Who Pays the Hidden Cost of University Research?

By Charles Schwartz

Higher education in America is in financial crisis. In constant dollars, the average cost of tuition and fees at public colleges has risen almost 300 percent since 1980. Our best public research universities, like my own University of California (UC), are wracked with doubt: will they be able to continue their historic role as institutions with a vital public mission, or will they become "privatized," demanding ever higher tuition and therefore inevitably serving a more elite clientele?

Let me note some pointed comments by citizens outside the campus. A letter to the editor in the San Francisco Chronicle last March 9th said: "What the public college students (and their parents) in this state must understand is that the days of the taxpayers subsidizing their higher education are over, sad as that may be. ...The costs at all colleges and universities have risen dramatically over the last few years (much higher than the cost-of-living-index). ... Those of us in California who are taxpayers are having a difficult enough time paying our mortgages and for the education of our own children. It simply is not sustainable to expect that there will be free or substantially below-cost education provided on the backs of the state's increasingly dwindling number of taxpayers. ..."

A similar complaint is voiced in an article published by the Howard Jarvis Taxpayers Association, July 5, 2010: "As California faces an unprecedented budget crisis, students at California colleges have been asked to pay a greater share of the total cost of their education, most of which is still borne by taxpayers. ...[T]axpayers pay 60-70% of the cost of ... UC students' education, without even counting financial aid."

So here we have seemingly valid arguments for raising tuition in the UC system. But are our students, in fact, being subsidized by the average taxpayer? Are students the cause of the rising costs of higher education? And, finally, should students pay the full cost for the benefit of their college degree or are there larger purposes to public education?

The University Budget

There are two great missions of a first-rank public research university:

- to provide top quality undergraduate education for all qualified students, exposing them to great ideas from all over, imparting high-level skills for the job market, and making them capable citizens and leaders.

- to provide top quality academic research, and related graduate student programs, in the pursuit of basic knowledge across the spectrum of human endeavor.

Who should pay for these two important functions? It used to be that the State of California paid for both through generous taxpayer funding for faculty salaries, departmental staff, and the institutional infrastructure of buildings, laboratories, libraries and so forth. It was called the "I&R Budget" (Instruction and Research).
As the research mission expanded over time, a significant proportion of the cost came to be paid for by external sources, especially grants from the federal government. Such "sponsored research" is well-monitored and accounted for. But it does not cover all research activity, by any means. The state still covers the rest and it is buried in the "core academic budget".

The search for new knowledge is an expensive business. Yet it is unequivocally a public good, the advances in knowledge being of great value for both the economy and the progress of modern civilization. The research mission of the university can, therefore, only be viewed as something that should be paid for by the whole of society, for the benefit of the whole of society.

What about undergraduate education? Is it a public good or a private gain? There are sharp differences of opinion on this. To many people, UC students are a privileged group who are gaining a private benefit through their access to higher education. Therefore, the argument goes, they should bear the cost, rather than having the general taxpayer shoulder the burden.

But this raises a fundamental question: what is the actual cost of an undergraduate education in the University of California? That turns out to be a more difficult thing to answer than one might suppose.

Who Pays for What?

How much of the core budget at UC is presently spent for undergraduate education and how much for faculty research and its related graduate programs, and do students pay their fair share of the costs?

The official accounting by the UC administration concludes that student fees now cover 30% to 40% of the average cost of education (this is the source of the numbers quoted by the Howard Jarvis group, above). But the official calculation includes the full cost of faculty research throughout the academic year. It is, therefore, a badly distorted figure.

To correct this, one must disaggregate the accounting reports according to the two basic functions of the university. This idea raises the hackles of administrators and faculty alike, not just at UC, but at research universities across the country. The common practice is to hide all of the cost of faculty research not covered by sponsored research grants under the misleading heading of expenditures for "Instruction."

My own calculations, separating those cost components by using data from a faculty time-use study, lead to the conclusion that, as of 2007, undergraduate student fees at UC had reached 100% of the actual cost of providing their education. And fees have since risen by 30 percent!

There is a sharp conflict here to be resolved. If the administration's number is accepted, then taxpayers might well be right to complain that they are subsidizing UC students. If my number is more correct, then undergraduates (and their families) are already paying the full cost (or more) for their UC education. This is true whether or not we agree on the public good of a UC education.

If I am right, then it is up to the state government and taxpayers to assume full responsibility for funding the university's research mission and to stop pushing the cost of that research - which is a benefit to all - onto the tuition bills of students. This is a direct challenge to the Board of Regents and their hired executives.
Follow the Money

What happens to the money that the university takes in from undergraduate tuition and fees? This is the largest pot of discretionary revenue that our administrators collect, but there is no way to find out how they spend most of it. I have made repeated requests for data, but no one has an answer. It turns out that tuition money at UC is thrown into the mix with state appropriations, and it is spent without regard to its relation to undergraduate teaching. One recent controversy surrounds the practice of pledging student fee revenue as collateral whenever the university sells bonds to finance construction projects on the campuses.

We, as a public university, have an obligation to come clean about how we use our money, the people's and the students'. With last year's budget cuts of roughly 20% of state funding, a cry has gone up for greater transparency from the administration, yet those with top-level financial authority are closed-mouthed and their reports opaque when it comes to many vital questions about income and spending.

Escalating Costs

The allocation of university funds between research and instruction is only part of the problem we face at the university. Another is the sharply rising administrative overhead, which pushes costs upward - as noted by the letter writer to the Chronicle.

Administrative bureaucracy has grown at an alarming rate. I collected data from official UC sources and found that over a recent decade student enrollment had increased by 33%, university employment had expanded by 31%, and the ranks of management had more than doubled, up by 118%. This excess represents an added cost of roughly $600 million to the university's budget. When presented with this data, top officials have failed to give any credible response. This bureaucratic bloat is likely the result of administrators feathering their own nests with too many vice-chancellors and deputy assistants. To faculty, it certainly appears that there is too much staff and glitter at the top, while the core of academic departments are left to starve.

Moreover, executive compensation at the university has been a never-ending scandal. While the total amount of money involved here is not so large, the practice of treating university administrators like corporate executives has outraged many people both inside and outside of academia. Even within the faculty there has been a scramble for higher salaries by playing the game of soliciting offers from wealthy private institutions. This siphons off money from basic needs and creates internal tension, especially with poorly paid junior faculty. For my generation, the old practice of uniform salary scales and steady promotion on merit was instrumental in making UC one of the world's great centers of learning.

Who is to Blame?

An unrelenting chorus of obeisance to the gods of "the market" has seriously eroded the time-honored virtues of the university. Universities are not corporations operating for a profit, putting out products called "science", "innovation" or "degrees." They are collegial bodies of faculty pursuing knowledge and teaching under the watchful eye of their peers. They are communities of the young seeking to learn from the wisdom of teachers before they go out into the world. They are motivated by a remarkable (if always imperfect) degree of selfless pursuit of ideas for their own sake and for the good of humankind.

The assault on the university from the minions of the market starts at the top with our Board of Regents. This quaint body is given complete control over the university, even though its members are simply successful business people who have done favors for the governor who appoints them.
Take the issue of executive compensation. To "captains of industry" it is natural that top executives are responsible for the success of any enterprise and therefore deserve large monetary rewards. But a university is not like that. Presidents and Chancellors do not decide what courses to teach and how to teach them; they do not decide what research projects to pursue and how to do that. It is the thousands of professors operating independently and in concert with their peers, who make those decisions. The role of university administrators is to keep the plumbing in working order and to see that the bank accounts are well-managed - necessary work, but not deserving of extravagant salaries.

Take the issue of student fees. Members of the Board of Regents are quite wealthy, so the cost of paying for their own children's educations is no great burden. Moreover, they are supremely successful individuals who have a hard time seeing the collective purpose of public education in serving the merely talented.

But that is not the whole story. There has been a failure of leadership within the universities themselves. Where are the college Presidents and Chancellors who will stand up to those Regents and defend public education and the higher purposes of the university? I see too many managerial place-holders and ambitious self-promoters who have lost touch with the rest of the faculty, much less the undergraduates.

Our great public universities are in need of serious reform at the top. It starts with the call for a full and honest accounting of how the money is handled. It adds a call for distancing academic work and values from the dominant corporate culture outside our campuses. It requires a rededication to the public good and service to a democratic society. Such a reformation requires new leadership. Where will that come from?

The Higher Learning

There are two fundamental reasons for defending public universities against the corrosions of market logic and erosion of state funding. The first, following our greatest thinkers, from Thomas Jefferson to John Dewey, is that a well-educated citizenry is vital for good government. It is a public good America cannot do without. Money making cannot be the only order of business for a democracy.

The second purpose of public education is to provide opportunity to all qualified students regardless of background and financial status. For generations, our great public universities have been an antidote to the poison of an immanent aristocracy, by providing broad avenues to advancement for our most talented youngsters. The great danger today is the growing gap between a wealthy elite and the rest of us, whether through excessive executive compensation, Wall Street bonuses, or stock speculations.

If these public universities are choked off - either by becoming mediocre schools or by becoming more and more exclusive - then we will have lost a major counterweight to the rule of privilege and a principal foundation for the future of the Republic.

Charles Schwartz is Professor Emeritus of Physics at the University of California, Berkeley. He maintains an academic web site at http://socrates.berkeley.edu/~schwartz and a blog at http://UniversityProbe.org