The demand for higher education worldwide is booming. Governments want well-educated citizens and knowledge workers but are scrambling for funds. The capacity of the public sector to provide increased and equitable access to higher education is seriously challenged.

What are the on-the-ground realities of developing financial resources and policies to meet the twin goals of equity and access without jeopardizing quality? This volume provides in-depth reports from selected countries and sub-regions: Morocco, Korea, England, Uganda, Poland, Oman, East and southern Africa, Southeast Asia, Brazil, and Egypt. Each chapter is written by a seasoned educator participating in the Fulbright New Century Scholar program for 2007-2008.

Given the near-universal constraints of declining resources but increasing enrollments, the authors identify common trends such as the public/private divide, the privatization of the public sector, and diversification of funding. To address these issues, the chapters examine a surprising variety of policy instruments such as means testing, targeted subsidies, cost sharing, institutional aid, student bursaries, and tax exemptions.

Policymakers, academic leaders, higher education organizations, and researchers will find significant, provocative, and cautionary lessons in these reports from around the world.
Financing Access and Equity in Higher Education
Higher education worldwide is in a period of transition, affected by globalization, the advent of mass access, changing relationships between the university and the state, and the new Technologies, among others. *Global Perspectives on Higher Education* provides cogent analysis and comparative perspectives on these and other central issues affecting postsecondary education worldwide.

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Financing Access and Equity in Higher Education

Edited by

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This book is a product of the 2007-2008 Fulbright New Century Scholars Program. The New Century Scholars (NCS) are American and international scholars working in collaborative teams over a period of approximately 18 months, combining joint research, two- to four-month visits to host universities or ministries in other countries, and three plenary sessions: an orientation, a midterm, and a final session. In-between these meetings, the collaboration is energized by a common research interest, a commitment to collaborative work, the guidance of a Distinguished Scholar Leader, and the modern miracles of email and the internet.

Like other Fulbright programs, the New Century Scholars program is sponsored by the Bureau of Educational and Cultural Affairs of the U.S. Department of State. The Council for International Exchange of Scholars (CIES), a division of the Institute of International Education (IIE), assists the bureau in the administration of the New Century Scholars program and other Fulbright scholar programs. Unique among the family of Fulbright programs, which are typically bi-national, the New Century Scholars is a global program that brings together a cohort of scholars from all over the world. The 2007-2008 program convened 12 U.S. and 24 international scholars to examine the topic “Higher Education in the 21st Century: Access and Equity.”

Underlying this topic is the fact that higher education is universally viewed as essential, not only to economic prosperity in increasingly globalized, knowledge-driven economies, but also to healthy democracies and civil societies, and to individual aspirations for intellectual fulfillment, expanding life options, and the economic rewards that (presumably) accompany greater productivity. At the same time, higher education is also expensive and becoming more so, driven by the combination of increasing costs and, in most countries, surging enrollments. Higher education is also selective, depending on academic preparation, interest, and financial wherewithal—all of which in virtually all societies are unequally distributed. The result is that higher education everywhere tends to be accessible disproportionately to the sons and daughters of those who are themselves financially well off and well educated and who share the dominant language, ethnicity, and sometimes the “proper” cultural or political affiliations.

This tendency of higher education to reproduce and sometimes even to accelerate socio-economic and other divisions is recognized in all countries, and virtually all countries attempt to reduce barriers and to extend access and participation specifically to those marginalized by social class, language, ethnicity, and isolation. Analysis of these barriers calls upon the perspectives of sociology, anthropology, economics, and other scholarly perspectives. The policy remedies, in turn, look to solutions at the levels of basic education and high school, to policies of preferences or affirmative action, and to policies that reduce the financial barriers to equity and expanded participation.
The 2007-2008 New Century Scholars formed themselves into four working
groups: (a) The Cultural and Societal Norms That Affect Access and Equity in
Education, (b) Financial Resources and Policies That Enhance Access to Higher
Education, (c) Mechanisms Within and Beyond the Schools that Affect Access to
Higher Education, and (d) Arguments, Actors, and Policies for Postsecondary
Educational Equity.

This book is the product of the second group, which adopted as its theme:
“Financial Resources and Policies That Enhance Access to Higher Education.” The
members took as their collective aim “the identification of policies and resources
that help promote increased access and equity, without diminishing quality.” The
group coordinator was Anthony Welch, NCS from Australia. The editor of this
volume is Jane Knight, NCS from Canada. Other working group members include
Redouane Assad (Morocco), Clarissa Eckert Baeta Neves (Brazil), Claire
Callender (United Kingdom), David W. Chapman (United States), Iman El-Kaffass
(Egypt), A.B.K. Kasozi (Uganda), Ki-Seok Kim (Korea), Marek Kwiek (Poland),
Pundy Pillay (South Africa), Claudio Rama (Uruguay), and NCS Distinguished
Scholar Leader, D. Bruce Johnstone.

This book is the product of the research carried out by these scholars
investigating the financial aspects of the 2007-2008 New Century Scholars’ topic:
“Higher Education in the 21st Century: Access and Equity.” We believe that this
product—only one of many emanating from this cohort of American and
international scholars—is a significant contribution to this important, and
eminently global policy issue of expanding participation and more equitable access
to the benefits of higher education worldwide.

Sabine O’Hara, Executive Director,
Council for International Exchange of Scholars
Vice President, Institute for International Education
Washington, D.C.

D. Bruce Johnstone
Distinguished Leader
New Century Scholar Program 2007-2008
Buffalo, New York
In every country of our shrinking globe, there is no government concerned about the long-term welfare of its citizens that does not place a high premium on advanced education. This book is a timely report from the field with its focus on how selected countries around the world face the deepening challenge of developing financial resources and policies that enhance the twin goals of equity and access to higher education. Through in-depth country or sub-regional case studies, this volume illustrates the diversity of national contexts and responses to the global challenge of developing strategies to finance wider access to higher education.

The key concepts informing the analysis of the financial strategies and their implications are access, equity, and quality. The chapters address a variety of policy themes affecting these financial strategies and a range of policy instruments for delivering them. The major themes addressed include the public/private divide, the privatization of the public sector, cost sharing, diversification of funding, and resource allocation, while the policy mechanisms explore means testing, targeted subsidies, institutional aid, and tax exemptions.

The first chapter provides a conceptual framework against which to examine worldwide trends in the financing of higher education and their effect on the search for more equitable access to higher education. The primary issue in finance is the growing cost of higher education to individual institutions and its even greater pressure on countries or systems. These rising costs in most countries, and especially in low-income countries, nearly always exceed the rate of inflation and the rate of increase that can be expected from available public revenues. This chapter examines the impact of intensifying austerity in the higher education domain, and the success of various solutions that have been proposed to counter this cost-revenue squeeze.

In Chapter 2, the focus turns to Africa and a comparative study of the implications on access to and equity in higher education structures in Kenya, Mozambique, Namibia, South Africa, and Uganda. It is evident that, as a whole, this region’s higher education suffers from often inadequate financing that is, almost everywhere, inequitable and inefficient. Participation in higher education in Sub-Saharan Africa is low in both absolute and relative terms. Furthermore, access to higher education is highly inequitable, since gender, socio-economic status, and region affect the level of participation. In the face of serious financial resource constraints on higher education, education ministries have responded in two ways. First, Kenya, Namibia, and Uganda have implemented some form of cost-sharing in the form of tuition fees. Second, governments in most of the countries have
permitted the introduction and subsequent expansion of private higher education providers. However, these strategies have also resulted in greater inequity in many countries. Finally, the chapter addresses inefficiency in higher education financing by observing that it results largely from its ad hoc nature and does not develop closer links between sectoral planning and budgeting. Nevertheless, positive lessons are emerging everywhere, most notably in the loan schemes in Kenya and South Africa, the planning and budgeting framework in South Africa, and the attempts to address equity in Mozambique and Uganda.

In Morocco, opportunities for higher education are less widely available and accessible than those of most North Africa and Middle East countries. Chapter 3 explores the extent to which these restrictions result from overdependence on limited public resources and an inefficient process of allocating resources. The country’s higher education system suffers from a serious financial crisis and inequitable accessibility for lower socioeconomic status (SES) students and for students from rural areas. In addition to analyzing the main causes of Morocco’s problems and recent challenges, Chapter 3 looks at a proposed new financial scheme to meet this critical situation and modernize the system. This proposal is based on the diversification of financial sources, the implementation of cost sharing, and the reformation of the current student financial aid system to better equalize opportunities and remove barriers for students from disadvantaged groups.

Still looking at Africa, Chapter 4 turns to Uganda where the three major sources of higher education funding are the state, the parents/students, and philanthropic agencies—both foreign and local. However, these sources are not sufficient to assure wide access, and the current distribution plan disproportionately favors the children of well-to-do families. The two primary reasons leading to unequal access have been rapid massification of enrollments making it impossible for the state to finance all qualified students and the weakening of the Ugandan state during years of political upheaval (1970–1986). The chapter illustrates how this difficult situation is exacerbated by a mechanism of distributing the meager resources which, distressingly, tends to increase rather than reduce equity of access.

Chapter 5 examines key features of the Southeast Asian higher education landscape with implications for access and equity. Beginning from the tension that arises between the demands for more access that confront inevitable limits on state capacity, the chapter examines the access and equity issues in Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. In general, the limited state capacity is leading to greater privatization, except in the Philippines where the private sector already accounts for three quarters of all higher education institutions. Paralleling the growth of the private higher education sector is the privatization of public-sector institutions which are now charging fees in excess of private institutions especially in high-demand courses. Given the importance and potential risk, this discussion of quality control and transparency issues is particularly significant. The chapter concludes that much remains to be done to achieve wider access to good quality higher education, particularly at affordable prices, in South East Asia.

A very different scenario from Southeast Asia is described in Chapter 6, which examines, from a historical perspective, Korea’s transition from elite to near-universal access to tertiary education in the last three decades. Korea has become
INTRODUCTION

one of the first countries to have nearly universal completion of secondary education, and this rate of growth was the highest of any of the OECD countries. This chapter examines Korea’s transition from elite to universal access to tertiary education in the last three decades. The main driving force behind such rapid expansion in the higher education sector has not been the result of a concerted central planning effort by the government, but rather parents’ zeal to financially support their children’s studies. The idea of “tertiary education for all” is closer to reality in Korea than in other countries. Is this a victory story? The costs and consequences of this unprecedented achievement are raised in this chapter but remain unanswered.

Chapter 7 focuses on the theme of crossborder education, specifically in the context of the Asia Pacific region. In response to the increasing demand for higher education, crossborder education in the forms of franchising, twinning, double degrees, branch campuses, and virtual universities is becoming more important as a means of increasing access and meeting demand. While it is clear that the scope and volume of crossborder education is growing, many unanswered issues have arisen about its impact. This chapter addresses three primary questions: (a) Does crossborder education increase access to higher education? (b) As the number and types of crossborder providers and delivery modes grow, is the quality of the academic offer ensured? and (c) What are the potential implications for public financing in countries that host crossborder programs and providers? This chapter emphasizes the development of national regulatory frameworks, providing examples from receiving countries (e.g., Malaysia, Hong Kong, and China) and from sending countries (e.g., Australia, the United States, and the United Kingdom). Finally, the importance of maximizing the benefits and minimizing the risks of crossborder education is discussed in terms of increasing access and assuring quality.

In England, a major reform in funding higher education occurred in 2006. Along with the introduction of variable tuition fees and government-funded grants and loans for students, universities were encouraged to provide students with additional discretionary financial support to promote widening participation and greater access. Chapter 8 examines the background for establishing these bursaries and scholarships in England and explores some of their key features. It investigates the main eligibility criteria adopted by universities for disbursing bursaries and, from this investigation, analyzes how universities are using them and what they see as the purpose of this institutional aid. It also examines the extent to which universities’ bursaries and scholarships reflect the political objectives and policy rhetoric articulated by government when instituting bursaries and scholarships. The chapter concludes that, from the evidence currently available, there is a mismatch between government aspirations and the reality of bursaries and scholarships on the ground. Moreover, the bursaries and scholarships put in place may perpetuate existing divisions within and across higher education.

Chapter 9 examines the past two decades of transformation of higher education in Poland from the perspective of its ongoing privatization in two directions: (a) the expansion of a market-driven fee-based private sector, and (b) the expansion of the fee-based section of the nominally free (tax-supported) public sector. It stresses
the role of market forces and the competition between the two sectors in the rapid expansion of higher education system. The privatization of the public sector is discussed as a specific response of impoverished institutions to the conditions of permanent financial austerity. The close relationship of growth in the private sector to developments of the public sector receives particular attention. Finally, the role of cost-sharing is stressed, its implications for equitable access are discussed, and tentative conclusions are reached.

In Brazil, given the impressive expansion of higher education enrollment since the 1990s, the topic of access and social inclusion has become part of the federal government’s priorities agenda. The official policy now focuses on improving the participation in higher education of students from low-income groups. But in formulating these policies, the federal government deals with the fact that higher education in Brazil is offered in very unequal proportions by its different providers. The private sector, which is fee-paying, accounts for about 74% of the total enrollment, while the public sector, which is completely free, makes up the remaining 26%. The issues of access and social inclusion have therefore have resulted in different policies for the two sectors, often leading to political-ideological criticism. Chapter 10 examines recent policies aimed at increasing enrollment and the democratization of access to higher education. Overall, the chapter concludes, there is no real reason for optimism. The rate of the system’s expansion is not enough to ensure the necessary social inclusion, and the model of higher education provision is conventional and expensive. Although official action has been taken to support a more democratic access, these efforts are recent and it is still too early to assess their real impact.

Higher education in Egypt faces four major challenges. The first and main challenge is severely overcrowded institutions resulting from the limited capacity to meet increased demands; the second is the increased cost resulting from the rising expenses involved with offering or getting higher education; the third is inadequate financing resulting from the continuous fall in public funding per student and the scarcity of supplementary funding; the fourth is the predictable result of the first three: poor quality of education. The purpose of Chapter 11 is to review the current strategies of financing higher education in Egypt and their impact on access to higher education for the underprivileged. It provides an account of the new strategies that include (a) expansion in public education, (b) more partnerships with the private sector, (c) introducing private, for-profit and not-for-profit education, (d) considering student loans and financial assistance, (e) subsidizing the individual instead of the institution, and (f) engaging in multiple forms of cost-sharing. Stakeholders’ responses to such strategies are also explored through the findings of a recent, important survey. In a concluding review of successes and failures, the chapter provides some recommendations for improvement.

While Oman is an oil-dependent economy, oil production is on the decline and reserves could be largely depleted within the next 10 to 15 years. Anticipating that an alternative economy will require an educated citizenry, the government has invested heavily in developing a higher education system. In an effort to constrain the escalating costs of free public higher education, Oman legalized the provision of private (fee-paying) higher education in 1995. There is concern, however, about
how students and families will be able to pay for private higher education without a corresponding student loan program. Chapter 12 examines the extent to which educators, government, and civic leaders see a need for Oman to introduce greater cost sharing for higher education and their assessment of strategies for introducing greater cost sharing. Additionally, the chapter examines the extent to which educators, government, and civic leaders believe that private higher education is adequately preparing Omani students for a less oil-intensive future.

The international community has an enormous challenge in assuring that education remains a widely available public good, not a privilege for a country’s elite. The demographic pressures of a university-age cohort eager for higher education are real, urging most governments to expand and enlarge their public university offerings and drawing private providers into a fast-expanding international market. Yet the challenges of funding higher education in a time of increasing austerity are real. These country/regional reports by knowledgeable scholars are up-to-date reports from a rapidly shifting and critically important sector of public policy.

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These words of appreciation are written on behalf of the whole team of authors. Our first vote of thanks goes to the Fulbright New Century Scholar (NCS) program and especially to Patti McGill Peterson who welcomed and guided us through the orientation phase and to Sabine O’Hara who then led us for the rest of the program. We express particular thanks to D. Bruce Johnstone, the NCS Distinguished Scholar Leader who is known and respected around the world for his expertise in financing higher education. We are grateful to fellow NSC participants from the 2007-2008 cohort and colleagues from the hosting institutions for the opportunities of shared reflection and critical analysis on our individual and collaborative research projects. In terms of preparing this volume, our collective and deep appreciation goes to Lavina Fielding Anderson for her masterful editing talents, to Philip G. Altbach, editor of the Sense Series on Global Perspectives on Higher Education, and to Peter de Liefde, the publisher.
D. BRUCE JOHNSTONE

1
WORLDWIDE TRENDS IN FINANCING HIGHER EDUCATION
A Conceptual Framework

The financing of higher education throughout the world has seen dramatic changes in the last decades of the 20th and the first decade of the 21st centuries. In the main, these changes in financing are responses to a worldwide phenomenon of higher educational costs tending to rise at rates considerably in excess of the corresponding rates of increase of available revenues, especially revenues that depend on taxation. The consequence in most of the world has been a shortage of revenue to accommodate, first, the increasing costs of instruction and research, and, second, the increasing revenue needs of rising enrollments. These trajectories obviously diverge: Resource needs are increasing very rapidly while state budgets are static or even faltering. Solutions must be implemented on the cost and/or the revenue sides. The cost-revenue squeeze itself, as well as some of the so-called solutions employed to meet it, can have a deleterious impact on both the quality and the capacity of universities and other institutions of postsecondary education and thus on the goal in virtually all countries to expand higher educational participation and access. The chapters in this book examine the link between higher education finance and access in the authors’ respective countries. This introductory chapter provides a conceptual framework for that examination by identifying worldwide trends in financing higher education and also by identifying the dominant solutions for meeting the cost-revenue squeeze.

TRENDS IN FINANCING HIGHER EDUCATION
Six trends in the latter years of the 20th and early years of the 21st centuries—each with economic, political, and social roots and consequences—are noteworthy for their impacts on the financing of higher education and in turn on higher educational participation and accessibility. These trends, while varying both among countries and within each country, form the context for higher education’s currently widespread financial austerity as well as for the emerging policy solutions which exhibit some very similar patterns despite local variations. These trends are:

– The increasing unit, or per-student, costs of instruction.
– The increasing enrollments.
– The increasingly knowledge-based economies and the consequent additional expectations heaped on higher education to serve as a major engine of economic development and individual betterment.
The failure of governmental, or public, revenues to maintain their share of the cost increases resulting from these pressures on higher educational expenditures.

The trend toward increased globalization, which contributes both to the increasing cost trajectories and to the faltering governmental revenues.

The pattern of increasing liberalization of economies and the resulting decentralization, devolution, and privatization of public and private systems, including institutions of higher education.

This chapter will examine each of these trends, then discuss their dominant consequence—which is an increasing higher educational austerity. The chapter concludes with an examination of some current policy solutions.

Increasing Unit (Per-Student) Costs of Instruction

The fundamental financial problem of higher education all over the world—and the reason that even wealthy institutions feel the pinch of austerity—begins with the fact that universities face a trajectory of annual cost increases. This trajectory is the natural and quite appropriate rate of increase in the wages and salaries they pay. This rate tends to track the rate of increase of wages and salaries in the general economy—or, if there is any real growth in the economy, at a rate in excess of the prevailing rate of inflation. This phenomenon of rising relative unit costs in sectors of the economy that are labor intensive and productivity immune, or at least productivity resistant, was first articulated by Baumol and Bowen (1966). Examples include symphony orchestras, schools, and universities. Accelerating this natural rate of unit (or per-student) cost increase are other factors peculiar to many universities that further accelerate annual cost increases in varying degrees in different countries, depending mostly on available revenues:

– Technology. In goods-producing industries in the private sector, technology lowers costs by substituting capital for labor and driving down unit costs. In contrast, technology in higher education increases costs—supposedly altering the very nature and improving the value of the product, but still requiring more, not less, revenue.

– Constant change. In higher education, new programs are added almost always faster than it can shed old programs with their faculty and staff.

– Research. The costs are already high and rapidly increasing, especially in the physical and biomedical sciences with their high technology expenses. This trend is especially exacerbated when faculty and administrators aspire beyond their constant share of prestige or of the enrollment market. It is particularly evident in elite and would-be elite universities, which seek greater scholarly recognition, better and more academically qualified students, and higher rankings on such international league tables as the Times Higher Education Supplement’s World’s Top 200 Universities or Shanghai Jiao Tong University’s Academic Ranking of World Universities.

Higher education finance, in short, is burdened with a natural unit cost trajectory that in normal years will exceed the average rate of increase of consumer prices
generally. That is, even in ordinary times, the cost trajectory will naturally exceed the rate of inflation year-in and year-out. Despite the insistence of some politicians and journalists that such a rate of increase “just can’t continue to rise like this,” the rate of increase very well can and probably will continue to rise at such rates as long as taxpayers, parents, students, or all of them together are willing to continue paying. This does not mean that spending will equally inevitably increase. Indeed, it usually does not, which accounts for the widespread austerity that this chapter explains. But this natural per-student expenditure is what it would take to truly “keep up” and not to be plagued by the manifestations of austerity.

Furthermore, this natural unit-cost increase beyond inflation is not a mark of managerial ineptitude or of faculty inefficiency. It is, rather, the entirely natural consequence of higher education’s underlying production function. This natural consequence is reinforced by the fact that, in any set of measures to be averaged, approximately half will be above and about one-half below this average. And since an official rate of inflation is nothing more or less than an average of a great many price increases, it should be no surprise that the cost and price increases of about half of the goods and/or services produced in any economy—including higher education with its limited capacity for replacing faculty with technology—will be in this “greater than” half.2

Increasing Enrollments

The second trend, affecting national systems more than individual universities, is increasing enrollments. These increases accelerate the financial impact of the aforementioned increases in per-student costs because of three forces, which vary greatly among countries. The first of these is demographics: specifically the change (generally the growth) over time in the number of youth in the conventional college or university age cohort (usually 18 through about 24). Some countries such as Italy, Germany, and other countries in Southern Europe, Russia, and Japan are experiencing demographic declines. Most countries, however—and nearly all low-income countries—are experiencing increases in the traditional university age cohort (UNESCO-UIS/OECD, 2005).

The second force affecting enrollments is the higher participation rate of this cohort (UNESCO Institute for Statistics, 2006). This increased participation rate is a function of: (a) increases in enrollments at secondary levels; (b) changing employment opportunities and a perception of increasing competition for these fewer “good” jobs which will be enhanced by higher education; and (c) an increasing regard for social and economic mobility and justice. This third factor leads to policies designed to increase higher educational participation, particularly among segments of the population who have traditionally been less well represented: ethnic and linguistic minorities, women in some cultures, students from poor secondary schools, or other groups considered to be educationally disadvantaged.

A final factor affecting enrollments in some countries is the increasing amount of higher education sought by each entering student, usually expressed in terms of
final degree. This factor, too, shows an accelerating trend as first-degree graduates perceive a need for even higher levels of education to be competitive. A well-known example is the increased demand for MBAs and other professional master’s degrees. Licensed professions such as teachers and the non-physician health professions also show a trend of attaching new status to their degrees, both to raise their stature and to limit the numbers allowed to practice, which limits competition and enhances status and remuneration.\textsuperscript{3}

The first impact that increased enrollments has on financing higher education is to increase the cost. Thus, maintaining quality requires yearly budget increases, which are usually not forthcoming. At the same time, however, increased enrollments make it easier to take management actions that are extremely difficult in a time of stable or declining enrollments. Such management tactics include, for example, raising student-to-faculty ratios or implementing new and more cost-effective pedagogies. But when enrollment remains level or declines, efficiency measures almost inevitably mean terminating jobs, accompanied by the extraordinary levels of resistance and demoralization that attend the downsizing of any institution.

\textit{The Increasingly Knowledge-Based Economy}

The third factor affecting the financing of higher education in virtually all countries is the increasing tilt, especially in already industrialized countries, toward services or the knowledge-based economy of high tech, design, finance, management, and the like. Even in manufacturing, the trend is toward modes that are less labor-intensive and more capital-intensive. The result is to increase the value, both to countries and to individuals, of at least some forms of higher education. Chief among them are management, finance, law, and the STEM fields of science, mathematics, engineering, and technology (World Bank, 2002).

The financial impact of this increasingly knowledge-based economy on higher education is manifested by the new and usually more expensive educational programs offered and by a redistribution of faculty and students among these new programs, both effects tending to further accelerate the increase in per-student costs. The increasingly knowledge-based economy also gives a premium to both individuals who have the requisite higher education and also to countries with higher education systems that are high quality, oriented to needs of employers, and broadly inclusive.

This trend forms a third source for the increasing revenue needs of higher education everywhere and for the even greater austerity that results when the needed revenue is not forthcoming. At the same time, it constitutes a strong argument for increased investments in higher education from governments (where such increases are possible and politically feasible) and from students or parents (also where such contributions are politically feasible and technically possible). Student loans offer such opportunities, since the possibility that students will be able to repay them is high, thanks to the better jobs they will thereby obtain.
Faltering Government (Tax) Revenues

Governments everywhere struggle increasingly under escalating burdens of pensions and the rising costs of elementary and secondary education, health care, public infrastructure, security, and other social welfare costs. Electorates in many highly industrialized countries have been getting more conservative, particularly in their distaste for taxation and what they perceive to be wasteful government spending. Many European countries have high social welfare costs and typically spend from one-third to more than one-half of their national gross domestic product in the public sector. Such countries are seeing a growing trend of trying to shift productive resources to the private sector and reduce public deficits to comply with the requirements of the European Community and the Euro Zone. Russia, the rest of the countries that have emerged from the former Soviet Union, and the former Communist countries of Central and Eastern Europe all labor under the enormous costs of building an internationally competitive productive infrastructure and weaning a labor force away from its deeply rooted dependence on state enterprises and governmental employment. The United States struggles with an over-consuming population that saves too little of its income, demands many public benefits, and is unwilling to tax itself to get them.

Taxation in the developing countries, where production and incomes often tend to be low anyway, is technically difficult. The financial challenge for these governments is how to get a share of purchasing power when relatively little wealth comes from large, stable enterprises that can be taxed and that can also be counted on to withhold taxes from their employees. Former Communist countries, once dependent on easy and extensive turnover taxes on state-owned enterprises, now need to tax personal or corporate incomes, retail or commercial transactions, and/or property—all of which are difficult to calculate, expensive to collect, and relatively easy to evade. Businesses and individuals in many countries seem increasingly able to hide incomes and conceal the value of their taxable assets. And even in wealthy, highly industrialized countries with efficient tax systems, the increasing globalization of the world economy (see below) encourages productive enterprises and wealthy individuals to flee to countries with lower taxes.

Finally, governments everywhere are contending with politically and socially compelling competing needs for these increasingly scarce tax revenues. In much of the developing world and in many transitional countries, competition for public revenue includes the need to replace decrepit public infrastructure, meet unfunded pension obligations, provide a workable social safety net, and reverse generations of environmental degradation. In Sub-Saharan Africa, the competition for the extremely scarce public dollar is truly formidable and includes, in addition to the needs listed above, public health, the old scourge of malaria and the new pandemic of HIV-AIDS, the pressing needs of elementary and secondary education, and assistance to a badly faltering regional economy. Finally, although the government or taxpayer in most developing countries will continue to be the principal revenue source for public higher education, most or even all of whatever limited additional revenue can be squeezed out of the public treasuries for higher education will be absorbed by the need to accommodate the inevitably expanding enrollments,
leaving little or nothing to accommodate what ought to be the rising unit, or per-
student, costs—much less allowing investment in new programs, innovative pedagogies, or academic research.

The Trend toward Increased Globalization

Globalization is not a well-defined phenomenon. The term is almost certainly overused in the discourse of higher education and in the economic, political, and social trends against which the financing of higher education must be discussed. For the purpose of this chapter, however, “globalization” refers to the increasing internationalization (and the corresponding lessened significance attached to national borders and nation states) of: (a) information and knowledge, which is greatly facilitated by telecommunications that can send billions of digitized bits of information per second by optical fiber or microwave for fractions of pennies per mile; (b) capital, or the flows of claims on wealth between savers and borrowers/investors, including students; and (c) production, which is increasingly sophisticated, technical, and capital-intensive, and which is therefore increasingly mobile and predisposed to locating where politics are stable, labor costs are low, contracts are enforceable, and tax and regulatory climates are benign.

Thus, in the globalized economy, wealth and power increasingly flow less from the location of natural resources (with the exception of oil and gas) and the production of goods, and more from the ownership of capital and knowledge, protected by enforceable contracts, patents, copyrights, and licensing agreements. Globalization further diminishes the significance of national and local language, culture, traditions, or norms. In its place is a correspondingly hegemonic flow of language and culture from the highly industrialized and technologically sophisticated countries represented by the members of the Organization for Economic and Cooperative Development (OECD) and especially by the United States and the other English-speaking members.

Globalization’s impact on financing higher education is to further heighten the advantages to both nations and individuals of obtaining high levels of knowledge and skills—and thus to increase the quality of their higher education. Globalization also applies directly to higher education in the increased ability of universities and other suppliers of knowledge to transmit this knowledge across borders electronically and without much, if any, control or regulation by local or national governments. Finally, globalization has a profound impact on the financing of all publicly financed agencies, including universities (both public and private), because it limits the ability of governments to tax and thus diminishes their ability to keep up with higher education’s voracious and continuous revenue needs. An obvious corollary of this phenomenon is that increasing non-governmental revenues becomes even more imperative.
The Increasing Liberalization of Economies

A final trend or set of related trends in most countries is a movement in the direction of liberalized economies. This trend, which has had the most wrenching impact in former Communist countries, conveys a greater reliance on or acceptance of market forces and a commensurately reduced dependence on government to allocate resources, set prices, determine production technologies, and establish wages. Along with this increasing liberalization comes increased decentralization, devolution, and privatization of the productive economy.

What this means for higher education is that universities may remain publicly owned and ultimately publicly controlled but they are increasingly privatized in their reliance on non-governmental revenues, responsiveness to market forces, and incorporation of managerial norms associated with private enterprise. Large public sectors, generous economic safety nets, and redistributive taxes remain the norm in many countries. (An example is the Nordic countries.) Moreover, public ownership and heavy regulation of factories and financial institutions continue as the norm in most formerly Communist countries (e.g., Russia and China). However, the governmental ownership of all means of production and the *dirigisme* of governmental bureaucracies in most countries are giving way to a less intrusive pattern of governmental steering and to the policies and procedures associated with the New Public Management (Almaral, Meek, & Larsen, 2003; Barzeley, 2001).

Two complementary effects of this liberalization on higher education are, first, the encouragement of private higher education (both for-profit and not-for-profit), and second and equally important, the privatization of public higher education. Regardless of the legal status of being public or private in ownership, mission, or degree of dependence on public revenue, public and private universities around the world are moving (or being forced to move) in the direction of public corporations. In other words, they formerly occupied very much the same niche as other state agencies: clear governmental ownership, substantial governmental or ministerial control, and governmental or civil service employment of faculty and staff. Their new public corporation status means that they are empowered to raise and keep supplemental revenues, employ and compensate staff, make contracts, incur debt, and sue and be sued in courts of law.

HIGHER EDUCATIONAL AUSTERITY

The immediate effect of these trends on the financing of higher education (again, varying by country) has been increasing austerity in universities, in other institutions of postsecondary education, and in national systems of higher education. This nearly universal austerity, which shows no signs of lessening, has resulted in the following characteristics:

- *Universities and other institutions of higher educations.* They are experiencing the results of austerity as manifested by overcrowding in lecture theaters; restive and unhappy faculty; insufficient or outdated library holdings, computing capability, and internet connectivity; a deterioration of physical plants; less time
and support for faculty research; and a widely assumed diminution of quality in teaching, learning, and research.

– National systems of higher education. They are also experiencing dire consequences: capacity constraints, the inability to accommodate all graduates of academic secondary levels who are capable and desirous of further study, a loss of the most talented faculty to countries with fewer financial troubles, and an increasing inability to compete in the global knowledge economy.

– Students are dismayed and resentful to be charged tuition fees where there used to be none or to deal with very rapid increases where fees already existed. Living expenses have also increased, requiring a larger percentage of students to work part-time or full-time while attending school, to go into debt, or both. Many students are not even fortunate enough to find a place, while those who left the secondary school system without obtaining a diploma cannot even hope for the possibility of tertiary education.

This austerity has been most crippling in Sub-Saharan Africa but is also serious throughout the world’s developing countries and in many “transitional” countries, especially those emerging from the former Soviet Union. But the kind of austerity manifested in serious overcrowding can be seen in much of Europe and Latin America. Students are unable to find seats in lecture theaters, and instruction is reduced to lectures with only rare opportunities for students to discuss an idea or ask a question. The loss of secure faculty positions, dipping faculty morale, and students graduating with burdensome levels of debt can be seen in countries as affluent as the United States, the United Kingdom, Sweden, and Canada.

Beyond these manifestations of financial austerity is diminished trust in government and in the public sector generally, especially in countries that have moved toward the political right. Public universities are perhaps special targets for this suspicion. This mistrust goes beyond tighter public budgets. It includes a loss of the esteem in which public universities were once held, calls for additional and frequently burdensome systems of accountability, and new forms of governmental intrusion into the management of universities, even when such oversight contradicts the more general trend toward greater university autonomy.

POLICY SOLUTIONS TO HIGHER EDUCATIONAL AUSTERITY

Cost-Side Solutions

In response to these financial pressures and increasing demands for accountability, universities and national systems have sought solutions on both the cost and the revenue sides. Solutions on the cost side 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. These solutions are difficult, academically problematic, and heavily contested, especially by the faculty and their political allies who frequently reject outright the claims of insufficient public revenues. Even when they accept the basic economic principle of scarcity, they may have very different notions of proper academic priorities than either their governments or their university leaders.
The simplest solution is frequently to impose enrollment ceilings or otherwise limit capacity in the low-price public institutions of higher education, including both research universities and teaching-oriented colleges and technical institutes. This solution inflicts the greatest damage on the goals of greater participation and accessibility. It forces increasing numbers of well-qualified graduates from secondary schools into higher priced (and generally lower quality) private colleges and universities or into the fee-paying tracks of the public universities. And if family resources preclude paying these costs of private instruction and also meeting the high costs everywhere of food and lodging, then these young people are forced into jobs and must foreclose their aspirations to a postsecondary education.

At some point after serious political negotiation for additional public resources, strategic cost-side solutions accept the revenue limitations and seek to use available resources more wisely—that is, strategically. Such an approach requires negotiating among the mix of goals that include even such occasionally divergent aims as academic quality, capacity, social equity, and responsiveness to the needs of students, employers, and society alike. The management of governmental agencies and the norms of civil service employment—which prize continuity of employment above all else—are generally incompatible with many strategic cost-side solutions to the financial problems characteristic of universities and other institutions of higher education. Typical problems with government agencies are laws, contracts, and political considerations that 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 transferring available funds from one budget category to another.

There has been a clear shift in governmental laws and regulations dealing with public universities in the last decade or two, especially in Europe (examples are the Netherlands and the United Kingdom), in many Canadian provinces, in virtually all American states, and very recently in China and Japan. These shifts have all occurred in the direction of greater managerial autonomy and flexibility. They have frequently transformed public universities from simple governmental agencies into public corporations with the new authorities described under the liberalization trend described above. These new developments use models associated with private enterprise, allow greater managerial autonomy, and incorporate more flexibility in strategies. These approaches are sometimes referred to collectively as New Public Management and are designed to maximize the university’s outputs of teaching and research for the public, or taxpayer, dollar. In addition they provide incentives for maximizing revenue from non-government sources (Amaral, Meek, & Larsen, 2003; Herbst, 2007).

In New Public Management, the university rather than the ministry or the state budget office may be given authority, for example, to:

- establish wage and salary policies, a power formerly reserved to the ministry or parliament and to the government’s financial, personnel, and civil service bureaucracies;
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– reallocate expenditures from one category to another in response to institutionally determined priorities, a hitherto forbidden option;
– carry forward unspent funds from one fiscal period to the next, thus encouraging savings and institutional investment and discouraging spending for no reason other than avoidance of loss or the appearance of an excessive budget;
– enter into contracts with outside agencies and businesses expeditiously and competitively, a process that was formerly frequently politicized and prolonged; and
– receive and own assets and sometimes even borrow and incur debt, an option not permitted to ordinary government agencies.

Such authority is increasingly vested in a president or chief executive officer selected by a governing board (as in the United States, the United Kingdom, and other non-European countries) rather than in a faculty-elected rector (typical of most European countries). With this authority, university presidents may seek cost-side solutions by lowering the average per-student costs of instruction. Tactics include (a) substituting lower-cost junior or part-time faculty for higher-cost senior faculty; (b) lowering the faculty-student ratio by increasing average class size, (c) increasing teaching loads, and (d) differentiating faculty workloads. All such solutions are painful, and all will be resisted, especially by faculty, staff, and their political allies.

In the end, while cutting instructional expenses needs to be part of the solution to higher education’s underlying financial dilemma, cost-side solutions alone are insufficient for both substantive and political reasons. They are too divisive and too easily politicized from both sides—that is, from those on the outside who believe that many more cuts are required, and from those on the inside who believe that the cuts already made were unnecessary and have seriously damaged their universities. But more importantly, the gap from the diverging trajectories of higher educational costs and available revenues is simply too wide to be closed by further cuts in expenditures alone, even with such radical cost-side solutions as mergers and distance education.

Finally, in many, or even in most, countries, the low-hanging fruits of easy expenditure cuts and other efficiency measures were taken long ago, leaving only the most difficult and educationally problematic solutions on the cost-side. In short, higher education in almost all countries must turn to non-governmental revenues to supplement the increasingly insufficient revenue available from governments.

Revenue Supplementation and Cost-Sharing

Revenue supplementation is an alternative to cost cutting and presents a preferred route to financial viability. It may take these forms: (a) faculty and institutional entrepreneurship (e.g., selling specialized and marketable teaching or scholarship); (b) renting university facilities to commercial entities; (c) commercially marketing research discoveries; or (d) fund raising, by appealing to alumni and other donors. However, its most sustainable and potentially lucrative form is what has come to be known as cost-sharing. The term “cost-sharing” refers to shifting at least some
of the higher educational cost burden from governments, or taxpayers, to parents and/or students (Johnstone, 1986, 2003, 2004, 2006). Cost-sharing is first a statement of fact—that is, that the costs of higher education are shared among governments/taxpayers, parents/students, and philanthropists. However, it also refers to the articulation of a policy that some of these costs must be met, not by relying predominantly or even exclusively on governments, but by being shared among parents and/or students in addition to taxpayers.

Cost-sharing is most frequently associated with tuition fees and “user charges,” especially for governmentally or institutionally provided room and board. However, a policy shift in the direction of greater cost-sharing can take several forms.

1. Instituting tuition fees where higher education was formerly free or nearly so. This is the situation that occurred in China in 1997, in the United Kingdom in 1998, and in Austria in 2001.

2. Adding a special tuition-paying track for some students while maintaining free higher education for the regularly admitted, state-supported students. Such a dual-track tuition fee preserves the legal and political appearance of free higher education, which is particularly important and is frequently enshrined in a constitution or other framework law in formerly Marxist countries such as Russia, most of East and Central Europe, the former Soviet Union, and countries in East Africa with their legacy of African Socialism.

3. Very sharply raising tuition fees where charging tuition in public universities is already a practice. A shift in the direction of greater cost-sharing requires that the rise in tuition be greater than the rise in institutional costs generally. Otherwise, the share paid by the government (or taxpayer) will not be lessened. This requirement inevitably means that the parent’s/student’s shares see the greatest rise. Examples are most of the states in the United States and most of the provinces in Canada. Many state and provincial governments have recently cut back on their former “shares” of public university expenses while tuition at public universities has increased very rapidly to fill the gap left by the failure of government funding to keep pace with the rising costs of higher education.

4. Imposing “user charges,” or fees, to recover the expenses of residence and dining halls that were once governmentally or institutionally provided and heavily subsidized: This pattern is typical of virtually all the formerly Communist/Socialist countries and, most notably and controversially, most of the countries in Sub-Saharan Africa, where subsidized living costs at one time absorbed the bulk higher educational budgets. In the Nordic countries of Sweden, Norway, Finland, and Denmark, where higher education remains “free,” the students are required to pay their own living expenses, which are typically very high. Neither taxpayers nor (at least officially) parents participate in their payment. Rather, students assume them mainly or entirely, in the form of student loans, in which taxpayers participate by subsidizing repayment.

5. Eliminating or reducing student grants or scholarships. This goal is sometimes accomplished simply by freezing grant or loan levels or by holding them constant in the face of general inflation, which then erodes their real value. Great Britain once supplied very generous grants to students, then froze them, and
finally abandoned them altogether. A similar pattern is apparent in the value of the maintenance grants in most of the Communist or Socialist countries of the former Soviet Union, Eastern and Central Europe, and Asia, and many African countries.

6. Increasing the effective cost recovery on student loans. This goal can be accomplished by reducing the subsidies on student loans, much like employing a reduction in the value of non-repayable grants. Ways of accomplishing this goal include increasing the interest rates, reducing the length of time that the loan is interest-free, or reducing the number of loans for which repayment, for any number of reasons, is forgiven. The same effect can be achieved by tightening the collection procedure or otherwise reducing the instances of default without changing the effective rates of interest paid by those who were repaying anyway. The United States employed this last method successfully in the 1990s.

7. Limiting the capacity in the low-tuition or tuition-free public sector together with the official encouragement (and frequently some public subsidization) of a tuition-dependent private higher education sector: A number of countries—notably Japan, Korea, the Philippines, Indonesia, Brazil, and other countries in Latin America and East Asia—have avoided much of what would otherwise have been significant government expenditures for higher education by retaining a limited public sector, which is usually elite and selective, but encouraging a substantial and growing private higher education sector. This tactic shifts many of the costs of expanded participation to parents and students.

Although cost-sharing may take all of these different forms, the imposition of, and/or large increases in, tuition fees provides the greatest financial impact. True, some of the aggregate income must be rebated in the form of grants or discounts to preserve accessibility. Still, raises in tuition fees can be both financially significant and on-going. It can even be designed to increase at regular intervals, thus keeping pace with the inevitably rising per-student costs of instruction. Also, unlike most forms of faculty entrepreneurship, tuition fees do not divert faculty from the core instructional mission. According to many observers, this approach actually has the beneficial effect of improving the quality of teaching and the relevance of the curriculum. Perhaps for these reasons, tuition fees are also the most politically charged and ideologically resisted form of cost-sharing and thus 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 especially of tuition fees.

POLITICAL AND IDEOLOGICAL CONTEXT

Trends in financing higher education are influenced by complex factors: (a) the country-specific context, (b) global politics, (c) worldwide ideologies, and (d) the fiscal austerity with which almost all nations are grappling. These factors impact the various policy solutions that are proposed. At the risk of gross oversimplification, a spectrum exists. At the extreme political and ideological left is the view that the government should own virtually all institutionalized means of production (including universities and colleges), allocate resources, establish prices, and remunerate
workers. However, the former command economies have given way to the transitional economies, which accept a large role for private enterprise and the useful place of markets in allocating resources and rewards. The political left is now characterized, among other ways, less by its adherence to the former Soviet-style system of production, distribution, and rewards, and more by its continuing advocacy of high levels of taxation, governmental regulation, and public employment, and by its criticism of the income disparities, economic instability, competition, and commercialism associated with markets and capitalism. This critical left is preoccupied with what it sees as the pervasive role of race/ethnicity, gender, and socioeconomic class in the distribution of power, status, and wealth in those countries that embrace markets and private enterprise. It tends to view poor countries and poor people primarily as victims of the World Bank, of other agencies of international finance, and of the investment and trade policies of the advanced industrialized nations.

At the other extreme are views associated with the far right that would diminish public employment and the size of the public sector generally, including publicly owned and financed higher education. The political right tends to view government, including both politicians and civil servants, as less productive and more frequently self-serving, as preoccupied with maintaining the salaries and other emoluments that go with governmental employment, and as generally oblivious to the view that they must live off the wealth created mainly in the private sector and diverted to public use only by taxation or inflationary deficit financing.

In keeping with this mistrust of governmental institutions (including public universities) and governmental employees (including faculty and staff of these public universities), those on the right tend to be more critical of what they perceive to be governmental waste and more insistent on greater measures of accountability. At the same time, the political right is more accepting of the economic instabilities and the disparities in income and wealth that follow capitalism, considering them a necessary price to maintain the dynamism and high productivity of private enterprise. The right generally prefers private higher education, although most will accept some governmental cash transfers to their private institutions in order to “level the playing field” and to provide constructive examples to the public universities. The political right also tends to stress making selections on the basis of “merit.” Adherents therefore favor more rigor and “merit”—and less or fewer compensatory preferences (e.g., affirmative action) in admitting students to higher education. Correspondingly, the right tends to downplay or ignore the influence of race, class, and gender in determining who comes into power, privilege, and remuneration.

As in any portrayal of a range, most countries, most governments, and polities are somewhere near the center, generally vacillating between a center right and a center left, but always feeling pressures from the extremes. Both public and private universities, but especially public institutions, always operate in a country-specific political and economic context as well as in a historical context and in an increasingly globalized international context. The financial problems as well as the possible solutions and their likelihood of adoption all occur within these larger
contexts. Many scholars of comparative higher education are non-economists and tend to cluster on the left. Many therefore tend to blame capitalism or neoliberalism or the World Bank or globalization for the financial austerity that is besetting higher education worldwide. This chapter differs from the position they most commonly take and asserts that the factors most directly affecting the financing of higher education are (a) the inexorably rising per-student costs, (b) increasing participation and consequent increasing enrollments, (c) limits in most countries on governmental taxing capabilities, and (d) the lengthy queue of socially and politically compelling competing public needs. This chapter also argues that such conditions are beyond politics and ideologies, both in explaining their cause and in proposing solutions for them.

Certainly politics and ideology are not immaterial. The aggressively capitalistic United States and the United Kingdom had different priorities and employed different solutions to the problems of higher educational austerity than did the former Soviet Union under its Marxist-Leninist command economy. They will probably continue to differ from the new transitional countries, with their socialist-market systems or from the social welfare democracies of Scandinavia. However, the increasing reach of tuition fees, the search for other forms of revenue diversification, and the increasing pressures for accountability or more institutional autonomy owe far more to the virtually universal higher educational production function (that is, the tendency of higher educational costs to rise at rates in excess of prevailing rates of inflation), to the increasing demand for higher education, and to demographics than to political abstractions like globalization or capitalism (academic or otherwise), or to any prescriptions of the World Bank, multinational corporations, or a hegemonic Anglo-America.

**HIGHER EDUCATIONAL FINANCE AND ACCESSIBILITY**

The costs of higher education, including the per-student costs of instruction, the institutionally borne costs of research (that is, research costs that are not funded by external entities), the capital demands and operating costs of accommodating increased enrollments, and the expenses of student maintenance are increasing rapidly and continuously throughout the world. In most countries, these costs greatly exceed the increases that are possible from tax-generated revenues.

The resulting divergence in the trajectories of total higher educational costs (or revenue needs) and the total available public revenues is leading in most countries toward increasing higher educational austerity. This austerity is especially acute in developing countries that face the most financially devastating combination of: (a) pressures to accommodate the greatly increasing demand for additional higher educational places, (b) very limited availability of public revenues, and (c) extreme competition for these limited available public revenues.

This financial austerity is being met with a variety of solutions of differing effectiveness. The most obvious solution on the cost side is to constrain the budgets of the existing universities and to constrain the numbers of students, primarily by imposing academic entrance requirements that hold capacity to the
number that the scarce governmental funds can (barely) accommodate. Of course, this kind of rationing, while clearly superior to rationing purely by the market or by the ability of parents to bribe universities into admitting their children, still favors those aspiring secondary school graduates who have had the advantages of the best preparation and who are, unsurprisingly, disproportionately from the most advantaged classes.

The principal barriers to increasing higher educational accessibility in the poorest countries will continue to lie at the middle and secondary levels of education. Moreover, the combination of living expenses and fees can also constitute barriers to higher educational entry. Still, the biggest single barrier to access in low-income countries is the limited capacity of public universities. The solution to this physical limitation requires new revenue from somewhere to build the lecture theaters, laboratory space, and dormitory rooms to accommodate the rising numbers of higher educational aspirants from low income, rural, ethnic minorities, linguistic minorities, and in some countries women.

This cost-revenue squeeze is also leading to attempts at revenue-side solutions, the most financially promising of which are the various forms of cost-sharing, or measures that require parents and/or students to bear an increasing share of these higher educational expenses. Imposing or increasing tuition and other fees is a proven source of additional revenue, best exemplified by the financial success of the dual-track tuition fee policies of Uganda, Kenya, and other East African countries (Marcucci & Johnstone 2007; Marcucci, Johnstone, & Ngolovoi, 2007).

This solution, however, also imposes barriers on both access and completion. As in the United States and elsewhere in the OECD countries, these financial barriers are increasingly being met most cost-effectively with a combination of (a) moderate tuition and other fees, (b) targeted or means-tested grants, and (c) student loans. The additional public costs of these grants and loans can, at least in theory, be met with the additional fee revenue from those parents and students who can and will assume some of the costs of their higher education.

The link between finance and access in higher education is, therefore, essentially circular. Rising costs lead to capacity constraints, which limit higher education either to those who have the academic preparation to be accepted into low-tuition public universities or to the children of families affluent enough to give them the more expensive private education or to take the second, fee-paying track of public universities. The shortage of revenue is forcing higher fees at private and public colleges and universities throughout the world, accompanied by technically difficult and sometimes costly policies and programs of means-testing and student loans.

These very broad brush strokes in this conceptual overview lead to several conclusions regarding the higher educational finance-access linkage:

– Raising higher educational participation and access in the poorest countries needs to begin with basic education by increasing the numbers of low income and other traditionally underrepresented students through a quality academic secondary education.
The necessary rationing of higher educational places at the low-cost public higher educational alternatives must be sensitive to the class, regional, and ethnic/linguistic differences in middle and secondary school preparation. The admissions process should resist excessive reliance on screens that simply select for socioeconomic class or for the level and cost of the secondary school preparation.

In most countries, where distances and the absence of accessible public transportation make commuting to a college or university impossible, financially accessible (preferably means-tested) lodging and food must be made available. (This does not mean that it must be provided by the government or the public institution of higher education itself.)

A combination of moderate tuition fees, means-tested grants, and moderately subsidized student loans is necessary for the cost-effective use of public higher educational revenue in the policy pursuit of expanding accessibility.

Revenue supplementation, especially including tuition fees and other forms of cost-sharing, is necessary in most countries but should be used to supplement public revenues, not substitute for them. Students should be able to perceive benefits to them of any newly imposed tuition or other fees.

Private alternatives should be encouraged; but governments should not restrict public attention and public resources only to elite public universities and assume that the inevitable enrollment expansion can be handled by a perpetually expanding private higher educational sector.

A mix of higher or postsecondary educational alternatives (e.g., research universities, polytechnics, and other short-cycle institutions) should be available, with attention given to high-quality equipment and facilities, appropriate programs and curricula, and competent faculty at the non-university alternatives.

Cost-sharing is usually politically contested when first implemented, but this strategy will be more acceptable when: (a) financial assistance is in place and has been made understandable, (b) the university management is perceived to be doing (or to have done) its share of difficult economizing, and (c) the government that is imposing the cost-sharing is perceived as generally efficient and free from corruption.

In these and other ways, governmental policies can pursue affordable, quality higher education for the inevitably growing numbers of traditional and non-traditional age students.

NOTES

1 “Higher education” in this chapter designates institutions of postsecondary education broadly. They are, in the parlance of UNESCO’s International Classification of Education, ISCED Levels 4A, 5, and 6.

2 This explanation for the increasing costs of higher education does not take into consideration the possibility that the cost and the price of the higher educational product may be increasing because the quality of the product is improving. Nor does it allow for the possibility that the cost of labor in higher education product may actually be decreasing by the implementation of (a) wage and salary freezes, and (b) the substitution of cheap part-time adjunct faculty for fully qualified but expensive
full professors. Another possibility is that productivity may be increased by imposing larger class sizes or increased teaching loads. This trend may be countered in the European Union countries that accept the Bologna Process, which includes a shortened time to baccalaureate. However, a trend toward professional master’s degrees seems likely in Europe as well.

REFERENCES


INTRODUCTION

This chapter examines the structure and pattern of higher education financing and their implications for access and equity in a comparative study of five East and Southern African countries: Kenya, Mozambique, Namibia, South Africa, and Uganda. In addition to access and equity, funding mechanisms are especially important in shaping higher education outcomes in areas such as quality, efficiency, and system responsiveness. This is particularly true in both the African and general developing country contexts.

The structure of the chapter is as follows: The first section assesses issues of access and equity in African higher education. The second section is an analysis of the public commitment to higher education spending in African countries in general and East and Southern African countries in particular. The third section is a by-country summary of the key features of the higher education system and of the financing mechanisms of each. The final section provides a summary of the challenges and lessons.

Country-specific data about education in these five countries are drawn from a Ford Foundation-commissioned study of higher education financing in East and Southern Africa that resulted in the following sources: Adongo (2008), Chilundo (2008), Marope (2005), Musisi and Mayega (2008), Otieno (2008), and Pillay (2008). Complete citations are provided in the References.

ACCESS AND EQUITY IN AFRICAN HIGHER EDUCATION

Obtaining a measure of access and equity is difficult in Africa partly because it is not always clear what is meant by higher education. In many countries (e.g., Egypt, Botswana) higher or tertiary education is defined as all post-school or post-secondary education. In South Africa, on the other hand, higher education refers only to university education. As a result, comparing gross enrollment ratios can be inappropriate. For example, South Africa’s gross enrollment ratio (GER) for higher education is 15% while Egypt’s (for tertiary education more broadly) is around 30%.

Notwithstanding this definitional problem, it is evident that participation in higher education in Sub-Saharan Africa is low in both absolute and relative terms. Of 23 countries in that region for which data is available, only Mauritius and South Africa have a GER in double figures. Among these countries, the GER ranges from 0.4% in Malawi to 15% in South Africa and 15.3% in Mauritius.
Moreover, participation rates in Sub-Saharan Africa are substantially lower than the average for both developing countries and industrialized/developed countries. (See Table 1.) In addition, the median participation rate for Sub-Saharan Africa is 2.5%, compared to the developing country median of 13% and the industrialized country median of 58% (UNESCO, 2008).

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<td>3</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>


In addition to low participation rates, access to higher education is highly inequitable. There are three important determinants of inequity: gender, socio-economic status, and region. In almost all Sub-Saharan Africa countries, with the possible exceptions of Mauritius and South Africa, women have substantially lower participation rates. Table 1 reports some of this inequity, particularly in relation to developed countries where female participation on average, exceeds that of males. Moreover, where women have managed to enter higher education, their participation is often concentrated in so-called traditional women’s disciplines such as humanities and education, rather than in commerce, engineering, and science.

Second, access to higher education is often dependent on socio-economic status. In many Sub-Saharan African countries, participation in universities and other institutions of higher education is dominated by students from the highest income quintiles. Often, public funding mechanisms act to exacerbate such inequities by providing free higher education to the “best” students who invariably come from the wealthiest households.

Third, in almost all Sub-Saharan Africa countries, participation in higher education is skewed in favor of students from urban and metropolitan areas. Students from rural households face enormous barriers to accessing higher education in general and higher quality higher education institutions (HEIs) in particular.

In summary, these three stratifying factors—gender, socio-economic status, and region or location of origin—act to skew the already low participation rate in favor of males, richer families, and urban households.

Access and equity in higher education in Sub-Saharan Africa are fundamentally determined by access to and the quality of secondary education. In the past two decades, most Sub-Saharan Africa countries have pursued a policy of universal primary education although not all of them have succeeded in this goal. One
critical outcome of this policy has been the vast increase in primary school leavers who then seek secondary education. In countries such as Kenya, Mozambique, Uganda, and Tanzania, the capacity to absorb more than a small proportion of primary school leavers in the secondary school system is extremely limited (OECD, 2006; UNESCO, 2008). In light of the public sector’s limited capacity for secondary schooling, households have had to seek places in the growing private sector, which requires fee-paying and is often of poor quality in many of the countries being reviewed in this chapter. In addition, large numbers of children drop out of schooling after the primary phase, as the gross and net enrollment figures in Table 2 demonstrate. These data reveal that average participation rates in secondary education in Sub-Saharan Africa are, at best, only about half those of developing countries.

In addition, the richer countries of Sub-Saharan Africa, such as South Africa, where participation rates in secondary education are much higher, show substantial differentiation in the quality of primary and secondary schools. In these countries, factors such as socio-economic status and region of origin act to determine access to better quality secondary education and eventually to better quality higher education.

*Table 2. Gross enrollment ratio (GER) and net enrollment ratio (NER) in secondary education, 2005, by percentages and weighted averages*

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<tbody>
<tr>
<td>Developed countries</td>
<td>104</td>
<td>99</td>
<td>102</td>
<td>92</td>
</tr>
<tr>
<td>Developing countries</td>
<td>75</td>
<td>46</td>
<td>60</td>
<td>53</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>38</td>
<td>24</td>
<td>32</td>
<td>25</td>
</tr>
</tbody>
</table>


PUBLIC COMMITMENT TO HIGHER EDUCATION SPENDING

As a percentage of total national income, spending on education by most countries in the East and Southern African region is relatively high in a comparative sense. (See Table 3.) In fact, in countries, such as Lesotho, Kenya, and Namibia, public expenditure on education is relatively high.

However, public spending on higher education as a proportion of the education budget varies substantially among the five countries considered in this chapter. In the case of Mozambique, Namibia, and South Africa, higher education spending is relatively high as a percentage of the education budget. In the case of the two East African countries, it is relatively low.
Table 3. Public expenditure on education as a percentage of gross national income, 1999-2004, East and Southern Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage of GNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>2.8</td>
</tr>
<tr>
<td>Botswana</td>
<td>3.3</td>
</tr>
<tr>
<td>DRC</td>
<td>4.6</td>
</tr>
<tr>
<td>Kenya</td>
<td>6.2</td>
</tr>
<tr>
<td>Lesotho</td>
<td>10.0</td>
</tr>
<tr>
<td>Malawi</td>
<td>4.0</td>
</tr>
<tr>
<td>Mauritius</td>
<td>3.3</td>
</tr>
<tr>
<td>Mozambique</td>
<td>2.4</td>
</tr>
<tr>
<td>Namibia</td>
<td>7.9</td>
</tr>
<tr>
<td>South Africa</td>
<td>5.7</td>
</tr>
<tr>
<td>Swaziland</td>
<td>5.5</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2.2</td>
</tr>
<tr>
<td>Uganda</td>
<td>2.5</td>
</tr>
<tr>
<td>Zambia</td>
<td>1.9</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>4.7</td>
</tr>
<tr>
<td>Africa</td>
<td>4.8</td>
</tr>
<tr>
<td>Developing countries</td>
<td>4.5</td>
</tr>
<tr>
<td>Industrialized countries</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Sources: OECD (2006); UNESCO (2008).

Where higher education expenditure is low, there are often several reasons for this situation. First, funding for education generally, as a percentage of the government’s budget, may be inadequate across the board. Second, where education expenditure may be considered to be adequate or reasonable, there are considerable political pressures toward ensuring that elementary and secondary schooling get the overwhelming share of the public sector’s commitment to education. Third, in many developing countries where resources are seriously constrained, there is often keen inter-sectoral competition among health, housing, social welfare, and other government functions in addition to education for financial resources. Finally, the case for increased higher education financing has not been helped by the low priority assigned to higher education by many African governments. The value of higher education for economic growth and broader social and sustainable development has not yet been fully recognized by African governments.

The discussion below describes key features of each country’s higher education system with particular emphasis on the financing mechanisms of each in turn: Kenya, Mozambique, Namibia, South Africa, and Uganda.
KENYA

Kenya has four dichotomous ways of classifying higher education institutions: (a) university and non-university; (b) academic and technical, training, and research, (c) public and private, and, (d) non-profit and for-profit. Other parties of interest on the higher education landscape are the Commission for Higher Education, which regulates the provision of higher education, and the Higher Education Loans Board (HELB), that provides loans, scholarships and bursaries.

A key feature of higher education financing in Kenya, which is also true of Tanzania and Uganda, is the development of a dual-track funding mechanism: (a) state funding for some students in public institutions, and (b) a private, fee-paying track for other students in the same public institutions. The seven public universities receive direct state funding, though most have been able to launch the private entry schemes by which they have raised substantial revenue. Kenya also has 18 private universities with varying degrees of recognition: seven with full charters, six with letters of interim authority, and five registered universities.

Closely related to but apart from the universities are tertiary and middle-level colleges offering various programs. They include six diploma colleges for the training of non-graduate secondary school teachers, 20 teacher training colleges for primary school teachers, four national polytechnics, 17 institutes of technology and 20 technical training institutes. There are also an unknown number of private post-secondary education and training institutions. Non-graduate healthcare professionals (e.g., nurses and clinical officers) are educated in 11 medical training colleges in various parts of the country.

Trends in Participation

Public universities dominate in enrollments, even though private institutions are more numerous. By 2004-2005, the then six public universities had more than 90,000 students, while the private universities had just 10,000 students. Public universities have been able to expand their internal capacity much faster than the private universities, with their private programs accounting for most of this increase.

Enrollment in technical and vocation education and training institutions grew from 52,254 to 66,737 students between 2002-2003 and 2003-2004, only to decrease to 29,870 in 2005-2006. Two of the national polytechnics were elevated to degree-awarding institutions in 2007, although the degree programs did not begin until 2008.

Patterns of Funding and Expenditure

The education budget as a whole has been rising steadily during the period since 2000, including increases in funding for higher education. In 2002-2003, higher education expenditures totalled 7.204 billion Kenyan shillings (KES), representing 11.5% of the total Ministry of Education expenditure. Expenditure rose slightly to
KES 8.413 billion in 2003-2004 and further to 10.674 billion in 2003-2004 (13.8% of the total education budget). During 2005-2006, higher education expenditure rose significantly to 14.174 billion (16.4% of the total). This significant rise in the higher education expenditure was attributed to the increase in lecturer salaries and housing allowances. However, the 2006-2007 fiscal year saw a substantial decline in higher education allocations in both volume and proportion. This decline resulted from a deliberate shift in policy that placed greater focus on lower levels of education and on new areas such as quality assurance.

In summary, higher education spending as a proportion of Kenyan GDP for the five years has averaged 0.88% while, as a proportion of total education spending, it has averaged 13.74%.

State Funding of Public Universities

In Kenya, state funding of universities is usually presented as a wholesome allocation that is worked out as a function of the total student population. From the assumed unit cost of KES 120,000, funding to individual institutions is arrived at by multiplying enrollment by KES 70,000. The balance of KES 50,000 is met by the student, either through the publicly funded loan and bursary scheme, or other private sources.

State funding constitutes the bulk of universities’ income, representing between 50% and 90% of total institutional revenues, depending on the revenue they raise from private programs. Income from these programs constitutes an average of 15% of their total budgets, though the actual proportions vary significantly between institutions. The University of Nairobi derives the highest proportion of its income of any public university from the private programs (an average of 40%), while the Masindo Muliro University of Science and Technology has the lowest at 7.7%.

Financing Private Universities

While public universities are highly subsidized by the state, private universities have to recover most of their costs from instruction and other services such as hostel accommodation. As is to be expected, this circumstances has made these universities expensive compared to the public institutions—sometimes 11 times higher than public universities. The only form of public funding for these universities comes in the form of student loans. However, this sum is relatively small compared to the amounts received by public universities. In comparison to public universities, private universities charge relatively high fees.

Unit Costs and Per Capita Student Funding

As stated earlier, the government uses an assumed unit cost of KES 120,000 per year. However, an analysis of state allocations to universities over the past decade shows that the government has not consistently adhered to this principle. Student
per-capita funding varies substantially for government-sponsored students, reflecting both low enrollments at some institutions and underfunding at others.

**Student Financing Schemes**

Student financing schemes are of various types. First are full government-sponsored scholarships. These scholarships are opportunities to pursue an all-costs-paid higher education course with funds drawn from the government departments or from foreign donations for study opportunities within Kenya and abroad. These scholarships are administered by the Ministry of Education. Some scholarships are funded externally, or through bilateral and multilateral agreements. Examples include the Indo-Kenya Scholarship program, Sino-Kenya scholarships, and the Commonwealth scholarships.

Second is partial government funding. In this option, the government pays a given proportion of the assumed cost of the program for an academic year and the student pays the remaining portion directly from private sources or through a study loan from the Higher Education Loans Board or both.

Third is full private sponsorship. In this situation, the student pays all costs of higher education from personal or family sources. This funding mode is most often used by (a) privately sponsored students in public universities and (b) students in private universities.

**Loan Financing of Higher Education**

Loan financing of university education is government-supported. The state, through the Higher Education Loans Board, provides students who meet means-tested criteria with loans. The loan allocation stratifications by need level indicate that, while those ranked neediest, received KES 55,000 in addition to a bursary of KES 8,000, the least needy applicants received KES 35,000.

The Higher Education Loans Board disburses both undergraduate and postgraduate loans. Other forms of funding include bursaries and scholarships. The number of beneficiaries for undergraduate loans increased from 34,776 in 2002-2003 to 39,802 beneficiaries in 2006-2007.

**Equity in Public Expenditure**

Public spending on education in Kenya is highly inequitable. First, the government is spending a significantly higher proportion of its resources on relatively few students. Second, the proportion of students in higher education is highly skewed in favor of the rich. More than two-thirds of students in university education come from the richest and second richest quintile, while the two poorest quintiles represent only 7.5% of enrollments in higher education. Third, there is considerable discrepancy in institutional funding in both absolute and relative terms. Fourth, the student loan program is inequitably distributed, with 80% of the loans being accessed by public university students to the detriment of private university
students. This pattern is particularly inequitable as most of those students seeking access in private institutions come from lower socio-economic backgrounds.

In summary, access to higher education has been stimulated through the introduction of cost-sharing initiatives in the public system and through the expansion of the private university component. However, the public funding mechanisms are highly inequitable, as costs are not shared equally. Some students, invariably those from the better schools and richer households, are fully government sponsored and are spared any private costs.

The costs for needy students are mitigated to some extent by the provision of loans and bursaries by the Higher Education Loans Board. However, access to Higher Education Loans Board funds is limited for students in the private higher education system.

MOZAMBIQUE

Access to higher education in Mozambique has grown tremendously during the past two decades, albeit from a low base. Between 1989 and 2006, the number of students in higher education increased from 3,750 to almost 40,000. During this same period, the number of higher education institutions increased from two to 26, 18 of them private. Two-thirds of the students are enrolled in public institutions. Female students account for one-third of total enrollment. However, in spite of the recent rapid growth in student numbers, the GER is still less than 1%.

Of the 26 higher education institutions, 14 are universities, and 12 are professional and vocational institutions accredited by the Ministry of Education and Culture. Universidade Eduardo Mondlane is the oldest and largest, enrolling 61% of all students enrolled in the nation’s public HEIs and 41% of total (public and private) enrollment.

Two important institutions were established as part of the regulatory framework for higher education. The first is the Higher Education Council, which brings together the Ministry of Education and Culture and all HEIs at the highest level in a collaborative effort to shape mechanisms to support policy implementation in the sector.

The second is the National Council on Higher Education, Science, and Technology (CNESCT), which is the consultative organ for the Council of Ministers. It also serves as a broader forum with the mandate to oversee the articulation and integration of planning processes between the higher education, science, and technology sectors. It is made up of representatives from various sections of government, the Council of Higher Education, representatives from research and higher education institutions, business associations, and civil society.

As a sounding board for evaluating progress of policy implementation, CNESCT functioned as a crucial body in scrutinizing new Ministry of Education and Culture policies and proposals before they were presented to the Council of Ministers for approval and legislation. Crucially, the CNESCT made recommendations to the Council of Ministers with respect to the creation of new institutions.
Higher Education Financing

At the beginning of 2000, higher education expenditure in Mozambique comprised only a very small proportion of the total education budget. For example, in 2001, total education expenditure comprised 6.5% of GDP, and higher education expenditures comprised only 0.8% of the GDP. However, since 2004 public spending on higher education increased dramatically growing at 23% between 2004 and 2005 and by 6% the following year. As a result, spending on higher education now constitutes 64-70% of the total education budget. Given that Mozambique is one of the poorest countries in the world, this statistic is a startling one in terms of its implications for access to primary and secondary education.

Most of the public funds for higher education have been spent on building new physical infrastructure; strengthening human capacity, particularly academic staff, at the HEIs; and creating the necessary information and communications technology infrastructure for the sector. There is minimal cost sharing in the public system. Students currently pay a low tuition fee, around US$100 per year.

The government finances higher education through two basic mechanisms. First, it makes funds available (a) to the Ministry of Education and Culture for policy development, including quality assurance mechanisms; (b) to HEIs and staff, in both public and private institutions, through the Quality Enhancement and Innovative Facility—an initiative to reward institutions and individuals for the development of quality-enhancing programs; and (c) students from rural provinces who may apply for funding from the provincial scholarship fund to study at any of the accredited HEIs.

Second, the government provides direct funding to the public HEIs, through a mix of instruments: (a) direct budgetary allocations to the institutions who submit specific proposals to the Parliament; (b) sourcing grant funds from development partners that are earmarked for higher education; and (c) sourcing and allocating credit funds, in preferential conditions, to fill gaps in public financing, e.g., from the World Bank.

State funding at the institutional level is based on inputs (number of students) only. No account is currently taken of output factors (e.g., graduates). However, a system was designed in 2003 by the then-Ministry of Higher Education, Science and Technology and implemented at Mozambican HEIs to capture, classify, and produce adequate information for educational cost-center analysis. The system, designed with technical support from international partners, was based on international best-practices, adapted to the local environment and piloted at Universidade Eduardo Mondlane.

Later, the system was further developed to cover Universidade Eduardo Mondlane and three other major public HEIs and implemented in these institutions, establishing a system-wide coordinated educational cost accounting and reporting system.
Public Funding for Private HEIs

Private HEIs are not entitled to any direct funding or subsidies from the government. As stated earlier, however, in 2002 the government introduced a provincial scholarship scheme which has immensely benefited students from poor, rural backgrounds who gain funding from the Quality Enhancement and Innovative Facility (QIF). In addition, staff at private institutions can also apply for grants from the QIF.

In summary, it is evident that access to higher education is increasing rapidly from a low base in the late 1980s. This trend has been due to expansion in both the public and the private sectors. Moreover, the government is spending about two thirds of its total education budget on higher education, a highly inequitable arrangement in light of the country’s failure to achieve universal primary education and its low participation rate in secondary education.

In addition, there is little evidence to suggest that the high level of expenditure is efficient both at the institutional level (as measured in terms of internal efficiency—e.g., drop-out and repetition rates) and with regard to external efficiency measures (system responsiveness to the labor market).

Finally, although little information is available, it seems likely that the high level of spending is concentrated on those households in the two top quintiles with the poor again having to seek access in private higher education. To some extent, equity is being promoted through the provincial scholarship fund but the amount of funding underwriting this scheme is relatively small and can make no more than a minimal impact.

NAMIBIA

In Namibia, institutions of higher education can be separated into tertiary education and vocational education categories. The public tertiary institutions include the University of Namibia, the Polytechnic of Namibia, four Colleges of Education, and three Colleges of Agriculture. There are about 10 private tertiary institutions, including the International University of Management and the Institute of Management and Leadership Training. In the second category are four public vocational training centers and three private vocational training centers spread across the country.

In terms of percentage of national income, Namibia has one of the highest rates of expenditures on education in the region. (See Table 3.) Between 1996–1997 and 2004–2005, tertiary education’s share of the budget went from 15% to a high of 18% but then declined to 15% again in 2005-2006.

The distribution of funding within higher education was as follows in 2003–2004: colleges of education, 15%; vocational training centers, 15%; University of Namibia, 38%; Polytechnic of Namibia, 20%; and student support, 12%.

During the 2003–2004 financial year, the Namibian government allocated more than N$48 million to student support through its Student Financial Assistance Scheme. However, a key concern was that only a few students benefited from the
scheme. In 2002, only 40% of University of Namibia students received any kind of financial support (Marope, 2005).

In the 2003–2004 financial year, the University of Namibia and the Polytechnic of Namibia received almost 60% of the total allocation compared to teacher training and vocational education and training. This fact suggests that the allocation of government resources in higher education is not equitable (Marope, 2005).

There is also evidence that the overall public spending on education and training in Namibia is substantially skewed in favor of the rich. About 80% of the population shares only 40% of government subsidies.

Furthermore, learning outcomes are inequitably distributed against learners in the rural, northern regions. There is evidence to suggest that the urban population has substantially greater opportunities to access higher education (70%) than the rural population (30%).

Inequalities in learning outcomes mirror major disparities in the distribution of resource inputs. Overall, schools in the northern regions (Caprivi, Kavango, Kunene, Oshana, Ohangwena, Omusati, and Otjikoto) have fewer physical, human, and financial resources. As a result, only 40% of the grade 10 graduates from the northern regions qualify for entry into senior secondary schools on national examinations; in contrast, the comparable figure for the rest of the country is more than 60% (Marope, 2005). This low achievement translates into under-representation for these regions at the tertiary level.

**Financing Mechanisms**

Despite the increase in financial resources allocated to higher education institutions, there are no clear criteria for how funds are allocated and no agreed-upon performance indicators to account for the funds received. In the absence of clear criteria, the Ministry of Education has adopted a policy of incremental budgeting (that is, merely adding a small percentage to the previous year’s budget without taking into account changing circumstances/factors in the education sector).

The gap between what institutions request and what they are allocated is huge and growing. This gap arises partly due to differences in the institutions’ and the government’s financial year. The financial year for the institutions commences in January, while the government’s financial year begins in April. The national budget is presented to the Parliament in mid-April. Thereafter, the Ministry of Education needs a couple of months before it can allocate funds to institutions. Therefore, institutions know their exact allocations only in the middle of their financial year. This situation creates not only uncertainty but also a risk of overspending. Synchronization of financial years could facilitate budgetary planning (Marope, 2005).

To address this problem, the University of Namibia and the Polytechnic of Namibia have advocated for a formula-based (per-learner) budget allocation, but no progress has been made on this recommendation as yet.
Tuition Fees and Student Loans

Namibia has launched a cost-sharing arrangement by introducing tuition fees. Because students and their families are bearing an increased amount of costs, they are increasingly turning to student loans as a means of overcoming problems related to access and equity. In Namibia, the Student Financial Assistance scheme has recently shifted from a bursary scheme to a loan scheme. However, these loans are not equally available according to socio-economic status and region.

Furthermore, even though higher education spending is relatively high, it appears to be highly inefficient. The costs of tertiary education per student in Namibia are high, in part because the teaching staff spend fewer in-class hours than teachers in lower levels of the education system and average smaller average classes and higher salaries. Associated costs, such as student boarding, are also high. Evidence of inefficient use of resources at present include high rates of repeating classes and dropping out from tertiary institutions, small department and class sizes (in some cases), and the underutilization of some facilities. As an example, the ratio of teaching staff to students is 1:12 in Colleges of Education compared with international norms which are more like 1:20. This inefficiency has resulted in cuts in other discretionary areas such as textbooks.

In the absence of any constraints imposed on these cost drivers, the sector faces both a decline in quality of the education provided (through a decline in the provision of key inputs) and expenditures that exceed its allocated budgets. However, constraints should focus less on reducing expenditures and more on reforming the patterns and mechanisms of allocating the available resources and on their efficient spending with the aim of reducing unit costs. Increasing efficiency and reducing unit costs through better spending would enable a better use of available resources, improved management of the system, and achievement of more results with the same means. The funds that would become available through these gains in efficiency can then be channeled toward efforts to improve the sector’s future performance.

SOUTH AFRICA

In the new democracy, South Africa’s racially defined institutions were rationalized through a merger process into 23 non-racial universities. There are presently three categories of universities in the country: (a) universities that have had that status since the apartheid period; (b) universities of technology, that were formerly technikons or technical universities; and (c) comprehensive universities, which are mergers of universities and technikons achieved since apartheid.

Higher Education Financing

Several features of the South African higher education financing framework are distinctive in the African context and may be worth emulating. First, there is a serious public commitment to spending on higher education. As Table 4 shows,
expenditure on higher education has increased substantially in nominal terms between 1996 and 2008. As a percentage of the education budget, higher education spending increased from 4% to 14.5% in the same period.

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<tbody>
<tr>
<td>Total education</td>
<td>42.1</td>
<td>51.1</td>
<td>83.3</td>
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<td>Higher education excl NSFAS*</td>
<td>4.1</td>
<td>7.1</td>
<td>10.8</td>
<td>14.5</td>
</tr>
<tr>
<td>NSFAS*</td>
<td>0.30</td>
<td>0.44</td>
<td>0.86</td>
<td>1.18</td>
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</table>

Second, South Africa has developed one of the most effective student loan schemes for higher education. Called the National Student Financial Aid Scheme (NSFAS), it is an income-contingent scheme designed for needy students. The scheme, funded by the government, disbursed 300 million rand in 1996 and, in 2008, has a budget of 1.18 billion rand. Loans are repaid through the tax administration system when the graduate is employed and has reached a particular income threshold. This loan scheme has one of the highest recovery rates internationally.

Third, there is a close link between planning (at both the institutional and system levels) and funding. HEIs are required to submit three-year “rolling plans” to the government as part of the state’s “planning and medium-term expenditure framework” budgeting process. Fourth, a key component of the higher education financing framework is its underlying funding formula.

The funding framework proposed in the 1997 White Paper reconceptualized the relationship between institutional costs and government expenditure on higher education. The new funding framework is seen as a distributive mechanism—that is, as a way of allocating government funds to individual institutions in accordance both with the budget made available by the government and with government’s policy priorities. The new framework, in effect, recognizes that institutional costs tend to be functions of income—of what is available to be spent. Government funds
for higher education institutions are therefore not designed to meet specific kinds or levels of institutional cost but are rather intended to pay institutions for delivering the teaching-related and research-related services specified by government-approved plans.

In terms of the higher education funding framework, higher education institutions receive block funds, which are undesignated amounts made available to each institution and which consist of:

- Research funds generated by approved outputs; teaching funds generated by (a) planned full-time equivalent (FTE) student enrollments, and (b) by approved teaching outputs; and institutional factor funds.
- Earmarked funds, which are designated for specific purposes.

The funding framework developed for higher education in South Africa has four important implications for equity and efficiency:

1. Predictability. Implementing a formula-driven approach ensures a level of predictability, particularly with regard to certainty of revenue. Institutions are aware of the factors driving the formula and know, within certain parameters, the magnitude of resources that will flow to them over a certain period. Such certainty undoubtedly enhances institutional planning.

2. Recognition of a hard budget constraint. The new funding framework is driven by the availability of public resources for higher education rather than by the costs of provision. The various mechanisms in the framework come into operation only after government has determined (a) the total of public funds that should be spent in a given year on higher education, and (b) what services the higher education system should deliver.

3. The promoting of institutional autonomy and equity. By using a mixture of block and earmarked grants, the formula achieves both goals. Block grants confer a degree of freedom in the institutional use of funds while earmarked grants by definition are directed toward the attainment of specific goals such as equity—for example, in research development and through foundation programs for the historically disadvantaged.

4. Efficiency incentives. The formula-driven framework enhances efficiency in a number of ways. First, the block grant component rewards efficiency of outcomes in research. Grants are based on the output of publications and of master’s and doctoral graduates. Research grants are, moreover, not based on a predetermined monetary amount but against benchmarks based on academic capacity. Second, inadequate research performance by the system as a whole will result in surpluses of funds allocated for research. These funds provide a further incentive to stimulate output in that they are distributed on a pro-rata (output) determined basis. Third, the formula is designed in such a way that it rewards the output of certain categories of graduates more than it does others (for example, professional bachelor’s degrees versus other bachelor’s degrees). Such a funding mechanism enables the government to stimulate the development of skills that are in short supply. As with research, teaching output funds are determined, not by pre-set amounts of funding, but rather through a set of benchmark graduation rates based on the National Plan for Higher Education. The formula thus promotes
differential funding in line with the country’s human development needs. For example, agriculture and health sciences would be encouraged more strongly than librarianship and psychology. Fourth, through institutional funding, the framework promotes economies of scale and thus lower institutional unit costs.

5. Equity incentives. First, funding is earmarked, for example, for capacity building, research development, and foundation programs for the historically disadvantaged. Second, institutions receive additional financial compensation if they fall into the following two categories: (a) they have a disproportionately large number of historically disadvantaged students; and/or (b) if they are small and in rural areas.

In summary, South Africa has reached a high level of sophistication in the development of its higher education funding mechanisms particularly with the close link between its planning and budgeting processes, and its implementation of a relatively simple funding formula. The system has also benefited from always having had a fee-paying system so no new cost-sharing mechanisms had to be developed. Finally, there is also a strong systemic thrust toward greater equity as manifested by the funding formula and the student loan scheme. However, the South African system faces enormous challenges with respect to quality and efficiency. The apartheid legacy of differentiated systemic quality and efficiency linger on, except that the main determinant is no longer race but socio-economic status and region.

UGANDA

The higher education subsector in Uganda is composed of two tiers, (a) degree-awarding universities, and (b) other tertiary institutions, commonly referred to as the technical subsector, which offer diplomas and certificates. Institutions in both categories are further categorized into public and private. Public or state-funded institutions are established by an act of parliament; and the private institutions are chartered, licensed, or unlicensed.

By 2005, Uganda had 152 higher education institutions, 51 of them public. The university tier had 28 institutions–five public, 13 chartered/licensed private, and 10 unlicensed. There were 124 other tertiary institutions of which 46 were public.

Equity and Access

There are three main avenues for entering the university system. In the first, secondary school graduates with two principal passes in the University Advanced Certificate of Education Examination (A-levels), can be admitted directly into the university. In the second avenue, holders of diplomas (from the vocational education system) are “considered” for entry and may be admitted depending on the “quality” of their performance/pass at their previous institutions. Third is the “mature entry scheme” for lifelong learners and adults who missed the opportunity for direct entry through the formal school system.
The state reserves 4,000 positions annually for students admitted into the five public universities for whom the government provides scholarships. The system is merit based. Students with the highest grades are admitted with scholarships based on the individual requirements of the institutions and the faculties where the students are to be based. The 4,000 students represent only 17% of the students who qualify for university entry and a mere 10% of the students who sit for entry exams.

In 2005–2006 a new system was introduced, primarily to redress enrollment imbalance between the sciences and the humanities. In the new system, 75% of the 4,000 government-sponsored students are admitted on the basis of merit but must be studying subjects deemed crucial to national development: currently science and technology, law, the performing arts, and economics. The rest (25%) of the 4,000 are reserved to address equity gaps. A quota system was introduced for the best students in each district, persons with disabilities, and athletes of both sexes who meet the minimum requirements of specific institutions and programs.

Students who do not qualify for government sponsorship either pay their own fees at public institutions (if they are admitted), enter private universities, or enter other tertiary institutions. The competition for state scholarships is therefore very keen and mainly favors children from the higher socio-economic strata whose families can afford good secondary schools.

Government-sponsored students receive “free” university education including tuition, housing, and meals. Additionally, because of the merit-based entry mechanisms, these students are admitted on a preferred basis to professional courses such as law and medicine. This preference further contributes to the divide between the urban rich and the rural poor. Currently, only 18% of the more than 70,000 students in public universities are government supported.

While the higher education GER is still only at 3.5%, enrollment levels have increased dramatically during the past decade—from 30,000 in 1995 to nearly 110,000 by 2005. The response to the unprecedented growth in demand for higher education has been an expansion in service providers with the state playing an increasingly limited role as the number of private institutions and private students in public institutions keeps growing.

**Enrollment in Public Universities**

According to the National Council for Higher Education, enrollment in public universities by 2005 stood at 54,435 students. This figure represented 76% of total university enrollment. Makerere University, the largest public university, accounted for 75% of the total enrollment, on average, in public universities in the 1990s, but this percentage had dropped to 60.5% by 2004.

Of the 33,108 students enrolled in Makerere in 2005-2006, only 7,000 (21%) were government supported. Kyambogo University reports that only 2,485 (18%) of the 13,000 students enrolled in 2005–2006 academic year were government sponsored. Mbarara University of Science and Technology had 389 (16%) of the 2,464 enrolled.
In all public universities, government-sponsored enrollment has remained almost constant while the number of private (that is, fee-paying) students has increased dramatically.

Higher Education Financing

Public expenditure on education in Uganda as a percentage of GDP increased from 1.5% in 1991 to 5.2% in 2002–2004. As a percentage of government expenditure, it has grown from 11.5% in 1991 to 18.3% in 2002–2004. Expenditure on universities as a percentage of the education budget fell from 12% in 1997–1998 to 8% in 2002–2003 but then rose to 10% in 2005–2006. Other tertiary education expenditures accounted for about 4% of the education budget in 2005–2006.

The government’s reluctance to fund higher education has led to an increase in private expenditure on higher education, accompanied by the efforts of public institutions to generate funds from private sources. The trend toward the privatization of higher education has become so strong in Uganda that, during the late 1990s and 2000s, a new university was being created almost every six months. Currently, most students in public institutions now pay fees as a result of the dual-track entry system, which was instituted in 1992.

Patterns of State Financing

There are no clear guidelines shaping allocations within public higher education. Instead there is (a) what is referred to as government subvention, (b) line-item funding, and (c) project financing for newly established universities. These public financing modes accompany the dual-track system of tuition fees.

Public funds are disbursed to institutions through four channels: (a) directly from the Ministry of Finance; (b) through three departments in the Ministry of Education: the Higher Education Department overseeing universities, the Department of Business, Technical and Vocational Education Training overseeing vocational education, and the Department of Teacher Education; (c) through the government district; and (d) through other ministries.

Although public universities are required to submit a budget to Parliament, the final allocations are seldom influenced in a substantive way by the submitted budgets. Instead allocations are based on the institution’s historical allocations, its size, and its needs, although not in a consistent manner.

Government funds are disbursed to universities in two blocks: (a) the recurrent budget, by which each public university receives a block grant or subvention. This amount is reportedly calculated using the number of government-sponsored students and the unit cost which the Ministry of Education sees as “reasonable” for that particular institution. However, unit costs vary substantially, for example, from 1.5 million Ugandan shillings in Kyambogo University to 16 million in Mbarara University of Science and Technology; and (b) the development budget.
Private Support for Higher Education

Although the bulk of private (i.e., fee-paying) students is found in public universities, Uganda is witnessing an upsurge of private universities. In 1988 there was only one; by 2005 there were more than 20, constituting 82% of the total number of universities. Serious questions have been raised about the quality of education provided by most of these private universities and also about the ability of the Commission for Higher Education to effectively regulate this sector.

In summary, Uganda has attempted to meet the challenge of rapid growth in higher education enrollments through introducing cost-sharing in the form of a dual-track system in the public sector and by allowing liberal expansion in the private sector. As in Kenya, the public funding of higher education is highly inequitable. Equity is further hindered by the absence of a student financing scheme.

Moreover, the public financing of higher education appears to be inefficient as well, at least partly because the state’s funding mechanism is purely input-based. Its primary driver is enrollment. No consideration is taken of outputs or of the country’s human resource needs. There is an almost complete absence of higher education planning in government.

CONCLUSION: LESSONS AND CHALLENGES

This chapter has assessed the structure and pattern of higher education financing and their implications for access and equity in a comparative study of five East and Southern African countries: Kenya, Mozambique, Namibia, South Africa, and Uganda.

Continent-wide, African higher education is characterized by extremely low participation rates. With the exception of South Africa, this same pattern holds true for the countries considered in this chapter. Moreover, three key determinants—gender, socio-economic status, and region—skew the already low participation rates in favor of males, richer families, and urban households.

Access and equity in higher education in Sub-Saharan Africa are fundamentally determined by access to and the quality of secondary education. In most countries, access to secondary schooling is extremely limited and often of poor quality.

As a percentage of total national income, spending on education by most countries in the East and Southern African region is relatively high in a comparative sense. (See Table 3.) In fact, in countries such as Lesotho, Kenya, and Namibia, public expenditure on education is relatively high. However, public spending on higher education as a proportion of the education budget varies substantially among the five countries considered in this chapter. In the case of Mozambique, Namibia, and South Africa, higher education spending is relatively high as a percentage of the education budget. In the case of the two East African countries, it is relatively low.

When higher education expenditure is low, there are often several reasons for this condition. First, expenditure on education generally, as a percentage of the government’s budget, may be inadequate. Second, where education expenditure
may be considered adequate or reasonable, considerable political pressure ensures that elementary and secondary schooling receive the overwhelming share of the public sector’s commitment to education. Third, in many developing countries where resources are seriously constrained, there is often keen inter-sectoral competition with education from health, housing, social welfare, and other government functions for financial resources. Finally, the case for increased higher education financing has not been helped by the low priority assigned to higher education by many African governments. The value of higher education for economic growth and broader social and sustainable development has not yet been fully recognized by African governments.

It is evident that higher education financing in the countries considered in this chapter is often inadequate, and almost everywhere inequitable and inefficient. Even though participation rates remain low in the context of a growing population, enrollments are growing everywhere in absolute terms—in several cases quite dramatically. In the face of serious financial resource constraints for higher education, education ministries have responded mainly in two ways. First, there has been a clear shift toward some form of cost-sharing in the form of tuition fees in Kenya, Namibia, and Uganda. In East Africa, such cost sharing has taken the form of a dual-track system where a fee-paying system coexists with a free, government-sponsored scheme for some students. Second, governments in all countries have permitted the introduction and subsequent expansion of the private education sector.

While the cost-sharing and private sector strategies have enabled the government to address to some extent the issue of inadequate public sector funding of higher education, it has resulted in greater inequity almost everywhere. In Namibia and South Africa, everyone pays tuition fees, but in Kenya and Uganda, cost-sharing is only for those who cannot access full government sponsorships. Such scholarships invariably seem to go to students from more affluent households who have been able to attend the best secondary schools. However, Uganda has adopted some measures to address these inequities by adopting quotas for the disadvantaged, and Mozambique provides scholarships to students from rural areas.

Furthermore, private higher education in Africa, unlike private education in the industrialized world, appears to be the source from which many of the poor seek education. However, in several countries especially Mozambique, Kenya, and Uganda, many of the private HEIs are of questionable quality. Moreover, the situation is not helped by the absence of an effective regulatory framework for private higher education in some countries.

In the countries under consideration here, especially Kenya, Mozambique, Namibia, and Uganda, higher education financing is extremely inefficient. This problem is due partly to the fact that higher education financing is largely ad hoc and is not based on any attempt to develop a closer link between sectoral planning and budgeting. In some cases, budgeting is done on a purely incremental basis and in other others solely on inputs (student numbers). With regard to the development of a higher education planning framework and an effective funding formula, the countries of Southern and East Africa could draw useful lessons from South Africa.
Given the South African experience, key practical actions that other developing countries adopting a funding formula should take note of are the following:

1. Design a formula that is simple and can be understood by the broadest section possible of the higher education community.

2. Promote understanding and acceptance of the formula by institutions through designing appropriate consultative mechanisms and undertaking training programs.

3. Develop effective data management systems at both the institutional and government levels to ensure that the formula (particularly with respect to the input and output elements) can be implemented effectively.

4. Promote tighter education-labor market linkages by designing an effective system to monitor the outputs and outcomes of the higher education system in relation to the needs of the labor market and economy.

Important lessons can also be drawn from the South African and Kenyan experiences with regard to designing and implementing an effective student loan scheme. It is encouraging to see Namibia moving toward developing a loan scheme, but there are no such signs in either Uganda or Mozambique. The South African and Kenyan schemes are specifically designed to address issues of equity, even though the Kenyan scheme has been criticized for providing inadequate loans to poor students in the private sector.

Finally, cost sharing is often seen as the panacea to the challenge of higher education financing in Africa. As the OECD (2008) has shown, there are several reasons why students and families should share the costs of tertiary education with taxpayers. The arguments most commonly used to make the case for cost-sharing are: (a) public money available for tertiary education will continue to lag behind the need, given enrollment growth and competing priorities for public funds; (b) those who benefit should contribute to the costs of tertiary education; (c) public savings from individual contributions can be channeled to improve equity of access; and (d) tuition fees introduce the virtues of price as a market mechanism.

However, two technical aspects may make cost sharing in poor countries more challenging. First, the split of the cost (i.e., the share paid by the government and the students/families) is difficult to establish in any precise way because the magnitude of tertiary education externalities is very difficult to measure (OECD, 2008). Second, cost sharing, to be compatible with access and equality of opportunities, must be accompanied by measures which remove financial barriers to admission at the time of the enrollment decision, especially for the more disadvantaged groups. Such measures require effective student financial aid systems typically formed of need-based grants and loan schemes and possibly other programs to compensate for unequal educational opportunities at the secondary level (OECD, 2008).

REFERENCES
