

An Organizational Sociologist Looks at the Future of U.S. Universities

By Steven Brint

The University of California where I teach has been on a roller coaster over the last year. The cratering California state budget has been replaced by an unexpected surplus. Nevertheless, we expect another round of budget reductions to make up for lost revenue during the pandemic year. We have witnessed bitter struggles over the budget allocations across the UC system, with veiled accusations of racism by the poorer against the richer campuses. We have been teaching remotely for over a year and now anticipate returning to the classroom, though with many courses remaining online. The protests following the George Floyd murder have super-charged a social movement, at once demanding reckoning for the racial injustices of the past and, at least in the estimation of some, threatening to politicize knowledge production methods that have served the University well.

The tribulations of the UC system mirror those experienced by higher education institutions across the country. Twenty-one states cut their higher education budgets. Undergraduate enrollments barely held their own, and enrollments at two-year colleges declined by ten percent, continuing a decade-long downward trend. Low-income, first-generation, and under-represented minority students struggled to stay in college, as family finances faltered and support services suffered. Meanwhile, new international enrollments plummeted by 43 percent. Jobs for graduates remained scarce, intensifying concerns about the value of college degrees. And Republicans continued to rail against the politicization of the humanities, contributing to a surge in legislative efforts to restrict academic freedom.

The ups and downs of the pandemic year can be seen as intensifying longer term trends. For decades, we have read about the crushing weight of student loan debt, the dispiriting erosion of state funding for universities, the seemingly endless expansion of the ranks of adjunct faculty. We know that college graduates in this generation often do not always surpass their parent's standard of living and as many as 40 percent remain underemployed for long periods after graduation. Although access to postsecondary education has improved, racial-ethnic and socioeconomic gaps in graduation rates remain wide. We wonder whether the country's investment in research is sufficient to keep up with the competition from Western Europe and China.

In this article, I will provide a big-picture view, focusing on the environmental forces affecting universities – and I will prescribe an approach that can direct these forces in a way that strengthens rather than further weakens universities.

I will do it by adopting what organizational sociologists call an “open-systems approach.” Use of the term “open systems” is a way of saying that important forces in the environment shape the trajectory of organizations. Sophisticated open systems approaches pay attention also to the way these forces interact with the dominant structures of organizations – in the case of universities think mainly of academic departments -- and with university managers' perceptions of the best paths forward for their campuses.

In the case of universities, there are potentially dozens of environmental forces to consider. Social scientists have often tried to tie them up in a singular framework, such as “academic capitalism” or “the rise of the market university.” I do not find these formulations to be very helpful. Instead, I will focus on the four largely independent environmental forces that are most decisively shaping U.S. universities. They are: federal patronage, state higher education budgets, technological opportunities, and movements for social inclusion. These multiple and distinct forces pull higher education institutions in different, sometimes conflicting directions.

Federal patronage is decisive for academic research and financial aid. Research expenditures from federal sources stand at about \$33 billion in 2018 dollars and financial aid expenditures approximately \$60 billion, if one counts a reasonable estimate of loan defaults.

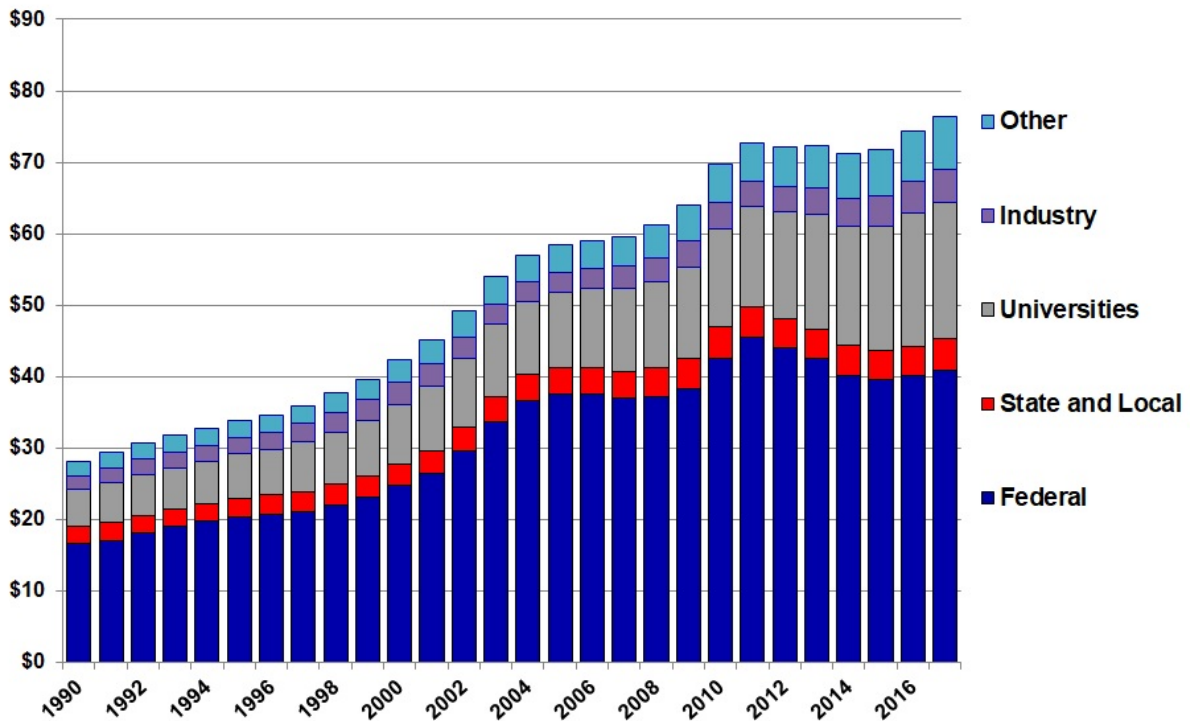
In research, federal patronage has been a primary source for the extraordinary productivity of academic scientists and engineers who have published more than 10 million papers over the last three decades in high-quality journals, according to the Web of Science. These include breakthrough discoveries in genetic engineering, quantum computing, renewable energy, cancer treatments and many other areas that have improved the quality (and quantity) of life. Facilitated by larger scientific teams and broader access to data and materials, publications and citations more than doubled between 1980 and 2010 alone, according to research I conducted with Cynthia Carr, with remarkable gains in virtually every one of the top 185 research universities.

If enacted, the Biden infrastructure proposal would add more than \$50 billion for higher education, including \$40 billion for research infrastructure (half to minority-serving institutions),

and \$50 million to NSF. Given international competition, it is likely that applied science will continue to grow more important and that rivalries with Western Europe and China will loom large in budget allocations. The Biden Administration’s proposals for next-generation semiconductors and advanced computing are indicative. For a variety of reasons, the U.S. academic research enterprise remains relatively strong, though it is not as dominant as it once was -- and it is now increasingly dependent on institutionally generated funds as well as federal largesse.

University R&D Funding by Source

expenditures in billions, FY 2018 dollars

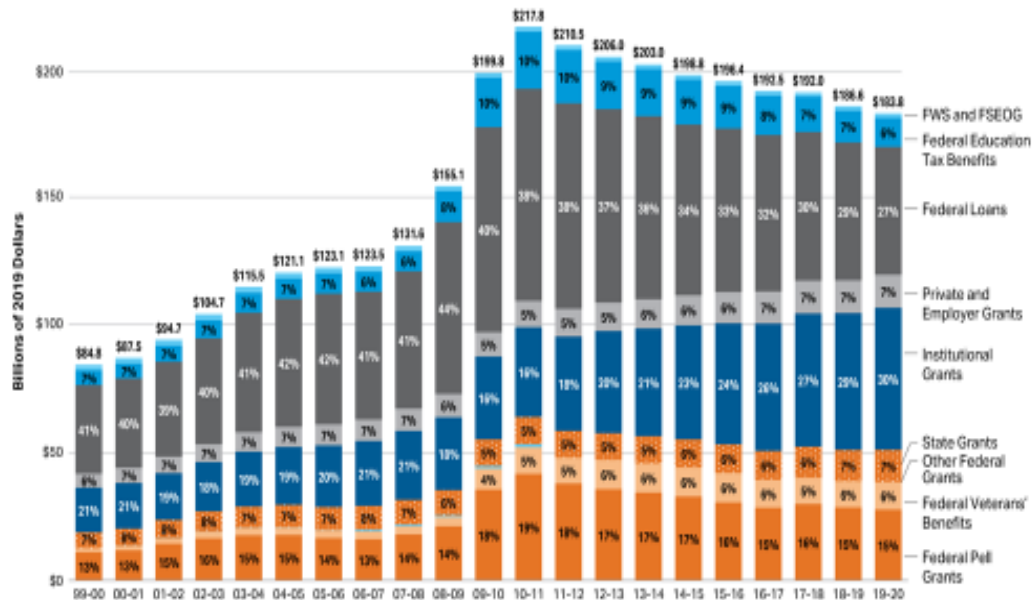


Source: NSF, National Center for Science and Engineering Statistics, *Higher Education R&D* series, based on national survey data. Includes Recovery Act funding. © 2018 AAAS

By contrast, the financial aid system is faltering, and it will require repair to maintain current or higher levels of student access and completion. Expenses are going up faster than financial aid can keep up for lower and middle-income students. Many students think that they cannot afford

to attend college – and others are burdened by loan repayments that come due early in their post-college careers when their incomes are lowest and least stable. It is already the case that many lower-income students are priced out of state flagship universities, according to Educational Trust studies, and this trend was accelerating even before the pandemic. The decade-long decline in community college enrollments are further evidence that those who can least afford higher education are opting out in larger numbers.

Total Undergraduate Student Aid in 2019 Dollars by Source and Type (in Billions), 1999-2000 to 2019-20



CollegeBoard

Source: The College Board, Trends in College Pricing and Student Aid 2020, Figure SA-3.

State investments in public higher education systems, the second environmental force, have been unstable since the 1970s, falling during recession periods and rising during periods of prosperity but rarely reaching previous levels of support. Together with cost increases, these declining investments have been the major contributor to tuition hikes. State investments continued on a

predictable downward trajectory during the pandemic year – with declines in nearly half of the states and flat budgets in most of the others. Many states now also limit or disallow tuition increases, putting public university finances in a vise. Budgetary constraints in public universities will consequently continue to encourage a focus on marketable fields, lean staffing, very large enrollments in high-demand majors, and the employment of ever-higher proportions of expendable teaching labor. The quality of undergraduate education will continue to suffer.

By contrast, there are reasons to be hopeful about the role of technology, the third environmental force. Digital technologies will continue to amplify the output of university researchers and create new opportunities for collaboration. They may also open new possibilities for improved undergraduate teaching through advances in adaptive learning systems, which provide feedback to students on their areas of weakness and patiently explain to them how to make improvements.

At the same time, technology-mediated remote learning has proven to be no substitute for the on-campus experience, at least not for traditional college-age students. The evidence from this year suggests that most students find online classes lonely and alienating. Lower-division students, especially men, under-represented minorities, and students with low GPAs continue to fare poorly in the online environment. Students also miss campus clubs and organizations, which they deem “very important” to their experience of college, according to research my team has conducted.

The drive for social inclusion, the fourth environmental force, has brought a tremendous amount of new talent and ambition into the university, and it has contributed, albeit modestly, to

reducing the inequalities that have plagued American society for a half century. It has certainly broadened the research scope of academics to encompass previously neglected populations and regions of the world. At the same time, the changing demographics are a backdrop to intensifying political struggles that divide social-justice advocates from faculty with more traditional research interests. During the last year, no academic discipline has escaped the accusation of serving primarily as an instrument of “white supremacy” rather than knowledge production.

As I have indicated, environmental forces do not simply reshape institutions in their image. In the case of universities, they are filtered through the departmental structures that organize so much of academic life and through administrators’ perceptions of the opportunities and incentives in their environments.

As long as academic departments control hiring and curriculum, they will have great influence over which subfields are supported, the extent of the shift toward applied work, how technology is adopted, and how the tensions between social movement activists and traditional scholars are resolved.

Here are a few examples of the variability we can expect: The sciences and engineering are responsive to federal R&D priorities, of course, but tensions continue to exist between a federal government increasingly interested in technological innovation and the traditional role of the university as the fount of basic research. The transformation of the sciences in applied directions is consequently slowed by the recognition that no other institutions have the time horizons that

allow for the pursuit of basic research and by the investments of faculty in basic research topics. This recognition is behind the commitment of many scientists and engineers to curiosity-driven science.

Meanwhile, the arts, humanities, and social sciences are becoming heavily influenced by specializations related to diversity, equity, and inclusion. We have seen over the last few years a significant rise in conflicts between scholar-activists and those whose work is in specializations not closely related to social-justice concerns. Accommodation has been the norm, but accommodation is less likely in steady-state or contracting fields like many of those in the arts, humanities, and interpretive social sciences. It is here where the struggles are intense or have been won already by scholar-activists. These developments for all the benefits they bring also threaten to place important disciplines at risk of comparatively narrow and overtly politicized agendas.

The incentives in the system, as they are understood by university administrators also matter. A fundamental difference exists between the client-centered incentives of struggling colleges and universities and the knowledge production incentives of the three dozen or so leading universities. The vitality of the sector may depend on how the managers of the dozens of research universities in the middle balance client-serving and knowledge production interests. The common approach has been to expand undergraduate enrollments built along client-centered lines to subsidize faculty knowledge production. But bottom-line considerations can put knowledge production at risk and these considerations are more common where revenues are flat

or falling. It is here that concerns for revenue production take hold and graduate education often suffers in the bargain.

Beyond this fundamental divide, we can expect that some universities will focus on each one of the environmental forces I have highlighted. Senior administrators understand that they cannot all compete equally for academic eminence. They will therefore innovate by trying to be a leader in a new kind of hierarchy. There will be universities scrambling for leadership in interdisciplinary activities (as pioneered by Duke University in 1980s), those trying to top the list of entrepreneurial universities (Northeastern University is an interesting example), technologically-enabled universities (Carnegie-Mellon is a leader here), and broad access, social-justice oriented universities (like the University of California-Merced).

And indeed a few will attempt to incorporate all of the leading trends into ambitious new visions of the future. These new designs focus on committing universities to economic development and the solution of social problems through much more active interdisciplinary collaborations, enterprise models of external relationships, and vastly expanded access, often through massive online “campuses.” We see efforts to promote this model, most notably, at Arizona State University which fashions itself as the “new American university” and the leader of the next wave of university development.

These are the predictions an organizational sociologist can make based on open-systems theorizing. Likely paths, however, are not necessarily desirable paths. I will therefore close with

a brief overview of what a desirable path of development would look like for our increasingly troubled research universities.

The U.S. needs to create at least two or three more “mega-university complexes” like those that now exist in Boston-Cambridge and the San Francisco Bay Area. These geographical centers of knowledge production and venture capital are vital to the future competitive position of the United States. The country also needs to build capacity in the middle range of universities above the top 100 and below the top three dozen to shore up knowledge production. Desirable reforms to financial aid would include the doubling of amounts awarded in Pell Grants (an increase which did not make it into the Biden budget) and a comprehensive implementation of income-contingent loan repayment so that students can pay back loans when they are better able than at the beginning of their careers. This path would also lead to focused attention on the improvement of undergraduate education, the weakest part of the current structure of universities, including the shift of many contingent instructors to permanent teaching faculty lines based on the criterion of excellence in the classroom. It would also include the adoption of alternative forms of teaching evaluation using what we have learned from cognitive science, to replace the validity-challenged forms currently used by students to assess their instructors. Remote education would continue to play an auxiliary rather than a leading role; for undergraduates fully online degrees would be priced to reflect their lesser value relative to the on-campus experience. Finally, instead of continuously shifting resources toward technical fields while starving the rest, university administrators should think again of the arts, humanities, and social sciences as more than instruments to accommodate current political agendas. We need to put them back into the business of illuminating the wide world of complex texts, pivotal

events, and evolving social patterns while at the same time continuing to incorporate the texts and interests of previously marginalized communities.

These steps would put universities on a stronger trajectory for the future. They are consistent with the open-systems approach because they do not deny the influence of environmental forces, but they direct these forces along the tracks of value-rational practices that enhance rather than compromise higher education's capacity for continuing contributions.

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