

latter into taking a more proactive role in improving access and success opportunities. This is achieved by incorporating an equity indicator into the funding formula, setting up earmarked funds for equity interventions that universities can benefit from, and/or including equity-related criteria in the quality assurance process.

COMPREHENSIVENESS AND CONSISTENCY OF EQUITY POLICIES

The study attempted to compare national equity policies internationally from the viewpoint of comprehensiveness and consistency. The 71 countries surveyed were classified into four equity policy categories defined in the following way:

- Emerging: the country has formulated broad equity policy principles and goals but has accomplished little in terms of concrete policies, programs, and interventions (nine countries).
- Developing: the country has put in place the foundations of an equity promotion strategy, but has not defined many policies and programs, is not investing much in this area, and has implemented few policies and programs (33 countries).
- Established: the country has formulated an equity promotion strategy and has put in place aligned policies, programs, and interventions to implement the strategy (23 countries).
- Advanced: the country has formulated and implemented a comprehensive equity promotion strategy. Some countries in this category even have a dedicated equity promotion agency (six countries).

Most countries fall into the second or third category (developing or established). The distinction between the two is not due principally to the wealth of the countries concerned. The “established” category includes several developing countries that may not be able to devote the same amount of resources as OECD economies, but have fairly comprehensive policies to promote equity in higher education.

The countries that appear as “emerging” from an equity policy viewpoint are essentially fragile states that have had neither the resources nor the political stability necessary to elaborate and sustain robust equity policies for higher education over the long run.

The few nations labeled as “advanced” show a high degree of consistency over time in terms of comprehensive strategy, policies, goals and targets, and alignment between equity goals and the range of instruments—financial and nonmonetary—used to promote equity in higher education. Some of them even have a dedicated equity promotion agency. Most of these countries (Australia, England, Ireland, New Zealand, Scotland) are relatively rich Commonwealth countries with mature higher education systems,

which have paid increasing attention to the obstacles to success faced by students from underrepresented groups. The other nation included in the list is Cuba, which for ideological reasons has consistently put a great emphasis on equity since the 1959 socialist revolution. ■

Two Cheers for US Higher Education: International Implications

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In my recently published book, *Two Cheers for Higher Education: Why American Universities Are Stronger than Ever – And How to Meet the Challenges They Face* (Princeton University Press), I argue that the success of the US system is due to high levels of investment from multiple sources of revenue combined with the sometimes contentious, but ultimately compatible interplay of three propulsive “logics of development.”

Compared to the state-dependent systems in most of the world, the US system is distinctive in the variety of revenue sources on which institutions can draw, including federal and state research funds, state subsidies, student tuition, and philanthropic support. By 2015, the federal government alone poured \$65 billion into student financial aid and made hundreds of billions available in subsidized loans, and it disbursed more than \$30 billion to universities for research and development. Donors provided billions of dollars more. It is hard to overestimate the importance of these multiple and comparatively abundant sources of revenue.

By “logics of development,” I mean guiding ideas joined to institutional practices. The first of these logics is the traditional one: the commitment to knowledge discovery and transmission in the disciplines (and at their interstices). I refer to this commitment as academic professionalism. It remains fundamental and provides a necessary autonomy for universities from the priorities of the state and the economy. During the period following 1980, two movements hit colleges and universities with great force: one was the

movement to use university research to advance economic development through the inventions of new technologies with commercial potential. The other was to use colleges and universities as instruments of social inclusion, providing opportunities to members of previously marginalized groups. My argument is that these movements, in conjunction with the traditions of academic professionalism, created a special kind of dynamism because of the strength of partisan commitments to them, backed up by high levels of patronage.

The size and funding levels found in the United States are the product of more than 100 years of development and are not easily transportable to other nations. Nevertheless, the US experience holds both lessons and warnings for educational reformers in other countries.

THE LESSONS

The concentration of resources in a handful of selective institutions has been enormously valuable for scientific and scholarly contributions. Every country needs institutions where expectations are very high, resources are abundant, and the rigor of debate and discussion is uncompromised by extra-academic influences. The gradual expansion of the number of such institutions should be a policy goal throughout the world. The United States has 35–40 world-class institutions of this type.

Thus far, it appears that increased entrepreneurship is consistent with contributions to problem solving in the disciplines.

A climate of maximum freedom of speech and inquiry, together with traditions of very tough criticism, have been conducive to scientific and scholarly breakthroughs in the places that have historically excelled. By maximizing the sources of revenue—from students, state subsidy, donors, foundations, and research funding agencies, universities reduce problematic resource dependencies that can restrict essential freedoms.

Thus far, it appears that increased entrepreneurship is consistent with contributions to problem solving in the disciplines. The leading producers of scientific and scholarly knowledge are very often also the leaders in developing new technologies with commercial potential. Innovators, after all, need to receive feedback from experts about whether their discoveries will actually work. In the book, I provide

the example of the competition between three teams of researchers working to develop the HIV protease inhibitor. The first team to publish had part of the solution wrong, a mistake the leader of the second team quickly spotted and corrected. The US case shows that greater porousness between universities and industries can be managed without endangering basic knowledge production in universities.

The variety of ways in which university researchers and firms interact to generate ties that are beneficial to each go well beyond patenting, licensing, and contract research. They include placement of graduate students in firms working on commercializing new discoveries, service by faculty members as scientific advisors, sabbaticals for corporate researchers in university labs, and in some cases open science collaborations with entire industry groups. Those universities located in regions with thriving high-tech businesses and medical centers can develop along the lines of the University of California–San Diego and the University of Texas–Austin by “plugging into” an already existing ecosystem of potential partner firms, while at the same time encouraging start-ups that complement the capabilities of existing firms. Those located in regions without such a favorable economic terrain need to “grow their own” high-tech economies by engaging faculty members and students in entrepreneurship activities. As I show in the book, the experiences of public universities in Colorado, Michigan, and Utah show that this strategy can work.

THE WARNINGS

The extension of opportunity to members of low-income, first-generation, and underrepresented minority students has catalyzed upward mobility energy and has enriched the educational environment of American universities. At the same time, it has, on some campuses and in some departments, led to restrictions on politically acceptable speech. These restrictions are at odds with the traditions of freedom of speech and inquiry that are essential features of the university environment. The emphases on social inclusion have also fostered in some departments a confusion between the priority given to academic excellence as compared to social representation. Other countries can presumably do better in welcoming diverse student bodies within a value-rational framework in which traditional scientific and scholarly norms prevail in an undisputed way.

Tuition is essential in systems facing declining state subsidies, and student loans are therefore also essential. For the most part, students do not have unmanageable debt but that is cold comfort to the substantial minority of students who do accumulate high levels of debt and cannot find a suitable job. The main problem with the US student loan system is that students are asked to repay their debts before

they are well established in the labor market. The solution, already adopted by many countries, including England and Australia, is a well-designed universal income-contingent loan repayment system.

Human capital development among undergraduates is a serious problem. Apart from a motivated minority of 10–15 percent, US undergraduate students are not learning as much as they could. The onus for change is on faculty members and administrators. States could trade off additional funding for conscientious efforts to professionalize college teaching. Thanks to cognitive science and thousands of well-designed learning studies, the basics of effective college-level instruction are now well known. Instruments such as the Wieman–Gilbert Teaching Practices Inventory allow instructors to rate themselves on practices that the sciences of learning have shown to be valuable for student comprehension and mastery of subject matter. Accountability measures such as online reading quizzes prior to class meetings also make a difference.

The mass employment of poorly paid and often poorly prepared part-time instructors is a major drawback in the current US system. Research evidence indicates that these people tend to be less effective instructors, and that on many university campuses their work conditions and pay are deplorable. More institutions could follow the lead of the University of California by replacing these positions with permanent lecturers with security of employment, based on rigorous evaluation of candidates' teaching competence and knowledge of the literature on effective practices in college teaching. ■

Performance Funding as Neoliberal Policy

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lysing-neoliberalism-in-theory-and-practice-the-case-of-performance-based-funding-for-higher-education.

Neoliberal ideas—whether new public management (NPM), principal-agent theory (or agency theory), or performance management—have provided the rationale for sweeping policy reforms in the governance and operation of higher education. One such policy is performance-based funding for higher education, which has been widely adopted in the United States, Europe, and elsewhere. Around 35 US states now provide performance-based funding for higher education, in which some portion of government funding for public higher education is based not on enrollments and previous funding levels, but instead on institutional performance reflecting student outcomes measures such as persistence, degree completion, and job placement. Performance-based funding is also quite common outside the United States. Australia, Canada, and many European countries (19 as of 2010) fund their higher education systems based on output-related criteria such as degrees produced, credits earned, and research effort and quality.

Two kinds of performance-based funding programs can be distinguished. Performance funding 1.0 provides a bonus above regular government funding for higher education and is often no greater than 1 to 5 percent of total government funding. Performance funding 2.0 is not provided in the form of a bonus but instead is part of the government's base funding for public institutions of higher education. The proportion of government funding tied to performance in 2.0 programs is often much higher than in 1.0 programs, and may be up to 80–90 percent of government funding. With other institutional revenues such as tuition, fees, and research grants taken into account, performance funding 2.0 can amount to a quarter of a US public institution's total revenues.

INTENDED IMPACTS

The champions of performance-based funding aim to realize outcomes such as higher graduation rates and improved research productivity by changing the values and incentives of higher education institutions and, in turn, their organizational practices. Indeed, performance funding in the United States and Europe has influenced institutions to make changes to their policies and programs for the purpose of improving student outcomes. These include, for example, redesigning their academic programming and teaching practices and reforming their student advising and tutoring services.

However, the impacts of performance-based funding on student outcomes are often weak. For example, US performance funding has resulted in more students receiving