

Over Invested and Over Priced

American Higher Education Today



Richard Vedder

Center for College Affordability and Productivity

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Center for College Affordability and Productivity

The Center for College Affordability and Productivity (CCAP) is a non-profit research center based in Washington, DC, that is dedicated to research on the issues of rising costs and stagnant efficiency in higher education, with a special emphasis on developing market-based solutions.

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Introduction

The prevailing view among leaders in the university community is that America is not investing enough in higher education. A recent survey of the American economy by the Organization for Economic Cooperation and Development (OECD) echoed that concern. After all, college graduates are dramatically more productive than those without higher education preparation, and America is falling behind other nations in the proportion of the adult population with college degrees. National competitiveness and economic well-being are at risk, or so it is argued.

The conventional wisdom downplays the concerns about rising costs, particularly soaring tuition fees. One argument is that the cost explosion is an illusion: “net tuition fees” (sticker tuition prices minus scholarship aid and loans) have risen less dramatically than gross tuition fees (published rates). Americans think college costs are greater than they really are. Besides, the rate of return of a university education remains high, since the earnings differential associated with college has risen over the past several decades in tandem with fees, maintaining a high return on the financial investment.

Yet I think most of these arguments are flawed, even downright wrong. An excellent case can be made that we are *over invested* in universities, that too many students attend school, that much of our investment is wasted. Moreover, the rise in costs—to society, to taxpayers, and especially to consumers—is excessive, and has been made more so by well meaning but inappropriate public policies. The law of unintended consequences looms large in any discussion of America’s colleges and universities.

The Case for the Conventional Wisdom

Before elaborating on the claim that America actually over invests in higher education and that costs are rising at an economic unjustifiably rapid rate, let us review some evidence promoting the conventional wisdom. The evidence shows that the proportion of adult Americans with college degrees is rising, but far less rapidly than in many other industrialized lands. As a consequence, the United States no longer leads the world in this regard. Moreover, many other countries seem to be expanding the proportion of the population with college degrees rapidly, which is far less true in the U.S., where participation in university education by some measures is rising very slowly, if at all.

This matters, conventional wisdom holds, because college graduates are vastly more productive than non-college graduates. For example, data from the 2006 Current Population Survey show that in 2005 full-time year-round workers with bachelor’s degrees on average earned over 76 percent more than comparable workers with only high school diplomas. Economists agree that wages and salaries are very highly correlated with productivity. Assuming perfect correlation, on average a typical group of four college graduates is slightly more productive than *seven* individuals with high school diplomas. The substitution of more college graduates for high school graduates by itself should strongly increase productivity and income growth. Paying for a college education is investing in human capital.

While the cost of higher education is rising, data from the College Board shows that the rise in net tuition fees has been dramatically less than the increases in “sticker prices.” A smaller proportion of Americans actually pay those prices over time. For example, from 1996 to 2006 at four year public colleges and universities, the College Board estimates that published sticker prices rose 51 percent after adjusting for inflation, compared with just 29 percent for net tuition fees.

For most, the argument goes, college is a good investment. In 2005, the average earnings of full-time year-round workers with bachelor’s degrees, \$65,281, were \$27,251 higher than for comparable workers with high school diplomas. The discounted present value of that lifetime earnings differential (from

35–40 years of working), is several hundred thousand dollars, vastly more than the cost of four years of higher education, even allowing for the loss of income from not working a job while attending college.

Problems with the Conventional Wisdom

Yet there are two huge problems with the conventional wisdom. First, devoting more subsidies to higher education does not necessarily mean the number of college graduates will increase, as is assumed by the advocates of greater governmental appropriations. At the margin, newly appropriated funds may go for a variety of non-instructional purposes—administrative personnel, student services, intercollegiate athletics, research, higher compensation levels for key personnel, etc. In one statistical exercise, my student assistants at the Center for College Affordability and Productivity (CCAP) estimated that historically, each one dollar of added state appropriations per student leads to only 30 cents in lower tuition per student at state universities. Most of the incremental appropriations lead to higher spending instead of lower tuition fees that would stimulate new enrollments. Indeed, at many state universities with enrollment ceilings, higher appropriations have no enrollment effects whatsoever. Prestige is gained by *denying* students access. In economics jargon, the supply is perfectly inelastic.

Even when higher appropriations lead to enrollment increases, the number of adults a decade or so later with college degrees may not increase, for two reasons. First, there is a very high attrition rate from college. Only 18 of every 100 students who enter high school have college degrees a decade later. A large percentage never make it through high school, another large percentage fail to enter college, and, most relevant here, over 40 percent of those who enter college do not graduate in a timely manner. If incremental state funding encourages relatively unqualified students to pursue college, the marginal attrition rate amongst those students is likely to be extremely high. Additionally, as research at the National Bureau of Economic Research and elsewhere has shown, there is only a very weak correlation between attending college in a state and actually working in that state a decade or so later.

Matthew Denhart and I statistically analyzed the question: what is the relationship between state appropriations and the proportion of adults who were college graduates in the state five to fifteen years later? The results were startling. Generally, we found no statistically reliable correlation between state spending on universities and the proportion of the population with a bachelor's degree. New England has the highest proportion of college graduates in the adult population of any region of the United States yet spends the least on state universities, relying heavily on private institutions. North Carolina spends a great deal on its universities but gets the lowest return on its appropriations in terms of output per dollar when compared with any of its neighbors.

There is a second problem with the conventional wisdom. While it is true that college graduates are more productive than those not attending college, it is unclear that most of that higher productivity has anything to do with going to college. College graduates, on average, are more intelligent, more motivated, more disciplined, and more honest than non-college graduates. As Richard Herrnstein and Charles Murray famously and controversially noted in *The Bell Curve*, the average IQ of college graduates is notably higher than that of their non-collegiate counterparts. Relatively uneducated persons have higher crime rates (a measure of unreliability and untrustworthiness) than college trained counterparts.

When employers hire a college graduate and pay a relatively good salary to that person, are they primarily renting use of the skills the student acquired in college, or are they renting qualities largely acquired before college—maturity, discipline, intelligence, honesty? The answer, of course, is that some employers do buy college-generated skills—knowledge of accounting, advanced engineering skills, etc.—

but a large part of what they buy are skills and traits not directly related to the college experience. It is wrong to attribute the high school/college earnings differential solely or even predominantly to things “taught” in college.

College diplomas provide information to employers not readily available elsewhere. A diploma from a decent to high quality university indicates “this person probably is reasonably literate, dependable, and intelligent.” A high school diploma alone does *not* convey that information, given the dubious quality of American secondary education. Therefore, employers pay premiums for college graduates, as the probability they will be good is vastly higher than for high school graduates, for reasons that have relatively little to do with learning.

The cost of learning whether job applicants would make good employees has always been fairly high, but the *Griggs v. Duke Power* Supreme Court decision of thirty-five years ago raised it enormously. For all practical purposes, the Court outlawed most forms of employer testing of potential employees, vital sources of information on their capacity to perform needed skills. That increased the importance of colleges as a screening device. I think it is no accident that shortly after *Griggs*, the high school/college earnings differential grew substantially, enabling colleges to raise their prices aggressively.

An excellent case can be made that we are over invested in universities, that too many students attend school, that much of our investment is wasted. Moreover, the rise in costs—to society, to taxpayers, and especially to consumers—is excessive, and has been made more so by well-meaning but inappropriate public policies.

Universities and Economic Growth

Conventional wisdom holds that more university “human capital investment” stimulates economic growth. While this argument sounds strong rhetorically, it is weak empirically. For several years, I have developed increasingly elaborate and sophisticated statistical models analyzing the relationship between public expenditures on universities and economic growth. In doing so, I recognize that spending money on colleges cannot be expected to have an instant payoff. For example, even if new public spending induces greater enrollments and numbers of graduates (the findings above notwithstanding), it still takes several years for students to obtain a degree and productive jobs-utilizing skills learned in college.

Looking at hundreds of regression results, the overwhelming majority show a statistically significant negative correlation between state government appropriations and economic growth—the more states spend on higher education, the lower the growth in personal income per capita in future time periods. In some estimates, the results are not statistically significantly negative, but never do I obtain results consistent with the conventional wisdom that university spending promotes economic growth.

These findings suggest that we very well may be over invested in higher education. There is good evidence that increased taxes reduce economic growth as a general rule, so it appears that the growth-impeding effects of taxes that finance more higher education spending are greater than growth-enhancing effects of that spending.

Specific case studies abound. Historically, New Hampshire is one of the states that has had the lowest spending on higher education out of public funds, but its economic growth has been robust. North Dakota spends much more than South Dakota on universities but has lower growth. Illinois spends less than Michigan but has higher growth. The same holds for Tennessee (low spending) and Kentucky (higher spending). The notion that a surge in higher education spending leads to a growth spurt is not supported by the evidence.

Aside from the negative effects of higher taxes, research I did for my book *Going Broke by Degree: Why College Costs Too Much* and subsequently convinces me that a large portion of incremental state university spending goes for frills that do little to promote either education or economic growth—fancy recreation facilities, larger university bureaucracies, more elaborate intercollegiate athletic programs, and higher salaries for university personnel.

To be sure, I am the first to admit my research on this topic is not the last word. I have not deeply looked at the specific relationships between increases in different types of government university spend-

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ing and their economic growth effects. For example, it is possible that while general state subsidies for higher education do not have a positive growth impact, federal research grant money does. The research I have done to date makes me skeptical of that possibility. It may be that graduate education has different growth effects than undergraduate education, or that spending on community colleges has different impacts than that on four year schools.

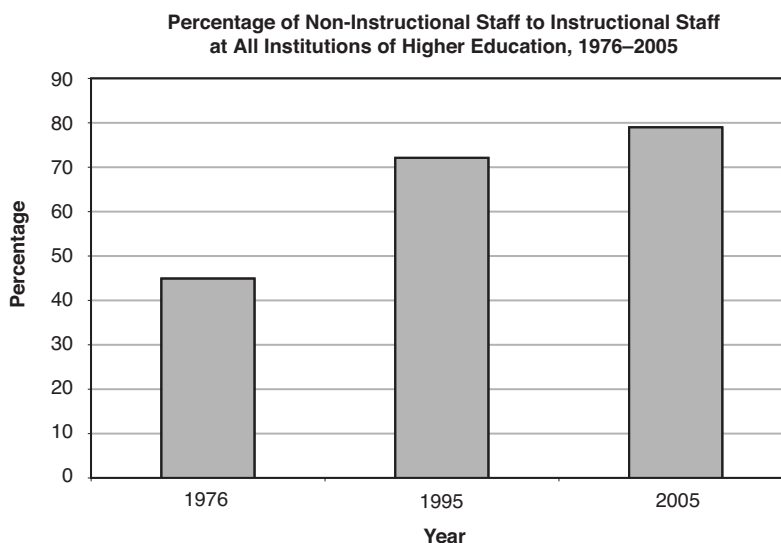
Other researchers need to look at these questions, including truly disinterested observers. College professors *want* to believe that the work they do is growth-enhancing. They want governments to drop more money out of airplanes over college campuses, or the equivalent, and typically gain financially from such policies. There is a huge conflict of interest problem here. Therefore, I think non-university researchers or perhaps largely retired scholars like myself who derive little or none of their income from current university employment should take the lead in conducting this research.

Why Are Universities Overpriced?

It takes more resources today to educate a postsecondary student than a generation ago. That is not true for most goods and services, where productivity advances assisted by capital formation and technological advances have lowered the resources needed to produce a single unit of output. Relative to other sectors of the economy, universities are becoming less efficient, less productive, and, consequently, more costly.

Defenders of universities will say a major reason for this is the so-called Baumol Effect, named after economist William Baumol. Baumol correctly observed that in the fine arts, the productivity of employees cannot be increased, so the relative costs of providing services rises. It takes the same number of actors and actresses to perform *Medea* today as it did when Euripides wrote and produced it more than 2,400 years ago. A modern day painter, even if capable, would take as long as Da Vinci to paint the *Mona Lisa*. In the arts, there are very limited opportunities for capital-labor substitution, for using cost-saving techniques, etc.

Is the same thing true of universities? It is true that much of teaching *as it is done today* is like theater, with an “actor” (the professor) performing a monologue to an audience of students. But does it have to be done that way? Could not enormous savings be realized by expanding audiences via electronic means, by using taped lectures on multiple occasions, or by utilizing interactive computerized learning approaches in survey courses? A number of for-profit providers are showing that these techniques do have considerable promise, yet they are still used only sparingly in higher education. I do not think it is much of an exaggeration to say that, with the possible exception of prostitution, teaching is the only profession that has had absolutely no productivity advance in the 2,400 years since Socrates taught the youth of Athens.



Moreover, the *non-teaching* staff at universities often costs as much as the faculty. In 1976, there were three non-faculty professional staff for every 100 students in American higher education; today, there are more than six. To use the *Medea* analogy, it is the equivalent of adding more costumers, lighting specialists, ticket salespersons, assistant producers, etc. Even the theater is not doing that.

Twelve Reasons for Rising Prices

I would argue that the environment in which universities operate contributes mightily to the observed cost explosion. Universities behave differently than most other institutions in American society. In giving them enormous autonomy and independence in order to protect the free flow of ideas, we have created highly inefficient institutions that are anti-innovative and increasingly costly. Twelve words or phrases sum up the cause of most of the problem, and solving the cost explosion involves modifying these twelve sometimes overlapping points. A brief discussion of each follows.

1. Third Party Payments

The people paying a majority of the bills in higher education are not the users of higher education services. When someone else is paying the bills, consumers are less conscious of cost considerations, and that in turn leads to some distortion and inefficient use of inputs used to produce higher education services. It is not a coincidence that the two big components of the Consumer Price Index with greatest price increases—health care and higher education fees—both have large third party payments.

2. Non-Profit

More than 95 percent of the resources in higher education are spent at non-profit institutions. Where profits exist, they signal how resources should be allocated: when profits are high, resources move into an activity; when they are low, resources exit it. The critical signaling role of profits is absent from higher education, excepting the small but robust for-profit sector. Profits are enhanced by offering improved products at reduced costs, and higher profits mean higher income and wealth for owners and key employees. Profit maximization stimulates critical price competition and needed resource allocation, and it provides incentives for efficiency-enhancing activity.

3. Bottom Line

Profits are the bottom line of competitive market business enterprises, and they are signaling devices that inform and direct decisions. The lack of a bottom line in higher education means it is hard to tell if schools are meeting goals, and what the goals are. Did Stanford have a good year in 2006? Who knows? Firms like *U.S. News & World Report* try to create a non-market bottom line, often based on dubious measures (e.g., inputs used instead of outputs). Instead of cutting costs to increase profits, colleges often enhance costs to buy things (good students, more faculty) that improve magazine rankings, not knowing if it truly improves teaching and research. Unlike in the private sector, buildings lie empty months of the year because there are no real incentives to use them more efficiently.

4. Resource Rigidities

Many of the costs in higher education are fixed, making colleges somewhat like public utilities. Tenure, designed to enhance academic freedom, makes it difficult to reallocate faculty resources to alternative uses. Universities are often slow to rapidly increase instruction where employment demand is soaring, and also slow to reduce or eliminate costly programs no longer in much demand. The lack of incentives to meet consumer demands and cut costs means change often comes too slowly and tepidly. The biggest rigidity comes when schools restrict enrollment, refusing to increase the number of students—in order to improve institutional prestige, access is often denied to high quality students.

Relative to other sectors of the economy, universities are becoming less efficient, less productive, and, consequently, more costly.

5. Barriers to Entry and Restraints on Competition

For-profit educational entrepreneurs frequently complain that accreditation raises costs and impedes entry of new institutions. Accreditation procedures can lead universities to act like cartels, agreeing to the rules of the game for operation, excluding newcomers with innovative ideas and sometimes a better product at a lower price. Schools do not engage in vigorous price competition for fear of offending old friends at rival institutions. Until forced to stop by the Justice Department, elite schools regularly met to discuss aid packages to individual students—a form of price-fixing that some university officials openly wish to restore.

6. Public Support and Control

The fact that most third party support for higher education comes from governments means that higher education is to some extent politicized. Universities must conform to numerous rules in order to qualify for government grants. State colleges and universities often face added restrictions—the tuition they can charge, the salaries they can pay, the composition of their governing board, etc.—that have deleterious effects. Higher education has faced funding stagnation from governments because of politically more compelling competing needs, such as Medicaid.

7. Price Discrimination

Universities are adroit at charging whatever the traffic will bear, making wealthy students without unusual distinction pay high tuition fees, but giving discounts to persons on the basis of need, but also on the basis of special skills (extremely high levels of intelligence, high competence in throwing or catching balls) or racial/ethnic/gender status. Price discrimination has grown, and some of the financing of institutional financial aid has come from aggressive increases in sticker prices. Only universities do not tell consumers the price they have to pay for a service until they have given intimate financial and personal information.

8. *Rent-Seeking*

Economists use the term “economic rent” to refer to payments made that have no impact on economic activity. Compensation of employees beyond what market forces dictate is common in higher education. There is a strong correlation, for example, between federal research grants and salaries of senior professors. Many persons obtain grants to do what they would have done anyway without the grants, raising the total cost of higher education.

9. *Cross Subsidization*

It costs vastly more to educate graduate students than undergraduate students, but they typically pay less (after financial aid) in tuition, meaning non-tuition revenues subsidize them vastly more than undergraduates. Schools have reduced teaching loads over the years to allow for more research but still expect students to pick up much of the cost. At some schools tuition fees significantly exceed the direct instructional costs for undergraduates.

10. *Ownership*

Who owns the universities? Who has property rights? Lots of groups *think* they own institutions—the trustees (who typically have nominal ownership control), the faculty, the alumni, state government officials, sometimes even students. This causes turf wars and unproductive wastage of resources: for example, the chemistry department claims a building belongs to it, even though it might be wiser to use some of the space for other needs.

11. *Governance*

A closely related issue to ownership is governance. Who runs universities? Often decisions are made not by a strong chief executive but by committees, leading to vast resources going into decision-making and to cautious, non-innovative policies. Universities are about the only place where subordinates (e.g., faculty) often select their own bosses (e.g. deans or even university presidents). This leads to blurred lines of authority, divided leadership, and high administrative costs.

What entrepreneur Charles Koch calls “market based management” needs to be more vigorously introduced into the academy.

12. *Information*

Partly because of a lack of performance indicators, colleges do not tell prospective customers what the “value added” is for attending their institutions. They often do not readily provide useful data: What percent of the students graduate in four years? How many kids are assaulted or robbed each year? What percent of university revenues go for instruction? This knowledge deficiency often leads to poorly informed consumers making bad decisions as to the appropriate institution to attend.

What Should We Do?

In deciding what to do, it must be kept in mind that universities are relatively inefficient institutions partly sheltered from the discipline of the market—a discipline that provides incentives for cost reductions, product improvement, and innovation. What entrepreneur Charles Koch calls “market based management” needs to be more vigorously introduced into the academy.

Part of the move to more market-based management is a weaning of universities from heavy government support. My research suggests that support should become more limited and selective—perhaps eliminating student loans for affluent students, for example, or restricting assistance for schools with low

graduation rates. Probably we should abandon institutional subsidization altogether, instead giving needy, well performing students vouchers, enhancing consumer market power; and forcing schools to be more attentive to student needs. Policy makers should use cost-benefit calculations to evaluate their spending on universities and learn more about what goes on at them.

Part of the move to more market-based management is a weaning of universities from heavy government support. My research suggests that support should become more limited and selective—perhaps eliminating student loans for affluent students, for example, or restricting assistance for schools with low graduation rates.

As to reducing prices, obviously the solution involves modifying some or all of the twelve points mentioned above. Lower third party payments, revisit contractual arrangements that cause resource rigidities, encourage market-oriented for-profit schools with a bottom line, ease accreditation barriers, etc.

What might be some useful reforms? Emulate competitive market practices by increasing incentives for college decision-makers to reduce costs, for example by giving bonuses for cost savings. Tie presidential compensation to indicators both of qualitative improvements and tuition cost restraints. Numerous potential cost-savings come to mind. The central administration should rent buildings to departments to encourage more efficiency, including year-round use. Slash administrative staffs. Increase teaching loads. Eliminate low enrollment and costly graduate programs. Get out of non-instructional businesses like housing, food, and building maintenance. Make tenure a fringe benefit with a dollar value tied to it that faculty can buy from a fixed dollar fringe benefit menu available to them. Use technology to lower—not raise—costs.

Vary tuition for various programs depending on costs and demand. Integrate high school and college learning more, reduce barriers to transferring between institutions, and encourage students to enroll in lower cost community colleges.

The high school/college earnings differential may have stopped growing, so the investment return to college will start falling unless costs are contained. Our colleges and universities were not created in a day, nor will reform and change come easily. But we must begin the process if higher education is going to better promote the advance of our civilization and our material prosperity.