The landscape of state higher education funding formulas

Kelly Rosinger, Penn State University
Principal Investigators: Kelly Rosinger, Robert Kelchen, Justin Ortagus, Dominique Baker

This presentation is based on research funded by the Bill & Melinda Gates Foundation. The findings and conclusions contained within are those of the authors and do not necessarily reflect the positions or policies of the Bill & Melinda Gates Foundation.

Not pictured: Alex Cassell, Sam Riggs, Yahya Shamekhi, Nick Voorhees
Funding for higher education

- Public colleges enroll 3 out of 4 students in U.S. higher education (de Brey et al., 2021)

- In FY2021, state and local governments allocated nearly $86 billion to public colleges and universities (Laderman & Kunkle, 2021)
State appropriations per FTE have risen over last 9 years, held up in 2020 & 2021 by federal stimulus funds

Funding levels remain lower than peaks in 2000 & 2008 (Laderman & Kunkle, 2021)
Funding for higher education

• During recessions, higher education often serves as a source of discretionary funding that states use to balance their budgets (Delaney & Doyle, 2018)

• Yet state funding for higher education has been shown to promote college enrollment & completion (Bound et al., 2019; Deming & Walters, 2017), particularly among Black and Latinx students (Monarrez et al., 2021)
Funding for higher education

- Most state support for higher education is through direct appropriations to colleges
- But we know little about the mechanisms states use to allocate funds
- Most research focuses on performance funding, but this represents ~10% of state appropriations to higher education (Rosinger et al., 2021)
- Prior work offers:
  - Snapshots of funding formulas, often in a single year or sector (Layzell, 2007; Mullin & Honeyman, 2007; Syverson et al., 2020)
Funding for higher education

• InformEd States research team has worked over the last 2.5 years to develop a systematic longitudinal database of state funding formulas & how they have changed over time

• Look for our State Funding Formula Dataset in late April!!
Formula components

- **Base-adjusted**: funding adjusted from prior year allocation (e.g., for enrollment, performance, or changes in revenue); system incorporated a protective mechanism to guarantee set portion of prior allocation

- **Enrollment**: funding adjusted for increases/decreases in no. of enrolled students. We documented whether funding was adjusted based on FTE enrollment, headcount, field, or level of study (may have protected base)

- **Performance**: funding adjusted based on student outcomes, such as retention or degree completion (may have protected base)

- **No funding formula**: no documented formula or specified way of allocating funds
Data collection

- Data collected for FY2004-2020
- 50 states, formulas coded at the state-sector level for each year
  - 59 four-year sector systems
    - PA: PASSHE and state-related institutions have different funding processes
    - CA: California State University and University of California systems
  - 60 two-year sector systems
    - GA: Technical College System of Georgia and two-year colleges in the University System of Georgia
Data collection

• Collected and reviewed more than 2,000 state and system policy documents (budgets, legislation, and audit reports, higher education board reports, financial statements, and other documents)

• Weekly meetings to review interpretation of documents and coding decisions

• Reached out to state higher education executive officers and others in state systems to clarify or locate information (thank you!!)
Example 1: PASSHE

- FY04-14: formula includes base appropriation (coded as base), adjustment for small universities (coded as equity), instructional costs weighted by field & level per FTE student (coded for enrollment, field, level, & FTE), PBF with equity metric (coded for PBF & equity)

- FY15-on: formula includes E&G costs (coded for base) and enrollment (coded for enrollment), instructional costs weighted by field & level per FTE student (coded for field, level, & FTE), PBF with equity metric until paused in FY2019 (coded for PBF & equity)

- Data comes from historical PASSHE Board of Governors meeting minutes
Example 2: University System of Georgia

- FY04-20: formula includes operating needs/adjustments for sq. footage (coded for base) & enrollment growth (coded for enrollment & FTE)
- USG allocates funds to institutions using formula (80%), performance metrics, and other considerations (not coded for PBF based on communication with state)
- Data comes from historical USG Business Procedures Manual
A national view of funding formulas

• Four-year sector
A national view of funding formulas

• Two-year sector
Two-Year Sector, 2020

- No Funding Formula
- Base Component
- Enrollment Component
- Performance Component
Common enrollment metrics

- FTE vs. headcount
  - FTE is more common; if headcount is used, it’s often in funding for student services
- Sometimes adjusted for field (e.g., high instructional cost, high-demand fields)
- Sometimes adjusted for level (e.g., developmental, associate, bachelor’s, or advanced degree levels)
Common performance metrics

• Credit hour completion
• Progression to degree
• Transfer
• Time to degree
• Number of completions
• STEM degrees (sometimes health & other high-demand fields)
• Labor market outcomes (earnings, employment rate)
Equity considerations

• Focus on institutions
  • Small school adjustments
  • Funding for HBCUs (sometimes resulting from legal cases)
  • Equalization aid for districts with lower local tax base

• Focus on students (often within PBF)
  • Enrollment and/or completion among low-income, racially minoritized, adult, & academically underprepared students
    • PBF systems more likely to include metrics for low-income students than racially minoritized students (Rosinger et al., 2021)
Equity in PBF

Four-Year Sector

1997

2000

2005

2010

2015

2020

- No PBF
- No equity metric
- Equity metric
Equity in PBF

Two-Year Sector

1997

2000

2005

2010

2015

2020

Legend:
- No PBF
- No equity metric
- Equity metric
Key takeaways

• Around 60% of four-year & 70% of two-year systems include base component; fairly stable over time

• Enrollment component is more common in two-year sector, has declined in four-year sector, and drops in both sectors in post-recession years

• Share of systems in both sectors with enrollment component has declined/fluctuated while share with performance component has increased

• Four-year systems with enrollment component are more likely to adjust for field & level of study

• PBF is a common way states build equity into funding formulas, but not all states include metric for racially minoritized students
Implications of different funding approaches for equity

- Base adjustments: bakes in inequities in funding by institution type
- Enrollment: focus on FTE disadvantages two-year colleges (Romano & D’Amico, 2021); shift to base funding during recessionary periods when enrollments often increase
- Performance: PBF has not improved degree completion but has led to restricted enrollment among underserved students & disparities in funding across institution types (Ortagus et al., 2021)
Considerations for designing funding formulas

• Build equity into the model
  • Institutional equity: small school adjustments, equalization funds, support for minority-serving institutions
  • Student equity: metrics for enrollment among underserved students, particularly racially minoritized students (and not just as part of PBF)
• Regular review of funding model to examine disparities in funding across institution types
Thank you!

Not pictured: Alex Cassell, Sam Riggs, Yahya Shamekhi, Nick Voorhees
% of funds at stake under state PBF policies for the four-year sector

Source: Authors’ review of state policy documents. Statewide PBF dosage is the share of state general funds allocated to performance.