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The Big Curve: Trends in University Fees and Financing in the EU and US*

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ABSTRACT

Globally, fees and tuition are growing as an important source of income for most universities, with potentially significant influence on the market for students and the behavior of institutions. Thus far, however, there is no single source on the fee rates of comparative research universities, nor information on how these funds are being used by institutions. Furthermore, research on tuition pricing has also focused largely on bachelor's degree programs, and not on the rapid changes in tuition and fees for professional degrees. This paper offers a brief scan of pricing trends among a sample group of 24 public and private research universities in the US, all with a wide array of graduate and professional programs, and a small sample group of EU universities. We trace a pattern of convergence not only between US public and private institutions, but also find indications that these trends occur among EU universities. We theorize that pricing among major research universities is increasingly influenced by levels of market tolerance, and a convergence in pricing driven in part by the perception that price confers quality and a corresponding level of prestige to consumers. This study focuses on pricing, and hence does not delve into the complex moderating effects of bursaries and student costs such as room and board. The recent implosion in credit markets may seriously shake this emerging pricing model, in large part because it is increasingly dependent on students taking out sizable loans. But it is our sense that the long-term trends in pricing, including some level of convergence, will continue as institutions that are globally competitive look over their shoulder at what their perceived peer (or near peer) institutions are charging for specific degrees and programs. This in turn will influence the entire higher education market.

"The debate on social and private returns from higher education has highlighted its role as an investment benefiting both the individual (through higher income and status) and society as a whole (through higher employment rates, lower social costs and later retirement). It has been shown that free higher education does not by itself suffice to guarantee equal access and maximum enrolments. This casts the much-debated issue of tuition fees in a fresh perspective. In the consultation, those universities arguing for higher fees suggested that a major benefit would be higher quality education. Some analysts also point out that tuition fees could in practice provide better access for students from lower income groups if the incremental funds were recycled into a sound student aid system. Given the differences between national systems, there can be no uniform response to this issue: each Member State needs to choose the approach best suited to its circumstances."

EU Commission on *Mobilising the Brainpower of Europe: Enabling Universities to Make Their Full Contribution to the Lisbon Strategy*, 2005¹

The "fresh perspective" on the desirability of tuition fees in the above passage reflects a global trend and cultural shift of significant proportions. Increasingly, national systems of higher education and their postsecondary institutions are adopting or increasing fees and tuition as a key funding source. The reasons for this trend are multiple. For publicly

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funded institutions, still the dominant provider of tertiary education throughout the world, the unit costs related to expanding enrollment and service, the generally rising costs related to academic research, and the costs of funding highly paid professional labor, create the need for a large capital base. At the same time, there is increasing competition for public funds.

These factors are helping to create a new public university paradigm that includes four basic assumptions.

- One, at current tax levels, governments can no longer afford to be the primary or nearly sole source of revenue for public higher education, and market-related solutions to funding seem inevitable.
- Two, fee income will need to be an increasingly large component of the funding of higher education to replace declining government/taxpayer subsidization.
- Three, the expanded responsibility of private/individual funding of public higher education assumes that there are both private and social benefits of higher education.
- And four, more robust need-based financial aid programs and tax policies will mitigate economic barriers to college or university education and avoid the current transfer of benefits from low to high income families created by universal low tuition.

In the following, we explore the tuition pricing trends among a select group of US public and private research universities, and a smaller sample of EU research universities – all with major and highly marketable graduate and professional school programs. In light of the dearth of analysis on the emerging curve toward fee income among public institutions, we see this as an initial set of data and observations that builds on a previous study and article and with the primary focus on pricing, rather than highly complex bursary systems and the net cost to students. A focus on pricing provides a window into why and how universities are approaching financing, their market perception, and the political constraints faced by public institutions.²

Framing our discussion of pricing trends is a form of convergence among countries and their public universities in pricing, despite long political and cultural opposition. Increasingly, research universities throughout the world, and at different paces:

- Seek a greater *Diversity of Funding Sources*, rather than simply relying on government to provide the vast majority of funds, as seen in the initial era of building most higher education systems. This is already widely understood as a major new development vital for most higher education institutions – and in particular for research universities.
- Pursue a *Moderate Fee and High Financial Aid Model*, with the fundamental concept that tuition and various fees form a means for generating new resources for universities, and for facilitating income redistribution in support of lower-income students and others from disadvantaged backgrounds. Most institutions now charge students and their families, with these fees representing between 10 to 30 percent (or higher) of an institution's total revenue. Discussion and analysis of the introduction or expansion of fees is usually accompanied by an appreciation of their potential use to substantially defray costs for underprivileged students and other targeted populations.³

Sample Group of Universities Tuition and Fee Trends

US Public

Michigan State
Ohio State
Pennsylvania State
SUNY at Albany
University of Texas - Austin
University of Alabama
University of California - Berkeley
University of Illinois
University of Michigan
University of Minnesota
University of Missouri - Columbia
University of Wisconsin - Madison
University of Virginia

US Private

Cornell-Endowed
Baylor University
Brown University
Harvard University
MIT
New York University
Stanford University
University of Chicago
University of Pennsylvania
University of Southern California
Yale University

EU Universities

Oxford University
Cambridge University
University College London
University of Edinburgh
University of Amsterdam
Universiteit Leuven

There are exceptions: some nation-states may keep the older paradigm of a university education being a form of entitlement, subsidized primarily by the state. But these nations will increasingly need to rationalize and reevaluate their policies in the wake of global trends and limitations on government financing of higher education.

The recent implosion in credit markets may seriously shake this emerging pricing model, in large part because it is increasingly dependent on students taking out sizable loans. But it is our sense that the long-term trends in pricing, including some level of convergence, will continue as institutions that are globally competitive look over their shoulder at what their perceived peer (or near peer) institutions are charging for specific degrees and programs. This in turn will influence the entire higher education market.

A. Pricing and Objectives – A Few New Rules to the Game

The recent changes in tuition rates reflect a substantial change in the traditional understanding of how tuition fees relate to the overall objectives of universities and their many academic programs. The theoretical model often expressed in some form by public and private nonprofit universities that have been chartered or officially recognized by national and regional governments, and that receive substantial public funds, implies that tuition fees are or should be directly related to university costs. Under this model, fees and tuition contribute to the operating and capital costs of teaching, research, and community service programs. There is not only a link with the enrollment capacity and quality of programs benefiting from various funding sources, but also an assumption of a general balance between revenue and costs.

If revenue exceeds costs, there is the expectation that the excess funds will either be used in succeeding years to balance budgets or to pay for academic program expansion related to the social contract of institutions (such as expanding enrollment capacity or research capabilities related to socioeconomic needs or institutional quality), or the funds might be used to lower costs to constituents (for example, student tuition rates or government expected rates of funding). This model defines a distinctly nonprofit venture.

Among the realities that presently tear at this model of public purpose and accountability are the following factors:

- **Bowen's Rule** - All universities, and in particular major institutions with or seeking elite status, will use any and all funds they receive for the pursuit of perceived excellence and improvement. Research universities operate in a real and self-conceived environment of high competition – for undergraduate and graduate students, faculty, post-doctoral students, for high-level administrative staff (although this is often seen as a less decisive factor); in the domain of research expertise and productivity, and more generally for influence on society, on the economy, and the political sphere.

In one of the first systematic looks at the financing of higher education, economist Howard Bowen outlined this basic tenet of the academic enterprise: essentially, there is never enough money to seek sufficient prestige and simultaneously to fulfill the varied objective and subjective roles of universities.⁴

- **Financial Insecurity Rule** – All public and private institutions face a fundamental degree of uncertainty about their total funding for coming fiscal years, which influences their behavior in setting tuition and fee rates. In the public sector this is a more recent phenomenon with the overall decline in the willingness of governments to fund higher education via previously fairly stable systematic methods – usually related to enrollment workload or some form of basic funding covering most operating costs.

As governments have adopted more market-driven approaches to funding of some government services while simultaneously facing rising costs for entitlement programs (e.g., pensions, health care) and a general reluctance to raise revenue (deemed anti-market in the US), the uncertainty facing public universities has grown considerably. Government, and university leaders, assume that the old funding paradigm is dead and that the answer is for universities to seek a more diverse portfolio of revenue sources. Tuition and fees have emerged as the largest single and marginally acceptable stopgap measure. The volatility of the funding picture, combined

with political constraints on setting tuition levels for in-state students (or in the case of Europe EU members), and significant concern and lack of knowledge about the possible impact on middle and lower-income student access, make the setting of tuition rates a complex political activity.

Where possible, public universities seek to maximize tuition increases – because of budgetary uncertainty, and because of Bowen's Rule - while governments tend to want to minimize rate increases because of their fear of political retribution by voters and interest groups who still largely see public higher education as an entitlement, and perhaps to a lesser extent, because of real concern over access rates.

Private universities in the US face a similar set of uncertainties, but with far fewer constraints. For one, they operate as separate corporate entities and they set their price independently (thus far) without political constraint or need for government sanction. They are in competition with public research universities for student tuition income and for federal and privately funded research grants (a large source of operating expenses for both public and privates). But they also have no need or compulsion to grow and meet enrollment demand by society and, generally, have a highly valued market position that allows them to charge higher tuition rates. In the US, population growth and increasing overall demand for higher education means that high- and medium-prestige privates are finding increased demand for their limited enrollment capacity. Scarcity leads to the ability and desire to increase overall tuition rates – indeed at a rate higher than available for publics, according to the data we present in this paper.

- **Pricing Equals Prestige Rule** – Net pricing (ignoring for now scholarship and grant off-sets) is increasingly being influenced by what institutions and consumers see as its correlation with quality and prestige – often irrespective to its actual link. (This was one of the major findings of the previous Ward and Douglass study.) At the undergraduate level, selective privates have long disassociated the cost of actually enrolling a student with tuition rates and have engaged in a regular increase in these rates well beyond inflation and, most importantly, these privates have increased tuition in unison. There is very little variance in the tuition rates, including the cost of room and board, among private research universities and their private liberal arts counterparts.

One reason for this is that any setting of fees well below a group of real or perceived peers translates to lower quality *and* prestige to the respective institutions and consumers (students and their families) – a basic market phenomenon in many consumer products whether they be soap or cars. Another related reason: it means an unnecessary loss of revenue in a market that continues to experience rising demand. While the private university sector in the US has long been subject to this phenomenon, the relatively new tuition framework of the Labour government in England and the reaction of higher education institutions again demonstrate this basic market impulse. In 2006, British universities were allowed to raise their tuition rates from £1,000 *up to* £3,000 – a range that was supposed to encourage market pricing that depended on the student constituency, cost and quality of programs, and prestige. But instead of implementing a range of pricing, virtually all institutions set their tuition rate at the maximum allowed under government policy.

This “Pricing Equals Prestige” factor is now the major influence shaping pricing for graduate programs and, in particular, professional degree programs in both public and private institutions. Where there once was a general pricing scheme for undergraduates as well as graduates (circa 1960s), there now is a growing array of pricing schemes that depend not only on the program, but also on a relatively new desegregation of student clients – as more fully described below – and with an eye toward the pricing by real or perceived higher education competitors.

- **Student Client Differential Rule** – While the pricing of programs in such fields as business and law appear increasingly related to “market price” and/or to “market value” than to institutional costs, another factor influencing public universities is the relatively new concept of differential pricing for students depending on their residency – or more exactly, depending on whether they are a *protected or non-protected* client.

In the US, the states continue to be the key determinant of fees at public universities. They chartered all public higher education institutions, remain their single largest source of funding, and generally retain legal control or significant influence over tuition rates. There has been long been an understanding that public universities are to provide access primarily to state residents, and specifically students who are state taxpayers.⁵ Public funds thus are intended to subsidize the educational costs for students from the state, placing a constraint on tuition rates charged to these *protected* students. Consequently, out-of-state students are deemed non-protected and tuition rates are to approximate the actual cost of educating the student – a difficult cost to determine as universities engage in such a wide variety of activities and cross-subsidization via different funding sources.

The net effect is that public universities in the US have been given sanction by governments to set out-of-state fees for undergraduates on a relatively independent basis, in ways that are increasingly shaped by the market price of perceived competitors in other states. The primary reason governments have allowed this to occur is the general consensus for the need to enhance institutional revenues.

As part of the commitment to establish a European Higher Education Area (a goal of both the Bologna Declaration and the Lisbon Agreement), most, but not all, EU member nations differentiate pricing for EU and non-EU students – in particular, a number of the Nordic countries. According to EU law, member states can no longer charge differential fees for domestic and foreign students, if these are also members of the EU (a *protected* constituency). But non-EU members may pay a much higher rate, again largely set independently by institutions according to perceived market price. Continental European universities are beginning to follow a pattern established by the United Kingdom, which has charged international students higher fees since the early 1980s (UK Education Fees and Awards Regulations 1983).

Hence, pricing for in-state students in the US, or for EU members in the UK⁶, is subject to different constraints and political considerations than for out-of-state and non-EU members. The non-protected cohort is largely deemed as part of a larger world market of students, and pricing between public and private institutions, particularly in high-demand programs like in business administration, in medicine, in law, and in engineering, are subject to the “Price Equals Prestige” rule.

Further, and perhaps as a harbinger for other programs, many US and some EU major public research universities have successfully asserted that their MBA programs are part of a world market and that there should be little or no distinction between protected and non-protected clients. Gaining the authority from governments or governing bodies for this authority rests on now familiar rationales: one, the private benefits to students (on average), in the form of subsequent high average salaries for graduates; and two, that the costs for running programs, primarily in the form of higher faculty salaries to attract and retain top talent from the more lucrative private sector, require greater revenues.

Differential rates have another and relatively new wrinkle: While some countries cling to a ‘no tuition’ policy, an increasing number of countries are charging tuition fees at some level. Some are experimenting with deferred tuition fees (including Australia, Scotland, New Zealand, Ethiopia, England and Wales), many others (in 2007 including Australia, Egypt, Ethiopia, Hungary, Kenya, Poland, Romania, Russia, Tanzania, Uganda, and Vietnam) also offer “dual-track” tuition fees.⁷ This last innovation includes offering a designated quota of students free tuition, based on criteria such as high entrance exam scores, and then offering the remaining enrollment spots at a designated nationally-set tuition rate.

- **Privatization (Program Desegregation) Rule** – Differential fee structures for programs within a university, and now also within programs themselves, are contributing to significantly new dynamics for setting tuition rates. Both private and public institutions are undergoing an erosion in the concept of single tuition rates and broad revenue sharing, shifting to an organizational structure in which a set of primarily professional schools desire to both independently raise tuition to perceived market prestige prices, *and* attempt to claim all or most additional resources as their own.

- **Disassociation of Price and Institutional Cost Rule** - The net effect of all of these trends is a significant and growing disassociation between pricing and the actual costs of an educational program, a movement led by the US privates, but now being mimicked throughout the public sector in the US, and now increasingly within the EU and other nations. Very new pricing schemes introduced at Harvard and Stanford and a few other selective privates, have, for the first time, set “progressive” pricing schemes that offer significant price discounts for students with family incomes of \$60,000 or less, and with a lesser but still substantial discount for those under \$120,000. Thus far, only eight elite privates have created progressive pricing schemes (Columbia, Harvard, Stanford, Yale, the University of Pennsylvania, Brown, MIT, and Duke) in addition to two selective publics (North Carolina and Virginia, with free tuition for students with family incomes below \$40,000 – the current federally designated poverty level).

The goal is to encourage more low-income *and* middle-class students to attend college by softening the financial blow of rising prices — costs that have caused Congress to launch investigations into the financing of what are often very wealthy institutions with large endowments. Essentially, this is a recognition by private elite institutions that they have very few low-income students and that, despite the claim of significant resources made available via bursaries for students once they enroll, pricing does influence the sense of affordability and ultimately access for students. In fact, most selective privates have only about 10% or less of their students from low-income families, and there is a downward trend among Ivy League institutions. A similar trend exists among many, but not all, major public universities.⁸ The University of California, for example, has around 30% of its undergraduate students with Pell Grants (a widely used indicator of low income status), and the Berkeley campus alone enrolls more Pell Grant students than all the eight Ivy League institutions combined.⁹

Nearly unaffordable pricing for middle-class students may increasingly lower their access rates, and lead to a political backlash. Private universities, as well as public institutions, are heavily reliant on largely federally funded financial aid, thereby providing an indirect subsidization of the privates.

Such progressive pricing schemes may well be a good policy response for both private and public universities, by essentially recognizing that pricing should relate to a student's ability to pay, and not simply relying on often complicated financial aid grants and loan packages which are, arguably, difficult to navigate for all potential students and their families, but in particular for lower-income groups. But this trend also means that pricing, and ultimately tuition and fee income, is not pegged to costs for educating a student - fee income is simply one source among many that funds the overall operation of a university.

Most of these trends can be seen in the US and in an increasing number of EU countries; but they also are an expanding and perhaps permanent component in most other nascent and growing higher education systems.¹⁰ The following provides a brief analysis of market changes and trends, again based on a sample group of major public and private research universities in the US, and a small sample group of EU institutions, that reflect the diversity of approaches – from a single tuition price for all programs, to a growing array of differential tuition rates.

B. Gauging the Change in US Market Price: 2003-2007

National and supranational governments and agencies (such as the US Department of Education and the OECD) collect and report data on undergraduate tuition in fees in aggregate form, mixing institutional sectors and with no information on the rapidly changing variable tuition and fee rate for graduate and professional programs. In the previous study (Ward and Douglass), the authors focused on a specific higher education market in 2003-04: a group of 24 (13 public and 11 private) comprehensive and generally high prestige research universities in the United States, which included both undergraduate and graduate program tuition rates.¹¹ These institutions are influencing the market price. At that time, we chronicled only the in-state rate for public universities.

Among the findings of that previous study was a still significant difference between public and private tuition pricing for undergraduate (UG) and major graduate and professional degree programs. On average, the differential at the UG level was \$22,280 and slightly less at the graduate level. The differential within most major professional programs

was smaller: dentistry at the high end at just over \$25,000, pharmacy at \$18,000, MBA programs at \$17,480, and law at just over \$15,000. An important variable is that public universities tend to offer a greater variety of professional programs with the specific purpose of meeting societal needs, in fields such as nursing, veterinary medicine, and optometry (no private institution in the sample group offered optometry). Often these are relatively high-cost programs that privates avoid – in part, because publics fulfill the market, but also because privates tend to have fewer academic degree programs and are wary of high costs and perceived low-prestige professional fields and programs. Figure 1 provides a summary of the differential pricing (See appendix A and B for data).

Figure 1 – Public In-State and Private Research University Tuition Rates (Sample Group): 2003-04

	UG	Graduate	Dentistry	Medicine	Optometry	Pharmacy	Veterinary Medicine	Law	MBA	Master's Nursing	Theater & Film
Public In-State Sample Average	\$5,914	\$7,086	\$17,462	\$20,542	\$11,865	\$11,347	\$14,537	\$16,629	\$14,876	\$4,945	\$7,666
Private Sample Average	\$28,191	\$28,107	\$42,708	\$31,779	\$0	\$29,420	\$23,153	\$31,765	\$32,058	\$22,425	\$29,611
Public/Private Differential 2003	\$22,278	\$21,021	\$25,247	\$11,238	-	\$18,073	\$8,616	\$15,136	\$17,182	\$17,480	\$21,944

Source: IPEDS

One of the conclusions of the previous study was an assumption of near convergence over time of public and private fees at the graduate and professional level. “The privatization movement,” it was noted, “and the relatively new market thrust of public universities means that the differential fees between public and private institutions, and at the undergraduate and graduate and professional levels, will likely decrease in coming decades. The push by institutions to increase revenue via tuition will be significant.” Yet our comparison of the 2003-04 pricing of the sample group with 2007-08 tuition rates provides a more nuanced outcome. Tuition and fee data was collected via the Integrated Postsecondary Education Data System (IPEDS) and by consulting institutional postings of fees and programs.

Within the public universities, in-state tuition and fees rose on average \$2,208 between 2003 and 2007, a 37 percent increase. Penn State and the University of Texas–Austin had the largest increases (see Figure 2). The average in-state price among our sample public universities was \$8,122 – about \$2,000 more than the national average for all four-year public universities in the US.¹² Similarly, graduate programs (non-professional) rose by an average of \$2,281, a 32 percent increase (see Figure 2). At the undergraduate and graduate level (including arts and humanities, social sciences, and science and engineering) differential fees have yet to emerge – although there are some marginal differences charged at institutions such as the University of Michigan’s flagship Ann Arbor campus.

Figure 2 - UG Public University In-State Student Tuition by Campus 2003-04 and 2007-08 Rates

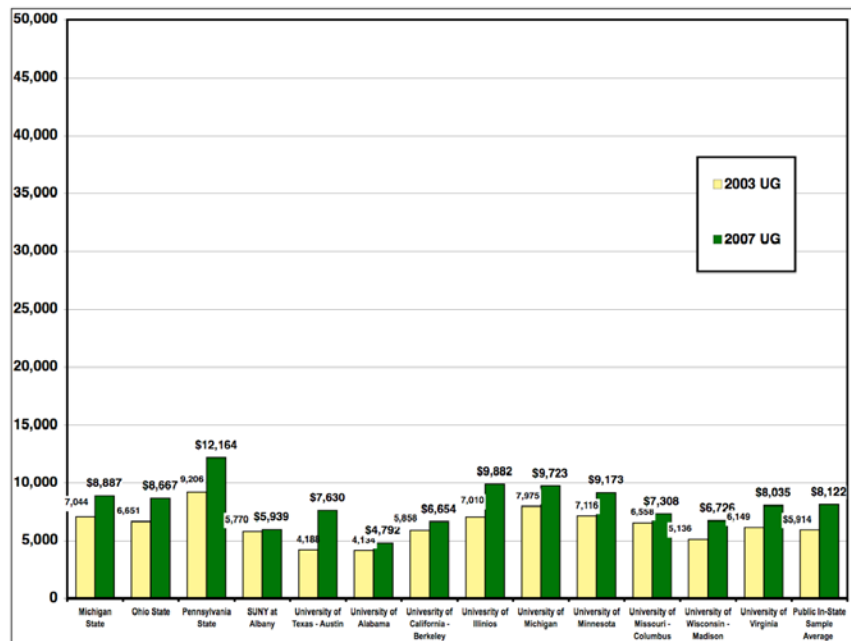
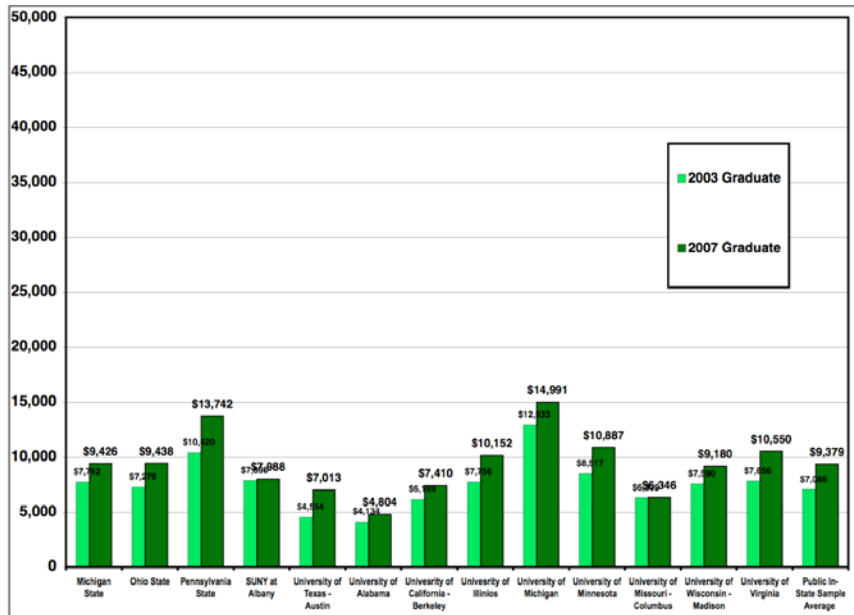


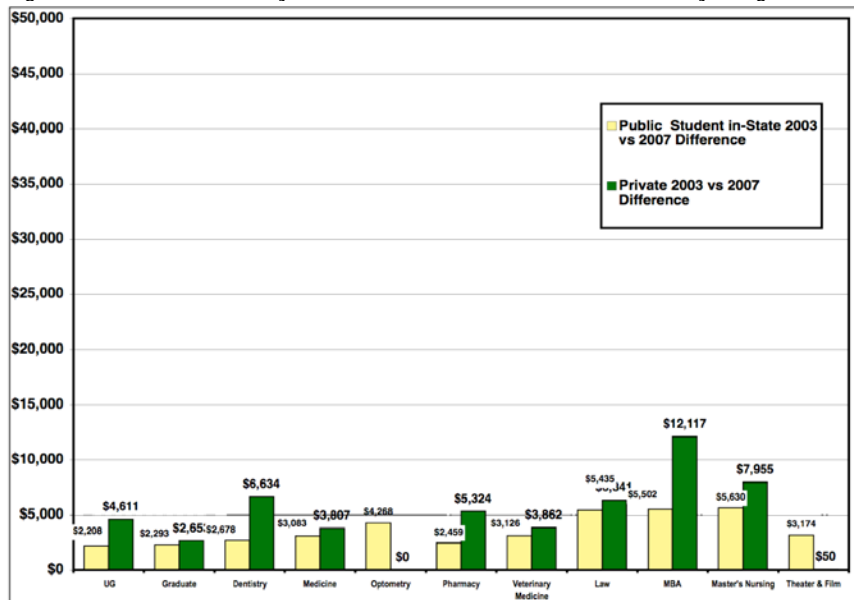
Figure 3 - Graduate School Public University In-State Student Tuition by Campus 2003 and 2007 Rates



When comparing public in-state pricing with privates over the five-year period, the total dollar increase was higher for privates in most programs. As shown in Figure 4, at the undergraduate level, the sample group of private institutions rose by a total of just over \$4,600; at the graduate level by \$2,650. The largest increases, however, occurred in dentistry, pharmacy, nursing (only three privates in the sample group offer nursing programs), and most spectacularly in MBA programs, with a jump of just over \$12,100.

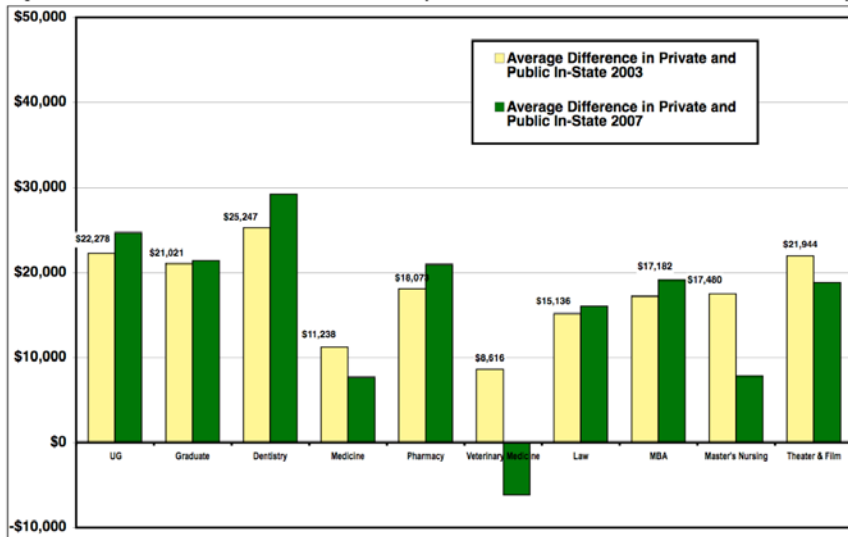
Public universities also rose in all of these professional programs but at much smaller total increases. The largest increases were in nursing, followed by the MBA, law, and optometry (none of the private sample groups offer optometry programs). Theater and film programs held largely flat in pricing among the privates, which were, at an average of nearly \$22,000, already highly priced programs — there is also more variability in the degree programs among both publics and privates that makes comparison more difficult.

Figure 4 - Public University In-State Student and Private Tuition by Program: Total Increase in 2003 and 2007 Rates



The net effect among most academic programs is that the difference in the price charged by publics for in-state students and those charged by privates has grown, and not converged (see Figure 5). At the UG level and marginally within graduate programs in dentistry, pharmacy, law, and the MBA, the difference grew. In medicine and nursing it declined, however. Veterinary programs provide the exception to the rule: privates actually declined in their price differential. There are very few veterinary schools in the US and within our sample only two privates (the University of Pennsylvania and Cornell, a quasi-public private) offer the program at a lower tuition rate than the six publics (Michigan State, Ohio State, the University of Illinois, Minnesota, Missouri, and Wisconsin).

Figure 5 – Difference in Public University In-State Student and Private Tuition by Program: 2003 and 2007 Rates



C. Relatively New Pricing Markets in the US

An even more illuminating variable in the curve toward higher pricing is out-of-state tuition pricing by public universities where political restraints are far fewer, and where the “Pricing Equals Prestige” and other rules of the game are more at play. Thirty years ago, most public universities in the US had relatively similar and relatively low tuition and fee pricing for all degree programs, undergraduate, graduate, and professional. Public universities also generally charged either the same or nearly the same tuition rate for out-of-state and international students. This has all changed over the past decade or more. State governments have given greater freedom to institutions to increase fees, particularly for out-of-state students and in professional fields in which operating costs are relatively high and that promise, on average, high rates of personal return.

Figure 6 – Difference in Public University In-State Student and Market/Out-of-State Tuition by Program: 2007 Rates

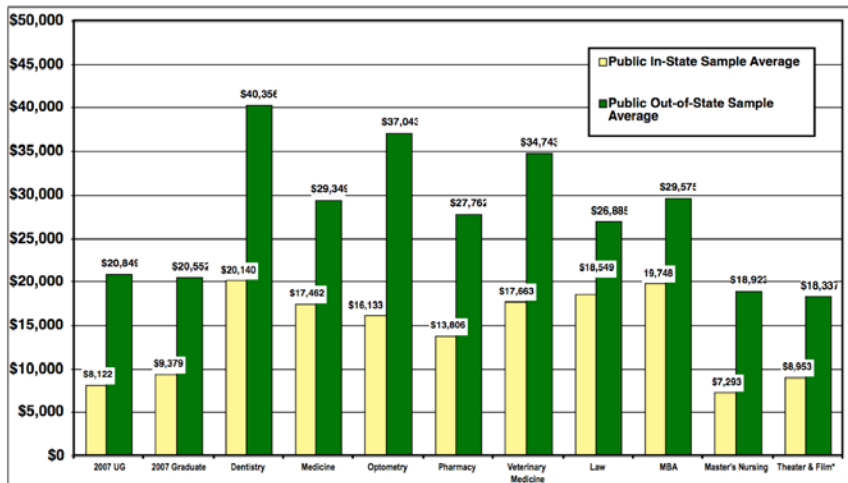


Figure 6 provides a glimpse of the two-tier tuition rates among the sample group of public research universities for 2007-08. The ethos professed by universities is that out-of-state pricing is based on an assessment of the actual cost to educate a student in their chosen program; but, as discussed, pricing probably has more to do with a sense of what the market will bear – informed, in part, by what private counterparts are charging.

The differential pricing structure between the privates and the publics does contrast to some extent. Out-of-state (non-protected) students in the publics generally face an up-front price of a quarter less than if they enrolled in a private counterpart – at least at the undergraduate and graduate level, in law and theater/film. In dentistry, medicine, and pharmacy that public rate is closer to the private price. Veterinary medicine remains the anomaly.

Figure 7 – Private, Public University In-State Student and Market/Out-of-State Tuition by Program: 2007 Rates

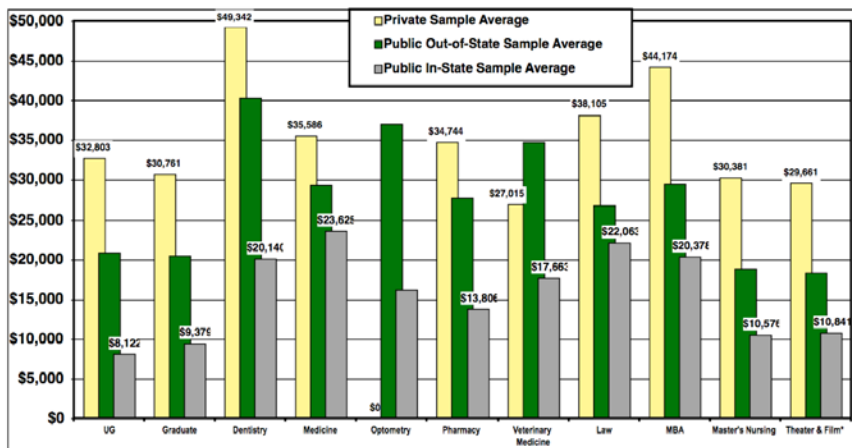
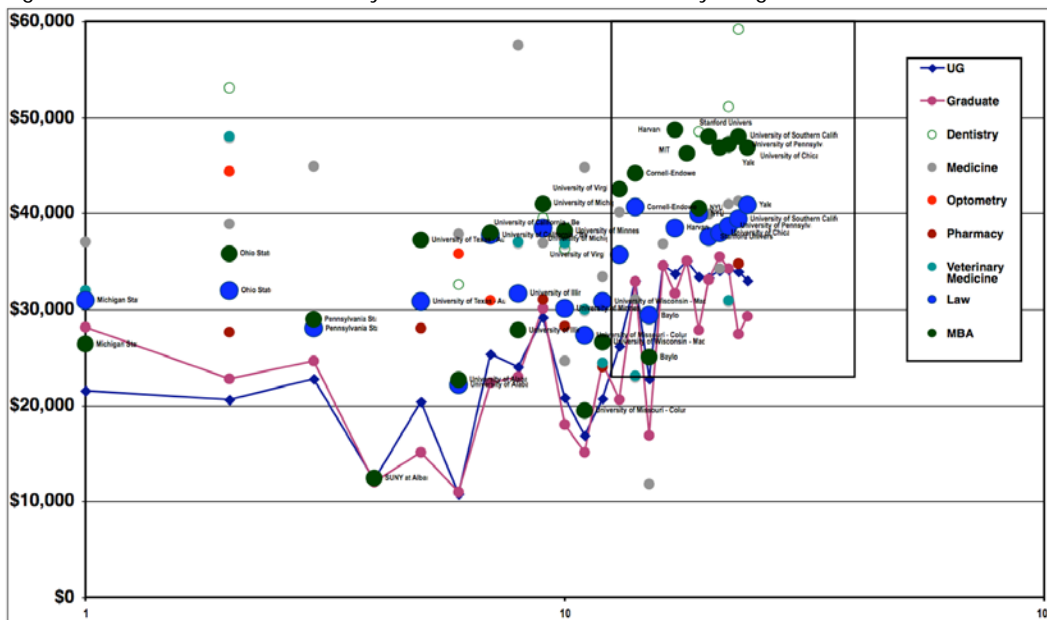


Figure 8 provides the same out-of-state and private university data in a different logarithmic pattern and identifies clusters of university pricing. Some institutions have clustered pricing for most of their professional programs and are consistently at either the high or low end of the spectrum, including most of the privates, and public institutions such as Michigan and Virginia. These public institutions have the most significant interest in privatization and see their competitors largely as the private elites. Other publics have more scattered pricing, such as Ohio State.

Figure 8 – Private, Public University Market/Out-of-State Tuition by Program: 2007 Rates



D. The Emergence of a Price Market in the EU

The US is not the only country moving toward differential pricing for designated groups of students and programs. Some three decades ago, most nations in Europe had a singular national approach to tuition: either no direct fees for enrolling in a publicly funded university (by far the dominant provider of higher education), or rather modest fees that were the same for all students and all programs. Many countries did not have policies that encouraged international students, other than those students who came from former colonies or who otherwise held some form of favored status. The general concept of charging tuition in any meaningful amount was seen as an infringement on citizenship, and discussion by lawmakers about generating additional income for rapidly growing tertiary institutions was generally seen as a form of political suicide.

A cursory recent sample of a small number of EU institutions provides a window into contrasting approaches to pricing. Institutions in the UK, led by the Russell group of leading research universities, have been the most aggressive at differential pricing. Following the reintroduction of tuition in 1998 (previously, in the 1950s and earlier, Oxbridge charged tuition), certain limits remained on fees charged for the bachelor's degree – at first the £1,000 required fee, then *up to* £3,000 in 2006 and inflation-adjusted after that (now £3,415).

Oxford, Cambridge, along with the London Business School and a number of other European universities such as the University of Amsterdam, were allowed by lawmakers to charge a higher fee for the MBA. Advocates for MBA programs, a relatively recent import from America, successfully argued for its status as a distinct degree program with a global, or at least European, market. The introduction of global market rate fees was a vital component in the 1996 establishment of the new Said Business School at Oxford – it would not have gained the already reluctant approval of Oxford's academic leadership without the promise of fiscal independence. Oxford, like Cambridge's Judge Business School established five years earlier, originally sought to charge a differential fee for non-UK students, later making no differentiation and now charging among the highest fees in the world for the MBA.

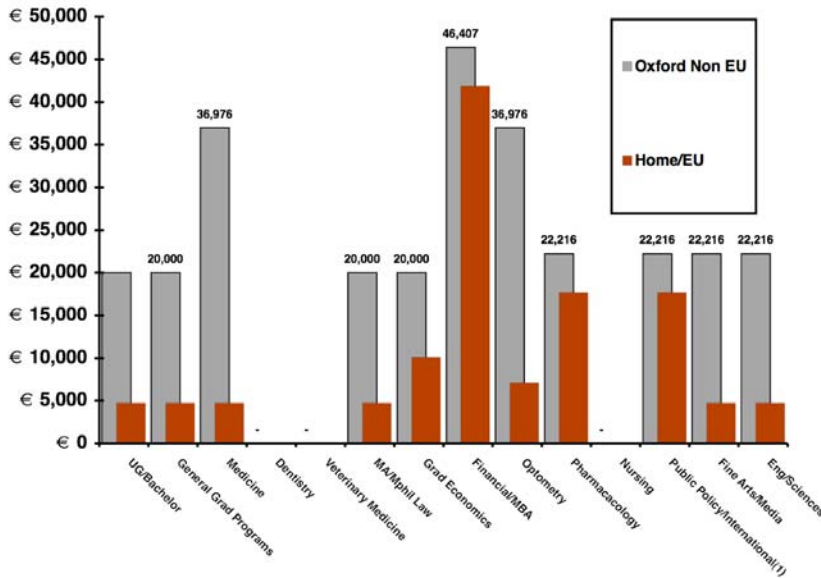
Political acceptance of MBA programs as an exception to the rule throughout much of Europe, along with increasing acceptance of tuition as a legitimate income source for public universities, provided an opportunity for other differential fees for professional programs. Heightened mobility within the EU, and the increased emphasis on attracting talent from throughout the world, are factors encouraging increased coordination, harmonization (and even possible standardization) among European higher education systems. While the Bologna Declaration makes no mention of fees, the development of the European Higher Education Area, and more generally the expanding role of universities in the European Union, has led to a broadening discussion of the possible role of tuition and fees for resource-deprived universities. One European Commission report in 2005 (quoted in the opening of this chapter) noted two general reasons why tuition might be embraced by member nations. For one, "It has been shown that free higher education does not by itself suffice to guarantee equal access and maximum enrolments." It was also argued that university fees would not only improve the quality of education offered by universities, but it might "provide better access for students from lower income groups if the incremental funds were recycled into a sound student aid system."¹³

An important legal decision at the European level helped to frame the development of differential fees analogous to the differentiation of in-state (protected) and out-of-state (non-protected) students in the US. In 1985, and in reaction to a suit from a French student charging discrimination for differential fees charged in Belgium for a program in art, the European Court of Justice ruled in the *Gravier Case* that no EU nation could charge differential fees to legal residents of other EU member states. Whatever fees were charged to UK citizens living in Britain were the maximum that could be charged to any and all EU residents as well; to do otherwise would be a violation of Article 12 of the European Union's principle of the free movement of labour between EU member states.¹⁴

In a 2006 scan of tuition and fee structures, Oxford University had the most elaborate differential pricing scheme – indeed, much more complex than that of any American research university. Figure 9 provides a sample of fourteen different degree programs and their differential pricing in Euros at Oxford in fall 2006.¹⁵ Cambridge offered a much

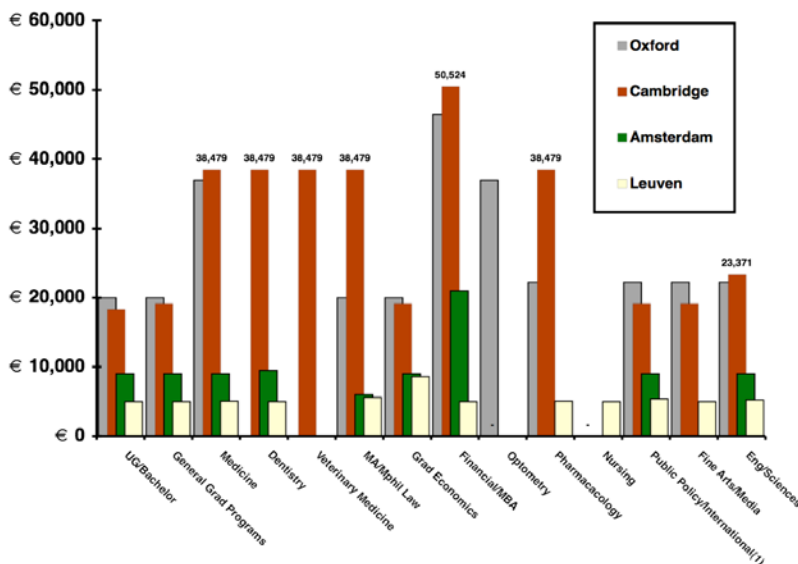
more simple pricing scheme, built around “bands” of programs: for example, medicine, dentistry, pharmacology, and law all at the same price for non-EU members.

Figure 9 – Oxford Non-EU and Home Sample Tuition Rates: Bachelor, Graduate, and Professional School 2006



On the other end of the pricing spectrum is the Universiteit Leuven (Flemish-speaking community of Belgium). Amsterdam shows more variance, providing an example of an institution in transition, essentially in between the high cost of the UK institutions and the more moderately priced Leuven. Figure 10 provides pricing among four institutions as a sample of variance: Oxford, Cambridge, Amsterdam, and Leuven. A large proportion of European universities retain either no-fee policies, or charge a standard university fee for all students. Yet all regions of Europe (with perhaps the exception of Scandinavia) show indications of moving toward tuition and differential fees, and have begun to introduce higher fees for international (non-EU) students.

Figure 10 - Non-EU Member Sample Tuition Rates: UG, Graduate and Professional School 2006



E. Patterns of Convergence

It has been generally understood that US higher education institutions, led by the privates, have created the trend for setting high prices (again, ignoring for now the complexity of bursaries and costs for room and board) for professional and academic degree programs. Private, prestige programs such as a Harvard MBA have a published price that is perhaps tangentially related to operational costs, and have everything to do with markets. Now we see that this model, based in part on the resource needs of major research universities, and in part on markets and the “Price Equals Prestige” rule, is growing rapidly globally.

Figure 11 - US Private, Public Out-of-State, and Non-EU Sample Tuition Rates: Law, MBA/Finance, and Medicine

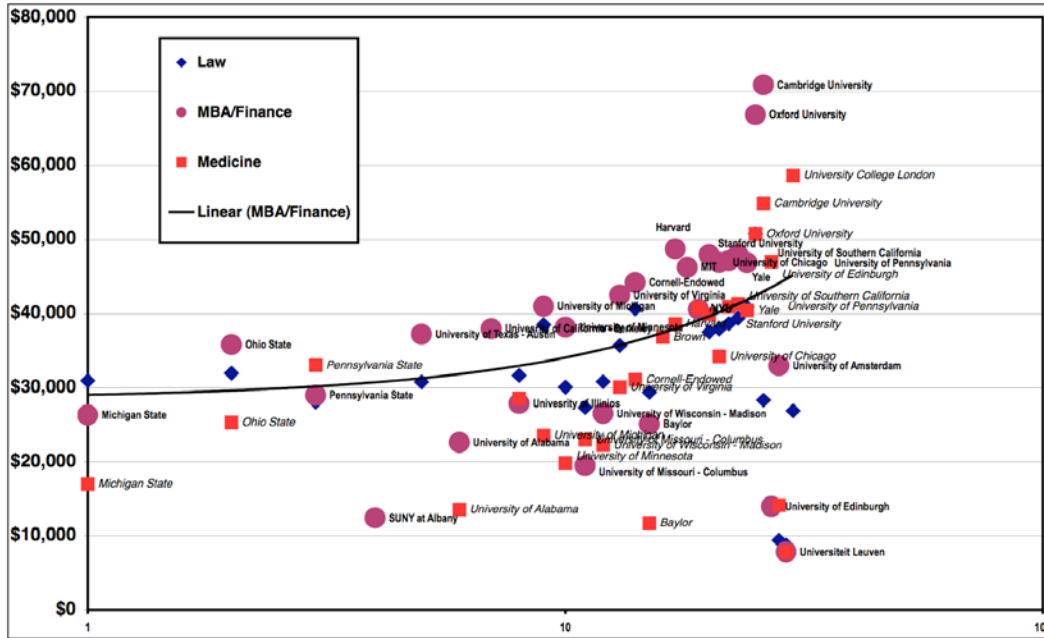


Figure 12 - US Public In-State and EU Member Sample Tuition Rates: UG, Graduate, Law, MBA/Finance, and Medicine

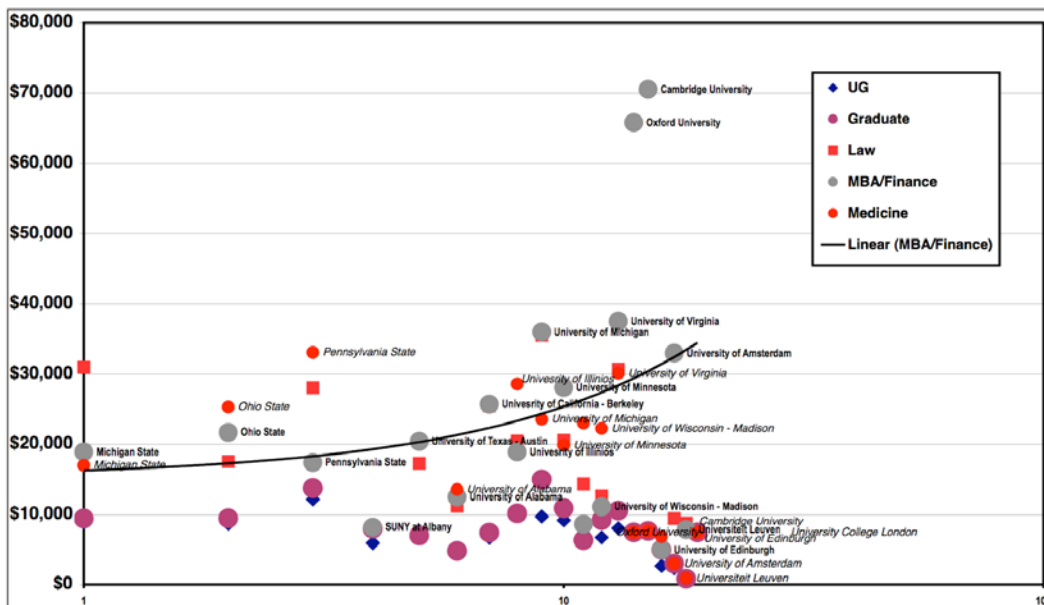


Figure 11 provides US out-of-state, EU member, and US private university pricing information in the graduate programs of law, MBA/finance, and medicine in a logarithmic scale and in 2008 US dollars, this time including the University of Edinburgh. The greatest variation occurs within medicine, which remains tied to national labor needs (at least more so than law and finance) and comes with large operational costs. The pricing of degree programs in medicine is inherently more complex, with fewer providers and heavy influence from national health care systems and the demands of the medical profession. Law is more market oriented, with more providers generally, but also with strong ties to national and regional legal systems and professional requirements. Yet we see a general convergence in pricing between our US and EU sample group.

The MBA and related degree programs in business and international finance areas also generally grouped in the range of \$35,000 to \$50,000. In what is surely a sign of international market trends, both Cambridge and Oxford have by far the highest price tag for their MBA-related programs, even allowing for currency and cost-of-living factors

There is significantly less divergence and, of course, much lower prices, for *protected* student groups (in-state and EU member), as shown in Figure 12 (and not including US privates). What is evident is the convergence in the price among public universities in the US and EU in degree programs leading to the bachelor's degree, graduate programs, medicine, and law. Once again indicative of the world market for MBA programs, many (but not all) publicly oriented institutions charge one price for all students. Cambridge and Oxford offer only a very minor break for EU members (around 500 Euros); Amsterdam and Leuven none. Edinburgh did offer a significant price break, reflective of Scotland's current focus on keeping fee levels low for Scottish students, including a decision in 2006 to eliminate fees for bachelor's level programs — a decided break from patterns in most of the EU. The University College of London, one of our sample EU institutions, offers no MBA program.

Figure 13 – US Public Universities: In-State and Out-of-State MBA Price 2007

	In-State	Out-of-State	Difference
Michigan State	\$18,878	\$26,328	\$7,450
Ohio State	\$21,660	\$35,814	\$14,154
Pennsylvania State	\$17,390	\$28,992	\$11,602
SUNY at Albany	\$8,188	\$12,428	\$4,240
University of Texas - Austin	\$20,418	\$37,222	\$16,804
University of Alabama	\$12,500	\$22,625	\$10,125
University of California - Berkeley	\$25,705	\$37,950	\$12,245
University of Illinois	\$18,910	\$27,860	\$8,950
University of Michigan	\$35,989	\$40,989	\$5,000
University of Minnesota	\$28,072	\$38,160	\$10,088
University of Missouri - Columbia	\$8,601	\$19,494	\$10,894
University of Wisconsin - Madison	\$11,098	\$26,536	\$15,438
University of Virginia	\$37,500	\$42,500	\$5,000
Public Sample Average	\$20,378	\$29,575	\$9,197

Among the US publics, there remains wide variance in the in-state and out-of-state fee level (see Figure 13). On average among the sample group, the difference is around \$9,100, with the University of Texas, the University of Wisconsin, Ohio State, and Berkeley with the greatest difference. Reflecting the increasing market orientation of the University of Virginia and the University of Michigan, which have the highest priced MBA programs among the publics, each offers a discount of only \$5,000 for in-state residents.

It is our intention to continue to track trends in tuition and fees, with the expectation that the differential in-state and out-of-state, and EU and non-EU member prices, will erode, and probably become non-existent among a cadre of public institutions that see themselves increasingly drawing from a global market of students.

F. Concluding Comments – A Trend Not Yet Complete

What patterns in pricing will we see over the next decade among research universities in the US, the EU, and elsewhere? As we state, there is a process of convergence in pricing, with the elevated sense that tuition and fees represent the key new source of revenue for public universities in particular. But in following this path, public universities need to contemplate a number of questions:

- What should be the relative role of tuition and fees in funding the higher education enterprise?
- What is the elasticity in pricing when *combined* with a financial aid program that can maintain or possibly enhance affordability for lower and lower middle-class students?
- What would a socially responsible moderate fee and high financial aid model look like?
- How will new fee revenue be used?

It is our impression that pricing is arguably being set and influenced by government underfunding of higher education, and by a process of incremental policymaking, generally lacking a coherent policy approach. There are a number of models that might guide pricing.¹⁶ These include:

- *Model 1 – Tuition Fees Relate Directly or in Some Measure with the Costs of Academic Degree Programs*
This has been a basic principle in the effort to set prices for non-protected groups (out-of-state and non-EU members) and provides a logical base for setting fees – full cost, or partial cost, depending on students and their backgrounds. But full-cost accounting for teaching programs is a difficult proposition in major research universities, which are highly reliant on cost-sharing: e.g., teaching supports research activities; research activities support teaching and mentoring functions, etc.
- *Model 2 - Public vs. Private Benefits*
Contemporary fee increases in the UK and the US are based, in part, on a simple proposition. Since the private benefits of higher education will continue to grow, students and their families should bear a larger burden of the educational costs. As early as 1973, the Carnegie Commission on Higher Education, led by Clark Kerr, offered a structural approach to the funding of public HEIs. By estimating the proportionate public and private benefits of public higher education, the Commission proposed a threefold division of costs: students and their families; state government; and institutional sources, including federal financial aid support.¹⁷

At that time, around 15 percent of all operating expenses at four-year public institutions were covered by fees. Today it is around 20 percent. The actual public and private benefits of higher education are of course difficult to determine, but this model provides an equitable and negotiable solution to setting fee rates.

- *Model 3 - What the Market Will Bear*
An alternative model for public institutions is to charge what the market will bear, while staying mindful of the need to generate funds sufficient for a robust financial aid program that also draws on institutional, state, and national sources. HE finance reforms in the UK essentially followed this model, but placed an artificial ceiling on tuition: up to £3,000 beginning in 2006. Generally, the increased acceptance of the market model among public institutions, including differential fees, has prompted government policies that limit the total amount that can be charged — either as a ceiling as in the UK, or as a percentage change per year.

A true market model, of course, would set no limits. There are many variables influencing the systems to which both the UK and the US are apparently drifting. In the US, fees (sticker prices) are set at the state system or multi-campus level, but usually with campus variability, while in the UK they are to be set at the institutional level. Differential fees have also crept into graduate and professional degree programs. The market model tends to focus on institutional revenue generation, but with little understanding of its influence on student choices and affordability.

- *Model 4 - National/International Comparative Norms*
Another model would calibrate tuition and fees based on what a comparable group of institutions (within a state, within a country, and perhaps internationally) charges. This is a competitive model devoid of any larger sense of

the relationship of revenue generation to the specific financial needs of an institution, or to its influence on affordability and access.

Yet in the US, fee policies currently in place at public and private institutions reflect the influence of this model. In the public sector, as state subsidies have declined, decisions on corresponding fee increases are sensitive to the overall percentage increase in fees and the overall decline in total resources generated on a per student basis. They also actively look at the price charged at other institutions outside of their state — particularly in the New England and mid-Atlantic States, where there is greater student mobility.

This sensitivity explains the limited variability of fees charged by similar public institutions. Institutions with tuition levels outlying this average (whether higher or lower) often argue that their fees should be closer to the norm for all institutions. This argument is not based on an actual analysis of revenue needs, affordability, and access suitable for their mission, but rather is simply one of the few political tools that has some saliency with lawmakers.

- *Model 5 - Fees Pegged to Economic Indicators or a Percentage Limit*

Another model widely discussed but rarely applied sets fees in relation to economic indicators, primarily the cost of living. Fees would rise only in relation to what people could afford. Many lawmakers and critics of higher education in the US are partial to this model. They sense that university operating costs and fees at public and private HEIs have been rising too fast, but they also ignore the effects of significant declines in state subsidies for the public sector.

Percentage limits of course ignore the realities of the actual revenue needs of higher education and make large assumptions regarding affordability. The tendency is to start with a base fee range that, as we have seen, already bears the marks of instrumentalism. The rationality of the model requires at least an initial fee level based on institutional mission, revenue needs, and affordability. Percentage limits also have another disadvantage: a percentage increase in the relatively small fees of community colleges would generate very little additional revenue, while the same percentage increase in the relatively high fees of an elite private institution would generate large sums. It all depends on the base.

None of these models are necessarily mutually exclusive, but they all raise serious questions about the interconnectedness of HE institutions and the need to identify some simple systematic relationships of tuition between and among both similar and different kinds of HE institutions. Should new fee regimes focus simply on improving the competitive financial position of individual institutions or, in the case of the US, multi-campus systems (such as the University of California and the State University of New York)? Or should they also have as an objective some level of revenue-sharing among all or some public higher education sectors in order to subsidize less-affluent institutions, or to help fund national and state financial aid programs?

The sense of collective interest is, we think, not (yet?) an influential factor in the fast-paced world of pricing higher education degree programs. Government constraints, and political repercussions from increases deemed too rapid and damaging to the public good, restrict the ability of most publicly dependent institutions¹⁸ to increase their fees for tuition, let alone to explore new models of 'tuition sharing'. However, there is evidence of a potential paradigm shift with the emergence of a global pricing system.

In confronting the world of differential pricing, and the efforts of major research universities to both improve their fiscal position and seek prestige and quality, national governments have a special responsibility to see that the larger socioeconomic needs of society are not ignored in the resulting equation. Here are a few of the policy areas that need to be raised and addressed.

- *Robust financial aid programs that are adequately funded at a level that reduces the net cost to targeted populations.*

- *Gradual increases of tuition and fee prices in relation to a schedule of long-term financing of public higher education.*
- *Student Choice — UG and graduate levels:* Particularly at the UG level, differential pricing may skew student choices, creating market forces that would be heavily influenced by a student's economic background.
- *Financial Aid and Inter-Institutional Revenue Sharing:* Within state public HE systems (US) and national systems (UK), a natural question is how new fee-generated revenue might work into a general scheme of revenue sharing specifically for financial aid.
- *Campus Revenue Sharing, Or Will the Rich Get Richer?* Public universities have only recently adopted differential fees. They are often making choices without clear norms or well-scrutinized goals beyond the search for new revenues. Without a strong commitment to revenue sharing from the outset, increasingly powerful academic units will resist allocations based on shared revenues in their own individual quest for quality and prestige.

The language of EU-commissioned study quoted at the beginning of this paper is telling. Charging fees has long been a delicate political issue in Europe, one that has only been broached carefully and diplomatically in earlier European Commission studies. This political hesitancy continues: "Given the differences between national systems," notes the report, "there can be no uniform response to this issue: each Member State needs to choose the approach best suited to its circumstances."¹⁹

Despite the careful reference to continued public subsidization and national governments' continued responsibility for higher education management, the fact is that these national frameworks are increasingly influenced by the actions of partners and competitors both inside and outside the European Higher Education Area. Barring a revolution in the funding predilections of governments in EU member states, diverse fee rates for university studies will become ever more a part of the higher education landscape in Europe, and European universities will be confronted with fee models, pricing decisions and distribution dilemmas which have long been familiar to their US counterparts.

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APPENDIX 1 – US (2007) and EU (2006) Pricing Data

US Private Tuition and Fees - 2007

	UG	Graduate	Dentistry	Medicine	Optometry	Pharmacy	Veterinary		MBA	Master's Nursing	Theater & Film
							Medicine	Law			
Cornell-Endowed	\$32,981	\$32,868		\$31,085			\$23,068	\$40,648	\$44,202		
Baylor	\$22,714	\$16,902		\$11,748				\$29,383	\$25,077	\$16,320	
Brown	\$34,620	\$34,514		\$36,838							\$35,604
Harvard	\$33,709	\$31,665	\$38,590	\$38,590				\$38,490	\$48,738		
MIT	\$35,040	\$35,040							\$46,232		
NYU	\$33,420	\$27,823	\$48,548	\$40,750				\$39,967	\$40,586	\$28,939	
Stanford University	\$33,264	\$33,086		\$39,932				\$37,532	\$47,973		
University of Chicago	\$34,005	\$35,532		\$34,236				\$37,944	\$46,909		
University of Pennsylvania	\$34,156	\$34,210	\$51,096	\$40,948			\$30,962	\$38,660	\$47,143	\$47,978	
University of Southern California	\$33,892	\$27,426	\$59,133	\$41,288		\$34,744		\$39,422	\$48,000		\$29,768
Yale	\$33,030	\$29,300		\$40,445				\$40,900	\$46,882	\$28,285	\$23,610
Private Sample Average	\$32,803	\$30,761	\$49,342	\$35,586	-	\$34,744	\$27,015	\$38,105	\$44,174	\$30,381	\$29,661

US Public In-State Tuition and Fees - 2007

	2007 UG	2007 Graduate	Dentistry	Medicine	Optometry	Pharmacy	Veterinary		MBA	Master's Nursing	Theater & Film*
							Medicine	Law			
Michigan State	\$8,887	\$9,426		\$16,996			\$17,196	\$30,979	\$18,878	\$8,058	\$8,058
Ohio State	\$8,667	\$9,438	\$22,686	\$25,293	\$15,957	\$13,377	\$19,629	\$17,552	\$21,660	\$10,131	\$13,216
Pennsylvania State	\$12,164	\$13,742		\$33,058				\$28,054	\$17,390	\$14,228	\$14,228
SUNY at Albany	\$5,939	\$7,988							\$8,188		
University of Texas - Austin	\$7,630	\$7,013				\$10,202		\$17,291	\$20,418	\$7,628	\$7,626
University of Alabama	\$4,792	\$4,804	\$11,934	\$13,562	\$13,788			\$11,190	\$12,500	\$6,031	
University of California - Berkeley	\$6,654	\$7,410			\$18,655			\$25,477	\$25,705		
University of Illinois	\$9,882	\$10,152		\$28,572			\$17,566	\$20,458	\$18,910		\$11,922
University of Michigan	\$9,723	\$14,991	\$24,567	\$23,565				\$16,857	\$35,501	\$35,989	\$16,235
University of Minnesota	\$9,173	\$10,887	\$21,371	\$19,855			\$16,877	\$19,529	\$20,585	\$28,072	\$11,703
University of Missouri - Columbia	\$7,308	\$6,346		\$22,987				\$15,677	\$14,325	\$8,601	\$11,538
University of Wisconsin - Madison	\$6,726	\$9,180		\$22,260			\$11,718	\$16,378	\$12,648	\$11,098	\$9,642
University of Virginia	\$8,035	\$10,550		\$30,100				\$30,700	\$37,500	\$10,565	\$11,193
Public In-State Sample Average	\$8,122	\$9,379	\$20,140	\$23,625	\$16,133	\$13,806	\$17,663	\$22,063	\$20,378	\$10,576	\$10,841

US Private Tuition and Fees - 2007

	UG	Graduate	Dentistry	Medicine	Optometry	Pharmacy	Veterinary		MBA	Master's Nursing	Theater & Film
							Medicine	Law			
Cornell-Endowed	\$32,981	\$32,868		\$31,085			\$23,068	\$40,648	\$44,202		
Baylor	\$22,714	\$16,902		\$11,748				\$29,383	\$25,077	\$16,320	
Brown	\$34,620	\$34,514		\$36,838							\$35,604
Harvard	\$33,709	\$31,665	\$38,590	\$38,590				\$38,490	\$48,738		
MIT	\$35,040	\$35,040							\$46,232		
NYU	\$33,420	\$27,823	\$48,548	\$40,750				\$39,967	\$40,586	\$28,939	
Stanford University	\$33,264	\$33,086		\$39,932				\$37,532	\$47,973		
University of Chicago	\$34,005	\$35,532		\$34,236				\$37,944	\$46,909		
University of Pennsylvania	\$34,156	\$34,210	\$51,096	\$40,948			\$30,962	\$38,660	\$47,143	\$47,978	
University of Southern California	\$33,892	\$27,426	\$59,133	\$41,288		\$34,744		\$39,422	\$48,000		\$29,768
Yale	\$33,030	\$29,300		\$40,445				\$40,900	\$46,882	\$28,285	\$23,610
Private Sample Average	\$32,803	\$30,761	\$49,342	\$35,586	-	\$34,744	\$27,015	\$38,105	\$44,174	\$30,381	\$29,661

- a. Michigan State Law School is a private, independent institution
- b. Pennsylvania State University Medical School is located on the Hershey Campus
- c. Law tuition and fees from the University of Alabama - Tuscaloosa
- d. Tuition and fees for University of Illinois College of Medicine - Chicago Campus

* Figures for 06-07 Academic Year

** All IPEDS information reflects 06-07 Academic Year. All non-IPEDS information is 07-08 Academic Year unless otherwise noted.

EU Sample Group – 2006/07 Pricing (in 2007 Euros)

	UG/Bachelor	1st Year Grad Progr	Medicine	Dentistry	Veterinary	MA/Mphil	Law Grad	Economics	Financial/MBA	Optometry	Pharmacology	Nursing
Oxford University (2006)												
Home/EU	4,743	4,743	4,743	np	np	4,743	10,120	41,916	7,100	17,725	np	np
Non EU	20,000	20,000	32,340	np	np	32,340	20,000	42,570	36,976	22,216	np	np
University of Amsterdam (2007)												
Home/EU	1,496	1,900	1,900	6,500	np	6,000	1,900	21,000	np	np	np	np
Non EU	9,000	9,000	9,000	9,500	np	6,000	9,000	21,000	np	np	np	np
University of Edinburgh (2007)												
Home/EU	1,700	3,160	4,350	5,460	3,160	3,160	np	3,160	3,160	3,160	1,700	np
Non EU	9,450	8,900	29,950	21,470	21,250	8,900	np	8,900	11,750	11,750	12,450	np
Cambridge University (2007)												
Home/EU	4,865	4,865	4,865	4,865	4,865	4,865	4,865	44,910	np	4,865	np	np
Non EU	18,319	19,168	34,959	38,479	38,479	18,060	19,168	45,150	np	38,479	np	np
Universiteit Leuven (2007)												
Home/EU	523	523	580	5,000	np	5,600	8,600	5,000	np	580	523	np
Non EU	5,000	5,000	5,057	5,000	np	5,600	8,600	5,000	np	5,057	5,000	np
University College London (2006)												
Home/EU	4,743	4,743	4,743	4,743	np	4,743	4,743	np	4,743	4,743	np	np
Non EU	17,904	17,904	37,365	22,186	np	17,126	17,126	np	22,186	22,186	np	np

APPENDIX 2 – US (2003) Pricing Data

	UG	Graduate	Dentistry	Medicine	Optometry	Pharmacy	Veterinary Medicine	Law	MBA	Masters Nursing	Theatre & Film*
PUBLIC Sample											
CORNELL-NY STATE STATUTORY COLLEGES	16,037	17,970									
MICHIGAN STATE UNIVERSITY	7,044	7,762		21,836			14,000	24,810	15,100	297/cred.hr	6,962
OHIO STATE UNIVERSITY-MAIN CAMPUS	6,651	7,278	16,092	19,323	12,441	9,663	14,661	13,095	13,995	2,256	8,250
PENNSYLVANIA STATE UNIVERSITY-MAIN CAMP	9,206	10,420		26,422				25,650	10,304	10,420	8,962
SUNY AT ALBANY	5,770	7,890							7,890		7,934
THE UNIVERSITY OF TEXAS AT AUSTIN	4,188	4,554				6,924		9,358	11,923	2,842	5,394
UNIVERSITY OF ALABAMA	4,134	4,134		12,852				7,252	3,556	2,067	4,630
UNIVERSITY OF CALIFORNIA-BERKELEY	5,858	6,169			11,289			16,293	21,512		7,457
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIC	7,010	7,756		22,774			13,488	14,566	13,604		7,146
UNIVERSITY OF MICHIGAN-ANN ARBOR	7,975	12,933	19,865	20,525		16,619		27,863	27,500	3,976	6,925
UNIVERSITY OF MINNESOTA-TWIN CITIES	7,116	8,517	16,428	17,870		13,402	15,911	15,385	17,850	3,681	10,196
UNIVERSITY OF MISSOURI-COLUMBIA	6,558	6,339		19,572			13,309	11,922	236/cred.hr**	7,098	
UNIVERSITY OF WISCONSIN-MADISON	5,136	7,590		21,755		10,128	15,853	9,554	9,048	7,592	8,932
UNIVERSITY OF VIRGINIA-MAIN CAMPUS	6,149	7,856		22,486				23,798	26,228	4,577	9,210
<i>Public Sample Average</i>	<i>\$7,059</i>	<i>\$8,369</i>	<i>\$17,462</i>	<i>\$20,542</i>	<i>\$11,865</i>	<i>\$11,347</i>	<i>\$14,537</i>	<i>\$16,629</i>	<i>\$14,876</i>	<i>\$4,945</i>	<i>\$7,666</i>
PRIVATE Sample											
CORNELL-ENDOWED COLLEGES	28,754	28,680		31,085			19,150	33,020	32,800		30,062
BAYLOR UNIVERSITY	18,430	14,244		9,558				20,728	17,900	16,750	
BROWN UNIVERSITY	29,846	29,710		34,010							34,910
HARVARD UNIVERSITY	29,060	27,208	33,142	34,776				32,392	30,050		
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	31,040	31,040							32,470		
NEW YORK UNIVERSITY	28,496	25,384	44,000	33,500				34,908	32,400	900/cred.hr	31,270
STANFORD UNIVERSITY	28,832	28,664		36,173				32,525	33,300		28,563
UNIVERSITY OF CHICAGO	29,238	30,672		29,550				32,754	36,520	***	32,235
UNIVERSITY OF PENNSYLVANIA	29,318	29,790	44,104	37,888			27,156	32,452	39,835	25,738	
UNIVERSITY OF SOUTHERN CALIFORNIA	28,692	23,244	49,587	37,076		29,420		33,252	33,800		30,524
YALE UNIVERSITY	28,400	25,600		34,175				33,850	31,500	24,788	19,712
<i>Private Sample Average</i>	<i>\$28,191</i>	<i>\$28,224</i>	<i>\$42,708</i>	<i>\$31,779</i>	<i>\$0</i>	<i>\$29,420</i>	<i>\$23,153</i>	<i>\$31,765</i>	<i>\$32,058</i>	<i>\$22,425</i>	<i>\$51,819</i>
<i>Public/Private Differential</i>	<i>-\$21,132</i>	<i>-\$19,855</i>	<i>-\$25,247</i>	<i>-\$11,238</i>	<i>\$11,865</i>	<i>-\$18,073</i>	<i>-\$8,616</i>	<i>-\$15,136</i>	<i>-\$17,182</i>	<i>-\$17,480</i>	<i>-\$44,153</i>

* Tuition only found for 2004-05 year. Significant additional costs often apply to film students
 ** MBA program length varies from 32-59 credit hours depending on business background.
 *** Uses partner institutions that bring nursing degree programs to campus, mainly for their staff (RN/BSN)
 NP No such program offered at the institution.

Notes

¹ Commission of the European Communities (2005) *Mobilising the Brainpower of Europe: Enabling Universities to Make Their Full Contribution to the Lisbon Strategy*, Brussels, 20.4.2005, http://ec.europa.eu/education/policies/2010/doc/comuniv2005_en.pdf
COM(2005) 152 final

² We will expand our EU sample size considerably with the administration of a new on-line survey of leading research universities in Europe this spring. This online survey and further information about this transatlantic project is available at <http://cshe.berkeley.edu/research/fees-survey.htm>

³ These predictions on fees and access are part of a larger framework of predicted "Structured Opportunity Market," a convergence in higher education policy outlined in John Aubrey Douglass, "A Look into a Possible Future: A Global Scenario for Higher Education Systems, Global University Network for Innovation, UNESCO, December 2007, <http://web.guni2005.upc.es/news/detail.php?id=1141>

⁴ See Bowen, Howard R. (1980), *The Costs of Higher Education*, Carnegie Council for Policy Studies in Higher Education, San Francisco: Jossey-Bass Publishers.

⁵ Indeed, most public universities have limited the number of "out-of-state" students; at the University of California, out-of-state and international students represent only 5 percent of all undergraduate enrolment.

⁶ Unless otherwise stated, UK in this document refers to the UK higher education system of England, Northern Ireland and Wales. Supported by parliamentary devolution, higher education developments in the UK (Scotland) have followed a slightly different path.

⁷ For a survey of fee and tuition policies at the bachelor's level by various nations, see Marcucci, Pamala, and D. Bruce Johnstone (2007), "Tuition Fee Policies in a Comparative Perspective: Theoretical and Political Rationales," *Journal of Higher Education Policy and Management*, vol. 29, no. 1, March.

⁸ Gerald Danette and Kati Haycock (2007), *Engines of Inequality: Diminishing Equity in the Nation's Premier Public Universities*, The Education Trust.

⁹ Douglass, John and Gregg Thomson, "The Rich and the Poor: Economic Stratification Among Undergraduates at the University of California," CSHE Research and Occasional Paper Series, CSHE 15.08 (October 2008).

¹⁰ Marcucci and Johnstone (2007), "Tuition Fee Policies in a Comparative Perspective."

¹¹ David Ward and John Aubrey Douglass, "Higher Education and the Specter of Variable Fees: Public Policy and Institutional Responses in the United States and United Kingdom," *Higher Education Management and Policy* (OECD), vol. 18, no. 1, 2006; pp. 1-28; see also John Aubrey Douglass, "New System of Top-Up Fees: Brief on English HE Market Response" CSHE Research and Occasion Papers Series, CSHE 12.05 (October 2005).

¹² College Board, *Trends in College Pricing: 2007*, Trends in Higher Education Series, College Board, 2007.

¹³ Commission of the European Communities, *Mobilising the Brainpower of Europe: Enabling Universities to Make Their Full Contribution to the Lisbon Strategy*, Brussels, 20.4.2005, http://ec.europa.eu/education/policies/2010/doc/comuniv2005_en.pdf
COM(2005) 152 final

¹⁴ Judgment of the Court of Justice, Gravier, Case 293/83 (13 February 1985), <http://www.ena.lu/judgment-court-justice-gravier-case-293-83-13-february-1985-030002987.html>

¹⁵ Currency conversion in Figures 9-12 based on March 14 2008 conversion: 1.57 dollars = 1.00 Euro; 1.29 Euro = 1.00 Pounds.

¹⁶ Models originally outlined in Ward and Douglass, Higher Education and the Specter of Variable Fees."

¹⁷ Carnegie Commission on Higher Education (1973). *Higher Education: Who Pays? Who Benefits? Who Should Pay?* New York: McGraw-Hill.

¹⁸ This includes universities which still get substantial operating funds from public coffers, have their origins in state charters and have state public purposes, as well as universities under more direct public control).

¹⁹ Commission of the European Communities (2005) *Mobilising the Brainpower of Europe*.