Response to Austerity: The

Imperatives and Limitations of Revenue Diversification

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Higher Educational Austerity

Higher education has never been more important than today at the start of the 21st century. It is central to an increasingly technological and knowledge-driven economy. It is a major engine of individual social and economic mobility, supporting the belief that one can rise above the socioeconomic station into which one was born. It is demanded by the increasing complexity of governance, and the political and civic conviction that social problems are to be analyzed and solved--not just in traditional ways, but also with new solutions emanating from increasing knowledge and training. And at least in the high-income countries, part of the increasing demand reflects higher education becoming another “high end" consumer good.

In spite of--and to some degree because of--this increasing demand, higher education seems almost everywhere besieged with austerity: an uneven but nonetheless unrelenting worsening of the financial condition of most universities and other institutions of higher education, particularly to the degree that they are dependent on governmental, or tax-generated, revenue. In response, a standard nostrum for higher education economists, consultants, and policy advisors (and one that is abundantly familiar in the UK) is the recommendation that universities and other higher educational institutions lessen their revenue dependence on governments, or taxpayers. The prescription is easy to rationalize, and is theoretically (and even practically) virtually unassailable. However, there are also significant limitations in a revenue diversification policy, especially in the less industrialized world where the need for such a policy may be most compelling. These limitations go far beyond the ideological distaste that many have for the neo-liberal economic medicines of cost sharing, downsizing, and privatization, and extend to certain technical and strategic dilemmas that confound even the staunchest believer in tuitions, privatization, and student lending. This article discusses some of these technical difficulties, especially of making cost sharing and student lending work in developing countries, but that may also serve to lend some perspective to the continuing debate in the UK and especially in the year 2002 to its constituent parts of Scotland and Wales.

Austerity in higher education is a function of costs outrunning available revenue--counting as costs both per-student, or unit, costs as well as total costs driven by the accommodation of enrollment and degree expansion, and including as revenue both public, or tax-generated, revenue as well as tuition and fees from parents and/or students. Per-student, or unit, costs in higher education tend to be high throughout the world because of the high input of relatively costly labor, costly equipment (especially scientific equipment, computing, and library materials), and the expenses of student living--which are not, strictly speaking, a cost of higher education, but are expenses that must be borne nonetheless and that may be particularly

significant in situations where commuting to a university while residing with parents is either impractical or impossible.

As significant and troublesome as these high costs may be, the real harbinger of austerity is the rate of increase over time of these costs. Neither economies of scale nor the infusions of capital that traditionally bring down unit costs in the larger, goods-producing economy, seem to dampen cost increases in higher education. Like other labor intensive industries, especially those where the application of technology tends to increase the quality of the product or the comfort and convenience of the producers instead of lowering the cost (and also presumably the price) of the product, higher education, over time and in the absence of measures that simply force down these "natural" increases, tends to get more expensive relative to the average increase in the cost of goods and services generally. One consequence is that both costs and prices (i.e. tuitions) of higher education tend generally to outpace the rate of inflation. This is the well known "cost disease," or the tendency to rising relative cost in the labor intensive, largely productivity-immune sectors of the economy such as health care, education, most services, and the arts (Baumol and Bowen, 1966; Bowen, 1968; Johnstone, 2001).

In the case of public higher education, the effect of these high and naturally rising per-student costs are greatly magnified by pressures to expand enrollment. Greater percentages of the populations of most countries are demanding more and more higher education. Thus, the demand for higher education is rising rapidly especially in countries characterized by rapidly growing populations *and* low current levels of participation—conditions describing much of the developing, or less-industrialized, world.

Together, the high and rapidly increasing unit costs and the rapidly rising enrollment pressures place enormous strains on whatever part of the total higher educational expenditure is being borne by the government. (Or, as most economists would prefer to say, that is being borne by *taxpayers*, including within the concept of "taxpayer" the citizen whose purchasing power is not directly taxed, as such, but is *in*directly taxed through taxes on businesses that are simply passed on to consumers, or even more indirectly confiscated by the government through the inflation brought about by the printing of money to finance governmental obligations.) Simply put, the "natural trajectory" of those higher educational costs traditionally borne by the government, or taxpayer, would take increasing portions both of the gross domestic product and of the public budget. Underlying the case for cost-sharing and revenue diversification is the assumption that substantially increased public revenues for higher education is becoming less and less likely, for several reasons.

One such reason is the limitation in public revenue itself, beginning with limita-tions in tax capacity. Tax capacity is partly a function of the overall state of the economy. In Russia and many of the new republics carved from the former Soviet Union as well as in much of Africa, for example, gross domestic product has been static or declining, and prospects for vigorous economic growth remain dim. But even more serious than static or declining economies generally has been the declining ability of more and more governments to collect taxes at all. Taxes on income and sales are technically difficult to collect and too easily avoidable, depending so much on the government's ability to monitor income and sales

cost-effectively, as well as on a developed culture of tax compliance--neither of which are characteristics of most middle- and low-income countries.

Globalization—the heightened international mobility of capital, information, and productive capacity—is also taking its toll on government's ability to tax. Substantial increases in taxes on corporations are increasingly problematic because of this greater mobility of capital and production facilities and the resulting inclinations of multinational corporations to move to lower tax jurisdictions if they perceive their tax burdens to be too high. What used to be an easy way to "tax"—that is, printing money and effectively confiscating the purchasing power of the citizenry via the resulting inflation--is also becoming more difficult as countries are losing sovereignty over monetary policies (or even, as in Europe, over their actual currencies), and are otherwise constrained by a growing dependence on World capital markets. Finally, in the case of the formerly centrally planned socialist economies, governments can no longer rely so heavily on the value added, or turnover, taxes that used to enable the state to extract purchasing power at each stage of the governmentally owned production process. The consequence of all these factors is that most countries, and especially those with less-industrialized and/or so-called transitional economies, are having enormous technical difficulties—quite apart from any political resistance to taxation—in diverting purchasing power for use in their public sectors.

A final limiting factor in the likelihood of higher education getting a larger slice either of overall Gross Domestic Product, or of the government's share thereof, is the diminished relative priority of higher education among the other major claimants on these increasingly scarce public revenues. This relatively low (or at best "middle") position in the queue of claimants on available public resources, in spite of the rising importance of higher education as mentioned above, is due in part to the formidable priorities of other needs: elementary and secondary education, public health, public infrastructure, housing, and care for impoverished elderly, children, and other dispossessed persons. This diminished priority for higher education may also be due (somewhat ironically) to the demonstrated ability of universities and other higher educational institutions to help themselves. Most competing claimants simply do not have higher education's ability to raise tuition or to generate revenue from the sale of faculty time and expertise or the lease of university assets. This ability is not lost on politicians straining to meet more public needs than there are available public revenues to support. So, while it may seem like the proverbial "punishment for good deeds," higher education's seeming ability somehow to withstand the loss of public revenues make it all the more likely for these losses to continue.

In summary, higher education in most countries, absent policies to alter the natural trajectories of either costs or public revenues or both, will almost certainly continue to experience a worsening austerity. Significantly, the condition of austerity is both *dynamic* and *relative*, befalling rich and poor countries alike. This is because austerity (or adequacy) is in part relative to the level of revenue in the last allocation. Most expenditures in higher education are *recurrent*—that is, must continue over time. Generous support in one year, particularly of such obligations such as wages and salaries, utilities, consumables, or student support, can become inadequate almost instantly if not continued in the next expenditure year. This is why many of the universities in the UK and elsewhere in the OECD countries can experience genuine austerity in their higher education establishments even at quite substantial levels (relative to the rest of the world) of public expenditures for higher education, and why the president of one of America's great (and

certainly wealthy) private universities could puzzle over "…why we can be so rich and feel so poor?"

Consequences of Austerity

The consequences of austerity, whether absolute or relative, can be felt either by the *producer* (the university or other tertiary-level institution) or the *consumer, or client (*the student and to some degree the parents), or most likely both. When impacting the institution, austerity may be manifested by:

- a loss of institutional capacity to respond or to change;
- loss of faculty, or loss especially of the best faculty, or loss of faculty allegiance and morale (due to declining salaries), or loss of much of the faculty's time and attention (as they are forced to "moonlight" elsewhere to maintain real wages);
- an erosion of equipment, including computers, laboratory equipment, and library materials; and
- a deterioration of physical plant, and inability to expand physical capacity to keep up with increasing enrollment.

The impact of higher educational austerity on students depends on the institutional response to its shortfall of revenue. To the degree to which the institution (or the government) has responded to a lack of sufficient public revenue by increasing tuition and fees, and especially as these increases are unmatched by means-tested grants and/or available and affordable student loans, the effects will be felt predominantly by middle and lower income students, who may be forced:

- to move to part-time student status and seek part- or full-time employment (if this is even possible);
- to continue full-time study, but still seek part-time or even full-time employment, possibly to the detriment of their studies and the prolongation of time –to-degree;
- to attend, or move to, an institution within commuting range of their parent's home to cut down at least on the expenses of student living (again, impossible in many developing countries due to the lack of nearby institutions and the difficulties of transportation);
- to decide against higher education altogether, or to drop out (perhaps intending only to stop out), or even to cease pursuing an academic track in middle or high school, all due to a perception of the financial unattainability of higher education.

To the degree to which the institution (or the government) has responded to a lack of sufficient public revenue by capping enrollments, particularly in the most sought-after public institutions, the effect on students will be limited enrollments and disappointed student applicants, almost certainly to the detriment of those less academically prepared--who are almost certain to be disproportionately made up of those from weaker secondary schools and probably from lower socioeconomic or rural backgrounds. And if the country has limited its public university capacity but responded to the pressures for higher educational massification by allowing and even

encouraging a *demand-absorbing* private sector (similar to many East Asian and Latin American countries), the consequences of the capacity limitation will be leveraged into those aspiring students who are neither bright enough to get into the inexpensive but increasingly selective public universities, nor with sufficiently affluent parents to be able afford a private alternative.

The Imperative of Revenue Diversification

The classic response to this condition of austerity in higher education is to combine measures of *greater efficiency* (e.g. enhancing scale, eliminating redundancy, closing low priority operations, increasing both student /faculty and student/staff ratios, and the like) with *revenue enhancement by diversification*. The remedy of revenue diversification follows from the *cost-sharing* perspective (Johnstone 1986, Johnstone and Shroff-Mehta, 2000), which views the costs of higher education as shared by five parties: (1) the government, or taxpayer (or the average citizen via the inflationary-driven confiscation of purchasing power by governmental printing of money); (2) parents (or spouses or extended families) via tuition and fees, paying from current income, past income (savings) or future income (borrowing); (3) students, also through tuition, fees, and other costs of student living, paying mainly from term-time or summer earnings, or from borrowing (future earnings); (4) donors, from endowments, current gifts, or "redistributive tuition" by which wealthier parents pay more in tuition so that some students or parents can pay less (presumably for the better quality education made possible by the tuition discounting and the attraction of bright and educationally enriching students whose parents cannot afford full tuition); and (5) institutional entrepreneurship and the revenue brought in via the sale or lease of university assets, or the sale of faculty expertise, whether in teaching or research.

Cost-Sharing

The case for cost-sharing--that is, the shift of some costs from governments and taxpayers to parents and students--as a response to worsening austerity is quite apart from the case that can be made for public tuition fees on the neo-liberal economic presumption of greater *equity*, or simple fairness: that is, that those who are reaping considerable private benefits from a public good (especially one that is partaken of disproportionately by the more affluent) should bear at least a commensurate share of the costs. This case for cost sharing because of a sheer need for revenue is also apart from the presumption of a greater institutional *efficiency* and *responsiveness* when universities are forced to compete for the enrollments of students While these classic theoretical rationales for revenue diversification seem entirely valid to the author, they also remain ideologically contested, *and the imperative for revenue diversification can rest quite well simply on the need to surmount the virtual certainty of insufficient governmental, or taxpayer, revenue.*

Enhancing revenue from parents and/or students can take one or more of the following eight main forms, depending on the country and its policies:

1. ***A beginning of tuition*** (where higher education was formerly free). This would be the case in China in 1997, for example, or Britain in 1998, or in Austria in 2001.
2. ***A very sharp rise in this tuition*** (where public sector tuition has already existed). A shift toward greater cost sharing requires that the rise in tuition be greater than the rise in institutional costs generally in order for the government's, or taxpayer's, share to be lessened, and the parent's and / or student's shares to rise commensurately. This has been

the case recently in the US, where many state governments have failed to maintain their former "shares" of public university expenses.

3. ***Tilting admissions and enrollments toward students who can pay.*** In the US, this increasingly widespread practice is called *enrollment management*: a technique of enhancing the net tuition revenue by rationing the scholarships, or tuition discounts, to those who can truly help the institution—e.g. the very brilliant or the very talented—and concentrating otherwise on those students who require the least amount of tuition discounting.
4. ***Maximizing the enrollments of fee-paying students.*** Similar to #3, this is a "tilt" toward those whom the institution is legally allowed to charge tuition. This is increasingly the practice in Russia and other countries (many from the former Soviet Union) in which students have a legal right to free higher education, but in which the definition of those students who are so entitled can be narrowly construed--e.g. to only those first-time students who pass the entrance examination with the requisite score—all others being "free game" for being charged tuition. Although the government limits the proportion of fee-paying students, there are enough "loopholes" in the law such that more than 25 percent of all Russian University income is said to come from tuition—this in a country that nominally guarantees students a free higher education! (Bain, 1998).
5. ***An imposition of "user charges," or fees to recover the expenses of institutionally provided and formerly heavily subsidized residence and dining halls.*** This has been happening in China and in most countries, including African countries where subsidized living costs were said by the World Bank to absorb the bulk of many country's higher educational budgets. In the Nordic countries of Sweden, Norway, Finland, and Denmark, for example, where higher education remains "free," the expenses of higher education are exclusively the costs of student living, which are very high in those countries, and which are "shared" neither by the taxpayer nor (at least officially) by the parents. They are thus borne entirely by the students, largely in the form of student loans (which are indirectly shared somewhat by the taxpayer in the form of repayment subsidies).
6. ***A diminution of student grants or scholarships.*** This is sometimes accomplished simply by "freezing" grant or loan levels, or by holding them constant in the face of general inflation, which then erodes their real value. This may be accompanied by a shift in the dominant form of financial assistance from grants to loans, as has happened in the US over most of the decades or the 1980s and 90s. Such a policy also diminished the once very generous grants in Britain (which were later abandoned altogether), and has happened to the value of the maintenance grants in Russia and most of the rest of the former Soviet republics, and in Eastern and Central Europe.
7. ***An increase in the effective cost recovery on student loans.*** This can be accom-plished through a diminution of the subsidies on student loans (similar to the diminution in the value of non-repayable grants), and might be accomplished through an increase in interest rates, or a reduction in the length of time that interest is not charged, or through a reduction in the numbers of loans for which the repayments, for any number of reasons, are forgiven. Or the effective cost recovery might be accomplished through a tightening of collections, or a reduction in the instances of default, with no change in the effective rates of interest paid by those who were repaying anyway.
8. ***The official encouragement, and frequently a public subsidization, of a tuition-dependent private higher education sector.*** A number of countries—notably Japan,

Korea, the Philippines, Indonesia, Brazil, and other countries in Latin America and East Asia--have avoided much governmental expenditure on higher education by keeping a limited public sector—usually elite and selective—and shifting much of the costs of expanded participation to parents and students through encouraging private (often profit making) higher educational institutions.

Other Forms of Revenue Diversification

Non-governmental revenue may also come from donors or from faculty and institutional entrepreneurship. Among the popular forms are:

9. ***Contract research.*** Contract, or sponsored, research that carries an appropriate "overhead" charge can provide supplemental faculty salaries and new equipment, and also contribute toward general institutional and administrative costs.
10. ***Teaching high demand courses, frequently to non-degree students, for substantial tuition.*** Tuition from the teaching of specialized courses can include enough to cover all marginal expenses plus a "profit" to the department and sometimes to the larger institution. This is especially popular in those countries that prohibit tuition for "regularly admitted students" (# 4, above). Where the competition is especially keen for "regular" admissions, the university faculty will sometimes provide private fee-paying tutoring to secondary students preparing for the university's own examinations.
11. ***The sale or lease of university assets.*** In a similar fashion, universities sometimes own large amounts of desirable land or other assets (in China, extending to factories and other businesses) that can contribute to institutional revenue. One of the issues, particularly in the former Communist countries, is the rightful ownership of university facilities. Absent well-developed non-profit laws, it is not clear how free a university is to sell, lease, develop (for resale), or otherwise dispose of university assets without the proceeds therefrom being claimed by the state.
12. ***Donations.*** Finally, universities are turning to donors and other philanthropists for other-than-governmental revenue. This can be donations, including bequests (at death) or annual gifts, or donations from corporations and foundations, any of which can be designated or undesignated (i.e. left to administrative discretion) and given either for endowment or current operations.

Limitations on Revenue Diversification

Political and Ideological Opposition to Cost-Sharing

All of these forms of non-governmental revenue are important. Yet each has limitations. Some—particularly the forms that would shift some of the higher educational costs burden from government, or taxpayers, to parents and students--have opposition that is both ideological and self-interested. Any policy that seeks to impose a new, or a sharp increase in, the price of a good or a service that has come to be viewed as an entitlement, especially one so seemingly noble and socially important as higher education, will be fiercely contested. The first difficulty in attempting to implement a policy of higher educational cost-sharing, especially where there has been a tradition of free public higher education as a virtual entitlement to all academic secondary

school graduates, is to surmount the almost inevitable ideological and political opposition. Although the politics of cost-sharing are particularly country specific, three factors buttress this opposition and thus strengthen the political and ideological limitations to cost-sharing as a form of revenue diversification:

1. The politicization of cost-sharing. Clearly, when opposition to tuition becomes an important political plank, especially for an opposition party (which is almost always more able to take vocal stands against inherently unpopular policies like taxes, tuition, or user fees), governments will feel constrained, especially when students are politically active and influential.
2. The absence or inadequate provision of means-tested grants or student loans. Opposition will be far greater (and properly so) when tuition is first adopted or sharply raised in the absence of some form of assistance to those who are most likely to be denied access to higher education in the face of such a shift in the cost burden.
3. The failure (or the perceived failure) of the shift of costs to bring any benefits to current or future parents and students. An increase in tuition or other fees is more likely to gain at least some acceptance if it can be perceived as going toward an expansion of places, and thus of accessibility, or toward improved on-campus living conditions or new academic equipment. In the absence of such a perception, the shift of costs to parents and students may be perceived as benefiting some other public good (perhaps an unpopular one, such as the military) or going to line the pockets of a supposedly corrupt government or university administration.

Technical Limitations to Parental Cost-Sharing

However, beyond the political and ideological challenges to cost-sharing, particularly in developing countries, are some essentially technical, limitations. Two of these apply to the expectation of parental contributions. The first is *the difficulty of determining and verifying parental ability to contribute*. Establishing a reasonable parental contribution requires a determination of that income (or combination of income and assets) at which this financial responsibility ought to begin, as well as the rate at which this expected contribution should increase with increasing measured ability to contribute. But "financial ability to contribute" is a complex and elusive concept even with a high degree of voluntary willingness to comply. Furthermore, income and assets are relatively easy to disguise, as all countries that make extensive use of income taxes have discovered. Only in the US, the UK, and a few other advanced industrial countries has there been developed both a culture of voluntary tax compliance and the technical means to verify incomes such that measures of "ability to pay" might be generally trusted. In most countries (and in virtually all less industrialized countries) the determination of "ability to pay"--or its converse, "eligibility for need-based assistance"--can be only crudely approximated by such indicators as parental education, occupation (especially if it is a governmental job), type of housing, and other indicators of relative affluence or poverty.

A second problem (actually a set of problems, also essentially technical) in connection with the shift of higher educational costs to parents is the *duration of this presumed obligation and the related issue of financial dependence and independence*. An assumption of greater financial contribution from parents assumes that the student is appropriately financially dependent --at

least to the limit of the parents' ability to contribute. But what if the "child" is a young adult, several or many years out of secondary school who only now wants to enter a college or university? Are the parents still financially responsible? For how many years, or for how many degrees, or through what levels of higher education does this expected parental financial responsibility continue? What of the complications of divorce or "non-custodial parenthood"? What if the parent or parents simply refuse at some point any longer to support the child (or the young adult) for further higher education? Or what if the student refuses the parents' financial assistance, but then wants to qualify for need-based assistance? Should such a refusal, whether by the child or by the parents, obligate the taxpayer to replace the missing parental contribution? Or, should such a choice (on the part of either the child or the parents) preclude the student from receiving "need-based" aid on the grounds that governmental policy must reinforce the bedrock assumption of *cost-sharing* that parents are financially responsibility (within some necessary limits) for the higher education of their children? None of these questions is unanswerable. But together they reinforce the need for, and the difficulty of constructing, consistent policies that will be perceived as fair and workable in any particular country or culture. And these limitation reinforce the politically- and culturally-situated nature of such policies, reminding us that what works in the US or Germany might well not work in China, Indonesia, Ethiopia, or Brazil.

Limitations on Student Cost-sharing

The attempt to supplement governmental with *student* revenue is quite different than the attempt to obtain parental revenue, both in its theoretical rationale and in its implementation. A student share requires either real part-time employment opportunities (that is, employment that does not require government subsidization and also does not interfere unduly with academic progress) and/or student loans (or graduate taxes) with some real cost recovery--that is, with a present discounted value of anticipated repayments that is approximately equal to the amounts lent, or deferred.

The limitation on part-time employment is that there are, especially in less industrialized countries, few part-time jobs that are both accessible to the students and non academically-intrusive, and that do not depend on governmental subsidization (which obviates the purpose of the cost sharing to begin with). The problem with student loan programs (again, especially in less industrialized countries) is that the anticipated cost recovery is so low—frequently only a small fraction of the amount lent. This is due to the combination of high defaults, excessive interest rate subsidization, and very high administrative costs, all of which are presumably amenable to policy reforms, but all of which are both politically and technically difficult. And these limitations are over and above the underlying financial and employment difficulties that beset university graduates in many countries, leaving little income for the discharge of indebtedness, even if they were fully inclined to repay their loans (Johnstone, 2000).

A number of countries, including the UK—possibly intrigued by claims of great success from Australia's Higher Education Contribution Scheme (see chapter xxx by Chapman)—have instituted *income contingent repayments schemes*, buttressed by incorporating the collection of student loans repayments within the official governmental machinery of tax withholding or pension contributions at the point of wage payment. However, this course requires an efficient, highly inclusive, and politically accepted system of income taxation and pension withholding:

characteristics found in very few countries, and probably in none of the less industrialized countries. In addition, the inability of income contingent loan plans to tap a private capital market makes the loans, particularly at the outset of a program, almost entirely dependent on governmental revenue--again partly obviating the purpose of the loan program to begin with. Thus, while student loans must remain an important part of any cost-sharing scheme that purports to tap the students for a portion of the costs of their higher education, there are few examples of loan programs that have brought substantial relief to their governments and taxpayers for the support of higher education. (The US, Canadian, and Swedish plans being possible exceptions, although the Swedish plan is designed mainly to shift cost not from the government, but from the parents, who are not officially expected to contribute to the costs of their dependent children's higher education.)

Limitations on Faculty and Institutional Entrepreneurship

Entrepreneurship, both faculty and institutional, has the potential to contribute not only to university revenue, but also to the quality and responsiveness of the curriculum and even the teaching. Clark (1998), in his study of five entrepreneurial European universities, claimed evidence for the entrepreneurial spirit extending even to the so-called *heartland* departments—the humanities and social science departments that are not generally thought of as market-oriented or able to augment revenue from the sale of their services. Court (1999), in his study of what he termed the “quiet revolution” at Uganda’s Makarere University, cited the enhancement of faculty salaries, in turn slowing the exodus of academic staff, as the most important impact of faculty and institutional entrepreneurship.

There are, however, at least three possible limitations, or “downsides,” to faculty and institutional entrepreneurship. The first is the potential of entrepreneurial activities to divert faculty and institutional time and attention from the core mission and activities of the institution. Clearly, some faculty entrepreneurial activities only enhance the university’s mission: particularly those that provide new research and practice opportunities for both faculty and students. However, when faculty and staff attention is drawn to activities, the main purpose of which is simply to augment salary, both the students and the institution can lose. Given the very great amount of autonomy enjoyed by the academic profession, the pervasive absence in many countries of clear rules for what are and are not appropriate faculty activities away from the classroom, and the very low levels of faculty remuneration in so many countries, it is not surprising to hear of abuses. (What is needed, but what is also more difficult than generally assumed, is for there to be clear policies regarding the time that faculty are expected to be on the campus, in their offices or laboratories, and available to their students and colleagues.)

A second limitation is the potential for entrepreneurial attractions to be in actual substantive conflict with the academic canons of scholarly integrity. Such can occur (at least in appearance) when a funding source has a vested interest in the result of the research that the source is funding. The compromise of academic values does not have to be so blatant as the outright falsification of evidence or suppression of findings. The very decisions of what to investigate (and perforce what not to investigate) can be affected by funding sources with vested interests—including government agencies. Or, the academic compromise can come in the form of limitations on dissemination of the findings. The only way to be altogether free from all such

potentially compromising influence is to be free from the need for any revenue from discretionary sources—which we have already established as completely unattainable. The best protection for academic values is probably the combination of clear rules and enforceable transparency in all contracts and transactions.

A third limitation to entrepreneurship is the inherently uneven distribution within the academy of entrepreneurial possibilities, and the tendency, therefore, for academic entrepreneurship to widen the gap: between the *haves* and the *have* nots-: mainly between the sciences versus the humanities, the applied versus the basic, and the politically *au courant* versus the esoteric. For academic entrepreneurship to be institutionally beneficial, there must be a recognition that the revenue-generating parts of the institution have acquired this capability at least in part because of the academic reputation (e.g. for quality and integrity) that the entire institution has built up over many years. In short, the departments of management, computer science and English can market themselves in part because of an academic reputation that has been built up over the years by the faculty in, say, mathematics, history, anthropology, and ancient languages. Indeed, most of the applied fields with entrepreneurial potential continue to draw intellectual and methodological sustenance from departments and faculty who have little immediate value in the marketplace. Thus, all departments should receive some benefit from the marketability of management, computer science, and English via an appropriate cross subsidization. But this, again, requires clear rules and sensitive attention to the balance between the need to reward the faculty most engaged in entrepreneurial activities, and the rest of the institution. None of these limitations in itself is sufficient to deny the need for more faculty and institutional entrepreneurship. But it is well to keep in the public mind these limitations and potential "downsides" of entrepreneurship lest government come to believe that all faculty and all departments can live as can the "marketable few."

Limitations on Donations

To most institutions in most parts of the world, donations--from alumni, corpora-tions, foundations, or merely wealthy and generous "friends"--represent in theory the most attractive kind of "third stream" revenue. No source of revenue is quite as benign and reliable as revenue from unrestricted endowment *once the institution has it*. However, getting sufficient endowment (or the less reliable and also the more costly counterpart, which is yearly revenue from current giving) to provide a substantial portion of the institution's operating and capital needs is formidably difficult. Truly unrestricted endowment—the kind that provides a reasonably predictable revenue stream, in perpetuity, for whatever purpose the governing authority deems advisable—comes from money that has been invested, with only the income (sometimes plus a reasonable portion of capital appreciation) available for operations so as to preserve the real (i.e. inflation-adjusted) value in perpetuity. But this means that for each dollar of predictable annual revenue stream, there must be approximately twenty dollars of endowment (assuming the trustees spend only a prudent five percent of the portfolio's total return). Or, expressed another way, for each dollar that the institution might be fortunate enough to raise with absolutely no restrictions on its use, the governing board or leadership of the institution must put away and invest 95 cents if it is to build endowment. In the absence of endowment, the institution must raise again next year (and every year thereafter) the same amount as it raised and spent this year.

Raising significant revenue from private donations requires four elements:

1. donors with substantial wealth who have been carefully cultivated, sometimes for many years, and who are prepared to give the donation to the higher educational institution—as opposed to all other claimants and good uses that are probably also cultivating the same potential donors;
2. a culture of philanthropy, including widespread acceptance of an obligation to give (in so far as one is able) to the college or university from which one graduated or which one otherwise believes to be creating real social value;
3. well maintained records on the names and addresses (and if possible, the "giving potential") of alumni and potential "friends"--which requires staff and other institutional expenditures; and
4. favorable tax treatment of the donations--ideally with the amount of the donation deducted from otherwise taxable income, thus reducing the real sacrifice to the donor and effectively shifting some of the "cost" of the donation to the government via its foregone tax revenue. (This, of course, presumes a workable income tax system, and substantial voluntary tax compliance on the part of the potential donors.)

These are substantial limitations. A handful of institutions, generally "elite" universities, may get lucky and find a wealthy alumnus or "friend" who is willing to give a very large donation, maybe even enough to begin an endowment. But most colleges and universities will have to spend a good deal of time and money simply to begin the necessary first steps of reconstructing past alumni records, cultivating their alumni and potential "friends" (that is, making them proud of "their university"), and getting them used to the idea that an annual donations or a large bequest in their will is an appropriate expectation.

There are, of course, corporations and foundations capable of making donations. However, there are not enough to reach more than a small number of (probably elite) universities. More seriously, corporations and foundations generally want to fund something specific that neither the institution nor the faculty are likely to be able to do, or wish to do, in the absence of their contribution. They generally do not wish to give unrestricted revenue, to be used at the discretion of the governing board or institutional leadership—which is exactly what the institution needs in order to fill the gap left by declining governmental revenues. In fact, it is not uncommon for the acceptance of a restricted gift to actually *cost the institution money* (in the sense of constituting another drain on otherwise unrestricted revenues) in spite of the advantages and *new* benefits that the gift may make possible.

In short, philanthropy, or a reliance on donors, is a potentially important source of non-governmental, or *third stream*, revenue. However, its ability to make up for serious shortfalls in governmental revenue, particularly in the short term, and in the absence of the conditions noted above, will be unevenly distributed and limited. It will generally make the already affluent and successful more so. It can make a difference in a few instances between mere institutional survival and real excellence. It can enable change. And it needs to be vigorously pursued. But absent a combination of wealthy friends and alumni, a culture of giving, and the favorable tax treatment of philanthropy, it will not effectively make up for the widespread diminution of governmental revenue to higher education.

Conclusion

Austerity is endemic to higher education as the natural trajectory of higher education costs over time outpaces the likely trajectory of available revenue. While this general condition applies for high- and low-income countries alike, it is especially the case in countries experiencing heavy enrollment pressures from high birthrates and low current tertiary participation rates--conditions found particularly in the low-income, less-industrialized world. Austerity is further exacerbated where the per-capita gross domestic product is low to begin with and where the ability of government to tax or to borrow is also low. For all of these reasons, the financial viability of higher education, including both the viability of individual institutions, and also the ability of the system as a whole to accommodate legitimate enrollment pressures and to maintain accessibility, depends in large part on the ability of higher education to diversify its revenue base—specifically, to lessen its dependence on the government. This situation explains the worldwide trend toward cost sharing and other forms of revenue diversification.

This paper has stressed limitations on revenue diversification. This has not meant to diminish the importance of cost-sharing, faculty and institutional entrepreneurship, and the cultivation of donors. But these measures, while absolutely essential, are also complex, technically complicated, and frequently accompanied by unintended (and sometimes undesirable) consequences. Higher education needs the continued and dependable support of public revenue. Revenue diversification must not be thought of as a replacement for governmental, or taxpayer, support, but as an *essential and theoretical appropriate, if limited, supplement*. Some institutions and some students will stand to gain more from cost-sharing and revenue diversification than others. And some students and parents, compared to students and parents in the past, when public revenue seemed abundant and higher education was "free" (at least for the fortunate few), will legitimately observe that they are having to pay for a highly valued service that their parents may have obtained from the general taxpayer . But the times are indeed different, and the totally "free" higher education is simply not likely to be seen in countries trying to solve all of the other public problems of the early 21st century, and attempting also to accommodate one-half or more of their youth in tertiary education.

So the message of this paper is to continue seeking ways to expand non-governmental revenue to higher education--but to remember as well the limitations, complexities, and unintended consequences of revenue diversification, and to maintain higher education as a priority, requiring a continued commitment of public attention and public tax revenues.

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