

Addressing Capital Renewal at UC and CSU

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SUMMARY

Capital Renewal Needs at the Universities Are Large and Growing. Capital renewal refers to the replacement of building components (such as roofs and heating systems) that are at the end of their useful life. Over the next ten years, the University of California (UC) projects \$12 billion in capital renewal needs will emerge across its academic facilities, while the California State University (CSU) projects \$3.1 billion in emerging capital renewal needs. If these needs are not addressed, the segments' existing backlogs of deferred maintenance will grow. These backlogs currently are estimated to total \$7.3 billion at UC and \$6.5 billion at CSU.

No Plan Is in Place to Address Identified Capital Renewal Needs. Capital renewal spending at UC and CSU has been insufficient to keep pace with emerging needs. Some campuses designate little, if any, ongoing funding from their base budgets for capital renewal, instead relying heavily on one-time state funding to address backlogs. State funding has been episodic, with large amounts provided in some years and none in other years. In addition, as UC and CSU continue to expand their academic space, no process is in place to account for the future capital renewal needs of new facilities. Absent a plan to address these issues, backlogs very likely will continue to grow—leading to higher costs and greater risk of programmatic disruptions.

Recommend Legislature Take Several Actions to Plan for Capital Renewal. First, we recommend the Legislature develop a plan to address anticipated UC and CSU capital renewal needs as they emerge. Such a plan would involve several key elements, including setting a funding target that is aligned with emerging needs, sharing the cost between the state and the segments, and phasing in funding increases over time. Second, we recommend the Legislature adopt a companion plan to reduce UC's and CSU's existing backlogs to a target level within a set time period. Third, we recommend requiring UC and CSU to identify funding for the future capital renewal costs of any proposed new academic facilities. Fourth, we recommend requiring UC and CSU to report annually on their facility conditions, among other related topics.

Several Additional Issues for Legislature to Consider. Although the state likely will face budget constraints in 2023-24, the Legislature can take important steps to begin the capital renewal planning process. In doing so, we encourage the Legislature to consider the trade-offs between providing more funding for capital renewal versus other purposes—including the segments' operating costs, the construction of new academic facilities, and support for nonacademic facilities (such as student housing). The Legislature could also consider reassessing the need for UC and CSU to maintain their current footprints, particularly given the recent expansion of online instruction. Finally, the Legislature may also wish to begin planning for the capital renewal needs of other state agencies in addition to UC and CSU.

INTRODUCTION

The University of California (UC) and California State University (CSU) have many academic facilities. As these facilities age, their building components eventually need to be replaced. Replacing these components is commonly referred to as capital renewal. When capital renewal needs are not addressed as they emerge, campuses accumulate backlogs commonly referred to as deferred maintenance. Capital renewal costs at UC and CSU are large and growing, with more projects added to their backlogs each year. Neither the state nor the segments currently have a plan for covering these costs. Without a plan, facility conditions will likely deteriorate and programmatic disruptions could become more

frequent. In this brief, we first provide background on capital renewal at the segments, next assess the current approach to addressing their capital renewal needs, then make recommendations to better plan and budget for capital renewal moving forward, and finally raise other related issues for the Legislature to consider.

BACKGROUND

In this section, we introduce information needed to understand capital renewal at UC and CSU, provide the segments' estimates of their capital renewal needs, and discuss how the segments currently budget for capital renewal. The nearby box provides definitions of key terms used throughout this brief.

Glossary of Key Terms

In this brief, we use the following facility-related terms.

- **Academic Facilities.** Buildings that contain space supporting the segments' core academic missions. Examples of such space include classrooms, laboratories, and faculty offices.
- **Infrastructure.** Physical assets that support multiple facilities. Examples include central plants, utility distribution systems, and pedestrian pathways.
- **Capital Renewal.** The periodic replacement of building components (such as roofs and heating systems) that have reached the end of their useful life. Campuses can address capital renewal in various ways, including replacing individual building components, renovating an entire facility, or demolishing a facility and constructing a replacement for it.
- **Deferred Maintenance.** The backlog of capital renewal projects that accumulates when building components are not replaced at the end of their useful life.
- **Current Replacement Value (CRV).** The estimated cost of replacing any given facility or group of facilities today. CRV is a common measure of the value of a campus's physical assets.
- **Facility Condition Index (FCI).** A measure of the condition of any given facility or group of facilities. The FCI for a facility is calculated by dividing its deferred maintenance backlog by its CRV. For example, a facility with a \$20 million backlog and a \$100 million CRV would have an FCI of 0.20. The smaller the FCI, the better the facility condition, with an FCI below 0.05 commonly considered good and an FCI above 0.10 considered poor.
- **Routine Maintenance.** Maintenance activities that occur on a regular basis, including inspecting, servicing, and undertaking minor repairs of building components. Inadequate routine maintenance can lead building components to reach the end of their useful life prematurely, thereby increasing capital renewal needs and costs.
- **Operations and Maintenance (O&M).** The day-to-day activities required to use facilities and keep them in good condition. Examples of O&M costs include routine maintenance, utilities, and custodial services.

Understanding Capital Renewal

UC and CSU Have Many Academic Facilities, Along With Associated Infrastructure.

Traditionally, the state has funded the segments' academic facilities, including classrooms, laboratories, and faculty offices. UC has about 63 million square feet of academic facilities across its ten campuses and other sites. The current replacement value (CRV) of those facilities totals about \$39 billion. CSU has about 43 million square feet of academic facilities across its 23 campuses, and the CRV of those facilities totals about \$23 billion. In addition to academic facilities, the state funds a notable amount of campus infrastructure, such as central plants, utility distribution systems, and pedestrian pathways. (Though not a focus of this brief, campuses also have self-supporting facilities, such as student housing, parking structures, certain athletic facilities, and student unions. These types of facilities typically generate their own fee revenue, which covers associated capital and operating costs.)

Facilities Require Periodic Capital Renewal.

UC reports that nearly 60 percent of its academic space is at least 30 years old. Similarly, CSU reports that more than half of its academic facilities are at least 40 years old. As facilities age, their building components eventually reach the end of their useful life and need to be replaced. For example, within a given facility, a roof might need to be replaced after 30 years. The cost of capital renewal projects can vary widely, with costs ranging from tens of thousands of dollars for smaller projects to tens of millions of dollars for larger projects. If aged building components are not replaced, they can start malfunctioning or stop working altogether. In some cases—such as a leaking roof—not replacing an aged building component can result in new problems that increase costs. When campuses do not address capital renewal as the need emerges, they accumulate a backlog of deferred maintenance projects.

Facilities Also Require Routine Maintenance.

Whereas capital renewal refers to the periodic replacement of key building components, routine maintenance refers to activities that tend to occur on a more regular basis. For example, these activities may include inspection, servicing, and minor repairs.

When campuses do not adequately address routine maintenance, building components can reach the end of their useful life prematurely, further increasing capital renewal needs. Routine maintenance and other day-to-day facility costs (such as utilities and custodial services) are commonly referred to as “operations and maintenance” (O&M) costs. UC and CSU campuses fund O&M costs from their operating budgets. Campuses often plan for increased O&M costs when adding new academic space. For example, CSU annually designates a portion of its state General Fund base budget augmentation for the O&M of new facilities, allocating these funds to campuses based on their share of newly opened square footage. While UC does not centrally designate a portion of its base budget augmentation for O&M, campuses may choose to use some of their allocation for this purpose.

UC and CSU Report Certain Information on Capital Projects. Under state law, UC and CSU are to submit capital outlay plans to the Legislature by November 30 each year. Specifically, these plans are to identify the projects proposed for each campus over the next five years. Depending on the segments' objectives over any given five-year period, these plans might have a different mix of capital renewal and new construction projects. Though these plans specify projects proposed over the near term, they are not required to include a comprehensive estimate of the segments' capital renewal needs, including their backlogs. In addition to requiring the five-year capital outlay plans, state law requires UC and CSU to submit detailed proposals for any capital outlay projects they intend to fund in the next year using their main General Fund appropriation. The administration and Legislature generally review these proposals during the annual budget process.

Identifying Capital Renewal Needs

UC Is Developing a Systemwide Facility Condition Assessment Program. Historically, UC campuses each measured their capital renewal needs using their own approaches. Several years ago, UC began developing the Integrated Capital Asset Management Program (ICAMP) to obtain more comprehensive and consistent data systemwide. Under ICAMP, both external consultants and

campus staff maintain UC’s facility condition assessment data, with the specific responsibilities of the external consultants and internal staff varying by campus. Though ICAMP currently includes data on UC’s academic facilities, UC remains in the midst of collecting data on related infrastructure (such as central plants). In December 2021, UC submitted a one-time report to the Legislature on its capital renewal needs for academic facilities. The UC data in this section comes from that report.

CSU Also Has a Systemwide Facility Condition Assessment Program.

CSU has measured its systemwide capital renewal needs for many years. In 2017-18, it improved its approach by incorporating more granular data on facility conditions. Under this approach, consultants from an external vendor are expected to conduct on-site facility condition assessments at each campus once every five years. Between external assessments, campus staff are expected to update their facility condition assessment data on a regular basis. In contrast to UC, CSU already has collected data not only on its academic facilities but also on related infrastructure. CSU annually reports its capital renewal needs for academic facilities and infrastructure in its five-year capital outlay plan. The CSU data in this section comes from the five-year capital outlay plan submitted to the Legislature in November 2022.

UC and CSU Project Large Capital Renewal Needs Emerging Annually.

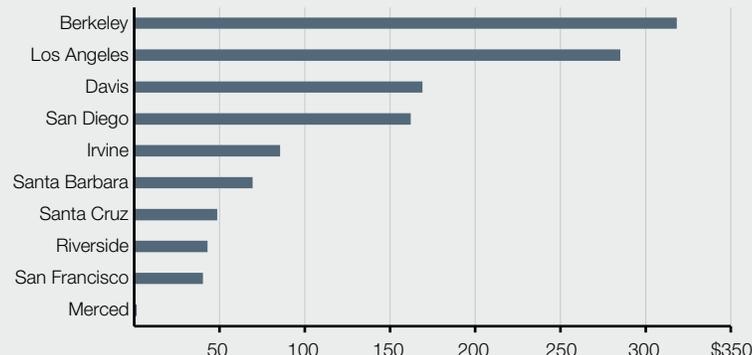
UC projects \$12 billion in capital renewal needs will emerge across its academic facilities over the next ten years, equating to an average of \$1.2 billion in capital renewal projects emerging each year. CSU projects \$3.1 billion in capital renewal needs will emerge across its academic facilities and infrastructure over the next ten years, equating to an average of \$313 million annually. **Figure 1**

Figure 1

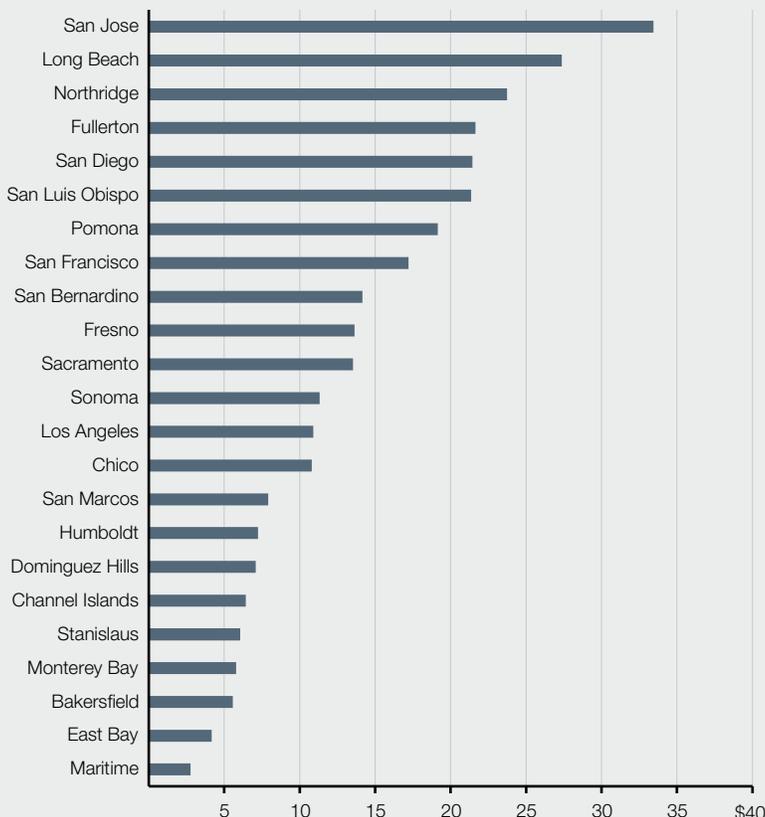
Projected Capital Renewal Needs Vary by Campus
Average Annual Renewal Needs (In Millions^a)

Different Scales Used for UC and CSU Charts

UC



CSU



^a The segments calculate their average annual renewal needs across the next ten years. We use the most recently available data from each segment. UC data comes from a December 2021 report and it includes academic facilities only. (UC’s infrastructure assessment is still in progress.) CSU data comes from a November 2022 report, and it includes both academic facilities and infrastructure.

shows projected annual renewal needs by campus. Across all UC and CSU campuses, annual renewal needs range from about \$1 million (at UC Merced) to \$318 million (at UC Berkeley). This variation likely reflects differences among campuses in the number, size, age, complexity, and location of their facilities, among other factors. For example, a large campus with older facilities and extensive research space is likely to have costlier renewal needs than a small campus with newer facilities and little research space.

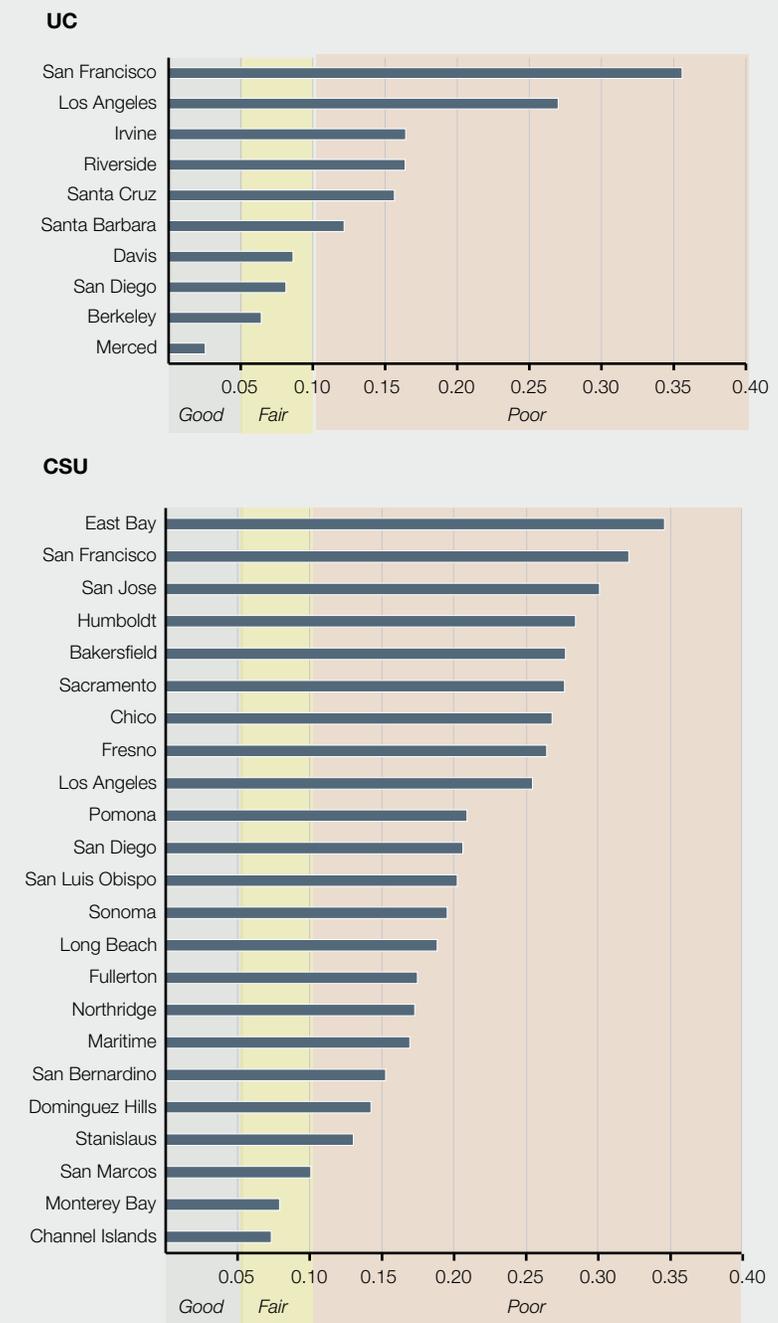
UC and CSU Also Have Large Existing Backlogs of Capital Renewal Projects. At both segments, the renewal needs emerging each year are on top of large backlogs of deferred maintenance projects. UC estimates it has a \$7.3 billion backlog associated with its academic facilities and infrastructure, while CSU estimates it has a \$6.5 billion backlog. **Figure 2** shows each campus's backlog for academic facilities, divided by the CRV of those facilities. This metric is commonly known as the facility condition index (FCI), with a lower index score reflecting better facility conditions. We estimate more than half of UC campuses and nearly all CSU campuses have an FCI above 0.10, which is typically considered an indication of poor facility conditions.

Backlogs Have Grown Significantly in Recent Years. From 2017-18 to 2022-23, CSU's backlog for academic facilities and infrastructure grew by \$2.4 billion (60 percent). UC indicates that its backlog has also grown over time, though data tracking these changes was not available. In recent years, three main factors have driven growth in the segments' backlogs. First, additional building components have reached the end of their useful life. Second, as the segments improve their facility condition assessment programs, some building components that were

Figure 2

Many UC and CSU Campuses Have Poor Facility Conditions

Estimated Facility Condition Index by Campus^a



^a Reflects deferred maintenance backlog for academic facilities divided by their current replacement value (CRV). The backlog and CRV estimates exclude infrastructure. We use the most recently available data from each segment. UC data comes from a December 2021 report. CSU data comes from a November 2022 report.

not previously tracked have been newly added to their data systems. Third, the backlogs have been adjusted upward to reflect construction cost escalation, which—reflecting broader inflationary pressures—has been particularly high over the past two years. Growth from these three factors has outpaced the rate at which the segments are completing capital renewal projects, as this is limited by available funding and other factors. As a result, the segments have seen net increases in their backlogs over time.

Budgeting for Capital Renewal

Campuses Have Discretion Over Capital Renewal Budgeting. State law does not require UC and CSU to budget certain amounts for capital renewal each year. Moreover, UC does not have an internal systemwide policy on how much its campuses are to budget annually for capital renewal, effectively leaving these decisions to the discretion of the campuses. Under CSU’s internal systemwide policy on facility maintenance, campus presidents are responsible for ensuring that “appropriate resources” are directed toward capital renewal. The long-term goal of CSU’s policy is to eliminate deferred maintenance. CSU’s policy, however, does not set a minimum level of spending for capital renewal or otherwise specify what amount of resources is considered appropriate at each campus.

Campuses Use Some Ongoing Base Funding for Capital Renewal Projects. Some campuses choose to designate annual funding for capital renewal projects from their base budgets (that is, their ongoing, unrestricted core funding). At both segments, these funds primarily consist of state General Fund and student tuition revenue, with a small portion coming from other fund sources. Systemwide data is not available on how much UC and CSU campuses are spending annually from their base budgets on capital renewal projects. Based on conversations with both segments, the amounts vary from campus to campus and tend to be much smaller than their emerging capital renewal needs. The amounts that campuses dedicate to capital renewal also can fluctuate with fiscal conditions. Notably, campuses may choose to reduce capital renewal spending from their base budgets in years when the state reduces funding for UC and CSU.

UC and CSU Also Debt Finance Capital Renewal Projects. Since 2013-14 and 2014-15, respectively, the state has authorized UC and CSU to issue university bonds for capital outlay projects, then pay the associated debt service from their main General Fund appropriations. These debt-service payments are in addition to other base funding that the segments decide to use for capital renewal projects in any given year. While the segments may use debt financing for smaller projects (such as roof replacements), they often also use it for larger projects. For example, the segments typically debt finance entire facility renovation projects as well as projects that entail demolishing an aging facility and replacing it. Such projects often address capital renewal while also making other facility improvements, such as seismic upgrades or classroom enhancements. We estimate UC has used university bonds to finance roughly \$1.1 billion in projects that renew or improve existing facilities since 2013-14, equating to an average of about \$110 million in projects annually. Similarly, we estimate CSU has used university bonds to finance roughly \$1.8 billion in projects that renew or improve existing facilities since 2014-15, equating to an average of about \$200 million annually. Based on the available data, we cannot determine the share of these funds that went specifically for capital renewal versus other facility improvements.

UC and CSU Also Use Reserves for Capital Renewal. UC and CSU maintain reserves for various purposes, including to save for large future expenses and prepare for economic downturns. Campuses commonly use a portion of their reserves to support capital renewal. Campuses may use their reserves to pay for a planned capital renewal project or an emergency repair. They also may use their reserves to provide matching funds for a major project financed through university bonds. (CSU encourages campuses to cover about 10 percent of the cost of these projects using reserves.) Systemwide data is not available on how much UC and CSU are spending annually from their reserves on capital renewal.

CSU Recently Began Using Investment Earnings for Capital Renewal. UC and CSU place some unspent funds in various investment accounts. In 2018, CSU established a new

investment account called the Total Return Portfolio (TRP). Funds in this account are invested in certain types of assets (such as mutual funds) in which CSU did not previously invest. Under state law, CSU may only use TRP earnings for one-time capital expenses, including renewal. Since CSU began distributing TRP earnings in 2019-20, it has allocated an average of \$40 million annually to campuses for capital expenses, with distributions varying somewhat from year to year based on investment performance. UC has a similar investment account called the Total Return Investment Pool (TRIP). However, state law does not restrict the use of UC TRIP earnings to capital expenses, and data is not available on how much funding from this source has gone toward capital renewal.

State Has Provided Significant One-Time Funding to Address Backlogs. Despite the various fund sources the segments are using for capital renewal projects each year, backlogs have accumulated over time. Over the years, the state has sometimes provided General Fund to UC and CSU to address these backlogs. In 2015-16, after several years of providing no new funding for deferred maintenance projects, the state resumed providing one-time funds for this purpose. Since then, the state has provided an average of \$86 million annually to UC and \$98 million annually to CSU for deferred maintenance projects and related purposes (such as energy efficiency projects and seismic upgrades). As **Figure 3** shows, these allocations have varied significantly from year to year, partly reflecting changes in the state's budget condition. For example, the state provided no funds to UC and CSU for deferred

maintenance projects in 2020-21, when it was anticipating a significant budget problem due to the COVID-19 pandemic. The state then provided \$325 million in one-time funds to each segment just one year later in 2021-22, when it had a significant budget surplus.

ASSESSMENT

In this section, we assess the current approach to addressing capital renewal at UC and CSU.

Data on UC and CSU Capital Renewal Needs Has Improved. Over the past several years, both segments have taken steps to improve the consistency and comprehensiveness of their facility condition assessment data. The state now has data from UC and CSU quantifying their capital renewal needs for academic facilities and (to a lesser extent) infrastructure. Compared to the previously available data, the current data is more useful for planning and budgeting. Opportunities remain for both the state and the segments to use the data for these purposes. For example, the state could use the data to better align funding with identified needs as well as monitor the segments' progress in improving facility conditions.

State Lacks Comprehensive Data on Capital Renewal Spending. In contrast to the improved data on UC and CSU capital renewal needs, the segments' data on capital renewal spending still has notable limitations that make it difficult to use for planning and budgeting. Most significantly, the segments do not comprehensively track their capital renewal spending across all fund sources. For example, CSU's data on capital renewal spending does not include bond funding for major capital renewal projects, while UC's data does not

Figure 3

State Funding for Deferred Maintenance Projects Varies From Year to Year

One-Time General Fund (In Millions)

	2015-16	2016-17	2017-18	2018-19	2019-20 ^a	2020-21	2021-22 ^b	2022-23 ^c
UC	\$25	\$35	—	\$35	\$144	—	\$325	\$125
CSU	25	35	—	35	239	—	325	125

^a Amount for CSU was provided for deferred maintenance or campus-based child care facilities. The 2020-21 budget package allowed UC and CSU to repurpose unspent 2019-20 deferred maintenance funds for other operational purposes.

^b Amounts for UC and CSU were provided for deferred maintenance or energy efficiency projects.

^c Amounts for UC and CSU were provided for deferred maintenance, seismic upgrades, or energy efficiency projects.

include smaller projects supported by one-time state funding or campus base budgets. Without this information, the Legislature cannot measure the gap between the segments' emerging capital renewal needs and their current spending. Because the spending data is not tracked by fund source, the Legislature also cannot determine how much campuses are relying on one-time state funding for capital renewal versus ongoing amounts designated from their base budgets. Moreover, the segments' spending data does not allow the Legislature to separate spending on capital renewal from spending on other facility improvements (such as seismic upgrades or classroom enhancements).

No Plan Is in Place to Address Identified Capital Renewal Needs. Although both segments have notable capital renewal needs in any given year, neither the state nor the segments have a plan to address these needs as they emerge. Some campuses indicate little, if any, ongoing funds are dedicated in their base budgets for capital renewal, suggesting they rely heavily on one-time state funding. Meanwhile, one-time state funding for capital renewal has been episodic, with large amounts sometimes provided when the state budget has a surplus versus no funds provided in other years. With such volatility, campuses have difficulty planning for capital renewal projects in advance and putting in place adequate staffing to implement those projects.

No Process Is in Place for Assessing the Full Cost of New Facilities. The current process for proposing new academic facilities at UC and CSU does not fully account for the future costs associated with those facilities. Although campuses commonly plan for the increased day-to-day O&M costs of opening new academic space, they generally do not plan for the capital renewal costs that will emerge in future years as building components age. This contrasts with the approach taken with self-supporting facilities. When campuses propose new student housing facilities, for example, they are often expected to develop a plan to cover future capital renewal costs using project revenues. In recent years, a few other states (including Florida and Nebraska) have also begun to require public universities to identify funding for the future capital renewal costs of academic capital outlay projects.

Without Additional Planning, Backlogs Will Very Likely Continue to Grow. Although the data on capital renewal spending at UC and CSU is limited, it suggests that current spending is insufficient to keep pace with capital renewal needs as they emerge. Moreover, the continued expansion of academic space will further add to capital renewal needs in the long term. Absent a plan to address the future capital renewal costs associated with both existing and new facilities, backlogs very likely will continue to grow moving forward.

As Backlogs Grow, Fiscal and Programmatic Consequences Could Become More Serious. At campuses with growing backlogs, aged building components could require more frequent servicing, as well as costly emergency repairs. Moreover, building components past their useful life can create poorer learning and working conditions, with the potential for programmatic disruptions when systems fail. Based on conversations with the segments and stakeholders, some programmatic disruptions already are occurring. Recent examples include inadequate ventilation leading to overheated classrooms as well as frequent flooding within buildings affecting faculty research. These types of facility issues could affect the recruitment and retention of students, faculty, and staff. Left unaddressed, these types of issues could also pose health and safety concerns.

RECOMMENDATIONS

In this section, we make recommendations related to planning and budgeting for UC's and CSU's ongoing capital renewal needs, existing backlogs, and future needs associated with new facilities. We then focus on improving how the Legislature monitors progress in addressing UC's and CSU's capital renewal needs.

Addressing Ongoing Capital Renewal Needs

Adopt Funding Plan to Address UC and CSU Capital Renewal on Ongoing Basis.

We recommend the Legislature develop a plan for the state and the segments to fund capital renewal needs as they emerge. Below, we describe the key elements of such a plan. **Figure 4** shows an illustrative plan incorporating these elements.

Set Ongoing Funding Target. The Legislature could consider setting the annual ongoing funding target based on the CRV of each segment's facilities—a metric that UC and CSU are already tracking. Under a commonly cited best practice, campuses are to allocate an amount equal to 2 percent to 4 percent of their CRV annually for capital renewal and routine maintenance. In the illustrative plan in Figure 4, we set the annual funding target for capital renewal at 2 percent of each segment's CRV. (We assume the segments would fund routine maintenance separate from this target.) We estimate that 2 percent of CRV is \$839 million at UC and \$474 million at CSU in 2023-24, with the amount increasing annually due to construction cost escalation. (Our estimates assume 3.4 percent annual cost escalation, based on the historical annual average growth rate in the California Construction Cost Index since 1979, a sufficiently long period to encompass spans of high and low inflation rates.) For comparison,

UC projects its average annual renewal needs are \$1.2 billion, which is somewhat higher than the illustrative target. CSU projects its average annual renewal needs are \$313 million, which is somewhat lower than the illustrative target. The main advantage of using a funding target linked to a percentage of CRV is the consistency it provides not only across the segments but also over time. Linking to a percentage of CRV also would better facilitate planning activities and could reduce volatility in capital renewal funding from year to year.

Share Cost Between State and Segments.

Given the magnitude of their capital renewal needs, UC and CSU very likely would need additional state support to address these needs as they emerge. After setting a capital renewal funding target, the Legislature could provide ongoing General Fund augmentations to cover a certain share of that target, then set an expectation that the segments cover the remaining share from other sources.

Figure 4

Illustrative Funding Plan for UC and CSU Capital Renewal

(Dollars in Millions)

	2023-24	2024-25	2025-26	2026-27	2027-28
UC					
Funding Level					
Funding target (2 percent of CRV) ^a	\$839	\$868	\$897	\$928	\$960
Phase-in percentage	20%	40%	60%	80%	100%
Totals	\$168	\$347	\$538	\$742	\$960
Funding by Source^b					
General Fund augmentation (45 percent)	\$76	\$156	\$242	\$334	\$432
UC share (55 percent)	92	191	296	408	528
Totals	\$168	\$347	\$538	\$742	\$960
CSU					
Funding Level					
Funding target (2 percent of CRV) ^a	\$474	\$490	\$507	\$524	\$542
Phase-in percentage	20%	40%	60%	80%	100%
Totals	\$95	\$196	\$304	\$419	\$542
Funding by Source^b					
General Fund augmentation (60 percent)	\$57	\$118	\$182	\$251	\$325
CSU share (40 percent)	38	78	122	168	217
Totals	\$95	\$196	\$304	\$419	\$542

^a Assumes CRV increases by 3.4 percent annually, based on historical average growth in California Construction Cost Index.

^b These illustrative cost shares are based on the approximate share of each segment's total ongoing core funding that comes from state General Fund versus other sources.

CRV = current replacement value.

Any current ongoing funding designated by the segments from their base budget or other sources could count toward the segments' share. To meet the remaining expectation, the segments could increase the amount designated from their base budget, either by (1) allocating new revenue from General Fund base augmentations and any tuition increases or (2) redirecting existing funding from other purposes. The segments could use these ongoing funds to pay for capital renewal projects in cash or to debt finance these projects using university bonds. In addition, the segments could continue to fund some projects using reserves, investment earnings, or other sources (such as donor funds).

Consider Various Factors When Setting Cost Shares. In determining an appropriate expectation for the segments' share of the capital renewal funding target, the Legislature could consider each segment's capital renewal needs, other cost pressures, access to nonstate funds, and debt capacity. Based on these factors, the state could potentially set different expectations for UC and CSU. In the illustrative plan in Figure 4, state General Fund augmentations cover 45 percent of the funding target at UC and 60 percent of the funding target at CSU, with the segments covering the remaining share from other sources. These illustrative amounts are based on the approximate share of each segment's total ongoing core funding that comes from state General Fund versus other sources.

Phase In Funding Increases Over Several Years. In light of broader budget conditions and other cost pressures, the state and the segments very likely will not have sufficient resources to reach the capital renewal funding targets in the first year of the plan. The Legislature could phase in funding increases to reach the targets over several years. Such an approach would give the state and the segments more time to identify available funding and make other budget adjustments. Phasing in funding increases gradually would also allow the segments more time to build the administrative capacity to complete a higher volume of projects each year. This additional capacity would likely entail campuses increasing their staffing for project management as well as identifying additional labor

from the building industry to perform the design and construction work. The illustrative plan in Figure 4 phases in funding increases evenly over five years—reaching the funding targets the last year of the period. (Though the illustrative plan phases in funding increases beginning in 2023-24, the Legislature could schedule the phase in to begin at a later time.) Once the funding targets are reached, the illustrative plan assumes the state would maintain funding for capital renewal (with annual adjustments for cost escalation) moving forward. To avoid future funding reductions, the state could build up its reserves sufficiently such that it could continue providing its share of the capital renewal funding target even during a recession.

Provide Guidance on Project Prioritization During Phase In. During the phase-in period, annual funding for capital renewal would not keep pace with emerging needs, and some projects would continue to be added to the backlog. To mitigate the negative consequences of a growing backlog, the Legislature could direct UC and CSU to prioritize certain types of projects with available funding. For example, the segments could be directed to prioritize projects that address potential health and safety issues, reduce the risk of programmatic disruptions, avoid the need for costlier repairs in the future, and reduce ongoing operational costs.

Addressing Existing Backlogs

Use Additional One-time Funding to Reduce Existing Backlogs. Beyond developing a plan to address emerging capital renewal needs at UC and CSU, we recommend the Legislature adopt a companion plan to reduce the existing backlogs to a target level within a set time period. For example, the Legislature could set the target level at an FCI of 0.05—the threshold below which facilities are commonly considered to be in good condition. To reduce the backlogs to this level, the Legislature could continue using one-time state funding. If the UC and CSU backlogs were reduced to a target FCI of 0.05 over a ten-year period, we estimate the average annual cost would be about \$935 million and \$750 million, respectively. (Consistent with our illustrative ongoing funding plan, our one-time funding estimates assume 3.4 percent annual cost

escalation, as well as growth in the backlog due to the ongoing funding target being phased in over five years.) These costs to address the existing backlogs would be on top of the ongoing funding target. As with the ongoing funding target, costs to address the existing backlog could be similarly shared between the state and the segments.

Addressing Capital Renewal Needs of New Facilities

Require UC and CSU to Plan for Future Costs of New Facilities. We recommend the Legislature require the segments to identify funding for the future capital renewal and O&M costs of proposed new academic facilities. These components could become a required part of the capital outlay project proposals that the segments submit to the state each year. The segments might plan to cover capital renewal costs of new facilities in various ways. For example, a campus could plan to reserve funding annually from its base budget during the lifecycle of the facility, or it could raise additional donor funds at the outset of the project. Beyond requiring the segments to identify funding, the Legislature could further consider requiring campuses to deposit the funds into a restricted account to ensure they are available when building components need to be replaced.

Monitoring Progress on Capital Renewal

Require UC and CSU to Report Annually on Facility Conditions. We recommend the Legislature require UC and CSU to annually report the data listed below for their academic facilities and infrastructure. This data would allow the Legislature to monitor the segments' progress in addressing capital renewal as well as determine whether the associated state funding is having the intended effect. The segments could report this information as part of their existing five-year capital outlay plans. (Though UC and CSU currently report some of this information, neither segment provides all this information regularly as part of its five-year plan.)

- Facility square footage and CRV, by campus.
- Deferred maintenance backlog and FCI, by campus.

- Projected additional capital renewal needs over the next ten years, by campus.
- Total annual spending on capital renewal, by fund source.
- Total reserves for future capital renewal, by fund source.

Require UC and CSU to Report Annually on Use of State Capital Renewal Funds. As the Legislature provides additional funding to UC and CSU to address their capital renewal needs, we recommend it adopt provisional language requiring the segments to report on the projects they undertake with those funds. The Legislature typically has adopted this type of language when providing funding for deferred maintenance projects. Adopting similar language moving forward would help the Legislature ensure that state funds go towards what it deems the highest priority projects. This is particularly important if funding for capital renewal remains insufficient to fully address needs, as the segments would need to triage among potential projects.

OTHER ISSUES TO CONSIDER

In this section, we raise a few additional issues for the Legislature to consider.

Even With Constrained State Budget, Legislature Could Take Important Steps in 2023-24. In [The 2023-24 Budget: California's Fiscal Outlook](#), we project the state faces a \$24 billion budget problem. Although this means the Legislature would not have budget capacity to provide more funding to UC and CSU for capital renewal, it still could take steps toward addressing the segments' capital renewal needs. Without up-front state costs, the Legislature could begin requiring UC and CSU to report annually on their facility conditions so that it has up-to-date information for planning and oversight purposes. The Legislature also could begin requiring UC and CSU to plan for the future cost of any new academic facilities that they propose to fund using their main General Fund appropriations moving forward. Moreover, the Legislature could begin the process of developing plans to address UC's and CSU's ongoing capital renewal needs and existing backlogs, as this process would involve making

several key decisions (including setting the ongoing funding target, the segments' share of costs, the phase-in time line, and the target FCI) before any funding is provided to implement the plan. In the coming months, if the budget outlook were to improve such that some funding could be allocated for new purposes in 2023-24, the Legislature could consider providing one-time funding to UC and CSU to address their existing backlogs. Given the size of the backlogs and the growing potential for programmatic disruptions, we would encourage the Legislature to make the segments' deferred maintenance projects a high priority for one-time funds.

Funding UC and CSU Capital Renewal Involves Difficult Trade-Offs. Even when the state has budget capacity for new commitments, the Legislature faces several key trade-offs in planning for capital renewal. One trade-off involves providing more funding for capital renewal versus the segments' other operating costs. These other operating costs, including employee compensation, are also increasing. Importantly, decisions about both capital renewal and employee compensation can affect student, faculty, and staff recruitment and retention. Another trade-off involves providing more funding for projects that renew existing facilities versus add new space. This trade-off is heightened because adding new space leads to increased capital renewal needs and operating costs over the long term. The Legislature also faces a trade-off between funding academic facilities versus traditionally self-supporting facilities, such as student housing. While funding facilities such as student housing can promote valuable policy objectives (such as a reduction in student homelessness or an increase in student engagement), it leaves less budget capacity to support academic facilities. This trade-off is heightened because academic facilities, unlike self-supporting facilities, do not directly generate revenue to cover their capital and operating costs. Given these trade-offs are difficult and perennial, the Legislature will want to take them into account when developing a long-term budget plan like the one we lay out in the "Recommendations" section of this brief.

Legislature Could Revisit UC and CSU Footprints. Throughout this brief, we assume the Legislature wants to keep UC's and CSU's existing academic facilities in good condition—replacing their components at the end of their useful life. The Legislature, however, could take a different approach and carefully reassess the need for each academic facility as it ages. Some of the impacts of the pandemic on higher education, including the greater reliance on online courses, will likely have long lasting impacts on how UC and CSU use their facilities. Given these impacts, campuses might not require the same amount or types of academic space moving forward. (Beyond impacting capital renewal costs, revisiting the amount and type of academic space at UC and CSU could lead to changes in the campus experience for students.) Decisions about future growth are particularly significant given the magnitude of the outstanding capital renewal needs at UC and CSU. Just as adding new space eventually leads to increased capital renewal costs, reducing existing space can lead to lower capital renewal costs in the long term.

Other State Agencies Also Have Capital Renewal Needs. Like UC and CSU, many other state agencies have notable deferred maintenance backlogs as well as emerging capital renewal needs in the coming years. Similar to UC and CSU, these other agencies likely will face higher costs, poorer working conditions, and programmatic disruptions if their capital renewal needs go unaddressed. The Legislature may wish to begin planning and budgeting for the capital renewal needs of these other agencies too. With limited funding, the Legislature faces a trade-off between prioritizing capital renewal at UC and CSU versus at other agencies (such as court houses and prisons). This trade-off is heightened because some other state agencies have less access to nonstate funding, suggesting an even greater reliance on state General Fund in addressing their capital renewal needs.

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This report was prepared by Lisa Qing, and reviewed by Jennifer Pacella and Anthony Simbol. The Legislative Analyst's Office (LAO) is a nonpartisan office that provides fiscal and policy information and advice to the Legislature.

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