented groups being served (Gándara & Rutherford, 2020), encourage students to enroll in shorter-term certificate programs instead of associate degree programs (Li & Kennedy, 2018), and allocate less funding to under-resourced and minority-serving institutions (Hagood, 2019). However, research has also shown that introducing equity metrics that explicitly reward colleges for serving students from underrepresented groups has the potential to mitigate but not eliminate these unintended consequences (e.g., Gándara & Rutherford, 2018; Kelchen, 2018a).

The only comprehensive study on funding formulas is by Kelchen et al. (2022), who examined six different funding models for all public higher education systems in the nation: enrollment-only; no formula and incremental models; incremental and enrollment components; performance funding (with or without incremental components); enrollment and performance components; and hybrid models that simultaneously have incremental, enrollment, and performance components.[12] Using data from Fiscal Years 2004 to 2020, they found that funding models did not have any relationship with enrollment at four-year or two-year colleges. However, adding incremental components to an enrollment-based model was associated with fewer bachelor's degree completions by Black students compared to an enrollment-only model. Further, funding models with performance components were associated with fewer bachelor's degree completions than enrollment-only models. For example, institutions in states that had adopted a performance-based funding model without enrollment funding components produced 18% fewer bachelor's degrees than similar institutions that were solely funded based on enrollment. In sum, the authors found evidence that funding public universities solely based on enrollment may lead to as many or more bachelor's degree completions than other funding mechanisms.

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[11] Many prior studies created typologies of state funding models rather than examining the outcomes of various funding approaches and are thus not described in detail here (Layzell, 2007; McKeown & Layzell, 1994; Mullin & Honeyman, 2007; Syverson et al., 2020).
[12] Dissimilar to Kelchen et al. (2022), the comparison group in PBF research is any state without performance funding regardless of the details of that funding model.

CONCLUSION

State funding is one of the most significant sources of operating revenue for public higher education. However, state funding is likely to face challenges in coming years due to economic uncertainty and the lingering effects of the pandemic. Thus, it is more important than ever to understand how states allocate funds to public higher education and whether some approaches are preferable to others. The analysis of higher education funding in the Midwest showed that most states use a formula to allocate funds to higher education institutions. The most common approach is an incremental model, but this is often combined with enrollment-based and performance-based funding provisions. Performance funding models use a variety of approaches to incentivize institutions to improve their outcomes, but the most common approaches include tying funding to the number of credentials completed along with additional funds for the success of students from historically underrepresented groups. These approaches were broadly similar across two-year and four-year institutions.

Although the level of state funding is important for improving student outcomes, a summary of research on funding models indicated that there is little research on policies other than performance-based funding. The research on performance funding shows generally no effects, modest positive effects, or modest negative effects on student outcomes. PBF can be particularly harmful to students from historically underserved groups, though equity metrics have the potential to reduce unintended consequences. The one existing study that considers other funding models finds that combining incremental and enrollment-based funding models or including performance-based components may generate fewer bachelor's degree completions than funding solely based on enrollment.

Although outcomes research is currently lacking for most funding models, the potential for positive and negative impacts should be carefully weighed due to the presence of tradeoffs across funding models. For example, incremental funding models are important for providing predictable and stable funding to colleges but fail to adjust resources to fluctuations in enrollment, provide little incentive for colleges to improve their performance, and could reinforce longstanding funding disparities. Enrollment-based funding models can provide funding equity for growing institutions, and performance-based funding models can tie funding to student outcomes. But both models can result in increased funding volatility, and performance funding can lead to unintended consequences that disproportionately affect underrepresented students unless equity is a part of the model.

According to the current knowledge base, several policy options and best practices can be considered when developing or revising funding formulas for public two- and four-year systems:

- It is critical for funding formulas to be consistent and predictable so that institutions have the ability to plan multi-year improvement strategies in areas such as instruction and student support. Volatility in funding can impede institutional operations that are already committed to ongoing costs such as facilities and labor, which can in turn negatively affect student outcomes.
- Formulas can be designed to address important state goals such as increasing educational attainment, promoting operational efficiencies, and supporting students who have been historically underserved in higher education and the colleges which predominantly serve them. State goals can be tied to enrollment-based and performance-based funding models. For example, if a state wishes to increase the number of nursing majors, more funding can be provided for each student enrolled in nursing programs, and a bonus can be given to the college for each graduate.
- It is important to evaluate the effectiveness of enrollment-based formulas in meeting state goals. Early research indicates that funding primarily based on enrollment may be equally or more effective in producing degrees compared to other funding models. However, this model can also generate large changes in funding if enrollment shifts significantly. States that use enrollment-based funding might consider phasing in funding reductions when enrollment declines to allow colleges the opportunity to adjust their operations under a reduced allocation.
- Performance-based funding can provide much-desired transparency and accountability for legislators and other stakeholders. However, a large body of research shows that states have had limited success with this funding model. If a state adopts performance-based funding, it is important to provide some additional funding based on equity metrics such as the number of low-income and minority students who graduate. This helps guard against colleges simply becoming more selective, and it may help correct longstanding funding disparities.

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ADDENDUM[1]

Higher Education Funding Formulas in the United States

Direct Appropriations to HEIs - With the exception of New York switching from awarding funding to the City University of New York as a system to awarding funds to individual institutions in 2010 and the inclusion of the Texas State Technical College System in 2012, 69% of four-year systems and 53% of two-year systems had line-item funding measures from the states directly to the HEIs throughout the panel. The trend is an indication that two-year HEIs were more reliant on governing or coordinating boards to determine their funding outcomes and that states that had direct appropriations systems largely maintained those systems.

Incremental Only - A pure Base+ system implies that institutions across a system received a similar across-the-board percentage point increase/decrease in funding from the prior year's allocation.

Enrollment Only - An Enrollment Only model indicates funding depends on student enrollment levels at an institution and includes no protection of base funding levels. Often the funding differs by field and/or level of coursework and may use one or a combination of headcount or full-time equivalent (FTE) student enrollment.

Performance Only - A Performance Only model allocates all state general funds for an institution based on performance metrics as outlined by the state or board.

Base+Enrollment - This model is based on enrollment and involves a protected base or stop-loss provision that ensures institutions do not lose more than a certain amount of funds from the prior year's allocation. Under this model, HEIs primarily receive new monies through raising FTE/headcount enrollment or raising FTE/headcount enrollment relative to other institutions in that sector in the state. Sometimes this occurs with weighting for field or level of study.

Base+Performance - The state has a performance funding model for a portion of state funding, but there are stop-loss provisions that protect the vast majority of current funding. This means that money at stake under performance funding is primarily restricted to new state appropriations.

Enrollment+Performance - This funding model is based on a combination of enrollment and a HEI's performance on metrics outlined by the state and/or system. Similar to the other enrollment models, some combination of FTE, headcount and weighting for field and level of study typically affect monies received through enrollment. The institutions have no protected base or stop-loss provision.

Base+Enrollment+Performance - This funding model is based on a combination of enrollment and a HEI's performance on metrics outlined by the state and/or system and includes a protected base or a stop- loss provision. The HEIs have a protected base or a stop-loss provision.

No Funding Formula - While states provide funding to HEIs, these systems do not have a stated funding model that is used to allocate funds to HEIs. These states fall into one of two sets. The first set are states that allocate across-the-board increases to systems to meet inflation, salary, and insurance increases along with line-item funding of certain educational programs, research projects, and strategic initiatives. This includes states such as Alaska and Washington. The second set of states provide no indication of any kind of base+, enrollment, or performance funding measures in either a state's budget or coordinating board minutes. Examples include Alabama and Nebraska. To determine that these systems were not subject to Base+ Only funding (a common approach to higher education funding when no formula exists), we calculated year-to- year changes in funding levels. When finding funding levels from the state's general fund to differ by greater than one percentage point across HEIs in a system, we determined a Base+ Only model was not used.

Equity and Research Provisions

Equity Provisions - Equity provisions provide funding to HEIs outside of the above funding models, typically based on institutional or student characteristics that require additional resources. Twenty-six four- year and twenty-five two-year systems engaged in some kind of equity funding in the fiscal year 2021.

Research Provisions - Research provisions refer to whether the state offered a competitive research program through a state general fund or had research weights in their formula for the four-year sector. We did not include direct specific line-item research funding in this category because this funding tended to support specific research centers rather than focusing on increasing research capacity overall. In the fiscal year 2021, 20% four-year systems had some kind of research provision.

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MIDWESTERN HIGHER EDUCATION COMPACT

Mission MHEC brings together midwestern states to develop and support best practices, collaborative efforts, and cost-sharing opportunities. Through these efforts it works to ensure strong, equitable postsecondary educational opportunities and outcomes for all.

Vision To improve individual career readiness and regional economic vitality through collective problem-solving and partnerships that strengthen postsecondary education.

Who MHEC Serves MHEC is comprised of member states from the midwestern United States. MHEC works with and for a variety of stakeholders within and across member states, including higher education system leaders, state policymakers, legislators, and institutional leaders, while always maintaining a focus on students and their success.

How MHEC Works MHEC's strategic approach highlights member states' strong desire for collaboration, effectiveness, and efficiency. MHEC believes that collaborative actions informed by research and best practices are the catalyst for improving quality, accessibility, relevance, and affordability of postsecondary educational opportunities. MHEC does this primarily through the following approaches: convenings, programs, research, and cost-savings contracts. Increasingly, MHEC looks to leverage these approaches in conjunction with each other to serve its strategic priorities.

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