ABSTRACT
Like Berkeley, the UC system as a whole is quickly running out of space to accommodate the next generation of Californians who will be reaching college age by mid-century. Even with the added capacity at UC Merced, the UC system will run out of space on existing campuses in the next decade. In the normal course of events, this would trigger planning for another new general campus. Yet at a time when the university is still reeling from the effects of the Great Recession, the wisdom of an expensive new general campus is questionable. The need now is to rebuild and reinvest in existing campuses, not build a new one. These considerations suggest a different strategy for long-term enrollment growth than the UC system has followed in the past: Growing off-campus capacity at mature campuses. This paper describes a range of potential options for off-campus expansion, such as a branch campus at Berkeley. Such a strategy could accommodate the moderate level of enrollment growth projected for UC between now and mid-century and would be far less expensive than a new general campus. Expanding off-campus capacity at mature campuses like Berkeley could also channel new resources where the financial damage to academic programs and infrastructure has been greatest.

Keywords: California Higher Education, Enrollment Planning, University Funding

This analysis is an attempt to think systematically about the options available to Berkeley for expanding enrollment as a strategy for restoring revenue growth. Given that the Berkeley campus is very near the limit of its physical capacity, those options necessarily involve utilization of off-campus programs and instructional venues, such as expansion of Education Abroad, regional partnerships with local colleges, and creation of satellite or branch campuses.

The analysis does not, however, examine various other options for increasing campus capacity through “efficiencies” such as capping the number of semesters that students may take to graduate or offering a three-year degree. Those and related proposals aimed at accelerating student “throughput” and time-to-degree have often been suggested during recessionary periods in the past, and they have been extensively studied. The consensus is that such measures would have only a marginal impact on capacity, with adverse collateral effects on academic quality and student choice. More to the point, such measures aim only at making more efficient use of existing resources, whereas the focus here is on options for generating significant new enrollment and revenue growth at Berkeley.

A. A Perspective on Growth
The idea that Berkeley might grow its way out of the daunting financial challenges it now faces may seem implausible. Indeed, many lean toward the view that “right sizing” – limiting enrollment to a level commensurate with available resources, unless and until the State of California can provide a more reliable revenue stream – is the more prudent course. There is much to be said in support of that view.

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* Saul Geiser is a Research Associate at the Center for Studies in Higher Education (CSHE) at Berkeley and former director of admissions research for the UC system.

1 Saul Geiser, Julie Gordon, and Linda Guerra, “The potential impact of selected proposals for expanding the University of California’s capacity to deliver academic programs. Staff Paper #1: Academic and administrative mechanisms to accelerate time-to-degree.” University of California Office of the President, Oakland, CA, August 1994.
Yet enrollment and revenue growth have gone hand in hand throughout most of UC’s history, and it would be remiss not to consider a planning scenario in which that might happen again. Enrollment-driven budgeting at UC dates from 1911, but the advent of the California Master Plan for Higher Education in 1960 raised that practice to a whole new level. From a budgetary standpoint, the crucial feature of the Master Plan was that it linked enrollment growth – and thereby UC’s budget – to growth of the state’s population. Famously, under UC’s “social contract” with the State, the university guaranteed a place for the top eighth of California high school graduates, in return for which the state provided the resources needed for the university to grow.

The contract was executed through a framework of agreed-upon budget practices and funding formulae. The California Postsecondary Education Commission (CPEC) conducted periodic eligibility studies to ensure that UC was enrolling students from within the requisite 12.5% pool of high school graduates. Based on projected enrollments, the student/faculty ratio determined the number of budgeted faculty positions for which the state would provide funding. The faculty salary survey pegged compensation of UC faculty to those at other comparable research universities. The marginal cost-of-instruction formula established an overall level of funding that the state would provide per each additional student. Together, these budgetary arrangements helped drive the ascent of the University of California after 1960 to become the premier public research university in the world.

A notable feature of UC’s enrollment-driven budget is that, throughout most of the Master Plan era, it was relatively recession-resistant. While UC’s 12.5% eligibility target represented a ceiling for the State, it served UC as a floor. Thus, following recessionary periods when UC sustained state budget shortfalls, enrollment- or workload-based budgeting often enabled UC to restore funding to agreed-upon levels after the economy rebounded and state revenues improved. No budget “compact” can ever be entirely recession-proof given UC’s precarious position in the discretionary portion of the state’s budget, but this is perhaps as close as it gets.

Yet if the contract worked well for the first four decades of the Master Plan, it has been all but dissolved in the past two decades and especially since the Great Recession of 2008. State funding for UC plunged by 30 percent, and the traditional budget framework that helped restore UC following earlier recessions has been significantly damaged if not broken. CPEC is no more, the victim of a line-item veto by Governor Brown in 2011; it is unclear how UC eligibility and enrollment rates will be determined going forward. The student/faculty ratio is in free-fall. Faculty salaries are lagging, and the cost-of-instruction formula is being reconsidered and possibly diluted. Virtually the entire budget framework that sustained enrollment and revenue growth at UC in the past has been compromised.

Compounding the financial challenge for Berkeley, “re-benching” has diverted a significant amount of base funding to other UC campuses. Even if significant new state funding for UC enrollment growth were to become available, there is no reason to expect that the outcome would be any different or that Berkeley would receive a greater share of that growth.

B. Preconditions for Growth
For a growth scenario to be feasible at Berkeley, three conditions would need to be met:

(1) The Master Plan tenet of proportional eligibility is maintained, so that UC enrollment continues to grow in proportion to state population growth,
(2) A new enrollment-driven budget framework can be re-negotiated between the State and UC that provides a reasonable student/faculty ratio and marginal cost-of-instruction going forward, and
(3) The UC system adopts a more realistic path for accommodating long-term enrollment growth: Rather than build another new UC general campus, growth funding is allocated to existing campuses to expand off-campus instructional programs within their respective regions.

The first two of these preconditions assume that UC and the State can successfully “reset” the enrollment-driven budget framework in place throughout most of the Master Plan era until the 2008 recession; both are consistent with past practice to that extent. The third would require the UC system to re-think its traditional approach to long-term enrollment growth and is a significant departure from past practice.

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C. Long Live the Master Plan

While a good case can be made for raising the Master Plan’s eligibility target for UC above 12.5%, the more crucial condition is that the link between UC enrollment and state population growth is preserved. The idea that UC should be open to the top eighth of the state’s high school graduates carries a considerable weight of tradition and is one of the few reliable policy levers available to the university to justify state budget increases. This analysis assumes that UC is successful in maintaining its traditional 12.5% eligibility target.

Under that assumption, UC is likely to see moderate growth in student enrollments between now and mid-century. The Department of Finance’s most recent projections indicate that California’s overall population will grow from 37 million to 50 million by 2050, a 38 percent increase, although their forecast for both high school graduates and college-age population is lower. DOF’s forecast for high school graduates, which extends only through 2024-25, is essentially flat and is expected to peak at 440,000 in 2023-24, up from about 418,000 at present. But DOF’s longer-term projection for California’s college-age (18-to-24 year old) population indicates that this age group will resume growing after the present decade and will increase by about 14 percent between 2020 and 2060. It should be borne in mind that DOF’s projections have often underestimated UC enrollment demand in the past. Even if the projections are accurate, however, they signal the likelihood of at least moderate growth in the decades ahead.

The second assumption – that the state budget framework that fueled UC enrollment and revenue growth in the past can be “reset” at some reasonable, if leaner level – is more problematic. Even if UC is successful in negotiating a new budget framework with the State, it is likely to be less generous as in the past. UC’s student/faculty ratio had already slipped from about 17:1 to 19:1 in the wake of the 1990-91 recession, never to be restored, and it is likely that UC will suffer further, permanent erosion on that metric when the dust finally settles from the Great Recession. Some observers anticipate a ratio as high as 30:1 going forward. At the same time, UC’s cost-of-instruction formula is being reexamined and could be reset at a lower level than in the past.

The real question is not whether the budget framework will be diluted, but whether a new framework can be negotiated that is sufficiently resilient to withstand the inevitable ups and downs of the state economy. The reality is that UC will likely continue to experience state budget shortfalls during economic downturns in the future. The more important issue is what happens next: Is UC’s budget restored to agreed-upon workload levels after the recession ends and state revenues improve, or do the shortfalls lead to further, permanent erosion of the funding model? The perception on the part of many at UC that the State has become an unreliable financial partner owes primarily to the latter concern.

The assumption here is that UC will be prepared to accept a less generous budget framework if it can provide a more reliable revenue stream going forward. This, of course, implies a lowering of expectations. Although state funding will continue to support UC’s core instructional expenditures -- still paying a significant share of faculty salaries, for example -- those revenues will likely never again support the kind of huge expansion that UC enjoyed throughout most of the Master Plan era. At the same time, “resetting” the funding model at a more sustainable level could well be sufficient to accommodate the moderate level of enrollment growth projected between now and mid-century.

D. UC’s Traditional Approach to Growth

Since the advent of the Master Plan, UC has accommodated enrollment growth by building new general campuses and then expanding them. After Berkeley and UCLA, most of the “newer” UC general campuses were established in the 1950s and 1960s – Riverside (1954), Davis (1959), San Diego (1960), Irvine and Santa Cruz (1964) – in anticipation of “Tidal Wave I,” the demographic bulge of “baby boomers” that began in the 1960s and peaked in the mid-1970s. Merced is the only new UC general campus in 50 years. The strategy has sufficed until now mainly because growth in the number of California high school graduates moderated after 1975 and remained relatively flat until the mid-1990s.

The arrival of “Tidal Wave II,” however, has placed increasing strain on the physical capacity of the UC system. From 1996 to 2012, the number of California high school graduates grew from 286,000 to 451,000 -- an even larger increase than Tidal Wave I. That growth has been compounded, moreover, by the general increase in UC participation rates from the 1960s until now, as a greater proportion of eligible California high school graduates have sought a place at UC. The upshot is that not only Berkeley, but also the UC system as a whole is nearing the limits of its physical capacity. Even with the expansion of Merced, UC will run out of space on existing campuses in the next decade.

4 California Department of Finance, Demographic Research Unit (2016). “Projections.”

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In the normal course of events, therefore, planning for a tenth general campus would need to commence soon for UC to prepare space for the next cohorts of Californians who will be reaching college age over the next several decades. UC Merced took 17 years from inception to admission of its first class.

Yet at a time when the mature campuses are still reeling from the impact of the Great Recession, the wisdom of building another UC campus is questionable. In the first place, there is the question of whether the moderate level of enrollment growth projected through mid-century is sufficient to justify an expensive new general campus. Convincing the State is likely to be an uphill battle. And even if financial support could be secured, the mature campuses would justifiably view a new campus as a diversion of resources needed to restore the damage to their academic programs and infrastructure. The need now is to rebuild and reinvest in UC’s existing campuses, not build a new one.

E. An Alternative Path for Long-Term Growth

An alternative is to direct growth funding to existing campuses. Given that those campuses are at or near the limit of their enrollment capacity, such a strategy necessarily implies expanding capacity at off-campus venues. A range of options is possible and it is useful to consider them along a continuum from short-term to longer-term.

1. Expansion of Existing Off-Campus Programs

A first option is utilization of existing off-campus programs, such as Education Abroad, the UC Sacramento and Washington DC Centers, or UC Extension, to free up enrollment capacity on the main campus. Summer Session should also be considered alongside this category since, while it is an on-campus program, expanding credit enrollment during the summer can free up capacity during the regular academic year.

Interest in expanding off-campus programs has often intensified during recessionary periods in the past, as it offers a relatively immediate and straightforward strategy for accommodating additional students when budgets are tight. Two general variants are possible. One is to utilize such programs as an “efficiency” measure, that is, to accommodate more enrollments within the same revenue base. The other is to generate new revenues, and the focus here is on the latter variant. The recent resurgence of interest in Education Abroad owes primarily to the circumstance that UCOP has provided growth funding for that purpose.

But if expanding off-campus programs like EAP may be a useful first step, scalability is a major limiting factor. Even a significant expansion of off-campus residential programs would have relatively limited impact on on-campus enrollment capacity. To give a sense of magnitude, former Berkeley and UC provost Jud King has calculated that, across the UC system as a whole, student participation in off-campus residential programs would need to more than double in order to achieve a 5 percent increase in on-campus enrollment capacity.6

Other off-campus programs, such as UC Extension, offer greater scope for scalability although they are limited by other important factors. UCOP gave serious consideration to expanding undergraduate participation in Extension following the 1990-91 recession. The analysis concluded, however, that “given the policy, financial, and space issues associated with expanded use of Extension to support UC undergraduates, it is unlikely that enrollment would ever increase dramatically beyond the current level unless Extension’s mission and financing structure were radically altered.”7

One problem is that Extension is supported almost entirely from student fees. Were Berkeley to encourage or require students to take some significant portion of their coursework through Extension, the interrelated issues of fees, costs, and student financial aid would quickly surface. If the courses were expensive to mount, student fees would rise dramatically, and given that little financial aid is offered through Extension, student access would be adversely affected. The analysis also identified several academic policy issues, including Academic Senate regulations, that raise concerns about “quality control” and pose hurdles to expanding Extension’s mission in this way. Finally, there is the effect on Extension itself. Expansion of high-end undergraduate coursework could reduce cross-subsidies for the kind of vocational, public service, and continuing education programs at the core of UC Extension’s traditional mission.

5 Since this paper was written, the California Legislative Analyst’s Office issued a report in January 2017, “Assessing UC and CSU Enrollment Capacity,” recommending against a new UC general campus on the grounds that projected enrollment demand was insufficient.
7 Geiser (1994), op cit., p. 28.
Summer Session is also often cited as a program that Berkeley might exploit to free up capacity during the regular academic year. In the mid-2000s the State began providing modest funding for UC to expand enrollment during the summer months, and all campuses strongly encourage students to participate in Summer Session. The limiting factor, however, is student demand -- or more precisely, the lack of unmet demand. Two previous analyses have concluded that, unless attendance were made mandatory, student demand is simply insufficient to grow Summer Session enrollments much beyond current levels.8

In sum, as a strategy for expanding capacity and thereby revenue growth, expanding enrollment in existing UC programs like Education Abroad, Extension, and Summer Session is likely to yield only a marginal increase in on-campus capacity and is better considered a first step than a long-term strategy.

2. Regional Partnerships with Other Institutions

Another option for expanding off-campus enrollment is partnering with other colleges in the region. Current Berkeley provost Carol Christ has noted that the prospect for public/private partnerships, in particular, appears to be growing: “Pundits speak of the crisis in higher education as if it is a single thing. Public and private institutions in fact face very different challenges—challenges that are almost the inverse of each other. While fragile private colleges struggle to meet enrollment targets, many public universities cannot meet enrollment demand. This suggests a possible mutual accommodation.”

For example, one possible strategy could be

... establishing small communities of state students (I think of them as pods) on the campuses of private colleges with excess capacity. With such a strategy, state universities could identify a body of students who would begin their college education on another campus, with a core curriculum. The state university would pay a facilities fee to the private college. It would define the curriculum and either provide the faculty for it or hire faculty from the partner college to deliver coursework. Students could supplement the core curriculum with electives from the private college’s curriculum; for units their students took at the private partner, the state university would transfer a set, prearranged payment. At the point of greater specialization, when students declare a major, they would then take coursework at the university campus .... 9

In the greater SF Bay Area, Mills College is an example of a financially challenged private institution that might well be open to this type of regional accommodation, and Berkeley has initiated exploratory conversations to that end.

Many other kinds of regional partnerships and consortial arrangements are also possible, not only between public and private institutions but throughout higher education generally. The worsening financial environment of higher education over the past two decades has a led to a flurry of new, collaborative institutional models. “Joint use” or “co-location” models have become increasingly common, whereby different institutions collaborate to create economies of scale by delivering instruction at the same physical location, usually apart from their main campuses; in a recent survey, 20 states reported joint-use facilities of this type. In some states, consortia made up of a large number of collegiate partners have united to establish “multi-institutional teaching centers”; Minnesota, South Carolina, and Texas are examples of this approach.10

3. Satellite or Branch Campuses

Looking to the longer term, branch campuses are a well-established option for expanding off-campus capacity. One variant is the two-year branch campus. Many other states have established two-year university branches as part of their higher education systems, wherein branches operate as lower-division satellites of state flagships. The model is superficially similar to a community college but differs in three fundamental ways: (1) admission requirements are the same as for freshmen at the parent campus; (2) instruction is fully equivalent to that at the parent campus, and branch faculty are members of the university faculty (at Ohio State, for example, branch faculty are tenured and considered part of the main campus departments at Columbus); and (3) students transition from the branch to the parent campus without the need for a transfer-admissions process. At Penn State, students can complete lower-division work in over 160 baccalaureate majors at 14 branch campuses located throughout the state. Students then transition to the main campus at University Park to complete their major, a process known as “change of assignment” since transfer, in the traditional sense, is eliminated.

Many other variants of the branch model, such as polytechnic campuses or those focused on other academic specialties, are also possible. For example, UC president Napolitano has reportedly speculated about the possibility of Berkeley establishing a

STEM-intensive satellite campus at a nearby location. Two existing examples within the UC system are the Ventura and Santa Maria Centers of the Santa Barbara campus, which offer eight undergraduate degrees in humanities and social science areas; and the Palm Desert Campus of the Riverside campus, offering the MBA and an MFA in Creative Writing and Writing for the Performing Arts.

In trying to imagine a branch campus at Berkeley, at least one prototype already exists: Fall Program for Freshmen. Berkeley has met excess demand by admitting some students in the spring and offering them fall semester at a local seminary under the auspices of Extension. The lure of Berkeley admission is such that about 700 students a year now choose to accept admission to FPF rather than attend college elsewhere. The program has proven surprisingly successful. Although FPF students tend to be less competitive by Berkeley admissions standards, they perform better, on average, than students who begin their freshman year on the main campus. The academic environment that FPF provides – a cohort-based experience with a small community of students, instructors, and advisors, not unlike the small-college experience – seems ideally suited to build the foundational skills and relationships needed to navigate the transition from high school to a graduate research university.

It is not difficult to imagine extending this approach from first-semester freshmen at a local seminary to the full lower-division experience at a branch facility designed specifically for that purpose. As well as providing students a more coherent academic experience, a branch campus of this kind could also provide a substantial, permanent new revenue stream for Berkeley.

F. Student Demand as a Limiting Factor

As a revenue strategy, expanding off-campus enrollment capacity is constrained by a crucial factor: Student demand. Expanding off-campus instruction means asking students to complete a significant portion of their undergraduate coursework away from the main campus. The lower-division branch model, for example, would require students to spend two years at a satellite facility before transitioning to the main campus to complete their degrees. Student demand would need to be sufficiently robust for large numbers to accept admission there rather than the main campus or another four-year institution.

For that reason, expansion of off-campus capacity makes most sense at high-demand campuses such as Berkeley and UCLA, where enrollment pressure is strongest. Growth in enrollment capacity must be aligned with enrollment demand for the strategy to work. Expanding off-campus capacity at UC's most selective, high-demand campuses is the logical conclusion of that strategy.

G. Conclusion

Berkeley, like the UC system as a whole, is quickly running out of space to accommodate the next generation of Californians who will be reaching college age by mid-century. Even with the added capacity at UC Merced, the UC system will run out of space on existing campuses in the next decade. In the normal course of events, this would trigger planning for another new general campus.

Yet at a time when the university is still reeling from the effects of the Great Recession, the idea of an expensive new UC general campus is plainly a non-starter. The need now is to rebuild and reinvest in existing campuses, not build a new one.

These considerations suggest a different path for long-term enrollment growth than the UC system has followed in the past --: growing off-campus capacity at mature campuses. A range of options for off-campus expansion has just been described. Such a strategy could accommodate the moderate level of enrollment growth projected for UC between now and mid-century and would be far less expensive than a new general campus.

Equally important, such a strategy could generate significant new revenue growth at Berkeley. Expanding off-campus capacity at mature, high-demand campuses where enrollment pressure is strongest could channel new resources precisely where the damage to academic programs and infrastructure has been greatest.