

Capital Funding in Higher Education | **Perspectives on an  
Overlooked Lever  
Toward Equity and  
Student Success**

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## Introduction

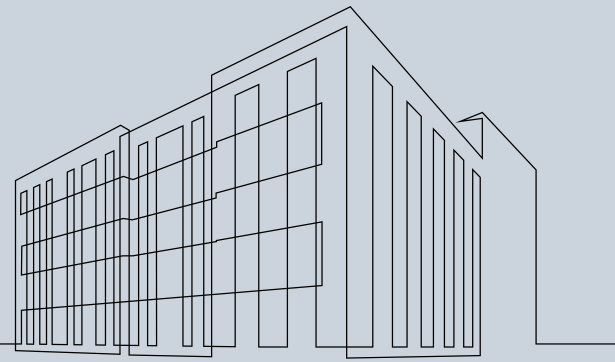
In their aptly named 1989 report – *The Decaying American Campus: A Ticking Time Bomb* – Rush and Johnson offered a stark diagnosis; college and university facilities were quickly deteriorating, deferred maintenance needs were growing by the billions, and state and institutional leaders needed to act to stymie the negative downstream effects (Rush & Johnson, 1989). The contemporary picture is similarly concerning. In California alone, recent estimates suggest that addressing deferred maintenance backlogs and modernization needs across the three university and college systems would cost more than \$50 billion (Murphy et al., 2018).

Colleges and universities' infrastructure concerns extend beyond merely addressing regular wear and tear. Institutions must also invest in their physical infrastructure to keep up with technological advances, shifting curricular needs, and student expectations of what their college should look like and offer (Jacob et al., 2018). These concerns were further exacerbated during the pandemic, which led to a greater focus on the safety of educational facilities and ability to navigate distance learning (Sorenson et al., 2024). Moreover, evidence also suggests that capital spending may influence various aspects of student success (Jackson & Mackevicius, 2024).

Yet, relative to K-12 spaces, far less attention has been paid to capital funding in higher education. This lack of interrogation is particularly concerning, as capital funding tends to be one of the most inequitable aspects of education finance in the U.S (Rivera & Lopez, 2019). We know relatively little regarding whether and how institutions can access these vital resources to meet their needs, including the implications of barriers to robust capital for how colleges and universities allocate resources between capital and non-capital needs, sometimes to the detriment of the other. Trends in federal support for higher education and likely belt-tightening of state budgets suggest an even greater need for a holistic assessment of the state of affairs for higher education finance. Additionally, even less has been done to empirically assess the impacts of capital investments, or lack thereof, on educational experiences and outcomes of the country's college students.

This report attempts to raise awareness of these issues, and serves as a resource for policymakers, researchers, and other stakeholders interested in both understanding the nuances of capital funding in postsecondary education as it currently stands, and identifying how best to shift processes to meet future needs.

To do so, we first offer a brief overview of the distinguishing characteristics of capital needs and funding compared to other finance mechanisms. Second, we outline the intersecting players across the capital funding landscape, with a particular focus on the role of the state, before delving into how capital investments are evaluated and prioritized. We then summarize the extant literature regarding capital finance and the impacts thereof; given the dearth of postsecondary-specific research, we focus primarily on K-12 scholarship and evaluate its applicability to the higher education context. We conclude by offering considerations for supporting a robust and equitable capital funding system in higher education.



## Typical Capital Projects:

Land Acquisition & Improvement

New Construction &  
Building Acquisition

Major Building Renovation

Demolition

Equipment Needs

Deferred Maintenance

## **A Brief Overview of the Nature of Capital Needs & Financing**

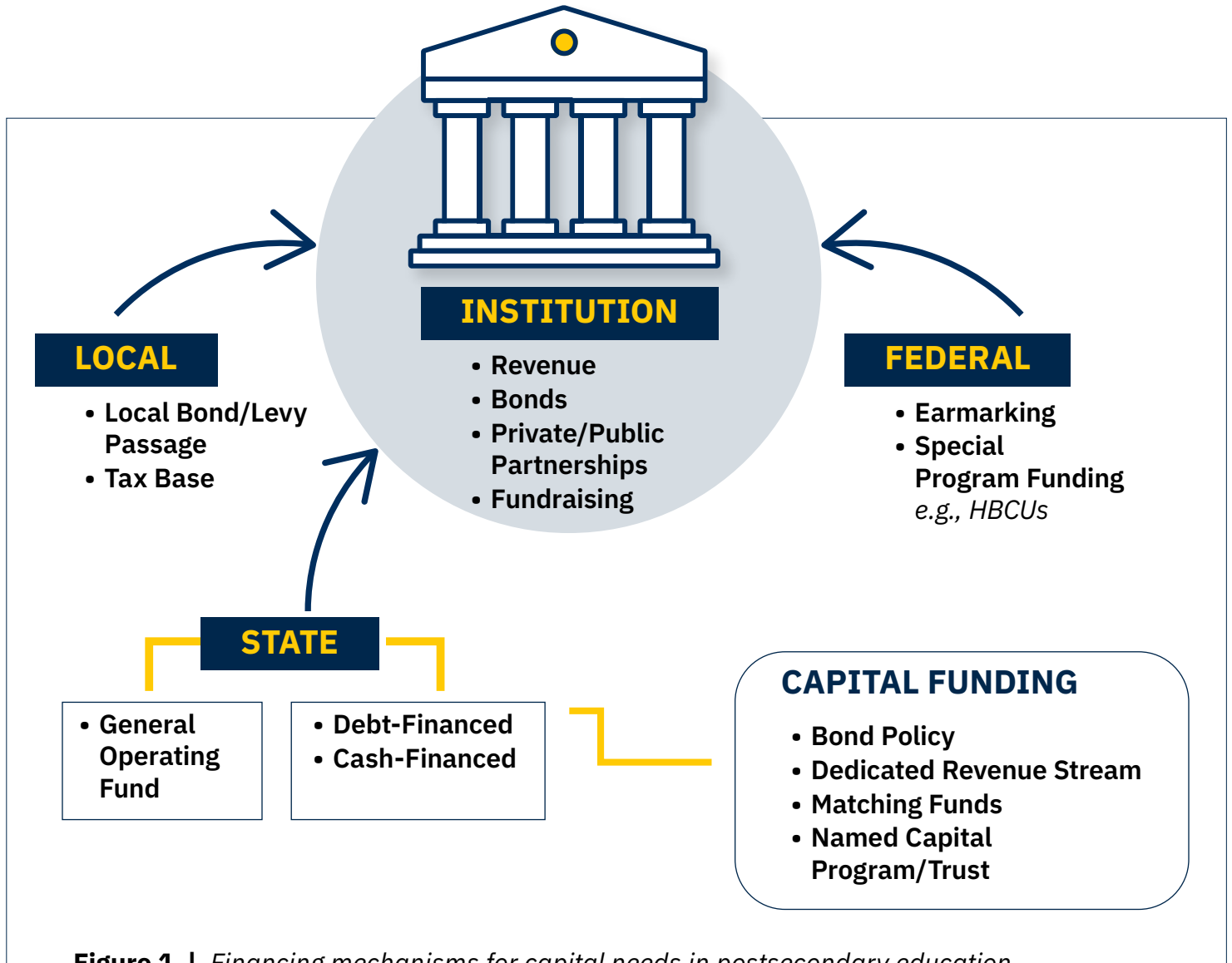
### **What are capital needs?**

Colleges and universities require adequate infrastructure to offer robust student learning environments, develop impactful research, or fulfill the myriad other functions we expect of them. These capital needs may include expanding facilities to enroll and house more students or undertaking major renovations to ensure classroom and research spaces are adequately equipped to support student, faculty, and staff needs. Schools may also be faced with physical safety issues as facilities age, particularly amidst lacking upkeep (i.e., deferred maintenance), and the need to modernize and ensure accessibility in compliance with current legislative mandates.

### **How is capital funding unique?**

Financing these investments (i.e., capital outlay) is a complex process. The responsibility for addressing capital needs is spread across multiple entities, including the institutions themselves. Unlike regular maintenance endeavors – which are typically considered operating expenses and funded using cash – the intermittent nature of largescale capital needs, long project time horizons, and high price tags lead to “lumpy” and volatile spending patterns on capital projects. Depending on the size and scope of capital projects, different policies may apply to institutions seeking capital funding. For example, despite sizeable deferred maintenance backlogs, such needs are typically considered separately from other larger-scale projects. Several states have sought to address these types of capital needs with perennial funding streams that allow institutions to bypass the lengthy capital budgeting process and secure more timely funding – often cash – for critical repair projects.

While some capital projects may be funded directly with cash transfers, major capital projects often rely on states or institutions to issue debt instruments to provide capital financing. Notwithstanding the variety in debt instruments (e.g., municipal bonds, certificates of participation, etc.), the use of financial securities in the financing process introduces complexity in the form of unequal access to the municipal bond market, statutory debt limitations, and disparities in credit ratings between states and institutions. The primary debt instruments used by institutions and states in the capital funding process are general obligation (GO) bonds, which pledge the full faith and credit of the issuer, and revenue bonds, which pledge dedicated revenues (typically of the projects to be constructed using bond proceeds) to cover debt service payments. Figure 1 depicts a stylized version of the financing mechanisms for capital needs in postsecondary education. We focus here on the primary players and types of funding, with an emphasis on state-level approaches to capital spending



**Figure 1** | *Financing mechanisms for capital needs in postsecondary education*

**Role of the Institution.** All colleges and universities play a part in addressing their capital needs. State-of-the-art research centers and other cutting-edge facilities to benefit in- and out-of-classroom experiences, for example, are mainstays in colleges' capital campaigns (Chenghua et al., 2023). Individual institutions are also typically responsible for the day-to-day upkeep of their facilities and must pull from their general appropriations or other revenue sources to address regular repairs and infrastructure issues; failing to address these needs leads to rising deferred maintenance costs.

Additionally, institutions may be empowered to pursue capital investments in other ways, often pending state statute or oversight. For example, schools may be authorized to leverage their own credit rating and issue revenue bonds to fund the construction of self-supporting auxiliary enterprises (i.e., dormitories, athletic facilities) with the approval of a state building authority (e.g., the Kentucky State Property and Building Commission; KRS § 164A.605); or may be statutorily enabled to impose mandatory building fees to fund capital projects related to educational facilities (e.g., the Florida State University System Capital Improvement Trust Fund Fee; § 1009.24(8a), Fla. Stat. (2024)). In the face of constrained resources, and lack of sufficient governmental support, schools may also turn to private-public partnerships for capital needs (McClure et al., 2020).

**Role of the Federal Government.** The federal government's approach to postsecondary capital funding is relatively small and project specific. Through the federal earmarking process, policymakers can insert line items for projects that benefit their constituencies into Congressional spending bills (Delaney, 2016). The process is not specific to higher education or capital needs; however, hundreds of colleges and universities have received funding through the process in recent years, including support for capital investments.

Historically, the federal government has also facilitated capital investments in higher education through landmark legislation and special programs. For example, the Morrill Land Grant Acts opened avenues for the funding and development of the country's land-grant colleges. To assist Historically Black Colleges and Universities (HBCUs) in addressing infrastructure needs, in a 1992 reauthorization of the Higher Education Act, Congress developed the HBCU Capital Financing Program.

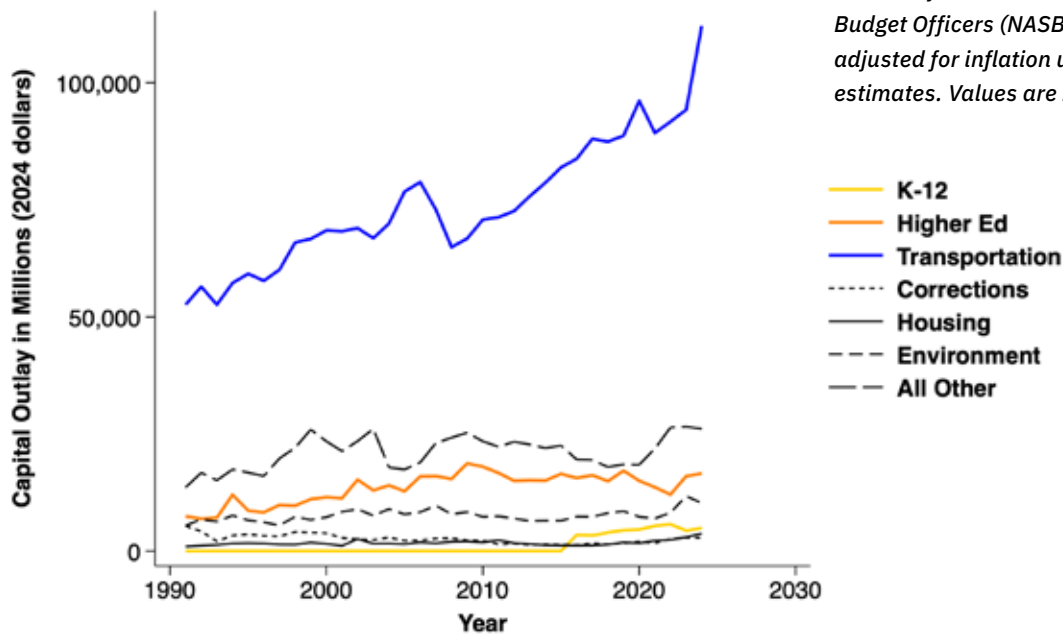
This loan-based program is still operational and leverages the federal government's credit to offer institutions loans at lower interest rates than they may be otherwise eligible for (U.S. Department of Education, n.d.). Colleges and universities with infrastructure on the National Register of Historic Places may also be eligible for capital funds for preservation via the Historic Preservation Fund (National Park Service, n.d.). There have also been instances of one-time infusions of federal monies (e.g., Higher Education Emergency Relief Fund) that may have been put toward capital needs by certain institutions.

**Role of the Local Government.** On average, most capital funding in K-12 education comes from local governments (Alexander et al., 2015). Reliance on local dollars for capital needs in higher education is relatively smaller but still serves as an important source of funding. While some four-year institutions can leverage local funding, community colleges are the most likely beneficiaries of local investments to help address their capital needs. This funding is typically accessed via the successful passage of community or district-wide bond measures and leverages a local tax base (e.g., property tax).

**Role of the State Government.** <sup>1</sup>Substantial policy activity regarding capital funding takes place at state-level. Across both debt-backed and pay-as-you-go funding, state investments in capital outlay are generally on the rise (see Figure 2). In 1991, states collectively allocated over \$7.4 billion in capital support (2024 dollars), which grew to over \$16 billion in 2024. This suggests an almost 230% increase in capital outlay over time. Among total capital investments, higher education is the second largest single category of investment, behind transportation; and higher education capital outlays consistently outpace K-12 education, housing, and corrections (NASBO, 2024). However, aggregate spending blurs substantial variation at the state level. For example, according to a recent report by the State Higher Education Executive Officer's Association (SHEEO) in FY 2021 nine states provided zero public capital appropriations, while those that did ranged from as little as \$11 million (Arkansas) to over \$3 billion in Illinois (Weeden, 2022). Some intended state support for capital needs may come along with schools' general operating appropriations as cash support.

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1. We focus here primarily on states' roles in supporting public institutions; however, some states also have mechanisms to support capital needs at their private colleges and universities.



Data are from the 2024 National Association of State Budget Officers (NASBO) State Expenditure Report, adjusted for inflation using BLS Consumer Price Index estimates. Values are reported in millions of 2024 dollars.<sup>2</sup>

**Figure 2 | Inflation-Adjusted State Capital Outlays by Category Over Time**

For example, the primary source of state capital funding for higher education in Maine are GO bonds that require a statewide ballot measure passage (Melcher, 2019), but the state may also make line-item capital expenditure appropriations in the biennial budget bill (5 M.R.S. § 1581 (2024)). In Florida, universities are required to “carry forward” unexpended operating funds in each year and may make capital expenditures from their carry forward fund balance (§ 1011.45, Fla. Stat. (2024)). However, most capital outlay flows through its own distinct, often complex process. Like other players in the capital needs landscape, states can offer debt-financed, cash-financed support or a combination of both.

Figure 1 highlights some additional key characteristics of capital financing that help distinguish it from other state funding mechanisms<sup>3</sup>. First, capital funds for higher education may be disbursed through specific named funding programs that treat higher education capital outlay differently than other types of state expenditures (see Table 1 for examples). These programs vary in terms of their permanence, funding sources, intended purpose, and eligibility requirements. For example, some programs may be created to allocate the proceeds of a recent GO bond passage for a specific capital purpose (e.g., equipment), whereas other programs may be perennially funded through a dedicated funding source which may support a variety of capital projects.

Dedicated revenue sources for capital support are an important piece of some state approaches to capital funding. For instance, recent legislation in Massachusetts has proposed to dedicate a portion of the state’s Fair Share Tax (an income surtax on incomes over \$1,000,000) to fund higher education capital projects (Governor Maura Healey and Lt. Governor Kim Driscoll, 2025). In Idaho, the primary funding source for all state capital outlays (including for higher education) is the Permanent Building Fund, which contains tax revenues from a multitude of dedicated revenues sources, including portions of cigarette, beer, and lottery taxes (Idaho Legislative Services Office Budget and Policy Analysis, 2024, Section 6-25). Nevada uses a portion of slot machine tax revenues to fund higher education deferred maintenance projects (Nev. Rev. Stat. § 463.385),<sup>4</sup> and institutions in the Pennsylvania State System of Higher Education can receive real estate transfer tax funds for deferred maintenance through the Keystone Recreation Park and Conservation Fund (Commonwealth of Pennsylvania, Act 50 of 1993).

Overall, however, much of the states’ involvement in higher education capital plays out within their bond policies. As previously mentioned, GO bonds are the primary debt instrument that states use to provide financing for higher education. While these instruments typically pledge the full faith and credit (i.e., the full taxing power) of the state, there

2. NASBO does not report capital outlays for K-12 education until 2016. It is unclear whether this reflects an absence of state capital outlay for K-12 education or if state reporting changed in 2016.

3. Importantly, this list is non-exhaustive and each characteristic is not relevant to every state.

4. Conversations with state stakeholders suggest the relative ability for this dedicated revenue source to cover the costs of outstanding debt service payments is declining.

<b>Higher Education Asset Preservation and Protection (MN)</b>	Capital appropriations from bond proceeds specifically for higher education projects in Minnesota that has historically not required an institutional match.
<b>Campus Restoration Fund (KS)</b>	General fund-supported financing for capital renewal projects on higher education campuses in Kansas that has differential matching requirements for two- and four-year institutions.
<b>Public Education Capital Outlay and Debt Service Trust Fund (FL)</b>	Capital funding for public higher education projects in Florida supported by constitutionally dedicated gross receipts tax revenues with no matching requirement.

**Table 1 | Examples of State Capital Funding Programs**

is variation in how states allow higher education institutions to access GO bond proceeds. In some states, the proceeds are appropriated to institutions directly, with the state covering the debt service on bond issuances. In other states, there are multiple categories of GO bonds, with some bonds requiring institutions to pay a portion of the debt service or pledge project revenues directly to pay the debt service on GO debt.

There is also variation in how states allow institutions to access the municipal bond market. Some states allow institutions to issue debt using their own credit ratings, while other states require institutions to access debt via quasi-governmental financing authorities. In some cases, institutions may request that states issue debt that is secured by the revenues of the higher education facility to be constructed – effectively providing the institution a credit rating boost. In other states, a higher education governing body (e.g., the Iowa Board of Regents), is authorized to issue bonds on behalf of institutions. Debt issuances by institutions are subject to various policies, depending on the state, that limit the amount of debt that institutions are allowed to take on. Some states impose debt ceilings based on the maximum total amount of debt obligations incurred by an institution or system, and others have debt limitations that are tied to state GDP and tax revenues. Often, even when institutions

or systems have statutory authority to issue debt, the general assembly, a state debt commission, or both, must formally approve each bond issuance.

Whether in the form of debt- or cash-based support, states may also limit their support to specific levels of funding per project (i.e., matching funds). For example, in Minnesota, the traditional major capital project process requires that the costs of debt service on capital bonds are shared by the institution initiating the project, the university system of which the institution is part, and the state; while the Higher Education Asset Preservation and Protection program has no matching requirement (Minnesota State Colleges and Universities, 2020). In Virginia, capital funding allocated to creating or improving educational and general (E&G) space is covered entirely by the state, but institutions must provide 50% matching funds for projects improving or creating research space (State Council of Higher Education for Virginia, 2001). Other states impose differential matching requirements based on the type of institution receiving state funding. For example, in Michigan, community colleges must provide 50% matching funding, while universities are only required to provide 25% matching funds (Michigan House Fiscal Agency, 2023).

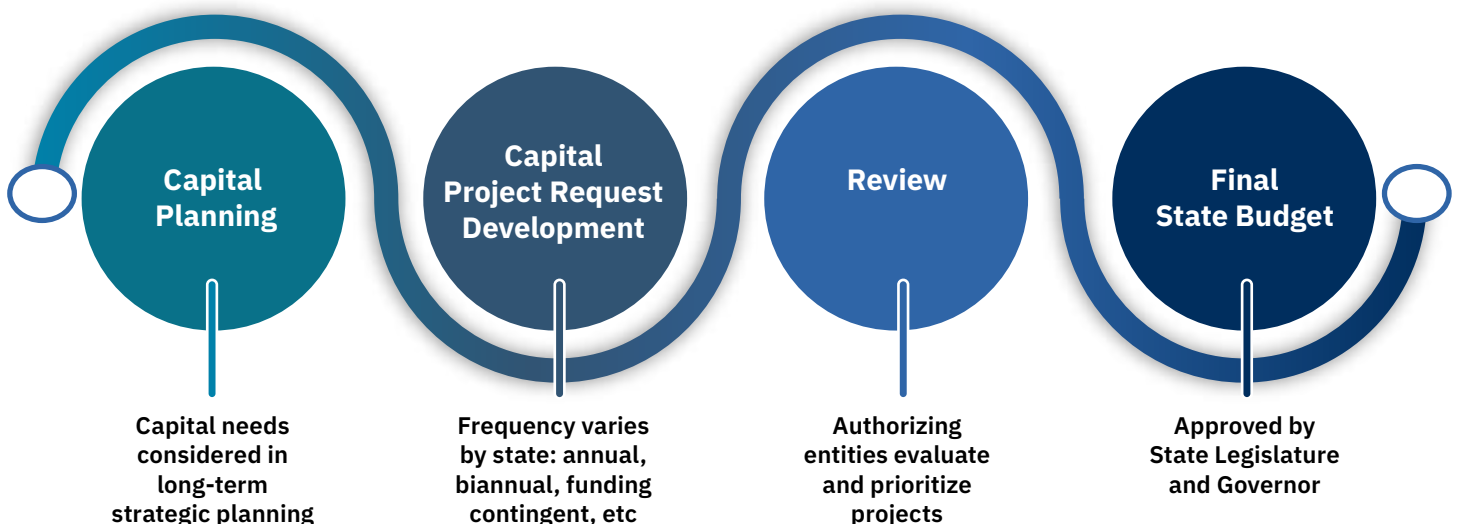
## State-Level Evaluation & Prioritization of Major Capital Projects

In many instances, the processes through which institutions of higher education request state capital funding are influenced by the higher education governance structure of the state. In some cases, all institutions are coordinated (e.g., Indiana) or governed (e.g., Louisiana) by a single entity. In other states, the two- and four-year sectors are overseen by separate entities (e.g., Georgia). Elsewhere, there may be one university system comprised of the state's flagship university and its regional campuses and another system that comprises both community colleges and four-year institutions (e.g., Minnesota). The nuances between different higher education governance structures complicate generalizations about capital funding policies across states, including project prioritization and evaluation processes, though it is often the entity or entities with the highest level of authority in the higher education sector within a state (e.g., a state board of higher education, a board of regents, etc.) that submit final capital project requests or provide funding recommendations to the appropriate legislative body. This section primarily focuses on the processes used by these entities to select the capital projects that will eventually be recommended for funding or for which state funding will be formally requested.

These capital project request processes vary in terms of project requirements, prioritization mechanisms, and frequency of allocation. Approaches for prioritizing projects and allocating funds may also vary by the size and type of capital project (e.g., renewal and repair vs. new construction). We focus here on the capital funding request process for major capital projects to illustrate variation in state approaches. Generally, with some variation across states in terms of the entities involved, the funding request process for larger scale requests across states consists of the following steps:

- **Capital planning.** Planning is influenced by decisions made at the state and system levels but primarily occurs at the institution level. State higher education authorities – whether as the sole governing board of a state system, or individual university system governing boards within a state – have often developed policies to guide institutional capital planning. Where present, these policies typically prescribe the methods of planning that institutions should implement, including: the time horizon of facility/campus plans (5-year, 6-year, 10-year plans, etc.), the key metrics of interest to assess need (e.g., gross square footage, space utilization, facilities condition index (FCI), projected enrollment estimates, etc.), and the types of resources that should be expended on the capital planning process (e.g., external consultants, cost and feasibility studies, etc.). Under these directives, institutions and/or campuses engage in perennial capital planning to identify projects in line with their master plans to be self-funded or included in requests for state support. When institutions are components of a broader system, the system may also maintain a list of system-wide capital needs.
- **Capital project request development.** This process varies by a state's legislative cycles and funding availability. In the most common scenario, where a state higher education authority is involved in the capital project request process, there are variations in when and how institutions or campuses request state funding. Some states issue explicit calls for proposals while others receive proposals by pre-established deadlines and allocate funding as available. For example, the Technical

**Figure 3 | Capital funding process, overview**



College System of Georgia (TCSG) issues annual calls for proposals (TCSG, 2025), whereas in other states, like North Dakota, the State Board of Higher Education (SBHE) receives proposals by a certain date to be considered in the biennial budget cycle, independent of funding availability (SBHE, 2019). In Utah, the State Board of Higher Education must review capital requests for nondedicated projects (projects that receive state funds from a source other than an annual capital allocation) at least once every three years. In years where the Utah State Board of Higher Education receives nondedicated project requests for review, institutions may submit their highest priority project (Utah State Board of Higher Education, 2024).

- **Review.** The review process is also nuanced. In many cases, institutions submit their proposed projects to a state higher education authority to be reviewed, consolidated, and prioritized; for example, in Louisiana, each of the four systems of higher education prioritizes their capital projects and submits a list of projects to the Louisiana Board of Regents, who then establish overall priority projects to be submitted to the state Office of Facility Planning and Control (Louisiana Board of Regents, 2019). In states without an overarching higher education authority (e.g., Minnesota), institutions/campuses submit their capital project requests to their university system, which may prioritize projects and submit requests directly to the legislature or a state budget office for further review. The higher education authorities in some states have assessment criteria to assist in the evaluation and prioritization process. States often give priority to proposals that are broadly aligned with the institution's or the state's strategic objectives. For example, one of the state funding criteria used in 2022 by the New Jersey Office of the Secretary of Higher Education (OSHE) to evaluate projects for funding from the Higher Education Trust Fund was whether projects would advance the state's goal of 65% of New Jerseyans obtaining a postsecondary credential by 2025 (OSHE, 2022).

Projects may also be prioritized based on documented need. States vary in how they define "need", but their assessments may include space utilization based on projected enrollment (Colorado) or immediate programmatic needs (New Mexico). They may also prioritize critical maintenance issues or projects that address safety concerns. Particularly for major projects, the evaluating authorities may also consider an institution's ability to contribute to the project's cost, though such expectations typically vary by institution type. In some states, policies explicitly delineate specified matching requirements for community colleges and four-year universities, whereas other state authorities will exercise their professional judgment to consider an institution's ability to access non-state funding. For example, Kentucky legislators

required research institutions to provide a 25% match for asset preservation pool funds in the 2024-2026 biennium, while comprehensive institutions and community colleges were not required to provide matching funds (Kentucky Council on Postsecondary Education, 2024). In Georgia, large research universities are expected to make significant contributions whereas smaller institutions are not required to do so. Another common criterion is whether a project or an institution has recently received state funding. If a project has received an appropriation in a previous funding cycle and construction is ongoing, it may receive a higher priority. However, if an institution has received a disproportionate share of funding in recent funding cycles, projects at that institution may be prioritized lower to ensure an equitable distribution of scarce resources.

How these evaluations are ultimately presented for further consideration also varies. For example, in Georgia, the two systems of higher education each receive a capital outlay funding target from the governor. After reviewing and prioritizing each project submitted by their component institutions, each system submits a capital budget request containing the highest priority projects that, when combined, meet the budget target. Alternatively, in Virginia, institutions concurrently submit their capital budget requests directly to the Department of Budget and Planning and to the State Council of Higher Education for Virginia (SCHEV). While the executive branch receives all capital projects requests from institutions, SCHEV has the responsibility to make recommendations to the governor and general assembly based on their assessment of capital project requests. In Indiana, institutions submit their highest priority project to the Indiana Commission for Higher Education (CHE) for evaluation but present their own capital project request to the State Budget Committee, who considers the institution's budget request in light of the recommendation of CHE.

- **Final state budget.** Final funding decisions are ultimately at the discretion of the governor and legislature. Recommendations or assessments developed during the review process by relevant state authorities (e.g., higher education authority, state architect) are non-binding. There are variations across states in how faithfully legislatures fund projects in line with recommendations, and these variations are partly a function of states' gross revenues, debt capacity, and appetite for higher education capital projects. While political considerations are an inevitable and expected component of any policy process, states' prioritization mechanisms and evaluation processes may add greater objectivity and transparency to the capital funding process and help direct funding to projects and institutions most in need.

## Empirical Evidence Regarding the Allocation and Impacts of Capital Funding

Though capital funding and its associated issues are less emphasized in empirical work than other finance mechanisms, the extant literature, most of which focuses on K-12 schools, offers insights into the importance of capital spending for student and institutional success, potential inequities across processes, and considerations for “best practices.”

### The Documented Impacts of Capital Spending

Robust exploration of the impacts of capital spending focuses almost exclusively on K-12 schools. The evidence seems mixed – while some scholars find no apparent impact of capital outlay on educational outcomes (Barron, 2022; Hong, 2017; Martorell et al., 2016; Picus et al., 2005; Rush et al., 2022), others find significant positive impacts. Some of this variation in findings is due to different outcomes of interest and methodological limitations, including research designs that are underpowered to detect statistically significant impacts (Jackson & Mackevicius, 2023). Higher levels of capital investments, in the form of new construction or increased capital spending, are associated with decreases in absences and disciplinary issues and increases in student performance, typically measured via reading and test scores (e.g., Allen et al., 2021; Hong & Zimmer, 2016; Maxwell, 2016; O’Hagan, 2025; Rauscher, 2020; Sorensen et al., 2024). Investments in capital needs may also yield external benefits, including positive impacts on local housing prices and other measures of community well-being (Filardo et al., 2019; Lafortune & Gao, 2022).

The most recent and comprehensive studies point to the importance of a capital funding stream. For example, leveraging district bond passage data across 29 states, Biasi and colleagues (2025) identified an average .05 standard deviation increase in school district-level test scores for every \$1,000 increase in capital spending over five years. A recent meta-analysis of school spending literature also emphasized the utility of capital spending; for example, the authors concluded that for every \$1,000 spent per pupil in capital or operations expenditure, we would expect a 2.8 percentage point increase in college-going (Jackson & Mackevicius, 2023).

Current research is too thin to definitely determine how the various approaches toward and mechanisms of capital investments specifically influence these outcomes. However, scholars have suggested there may be differential impacts by type of capital project and funding mechanism (e.g., infrastructure renewal vs. new construction; Bowers & Urlick, 2011; O’Hagan, 2025; Rothbart et al., 2022). Moreover, capital spending may yield bigger impacts in school communities with more racially minoritized students and those from lower-income backgrounds (Biasi et al., 2025; Rausher, 2024).

### Potential Sources of (In)equities

Beyond the impacts of capital outlay, a growing cache of scholarship has focused on the predictors of capital spending differences across institutions. This emphasis is important, as gaps in capital outlay can exist even when other state and local funding streams seem equitably distributed (Hime & Maiden, 2019). To date, the research highlights concerns stemming from local funding mechanisms and inequities reflected in the bond market, differential allocations across institutional characteristics, and other state- and community-level predictors of capital spending.

Historically, the onus of capital investments has been borne by local school districts; Alexander and colleagues (2015) term this the “doctrine of local fiscal responsibility” for capital facilities (p. 433). Between 1994 and 2013, over 80% of capital expenditures were funded by local school districts in K-12 education (Blagg et al., 2024). The emphasis on local funding is much higher at K-12 schools than at colleges and universities, however, research regularly points to the regressive nature of this funding tool, offering implications for those institutions (i.e., community colleges) that do leverage local funding.

Most schools raise capital funds through voter-approved general obligation bonds repaid through local taxes. But schools’ bonding capacity is based on the local tax base, leading to more capital funding availability at wealthier schools (Brunner et al., 2023; Vincent & Quintero, 2025). Moreover, pursuing local bond approval is not a cost-neutral endeavor, which may preclude poorer schools from campaigning for such measures (e.g., Ingle et al., 2011). Many studies further suggest that the likelihood of bond passage is predicated on many factors beyond the control of individual schools (e.g., voter turnout, community demographics), highlighting additional barriers to accessing capital resources in this way (Alvord & Rauscher, 2021; Bowers et al., 2010; Bowers & Chen, 2015; Bowers & Lee, 2013).

The reliance on debt-financing for capital needs has yielded further inequities via the bond market. States may impose debt limitations that prohibit schools from exceeding a certain debt to local tax base (assessed value) ratio, further compounding wealth-based inequities via local funding

(Alexander et al., 2015). Other K-12 research suggests that the bond market may be less favorable for certain schools. Using NCES data for over 12,000 school districts between 1997 and 2018, Backer and colleagues (2025) found for every 1 percent increase in the number of white students, schools recoup a 0.3 percent decrease in interest rates; the authors call this a “white interest discount” (p. 176). Higher-ed-specific analyses have also documented concerns via bond-financing. Analyses have suggested that HBCUs pay almost 20% more in issuance costs than non-HBCUs even when they have the same credit ratings or engage with the same companies (Dougal et al., 2019).

Evidence suggests further potential inequities across institutions. Capital spending tends to be lower at schools with higher proportions of racially minoritized or low-income students (Brunner et al., 2023; Zhao & Wang, 2015). Rural schools also generally have less access to capital resources and may be less likely to pursue policy levers (e.g., bond passage) to obtain capital funding (Johnson & Maiden, 2010; Maiden & Stearns, 2007). Within the higher education context, regional institutions may be in particularly troublesome spots, if they receive fewer state funds than flagship institutions but do not have the local taxing ability of community colleges (Murphy et al., 2018).

However, predictors of capital spending may vary by level of analysis (i.e. local/institutional vs. state spending). For example, capital investments at the state level tend to be higher in states with a more diverse population (e.g., Tandberg & Ness, 2011). Analyses of state-level capital spending in higher education find support for other predictors of differential spending, including more spending in states with more competitive elections, interest group activity, and professionalized legislatures and less spending in states with lower voter turnout, a more centralized governance structure, and more gubernatorial budgeting authority (Delaney & Doyle, 2014; Ness & Tandberg, 2013)





### Considerations for “Best Practices”

Extant research falls short of identifying the causal relationships between specific capital funding practices and student, institutional, or state outcomes. However, scholars have offered considerations for “best practices” across various aspects of capital project planning and funding processes, primarily in the K-12 context. We focus here on specific areas of governmental involvement that may also apply to higher education.

**Funding Mechanisms.** Across educational sectors, scholars generally agree that a robust state role in offering institutions dedicated capital support is important for an equitable system. Without capital-specific support, institutions must divert valuable resources from other areas of need to address infrastructure needs (e.g., Verstegen & Koeppel, 2012). Indeed, evidence suggests that school leaders reallocate planned spending between capital and non-capital needs in the presence of additional state resources (Nguyen-Hoang & Damiano, 2023). Federal interventions in capital funding may also be helpful in filling gaps in colleges’ infrastructure needs (e.g., Fisher & Wassmer, 2015; Ingle et al., 2014).

Alexander and colleagues (2015) argue that to create an “equitable capital-outlay program,” states should fully fund schools’ capital needs or, at minimum, ensure fiscal equalization across schools (p. 432). The complex framework through which colleges receive capital resources (see Figure 1) make complete reliance on state support an unlikely and potentially inefficient outcome. However, state policymakers could still take steps to address inequities in state-specific resources. For example, states could reevaluate any institutional matching requirements in place for access to state resources as they tend to disadvantage schools with already limited resources (Alexander et al., 2015; Rivera, 2018). State capital programs that leverage dedicated revenue

sources may also be preferable to others (Nguyen-Hoang & Damiano, 2023), as support for infrastructure is particularly vulnerable to external economic shocks and conditions (e.g., Great Recession; Murphy et al., 2018). The potential of a dedicated revenue source for capital needs is likely politically challenging and highly dependent on state-specific contexts. For example, the Texas Constitution dedicates 2.7 million acres of land to the University of Texas and Texas A&M systems. The surface revenues associated with this land can be used to secure bonds for capital improvements for the beneficiary systems. Given that this capital funding stream was established in Texas during the late 19<sup>th</sup> century, and that Texas is uniquely positioned to leverage resource-rich land, this capital funding stream is unlikely to be replicated in other states. In addition to cash-based support, scholars further suggest that states help address bond market-specific inequities by empowering institutions to leverage the state's credit via a centralized debt authority to secure better debt process and repayment terms (Alexander et al., 2015; Verstegen & Koepfel, 2012; Verstegen, 2011). Evidence from the K-12 context suggests that credit enhancement policies have positive impacts on schools' interest rates and per student spending (Yang, 2024).

**Management of Maintenance.** Evidence clearly suggests institutions are struggling to keep up with regular building and infrastructure maintenance. Estimates vary in how much funding should be allocated toward maintenance needs; some suggest that annual maintenance and repair expenditures should be between 2 to 4% of the replacement values of the assets in question (Lufkin et al., 2012). Addressing these needs in real time is likely more cost effective than allowing buildings to fall into disrepair or waiting for institutions to address capacity issues through large-scale capital projects (e.g., new construction). Ignored regular maintenance builds up over time and turns into a major (and costly) deferred

maintenance expense. As such, states should consider how to allocate resources for regular maintenance issues, either through specific funding programs or directives built into general appropriations policies that earmark spending on deferred maintenance issues (Kadamus, 2015; Manns, 2003; Manns & Katsinas, 2006).

**Capital Needs Planning.** Capital needs, particularly large-scale projects, are multi-year investments. Scholars have thus argued that adequate and equitable capital spending requires longitudinal planning (i.e., 5-year to 10-year plans; Alexander et al., 2015; Kadamus, 2015). Evidence suggests states are leveraging specific capital budget and planning tools at increasing rates (Ermasova, 2013), though there is likely room for growth. For example, in the most recent edition of the National Access and Finance Survey (NFS) of state-level community college leaders, Katsinas and colleagues (2023) that only a minority of states (13 of 43) strongly agree/agree that a long-term plan is in place to fund capital budgets, though this is an increase from three states in 2011. Earlier iterations of the survey suggest planning has been a desire but perennial concern among state leaders (e.g., Friedel et al., 2013). There is currently no literature exploring the pros and cons of specific prioritization mechanisms within the long-term capital planning and evaluation process; however, various scholars argue that a robust data infrastructure and approach to measuring building needs (e.g., space utilization, facility conditions) is a necessary step toward efficient and equitable capital funding allocation (Ermasova, 2013; Kadamus, 2015; Lufkin et al., 2012). Finally, though most capital planning and investment is a long-term endeavor, schools may also experience acute issues that represent immediate safety concerns. Therefore, states should also offer financial mechanisms for helping schools meet short-term needs (Thompson et al., 1989)

## Implications for Higher Education

The question of how to build a robust, efficient, and equitable capital funding system in higher education is badly in need of answering, unless policymakers; institutional leaders; and indeed, students, are prepared to deal with the aftermath of this proverbially “ticking time bomb.” Addressing this issue relies, in part, on a better understanding of what is currently happening in practice and the potential implications thereof. This report synthesizes a complex policy landscape, literature base, and discussions with stakeholders across the country to help provide this foundational understanding. Our analyses offer some primary considerations for policymakers, practitioners, researchers, and others concerned with postsecondary infrastructure for the decades to come:

- 1. State investments are substantial but may be insufficient.** As a proportion of total capital spending, states make significant investments in the higher education sector, but it may not be enough. Empirical analyses, journalistic coverage, and practitioners and institutional leaders all point to a pernicious gap between capital needs and investments. The issue is likely to worsen as buildings from the heyday of postsecondary construction continue to age and other infrastructure fails to keep up with modern technological needs. We therefore lead our implications with a clarion call for robust capital fiscal support, especially as colleges across the country navigate a financially precarious time.
- 2. Capital funding policies don’t happen in a vacuum and shouldn’t be discussed as such.** State capital funding policies are complex on their own, and as we have argued, are worthy of greater elevation in the higher education finance discourse. However, such discussions must also recognize the interconnectedness of capital funding with other financial and policy issues. The allocation and usage of operational funds, for example, can impact institutions’ capital needs and how distinct capital funding may be leveraged. General state tax revenues may influence whether states adopt a debt- or cash-backed approach to capital investments, while fluctuations in the bond market can determine the viability of debt-financed investments. If states rely on a dedicated revenue source, such as investment proceeds from state-owned lands, to provide for higher education capital spending, then states’ ability to invest in higher education may be contingent on favorable conditions in commodity markets. Furthermore, funding decisions occur amidst a political landscape. Thus, funding for largescale capital investments are not solely determined by, for example, a project’s prioritization score, as legislative priorities and gubernatorial support may influence final funding decision. Bringing capital funding policies in alignment with state, institutional, and student needs will require a recognition of these other influences.
- 3. All stakeholders should be concerned with the potential inequities of capital processes.** The complex postsecondary capital funding landscape creates many potential points of inequity. Access to robust local or federal resources, favorable bond market conditions, or viable philanthropic supports for capital needs differ across institutions; community colleges, rural institutions, comprehensive and regional universities may be particularly vulnerable. Certain processes (e.g., matching requirements, student enrollment measures) for state funds may also play a role in attenuating or exacerbating these other gaps in capital resources. These issues can lead to meaningfully different opportunities for colleges and universities. We encourage all institutional leaders and relevant stakeholders in each state to document how current processes can lead to unintended consequences or the inequitable allocation of resources; moreover, policymakers should engage with their constituents and conduct “self-studies” to determine how their existing policies may, or may not, be leading to suboptimal allocation of state funds across institutions.
- 4. Amidst constrained resources, project prioritization and evaluation are vital, yet complex.** Though much attention related to capital issues appropriately focuses on the money itself, how those funds are allocated also matters. Our analyses suggest prioritization processes range from rubric-based evaluations; to general alignment with state, system, or institutional goals; to privileging life and safety issues with the meager funds available for capital needs; to ad hoc processes that vary across funding cycles. We find that the majority of prioritization processes are undergirded by robust capital planning initiatives at the institution level that consider the age of facilities, the allocation of space for different institutional functions, and the cost required to maintain facilities in functional condition. For some funds – primarily those for maintenance and renewal projects– we also find evidence of standard formula-

based allocations across systems. In the most basic formulae, funds are evenly distributed across institutions. More work is needed to identify any “ideal” prioritization process. However, we encourage policymakers to minimally benchmark their current processes against other peers to determine whether their respective approaches may be improved.

**5. Most “best practices” are likely context specific.**

Given the variation in postsecondary systems, resource availability, and capital needs, what is ideal for some institutions or in some state contexts may not be applicable elsewhere. However, our review of the literature and discussions with relevant stakeholders highlight some potential overarching considerations. Policymakers should prioritize regular, consistent support for capital needs. Predictable investments and the clear communication of funding targets can help institutional leaders effectively plan across the relatively complex timelines typical of capital projects. Similarly, offering regular support for regular repair and renewal is also likely more cost effective than postponing and compounding major deferred maintenance issues down the line. Though earmarking dedicated revenue streams to regularly fund capital projects may be out of

reach in some cases, policymakers can consider how to leverage other mechanisms (e.g., set asides of operating funds; unrestricted carry-forward funds; bond market assistance) to help institutions access stable financial resources for capital needs. Moreover, where necessary, policymakers should consider how to help address fiscal inequities created by other aspects and players in the capital funding process (e.g., community colleges relying on regressive local funding).

**6. More research is needed to more fully understand capital funding issues, specifically within the postsecondary context.**

Our review of extant literature highlights the general emphasis on K-12 schools; it is likely that some of the lessons gleaned are applicable to colleges and universities. However, the higher education capital funding system is far more complex and warrants further inquiry. An exhaustive list of topics is outside the scope of this report, but research exploring the causal impacts of capital investment on student outcomes, case studies of novel capital funding and planning approaches, the returns to investments in routine maintenance, and the efficiency of various funding structures may be particularly helpful in further laying the foundational understanding of capital finance issues.



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# Methodological and Resource Appendix

Between September 2024 and January 2026, our research team conducted a policy scan of extant state statutes, budgets, capital planning documents, and other publicly available information regarding postsecondary capital funding policies across the country. As of January 2026, our analytic sample includes 1,133 artifacts. These insights were then distilled into state snapshots that were shared with relevant stakeholders in each state to both confirm and expand our understanding of their state’s processes. To complement these data, we have to date conducted 40 interviews with various representatives from 36 states. Our participants ranged from state capital budget analysts to vice chancellors of academic planning, including representation from state offices, governing and/or coordinating boards, and university and community college systems (see Table A1).

**Table 1A | Organizations Interviewed by State**

STATE	INTERVIEWED ORGANIZATION	STATE	INTERVIEWED ORGANIZATION
Alaska	University of Alaska Fairbanks	Minnesota	Minnesota State Colleges and Universities
Arizona	Arizona Board of Regents	Mississippi	Mississippi Community College Board
Arkansas	Arkansas Department of Higher Education	Missouri	Missouri Community College Association
California	University of California, Office of the President	Nebraska	Nebraska Coordinating Commission for Postsecondary Education
Colorado	Colorado Department of Higher Education	Nevada	Nevada System of Higher Education
Delaware	State Office of Management and Budget	New Jersey	Office of the Secretary of Higher Education
Florida	State University System of Florida	New Mexico	New Mexico Department of Higher Education
Georgia	University System of Georgia; Technical College System of Georgia	New York	The State University of New York; SUNY Construction Fund
Hawaii	University of Hawaii System	North Carolina	North Carolina Community College System; University of North Carolina
Idaho	State Board of Education	North Dakota	North Dakota University System
Indiana	Indiana Commission for Higher Education	Oklahoma	Oklahoma State Regents for Higher Education
Iowa	Iowa Board of Regents	Oregon	Oregon Higher Education Coordinating Commission
Kansas	Kansas Board of Regents	South Dakota	South Dakota Board of Regents
Kentucky	Kentucky Council on Postsecondary Education	Tennessee	Tennessee Higher Education Commission
Louisiana	Louisiana Board of Regents	Texas	Texas Higher Education Coordinating Board
Maryland	Maryland Association of Community Colleges	Utah	Utah System of Higher Education
Massachusetts	Massachusetts Division of Capital Asset Management & Maintenance	Virginia	State Council of Higher Education for Virginia
Michigan	Michigan House Fiscal Agency	Washington	Washington State Board of Community and Technical Colleges; University of Washington

**The state-specific insights presented in this report come from both our team’s synthesis of this publicly available documentation and our discussions with relevant stakeholders by state.**

**Both the snapshots and a more expansive database of capital funding policy features by state are available at:**  
<https://edpolicy.umich.edu/>.

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