Financing the American Public Research University: Lessons from an International Perspective

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Abstract: This paper examines the financing of the American Public research university from an international comparative perspective. After the identification of worldwide trends in the funding of research universities, the paper suggests that the American public research university has enjoyed a financial robustness—in spite of erratic and generally declining state taxpayer support—and endeavors to account for this observation. The paper posits five structural factors that have tended to insulate the American public research university—relative to universities elsewhere in advanced industrialized countries—from the vicissitudes of state funding, including a greater ability to tap tuition fees, philanthropy, and governmental research funding. The paper also makes what will be more arguable cases for the generally greater pedagogical productivity of the American research university as well as the advantage of more viable and less costly (at least to the public taxpayer) alternatives to the research university for academically talented and ambitious secondary school graduates.

Higher education is an expensive enterprise, and especially so with universities throughout the world that may be classified as *research*, or *classical*, universities. Such institutions feature the most advanced study and highest degrees, multiple faculties, and an emphasis on scholarly research. By the 2000 Carnegie Classification, some 261 US institutions of higher education are classified as *Doctoral/Research*, signaling a commitment to graduate education through the doctorate and awarding at least ten doctorates a year in each of at least three disciplines. Just over one half of these universities are classified as *Research Extensive*, awarding 50 or more doctorates a year across 15 or more disciplines.[1] Typically (although with some exceptions), the top 100 or so of these American research universities will spend at least $150 million a year on sponsored research, mainly from the federal government. Perhaps most significant, the faculty of such universities are rewarded (i.e. via appointment, promotion, low teaching loads, compensation, and status) overwhelmingly for their contributions to rigorously peer-reviewed scholarly production of new knowledge rather than for their teaching.

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[1] Carnegie Foundation for the Advancement of Teaching at http://www.carnegiefoundation.org/index.htm> (March 2005).

Worldwide, the number of higher educational institutions that can reasonably be called *research universities* is difficult to estimate. This difficulty in part is because so many universities (or their leaders or faculty, or their leading citizens and politicians) wish their university to be so classified—even if its genuine research commitment and its scholarly production is minimal—and are insulted if the designation is not freely given. The distinction between genuine research and other forms of universities is also difficult because of variations between countries in the nomenclature of the highest degree awarded, in the scholarly expectations upon the faculty, and in the kind of resources that can made available—especially for inherently expensive scientific research and even more especially in countries that are middle and low income, and where international scholarly connections are limited by cost and language. Notwithstanding these difficulties, a very rough estimate might be 1200 to 1500 universities throughout the world that might be labeled (generously) as *research universities*.[2]

Such universities are expensive, whether the expense is measured per-student or per- unit of research output, or per unit of learning (however the latter two "units" are to be measured). These expenses are due to several factors:

- The cost of faculty time, as research is laborious and requires low teaching loads and a costly faculty / student ratio if the faculty is truly to have time to conduct first-rate research.
- The cost of the faculty themselves, as the market for top scholars in many disciplines has become global, pushing up salaries at least in the disciplines where there exists some international scholarly mobility as well as possibilities of grants or sponsors.
- The very large and steeply escalating laboratory and equipment costs of *big science*, such as genetics, cellular biology, engineering, and other physical and life sciences.
- The cost of attracting the top students and supporting them through the lengthy doctoral and post-doctoral programs.

. This paper addresses the financial future of the increasingly costly American pubic research university within the increasingly global setting of the research university worldwide. More specifically, I will attempt to explain why the US public research university is as financially robust as it is—relative to public universities in other advanced industrialized countries—in spite of the near total absence of direct federal financial support to our public universities and in spite of a notoriously ungenerous political culture (again, relative to other advanced industrialized countries) at the state level for the support of all of our tax supported institutions.

[2] The UK *Times Higher Education Supplement* in 2004, published one of the first attempts at a worldwide ranking of research universities, ranking a "top 200" on the bases of peer reviews, faculty scholarly citations, and the internationalization of both their faculty and their student bodies. Thirty two, or 16 percent of these "top universities, were American. If there are between 200 and 250 US universities that might appropriately be called *research universities* in a world context, and if the United states were to have approximately 15 percent of such institutions worldwide, then a very approximate range would be 1200 to 1500 (probably at the outside) true research universities in the world. (*Times Higher Education Supplement* November 5, 2004, pp. 4-5.)

Discerning international trends

Presenting a list of *worldwide trends in the financing of higher education* seems like a good place to begin, although there are dangers in something so simplistic and even presumptuous as the enumeration of discerned trends. In the first place, it is necessary to suppress the temptation to perceive as actually happening that which one mainly wishes were so: the all-too-familiar conflation of a generally agreed upon reform agenda with a reasonable prediction of what will actually be. Thus the tendency to predict and to view as *trends*, for example, such developments as increasing attention to the undergraduate student, or the blurring of the boundaries between the traditional disciplines, or increasing connections between university, business, and government, or a diminishing correlation between one's higher educational attainment and the circumstances of one's birth – all because these tend to be on the reform agendas of political leaders, governments, and parastatal organizations throughout the world.

The second danger in a depiction of international trends in higher education is the tendency to see things through a cultural lens and thus to see similarity and even *convergence* where reality is so much more complex and frequently full of subtle but profound differences. For example, I have been watching for year, with fascination, the halting and deeply-contested steps throughout Europe toward a *tuition fee*: part of a shift in the costs of higher education from an overwhelming reliance on the public taxpayer to costs that are *shared*. But shared with whom? In the American context, a tuition fee rests on the bedrock assumption of an *expected parental contribution*—at least to the limit of what can reasonably be expected through a common, verifiable test of family financial *means* or *need*. However, what we in the United States too often fail to recognize is the peculiarity, especially to a Scandinavian, of the assumption that a college or university undergraduate student should be treated as a *financially dependent child* rather than the *young adult* that the Swedes consider him or her to be. The cost of university instruction in Scandinavia is assumed to the responsibility of the State—and the parent's role is finished with the high taxes. *Cost-sharing* to the Swedes, then, does not mean parents facing a tuition bill but students facing the quite considerable costs of living with assistance neither from the government nor from their parents but rather with student loans. This is a little different from Germany, where the costs of instruction are still thought to be the responsibility of the state, but the costs of student living are assumed to be the financial responsibility of the parent, just like in the United States—with the added encouragement that the German child can take his or her parents to family court if they do not provide this expected support.

There are other differences, both legal and cultural. University students in Continental Europe are generally a year or two older than the traditional age American student. In many countries, they have earned a *right* to university admission by virtue of their academic high school diploma: no SATs, college applications, "safe schools," or anxious waits by the mailbox in mid-April for the young German with his or her *abitur* from the gymnasium.

The Australians have further obscured the financial responsibilities of the parents and students by pioneering the device of charging a tuition fee which for most students will never be seen, nor consciously paid for, but will be withheld from their paychecks (with interest), deducted by their employer along with the deductions for income taxes,

health insurance, and pension contributions. The Scots have adopted a similar system, and the English (with Wales and Northern Ireland not far behind) are scheduled to do likewise—replacing their current UK tuition fee, which is detested by the politically active student leadership and their faculty and parliamentary allies on the far political left, with an additional student debt burden—which seems somehow, albeit puzzling to an American, to be more politically palatable than the tuition fee it will replace. The point is simply that a system of higher education with underlying costs very similar to the American research university is still embedded in a cultural and political context. The notion of parents being financially responsible for at least some of the costs of their children's higher education, at least through the undergraduate degree and at least to the extent of their measured ability to pay—which is viewed by as American as entirely appropriate and equitable—is not necessarily so viewed by other countries that we believe in most respects to be "just like us."

Worldwide trends in the financing of higher education

However, with these caveats about the pitfalls in the discernment of worldwide trends, I will still venture to observe the following seven.

1**.** ***Increasing financial austerity:*** The first of these "megatrends" is increasing financial austerity, brought on by the diverging trajectories of sharply rising costs and slowly rising (or even declining) revenues, especially from the government. Higher education is relatively expensive everywhere as a result of its fundamental underlying production function: both labor and capital intensive, but with great resistance to the substitution of capital for labor, as well as the implicit need to assume the costs of student living as an inescapable part of the cost of higher education, as least where living at home with parents is not a realistic option (as it is not in most of the world, with enormous distances and few higher educational institutions). According to the principle of *rising relative costs in the productivity resistant sectors of the economy*, this means that the normal, or default, trajectory of unit costs over time will be something in excess of the rate of increase of unit costs in the economy generally—that is, in excess of the measured rate of inflation. And where the potential enrollments (or in US parlance, the potential number of course *credits*) is also rising rapidly, with the number of secondary school graduates legitimately aspiring to higher education propelled by the twin "drivers" of increasing populations and increasing higher educational participation rates of this increasing population, the rate of increase of the total financial needs of higher education systems will be far in excess of the rate of increase of economic output generally or of the state's likely tax capacity.

This does not mean that higher educational institutions everywhere will actually spend at this rate of increase; in fact, far from it. Rather, this underlying cost trajectory is what the needs will be. In the absence of commensurately increasing revenues—especially in higher educational systems overwhelmingly dependent on government—the resulting financial squeeze will be manifested, for example, in declining faculty salaries relative to salaries generally, increasing instructional workloads, overcrowded classrooms, declining expenditures on books and other instructional equipment, and increasingly deferred maintenance and deterioration of the physical plant.

The only way for this scenario to be otherwise—outside of enormous and continuing increases in higher education's share of tax revenues or increasing shares of these increasing costs picked up by parents and/or students—is for there to be the kinds of continuing productivity increases that we associate with the goods-producing sectors of the economy. The greatest potential for higher educational productivity increases might be in those higher educational systems, such those throughout much of the developing and post-Communist worlds, that display very high faculty/staff to student ratios. These high ratios, in turn, are due to a combination of small institutional enrollments, long first degrees, the absence of instructional traditions of self-learning (and the resulting over-dependence on the lecture for learning), and the political difficulty of downsizing. Thus, there would seem to be the potential for productivity increases at the margin of enrollment expansion in at least some of these transitional and developing countries. However, it is also in these systems (with exception of Russia and some of the former European Soviet republics) that the numbers of qualified secondary school graduates (that is, higher educational aspirants) are increasing most rapidly and also where the curricular needs are changing most rapidly, rendering much of the faculty obsolete and calling for so much costly change just to keep up. In the end, unrelenting austerity brought on by this combination of high unit costs, a high rate of unit cost increases, and increasing enrollment pressures is the financial condition of higher education throughout most of the world.[3]

2. **I*ncreasing enrollments and participation***: A second "megatrend"—clearly exacerbating the consequences of the first—is greatly increasing higher educational participation—or as the Europeans say, the "massification" of higher or tertiary education. This is not simply, as some sources say, because the increasingly complex nature of the modern economy demands education beyond the secondary level—because it almost certainly does not, at least not for everyone. Rather, the demand for education beyond the secondary level seems to feed upon itself: the more of a young adult population that is highly educated and that seems to have an edge in the queue for the limited number of what are perceived to be good jobs, the more parents will demand for their children education through the academic secondary level and the opportunity to be educated beyond. This pressure will be politically supported by those who perceive—and who find morally unacceptable—the seemingly universal linkage between higher educational participation and success, and the socio-economic or ethnic/linguistic status of the family.

It may be of some interest to Americans to speculate on the saturation point of higher educational participation. Already, many criticize US higher education for being excessively accessible: open to virtually all who will come, almost without regard to academic preparation or even interest. Nowhere else in the world can one earn credits toward a baccalaureate degree with less preparation. Even with failure, a student can return to the same institution or to another a little down the academic pecking order to try again. And yet, we are so convinced (rightly in my view) of the difficulty of predicting academic success, of the socioeconomic and cultural biases of the traditional indicators of

[3] The only exception that comes to mind is an industrially advanced country with a stable population less than 4.5 million, an acceptance of very high taxes, and huge offshore oil deposits owned by the state—but there is only one Norway!

academic preparedness used to screen entrants in other countries, and of the intolerability of mistaken exclusion, that there is little interest in the reversal of this open and highly accommodating system. For all practical purposes, except for those countries already with high participation rates and diminishing university age populations (Japan and Russia come to mind), higher education seems destined to grow—with all of the financial needs, and thus with the generally adverse financial implications, so implied.

In light of our focus on the American public research University, it is important to note that these enrollment and financial pressures throughout most of the world have been concentrated on the research university— relieved only minimally by the development of less costly kinds of tertiary institutions that might feature shorter degrees and more instructionally-productive faculty. A standard element of the traditional higher eduction reform agenda alluded to above, pushed by ministries of most countries and by parastatel organizations such as the World Bank, is for more of the so-called *non-university* forms of institutions, more akin to the US community college or even the public comprehensive college. It seems obvious to the experts that the classical research university, created to expand knowledge and to train an elite of scholars and advanced professionals for long periods of study, should be increasingly less appropriate at the margin of a rapidly expanding higher educational system.

The German *Fachhochschulen*, the Dutch HBOs, the French *Institutes Universitaires de Technologie* (IUTs), some Japanese and Korean community colleges, and other non-university technical institutions have provided this kind of alternative, tertiary-level institution. And yet the pressure for matriculating into the classical universities continues almost unabated. Some countries such as Italy and Spain have resisted the pressure for alternative kinds of higher educational institutions altogether, and the UK has even backtracked, turning all of the former polytechnics—which prior to 1997 were in a very different world from the universities—into universities. The most vivid extension to US higher eduction is the case of California, where in-migration has created a bubble of more than 500,000 potential additional public higher educational aspirants if the state is merely to maintain the same level of accessibility as it had achieved through the 70s and 80s. If the formal ratios of the much-touted California Higher Education Master Plan are to continue to hold—with 12 ½ percent of the high school graduating class to be accommodated in one of the California's nine research universities—there would have to be added research university capacity for more than 60,000 additional undergraduates—presumably in addition to all of the graduate programs, research laboratories and advanced professional schools that constitute, far more than undergraduates, the core mission of the research university. It is not clear that California, or the world, needs that much additional research university capacity—nor is it even likely that the California taxpayer will begin to pay the cost. And this is happening in a state and a country that feature probably the best non-university alternatives in the world for entering higher education students.

3. Cost-sharing: A third worldwide trend is the diversification of revenue sources from heavy (in some countries virtually exclusive) dependence on the government, or

taxpayer, to being shared with parents, students.[4] The shifting of higher educational costs to parents and/or students can take many forms, such as:

- the adoption of tuition fees when there were previously none (as in the UK in 1997 or most recently Austria in 2000);
- very sharp increases in tuition fees (well in excess of the rate of inflation) where they have become commonplace (as in the US over the past decade and one-half);
- charging more nearly break-even fees for food and lodging that may hitherto have been highly subsidized by the state (all of the transitional, or post-communist, states);
- the elimination, diminution, or even the *erosion by freezing* of student maintenance grants (as in the UK in the late 1990s or most of Eastern and Central Europe since the collapse of the Communist regimes—and to a degree in the US in the shift from grants to loans);
- the introduction of supposedly *non-instructional fees*, such as application, graduation, student services, technology, or access fees, all of which carry the political advantage of not having to call them *tuition* fees (as in Ireland, Italy, and France, and the public universities of many US states);
- the charging of fees only to students who fall behind in their expected progress toward the degree (as in some of the German Lander);
- the restriction of *tuition-free* higher education—termed *governmental sponsorship*—to an academic elite, thus preserving the pretense of free higher education while being able to charge tuition fees to students who fall below a certain cut-off on the official entrance exams (a practice common to many post-Communist countries, as well as several countries in East Africa); or
- an improvement in student loan recovery rates via an increase in the rate of interest or an improvement in collections (where student loans are integral to higher education financing, as in US and Canada).

This shift is not without struggle and ideological contestation. To the economist, the rational is relatively straightforward: cost sharing—especially with the support of means-tested grants and generally available student loans—is more efficient as well as more equitable. But a less politically and ideologically contestable, and perhaps more powerful, rationale is the increasingly widespread belief that governments either will not or cannot increase tax revenue sufficiently to meet all of the other needs (e.g. elementary and secondary educational needs, public infrastructure, public health, energy, defense, and environmental restoration) and still have enough left over to meet all of higher education's needs without having to turn either to parents or to students or both.

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[4] See D. Bruce Johnstone, "Cost-Sharing in Higher Education: Tuition, Financial Assistance, and Accessibility" *Czech Sociological Review*, Vol. 39, No. 3, June 2003, pp. 351-374; reprinted in Johnstone, D. Bruce, *Financing Higher Education: Cost-sharing in International Perspective*. Boston: Boston College Center for International Higher Education; and Rotterdam: Sense Publishers, 2006, pp. 3-31; also on the Web site of the International Comparative Higher Education Finance and Accessibility Project retrieved June 30,2006 at <*http://www.gse.buffalo.edu/org/IntHigherEdFinance*>.

4. Other forms of other-than governmental revenue: A less politically contested, but also less financially lucrative, supplementation of governmental revenue are two forms of revenue raising that are both attractive partly because they are neither taxes nor are they tuition fees. The first is the selling of faculty services: what Burton Clark (mainly admiringly) calls the *entrepreneurial university*[5] and what some politically critical faculty have called *academic capitalism.*[6] It is not the fact, but the scale and importance, of supplementary revenue from faculty and institutional entrepreneurship that are new to universities around the world. However, the financial relief brought by these activities is uneven and not without downsides.

Another trend, in which the American public university is clearly the trend setter, is philanthropy—that is, gifts from university alumni, "friends," corporations, or foundations. The rest of the world looks with awe at the philanthropic success of the US public research university. However, successful fund raising takes time, money, and a favorable legal (tax) and cultural environment. At best, successful philanthropy can make a substantial positive contribution at the margin—frequently leading the institution in ways it might not have gone in the absence of the philanthropy. While interest in philanthropy is a clear trend, most observers do not expect it to make a substantial difference in most countries; certainly, philanthropy cannot replace government in most of the countries of the world, and financially, it is almost certainly less financially significant than revenue supplementation by tuition fees.[7]

5. ***Private colleges and universities:*** Still another worldwide trend, driven largely (but not entirely) by fiscal austerity and the inability of governments any longer to support the voracious appetites of public higher education, is the ***rise of private colleges and universities***. These have long been fixtures in the US, Japan, elsewhere in East Asia, and Latin America, with private enrollments accommodating more than one-half of tertiary enrollments in Philippines, Japan Korea, Indonesia, India, Columbia, and Brazil. In the 1990s and since, private institutions have also arisen in the post-Communist countries and even in Africa. Most often, they are of the so-called *demand absorbing* variety, featuring low-cost, high-demand academic programs with many part-time adjunct faculty, frequently operating out of spare rental space and emphasizing only the instruction that sells, with no attempt at scholarship, academic governance, or other features dear to the US and European academics. [8] The growth of these institutions is fueled less by any perceived qualitative superiority of the private sectors in most countries, but rather by the programmatic rigidities of in-country public systems, including the political inability to charge tuition fees, quotas on the admission of governmentally-sponsored students, and the inclination of faculty to maintain their lucrative part-time teaching jobs in the emerging private sectors.

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[5] Burton Clark, *Creating the Entrepreneurial University: Organizational Pathways of Transformation*. Oxford: Elsivier Ltd for the International Association of Universities Press, 1998.

[6] See Sheila Slaughter and Larry Leslie, *Academic Capitalism*. Baltimore: The Johns Hopkins University Press, 1997; and Sheila Slaughter and Gary Rhodes, *More Academic Capitalism: Markets, States, and Higher Education.* Baltimore: The Johns Hopkins University Press, 2004.

[7] D. Bruce Johnstone, "University Revenue Diversification through Philanthropy," an address to the annual meeting of the International Conference on Higher Education (ICHE), Luxembourg, August 26-28, 2004.

[8] See the *Program for Research into Private Higher Education* at the State University of New York at Albany: < http://www.albany.edu/%7Eprophe/index.html> retreived June 30, 2006.

6. The privatization of the public sector. Arguably as or more significant than the growth in the number of private institutions of higher education is the privatization in more and more countries of their public institutions. Aside from the growth of tuition and other fees in the public sector, this privatization may include separate tuition-paying tracks of students, such as is found in Russia and other former Communist countries, other forms of fees as mentioned above, and the contracting out of certain non-instructional services such as food and lodging, so familiar to US public research universities.

7. Management and budget reforms. Related to the privatization of the public universities throughout the world is a range of changes—most would call them reforms—in the relationship of the public university to the state. Most of these are variations on the themes of *devolution* and *institutional autonomy*. I had the (mainly) good fortune to be serving as a college president and then as the system chancellor when the state of New York finally began granting some autonomy both to the system and to the individual campuses of what had, through the 1980s, been the most oppressively regulated public higher education system in the United States. Neave, VanVught, and colleagues at the University of Twente's Center for Higher Education Policy Studies termed this a move from state *supervision* to state *steering*, and have documented its growth within what had been the ministerially dominated institutions and systems of Europe.[9]

Increased institutional autonomy is seen by many as a mixed blessing. Faculty, particularly in financially stressed countries and especially in departments and disciplines that have little to offer on the open academic market, may fear their deans and presidents or rectors more than they fear the state or the ministry. Some perceive the granting of more autonomy as part of a devil's transaction, purchased at the prices of even less tax support. And others are fearful of the growing influence of market forces: whether of what they perceive to be a loss of academic quality or merely with a loss of their former freedom and insulation from supervision and accountability. But financial hard time usually does increase the power of management—for good or for ill.

The Financial Strength of the US Public Research University

This international comparative perspective gives us a way not only to examine the relative financial strength of the US public research university, but also to assess the sources of this strength. I am going to suggest five structural features—that is, quite beyond America's great wealth, and even beyond the current level of governmental contributions —to account for the financial strength of our public research universities relative to the financial strength of universities elsewhere in the world.

1. Substantial and continuing tuition support.

No country in the world comes close to matching the United States in the amount of tuition fee revenue that is collected for its public universities—successfully, consistently, and with relatively little political dissent. In the latest year for which the US National Center for Education Statistics higher educational financial data are published, which is

[9] See, for example, Guy Neave and Frans VanVught, Eds. *Government and higher Education Relationships: Accross Three Continents: Winds of Change*. London: Pergamon Press, 1994, and the CHEPS Website (January 2005) at: http://www.utwente.nl/cheps/.

2000-2001, US public research universities ("doctoral extensive") collected tuitions and fees in excess of $14.3 billion—a figure that, in light of the substantial tuition increases of recent years, is probably in 2005 approaching $20 billion.[10] According to the annual poll of the College Board, the average tuition and fees at public four-year colleges and universities was $5132, and the average of the public research universities would have been considerable higher.[11] Four factors account for this quite extraordinary volume of private revenue flowing to public universities—at least relative to the rest of the world.

First, the US family has accepted the appropriateness of contributing to the costs of their children's higher education, including contributions to the costs of instruction (that is, tuition fees) in amounts ranging from a low of around 25 percent to a high of nearly 40 percent of actual per-student costs of instruction for in-state undergraduate students of the public research universities. This is in part due to the historic role played by the largely tuition-dependent private higher education sector in the United States; many parents either paid themselves (or their parents paid) for a private higher education, or at least know someone who has paid, such that even if they are to complain about the high and rising cost of tuition in what used to be a very low tuition public university, most believe themselves to be fortunate to be getting a quality higher education for their children at far less cost than their neighbor may be paying for private tuition.

A second reason that the relatively high tuition fees in the public sector remain compatible with the ideal of higher educational accessibility—that is, the belief that all young people otherwise prepared for a higher education should be able to attend some public college even if their parents are unable to afford any financial support—is the existence of an extensive and successful system of need-based grants and generally available student loans. The total volume of financial assistance (that is, both grants and loans) in the 2003-04 academic year was in excess of $114.5 billion—most of it need based.[12] While federal and state financial assistance benefits students in private institutions and public two-year colleges, one-third of the Federal need-based Pell grants and 43.5 percent of the subsidized federally guaranteed loans went to students in the public four-year colleges and universities. It is true that an increasing amount of financial assistance in *non* need-based forms of aid—or flows to families of considerable means but with children in very expensive private colleges and universities—and while it is also true that an increasing portion of the federal financial assistance is in the form of loans rather than grants, and while the accessibility of US higher education clearly depends on the willingness of parents to contribute as much as they reasonably can and for the student to be willing to work and save part time and to borrow (or both), in the end US higher education can still be said to be accessible without regard to family financial status at least for traditional age young persons willing to attend a low-cost public college. This fact clearly contributes toward the easing what might otherwise be the kind of intense opposition to tuition fees that we observe in most of the rest of the world. And the facts

[10] National Center for Education Statistics, *Digest of Education Statistics* 2004 Table 333, Current Revenues of Public Degree-Granting Institutions, by Source of Funds and Type of Institution, 2000-2001, retrieved on June 30 2006 from http://nces.ed.gov/programs/digest/d04/list_tables3.asp>.

[11] The College Board, *Trends in College Pricing 2005*. New York: The College Board, 2005. [Available on-line at http://www.collegeboard.com/prof/ retreived June 30, 2006.]

[12] The College Board, *Trends in Student Aid 2005*. New York: The College Board, 2005. [Available on-line at http://www.collegeboard.com/prof/ retreived June 30, 2006.]

that an increasing portion of financial assistance is in the form of loans and that these loans are only minimally if at all subsidized (and that the defaults rates have been successfully driven down, further lessening the degree of governmentally subsidy) contributes to the highest recovery rates in the world on generally-available student loans

A third reason that tuition fees have been more politically acceptable in the United States than in other parts of the world (aside from the fact that politically the United States is considerable more market and private sector oriented at least compared to Europe) is that fact that public higher education in the United states is the province of the fifty states rather than the federal government. Therefore, there is never the matter of public sector tuition fees on the national political table, as there is, for example, with matters such as national health insurance, or social security or a federal minimum wage. And for that same reason, there has never developed the kind of politically influential national student union, typical of European countries in which matters of tuition fees are very national and very much dominate the agenda of the national student organizations.

2. Public university philanthropic support

US higher education received some $23.9 billion of philanthropic support in fiscal 2003. What is significant to the focus of this paper is that more and more of it is going to public colleges and universities—and especially to the public research universities. For example, nine of the top twenty university recipients were public universities or public university systems.[13] Furthermore, there were in 2004 some 24 multi-year capital campaigns with goals in excess of one billion dollars, 13 of which were at public universities or systems.[14] Finally, of the 39 institutions of higher education in the United States with endowments in excess of 1 billion eleven of these endowments are held by public universities or university systems.[15] .

Successful higher education philanthropy in the United States takes four essential factors, or features. The first is wealth, and the more unevenly distributed the easier is the philanthropy—or at least the very large gifts that tend to make up the major part of any philanthropic campaign. Second is favorable treatment of charitable giving, such as income tax deductibility of philanthropic contributions and the full deductibility of appreciated capital gains, which provide in effect a substantial governmental contribution—almost a *match*—to philanthropic giving. The third feature of successful higher educational philanthropy is institutional support at the university level, including cultivation of alumni and friends, solid record keeping and research, the involvement of leadership, and volunteers. Finally, successful higher education philanthropy on behalf of *public* higher education requires an acceptance of its importance and its appropriateness and of the belief that leaving the financial support of higher education entirely to

[13] Council for Aid to Education (2004) as reported in The Chronicle of Higher Education Almanac "Top fund-Raisers 2002-3" August 23, 2004.
[14] Kellie Bartlett, "Updates on Billion Dollar Campaigns at 23 Universities," *The Chronicle of Higher Education*, October 6, 2004.
[15] "717 College and University Endowments, 2002-03," *Chronicle of Higher Education* Facts and figures, July 6. 2004. [Chronicle Website July 2004 http://chronicle.com/prm/daily.]

government not only places the entire burden on the average citizen but still, under most circumstances, leaves higher education under-funded.[16]

3. Support of basic research through universities rather than stand-alone institutes

The channeling of most governmentally supported basic research in the United States thorough universities rather than through the kind of stand-alone research institutes found in, say, France (*Centre National de Recherche Scientifique*), Germany (The *Max Plank Institutes*), or Russia (the *Academies of Science*) has been an extraordinary source of financial strength to US research universities, both public and private. The granting of most of this support through limited term, peer reviewed grants has sharpened the competitiveness of the researchers. Finally, the decision to award full indirect costs, while adding to governmental costs, has made all universities financially able to compete on a level playing field and is the major reason for the competitive success of the US private research university.

4. A generally cost-effective pedagogy.

This assertion is contrary at least to journalistic and political conventional wisdom, which would portray the US research university anything but cost-effective. In further support of the contrary notion, the US public research university by international comparison spends lavishly. However, much of that which seems lavish in comparison to universities elsewhere is in the arena of student services: student activities, advising and counseling centers, intramural and intercollegiate athletics, residential campuses, and (by international standards) well maintained buildings. Research university faculty are paid well (again by international standards) in part because salaries are generally high in the United States, and also because research universities in the United States are intensely competitive, and compete by salary offers—impossible in countries with national salary scales.

But my assertion of the relative instructional cost-effectiveness of the US public university refers to the fundamental underlying production function: essentially the combined scholarly and pedagogical output or effectiveness per faculty member. The *scholarly* cost effectiveness of the US public research university is high in part because of relative rigor of the promotion and tenure policies and the competitiveness of the American research academy. The *instructional* cost-effectiveness is due to four factors, each peculiar to US research universities:

1. the well-established and highly cost-effective device of the large lecture supported by smaller discussion sessions led by graduate teaching assistants;
2. pedagogical traditions of papers and other independent out-of-classroom learning assignments that encourage substantial self learning;
3. the bachelors degree being awarded on the basis of successful passage of 30 to 40 or more course modules, which, in contrast to the prevailing European system, keeps

[16] See D. Bruce Johnstone, "University Revenue Diversification through Philanthropy," an address to the annual meeting of the International Conference on Higher Education (ICHE) in Luxembourg, August 26-28, 2004.

students working throughout the semester instead of merely cramming for year-end exams; and

4. the resulting institutional mobility of the US student which, in combination with the fierce competition for the "best" students, which motivates the American public research university to attract and retain even their undergraduate students in a way not found in the European university.

One might point to universities throughout the world where both the faculty loads and the student faculty ratios are higher, and the compensation much lower—suggesting a high level of efficiency. However, while it is possible to label a Russian or an Italian or Spanish university "productive" on the basis of very high student faculty ratios, such universities might not be considered truly *efficient*, based on the amount and quality of scholarship and learning. Thus, in spite of the popular and political misconception of public universities as both ineffective and inefficient, it is at least arguable—based on real scholarship and learning added—that the US public research university is far more pedagogically cost-effective than it is generally given political credit for.

5. Sector balance: the viable US non-university undergraduate alternatives

One of the major cost drivers mentioned above is the insistence of undergraduate students in most countries on entry into the research university—in spite of the efforts to channel some into less costly non-university alternatives. This insistence on university entry is especially the case with academically ambitious students who aspire to advanced degrees or entry into one of the elite professions such as law or medicine. Particularly in the European Continental model, students desiring law or medicine, for example, or a Ph.D. in a discipline have no realistic option other than immediate entry after secondary school into a research university. Other than France, where the Grandes Ecoles and even, perhaps, some of the IUTs, are fully respectable alternatives to the university for the most academically talented secondary school graduates (although neither is any less expensive), in no other country does the academically talented and ambitious student have a good non-university alternative—except for the United States. Again, the reason seems to be largely structural, and not at all contrived for the purpose of providing less costly alternatives.

One of the most distinctive features of American higher education is the nearly total separation of the undergraduate bachelor's degree from graduate and advanced professional degrees. Not only is medical and legal education, for example, placed after the completion of the bachelor's degree, but undergraduates are very often advised to go elsewhere for their advanced professional or masters or Ph.D. degrees even when they are receiving their bachelor's degree from a research university that has the desired graduate or advanced professional programs.

It is what I have elsewhere termed the "baccalaureate divide"[17] that has made possible the uniquely American *elite baccalaureate college.* This institution, whether

[17] D. Bruce Johnstone, "The International Comparative Study of Higher Education: Lessons from the Contemplation of How others Might See Us" *Futures Forum 2003: Exploring the Future of Higher Education.* Washington DC: Forum for the Future of Higher Education and the National Association of College and University Business Officers, 2003, pp. 45-48.

private or public, is able to offer not only a fine educational experience, but also an undergraduate experience that does not in the least compromise admission into the most elite graduate and advanced programs. In short, it is only in America that the most academically talented and ambitious secondary school students can elect to attend a *non-university*—admittedly an academically elite, and frequently private, college—and still aspire to an academic program and a career in medicine, law, business, or the academy itself. It is even possible in the United States to enter a minimally selective two or four-year college—at great savings both to the family and to the taxpayer—and transfer after several academically successful years to a research university as an upper division undergraduate, or to a more prestigious baccalaureate college, and then to a university for graduate or advanced professional work.

Critics of American higher education almost always claim that all institutions of higher education are aspiring to be "like Harvard or Berkeley." But, like much conventional criticism, this charge, while not without foundation, is greatly overdrawn. While US colleges and universities are very aware of their place in the myriad of institutional rankings, and while institutions and individual faculty almost always aspire to be (and especially aspire to be perceived by others to be) a little more academic and scholarly, this does not mean that most four-year colleges expect or even necessarily want, to transform themselves into research universities. In fact, while *academic drift* will always be present and needs always to be curbed, the United states may have one of the most institutionally and sectorally diverse systems of higher education in the world. And to the focus of this paper, this sector diversity clearly takes some of the enrollment pressure—and in so doing a good deal of financial pressure—off of the most costly form of higher education, which is the research university.

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I began this presentation with the observation that higher education is a costly endeavor and the research university especially so. Most of us who have been connected to this enterprise have long felt financially beleaguered, and understandably so, especially in recent years as most states have withdrawn tax support. But there remains a financial strength to the American public research university—in spite of our growth and in spite of state funding that seems almost never to keep up with its *share*. This paper has examined this financial robustness relative to research universities in other countries. I have made a case for several distinctive structural features of the US public research university that may help to account for what is clearly to the advantage of the state taxpayer, if not always to those of us within these institutions. If these factors bear up under further scrutiny, they will constitute another reason for all of us from time to time to examine our own system of higher education from an international comparative perspective.

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