

Paying for Higher Education and **RESEARCH**

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It is an honor to speak to you on the occasion of the tenth anniversary of the University of Göttingen's having become a "Foundation under Public Law."¹ It is also, for someone from the United States, a serious responsibility. Our two countries share long and distinguished traditions of higher education and research at a moment in our histories when these traditions are being challenged as never before but at a moment when the vigor of these traditions is more important than ever for the sake not only of our own countries but for the sake of the world. Higher education and research in our two countries have been the underpinnings of freedom and prosperity previously unknown in human history. Freedom and prosperity in the rest of the world depend in considerable degree on the continued freedom and prosperity of ourselves and our closest allies. Hence, we cannot afford to make serious mistakes in our support for higher education and research, and we ought therefore seriously to collaborate and learn from one another in this domain. Unfortunately, what the United States has to contrib-

ute to this collaboration and learning is largely a set of negative examples that other nations seem steadily tempted to emulate. I shall try very hard not to sound too much like Cassandra. But in describing for you the situation in the United States, I shall in considerable degree be describing perils to be avoided.

This celebration should, of course, be a happy occasion. And I can assure you that it will be viewed by many in the United States with very considerable envy. I believe that I can confidently assert that the presidents and chancellors of all of the leading public universities in the United States would give a great deal to achieve precisely what you have achieved here. Some have tried and lived to regret it because their states, if not simply hostile to the interests of higher education, have insisted on retaining control while substantially reducing the flow of resources. One of the bravest of these presidents, in a rather public effort, came reasonably close to achieving a greater degree of independence, but political resistance was such that an offer to move to a

private institution proved irresistible. Another, engaged in a similar effort, was simply fired. With ten years of successful experience, therefore, you have much to teach us. What we have to teach you, on the other hand, is that one must guard against a certain drift that has become fashionable on both sides

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¹ Note to the reader: Under this arrangement, the university is governed by a foundation that is independent of the State of Lower Saxony, of which the university was previously a public institution. This gives the university administrative independence and the right to acquire property and generate its own resources, though there are some restrictions. Most important, however, is that the State of Lower Saxony continues to provide essentially all of the revenue that it previously provided, which is a very substantial amount and which makes possible negligible fees to students. As in the U.S., much support for research in universities comes from the federal government, and unlike the U.S., much sponsored research is carried on in federally supported independent institutes.

of the Atlantic and that could have social and economic consequences that we should all regret.

I presume that we can all begin by agreeing that higher education and research are important. But the difficulties begin almost immediately as we attempt to say what we mean by this simple proposition—higher education and research of what kind and for whom and at whose expense? These questions lead quite quickly to very profound questions about the role of the state in society and about social and economic disparities within and across societies. These deeper questions are too easily answered with ideological and political slogans that obscure real-world consequences and hard evidence.

Since what is often described as the U.S. model seems to be attracting more and more attention in Europe and is now advancing steadily in the United Kingdom, let me give a bit of an account of that model as it has actually existed and as we are now increasingly seeing its consequences in the United States. What has made the U.S. model seem so attractive? It has produced some of the world's greatest universities and some of the research that has transformed the economies of the United States and other developed and developing countries. So far so good. But the real attraction of the U.S. model would appear to be the fact that the state—that is, the taxpayer—has in general not paid for it, and is steadily paying for less and less of it.

The most naïve view of this so-called model seems to be that European and other universities can simply declare themselves to be Harvard, Yale, Princeton, or Stanford and generate private sources for their support rather than continue to rely on support from the state. It is not quite so simple. For a start, the United States has a tradition

of private philanthropy that is centuries old and deeply rooted. This cannot be created overnight. But perhaps even more to the point is that Harvard, Yale, Princeton, and Stanford are the only truly wealthy universities in the United States. All of the rest—all of the rest—and even they to some extent, are reliant on student fees as the engine of their economies. This has increasingly become the case as costs have risen and, in the public universities, as the states have steadily reduced their support, especially since the financial crisis that began in 2008 and the effects of which remain very much with us.

In the U.S. almost two-thirds of the 4,500 institutions of higher education are private, and of these just over 40 percent are for-profit. Although the majority of institutions are private, the great majority of students, about 70 percent, are enrolled in public institutions. All of this is in a context in which the federal government (that is, the state with a capital S as opposed to the individual states of the union) has essentially no policy with respect to higher education. The nation's secretary of education has essentially no control over what kind of education is offered and who pays for it. This is all left to the fifty states and to their counties and cities. The secretary of education does preside over a system of financial aid for students who can demonstrate need, but the maximum grant in this scheme does not begin to approach the price to a student of attending even a public four-year institution, much less a private one. Apart from that, the secretary of education has only a few carrots and no sticks.

The public institutions, then, are supported by the fifty states, and historically this has meant charging students relatively low fees and making up the difference with the full cost through taxation. This is essentially

the model employed in most developed countries. As the revenue of the states in the United States has dwindled, both because of economic circumstances and because of the growing resistance to taxation, however, fees charged to students have steadily increased. In the leading public universities the fees (excluding the cost of food and housing) may reach \$12,000 per annum for students from within the state in question. For students from a different state or from abroad the fees may reach very nearly the equivalent of the fees charged at the leading private institutions, or as much as \$35,000 per annum.

At the University of Michigan in the fiscal year 2011, state appropriations accounted for only 6 percent of total revenue. At Berkeley, state appropriations in 2012 accounted for 10.5 percent of total revenue, down over 50 percent since 2003. State appropriations at Berkeley in this period went from being the largest of the four largest sources of funding (along with federal research funding, philanthropy, and tuition) to being the smallest of the four, while tuition in consequence grew to very nearly the equal of the other two. This pressure to increase tuition generally has the anomalous effect of encouraging public institutions to compete for students from states other than their own, which they are allowed to charge much higher fees. A student at the University of Michigan from outside the state of Michigan will be charged very nearly what it costs to go to Harvard, and such students now make up over one-third of the total student population. It is as if the solution to the financing of public higher education is for each state institution to accept only students from other states.

What becomes of poor students in such a scheme? There is not enough dedicated financial aid from either

federal or state sources to satisfy their need for it. Instead they must be in effect subsidized by those students who are able to pay the very highest fees. The result is that instead of letting a system of taxation redistribute income for the purpose of educating students from all economic backgrounds, each institution is left to carry out its own internal redistribution of income from the rich to the poor.

There is a further purely academic effect of the reduction in state support. Once state support reaches as low as 10 percent or lower, one might be tempted to say that further cuts cannot possibly matter very much. The trouble with this view is that there are many different colors of money flowing through large universities, and they are not all fungible. One must first strip away from total revenue the revenues associated with federally funded research, the medical center if any, and all of the revenues, including philanthropy, that are restricted to purposes such as the business school, the law school, the athletics programs, and a good deal else. This makes state support a much larger share of the pie that is available to support the humanities and the arts, for example, which in general have negligible external support. This is especially true if one thinks of the teaching of the humanities and the arts to undergraduates. Tuition, of course, becomes hugely more important in this sector of the pie as a result. Thus, what might seem to be a modest decline in state support in the great scheme of things can compel very serious reductions in support for the humanities and the arts and some of the social sciences and thus have a distorting effect on the academic principles that ought to shape the education that universities exist to provide.

What about private institutions in the U.S.? These receive essentially

no direct support for the educational side of the enterprise (as distinct from partial support for certain types of research) from government and are supported overwhelmingly through fees charged to students and through philanthropy. The vast majority of the private institutions are extremely dependent on student fees, with income from current philanthropy and from endowment (that is, philanthropy extending back through the history of the institution) totaling on average 20 percent of annual income. For the great majority the percentage is distinctly smaller. Thus, no one should suppose that in the U.S. model private philanthropy is covering more than a very modest share of the cost of higher education except in a small handful of the wealthiest institutions, and even they rely heavily on student fees.

At the leading private institutions, the total nominal price to the student, including room and board, may exceed \$50,000 per annum. In a nation in which median family income is itself around \$50,000, most of the nation simply cannot afford to pay this. But very many do not pay it. As with public institutions, this system operates not by redistributing income through taxation at the level of the state so as to make education affordable for the less well-to-do, but instead by charging very high fees to those able to afford them and redistributing that income internally to the extent possible. Virtually every private institution in effect discounts its student fees to some greater or lesser degree. In very many institutions, the income from student fees may be discounted on average by as much as 50 percent. Wealthier students thus subsidize poorer students, and in these institutions, some fraction of the student body is selected based on its ability to pay rather than entirely on academic merit. A system in which

each of thousands of institutions with quite different resources of its own is left to engage in such practices on its own is at a minimum incoherent and inefficient. And this system is a principal cause of the complaint about the rising “cost” of higher education, since the public sees the advertised price of education without taking full account

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of the extent of the discounts that are applied.

There is no time now to take up the question of for-profit higher education. Suffice it to say that in the United States, for-profit higher education depends overwhelmingly on federal financial aid, especially loans, provided to students with need. The amount of aid that these institutions consume is all out of proportion to the number of students that they serve. And many, though not all, engage in outrageous recruiting practices in order to attract students who will bring with them federal grant and loan funds and then leave with a mountain of debt and no degree and no job.

Higher education in the United States, then, is in some ways its own

version of the Wild West. And it should give serious pause to anyone who believes that the markets are the solution to all of society's problems. It is a system in which relentless competition for resources and talent drives up costs rather than the opposite. It produces the anomalous result that some of the very people who would like to solve

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society's problems through increased market discipline simultaneously wish to increase regulation and introduce price controls in higher education.

The simple fact is that the market has made higher education in the United States what it is, complete with features that many wish to complain about, including certain kinds of facilities and staff that contribute to rising costs. This is all reinforced by various rankings of universities, most notably that of *U.S. News & World Report*, which give institutions incentives only to increase costs in the competition for students and faculty. The result is a situation in which institutions must steadily increase competition for students from well-to-do families and attend less and less to students from

families that are less well-to-do, to say nothing of poor. Without some sort of leveling mechanism that the market by its very nature will not provide, higher education becomes increasingly the province of the rich and in the process denies a greater and greater part of the income distribution access to the means by which they might improve their lot. Such a system ends by exacerbating income inequality rather than ameliorating it and in the bargain impoverishes the nation's competitiveness as well as its intellectual and cultural life. The market simply makes things better for the people who can pay for them and worse for those who cannot. This might be satisfactory for consumer goods, but it is not satisfactory for education at any level.

The ideological and political arguments that have been advanced in defense of this trend in higher education are that those who benefit from education should be the ones to pay for it, namely, the students, and that the competition of the marketplace will both lower costs and increase quality. There is no hard evidence to support either proposition, and a good deal of hard evidence to the contrary. Absent some form of subsidy, the poor will simply be unable to assemble the resources necessary to pay for the full cost of higher education of any quality, and unless every one of them becomes a hedge-fund manager, they will not earn enough over a lifetime to amortize the required initial debt if it were available. And in higher education, it has already been demonstrated that the marketplace does not reduce costs and that it increases only disparities in quality rather than higher quality across the whole system. Much—though not all—of the for-profit sector of higher education in the U.S. is quite simply scandalous and itself feeds overwhelmingly at the government trough.

I have not yet said anything about research. Let me attempt to remedy that briefly. Unlike most developed countries, including your own, the U.S. has carried out research in its universities rather than in separate state-supported institutions. There is much to be said for this approach. In principle it allows a somewhat greater freedom to the directions that research can take, and it contributes to the formation of a culture within universities that prizes original inquiry and skepticism of received opinion. This benefits everyone, including undergraduates and the citizens that they will become. These benefits are easily eroded, however, and the U.S. model provides a number of cautionary tales.

The temptation is to believe that the research function of the university, rather like its educational function (a distinction that we should resist, however), can be privatized. Here I would insist that the research function must include a very substantial investment in the most basic research. But increasingly there is pressure to invest only in those scientific and technical fields that are imagined to be of near-term value to the economy in general and to the universities themselves in purely financial terms. This often accompanies a naïve belief that the private sector can be counted on to pay for research. The experience of the United States counsels very strongly against such views.

Private sector support for research in U.S. universities has declined steadily over decades and now accounts for only about 3 percent of the cost of that research. And it is increasingly tied to very near-term outcomes. Simultaneously, the corporate sector has largely dismantled its own capacity to conduct basic research. The decline of Bell Labs is only the most prominent and the saddest of such stories. Pharmaceutical companies today are

following in those footsteps. And yet some of the most important scientific discoveries of the modern age—discoveries with enormous economic consequences—were made in the pursuit of science for its own sake. Work at Bell Labs produced the transistor, the laser, and fundamental advances in computer programming. But despite such extraordinary benefits from long-term investments in science, the corporate world has been unable and unwilling to continue them.

Meanwhile, federal government support for research in science is again stagnating in real terms and is not immune from the pressure to produce near-term economic benefits. One result has been an increasing subsidy to federal sponsorship of research from universities themselves, both public and private, for the federal government in no sense pays the full costs of the research that it sponsors. Who then does ultimately pay the difference? Since virtually every university is heavily dependent on the tuition and fees paid by undergraduates, it is perfectly clear that the scientific enterprise is being more or less covertly subsidized by undergraduates. Now, I would absolutely insist that undergraduates benefit enormously from studying in an environment in which scientific research is pursued at the highest level. But it makes no sense to insist that university education costs too much while letting those costs be driven in significant degree by a subsidy to scientific research that is nominally sponsored by the federal government. This is a subject about which university and government officials do not like to speak out loud. On this topic I should say, too, that private philanthropy plays an enormous role especially in contributing to the costs of the physical infrastructure that is necessary for modern research. Very many gleaming new buildings costing hundreds of millions of dollars

each bear the name of a generous donor. But rarely do the gifts cover the entire cost. The remainder is most often financed through debt that must be amortized with unrestricted funds, the largest component of which is—you guessed it—undergraduate tuition.

If this talk of the situation of higher education and research in the United States has been rather gloomy in its own terms, I hope that it may serve to cheer you up about the situation that you have created and maintained here at the University of Göttingen. The first and crucial component of it is a continuing partnership between the University and the State of Lower Saxony. The administrative and financial independence that has been achieved for the University can contribute to meaningful efficiency. But no one should suppose, if the experience of the U.S. is any guide, that it can lead to a thorough privatization of all of the University's functions without serious damage to the quality of its academic undertakings and to a withdrawal from a commitment to education as the right of all students of ability without regard to their socioeconomic circumstances. A university as distinguished as the University of Göttingen will enjoy a considerable advantage over many others in attracting private support and students with the ability to pay high fees if it should come to that. It along with a few others might well continue to thrive if the path of the U.S. model were to be followed to a significant degree, just as Harvard, Yale, Princeton, and Stanford have remained and are sure to remain among the world's greatest universities. But what about the rest? As a system for a whole nation that expects to continue to prosper and lead, it is not sustainable in any farsighted way and, I would say, in any just way. Even for a single great university like the University of Göttingen, the transformation from the present system to one

that would make it more like Harvard or Yale or Princeton or Stanford would be exceedingly difficult and perhaps not ultimately possible in its economic and political environment.

I congratulate the University of Göttingen and the State of Lower Saxony on the partnership they have created and sustained now for ten

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years. Long may it thrive. This will require only the continued commitment of both parties and vigilance with respect to pressures for certain kinds of change that elsewhere have proved unfortunate. I dare to hope that some U.S. universities and their states will profit from your example. ■