

# Financial Sustainability Initiative

## Statement of Purpose and Scoping Document

July 3, 2023

### Preface

UC Berkeley's current means of allocating funds needs to be changed if the campus is to manage its resources in a way that effectively serves its goals. This document explains why our current system doesn't serve the campus well; what we should desire in a budgeting/financial system; and what values, goals, and principles should guide the work of devising a new system. Additionally, while the scope of work can be crudely distilled into devising a better system, we cannot "boil the ocean"; moreover, there may be aspects of our current system, broadly defined, that we wish to retain. The first half of this document is a statement of purpose, the second half a broad outline of the work to be done. As with any project of this nature, it must be recognized that it will evolve; hence, the reader is advised to keep in mind the evolutionary and aspirational nature of this endeavor.

This document is intended to be a high-level document. As the financial sustainability initiative (FSI) proceeds, more specific issues will be identified by the FSI Steering Committee, advisory groups, Senate committees, and more broadly with the campus community. Those groups will also discuss and assess specific decisions to be made before changes are implemented. While we can, of course, anticipate some very specific questions, they will be addressed in the future; this document seeks merely to offer a statement of purpose for the FSI, identify high-level principles and objectives, and to sketch, at a high-level, the scope of the work to be done.

It should be acknowledged at the outset that the FSI does not create additional funds *per se*. Its principal goal is to ensure the funds available to the campus are put to their best use. This immediately entails two tensions: first, as discussed below, reasonable people will debate what constitutes "best use"; hence, a goal of FSI must be to facilitate such discussions, provide transparency around how decisions are made, and ensure the allocation of our scarce resources is done in a manner consistent with campus commitments to equity and fairness. The second tension is that, while it is to be hoped that the FSI will eliminate waste and provide incentives to grow revenues, if the growth in funds, such as those that come from the state, tuition, and other sources, proves limited going forward and the FSI changes allocations, then there will very likely be parts of the campus that stand to receive less than they once did. While

that is nothing to be celebrated, the motivating intuition of this work is that the alternative—allocating limited resources in a non-strategic manner that fails to best meet our objectives with regard to excellence and access—would be far worse.

## Statement of Purpose

As noted, if the campus is to manage its resources in a way that effectively serves its goals, its means of allocating funds needs to change. Our current budget process is an impediment rather than an aid toward our realizing our aspirations. It has many shortcomings, including:

1. It is a historical legacy, which, if it were ever tied to our strategic goals, is no longer. It is the legacy of a bygone era in which revenues tended to be directly tied to what they could be spent on (*i.e.*, “blue” dollars could be used for blue-dollar purposes, “red” dollars for red-dollar purposes, etc.). That is much less true today, as most dollars including state support, tuition, and indirect cost recovery are green (that is, can be used for nearly any purpose). By obscuring the fungibility of our funds, our current processes make it challenging to recognize tradeoffs and to make decisions that ensure we are attending to our most important and pressing needs.
2. It reflects an inordinate number of special deals, many of which were made by administrators long since retired to address situations that, if they even still exist, are no longer as pressing or critical as they once may have been; hence, resources are not being directed to their best use in light of current conditions.
3. It is insufficiently responsive to changing needs, including shifts in student demand for courses and majors, and may, therefore, lead to either the denial of educational opportunities or to great inequities in the educational experience across fields. It is insufficiently responsive to innovation and fails to encourage innovation.
4. It is disconnected, in many ways, from the incentives we wish decision makers to have. Indeed, it often creates perverse incentives that lead to inefficiencies, such as hoarding of resources, over- or under-utilization of services and facilities, and the like. It lacks the fundamental alignment that should exist between any budgeting process and the goals of the organization.
5. At least with respect to the central ledger and the purposes the central ledger serves, it has led and will continue to lead to a situation in which centrally controlled campus reserves are dangerously and unsustainably depleted—the central campus cannot run annual deficits indefinitely. This adversely affects

the campus's ability to respond to emergencies, invest in new ventures, or address long-standing areas of need, such as deferred maintenance.

The *current* allocation of central funding among colleges and schools is arguably at odds with maintaining the *across-the-board* excellence of our academic programs. Issues with current funding also result in unevenness of services provided, leading to growing dissatisfaction among many of our students, faculty, and staff. Lastly, current funding is proving inadequate for maintaining and improving campus facilities and infrastructure essential to instruction, research, and campus life.

## The Role of a Budgeting System

Budgeting systems are crucial to how an organization governs itself. This is especially true in a complex environment such as UC Berkeley, in which decision making is necessarily distributed. A budgeting system is how an organization seeks to influence its various decision makers to balance competing needs for resources so that spending decisions achieve the maximum benefit for the campus. More specifically:

1. The way in which resources are allocated creates incentives, which can help guide decision makers to work toward overall campus objectives. For example, if we wish to see a more diverse faculty, we might tie the allocation of FTE, in part, to past (and present) efforts to run broad and inclusive searches. Or, given a desire to ensure our students are able to take courses from ladder faculty, we might tie the allocation of FTE, in part, to the number (or proportion) of student credit hours (SCH) taught by ladder faculty.
2. The way in which the center obtains financial resources from the units also creates incentives, which again affects decision making. For instance, allowing units to retain more of the revenue they generate for discretionary purposes provides more incentives to generate that revenue. On the other hand, unless units are induced to internalize the impact of their revenue generation on other campus units' costs, incentives to generate revenue can be too great. In a related vein, how transfer prices (recharges) and assessments are determined requires balancing the need to provide goods and services efficiently with the incentives to generate revenue. Sometimes there are implicit "taxes," as for example would exist if the campus reduced the allocation of state-funded faculty or staff FTE to a unit when the unit raises funds for those positions (so-called "substitution")<sup>1</sup>—this is another way in which how resources are allocated creates incentives.

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<sup>1</sup> Currently, because academic units have guaranteed minima of state-funded Senate FTE, they are protected against such substitution should they raise funds for non-state-funded Senate FTE.

3. A system that is opaque with regard to how allocations are made makes it challenging for decision makers to plan. Hence, the more transparent and predictable a system is, the better it is from the perspective of planning.
4. The way in which resources are allocated reflects and determines the level of delegation of decision making. For example, if the campus allocates faculty FTE to units, then the central campus administration determines how many faculty in total there will be and in what units.<sup>2</sup> If, alternatively, deans were allocated funds, which could be, but need not be used to hire faculty, then the deans determine how many faculty there are in total.
5. Individuals' decisions often affect others (impose externalities), positively or negatively. An academic unit might, for instance, set the number of seats offered in its introductory courses based on the need to serve its (anticipated) majors, overlooking the needs of students in other fields who need or could benefit from those courses. In a multi-unit organization, how resources are allocated will determine the extent to which decision makers consider the externalities associated with their decisions.
6. Administrators are not omniscient. They do not always know what the benefit of the marginal dollar to one unit is versus providing it to another. Given, however, that they want to ensure that the marginal dollar goes to where it will achieve the greatest benefit, information about the return from investing in one unit versus another is important. A budgeting system ideally should have ways of inducing units to provide information that allows the center to assess needs clearly.
7. To ensure efficient decision making, transfer prices ("recharges") should reflect the *incremental* costs incurred by the unit providing the good or service to the unit requesting it. Units that operate in service of others cannot, therefore, build their overhead (non-incremental) costs into their prices—the organization must determine other ways to fund those units' overhead costs.
8. To facilitate efficiency and minimize bureaucratic burden, the finance/budget system should not be unduly bespoke. Its processes should be easily navigable. Thought must be given to transaction costs; that is, we must be mindful that we don't operate in the frictionless environment often assumed in basic economic modeling.

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<sup>2</sup> Of course, on the Berkeley campus, the allocation by central campus administrators is informed by the Academic Senate's Budget & Interdepartmental Relations Committee ("Budget Committee").

Another desirable feature of a finance/budget system is that it should distinguish among different types of “goods.” Economics offer a taxonomy of four kinds of goods:<sup>3</sup> i) *private goods*, which exhibit “exclusion” (who can use them is determinable, with an ability to exclude others from use) and are “rivalrous” (use by one person or group means another cannot use it); ii) *common goods*, which are non-exclusionary and rivalrous (think, *e.g.*, a single copy of a book in the library); iii) *club goods*, which are exclusionary and non-rivalrous (think, *e.g.*, career services offered by a professional school); and iv) *public goods*, which are non-exclusionary and non-rivalrous (think, *e.g.*, exterior lighting on the campus or certain types of software licensing). As a rule, private goods should be paid for by those acquiring use of them; public goods should be centrally provided, with funds ideally obtained through non-distortionary “taxation”; common goods should also be centrally funded, but perhaps with charges set to ensure ideal allocation (*e.g.*, like a city that charges congestion fees for use of certain motorways at high-demand times); and club goods should be paid for by the “club.” With regard to this taxonomy, a finance/budget system should

9. Ideally make clear the connection between the nature of a public good and how it is funded. For instance, if a campus-wide software license is a flat fee independent of number of users, then it should be paid for as one might pay for external lighting. If, instead, it is based on the campus population (or a subset, such as faculty & staff), then some “head tax” could be appropriate.
10. Although congestion pricing has benefits, those must be weighed against the cost of implementation. It might be simpler to have due dates on library books than to charge a rental fee.<sup>4</sup>

While the above lists some high-level desiderata of a finance/budget system, it does not provide the specifics, because the specifics must reflect the organization’s goals—what it seeks to achieve—which, in turn, are a reflection of its values.

## Values and Goals

Berkeley has multiple objectives. Indeed, the University of California, as a system, has a tripartite mission: education, research, and public service; each of those is part of the campus’s mission as well. Having multiple missions inevitably means, given limited resources, making tradeoffs among them. Moreover, each of those missions,

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<sup>3</sup> As with any taxonomy, it is not always clear where any given “specimen” belongs or what precisely are the boundaries of the taxa. For example, a never-congested public highway is essentially a public good; an always-congested public highway is a common good; and it is less clear cut in between.

<sup>4</sup> There are, of course, social norms governing how libraries are expected to operate. An efficient pricing scheme that runs afoul of established norms (*e.g.*, rental fees for library books) might prove unacceptable to the University community.

in itself, encompasses multiple missions (there are, *e.g.*, multiple levels of education—undergraduate, professional, doctoral, etc.)—hence, more tradeoffs.

While UC Berkeley aspires to be excellent in all that it does and, simultaneously, provide the broadest possible access to that excellence, such an expression of our values does not afford guidance with regard to the specifics of a finance/budget system. That reflects not only the multiple objectives and, thus, dimensions of possible tradeoffs, but it also reflects the challenge of operationalizing those aspirations into metrics or other guides. After all, excellence is not a precisely defined term—indeed, it often means different things to different people. To what extent, for example, does excellence in education refer to—and is it measured by— graduation rates? Advancing social mobility? Discovery opportunities for students? And so on.

UC Berkeley rightly prides itself on seeking to treat all members of its community equitably and fairly. It understands that equity does not always mean treating everyone the same; for instance, reflecting the unequal preparation and resources with which students arrive here, we know that more might need to be provided to some students than others if we seek to see *all* be successful and benefit from a Berkeley education.

Another value at UC Berkeley is *shared governance*. This reflects that certain decision rights belong, by statute, to the Academic Senate (faculty) and others to the administration. Other decisions are to be made in consultation between the Senate and administration or with other stakeholders. Because, as noted, a budget/finance system creates—and reflects—incentives, any such system will necessarily intersect with shared governance. Respecting shared governance thus has implications for the design of any budget/finance system.

Given the inherent challenges of mapping our goals, values, and aspirations to a finance/budget system, we do better, instead, to develop some operating principles that we believe such a system should have, with the principles being selected because they are broadly consistent with the goals, values, and aspirations we have.

## Principles

In addition to the high-level desiderata set forth above, some principles that should govern the design of our finance/budget system are

1. **A broad array of inquiry, research, and fields should be supported.** With the proviso that Berkeley expects to be excellent in what it chooses to do—and, thus, with limited resources there must be limits to what it can do—a key aspect of our mission is to facilitate the creation and curation of knowledge across a wide range of areas. The determination of the scope of the University

and what constitutes excellence in its endeavors are not matters that lend themselves to formulae; instead, these are matters that require qualitative decision-making that encompasses the entire portfolio of academic activities. That, in turn, suggests limitations on how decentralized decision making can be—which, correspondingly, has implications for what kind of allocation decisions (for instance, likely, the allocation of faculty FTE) need to remain central and which can be decentralized.

2. **Comprehensive excellence creates positive externalities that could warrant some equalization of funding.** Berkeley’s overall reputation for comprehensive excellence makes Berkeley a more attractive place for faculty and students—excellence is a positive externality. An environment with excellent “have” units<sup>5</sup> and mediocre “have-not” units would ultimately impose a cost on the excellent units, which would struggle to compete for faculty and students and, thus, to remain excellent. For this reason, allocation methods that give no consideration to differential financial resources could fail to be in the University’s overall interest or even be in the best interest of the “have” units.
3. **At the undergraduate level, funding should be consistent with students being able to pursue their desired course of study.** This means that funding to academic units has to be responsive to student demand for courses of study. While there may be legitimate constraints that entail some rationing, the finance/budget system should promote access. In recognizing the importance of being responsive to student demand, we’re not advocating abandoning the importance of advising students about areas of study beyond “popular” majors nor should this be read to mean that we don’t have an obligation to help our students appreciate the benefits of a rich liberal arts background. So, while we must be responsive to student demand and interest, we should not be slaves to it either. In this regard, there needs to be a connection between unit funding and the decisions one wishes of the undergraduate admissions office; in particular, we may need to have differential admission rates depending on students’ proposed field of study.
4. **At the undergraduate and doctoral level, there should be broad equity of academic experience.** With an understanding that different fields might lend themselves to different pedagogies, the quality of education, as approximated by measures such as students per class, student credit hours (SCH) per ladder

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<sup>5</sup> It is understood that no unit on the Berkeley campus feels rich, especially in regards to private peers against which it may benchmark itself. At the same time, there are variations in financial resources and considerations of equity, as well as a desire to maintain comprehensive excellence, that could dictate some differential expectations with regard to support levels or with regard to expectations regarding who pays for what.

faculty member, majors per advisors, etc. should be broadly equal. The finance/budget system should seek to avoid outcomes in which students in some fields enjoy an experience comparable to that at an elite liberal arts college and others experience something to what they would at a large, poorly resourced state university. Although our budgetary processes likely affect students' *academic* experience most directly, to the extent they have an effect on other aspects of the student experience, we should also have equity as a principle in those realms as well.

5. **Working conditions for faculty and staff must be adequate.** There is some minimum level of working conditions, level of support, adequacy and reliability of facilities, and reasonableness of workload to which all faculty and staff are entitled.
6. **Resources should follow responsibilities.** As an example, if we desire to provide stronger incentives to save electricity by asking units to pay for their electricity use, then the overall allocation to units must increase to insure they can pay their electric bills. How much to allocate should be set in such a way that a unit has reasonable incentives to conserve, with an understanding that if it conserves, then it will have additional funds to put to other uses.
7. **Ensure adequate funding of public and common goods.** By their nature, private and club goods often create greater private incentives for their funding than exist for public and common goods. The campus relies heavily on public and common goods (*e.g.*, the library) and their funding is critical. Moreover, because there are often economies of scale, caution may be necessary regarding incentives around forming many clubs or over relying on private goods versus inducing more sharing.
8. **In a related vein, the system should be clear about what are “cost centers” and ensure appropriate funding and governance.** Although there are obvious issues applying the standard business dichotomy between profit and cost centers to a university, there are, nonetheless, units at Berkeley that operate like cost centers.<sup>6</sup> These need to be identified as such, a means of covering their

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<sup>6</sup> In business, a unit or division is a profit center if it takes in revenue from the outside, from which it would largely be expected to cover its costs. It is a cost center if its revenue, if any, is internal (*i.e.*, from transfers from other units within the organization) and, thus, it is reliant on the rest of the organization for funds to cover its cost. In a corporate setting, General Motors' Chevrolet division would be seen as a profit center and its Tech Center or world headquarters would be seen as a cost center. At Berkeley, a school, which receives tuition and other external funding, would be analogous to a profit center, while Berkeley IT would be more analogous to a cost center. In a profit center, incentives are assumed to be such that decision makers have incentives not to let their costs exceed their revenues, which is how their costs are covered. In a cost center, there are no such incentives, which raises the issue of how to ensure cost

overhead (*i.e.*, fixed or non-incremental costs) identified, and appropriate governance established to ensure the unit's services meet their "customers'" needs. The last point suggests the ancillary principle of **no taxation without representation**.

9. **As an ideal, when benefits are "private," decision makers should incur the incremental costs associated with decisions.** As an example, if a unit chose to improve unit-controlled classrooms, then the cost should ordinarily be paid solely by the unit. An ancillary principle is **what can readily be metered should be charged**. As an example: if metering electricity used by a building under a unit's control is readily measured, then, to encourage efficient use, the unit should be charged for its electricity use. Obviously, as already noted, to make this work, funding that is currently taken off the top, as for utilities, must be transferred to the units—**we cannot add cost responsibilities to units without providing them higher levels of funding**. A related principle is to avoid "ratcheting": the incentives to reduce costs are undermined if the "reward" for reducing costs is a smaller allocation in future years; hence, caution must be exercised if allocations must be reduced: reductions should not be tied to reduced expenditures.
10. **Conversely, when benefits are broadly shared, decision makers should ideally be compensated for some of the incremental costs.** As an example, if a unit chose to offer seats in introductory courses to non-majors, it should be rewarded for doing so.
11. **Space is not a free good.** Space is one of the campus's most precious resources. Units should neither be rewarded for using space inefficiently nor should they be penalized for using it efficiently. Notably, hoarding space or underutilizing it should be *disincentivized*. Basing certain charges to units, such as for janitorial services, on the amount of space the unit occupies might be one way to disincentivize space hoarding. **Again, if units will be asked to pay for services for which they don't, now, pay, their funding will need to be increased.**
12. **Nimbleness and reducing the bureaucratic burden should be promoted.** Changes to our budget/financing model should support, whenever possible, the campus's goal to reduce the bureaucratic burden and increase nimbleness of decision-making.
13. **Capacity to handle the unexpected.** In a vein similar to the last principle, the campus needs to retain flexibility to respond to the unexpected, such as events

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containment, which is a governance issue. Of course, because notions like profit and cost center do not fully match with the operations of a non-profit university, the use of profit and cost center language is merely meant to suggest analogies with business that might be useful for our thinking, not to be taken literally.

like a pandemic or natural disaster, or unanticipated changes in costs due to new labor contracts or mandates from the UC Office of the President. This means, among other things, that our budget/finance system must ensure a prudent amount is in reserves. **There must be scope for the campus to make strategic investments.** The finance/budget system should have a means of making investments in new areas, new methods, and key infrastructure that will enhance or maintain excellence.

**14. Cost-saving innovations that maintain or enhance excellence should be encouraged.** If cost reductions entail corresponding reductions in financing, there is little incentive to engage in cost-saving measures. Consequently, at least some of any cost reductions should remain with the units making the reductions.

**15. In a similar vein, incentives should exist to share resources or otherwise realize economies of scale.** While local control is often valued, sharing resources across units (or even with other campuses) is a way for our dollars to stretch further. Moreover, there are often economies of scale, which, if realized, result in cost savings.

## Scope of Work

The goal of the financial sustainability initiative is to develop a finance/budget system for the UC Berkeley campus consistent with the principles set forth above, as well as best practices for any such system, as also sketched above.

As part of this work, certain aspects of governance (*e.g.*, how decisions are made about the funding needs of “cost centers”) will also need to be discussed and potentially revised. With regard to certain support services, a review of those services with an eye toward better understanding the current efficiency of their operations and funding needs will be conducted. This will be of use in determining the level of funding for those units, as well as possibly the method of funding.

## Issues of Centralization vs. Decentralization

It is not in the cards for UC Berkeley to adopt a full-fledged responsibility centered management (RCM) system.<sup>7</sup> Rather, it will continue to exhibit a mix of centralized

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<sup>7</sup> An RCM system is a budgeting/financing system that allocates a significant amount of a university’s funds to units so as to grant them more control over their budgets and decision making than traditional budgeting systems. Typically, for academic units, the basis for funding is a measure of student demand, such as student credit hours (SCH).

and decentralized decision making. As noted above, the design of any budgeting/financing system needs to reflect the degree of decentralization, ideally with those making the decisions having appropriate incentives to balance the costs and benefits of their decisions. A key aspect of the initial phase of work in the FSI must, therefore, be on assessing who the decision makers should be; in particular, considering the questions of what currently centralized decisions should be delegated (decentralized), which should remain centralized, and whether there are currently decentralized decisions that might more appropriately be centralized.

## Criteria for Allocations and Assessments

A critical part of the financial sustainability initiative (FSI) will be determining the bases by which funds will be allocated to units and how they will be assessed. For instance, how best should funds be allocated to the academic units? What should be the metrics or factors that govern that allocation? If an outcome of the FSI is a budgeting/financing model for the campus that is closer to RCM, academic units would be assessed to help cover the costs of certain public and common goods. What would be the bases for those assessments? Some services that are now simply provided units, such as utilities, might more appropriately be paid for by the units.<sup>8</sup> How would the “prices” for those services be determined? And what, if any, adjustments would be warranted for differential utility costs? Whereas differences due to use might appropriately be borne by the units, would any adjustments be warranted to deal with the fact that some units have, for instance, more energy efficient buildings than others?<sup>9</sup>

In these regards, it is worth recalling that earlier efforts at academic finance reform developed a model for allocating certain funds to academic units that sought to match their educational and research activities to an appropriate level of funding. How much of that earlier work should inform the campus’s budgeting model going forward and how it might be modified are key parts of the FSI.

Especially when considering allocations to academic units, some consideration of fundamental cost differences will be important. For instance, some instruction, such

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<sup>8</sup> As a reminder, should units be expected to pay for service that they now receive for free, the allocations to the units need to be increased to avoid inappropriately burdening the units. Recall we will be operating under the principle that **we cannot add cost responsibilities to units without providing them higher levels of funding.**

<sup>9</sup> One potential way to deal with this is to consider current utility expenditures, which presumably reflect differential energy efficiency, and have this be the basis for initial funding. Units would still have incentives to reduce energy use, including by considering investments in making facilities more energy efficient.

as language or lab courses, may require moderate-sized sections, thereby potentially raising the cost per SCH vis-à-vis courses that can be taught in larger sections.

## Fund Sources

The FSI is principally concerned with campus funds that are allocated to various purposes by the central campus administration. In fiscal year 2022 (FY 22), these were approximately \$1.56 billion. Of that amount, approximately \$160 million was taken “off the top” for purposes such as paying the campus’s assessment to the UC Office of the President. The remaining \$1.4 billion was allocated to various campus units, including roughly \$642 million sent to the academic (decanal) units. Although \$160 million was taken off the top, it could, depending on how it agrees with the principles set forth above, be allocated to units, but effectively taxed back if that would better align with the principles set forth above than treating the \$160 million as simply a campus-wide fixed (overhead) cost.

Although FSI would not directly seek to allocate funds units receive from contracts, grants, sales, and similar sources, it is conceivable that such revenues could have bearing on how much of central campus funding (*i.e.*, the amount that was \$1.56 billion in FY 22) is allocated to units.

A question related to the last point is the allocation of indirect costs (ICR). The extent to which a portion of ICR should be allocated to academic units on the basis of the ICR they generate is a topic for the FSI.

Also in that vein, particularly for the academic units, revenues from certain degree programs and endowment income would not directly be allocated under the FSI. At the same time, they may be subject to either direct taxation (*e.g.*, a revenue-sharing arrangement on degree fees) or indirect taxation (*e.g.*, an expenditure tax that applies to all expenditures from certain fund sources). The means of doing so in a way that balances the need to maintain incentives to generate revenues and philanthropy with ensuring adequate funding of common and public goods will also be part of the FSI.

A considerable amount of reserves on the campus are held at the departmental, decanal, or even individual faculty level (*e.g.*, saved payouts from endowed chairs, unspent startup or retention funds). As with all reserves, those holding them desire to have an umbrella against a rainy day or save for a significant investment. At the same time, often these actors look to the central administration when it starts to rain or for investments rather than drawing on their reserves. A key issue will be inducing actors across the campus not to build up excessive reserves, but rather to use them when appropriate. How this can best be accomplished is also part of the FSI’s remit.

## Direct Funding vs. Indirect Funding

Certain activities can be directly funded by the center or indirectly funded by charging units. For example, certain utilities can be paid for directly by the center (*i.e.*, off the top) or units can be charged for utilities, possibly or largely using funds that have been allocated to them by the center. When funding is indirect, it will be essential to ensure that the units have both the means and incentives to provide adequate funding to those activities being indirectly funded. In some instances this would be relatively straightforward: units presumably want to keep the lights on and if they are allocated funds that reasonably match their electric bill, then they will have both means and incentives. Other services may be more challenging: how would, for instance, units be charged so that they are covering their share of the wifi network? Identifying what is appropriately moved from direct to indirect funding and how is part of the work of the FSI.

Indirect-funding mechanisms may also need to be designed to account for incremental versus overhead expenses. For instance, part of the cost of electricity on the campus is maintaining our electrical network. That cost is largely independent of usage; hence, keeping with the principle that overhead costs should not be part of recharges, which should be as close to incremental cost as possible, maintenance costs would ideally not be built into the “price” the campus charges units for electricity. Would overhead costs then be centrally funded? If so, how would they be determined and what incentives could be created to minimize them? Would it be simpler to deviate from the general principle and fold them into the price (as, *e.g.*, utilities like PG&E do *vis-à-vis* their pricing to households)? In other words, how do we balance the theoretical ideals of transfer pricing with the practicalities of transaction costs? More generally, determining how to weigh transaction costs and other bureaucratic realities against theoretical ideals will need to be addressed by the FSI.

A related set of issues arise when the means of indirect funding might not provide clear incentives to one or both sides. As an example, suppose that a unit paid for its janitorial services indirectly on the basis of its square footage. How is service quality assured? To what extent should service quality be variable, with the per-square-foot charge being greater the greater the quality of service provided? How are those charges, including for “basic” service set? Such governance problems are also part of the FSI’s scope.

## Governance of Recharge Rates

As has been alluded to above, a critical issue is ensuring that transfer prices or recharge rates are set to promote efficiency. This typically means that they should

equal incremental cost. In some settings, however, there will be issues of determining what incremental cost is or whether recharge rates accord with that principle. This is another governance issue that falls within the FSI's scope.

While governance of rates charged by administrative units would seem to fall naturally within the scope of the FSI, it is less clear whether rates charged by academic units should fall within the FSI's scope. How should one academic unit, for instance, set rates for faculty from another unit to use its facilities. How do we appropriately achieve efficiencies of scale, which could argue for the other unit's faculty being given access, without setting fees that might inadvertently incentivize the other unit to replicate facilities?

## Comparative Utilization and Efficiency of Administrative Services

A prerequisite for much of improving our budgeting processes is to understand current utilization of resources and the efficiency of our operations. To that end, part of the FSI will be a series of comparative utilization and efficiency studies of various administrative services that will seek to answer the following questions:

1. What are the core services and responsibilities of the functional area? Are there services and responsibilities that can be dispensed with? What should be provided or carried out that is not being done?
2. How do resources meet the needs of the service population (*e.g.*, student-facing services for the student population, research administration for research faculty, etc.)? What is the marginal value of the marginal dollar allocated, recognizing that value may be difficult to quantify? In other words, what would be gained from allocating greater resources and what be lost from allocating fewer resources?
3. Are there ways in which the services can be delivered more efficiently? Are there ways in which the services can be improved to be more effective? What have been the impediments in terms of funding, incentives, and organizationally to achieving those improvements?
4. To what extent can services be consolidated in order to reduce cost?
5. To what extent can non-core services and programs be eliminated or curtailed to free up resources for core services?
6. How do services at UC Berkeley compare to those provided at comparable R1 public universities?

## Concluding Thoughts

As noted at the beginning of this document, at the moment, the FSI is a work in progress. This document has sought to sketch the scope of the FSI, the principles to which it needs to be attentive, and the issues with which it must grapple. To a large extent, it has sought to surface the questions—or at least a large subset of them—that the FSI must address. As of this writing, while some answers are known or can be predicted, many are not, a reality reflected by the large number of sentences above that end with question marks.

There are many details to be determined. This document is, therefore, directional rather than being a well mapped-out route. While it provides guidance on where we should head generally, it will be the work of the FSI Steering Committee and others to determine our precise destination, the routes to take, and the speed at which to travel. Like any trip over uncertain terrain, we may well hit deadends or impasses, so we must remain flexible and patient.

There is no disguising that the FSI is a major undertaking. Given all with which UC Berkeley must contend, it is tempting, perhaps, to seek to put it off. This is especially true given that there is uncertainty in any change; wouldn't we be happier staying in a familiar neighborhood, even though conditions are deteriorating, then head someplace alien to us? That would, however, be a significant mistake: the greater the pressures on Berkeley, especially financial pressures, the more, not less, urgent the FSI becomes.