



FINANCING AMERICAN HIGHER EDUCATION IN THE 21ST CENTURY: *What Can the United States Learn From Other Countries?*



Prepared for the

NATIONAL COMMISSION ON FINANCING 21ST CENTURY HIGHER EDUCATION

By: D. Bruce Johnstone, professor, Higher and Comparative Education Emeritus,
University at Buffalo



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LETTER FROM THE COMMISSIONERS

The University of Virginia Miller Center created the National Commission on Financing 21st Century Higher Education in 2014 to recommend policy and funding changes to help the nation attain the goal of 60 percent of the labor force with a postsecondary degree or certificate by 2025. This means that 62 million Americans must graduate with a postsecondary degree or credential between 2015 and 2025. At current rates, the United States will produce only 39 million such graduates, leaving a gap of 23 million—a shortfall of more than 2 million per year.

To meet the goal, the nation must maintain high school graduation and college entrance rates at or above 75 percent and 70 percent, respectively—reachable goals close to historical norms. The nation must also *increase* college graduation rates from 40 percent to 60 percent. Increasing the college graduation rate is inherently challenging but made even more so because of major demographic changes. Many of the upcoming college-aged individuals will be people of color or from low-income families, populations that traditionally have needed additional counseling, mentoring, academic support, and financial assistance to successfully enter into and complete higher education. How to increase access and graduation rates and thus equality for these two population groups is the major focus of the commission.

The need to address these issues is also urgent given that other nations are catching up to—and even surpassing—the United States in postsecondary degree- and credential-attainment rates. The United States ranked 13th relative to other Organization for Economic Cooperation and Development countries in 2014 in the percentage of 25- to 34-year-olds with higher education degrees or credentials. The cost of failure in attaining this goal—to the nation in terms of international leadership and to citizens in terms of job creation and income—is too high, and so action is required now.

To learn more about these issues, the commission engaged highly qualified experts to create 10 white papers on different dimensions of the higher education problem. The commission asked all the authors to push the limits of their knowledge and engage in “blue sky” thinking on individual topics. Each paper represents the views of the individual authors, not the commission. Nevertheless, the papers provide a foundation for the recommendations in the final report. In addition, the commission hopes the papers stimulate further discussion and debate about higher education policy and funding.

The 10 papers and the final report focus on answering three primary questions related to reaching the 60 percent goal. First, how do we realign incentives and retarget existing public funding to make the entire system more efficient and to increase graduation rates for students generally and students of color and from low-income families in particular? Second, what are the new, innovative models to deliver postsecondary education that can both lower the cost and increase the productivity of the entire system? Third, what options do federal and state governments and the private sector have for increasing funding for higher education? It is important to stress here that the interest is in the “value proposition” that underlies these three primary questions. The “value proposition” focuses on the national imperative of building a more highly skilled and educated work force not merely a more credentialed one.

The U.S. higher education system is still the envy of the world, but it must become more affordable for the next generation. It must also become more innovative and adaptable, especially in its use of technology, and be more productive with regard to graduation rates. Finally, additional funding must be available from federal, state, and private-sector sources to reach the goal.

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WHITE PAPERS WRITTEN FOR THE NATIONAL COMMISSION ON FINANCING 21ST CENTURY HIGHER EDUCATION

Paper 1. **Crowded Out: The Outlook for State Higher Education Spending**

Authors: Dan White and Sarah Crane, Moody's Analytics

Paper 2. **Transformations Affecting Postsecondary Education**

Author: Jeffrey J. Selingo, Arizona State University and Georgia Institute of Technology

Paper 3. **State Higher Education Finance: Best Practices**

Authors: Martha Snyder, Brian Fox, and Cristen Moore, HCM Strategists

Paper 4. **Financing American Higher Education in the 21st Century: What Can the United States Learn From Other Countries?**

Author: D. Bruce Johnstone, professor, Higher and Comparative Education Emeritus, University at Buffalo

Paper 5. **State Strategies for Leveraging Employer Investments in Postsecondary Education**

Authors: Robert Sheets and Stephen Crawford, George Washington Institute of Public Policy, The George Washington University

Paper 6. **Understanding State and Local Higher Education Resources**

Authors: Sandy Baum and Kim S. Rueben, Urban Institute

Paper 7. **New Directions in Private Financing**

Author: Andrew P. Kelly, American Enterprise Institute

Paper 8. **Higher Education: Social Impact Bonds and Income Share Agreements**

Author: Carlo Salerno, higher education economist/analyst

Paper 9. **State Support for Higher Education: How Changing the Distribution of Funds Could Improve College Completion Rates**

Author: Bridget Terry Long, Harvard Graduate School of Education

Paper 10. **The Federal Role in Financing 21st-Century Higher Education: Effectiveness, Issues, and Alternatives**

Author: Gabriel R. Serna, Virginia Polytechnic Institute and State University

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Executive Summary

Today, most countries are struggling with financial challenges in their higher education systems similar to those facing federal and state governments in the United States. These challenges are mostly in the following areas:

- High and rising instructional costs;
- Cost shifting to parents and students, resulting in increasingly problematic student indebtedness;
- High cost of student debt to governments in the form of subsidies and defaults;
- High dropout and protracted completion rates; and
- Balancing access to higher education with family background (e.g., income, ethnicity, native language).

At the same time, most highly industrialized countries spend less, both overall and per student, than the United States. Aside from the structural differences between the U.S. and other countries' higher education systems—such as delegation of public education to the states, the prominence of private higher education, and the role of philanthropy in the United States—there are significant differences in such critical policy arenas as tuitions and fees, financial assistance, and student loan programs.

Other policies of interest across the world include free public higher education, found mainly in Scandinavia, a declining number of other European countries, Francophone sub-Saharan Africa, the Middle East, North Africa, South America, and the Caribbean. Deferred tuition—that is, higher education portrayed as “free” at the time of enrollment but paid for after degree completion through student loans—is found in Australia, New Zealand, and England. Another variant on free tuition is the dual-track tuition system found in many former communist and socialist countries, where higher education is free to the most able students while other students pay an often substantial tuition. A policy that continues to attract the interest of U.S. politicians and policy analysts is the income-contingent student loan repayment scheme, which is an integral component of the deferred-tuition model associated with England and Australia. This paper examines these and other policies in higher education systems around the world to see what the United States might learn and perhaps adopt.

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The Challenge of Financing American Higher Education

In early 2015, the University of Virginia Miller Center formed the National Commission on Financing 21st Century Higher Education to address the worsening financial problems confronting America's colleges and universities. The current financial situation affects public, private, individual, and multicampus institutions; students and their families; and the public and private enterprises that need emerging college graduates' skills. These problems vary greatly—by institution type and wealth; by the depth, demographics, and affluence of the applicant pools; and, for public institutions, by the financial condition of their home state and the level of political favor they currently enjoy. Yet most of these problems begin with the high and rising per-student costs of higher education that in most years has outpaced prevailing rates of inflation. These costs are highly variable, which in itself suggests that some of them (or at least the trajectory of cost increases) could be lessened without loss of product, however defined, or quality, however measured.

The level of support for public higher education differs considerably across the 50 states and from year to year. In recent years, most states have cut state tax support to public colleges and universities and shifted costs that taxpayers had traditionally borne to parents and students in the form of higher tuitions. This shift has led to increasing—and for some students unmanageable—debt. Many students are also seeking employment during academic terms, which can lengthen the time to degree completion.

Many colleges and universities have instituted austerity measures. These measures commonly take the form of flat or even reduced faculty and staff salaries, increased class sizes and student-to-faculty ratios, greater reliance on part-time and non-tenure-track faculty, and deferred maintenance. State support of public higher education has already declined during the severe financial downturn that began in 2008, and despite the subsequent infusion of federal stimulus funds, most observers believe that a restoration of pre-Great Recession funding levels or annual increases from tax funds or tuitions are unlikely. Therefore, new solutions—on the cost

side, on the revenue side, or both—will have to be found. Finally, increasing enrollments, propelled by shifting demographics, in-state migration, and pressure to increase both access to and completion of college, are hastening the trajectory of rising per-student costs in many states.

At the same time, many politicians, civic leaders, and even some scholars point to indices of inefficiency (even profligacy) and insufficient outcomes produced from college and university systems, further weakening faculty and public higher education leaders' case for restoring funding and cutting back on austerity. Some higher education critics also point to high college dropout rates and longer time to degree completion as additional systemic flaws, often citing surveys and anecdotal accounts of employers' discontent with graduates' preparation for careers. High rates of graduate unemployment reinforce the notion that there is a disconnect between what graduates need to succeed in employment and what they are learning in college.

Seeking to “develop policy proposals aimed at providing long-term sustainable finance models for U.S. higher education,” the commission turned to this author for insight into financing models used in other countries that might apply to the situation in the United States. The author has had a lengthy career in college and university leadership, culminating in the post of chancellor of The State University of New York system. He is a frequent World Bank consultant on higher education finance and student loan programs in developing and transitional countries. With Pamela Marcucci, he wrote *Financing Higher Education Worldwide: Who Pays? Who Should Pay?* (Johns Hopkins University Press, 2010), and he has written many other works on higher education finance from an international and comparative perspective. To inform the commission on financing issues and policies in other countries, this paper summarizes certain models employed abroad, briefly comments on their applicability, and attaches as the last section a 2014 paper titled *Financing Higher Education Worldwide: Policy Options*.

Financing Models From Other Countries

Other countries have adopted financing policies that have attracted attention in the United States. The sections that follow discuss these examples and explore their applicability to the U.S. higher education environment.

Free public higher education

Today, free public higher education is found mainly in the Scandinavian countries (e.g., Finland, Iceland, Norway, Sweden), a declining number of other European countries and jurisdictions (e.g., Switzerland and most German-speaking states), most of Francophone sub-Saharan Africa, the Middle East, North African countries, South America, and the Caribbean. The European countries that feature free higher education have commensurately high taxation, with little tuition-supported private higher education.

Some may confuse free higher education with the absence of parental contribution, but there is a distinction. For example, the Scandinavian countries feature free public higher education (in fact, these countries offer few private higher education opportunities) and do not expect parents to contribute to students' living expenses. As a result, many students accumulate considerable debt during their time in college or university, despite government assurances of "free" higher education. In contrast, Germany charged no tuition in 2015 but did require parents of traditional-aged students to contribute to their children's living expenses, albeit based on their ability to pay. In fact, the German expectation is legally enforceable.

How Would "Free" Higher Education Work in the United States?

For the United States, free public higher education could be implemented in a few different ways. One of the more radical ways would be to amend the U.S. Constitution to make free public higher education a right, which would likely put all private colleges and universities at an even greater price disadvantage than they are now and require billions of additional tax dollars to replace what parents and students are now contributing.

A more modest (and possibly more realistic) proposal involves the federal government providing aid to states in return for reducing or even eliminating public community college tuition, at least for full-time students under a certain age. Such an approach would still forego many millions of dollars in annual student and parental tuition contributions, however. Governments would have to compare the cost-effectiveness of even a limited version of free public higher education to alternatives such as increasing the number of need-based grants for students unable to pay the present tuitions at community and four-year colleges.

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Deferred tuition: higher education portrayed as “free” at the time of enrollment but paid for after degree completion in the form of interest-bearing loans

Deferred tuition is found in Australia, New Zealand, and the United Kingdom (excluding Scotland, which abandoned charging tuition altogether after 1998). Such policies undoubtedly lessen the financial deterrent of upfront tuition costs, and certainly the families of potential students welcome them. When England moved from a modest (by U.S. standards) upfront tuition plan for its publicly supported universities to a deferred-tuition plan in 2006, there were winners and losers. The winners were the middle- and upper-middle-income parents whose expected contributions shifted to their children. The losers were the students, who now had a debt burden that their parents would have borne before. Particularly hard hit were students from low-income households, who now had to incur debt that their parents would not have had to pay in the previous system because upfront tuition amounts had been based on ability to pay. Although denied the money that upfront tuitions had provided, English universities still needed that revenue to pay for current operations. Therefore, the government became the necessary—indeed, the only—source of capital for those now-deferred fees, providing the money in the form of student loans. These loans undoubtedly have some asset value, but to date the government has not been able to sell or securitize them in the private capital market. As a result, they have added substantially to the UK government’s current deficit.

Deferred tuition can be thought of as universally available loans for all undergraduates, with government policy setting the terms of the loans (e.g., interest rates, repayment obligation, provision for repayment relief for low earners). These deferred-tuition loans are separate from whatever other money students require to live; in England and Australia, this figure is generally higher than tuition. In some cases, however, the two loans could be combined into a single repayment stream. Because the government is the source of all capital as well as the bearer of nonrepayment risk,

there are no significant private providers in countries with deferred fees. Given that the government also determines the tuition amount to be deferred, it would be difficult to extend the deferred-tuition model to a U.S. context. In the United States, either states or institutional governing bodies determine public college and university tuitions. Where there are private colleges and universities, both nonprofit and for-profit, institutions can set their own tuition amounts.

Income-contingent student loans

The deferred-tuition model is sometimes conflated with the way the deferred amount is to be repaid—through an income-contingent repayment method rather than a conventional or fixed-schedule repayment method. The deferred amount is still a loan, however, and the income-contingent form of repayment is quite different. For years, many policy analysts, politicians, students, and economists have been fascinated by the idea that students might repay their loans not on a schedule of fixed repayments but rather as an obligation to pay a certain percentage of their earnings until the loan amount was repaid with interest or a set number of years had passed, at which time any remaining debt would be cancelled.

Many advocates of income-contingent repayment are particularly intrigued by the “pure form” of this model, in which surplus interest that high earners pay effectively covers the shortfalls of low earners. In this model, a student loan becomes a form of equity in which students “sell shares” of their future earnings in return for the capital they need to invest in their education. However, so called *high-risk student loans*—that is, loans that are available without parental co-signatories or verification of credit worthiness—may carry the risk of *adverse selection*, whereby students who plan to enter a low-earning field such as the ministry or public service will rush to participate while those who want to earn higher incomes will decline. The difficulty of capitalizing or securitizing income-contingent loan notes has limited their adoption, except—as in Australia and England—when the government is the sole provider of capital and the bearer of all the risk. The Australian and English models combine the presumed advantages

of deferred tuition as discussed earlier with the presumed advantages to students of the income-contingent repayment model.

Some may view income-contingent loan repayment as superior to conventional, fixed-schedule loans, but most students will repay exactly the same amount, whether measured in simple interest or the discounted present value of the payments, on either plan. The interest the borrower pays on his or her loan does not vary based on income, although the payment amount may be more manageable. In addition, all income-contingent loans have a maximum repayment period after which the outstanding balance will be forgiven: The “generosity” of the plan depends on the percentage of earnings the borrower will repay (usually monthly) and the length of the repayment period in years. For example, a monthly payment amount based on a high percentage of the student’s earnings coupled with a long maximum repayment period would constitute a relatively “ungenerous” loan, meaning that the borrower would have to be destitute over his or her earning lifetime to trigger forgiveness of the remaining debt. Conversely, with a monthly repayment contract that allows a low percentage of the student’s earnings and a short repayment period, many borrowers could reach the end of the maximum repayment period and still have the debt forgiven. The point is that any repayment obligation—fixed-schedule or income-contingent—can be lessened with a lower interest rate (i.e., a larger subsidy), and a lender can make any conventional repayment schedule more manageable for the borrower by extending the repayment period and providing easy refinancing, deferment, or forbearance in the event of unemployment or low earnings. Some proponents of income-contingent repayment portray this option as better for all students, but more accurately, the form is clearly better only for *some* students: The degree to which it is better and the proportion of borrowers it benefits depend on the level of governmental subsidization built into the scheme.

Also, as virtually all income contingent loan schemes have some maximum repayment period after which the remaining debts of borrowers who have had low lifetime earnings, and have been unable to fully repay their obligations, will be forgiven, the *generosity* of

an income contingent loan scheme depends on the percentage of earnings that are to be repaid (usually monthly) and the number of years a borrower can be held to continue repayments. A high percent of earnings to stipulate the monthly payments together with a long maximum repayment period would constitute a relatively *ungenerous* loan, meaning that a borrower would have to be quite destitute over his or her earning lifetime to trigger the forgiveness of a remaining debt. Conversely, a repayment contract featuring a low percent of earnings for the monthly payments and a short repayment period would probably mean that many borrowers could reach the end of the maximum repayment period with a remaining debt to be forgiven. The point is that any repayment obligation—fixed schedule or income contingent—can be made cheaper with a lower rate of interest (i.e. a larger subsidy), and any conventional repayment schedule can be made more manageable by extending the repayment period and by providing easy refinancing, deferment or forbearance in the event of unemployment or low earnings. In short some proponents of the income contingent form of repayment obligations portray the income contingent form as better for all students. But more accurately, the form is clearly better only for some students—and the degree of *better* and the proportions of borrowers for whom the form will in fact be better depends on the amount of governmental subsidization that is built into a particular income contingent scheme (not, in the end, unlike subsidies that can be built into other forms of repayment obligations).

In the end, income-contingent student loans are frequently more appealing to students and politicians, but their appeal is often based on insufficient or incorrect understanding of such programs. There are clear advantages to student debt that carries a guaranteed provision for refinancing in the event of low income, unemployment, or other situations in which repayment becomes unmanageable, extending to the possibility of ultimate forgiveness of remaining indebtedness after a virtual lifetime of low income.

These advantages are already in place in the United States under a range of existing repayment plans for federal government–sponsored student loans, including:

- Income-contingent student loans;
- Income-based repayment plans;
- Pay-as-you-earn repayment plans; and
- Income-sensitive repayment plans.

Student loan repayment through employer deductions from wages

Deferred-tuition and income-contingent repayment obligations are frequently confused with mandatory collection of loan repayments from employee wages, whereby employers treat the repayment similar to employee income tax withholding or pension contributions. Regardless of whether such an approach is a good idea, it is not inextricably linked to income-contingent repayment obligations. If a government chooses to require employers to collect student loan repayments along with income tax withholding, Social Security contributions, and pension contributions, it can also obligate employers to collect fixed-schedule loan repayments or, for that matter, child support, alimony, traffic tickets, or other amounts owed to the government. Employers generally resist added mandatory deductions, and the U.S. Department of the Treasury has resisted such deductions on the theory that this additional burden could jeopardize America’s comparatively high voluntary compliance with income tax withholding.

Dual-track tuitions

A dual-track tuition model is employed in many formerly communist and socialist countries, such as those in eastern Europe and East Africa as well as former Soviet countries. Such countries frequently had a constitution or a framework of law guaranteeing free education (generally taken to include higher education). When these centrally planned economies collapsed, so did many of the state-owned enterprises that had formerly supported universities. The solution to university financing was to continue offering free

higher education but only to those students who passed an entrance examination with a high cutoff score so that universities had only as many students as the government, with its limited resources, could support. Other aspiring students who were academically prepared for university but had scored below the cutoff would be admitted as full tuition-paying students. East African countries adopted this model, as well, beginning with Makerere University in Uganda and spreading to “parallel-track” tuition programs in Kenya and other countries.

The dual-track tuition model was a financial salvation for universities in countries politically unable to charge their population even a modest tuition, even with financial assistance based on students’ ability to pay. At the same time, the model had the obvious inequitable consequence of providing free public higher education to those students who had the advantages of university-educated parents, good secondary schools, and other cultural benefits and whose families could almost certainly afford at least modest tuitions. In contrast, less advantaged students who were unable to pass the entrance examination at the required score faced high tuition costs.

Requirement of parental or sponsor co-signatories

Student loans that the government or private lenders offer tend to require parental or other sponsor co-signatories. This requirement, at least in theory, can substantially reduce the risk of default and open private provision without a government guarantee. U.S. higher education policy has declined to require either co-signatories or other tests of so-called *credit worthiness*, such as lending only to students from upper-income families, upper division students, or to students at colleges and universities who have demonstrably lower rates of default. At the same time, it is possible to combine parental co-signatories with a family means test, requiring a co-signer only from families that have substantial assets. Alternatively, the signature could obligate the parents not to assume repayment of a defaulted loan but to assist in *skip-tracing*—that is, a legal obligation to reveal the borrower’s current address and telephone number.

Simplified methods of targeting financial assistance on families' ability to pay

In the United States, financial assistance from the federal government, state government, institutions, or outside lenders based on the family's ability to pay generally begins with the family's adjusted gross income, as calculated for the purpose of determining income taxes. Actual determination of the amount of aid is finely tuned, with adjustments for number of dependents, dependents in college, certain assets, and other considerations. The process of determining financial aid amounts is complex and to some families, daunting. Policymakers have long called for simplification, but the cost of simplification may be a reduction in accuracy and—potentially—equity. Nevertheless, the political pressure for a simplified and earlier determination of financial assistance continues.

Other countries, particularly those with lower standards of living or where incomes are not reliably reported, cannot rely on self-reporting of incomes and assets to determine eligibility for assistance. Therefore, these countries rely on certain easy-to-verify approximations of family means to determine eligibility and the proper amount of assistance. Helpful alternative indicators include the occupation or education level of the parents, whether the family has a car or a driver, whether the aspiring student went to a secondary school that charged tuition, or whether a rural family has electricity in their home. Such indicators may be only an approximation of family means, but they are difficult to evade.

Extension of child allowances to families as long as their children continue to be enrolled as full-time students

Several European countries that provide child allowances as a kind of general subsidy to families extend these allowances beyond the legal age of adulthood (e.g., 18 years of age) for children who are enrolled full time in a university. This approach defrays a portion of the parent-borne costs of their children's

higher education. Such family assistance is not unlike the many proposals at the state and federal levels in the United States to allow parents to deduct tuitions on their taxes. By itself, this method can be highly regressive, not only going to families that are already more likely to be paying high tuitions but who have incomes high enough to enhance the value of the tax deduction. Governments can put income limits in place to help, however. Such provisions are especially useful as indirect, partial subsidies that benefit private higher education.

Technology-aided instruction and learning

Computers, the Internet, tablets, and email have ushered in vast new and in many ways less expensive ways to teach, learn, and pursue credentials. The United Kingdom, China, India, Indonesia, parts of Africa, and many other countries have adopted forms of education that require only a computer and sufficient digital bandwidth. With the lack of a higher education infrastructure and faculty to meet the surging demand throughout the world, many countries have turned to technology to provide access to traditional classroom-based higher education that would otherwise be impossible. Persistence and quality remain challenging, but the United States can learn much from institutions such as the United Kingdom's Open University.



Limitations on the Applicability of International Models to the U.S. Situation

The applicability of international models of financing higher education to the United States is limited by several factors peculiar to this country. To begin with, most countries establish or strongly influence higher education financing—tuition, financial assistance, and underlying determinants of instructional costs, such as faculty and staff salaries, terms and conditions of employment, and institutional budgets—at the national or central level. This approach elevates the visibility of crucial and potentially volatile features of higher educational finance, such as tuition, so that a change in government or a popular new law can have an immediate and profound effect. No matter how much a U.S. president or Congress wants to leave a major mark on higher education in America, the ability to do so at a national level is extremely limited because both public and private higher education are unequivocally the province of the 50 states.

Programs and policies established at the federal level are still important, however, and include student financial assistance (grants and loans), support of basic research, the federal tax deductibility of higher educational philanthropy, and—albeit indirectly—the accreditation of institutions and programs. The ability to grant or withhold accreditation or limit the ability of individual colleges and universities to admit students who carry federal grants and loans gives the federal government considerable leverage over institutional finances. Nevertheless, the fact remains that the U.S. federal government, unlike central governments in many other countries, does not own or directly fund institutions, establish budgets, select governing boards or institutional presidents, appoint faculty, or set requirements for student admission or awarding of degrees. Thus, the ability of a U.S. president, Congress, political platform, or blue-ribbon commission to alter any aspect of higher education in America, including its finances, is inherently limited.

No matter how much a U.S. president or Congress wants to leave a major mark on higher education in America, the ability to do so at a national level is extremely limited because both public and private higher education are unequivocally the province of the 50 states.

As outlined below, many other features of American higher education—not necessarily unique but in combination distinctive—limit the practical applicability of features of higher educational finance found elsewhere:

- The role of philanthropy in providing both endowments and substantial volumes of annual operating revenue not only to elite private colleges and universities but increasingly to public institutions, even public community colleges is substantial.
- The singular place of the elite undergraduate college in America is an institution almost unknown in the rest of the world. These institutions are able to attract the most academically able and ambitious high school graduates by virtue of their academic selectivity (in part a function of vast endowments that enable wealthy colleges to “buy” the best possible incoming class). The system is also distinguished by the fact that U.S. higher education divides undergraduate and graduate/advanced professional education, which means that a high school graduate aspiring to be a physician or attorney can first complete a bachelor’s degree at a college that *only* offers a bachelor’s degree without being in the least disadvantaged (and in fact, possibly aided) in getting into a top graduate program later.
- The attraction in the United States of private colleges and universities, especially in the northeast United States, for upper-middle-income and upper-income families is great.
- Students are attracted to undergraduate residential campus life in the United States and the enormous resources an attractive campus, pleasant and well-appointed residential facilities, student activities, and other features of campus life consume.
- Colleges and universities compete intensely for students, with the patina of institutional quality frequently associated with the number of students an institution can attract and turn down, costing vast amounts of money to interest and finally matriculate “the best class.”

None of these points is meant to suggest that U.S. higher education cannot or should not change, particularly in ways that might significantly reduce the cost of instruction, attendance, or degree attainment. These and other features do suggest, however, that it is extremely difficult for institutions to strike out on their own with models that are significantly less expensive—unless they are prepared to risk their competitive standing.

The remainder of this paper consists of an unpublished 2014 paper by the author titled *Financing Higher Education: Worldwide Policy Options* from the website of the International Comparative Higher Educational Finance and Accessibility Project at the Center for Comparative Education at the University at Buffalo.

FINANCING HIGHER EDUCATION: WORLDWIDE POLICY OPTIONS

The Worldwide Dilemma Of Financing Higher Education

An international perspective on financing higher education reveals similarities among countries in spite of equally great differences in the underlying economies, cultures, and political systems. The dominant theme throughout the world is financial austerity. Austerity affects higher education and families alike and challenges the policy goals that most countries face in enhancing educational quality, expanding participation and access, and ensuring that systems of higher education are engines for economic prosperity, individual opportunity, socioeconomic mobility, and civic betterment.

The basis for this prevailing austerity is in certain economic truths found worldwide—specifically that:

- Higher education, especially research universities, are costly;
- These costs and institutions' need for revenue increase annually, driven by the labor-intensity of higher education and the difficulties of reducing unit costs through the substitution of capital for labor—and in most countries, further propelled by surging enrollments; and
- These increasing costs must be met by some combination of public revenue, family contributions, and philanthropy (the latter source mainly in the United States and indirectly offset by government through tax advantages to charitable giving).

These economic truths in turn lead to the financial dilemmas of the international higher education landscape: increasing institutional austerity, financial pressures on students and families as governments turn increasingly to tuitions to supplement inadequate governmental revenue, the search for ways to expand accessibility in the face of these increasing student- and family-borne costs, and the quest for ways to inject efficiency into institutions that are notoriously resistant to change—especially to changes that endanger the job security of faculty or that call for alterations in either curricula or instructional methodology that seem to violate long-established principles of the academy.

Thus, national policies that respond to changing patterns of higher education finance are primarily responses to the worldwide phenomenon of higher education costs that tend to rise at rates considerably above available public revenue from taxation, profits from government-owned assets, governmental borrowing, and the inflation-generating printing of money. The consequence in most of the world has been a shortage of revenue to accommodate the increasing costs of instruction and research as well as the increasing revenue needs resulting from surging enrollments. These diverging trajectories—of rapidly increasing resource needs and more static or even faltering revenue from state budgets—must be met with solutions on the cost side or the revenue side. The cost-revenue squeeze, resulting institutional and systemic austerity, and the so-called *solutions* to these dilemmas can have deleterious effects on the quality and capacity of universities and colleges as well as on most countries' goals to expand educational participation, accessibility, and quality.



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The Context For Comparing Higher Education Systems

The problems and resulting policy solutions in the global higher education finance arena share many features, but these similarities must be tempered with an appreciation of the great differences among countries—for example, per capita income, claims on limited public revenue, level of industrialization, and cultural norms.

Wealth and per capita income

Higher education is expensive, both to governments and to students and their families. Investment in higher education has demonstrable economic returns, both public and private, but those returns can be uneven, as evidenced by the high levels of graduate unemployment and underemployment in many low- and middle-income countries and by the low levels of economic growth in many countries in spite of higher education budgets that consume disproportionate shares of public funds. Furthermore, countries may not realize these debts until far into the future, making them difficult to capitalize—that is, to be converted into the cash required to operate the colleges and universities and to pay the tuitions and student living costs now. To make matters worse, low-income countries find it difficult to tax, particularly to tax progressively and cost-effectively, and so to borrow in the international capital markets, despite the well-accepted view of higher education as a worthwhile public investment. Thus, low- and middle-income countries, many of which face the greatest higher education cost trajectories because of surging enrollment pressures, need to finance their public institutions of higher education from greatly strained state operating budgets. Students and families often face insurmountable expenses, as well, particularly for student maintenance costs. If students cannot access loans to cover tuitions and living costs, they may face unmanageable debts.

Competition from other socially and politically compelling claims on limited public revenue

Further increasing the financial pressure on higher education, especially in low- and middle-income countries, is the long queue of urgent needs that compete with public higher education for a share

of scarce public revenue. This issue is particularly poignant in those low-income countries that experience the greatest enrolment pressures and where the increasing revenue needs for higher education must compete with desperately needed funding for elementary and secondary education, housing, public health, economic infrastructure, and strained social safety nets. This competition may be less severe in countries that combine relatively low rates of enrollment growth with strong economies, such as Japan, the Republic of Korea (South Korea), Taiwan, and Singapore, but all countries face a list of public needs that they cannot meet all at once. The basic economic principle of *opportunity cost* states that the cost of one public expenditure can be envisioned as the best or the most pressing alternative expenditure that must thus be foregone. All countries must assess public revenue to support higher education in light of the alternative public needs that the state must forego or postpone because of the rising costs of, and public revenue consumed by, higher education.

Level of industrialization

Highly industrialized countries, marked by membership in the Organisation for Economic Co-operation and Development, are associated with high per capita incomes, which generally allow a measure of both quality and sufficient capacity in their higher education systems, and with well-developed systems of governmental regulation, banking, taxation, credit, information technology, and law. Such systems provide a basis for accreditation of both public and private institutions, cost-effective and collectible student loans, and means-testing to target financial assistance on the needy efficiently—all of which less industrialized, lower-income countries struggle to employ.

Alignment along a political–cultural continuum of economic policy orientation, ranging from aggressive market capitalism to welfare capitalism to market socialism

More aggressively market-oriented countries (e.g., the United States and the United Kingdom) are more likely to embrace privatization and even the corporatization of their public universities and to adopt policies that shift public institutional expenses from the state to parents or students in the forms of higher tuitions and the privatization of food and lodging. Universities may be incentivized to expand enrollments, view students as customers, and allocate resources in pursuit of tuition-paying students and profits. In addition, these countries are more likely to employ management concepts like cost-effectiveness, profit centers, outsourcing, and resource reallocation in public as well as private universities.

Countries more aligned to the social welfare end of this political–ideological continuum (e.g., the Scandinavian countries) or market socialism (e.g., the People’s Republic of China) tend to be more accommodating of high taxes, governmental regulations, and universities as state agencies rather than public corporations. Such governments are more likely to support faculty in opposition to programmatic changes that might cost faculty jobs as well as to oppose tuitions and other policies associated with cost sharing.

Alignment along such a cultural–political continuum is never neat, however, and governmental policies on higher education can be unanticipated and sometimes counterintuitive. For example, although the free-market, anti-tax, and pro-privatization United States is compatible with a large private sector and high tuitions in both its public and private institutions, the similarly market-oriented England, which adopts high tuitions in its publicly financed universities, has few truly private institutions of higher education. Most of Latin America, known for opposition to tuitions in the highly selective and even elitist public universities, has absorbed student demand largely through private colleges. Russia and the other countries

that emerged from the former Soviet Union, which retain the socialist legacy of free higher education, generally restrict it to the number of academically selective students the governments can afford to support and charge full tuition to students who score below the cutoff on entrance examinations.

Population demographics

Countries vary greatly in the rate of growth of their university-aged population and the youth population completing secondary school and aspiring to some form of postsecondary education, the two factors most correlated with the pressures of enrollment increases on systems of higher education. Taken together, a slow or even negative growth in the university-aged population plus a high percentage of this (declining) population completing secondary school and enrolling in postsecondary education means overall declining college and university enrollments. The consequence may be less fiscal pressure on state public higher education budgets but great pressure on institutional budgets that depend on tuition or enrollment numbers to qualify for state operating grants. As a result, universities may become less selective in the students they accept, possibly affecting academic quality. Less selective institutions that have declining applicant pools, especially those that depend financially on tuition revenue, may downsize or even close. Institutions may compensate for declining domestic applicant pools by aggressively seeking international students, as Japan does, with consequences to academic programs and quality.

In contrast, countries that have a rapidly rising university-aged population but currently low participation rates—and thus a large increase in the percentage of this already-rising population completing secondary school and aspiring to postsecondary education—see enormous annual increases in enrollment pressures. These two conditions are found in the majority of low-income and many middle-income countries. Surging enrollment pressures combined with scarce state public revenues and a long queue of competing claimants on those revenues underlie the extreme austerity found throughout the low- and middle-income world.

Two extreme examples illustrate the connection between these factors and higher education financing. At one extreme is Japan, which has a negative population growth rate plus a relatively high proportion of its declining university-aged cohort already enrolled. With a declining population and little ability to maintain current enrollments, any growth in Japanese higher education, at least for the foreseeable future, will depend on increasing international matriculates—students who must overcome language and cultural barriers often perceived as relatively unaccommodating to immigrants. At the other extreme are any number of countries in sub-Saharan Africa or Latin America, which combine a rapidly growing university-aged cohort with a currently low level of postsecondary educational participation—a combination that suggests the potential for a rapidly growing proportion of the population that could qualify for and demand access to higher education.

By encouraging a tuition-dependent private sector in such ways—whether nonprofit or for-profit—even if this demand-absorbing private higher education requires direct or indirect subsidization, countries may be able to generate higher education capacity for less money (and perhaps greater efficiency) than is generally required for the expansion of capacity in a fully public sector...

The extent of a tuition-dependent private sector

Another country characteristic that affects higher education financing is the extent of a country's reliance on a tuition-dependent private sector. Japan, the Philippines, South Korea, and elsewhere in eastern and southern Asia as well as most of Latin America have absorbed much of the increasing demand for higher education by encouraging the creation and development of private colleges and universities. This encouragement begins by permitting a private—that is, an independent or nonstate—sector and easing the barriers to accreditation or the legal permission to grant degrees and other forms of certification. These countries further encourage private-sector growth through direct and indirect forms of public financial assistance, such as:

- Providing or subsidizing necessary infrastructure, such as roads, sewers, electricity, and Internet connectivity;
- Offering low-interest financing for construction and expansion;
- Issuing grants to students to lower the net cost of attendance;
- Opening government-guaranteed or subsidized loans to students in private colleges and universities;
- Opening government research grants to faculty of private universities;
- Exempting philanthropic gifts to colleges and universities from income taxation; and
- Providing direct operating subsidies based on enrollment or completion, perhaps in selected programs determined to be of high social need (such as teaching or nursing).

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The transfer of state authority over public higher education to public corporations

The policy response to austerity in higher education and the worldwide need for greater capacity, efficiency, and responsiveness in colleges and universities will vary based on how a country apportions critical authority among state ministries of finance and higher education and the public corporate governing boards of separate institutions or multicampus colleges and universities. Whatever the extent and nature of this devolution, critical decisions must be made over, for example:

- Terms and conditions of employment, including faculty and staff compensation (generally 70 percent to 90 percent of university operating budgets), policies for achieving promotion and tenure, and rules concerning outside employment;
- Allocation and reallocation of funds within the operating budget;
- Execution of contracts for equipment, new construction, plant maintenance, and functions such as eating establishments and lodging;
- Issuance of debt; and
- Establishment, collection, and retention of tuitions.

States will not delegate all such authority, and what they do delegate or devolved is generally limited. Therefore, university leaders' ability to generate nongovernmental revenues from fees, contracts, and philanthropy and their efficient use of available resources vary depending on the extent to which public colleges and universities in a particular country are effectively *public agencies*—that is, like all other governmental departments, bound by civil service regulations and rigid financial controls and subject to governmental interference—or forms of *public corporations*, with the ability to execute contracts (including with faculty and staff unions), hold and dispose of real property, charge fees, accept gifts, and sue and be sued. One of the most distinctive trends in recent decades has been a worldwide shift in the direction of what Europeans call *New Public Management*—that is, a shift toward greater corporatization of public universities.

The historical roots of higher education systems

Most modern universities trace their roots to some combination of German, French, British, Soviet, and American models, sometimes combining these roots with older, indigenous, and often religious institutions in ways unique to their country. For example, British Commonwealth and Anglophone countries may stress residential colleges for undergraduates, with governing councils headed by volunteer or honorary chancellors, and require successful A-level examinations for university entrance. German roots formed the basis of the principles of academic freedom, graduate studies, and the fusion of teaching and research that universities throughout the world follow. Soviet roots have lost influence, but prior to the collapse of communism, that system stressed tight control over the numbers and credentials of students and the curricula of applied programs that the Five-Year Plans and the production ministries established. The United States combined British and German roots and added public service, accessibility, and the concept of community colleges from which students could transfer into

the upper divisions of universities. This became the principal model for Japanese higher education after World War II and Chinese higher education after the 1980s.

Cultural norms associated with student and parental obligations to pay portions of higher education expenses

Three ways in which cultural norms may differ are critical to higher education financing. The first is the appropriateness of tuitions at all—that is, even without regard to families' ability to pay. Most of the countries of Europe, Latin America, Africa (both north and south of the Sahara), and the transitional (i.e., formerly communist) countries historically resisted all forms of tuition. In Europe, the Scandinavian countries still have no tuitions; England has high maximum fees in its public universities (up to \$14,500 a year); and most of the rest of Western Europe is moving, slowly and with great political resistance, in the direction of tuitions. China and Mongolia have adopted fees that are high relative to their median family incomes, while Russia and the rest of the former Soviet countries, the countries of Eastern and Central Europe, and the former socialist countries of East Africa, have found a way, through dual-track tuitions, to simultaneously accept the revenue from fees and proclaim free higher education for the most academically able students. The acceptance or rejection of the very concept of tuition has nothing to do with the country's wealth or the ability of at least some families to afford to contribute. Rather, it is a country-specific (sometimes a region-specific) cultural/political/ideological characteristic that has proven difficult to change, in spite of the theoretical capacity of a tuition to provide supplemental and often badly needed revenues without diminishing accessibility.

A second critical cultural norm that is difficult to predict on the basis of other political and cultural characteristics is whether and the degree to which a student's family should bear some of the costs of higher education. Most countries that accept the appropriateness of tuitions hold them to be at least partly the responsibility of the parents, with students paying for at least a portion of any tuition and living

expenses through part-time employment and loans. The Scandinavian countries not only have no tuition but hold that it is the student, not the parents, who should be financially responsible for food, lodging, and other living expenses. England and Australia affirm the appropriateness of tuition but have also adopted the Scandinavian notion that students are considered financially independent adults, not dependent children. Therefore, the tuition that before 2006 financially able parents had borne are now deferred as loans and borne instead by the student. In most of the other Western European countries that feature low or no tuition, parents bear financial responsibility for student living costs. In fact, in Germany, such responsibility is required by law and enforceable by the courts.

A third culture-based distinction that affects a country's higher education financing is the degree to which governments should offer student assistance, whether in the form of grants, subsidized loans, or access to subsidized food and lodging, based on academic merit—as determined by high school academic records, entrance examinations, or academic performance at the university—or financial need—generally according to the family's income. Most policy analysts advocate financial assistance based on financial need, arguing that assistance based on academic merit does little to make higher education more accessible. Furthermore, because so much of academic merit (as conventionally measured) is a function of family and peer background, merit aid tends to go disproportionately to children of more affluent families, for whom the financial assistance implied by admission to a free public college or university is like a prize but does not materially affect their access, persistence, or even academic performance. Many cultures, however, hold to the belief that admission by merit is both appropriate and fair and that all students—even the poor, the rural or isolated, and those from ethnic or linguistic minorities—have an equal chance to do well in secondary school and thus to be admitted to universities without special assistance or preference merely because their parents are poor or ethnically or linguistically marginalized (in spite of considerable evidence to the contrary).

Context—historical, political, demographic, and cultural—is important to understanding country variations in higher education systems and how countries finance these systems. Because most institutions in all countries face the common dilemma of rapidly rising costs and flat or even declining governmental revenues, at least on a per capita basis, an international perspective can offer lessons for increasing revenues, increasing efficiencies, or both. An appreciation of the historical, political, and deeply embedded cultural contexts in which colleges and universities necessarily operate cautions us not to assume that what may work in one country will work in another. With this caveat, the author turns to trends in higher education financing that should provide.



Financing Higher Education Worldwide: The Challenge

National policies on higher education financing are mainly responses to the worldwide phenomenon of higher education costs and revenue needs at both the institutional and the country or system levels that tend to rise at rates considerably above available revenues. This failure of public revenues to rise commensurately with higher education's costs and revenue needs may be the result of taxpayer resistance, increased competition from other public needs, or a political sense that a country's higher education system must improve its efficiency or effectiveness to warrant more public revenues.

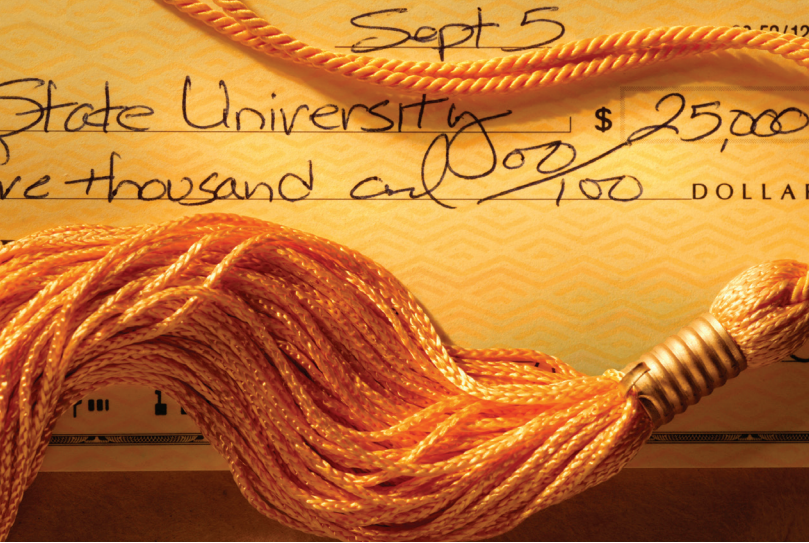
The challenge begins with the rapidly and relentlessly increasing demand in most countries for new colleges and universities as well as additional capacity in existing institutions—more lecture theaters and laboratories, campuses, residence halls, and faculty and staff. This surging demand for greater capacity is driven by four principal forces:

- The demographic effect of high birth rates and expanding university-aged populations, accelerated by the rapidly growing secondary school completion rates of these cohorts;
- Increased public demand for more education based on the understanding that postsecondary education, including education and research at the highest levels, are the keys to economic growth, global competitiveness, a healthy and stable political system, and a vibrant civil society;
- A surging private demand due to the increasing awareness that higher education is the key to better jobs; higher status; greater social and political influence; and a wider array of lifetime choices, including occupations, places to live, and relationships; and
- The quest for greater social justice and the expansion of higher education accessibility to those who have traditionally been excluded or at least underrepresented in higher education—the rural and isolated, the ethnically and linguistically marginalized, girls, and the poor.

The financial impact of these surging enrollments is compounded by annual increases in per-student costs, generally at rates exceeding prevailing rates of inflation. These surges are a function of another set of forces operating in most countries: the labor intensity of higher education, which tends to resist the continuous substitution of capital for labor that is the dominant driver of productivity in manufacturing. As long as *productivity-resistant* faculty and staff receive, on average, wage and salary increases similar to those that workers in the *productivity-receptive* sectors of the national economy enjoy, the unit or per-student costs of higher education will increase at above-average rates. Because the rate of inflation in any country is simply a carefully weighted average of economywide price increases, the normal (i.e., default) rate of increase in per-student costs for higher education will tend to be above the prevailing rate of inflation and thus magnify the cost increases and revenue needs of countries and systems.

A second force operating to increase per-student costs is the expanding use of computing and telecommunications in universities throughout the world. The application of such technologies in manufacturing and the private provision of services tends to add productivity and hold down costs and prices. In higher education, the massive increases in technology may also add value to teaching and research, but they rarely lower costs. In fact, they are more likely to add costs and require more revenue.

A third force is the tendency in most universities to add new academic programs in response to changing scholarly fields and job markets faster than they eliminate older programs (and corresponding faculty, staff, and equipment). This trend is in part the result of the inflexible faculty labor markets that prevail in most countries. It is especially significant in low- and middle-income countries, in which faculty, staff, and other civil servants tend to be well organized, politically powerful, and able to resist a reallocation of resources that might jeopardize their jobs. (Private colleges and universities, whether nonprofit or for-profit, tend to be more flexible and better able to reallocate resources. Thus, they can more easily shed less critical staff, align programs to changing local job markets, and address the demands of their students.)



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Austerity and the Search for Private Revenue

In response to these diverging trajectories of annually increasing costs and revenue needs and flat or declining resources from governments, universities and other postsecondary institutions across the world are turning to other, private revenue to fill the gap and stave off encroaching austerity schemes. There are five principal nongovernmental revenue sources for the continuous support of colleges and universities:

Parents and students (i.e., cost sharing). This cost sharing takes the form of (1) tuition, which covers a portion of the costs of instruction; (2) fees for what may once have been government- or institution-borne costs of food and lodging; and (3) other education-related expenses for books, computer access, and the like that may be shifted to parents and students as public revenues become increasingly insufficient.

Government-funded or externally funded research grants. These grants primarily benefit research programs in certain universities but may do little to ameliorate the overall austerity either of the recipient university or the country's higher education system as a whole.

Instructional entrepreneurship. This includes short, noncredit courses in high-demand fields, such as the English language, management, accounting, and information systems management—again, benefiting certain departments and faculty members but doing little for the university as a whole or for institutions that have less market power.

Philanthropy. Philanthropy is extremely successful in the United States and moderately successful in the United Kingdom and a few other countries, but it is minimally successful (even unsuccessful) in most countries and is not likely to be a significant source of operating revenue for most of the world's colleges and universities.

Donor countries. So-called *donor countries* can be a source of revenue for some universities in a few of the world's poorest countries (e.g., sub-Saharan Africa), although the principal donor countries—the United States, the United Kingdom, Germany, France, Sweden, Norway, and Japan—and principal donor agencies such as the World Bank, the African Development Bank, and the European Union are notoriously uncoordinated.

Cost Sharing

The only substantial and continuing source of private or nongovernmental revenue for the support of higher education is cost sharing. Cost sharing is both a statement of fact—that higher education costs are necessarily shared among government (mainly taxpayers), parents, students (mainly through part-time employment and loans), and philanthropists or donors—and a term used to describe a worldwide shift of higher education costs from a predominant or even an exclusive reliance on government and taxpayers to a greater reliance on parents and students.

Cost sharing is supported by the economic concepts of *equity* and *efficiency* as well as by the apparent inability of public revenues in most countries to keep up with burgeoning enrollments and rising per-student costs. Countries that have traditions of free or only nominal tuition (sometimes constitutionally enshrined) continue to resist the concept strongly, however, and some of these countries also have limited mechanisms of means-tested financial assistance or student loans to maintain accessibility in the face of these rising costs. The policy dilemma of countries struggling to maintain and extend access to higher education under conditions of increasing competition for scarce public resources can be summarized in seven propositions:

- Most countries continue to experience dramatic increases in public and private demand for higher education as they begin to recognize this education as the engine of economic growth as well as individual opportunity and prosperity. (This is especially true of those countries still trying to change from elite to universal postsecondary participation.)
- Higher education everywhere, particularly in developing or low-income countries and in countries in transition from command-driven to market-driven economies, is suffering from severe and worsening austerity measures. This austerity is a function of surging enrollments; high and annually increasing instructional costs, with resistance to measures that might increase the efficiency or productivity of universities; and declining public (taxpayer-based) funding. Resistance to increasing public revenues is, in turn, a function of the difficulty of increasing taxation in ways that are progressive, cost-effective, and not injurious to economic growth and a result of competition from other, often more socially and politically compelling public needs.
- In light of the above two propositions, national systems and institutions are turning to some level of cost sharing or revenue supplementation from students and parents in the forms of tuitions and full cost recovery from the provision of room, board, and other noninstructional services.
- In addition to the need for revenue, tuitions—even in otherwise public institutions—are supported by concepts of *equity* (the notion that those who benefit should at least share in the costs), *efficiency* (the notion that the payment of some portion of tuition will make students and families more discerning consumers and the universities more cost-conscious providers), and *responsiveness* (the idea that the need to supplement public revenue with tuitions, gifts, and grants will make universities more responsive to individual and societal needs).
- Some of the increased costs that parents and students will bear are inevitable and economically rational. Indeed, supplementation of higher education revenues by nongovernmental sources—primarily the family—is one of the major recommendations from the World Bank and most other development experts and an important potential solution to increasingly underfunded and overcrowded universities. One can see the beginnings of tuition and various fees in China, Vietnam, India, countries in Latin

America and Africa, and even in formerly tuition-free Europe. (Indeed, as of 2015, England had some of the highest public university tuitions in the world.) One can see the dilemma facing countries that have antiquated constitutional guarantees of free higher education struggling with the need to supplement increasingly inadequate public revenues for higher education. Mature (mainly tuition-supported) private higher education sectors are dominant in Japan, the Republic of Korea (South Korea), the Philippines, Chile, and most of Latin America and are beginning to emerge in the countries of the former Soviet Union and elsewhere.

- In the face of the increasing expenses that students and parents must bear, national systems and individual institutions face the challenge of maintaining access to higher education, especially for poor, minority, rural, and otherwise underserved populations. (This challenge is particularly compelling in light of increasing income disparities in countries throughout the world.) Many of these countries are meeting issues of expanding higher education opportunity and accessibility through income-based student financial assistance and loans or other forms of delayed payment, such as income-contingent loans that the employers collect from wages or salaries in addition to income tax withholding or pension contributions.
- At the same time, means-tested assistance—that is, financial assistance that increases accessibility and persistence rather than merely rewarding intelligence and good secondary school records—is difficult and costly, especially in the absence of a tradition of revealing incomes and assets in response to tax laws or requests for documentation of financial need. Furthermore, student loan schemes that actually recover the borrowed principal and interest are exceedingly rare, especially in the absence of a mature credit culture and a well-designed loan scheme that enjoys professional management.

Proponents of cost sharing maintain that it can supplement public revenues and even—with means-tested financial assistance—enhance accessibility and equity. Without some form of revenue supplementation, public colleges and universities in many countries will be forced to limit enrollments—and thus continue to serve only the elite—or will be maintained at such levels of overcrowding and shabbiness that all students are denied a good higher education.

Forms of cost sharing

Cost sharing can take several quite different forms, the principal ones being:

- *The beginning of tuition (where higher education was formerly free).* This was the case in China in 1997, the United Kingdom in 1998, and Austria in 2001.
- *The addition of a special tuition-paying track while maintaining free higher education for the regularly admitted, state-supported students.* Such a dual-track tuition scheme preserves the legal and political appearance of free higher education, which is particularly important (and frequently enshrined in a constitution or a framework law) in formerly communist countries such as Russia as well as African socialist East African countries such as Kenya, Uganda, and Tanzania.
- *A sharp rise in tuition where public-sector tuition already exists.* A shift in the direction of greater cost sharing requires that the rise in tuition be greater than

the rise in institutional costs for the government's or the taxpayer's proportionate share to be lessened and the parent's or student's shares to rise. This has been the case most recently in England, which in 2012 raised the maximum allowable university tuition to approximately £9,000 (\$14,800). It has also been the case for decades in most states in the United States and several Canadian provinces as state and provincial governments have failed to maintain their former shares of public university expenses, forcing tuitions to fill the gaps left by the failure of government funding to keep pace with the rising costs of higher education.

- *The imposition of user charges to recover the expenses of what were once government- or institution-provided (and heavily subsidized) residences and dining halls.* This trend has occurred in most countries, including most formerly communist or socialist countries and notably (and controversially) most of the countries in sub-Saharan Africa, where subsidized living costs at one time absorbed the bulk of the higher education budgets. In Sweden, Norway, Finland, and Denmark, where higher education remains “free,” the costs to students are exclusively the expenses of student living, which are high in those countries and shared neither by taxpayers nor (at least officially) by parents. Rather, students bear those costs mainly or entirely in the form of student loans (which are costs shared indirectly by taxpayers in the form of repayment subsidies).
- *The elimination or reduction of student grants or scholarships.* Governments sometimes accomplish this change simply by “freezing” grant or loan levels, holding them constant in the face of inflation, which then erodes their real value. This shift began in the once-generous cost-of-living grants in the United Kingdom (which were later abandoned altogether) and has since happened to the maintenance grants in most of the communist or socialist countries of the former Soviet Union, Eastern and Central Europe, Asia, and Africa.
- *A shift in the predominant form of student assistance from grants to loans.* This was the case in the United Kingdom, as reported earlier, and has been the case in the United States, where even though the federal need-based grants have not kept pace with increases in the costs of higher education, the total volume of federally sponsored student loans (most of them subsidized) has risen dramatically.
- *An increase in the effective cost recovery of student loan amounts.* Lenders can recover loan amounts by diminishing the subsidies on student loans (similar to the diminished value of grants) and potentially through an increase in interest rates, a reduction in the length of time no interest is charged, or a reduction in the numbers of loans for which repayment is forgiven. The effective cost recovery might also come through a tightening of collections or a reduction in the instances of default (as in the United States in the 1990s), with no change in the effective rates of interest paid by those who were repaying anyway.
- *The limitation of capacity in the low-fee or free public sector together with the official encouragement (and frequently some public subsidization) of a tuition-dependent private sector.* Several countries (notably Japan, South Korea, the Philippines, Indonesia, Brazil, and some Latin American and East Asian countries) have avoided much of what would otherwise have been significant governmental expenditure on higher education by keeping a limited public sector—usually elite and selective—and shifting much of the costs of expanded participation to parents and students through the encouragement of a substantial and growing private higher education sector.

Tuitions and their limits

Cost sharing may take on different forms, but the imposition of or increases in tuitions provide the greatest financial impact. Tuitions, aside from the need to rebate some of the additional income in the form of grants or discounts to preserve accessibility, can be both financially significant and designed to increase regularly, thus keeping pace with the inevitably rising per-student costs of instruction. In addition, unlike most forms of faculty entrepreneurship, tuitions do not divert faculty from the core instructional mission (and according to many observers may actually have a beneficial effect on the quality of teaching and the relevance of the curriculum). Perhaps for these reasons, tuitions are the most politically charged and ideologically resisted form of cost sharing and so have become a symbol of the conflict between those who believe that government must continue to provide higher education free of any charge and those who believe in the imperative of cost sharing and tuition.

At the same time, shifting even a small portion of the costs that government and taxpayers formerly bore to parents and students requires some form of financial assistance for students and families who cannot afford such expenses. Financial assistance may take the form of grants or discounts that cover all or some of the tuition plus some of the costs of student living. Grants or discounts are generally provided according to financial need based on the family's ability to pay according to its income, assets, and special expenses (such as the size of the family and the number of children in higher education for whom fees and living expenses have to be paid).

Means testing, however, is difficult because families may resist disclosing to authorities their true incomes and assets. This resistance may be to escape taxation, or it may be that resisting the disclosure or under-reporting of family income may be rewarded with a means-tested grant or discount that would not otherwise have been earned. Means testing is more likely to give reliable measures of family finances in countries where incomes are generally reported and known—for example, in North America, the United Kingdom, and northern Europe—or where most middle and high incomes are mainly from state enterprises or multinational corporations and so discoverable. In low- and middle-income countries, however, incomes are apt to be variable (e.g., from self-employment or farming) and are often either not known or not reported accurately. Such countries (e.g., Kenya, the Philippines) may resort to what have been described as *categorical indicators* of income that may at least approximate the ability to pay a moderate tuition and be more difficult to hide. For example, families may be considered able to pay if the state or a licensed multinational corporation employs either parent full time in a managerial capacity, if the family has been able to send children to private secondary schools, or if the family farm is of a certain size or has running water and a telephone connection. In all these cases, the object of government policy is to find a relatively accurate, verifiable, and cost-effective measure of the family's ability to pay so that it can target financial assistance at those families for which the government grant will not merely reward academic ability but make a difference in whether the student is able to attend an appropriate university.

Student loans

The other form of financial assistance designed to expand access to all forms of postsecondary education is a loan. Student loans are politically controversial because, as with other forms of cost sharing, they are designed to shift a portion of higher educational costs onto students. Of course, one can equally see these loans as a way to maintain accessibility if tuitions and other forms of cost sharing are unavoidable and the student's family is unable to cover the costs of that student's attendance. Governments may prefer loans over grants or low tuitions for all because a loan is—in theory—more an asset than an expenditure, even if partially subsidized by the government. Thus, a given level of governmental expenditure—again, in theory and assuming a degree of means testing—can generate greater accessibility than the same level of expenditure with no or low tuitions for all or even means-tested grants.¹

The author uses the caveat *in theory* because many loan programs in fact do not recover more than a fraction of the amounts loaned, whether because interest rates are too low, the loans are not recovered, or the means testing is insufficient. In addition, some families are culturally resistant to borrowing or averse for religious reasons to the payment of interest, as seen in some Islamic cultures. Student debt—even in a country as accustomed to cost sharing, high tuitions, and student borrowing as the United States—can become a problem if students take on far more debt than they are likely to be able to repay. Given (1) the high and rising cost of higher education and the need in so many countries for some degree of cost sharing to supplement increasingly inadequate governmental revenues; (2) that higher education does bring a private return to students (both monetary and nonmonetary); and (3) that student loans that have appropriate interest rates and are appropriately lent, managed, and recovered can work and provide substantial cost-effective access, student loan schemes will continue to play an important role in reconciling the need for supplemental revenue with the need to maintain and expand access to higher education. Indeed, student loans are an integral part of higher education financing in many countries, including the United States

and Canada in North America; the United Kingdom, Sweden, Norway, Denmark, Germany, the Netherlands, and Portugal in Europe; Kenya and South Africa in sub-Saharan Africa; Chile in South America; and Japan, South Korea, and China in Asia. These loan schemes differ greatly in the following ways:

- Average levels of indebtedness annually and at the conclusion of studies
- Form of the repayment obligation (income contingent or fixed schedule)
- Rates of interest or levels of government subsidization (i.e., the degree to which the loans are actually in part grants)
- Degree to which money goes through the hands of the student or is simply entered as an obligation to be repaid, like an income surtax after completion of studies
- Source of capital—specifically, whether the revenues lent are entirely from the public treasury or tap private savings in banks, pension funds, or other nonbank sources of capital
- Risk bearer (as student loans are inherently risky and can have high levels of default)
- Degree to which the loan scheme is open to students at private and public institutions of higher education

In the end, student loan schemes that are (1) properly designed with a real interest rate, sufficient repayment period, means-tested rationing, and provisions for dealing with unmanageable debt; (2) efficiently disbursed and collected; and (3) able to tap a private capital market without affecting the government's operating budget will be an important component of the comprehensive higher education financing schemes in most countries in addition to tuitions, means testing, and grants and with policies to close the cost–revenue squeeze by reducing costs and introducing efficiencies.

1 Because of this political resistance, student loans schemes are sometimes partially disguised under the euphemism *deferred tuition fee*. Australia and England, for example, provide university access to most students free of upfront tuition—which generally falls on parents—in favor of deferred tuitions that the student repays the same way as loans. Income-contingent loans, in which the repayment obligation is a percentage of the borrower's income until the loan is repaid at the required interest rate, are essentially the same (in true cost to the borrower) as conventional, fixed-schedule loans that students repay for a set number of years at set monthly payments. For most borrowers, both forms constitute the same present value of the repayment stream.

Cost-Side Solutions: The Search for Greater Efficiency

Solutions to the austerity that has resulted from costs and revenue needs outpacing available governmental revenues cannot depend entirely on finding sources of nongovernmental revenue. Institutions and systems of higher education throughout the world are also seeking efficiencies—that is, *solutions on the cost side*. Such solutions, whether imposed by governments or undertaken voluntarily by colleges and universities, include increasing class sizes and teaching loads; deferring maintenance; substituting lower-cost, part-time faculty for higher cost, full-time faculty; and dropping low-priority programs. All these options are difficult, academically problematic, and heavily contested, especially by the faculty and their political allies, who frequently reject outright claims of insufficient public revenues. Opponents of cost sharing sometimes maintain that if the government simply raised taxes on the wealthy and corporations or wasted less on defense, public works, or their own pet projects, there would be enough money for higher education and no need for controversial tuitions, expensive and inefficient means-testing, and student loans that the introduction of tuition requires to maintain accessibility.

Especially harmful to greater higher education participation and accessibility are the cost-side solutions that simply limit capacity in the lower-price public colleges and universities (including both research universities and teaching-oriented colleges and technical institutes). Such solutions often force increasing numbers of young men and women who have completed secondary education prepared for and aspiring to higher education into higher-priced private colleges and universities or into the fee-paying tracks of the public universities. Lacking the family resources to pay the higher costs of private instruction, food, and lodging, these young people must enter the workforce, forever denied their dream of a postsecondary education.

In contrast, strategic cost-side solutions accept that additional revenue, whether from government or through cost sharing in all its forms, alone will not suffice. Politicians, university leaders, and even the citizenry in most countries accept the fundamental

limitation of higher education revenues and seek to use available resources more wisely (i.e., strategically) in pursuit of the mix of goals that include increasing academic quality; capacity; social equity; and responsiveness to the needs of students, employers, and society alike.

Government agencies and traditional civil service employment tend to prize continuity of employment above all. Such systems are not compatible with the kinds of strategic cost-side solutions characteristic of universities. These solutions above all require continuous flexibility in the deployment of the university's principal resource: personnel. Typical problems with government agencies include rigid civil service laws, negotiated union contracts, and political considerations that generally forbid terminating staff for any but the most egregious reason; hiring part-time or temporary workers; contracting out services; carrying unspent funds forward from one fiscal year to the next; or shifting available funds from one budget category to another.

There has been a clear shift in government laws and regulations dealing with public universities over the past decade, especially in Europe (e.g., the Netherlands, the United Kingdom), several Canadian provinces, most American states, and recently in China and Japan. This shift has been in the direction of greater managerial autonomy and flexibility, frequently transforming public universities from simple governmental agencies to effectively public corporations. These new developments for greater managerial autonomy and flexibility were described earlier as *New Public Management*, which in connection with public universities is designed to maximize the university's outputs of teaching and research for the taxpayer dollar and provide incentives for maximizing nongovernment revenue. Faculty, staff, and their political allies will resist substituting lower-cost junior or part-time faculty for higher-cost senior faculty, increasing average class size, increasing teaching loads, and differentiating faculty workloads. In the end, such measures may be too divisive and too easily politicized both by those on the outside who believe that more cuts can be made and those on the

inside who believe that the cuts already made were unnecessary and have destroyed their universities. More limiting is the likelihood that most of the “low-hanging fruit” of easy expenditure cuts and other efficiency measures in most countries have long since been taken.

Profound (i.e., extreme) cost-side solutions

What lies ahead in worldwide higher education financing may be a far more profound set of changes to the way at least some students are educated. These changes include:

- Shorter first degrees (which is already happening with the Bologna Accords in Europe);
- More university credit for learning taking place in secondary schools (such as the International Baccalaureate and Advanced Placement programs in the United States);
- A greater differentiation among sectors, suggesting fewer high-cost research universities, with lower total enrollments, and more low-cost university colleges and short-cycle institutions; and
- More students beginning their postsecondary education in lower-cost “nonuniversities,” such as three- and four-year colleges; community colleges; polytechnics; universities of applied technology; and other institutions that feature shorter cycles, higher student-to-faculty ratios, and less faculty time devoted to research.

The most profound, controversial, problematic, and disruptive threat to the worldwide conventional instructional paradigm is the potential that instructional technology and the Internet, in the form of massive open online courses (MOOCs), represent. MOOCs present the tantalizing possibility of altering the basic instructional paradigm, which has been associated with higher education since the Middle Ages, and greatly lowering the cost to students, institutions, systems, and countries. Few doubt that instructional technology will alter the way

professors teach and students learn. Few resist the idea of self-paced, Internet-based learning taking the place of the many certificate programs or continuing professional education programs that the health care, engineering, accounting, and law professions require. At the same time, many observers are skeptical of the extent to which MOOCs or even less dramatic forms of technologically aided, self-paced learning will alter the higher education of traditionally college-aged students. These skeptics point to early indications of heavy dropout rates from such learning experiences and significant problems in awarding degrees and maintaining security. Traditionally college-aged students, the skeptics assert, go to colleges and universities not just to learn from an instructor—whether lecturing or leading a discussion in a classroom or on the Internet—but for the whole college experience. What some fear is that governments will attempt to solve the financial dilemma of rising costs and increasing enrollments through a combination of high-tuition, elite public universities, which will increasingly be available only to high-achieving students or students from wealthy families, and high-cost private colleges or a low-cost public colleges that have few professors and predominantly offer instruction in the form of MOOCs.

Policy Options and Lessons to Be Learned

The opening section of this paper stressed that financing a country's higher education system must be seen in the context of that country's history, level of economic development, per capita wealth, population, demographics, degree and nature of social stratification, political system, and prevailing ideologies. What works in one country might be totally ineffective or even counterproductive in another. Thus, any lessons one can learn regarding the more effective ways to finance a country's higher education system must be tempered with caution and humility. Nevertheless, this author has examined the international comparative financing of higher education over the past two decades from the perspective of a scholar (as a professor of higher and comparative education) and university leader (as a college president and university system chancellor) and believes that some lessons are applicable to all institutions and all countries:

- Higher education—or *tertiary education*, to use the more comprehensive term that embraces all education and training beyond the secondary level—is vital to economies, societies, and individuals. Moreover, higher and other forms of tertiary education are becoming ever more important as economic fortunes—again, both for national economies and for individuals—depend increasingly on higher-level skills and the ability to tap global information and advanced technology. Higher education in all countries is expensive, but it is an appropriate and worthwhile investment, both for governments from public (mainly tax) revenues and for students and families.
- Following lesson 1, the demand for higher education will continue to increase in most countries, driven by increasing populations and increasing proportions of these populations seeking education beyond the secondary level.
- In many countries—even some that have fast-growing economies, such as China, India, and Brazil—these increasing numbers of students completing universities, colleges, and other forms of tertiary education will exceed the number of highly skilled and well-paying jobs that are available. This should not be a reason for governments to limit tertiary-level enrollments, educate only for those jobs that currently exist (many of which will soon be obsolete), or create unneeded public-sector jobs just to employ the graduates. Rather, governments should continue to invest in higher education as they invest in public infrastructure and encourage private-sector economic growth stimulated in part by the entrepreneurship of better-educated college and university graduates.
- Higher education will continue to be costly, and the combination of increasing per-student costs and (at least in most countries) surging enrollments will drive the costs and revenue needs of colleges and universities up at rates well in excess of prevailing inflation rates. The need for continually increasing levels of public resources combined with commensurate growth in the need for competing public expenditures will increase most countries' need for nongovernmental revenues to support the costs of instruction in public colleges and universities.
- Governments should maintain a balance between investing in true research universities, which are extremely expensive and of which most countries need only a few, and the equally important but too frequently underappreciated and underfinanced university colleges, technical universities, community colleges, and other short-cycle institutions of postsecondary education.

- Revenues to support higher education come in all countries—although in varying proportions—from four principal sources: governments (from taxes, public assets, and deficit financing), parents (from current income, savings, or borrowing), students (from savings, part-time employment, and borrowing), and philanthropists (from current gifts and from endowments created by past gifts). The term *cost sharing* in international comparative higher education finance is an expression of this fact as well as a description of the shift in most countries from predominant (sometimes exclusive) reliance on government and taxpayers to support institutional costs of instruction to parents and students through tuitions and greater financial responsibility for institutionally or governmentally provided food and lodging.
- A modest tuition gradually imposed—for example, up to 15 percent to 25 percent of the full per-student costs of instruction—can provide a substantial and predictable source of revenue that does not divert professors and lecturers from their primary teaching obligations and can increase both instructional capacity and academic quality. In spite of almost certain opposition from students and some politicians, the additional revenue from tuitions and other forms of cost sharing, with means-tested grants and student loans, can add instructional capacity and increase student financial assistance, both of which are critical to the expansion of participation, especially in low- and middle-income countries.
- Because the benefits of higher education are undisputedly both public and private, a shift of some of the cost from government and taxpayers to parents and students does not deny the important public benefits to higher education, which provides a persuasive rationale for continuing governmental support of public higher education (and at least partial subsidization of private higher education). Ideally, governments should pass on an appropriate percentage of instructional costs to parents and students, then maintain this level of support and refrain from decreasing that percentage to solve other governmental financial problems.
- Following lesson 8, however, governments should refrain from freezing tuitions, at least during periods of inflation (which is most of the time in most countries), because doing so simply diminishes the government's share and invariably leads to worsening austerity for colleges and universities.
- Student loans can allow students to invest in their own postsecondary education and achieve some financial independence from their parents. The debts, however, should be held to levels that most students can amortize at a reasonable percentage of average earnings.
- Governments should participate in student loan programs, setting the terms and rules of the program and bearing a portion of the risk. Generally available student loans will always have a high rate of default compared to other forms of consumer lending, and governments should not enter into student loan schemes under the popular but incorrect assumption that such programs can ever be free from a need for governmental revenues. In other words, no generally available student loan scheme (or schemes not restricted to medical students or students from wealthy parents who can co-sign the loans) can be truly self-sustaining.
- Student loans can work. In other words, when student loan schemes are designed and operated properly, they can provide a level of accessibility for government revenue that is at least equal to and most often greater than the same level of public revenue that would be required to keep tuitions at zero or very low or to provide only grants or discounts.

- For both political and substantive reasons, financial solutions to austerity in higher education cannot consist solely of shifting financial burdens to parents and students. Universities and other postsecondary institutions must vigorously pursue efficiencies, some of which will be controversial and may involve shedding some faculty and staff to attract and hold needed talent and invest in new programs.
- Expanding access to and participation in higher education must be a public priority. At the same time, expanded access, especially in countries already at levels of mass or universal participation, must be pursued mainly at the middle and secondary levels, where too many students from low-income or ethnically or linguistically marginalized groups fail to achieve at levels required for success at colleges or universities. Adults and others who have been bypassed for educational opportunities through no fault of their own need pathways to enter or reenter and succeed in higher education. That said, higher education is an inefficient and expensive way to make up for deficiencies at earlier levels of education.

These lessons leave room for policies to finance higher education that will vary in significant ways among countries. The major aims of quality and accessibility remain, even as taxpayers, families, and students alike require sustainable solutions to overcome the problem of high and rising costs.

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