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Introduction

D. Bruce Johnstone and Damtew Teferra

Public higher education has always been a centerpiece in nation building and economic development. Higher education (or the more inclusive term, *tertiary education,* which is favored by many development specialists) is universally conceded to be a critical economic engine for prosperity and growth. This driving dynamic is especially the case in the 21st century as the world shifts from an industrial- to a knowledge-based economy and as the developing world seeks to emerge from its historically crushing dependence on subsistence agriculture and low-wage, unskilled labour.

The benefits, or returns, to higher education are also universally believed to be both *private*—that is, accruing to individuals as greater remuneration, more options, and a generally more pleasurable life, and *public*—leading to greater economic productivity, a more lasting democracy, and a more just and satisfying civil society. Finally, growing numbers of more highly educated citizens as well as the modern institutions of higher education (especially universities) are important symbols of national identity and repositories of the histories, languages, and cultures of the people(s).

The African continent is no exception to these principles or these aspirations. Most of the countries of Africa gained their independence about four and half decades ago with some half dozen universities yielding only hundreds of graduates. Currently, Africa counts more than 300 universities enrolling between 4 and 5 million students. This achievement is remarkable, especially considering the many burdens of colonial legacies, political instability, strife, economic stagnation, and worsening terms of trade with advanced industrialized countries. However, the quality of many of Africa's higher educational institutions has suffered from overcrowding and greatly insufficient revenue. The continent still trails most of the rest of the world in tertiary education enrollment rates, averaging only about 3% of the age cohort in tertiary education. Furthermore, there are significant differences in these participation rates. Egypt, for example, enrolls more than 20% of its college-age cohort while Tanzania and Ethiopia manage less than 1% and, obviously, need to expand their higher educational capacities greatly.

At the heart of these problems are the high and rising costs of higher education, especially striking in Africa and other developing countries where the already high per-student costs are magnified by the rapidly increasing numbers of young persons and further magnified by the even more rapidly rising proportions of these individuals who are completing secondary school and aspiring to further education. To make matters worse, this increasing cost pressure in Africa is occurring in countries that are frequently suffering not only from low per-capita incomes, but also from low rates of economic growth and from even lower capacities to tax what few economic products there may be.

Further defining the African context for any public expenditure is the array of heavily pressing—and competing—public needs, including elementary and secondary education, public health (the HIV pandemic is only part of the problem), and immense public infrastructure needs such as sanitation, water, housing, roads, telecommunications, a social safety net, public safety, and a more adequate judicial system. Therefore, every additional public dollar, franc, cedi, or shilling spent on higher education is one that cannot be spent on these other urgent needs. This situation constitutes what the economist calls the "opportunity cost" of additional resources to higher education, or the effective "cost" of foregoing what those dollars, cedis, francs, or shillings could have done if invested in housing, public health, or elementary and secondary education. Thus, with budgets for higher education in most African countries already at their effective limits, there is little or no way for most African countries to raise additional higher educational revenue by increased taxes or more governmental borrowing.

This logic drives the familiar prescription of revenue diversification—and the theme of this special issue of the *Journal of Higher Education in Africa*. The goal of revenue diversification is to supplement the increasingly scarce public tax (or borrowing) revenue with revenue either from faculty and institutional entrepreneurship or from *cost-sharing*—that is, from passing some of the additional costs on to parents and students, most of whom will presumably reap great benefits, and some of whom (especially the parents) can be expected to pay willingly if they have to, as evidenced by the tuition fees they are already paying for better secondary education or for new private higher educational options.

However, cost-sharing in the form of tuition fees or of charges for lodging and food meets with bitter opposition in most countries of Africa (and elsewhere). Part of this opposition may be the resistance inevitable from those who had received what they thought of as a virtual entitlement but for which they must now pay. In fact, of course, "free" public higher education never was actually free. But particularly in Africa and other low-income countries,

people pay for public entitlements in ways that are frequently hidden: e.g., consumption taxes, or the taxation of state-owned enterprises that leaves little left over for decent wages, or the virtual confiscation of purchasing power through inflation brought on by the reckless printing of money. Such forms of indirect taxation are also generally regressive—that is, falling disproportionately on the poor. Nevertheless, the opposition to charging for a good that was once "free," and that is still mainly free in most of Continental Europe, is adamant and politically effective.

The opposition to cost-sharing can also be partly ideological, with some of the "blame" cast on the seeming worldwide ascendancy of neo-liberal economics, on the globalization that is thought to favor the advanced industrial countries (AIC) of the North, and on such international development entities as the World Bank or the International Monetary Fund and their prescriptions of structural adjustment for governments that insist on spending far in excess of what they are able to collect in taxes. Finally, some opposition to higher education cost-sharing is partly technical: a refutation of the claim that generally available loans and means-tested grants can easily maintain accessibility in the face of increasing tuition fees and other charges—in spite of evidence that student loans and means testing seem frequently not to work (at least not in most of Africa).

This special issue of the *Journal of Higher Education in Africa* explores some of the policy issues and actual experiences related to the quest for solutions to the financial crises of African higher education, with a special emphasis on cost-sharing and other forms of revenue diversification. The articles come from three somewhat interlocking sources. First, the International Comparative Higher Education Finance and Accessibility Project at the State University of New York at Buffalo, directed by D. Bruce Johnstone, coeditor of this special issue), has been the source of many papers on the economics and politics of cost-sharing, including the contributions to this issue by Johnson Ishengoma, Wycliffe Otieno, and Abebayehu Amero Tekleselassie and D. Bruce Johnstone. Second, the Buffalo Project, in cooperation with the University of Dar es Salaam, held an invitational 10-country conference in March 2001 titled "Financing Higher Education in Eastern and Southern Africa: Diversifying Revenue and Expanding Accessibility." This conference contributed many ideas as well as the paper in this issue by UK development economist Maureen Woodhall. Finally, the Association of African Universities in conjunction with the World Bank held a conference in Accra in September 2003 titled "Improving Tertiary Education in Sub-Saharan Africa: Things that Work!" which gave rise to the articles in this issue by D. Bruce Johnstone and University of Nairobi Vice Chancellor Crispus Kiamba.

This special issue does have a point of view—which is that the universities and other tertiary education institutions in most of Africa are in severe and worsening financial condition and that governmental revenues—*while absolutely critical and not to be diminished*—will not be able to generate enough additional revenue to provide both the quality and the level of participation that the countries of Africa demand and deserve. Revenue supplementation from some nongovernment/nontaxpayer source(s) is thus essential. Parents (via tuition fees) and students (mainly via loans) are sources that cannot be ignored, whether the case for tuition fees is drawn from economic theory or from the widely hailed but controversial successes of East African institutions like Makerere University and University of Nairobi where a version of cost-sharing seems to have made strikingly positive differences.

At the same time, there are problems and limitations in the so-called dual, or parallel, tuition fee policies observable in Uganda and Kenya (and much more tentatively in Tanzania), as the papers by Ishengoma and by Tekleselassie and Johnstone make clear. Although South Africa seems to be an exception, student loans do not work very well in Africa, and the contributions by Woodhall, Otienno, Ishengoma, and Johnstone detail some of the reasons. The kind of means testing necessary for the efficient targeting of higher educational subsidies, as described by Tekleselassie and Johnstone, is both imprecise and corruptible. Furthermore, tuition fees and "break-even" fees for institutionally provided food and lodging remain well beyond the means of the overwhelming majority of African families.

However, while we recognize the complexity of issues surrounding cost-sharing, we believe that it is unfair, socially inequitable, and financially unsustainable to continue placing all of the costs of higher education—which is partaken of disproportionately by the children of the affluent—entirely on the general taxpayer (including the very poor). We are of the opinion that parents (at least those who are financially able) and students (at least those who are able to borrow at reasonable rates of interest) should share the rising costs of higher education along with the general taxpayer. We further believe that the efforts must continue to better measure the ability of families to pay and to allow students to defer their share until after the completion of their studies. But we should not continue to provide a "blanket amnesty" to the affluent, whose economic state can be at least inferred from such indicators as the occupation of the parents and the secondary school of the prospective student, simply because the perfect means test has not yet been found.

Furthermore, countries in Africa should not continue to resist reasonable forms of cost-sharing simply from a fear of political and ideological opposition, particularly in the face of allegations (although contested) that this resistance

comes at least in part from more affluent students and their powerful, well-connected families.

In short, tuition fees and other forms of cost-sharing are not easy solutions, either technically or politically. We acknowledge the reality that there is no easy or obvious solution and that any "solution" to the financial dilemma of African higher education will entail is going to come with heavy opportunity costs and political costs. It is our hope that this special issue will contribute to the analyses and ideological reexaminations in which each African country must engage in its way toward solving what may seem—but what cannot be allowed to remain—a fundamentally unsolvable problem.

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Introduction

D. Bruce Johnstone and Damtew Teferra

L'enseignement supérieur public à toujours été une pièce maîtresse dans l'édification de la nation et le développement économique. Il est universellement admis que l'enseignement supérieur (ou pour être plus inclusif, *l'enseignement tertiaire,* terme préféré de nombreux spécialistes en développement), est un levier indispensable à la prospérité économique et au développement. Ceci est d'autant plus vrai qu'au XXIe siècle le monde bascule d'une économie industrielle à une économie basée sur le savoir et que les pays en voie de développement cherchent à se décharger de leur lourd fardeau de dépendance historique d'une agriculture de subsistance et d'une main-d'œuvre bon marché et non qualifiée.

Les bénéfices ou les retombées de l'enseignement supérieur sont aussi reconnus comme relevant du *privé*—c'est-à-dire profitant aux individus sous plusieurs formes : une rémunération plus importante, plus de possibilités de choix, et généralement une vie plus nantie ; et au *public*—en ce qu'il induit une plus grande productivité économique des travailleurs, une culture démocratique plus durable et une société civile plus juste et plus efficiente. Enfin, un nombre croissant de citoyens très instruits, de même que des institutions d'enseignement supérieur modernes (principalement des universités) sont des symboles importants de l'identité nationale et les dépositaires de l'histoire, des langues, et des cultures des peuples.

Le continent africain ne déroge pas à ces principes ou aspirations. La plupart des États du continent africain ont accédé à l'indépendance il ya de cela quatre décennies et demi avec environ une demi-douzaine d'universités produisant seulement quelques centaines de diplômés. À présent, l'Afrique compte plus de trois cent universités avec quatre à cinq millions d'étudiants. Cependant, bien que cela constitue un acquis de taille, surtout au regard des nombreuses difficultés héritées de la colonisation, de l'instabilité et des dissensions politiques, de la stagnation économique et la détérioration des termes de l'échange, la qualité de beaucoup de ces institutions d'enseignement supérieur a été affectée par des problèmes d'effectifs pléthoriques et un manque criard de fonds. Le continent est loin derrière la plupart des pays du monde en termes du nombre d'inscriptions dans les établissements d'enseignement supérieur, avec une

moyenne de seulement 3% des jeunes en âge d'accéder à l'enseignement supérieur. Mais, il faudrait noter des différences significatives dans ce pourcentage avec des pays comme l'Égypte où il est de plus de 20%, tandis que d'autres comme l'Éthiopie et la Tanzanie n'enregistrent que 1% et ont grandement besoin d'agrandir les capacités d'accueil de leurs institutions.

Au cœur de ces problèmes se trouvent les coûts de plus en plus élevés de l'enseignement supérieur, particulièrement en Afrique et dans les autres pays en voie de développement où les coûts élevés par étudiant sont majorés par le nombre considérable des jeunes. Cette situation se complique encore davantage par les proportions toujours à la hausse de milliers de jeunes qui sont à la fin de leur cursus secondaire et qui aspirent aux études supérieures. Plus grave encore, cette tendance à la hausse en Afrique a lieu dans des pays en proie non seulement à des revenus par tête d'habitant très bas, mais aussi à des taux de croissance bas, et à des capacités d'imposition de plus en plus faibles sur le peu de richesses disponibles.

Toujours pour mieux camper le contexte africain dans le sens des dépenses publiques, on peut ajouter la liste des besoins publics très pressants—et tous aussi prioritaires les uns que les autres—allant de l'enseignement primaire et secondaire, la santé publique (la pandémie du VIH n'étant qu'une partie du problème) aux besoins immenses en matière d'infrastructure publique telles que l'assainissement, l'eau, le logement, les routes, les télécommunications, la sécurité sociale, la sécurité publique et un système judiciaire opérationnel. En conséquence, tout dollar, franc, cedi ou shilling public supplémentaire dépensé dans l'enseignement supérieur est autant de moins pour les autres besoins pressants : c'est ce que les économistes appellent *le coût d'opportunité* des ressources supplémentaires liés à l'enseignement supérieur ou encore le «coût» effectif dû au fait que ces dollars, ces francs, ces cedis ou ces shillings auraient pu servir pour le logement, la santé publique, l'enseignement de base ou l'enseignement secondaire. Ainsi, avec les budgets de l'enseignement supérieur déjà élevés et atteignant leur limite objective dans la plupart des pays africains, il y a peu ou pas de possibilité de satisfaction des besoins de revenus supplémentaires à travers une fiscalité supplémentaire ou à travers un emprunt plus important à l'État.

Ainsi se justifie la prescription de la diversification des revenus, prescription bien familière qui constitue le thème de ce numéro spécial de la *Revue de l'enseignement supérieur en Afrique.* Le but de la diversification des revenus est d'apporter des ressources additionnelles aux revenus de plus en plus rares provenant de l'assiette fiscale ou de l'emprunt à l'État par le biais de ressources générées par un entreprenariat institutionnel ou par le corps enseignant, ou alors par le *partage des coûts*, c'est-à-dire en faisant supporter une partie des

coûts supplémentaires aux parents et aux étudiants dont la plupart, à n'en point douter, vont en tirer d'énormes bénéfices. On s'attend à ce que certains d'entre eux (notamment les parents) payent volontiers le cas échéant, comme l'atteste l'instauration des frais de scolarité qu'ils payent déjà pour un enseignement de meilleure qualité au niveau du secondaire ou pour de nouvelles options dans l'enseignement supérieur privé.

Cependant, le partage des coûts sous la forme de frais de scolarité ou des frais de logement et de nourriture ne manque pas de soulever une farouche opposition dans la plupart des pays africains (et ailleurs). Il se peut qu'une partie de cette opposition soit due à la résistance inévitable de la part de personnes qui doivent payer pour une chose considérée naguère pratiquement comme un droit. En fait l'enseignement supérieur public «gratuit» ne l'a jamais été dans les faits. Mais, particulièrement en Afrique et dans d'autres pays à faibles revenus, la manière dont les gens paient pour des droits au service public prend souvent des voies détournées (par exemple, on peut citer les taxes sur les produits de consommation, ou la taxe sur les sociétés d'État, qui, finalement, permettent à peine un traitement salarial convenable, ou alors la confiscation virtuelle du pouvoir d'achat du fait de l'inflation induite par l'impression inconsidérée des billets de banque. De telles formes d'imposition indirecte sont aussi généralement régressives—c'est-à-dire qu'elles retombent de façon disproportionnée sur les pauvres. Néanmoins, l'opposition à la facturation d'un bien qui était naguère «gratuit», et qui est toujours essentiellement gratuit dans la plupart des pays de l'Europe continentale ne manque pas de tranchant et constitue un solide argument politique.

L'opposition au partage des coûts peut être aussi idéologique avec une partie de la responsabilité rejetée sur généralisation apparente de l'économie néolibérale à travers le monde, sur la mondialisation qui est perçue comme favorisant les pays industrialisés, et sur des institutions de développement international telles que la Banque mondiale ou le Fonds monétaire international et leurs prescriptions d'ajustement structurel pour des gouvernements qui continuent à dépenser beaucoup plus qu'ils ne sont à même de collecter auprès des contribuables. Enfin, l'opposition au partage des coûts est aussi technique: une réfutation de l'idée que les prêts et les bourses accordées après une enquête sur les revenus peuvent facilement garantir l'accès, vu que les frais de scolarité et autres charges sont sans cesse à la hausse, en dépit des preuves que les prêts scolaires et l'enquête sur les revenus ne semblent pas toujours marcher (du moins en ce qui concerne la plupart des États au Sud du Sahara).

Ce numéro spécial de la *Revue de l'enseignement supérieur en Afrique* se veut une exploration de certaines des questions et des expériences réelles qui sous-tendent la recherche de solutions aux crises financières de l'enseignement

supérieur en Afrique. Il met l'accent particulièrement sur le partage des coûts et sur d'autres formes de diversification des revenus. Les articles proviennent de trois sources qui sont imbriquées. D'abord, des articles qui traitent de l'économie et de la politique du partage des coûts, y compris les contributions de Johnson Ishengoma, Wycliffe Otieno, et de Abebayehu Amero Tekleselassie et de D. Bruce Johnstone proviennent de l'International Comparative Higher Education Finance and Accessibility Project (Projet international pour le financement et l'accès à l'enseignement supérieur comparé) de l'Universite d'État de New York à Buffalo et dirigé par D. Bruce Johnstone, (co-rédacteur en chef de ce numéro spécial). Le Projet de Buffalo, en collaboration avec l'Université de Dar es Salaam, a organisé une conférence qui a réuni 10 pays en mars 2001, dont le thème était «Le financement de l'enseignement supérieur en Afrique de l'Est et du Sud : la diversification des revenus et l'expansion de l'accès». Beaucoup d'idées ont été émises, et l'article de la Britannique Maureen Woodhall, spécialiste en économie du développement, y a été présenté. L'Association des universites africaines, conjointement avec la Banque mondiale, a tenu une conférence à Accra en septembre 2003. Le thème portait sur «L'amélioration de l'enseignement tertiaire en Afrique subsaharienne : les aspects qui fonctionnent bien!» Les articles de D. Bruce Johnstone et de Crispus Kiamba, recteur de l'Université de Nairobi avaient été présentés lors de cette conférence.

Ce numéro spécial nous a permis de faire un constat, à savoir que les universités et les autres institutions d'enseignement relevant du tertiaire dans la plus grande partie de l'Afrique évoluent dans des conditions financières graves qui ne cessent de se dégrader et que les revenus provenant de l'État—*bien qu'absolument nécessaires et ne devant en aucun cas être diminués*—ne suffiront pas à eux seuls à générer des ressources additionnelles pour assurer et la qualité et le niveau de participation que les pays africains demandent à juste titre.

Des revenus supplémentaires de source(s) autre(s) que l'État ou le contribuable sont alors nécessaires. Les parents (par les frais de scolarité) et les étudiants (essentiellement à travers les prêts) sont des sources qui ne peuvent être ignorées, que l'argumentaire pour les frais de scolarité soit développé autour de la théorie économique ou des succès largement salués, mais controversés, des universités de l'Afrique de l'Est telles que l'Université de Makerere et l'Université de Nairobi où un modèle de partage des coûts semble s'être clairement distingué par ses résultats satisfaisants.

Dans le même temps, il faut souligner les problèmes et les limites des politiques financières à «double flux» ou politiques financières parallèles en Ouganda et au Kenya (qui est à l'essai en Tanzanie) comme le soulignent les contributions de Ishengoma, et de Tekleselassie et Johnstone. Bien que l'Afrique du Sud semble être une exception, il faut dire que les prêts d'études ne

fonctionnent pas très bien en Afrique. Les contributions de Woodhall, Otieno, Ishengoma, et Johnstone en examinent les raisons. La nature de l'enquête sur les revenus (nécessaire pour un ciblage efficient concernant les subventions pour l'enseignement supérieur) telle que décrite par Tekleselassie et Johnstone est à la fois imprécise et corruptible. Aussi, les frais de scolarité, de logement et de nourriture appliqués par les institutions juste pour «rentrer dans leurs fonds» restent bien hors de portée de l'écrasante majorité des familles africaines.

Toutefois, tout en reconnaissant la complexité des questions que soulève le partage des coûts, notre conviction est qu'il est injuste et socialement inéquitable, en plus d'être financièrement non viable, de continuer à faire supporter entièrement tous les coûts inhérents à l'enseignement supérieur aux contribuables (dont les déshérités), coûts qui tiennent particulièrement des étudiants issus de familles aisées. Nous croyons fermement que les parents (du moins ceux qui en ont les moyens) et les étudiants (du moins ceux qui ont la capacité de contracter des prêts à un taux d'intérêt raisonnable) devraient partager avec les contribuables les coûts de plus en plus élevés de l'enseignement supérieur. De plus, nous croyons aussi que des efforts doivent être continuellement déployés dans le sens d'une meilleure évaluation de la capacité des familles à payer et de permettre aux étudiants de différer le paiement de leur prêt à la fin de leurs études. Mais les familles riches, dont la situation économique peut être connue à partir d'indicateurs tels que la fonction des parents et l'établissement d'enseignement secondaire d'origine de l'étudiant, ne doivent pas continuer de bénéficier de l'amnistie générale juste parce que l'instrument parfait d'enquête sur les revenus n'est pas encore trouvé.

Aussi, les pays d'Afrique ne devraient pas continuer d'opposer une résistance à des formes raisonnables de partage des coûts par crainte d'une opposition politique ou idéologique, particulièrement face à des allégations (même si elles sont contestées) selon lesquelles cette résistance serait l'œuvre d'étudiants plus fortunés—en sur-représentation dans beaucoup de pays africains—et leurs familles—qui sont puissants et bénéficient de relations dans les hautes sphères de la société.

Les frais d'inscriptions et les différentes formes de partage des coûts ne sont pas des solutions aisées, politiquement ou techniquement. En fait, nous pensons qu'il n'existe pas de solution facile ou évidente, et que toute «solution» au dilemme financier auquel est confronté l'enseignement supérieur en Afrique ne saurait être trouvée sans payer le prix fort : les coûts d'opportunité et les coûts politiques. Nous espérons que ce numéro spécial apporte sa contribution aux analyses et au réexamen des convictions idéologiques auxquelles chaque pays africain devra adhérer afin de résoudre ce qui peut sembler un problème insolvable par essence, mais qui ne doit pas le demeurer.

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Higher Education Finance and Accessibility: Tuition Fees and Student Loans in Sub-Saharan Africa*

D. Bruce Johnstone**

Abstract

"Revenue supplementation" in higher education refers to shifting higher education costs away from relying mainly (sometimes virtually exclusively) on government, or the taxpayer, and toward parents, students, philanthropists, businesses, and other sources. "Cost-sharing" refers more specifically to requiring that parents and students pay all or most of tuition, lodging, and food costs, and other fees, as well as lessening the value of grants or raising the effective interest rate on student loans. This article identifies some of the historic resistance to cost sharing as well as its rationales—the most compelling of which is the sheer need for revenue, coupled with the increasing unlikelihood that African governments can raise enough revenue by taxation to meet currently underfunded social needs and simultaneously provide substantially more to meet the rising costs of higher education. The article identifies some limitations to the "dual-track" tuition policies in East Africa and some reasons for the many failures African countries have experienced with student loan programs. It cautions against the prevailing fascination with income-contingent loans and makes recommendations, drawn both from theory and from the few empirical examples of "things that work."

Résumé

Dans le domaine de l'enseignement supérieur, le concept d'« augmentation de revenu » consiste à ne plus dépendre principalement (parfois exclusivement) du gouvernement ou du contribuable pour ce qui est des dépenses d'éducation, et à

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faire supporter ces coûts vers les parents, les étudiants, les philanthropes, les entreprises et autres. La « participation aux coûts » renvoie plus spécifiquement au fait que les parents et étudiants s'acquittent de l'intégralité ou d'une grande partie des droits d'inscription, des frais de logement ; la « participation aux coûts » renvoie également à la diminution du montant des bourses ou à la hausse du taux d'intérêt appliqué sur les prêts étudiants. Cet article identifie certaines résistances à la pratique du partage des coûts, ainsi que les arguments sur lesquels repose ce système (dont le plus incontestable demeure l'énorme besoin de sources de revenus, ainsi que la non-probabilité que les gouvernements africains génèrent suffisamment de revenus à travers l'imposition, et qu'ils parviennent à combler les besoins sociaux actuellement sous-financés, et que ces gouvernements parviennent en même temps à accorder davantage de financements pour subventionner les besoins croissants de l'enseignement supérieur). Cet article identifie les limites des politiques de droits d'inscription « à double système» appliquées en Afrique de l'Est, et avance quelques raisons à l'échec de certains pays africains dans la mise en place des programmes de prêts étudiants. Il met en garde contre cette fascination pour les prêts basés sur les revenus, et fait des recommandations tirées à la fois de la théorie et d'un certain nombre d'exemples empiriques de « modèles réussis ».

Introduction

Higher education at the beginning of the 21st century has never been in greater demand, both from individual students and their families, for the occupational and social status and greater earnings it is presumed to convey, as well as from governments for the public benefits it is presumed to bring to the social, cultural, political, and economic well-being of countries. Nowhere is this demand more compelling—or indicators of success more elusive—than in the countries of sub-Saharan Africa, beset with fragile economies and tentative democracies that are struggling to maintain higher educational quality amid conditions of financial austerity and a relentlessly increasing tide of student demand.

The fundamental financial problems faced by institutions of higher education are worldwide and stem from two nearly universal forces. The first of these is the high and increasing unit, or per-student, cost of higher education. This problem can be attributed to a historically entrenched, tertiary education production function that is both capital and labor intensive and that has proven throughout the world to be especially resistant to labor-saving technology.[1] The second force greatly exacerbating the financial problems of tertiary educational institutions and ministries in many countries is the pressure for increasing enrollments, particularly where high birth rates are coupled with rapidly increasing proportions of youth finishing secondary school with legitimate aspirations for some tertiary education. And again, nowhere in the

world are these exacerbating, or magnifying, conditions more prevalent than in sub-Saharan Africa.

Tertiary education in most countries, at least in the last century, has been largely dependent on governments, or taxpayers, for the revenue to meet these high and rising costs. However, the source of taxation in the countries of sub-Saharan Africa for much of the last century depended heavily on exports and imports, state-owned monopolies, and multinational enterprises. The worsening terms of trade and the privatization of state-owned enterprises toward the end of the century forced governments to turn to much more problematic sources of taxation such as individual incomes, retail sales, and property—taxes that are more expensive to collect and easier to evade. International lending agencies have made dependence on deficit financing and the printing of money a less viable alternative than taxation. Moreover, rampant corruption and political instability have lessened foreign investment as a source of economic activity and, thus, of tax revenues. Finally, competing public needs—many of which, such as public health, public infrastructure, elementary and secondary education, and internal security—may be far more socially and/or politically compelling, particularly on their respective margins, than the claims of higher education. Such competing needs have plunged tertiary educational institutions and ministries in most countries (even those that are industrialized and wealthy) into serious and steadily worsening financial austerity.

When these cost pressures of tertiary education are not met with commensurately increasing revenues—which is increasingly the case everywhere in the world and especially in the countries of sub-Saharan Africa—the result is less apt to be increased efficiency and productivity and more apt to be some combination of: (a) diminished quality of the output (i.e., of teaching, scholarship, and service); (b) diminished working and living conditions for professors, staff, and students alike; and/or (c) constrained capacity and the consequent extreme rationing of places—and thus the denial of opportunities to students who may be qualified but who lack the secondary school academic preparation or the financial means to "buy into" an available place.

In most of Africa, the combination of flat or even declining economies (brought on in part by the worsening terms of trade for the less-industrialized world), burgeoning populations (especially those seeking tertiary educational experiences), political and social instability and conflict, and oppressive debts have all contributed to the extreme financial austerity of, as well as diminishing access to, African tertiary education. The reform agenda for African tertiary education thus includes the need for expanding other-than-government, or tax-generated, revenue as well as measures to lessen the current financial barriers to tertiary education participation for children of the poor, of those in rural or

Table 1: Forms and Stages of Cost-Sharing (in Approximate Order of Increasing Political Resistance to Implementation)

Type of Cost-sharing	African Country Example[s]	Other Country Example[s]	Potential Revenue Impact	Potential Political Acceptability
1. Small earmarked fees (e.g. registration, examination, or "caution"—but not yet tuition)	Most African countries (e.g., Nigeria)	India, Egypt	Generally small	Quite acceptable
2. Freezing (lessening the "real" value) of student grants	Most African countries	U.S. (Pell grants), Russia, other post-Communist countries	Generally small but continuous	Relatively acceptable
3. Reducing or eliminating some student support grants	Most African countries	U.K. (eliminated mandatory grants)	Small to large	Unpopular (protest in Ghana, 1991; also in Kenya and Tanzania).
4. Encouraging and even providing revenue to support the tuition-dependent private sector	Kenya, Tanzania, Uganda, Ghana, and other countries	Pervasive (especially the Philippines, Japan, Korea, Brazil, Russia, etc.)	Significant over time but requires tuition fees	Quite acceptable
5. Introducing fees for lodging and food	Most African countries	Most OECD countries, China, Vietnam, Mongolia	Can be large	Unpopular, but can be done gradually and has precedent.

6. Introducing tuition only for students not given a free slot (dual or parallel track)	Uganda, Kenya, Ethiopia, Tanzania	Russia and other countries of the former Soviet Union and most countries of post-Communist cultural and Eastern Europe.	Can be large	Acceptable: provides opportunities to students who had none.
7. Introducing tuition only for certain public institutions or programs	Nigeria (tuition for state, but not federal, institutions)	Mexico (state and federal universities other than National Autonomous University of Mexico).	Medium to large	Relatively acceptable
8. Introducing tuition mainly in the form of deferred contributions.	Reportedly under consideration in Ethiopia	Australia, New Zealand, Scotland, Wales, proposed for U.K.	Government-held loan notes essentially unsalable in private capital market; all revenue impact in future.	Relatively acceptable
9. Introducing up-front tuition fees at all public institutions	South Africa, Mozambique	Britain, Netherlands, Austria, China, Mongolia, Vietnam	Large	Unpopular
10. Enhancing recovery on student loans	South Africa (successful); Kenya and Ghana (attempting).	U.S.	Potentially significant, but extremely difficult to effect.	Relatively acceptable
11. Large increases (beyond the rate of unit cost increases) in tuition: increase in % of costs recovered.		U.S.	In response to state cuts, so no net revenue impact.	Angers politicians and press; moderately unpopular with public.

remote areas, or of ethnic or linguistic minorities (Sawyer, 2002; Task Force, 2002). Accordingly, this paper will address first the familiar concept of cost-sharing, or shifting some of the costs of higher education from governments or taxpayers to an arrangement in which these costs are shared by parents (or extended families) and students. I will then address the related policy prescription of student loans, or the deferral of some of these student-borne costs to a future when the student borrower will presumably be more productive, enjoy a higher income, thus be able to repay the loan as a sound personal investment.[2]

Cost Sharing in Africa

Cost-sharing is generally thought of as the introduction of, or especially sharp increases in, tuition fees to cover part of the costs of instruction or of user charges to cover more of the costs of lodging, food, and other expenses of student living that may have hitherto been born substantially by governments (taxpayers) or institutions (Johnstone, 1986, 2002, 2003a). However, there are many other possible forms, or what may usefully be thought of as stages, of cost sharing. Some of these, as shown in Table 1, are likely to be early and relatively easy, with less fiscal consequence but with more possibility of being politically acceptable. Such measures could include the introduction of small, noninstructional fees, the freezing or diminution of student support grants (especially in an inflationary economy), the channeling (sometimes with some government resources) of more students into a tuition-dependent private sector or, in the few countries that have introduced significant loan programs, an improvement in recovery rates (i.e., a lessening of needed public subsidies) by means of increasing the rate of interest or improving collections.

Other forms or stages of cost-sharing have potentially greater fiscal impact but may still be more politically acceptable than the introduction of across-the-board, up-front tuition fees for all students. The so-called dual track, or "parallel" tuition fees (as in Kenya), provides that students who are not academically accepted into the small and selective pool of students whose education is fully state-supported may still be admitted for a fee. The existence of this track maintains a kind of fiction of free higher education, although most young people, even if academically qualified, will never enjoy it. Still another form, the income-contingent loan, was developed and popularized by Australia and adopted by New Zealand and Scotland. In 2003, it was "on the table" for the rest of the United Kingdom, according to the government's 2003 white paper, (Department of Education and Skills, 2003) and is evidently to be implemented in Ethiopia in 2004. This scheme is a tuition fee that is deferrable for all or most students as an income-contingent loan to be repaid only after the student borrower is employed and earning a salary.[3]

Finally, cost-sharing's most direct and financially remunerative forms—but also more politically contested—include the introduction of tuition fees where they did not heretofore exist, a sharp increase in tuition (i.e., in excess of the rate of increase of the underlying per-student costs of instruction) where they have already been established, and the introduction of full user charges, or fees, on what may have hitherto been heavily subsidized lodging and food. Table 1 shows some of these forms or stages in approximate order both of increasing fiscal impact and of the likely increasing political resistance, and therefore in the approximate order of their likely introduction in countries attempting to move in the direction of greater cost-sharing. Most African countries are at about levels 5 and 6.

The rationale for cost-sharing has been the subject of a large and well-accepted (even if politically and ideologically contested) body of economic and public finance theory (Johnstone 2002, 2003a; Woodhall, 1992, 2002). It is sufficient to note here that the most compelling case for cost-sharing in developing countries may not rely primarily on the familiar neo-liberal economist's presumptions of theoretically superior efficiency and equity, as valid as these presumptions may be. Rather, they rest more on the much simpler to grasp and much less controversial fact of the sheer need for alternative (i.e., nongovernment) revenue. This need, in turn, emerges from the marked scarcity of tax revenues as well as the long and compelling queue of competing public needs discussed in the preceding section. Simply put, the economic, political, and social imperatives for a great expansion in the capacity of tertiary education systems—especially in low-income countries that currently have very small portions of young adults enrolling in any sort of post-compulsory studies—is so far in excess of any conceivable additional public revenue likely to be devoted to higher education that alternative, nongovernmental revenue sources *must* be found. And by most policy calculations, a substantial portion of this nongovernment revenue must come from parents and students in the form either of tuition or of user fees for some of the currently free or heavily subsidized student housing and food—or both.

Most of the countries of sub-Saharan Africa have resisted up-front tuition fees, which is the most direct and fiscally significant form of higher educational cost-sharing. This resistance may stem from two, mainly historical, features of sub-Saharan Africa. The first is the European colonial legacy and the fact that the continent of Europe—on which most of Africa's classical universities are modeled—still remains the world's last bastion of free higher education. Even though this European tradition is under tremendous pressure and has been slowly giving way to encroaching tuition fees (as in the United Kingdom and to a lesser extent in the Netherlands, Portugal, and most recently Austria), the

Table 2: Cost-Sharing in Sub-Saharan Africa, Selected Countries

	Cost-Sharing Policies	Student Loan Policies/Programs
East Africa		
Ethiopia	Cost-sharing open policy goal, but only pocket money eliminated to date. Dual-track tuition: tuition, lodging and food covered for regular (not evening or summer) students.	Government considering (2003) a loan program modeled after the Australian HESC in spite of likely problems with multiple and unreported sources of income and minimization of parental contributions.
Kenya	Tuition and user fees for lodging and food introduced in 1992, but tuition fee rolled back due to student opposition. Dual-track or parallel Module II tuition begun 1998, University of Nairobi.	Comprehensive loan program introduced in 1970s but failed with virtually no cost recovery. Program reinitiated in 1995 as Higher Education Loans Board, with mandate for "near self sufficiency."
Tanzania	Cost-sharing officially begun 1992 but at slow pace. Maintenance grants and lodging/food subsidies reduced in mid-1990s. Only dual-track tuition, but comprehensive tuition intended in future.	A "loan" scheme implemented in 1993–1994 as part of Phase II of cost-sharing to cover part of lodging and food costs. As of 2003, no interest rate stipulated, no collection machinery, and no recovery.
Uganda	Makerere University famous for aggressive and financially successful dual-track tuition, with more than 75% of students paying fees. University reaps considerable financial benefits.	Under discussion: no operational student loan program as of 2003.
Southern Africa		
Botswana	Limited cost-sharing measures reportedly introduced in 2002–2003 with efforts to improve collection of loans.	Under discussion: no operational student loan program as of 2003.

Mozambique	Tuition ranges from $70-80 to $500+. Cost sharing seems to have been reluctantly accepted.	Under discussion: no operational student loan program as of 2003.
South Africa	Tradition of tuition fees and cost-sharing generally, although still resisted. Complicated by issues of redress and planned institutional closures. Tuition in range of $1,000-$3,500.	Successful means-tested income contingent loan program collected by employers. Reaches about 20% of student population. Interest is 2% real; repayment is 3–8% of income over threshold.
West Africa		
Ghana	Cost-sharing limited to small fees and user fees for lodging and food; no tuition fees.	After collapse of 1970s plans, a new scheme in 1988 was linked to social security national insurance trust, contributions to which guaranteed repayments. High subsidies and collection difficulties persisted.
Nigeria	Government expects 10% of costs to be from nongovernment revenues, but cost-sharing is controversial, with nominal fees for lodging and food, and tuition at state, but not federal, universities.	As in Ghana, the 1972 Nigerian Student Loan Board failed to collect and was suspended in 1992. A new Education Bank is constructing measures to increase collections and interest rates.
Francophone		
Burkina Faso	In spite of francophone no-fee tradition, Burkina Faso began to cut grants and charge modest tuition in 1990s. An increase from ca. $12 to $24 in fall 2003 brought fierce student opposition.	Comprehensive program of small. means-tested loans, "Prets FONER," begun 1994. Second and third cycle students receive subsidized and income-contingent loans at 1/6 of salary; little or no recovery to date.

Source: The University at Buffalo Center for Comparative and Global Studies in Education International Higher Education Finance and Accessibility Project. Webpage: http://www.gse.buffalo.edu/org/IntHigherEdFinance.

European political and cultural resistance to tuition fees is powerful. Thus, to African politicians and powerful student unions faced with prospect of charging or paying for something that may once have been free (at least for a few fortunate families and students), the fact that most European governments, with far wealthier families and far better employment prospects for students, continue to resist tuition gives credence to the belief (or hope) that higher education can somehow continue to be free.

The other historic root of this resistance to fees has been the legacy in much of sub-Saharan Africa of Marxist ideologies, and the corresponding view that governments have—or at least ought to have—the financial wherewithal to provide free all levels of education, as well as all of health care, pensions, and most other social services. Politicians and students who are wedded to notions of entitlements and who view all education as essentially a public good (and who are encouraged in this observation when they view other government expenditures that seem blatantly wasteful or corrupt) are not easily dissuaded. What many in the industrialized West view as insurmountable resistance to taxation and serious constraints upon deficit financing continue to be viewed by those of a more Marxist persuasion as mere political decisions to not tax and therefore as an untenable decision to deny to the poor the benefits of what should be (and once was) free to all.

However, the collapse of state-owned and centrally planned economies throughout the one-time Socialist/Communist world, almost regardless of ideology or of individual views of what is properly "public," has so devastated the taxing ability of these governments that China, Vietnam, and Mongolia, for example, have abandoned all pretense to "free" higher education. They now declare the new ideological correctness of cost-sharing and of substantial, up-front tuition fees. Russia, other former Soviet republics, and the countries of Eastern and Central Europe, while still politically constrained to support some higher education that is "free," have also adopted cost-sharing measures such as freezing and otherwise diminishing student maintenance grants, imposing user fees, and implementing various forms of dual track tuition.

As shown in Table 2, cost-sharing is also being embraced by more and more governments throughout sub-Saharan Africa, although slowly and cautiously. Such cost-sharing measures are usually limited to their easier and more politically acceptable forms, such as levels 1–5 and perhaps levels 5 and 7 from Table 1. At the institutional level, small fees are being introduced, food services are required to be self-supporting, fees are being charged for evening or summer or other "special" courses and programs, and facilities and equipment must be rented. At the governmental or ministerial level, where the problem is less institutional austerity than sheer lack of capacity, private, tuition-supported

alternatives are being allowed, encouraged, and even in some cases partially subsidized. For example, students are eligible for loans at private institutions.

Tuition fees continue to be resisted, particularly by politically powerful student groups and by politicians who cater to them. However, four East African countries—Uganda, Kenya, and to a lesser extent Tanzania and Ethiopia—have adopted the dual-track tuition-fee policy. This means that they open their doors to students whose examination scores fall below the cut-off point for the highly selective free slots but who are still able to do university-level work and whose parents can and will gladly pay.[4] In this way, like Russia, other former Soviet republics, and most of the formerly Communist countries of Eastern and Central Europe, these sub-Saharan African countries can introduce tuition fees while nominally maintaining the principle of free tuition—at least for the small number of secondary school graduates who receive one of the free, government-sponsored spaces, for which, naturally, the competition is keenest.

The University of Nairobi began searching for alternatives to government revenue in the mid-1990s. Realizing that its comparative advantage in a market-oriented economy had to continue to be knowledge-driven activities, and forced to contend with a precipitous decline in revenue from the government (taxpayers), the university in 1998 initiated dual-track tuition policies, called Module II, or Parallel, Programmes. These were academic programs in which enrollment demand was strong and for which there were significantly more academically admissible applicants than government-funded places. Thus, additional fee-paying students could be added, thus benefiting the students themselves, the teaching faculty and their departments, the university as a whole, and the country. The first such program at the University of Nairobi was an MBA in the faculty of commerce, quickly followed by Module II programs in the faculties of law, education, medicine, pharmacy, dental sciences, engineering, commerce, and the institute of computer science. By 2002–2003 academic year, enrollments in the Module II Programs stood at nearly 15,000, slightly exceeding enrollments in the traditional, government-supported programs (Kiamba, 2003). Total revenue from Module II programs in 2002–2003 was some 1.2 billion Kenyan shillings (nearly US$16 million), about one-third of all university income (Kiamba, 2003; Oketch, 2003).

The financial beneficiaries of Module II, along with other smaller, revenue-generating activities have been faculty and staff salaries (about 45%), academic equipment and materials (about 28%), utilities and other university-wide expenses (about 17%), and capital projects (about 10%). The conclusion of Crispus Kiamba, Vice Chancellor of the University of Nairobi, is that these programs have "gone a long way to make the university attract, motivate, and

train competent staff and stave off the hitherto spiraling brain drain." He also stated that these programs had "led to the improvement of the quality of the teaching and research" and largely checked "the physical deterioration of the University estate" (Kiamba, 2003, p. 11).

An even more aggressive dual-track tuition policy—and arguably the most striking single example of institutional cost-sharing in sub-Saharan Africa—is the policy adopted at Uganda's Makerere University. As reported by Ssebuwufu (2002), Sawyer (2004), and Court (1999), more than 70% of Makerere's students are fee paying. Thus, the government and university can still claim that Uganda and Makerere provide free higher education (to the very fortunate 20-30%) while the revenue from fees has significantly improved Makerere's budget, capacity, and educational quality. According to the World Bank and UNESCO (Task Force, 2002), Makerere "moved from the brink of collapse to the point where it aspires to become one of East Africa's preeminent intellectual and capacity-building resources, as it was in the 1960s" (p. 54).

Thus, by most measures of success, including increased wages, better faculty retention, and much needed improvements to infrastructure and technology, these dual-track policies have been successful. More importantly, they are almost certainly the most politically expedient way to introduce tuition into a country in which the prevailing political ideology remains fiercely anti-tuition. Clearly, a policy that seems to deny the appropriateness of tuition fees faces challenges when free places are extremely limited and when, not surprisingly, most of these places go to the children of the more privileged classes who are the best prepared academically and the most ambitious. The distinction is a fine one between, on the one hand, a policy that provides additional capacity for those who are "admissible" and can pay a tuition fee and, on the other, a policy that fully acknowledges the appropriateness of tuition fees, but which goes on to provide full-tuition scholarships to the academically best-prepared.

At the same time, at least in theory, such policies have the following limitations:

1. They tend to reinforce (or at least fail to provide any forthright alternative to) the underlying ideology of entitlement that continues to reject the very notion of cost-sharing—even though significant policymakers in most of these countries know that many parents are, in fact, already paying large sums through the fee-paying tracks or even higher fees to the growing numbers of private institutions.
2. They are, at least arguably, inequitable in that the students most likely to attend "free"—that is, at taxpayer expense—are the children of the most advantaged, many of whom could and would pay a modest tuition. Musisi

and Muwanga (2003) write: "An oft-cited danger of the introduction of fees at Makerere is an increase in the gap between the 'haves' and the 'have-nots' in access to higher education. Large numbers have been admitted, but access has not broadened" (p. 51).[5]

3. The differences in actual academic abilities and academic potentials between the lowest-scoring winners (those who barely achieve one of the limited fee-free slots) and the highest-scoring losers (those who score just below the cut-off point and who therefore can attend only by paying fees) is probably slight and possibly immaterial. In other words, there will almost certainly be considerable overlap at this admission margin, with the best of the fee-payers inevitably outperforming academically the worst of those attending tuition-free.
4. Finally, depending on the validity and integrity of the selection system for the limited fee-free places, the very considerable stakes involved in getting one of those places introduces the possibility (indeed, almost the inevitability) of corruption somewhere in the process.

In short, higher educational policies in more and more sub-Saharan African countries are on a clear, even if slow, trajectory toward sharing more of higher education costs with parents and students. Despite continuing political and ideological barriers to such policies, especially where governments are apprehensive about student strikes, the more formidable constraints to a more aggressive adoption of cost-sharing policies may be increasingly technical. These constraints are specifically related to two difficulties arising from efforts to combine a greater reliance on contributions from parents and students with maintaining and enhancing higher educational accessibility. First is the difficulty of fairly and cost-effectively assessing parental (or family) means, or its converse—the financial need remaining after all family and other resources (including savings and available current income) have been gathered to send a student to the university. In the United States and most of the Organization for Economic Cooperation and Development (OECD) countries, both earned income (from wages and salaries) and unearned income (interest, dividends, and rents) are generally known and voluntarily reported, making financial means relatively easy to verify, generally from income tax returns. In developing countries, however, income or earnings may be from multiple sources, often erratic, frequently not reported or even recorded, commonly noncash, and sometimes involving large extended families. In such cases, proxies for income or earnings must be found that are not disguisable, transferable, or contestable. Examples are such easily observable characteristics as the occupation of principal wage earner, the educational level of mother and/or father, the number

of cattle owned, indoor plumbing in the home, etc. (McMahon, 1988; Tekleselassie & Johnstone, 2004, in this issue; Wolanin, 2002). This serious problem deserves much more attention from academics and policy analysts that it has thus far received.

The second of the essentially technical problems is the challenge of establishing a student loan program that both promotes accessibility and expanded participation and at the same time results in real cost recovery. Most loan programs in Africa (as in much of Latin America and elsewhere in the developing world) simply do not recover payments (Johnstone, 2000; Ziderman, 2002; Ziderman & Albrecht, 1995). It is to this problem that I now turn.

Cost-Sharing and Student Loans in Africa

Student loans, or any other sort of deferred payment plans (including all forms of income contingent and graduate tax schemes, regardless of what they may be called,[6] as well as more conventional, scheduled repayment forms), have been on the agenda of higher educational policy reforms for decades, including those directed at the countries of sub-Saharan Africa (Woodhall, 1988, 1990, 1992; World Bank, 1994, 2002; Ziderman & Albrecht, 1995). In theory, a student loan program combines the financial imperative of taxpayer revenue supplementation with the social and political imperative of expanding higher educational accessibility. At the core of the student loan concept is the belief that it is reasonable to expect students who will benefit so markedly from the privilege of higher education to make a modest contribution toward its considerable costs. Student loans contribute toward equity by insulating this contribution from both the affluence and the attitudes of their parents. Adrian Ziderman (2002) claims that government-sponsored student loan schemes are or have been in place in some 50 countries around the world. These schemes serve a combination of objectives including: (a) revenue diversification or income generation; (b) university system expansion; (c) equity, or the targeted enhancement of participation by the poor; (d) specialized manpower needs; and (b) the financial benefit of students generally, expressing their greater time preference for present money.

At the same time, student loans programs around the world have compiled a dismal record of failures (Ziderman & Albrecht, 1995), including notable African examples in Ghana, Kenya, and Nigeria. Several newer and lesser-known programs, such as those in Tanzania and Burkina Faso, also look like failures when measured by the criterion of cost recovery. At present, only the South African loan program appears to be successful—with success defined as (a) expanding accessibility by putting critical funds into the hands of students, and (b) generating a cost recovery that shifts some of the costs of this financial

assistance to the students themselves. Revitalized and supposedly reformed loans programs in Ghana and Kenya are promising, although still somewhat less than successful as of this writing in the summer of 2003.

Excessive Subsidization

The essential failure of these student loan programs (and there are many more failures in Asia and Latin America) can generally be attributed to one or both of two factors: excessive built-in subsidization, and insufficient and/or overly costly collection. Student loan programs, whatever they may be called, are frequently doomed to fiscal failure by a built-in taxpayer subsidy that would fail to generate a sufficient cost recovery (measured by the present discounted value of the reasonably anticipated stream of future repayments) regardless of the successful execution (e.g., low defaults) of the loan plan. These interest subsidies may be in the form of a zero rate of interest during the in-school years, the so-called grace period before the first payments are even expected, or an interest rate that is far below the cost of money to the lender (generally the government). Such a built-in interest subsidy is especially stark in cases where the contractual rate of interest is both low and fixed, and where the country's economy is experiencing considerable inflation. Taken together, these factors considerably erode the present value of all future payments. However, there is even a substantial built-in subsidy in the increasingly popular student loan programs (Australia, New Zealand, Sweden, the United Kingdom) that allow the interest rate to vary annually according to the prevailing rate of inflation, effectively recovering (assuming no defaults or other losses) exactly what was lent or borrowed in real, or inflation-adjusted, terms (i.e., a zero real rate of interest).

Indeed, insofar as cost recovery was a major goal of early student loans programs (and there is reason to believe that it was not), Kenya's former University Students Loan Scheme (1974–1975 to 1994–1995) at 2% interest or the current "reformed" Higher Education Loans program (1995–1996 to the present) at 4% (Oketch, 2003), or Ghana's current (summer 2003) SSNIT Student Loan Scheme limiting the borrower's rate to 3% (Ghana Website; Norty, 2002), had no chance of complete or near-complete cost recovery even with no defaults. Depending on the prevailing rates of inflation—quite high in both countries in many of these years—these interest rates represent considerable public subsidies, especially when loans are extensively disbursed.

The cost-effectiveness of this sort of built-in loan subsidy depends not just on the spread between the cost of money and the ultimate recovery rate, but on the degree to which a particular level of subsidy is necessary to get the desired level of student participation. Arguably, some subsidy is always necessary, or at least politically expedient; there are virtually no examples of generally

available student loan programs in any country where there is no governmental subsidy whatsoever. However, there is clearly a fiscal trade-off among (a) outright grants or bursaries, (b) the effective grants represented by the loan subsidies, and (c) the tuition itself. Moreover, there should, at least in theory, be some combination of levels that is most cost-effective for the aims of the government.[7]

The most interesting African case concerning purposefully built-in subsidies is the South African loan bursary feature that forgives up to 40% of the final accumulated loan indebtedness if the student successfully passes 100% of his or her courses. Clearly, this repayment forgiveness seriously cuts down the stream of repayments and requires increased injections of new government loan capital into the program than would be otherwise necessary. At the same time, such forgiveness is less a built-in feature of the loan program itself than a planned form of academic performance bursary, with its own goals, that just happens to be attached to the loan program for convenience. Whether this is a cost-effective expenditure of the South African Rand may be debated; its proponents in South Africa believe that it is (Jackson, 2002). In any rate, it is a deliberate expenditure by way of forgiving student loan repayments and, as such, should not be interpreted as detracting from the fiscal success of the South African student loan program itself.

A particular disadvantage of highly subsidized loans in developing countries is the consequent need to ration the loans (that is, to ration the subsidies) by a means test—which returns us to the first of the so-called technical problems that must be addressed in implementing cost-sharing in higher education. Because of the difficulties already mentioned in situations in which family incomes are not likely to be known or easily verified, a minimally subsidized student loan is not only less costly to the government or taxpayer (allowing other higher-priority public expenditures to be made) but also requires less costly verification of the loan's entitlement.[8]

The Failure to Collect

The second reason for the many student loan program failures is poor execution, especially the failure to collect repayments. Student loans are difficult to recover in the best of circumstances, even from guarantors or cosignatories. Students frequently—and especially in sub-Saharan Africa—face prolonged unemployment after graduating from the university in spite of all the talk and all the theory about high private returns from higher education. They move around, return to studies, and often leave the country for long periods. They may not understand the need to maintain a good credit rating; indeed the very notion of credit may be foreign to them. They may well not have truly understood

that the money they received was to be repaid and that nonrepayment would carry with it some adverse consequences.

Another and perhaps more serious problem, but also one which is more easily remedied, is that African governments have frequently colluded in this failure to take repayment obligations seriously. Records of borrowers have been lost or possibly not kept at all. There is little evidence of conscientiously counseling students about the implications and responsibilities of their loans, either before the borrowing, during the university years, or just before departure when the repayment obligation should begin. Indeed, some governments seem to have engaged in virtually the opposite behavior: deliberately downplaying repayment obligations, presumably out of a fear of student violence and political destabilization. Thus, the new (1988) Ghana student loans that were to have been secured in event of nonrepayment by the future pensions of the borrowers were instead billed as a loan in which "*the student pays nothing out of pocket while studying nor does the graduate suffer any reduction during his/her working life*" (Norty 2002, p. 214; emphasis mine). Such a construction doomed the plan's financial viability, which was financed by the social security national insurance trust (SSNCT), by severely diminishing the repayment revenue stream that was the basis of the value of the student loan notes, now held as assets to cover the future pension liabilities of the trust. Moreover, even if the pension scheme had remained financially viable, such a construction would have meant that many student borrowers would have found themselves with no pensions at retirement.

Finally, student loans with the best of lending practices are expensive to collect, partly because of the need to maintain current records and "chase down" the borrowers, but also because the amounts are generally small to begin with, making the administrative and servicing costs, even if done professionally and with good technology, expensive on a per-dollar-of-loan basis. When these conditions are considered in a sub-Saharan Africa context—with little culture of credit, uneven postal and telephone services, generally inefficient government bureaucracies, and unevenly enforced official machinery for keeping track of people (such as requiring taxpayer or pension contribution numbers of all employees)—it is little wonder that regular repayments are the exception and that borrowers are frequently lost altogether to the systems.

A possible solution to this problem is to have the loan repayments collected by the employer at the point of wage or salary payment—just as employers are expected to collect pension contributions or withhold income taxes. Such mandatory employer collection does not have to be associated with income-contingent loans, in which the repayment due is defined as a percentage of earnings and is withheld (collected) by the employer along with mandatory income tax withholding and pension contributions. In fact, fully income-

continent loans may be problematic in much of sub-Saharan Africa, where earning streams may be multiple, frequently informal, often unreported, and essentially untraceable (Johnstone, 2003b). But if the repayment due is on a fixed schedule, or if the income-contingent repayment is independently calculated (i.e., on some basis other than a single wage or salary stream), an employer (who need not be the sole employer) can still remove the loan repayment automatically, inexpensively, and in a way that is difficult to evade.

Thus, for example, the South African National Student Financial Aid Scheme, which in 2001 lent ZAR657 million (US$158.5 million) to some 93,400 students (99% of whom were Black), has authority to compel employers to withhold student loan repayments from employees whose payments are in serious arrears, regardless of whether the repayment has been calculated on an income-contingent basis or on some other basis (Jackson, 2002). Similarly, the restarted and reformed Kenyan Higher Education Loans Board can instruct any employer to deduct from wages an amount due on a student loan—including student loans dating as far back as the 1950s that were essentially forgotten, both by the borrowers and by the government (Kenya Loan Website).

Tuition Fees, Student Loans, and Parent/Student Shares

A form of higher educational finance that combines the concept of a tuition fee, or a payment for a portion of the costs of instruction, with a student loan, or the deferral of the student's share of higher educational expenses to the future, is Australia's Higher Education Contribution Scheme, or HECS (Chapman, 2002; Chapman & Ryan, 2002). This model imposes a tuition fee, but allows it to be paid in the future as a percentage of the student's earnings. The Australian HECS, which has been urged as a model even for some developing countries (Chapman, 1999), is more than a way for the student borrower to manage his or her indebtedness. Rather, it is being promoted as an alternative to, or a replacement for, what has commonly been thought to be the parent's share of higher educational costs. Thus, the applicability or inapplicability of an Australian HECS-type income-contingent loan as an alternative to up-front fees does not rest merely on the government's ability to know and verify all borrowers' incomes for most of their earning lifetimes to assure the scheme's financial viability. Rather the model's applicability depends in a very fundamental way on the respective roles assigned to parents and students in the underlying concept of cost-sharing.

Cost-sharing is frequently advanced as though the student's and the parent's (or family's) shares were theoretically and practically indistinguishable. However, the theoretical rationales underlying the expectation of a parent's (or perhaps an extended family's) share and a student's share are quite different. A

parent's contribution is based on the principle that the student is still, at least through his or her first degree (assuming no significant time lapse between the completion of secondary and the beginning of tertiary education), a financially dependent child and that parents have an obligation to contribute financially to the expenses associated with their children's higher educations, at least to the limit of their financial ability. Additionally, it is assumed that the parents derive considerable satisfaction from their children's higher education and derive more satisfaction (and even some status) from being able to place their children in the "best" university they can afford and for which their children qualify.

The theory behind the appropriateness of a student contribution, on the other hand, is based almost entirely on the assumption of substantial personal and private benefits from the higher education. These presumed benefits may be manifested in higher lifetime earnings, greater status and influence, more "life options," or simply the personal satisfaction that comes (to most people) from being better educated. This theoretical appropriateness of a student contribution is buttressed by the fact that higher education in almost all countries (including developing and transitional countries) tends to be partaken of disproportionately by an intellectual and social elite—further supporting the concept that students should contribute something toward the costs of their higher education. It is this principle—quite apart from those undergirding parental contributions—that calls for student loan programs so that students can defer this contribution until they are financially able to do so.

The appropriateness of the income-contingent loan concept as a way for students to more easily handle their repayment obligations depends in substantial part on the degree to which incomes and earnings can be accurately and verifiably tapped to generate the payments to recover the loans. In this respect, the multiple, informal, unreported, and essentially untraceable forms of income that are characteristic of developing countries are going to make the cost recovery problematic at best, as reported above. But equally problematic—perhaps more so—to the large goal of revenue diversification is the implication within the Australian HECS model that the parental contribution is no longer central to cost-sharing. For sub-Saharan Africa, the extreme need for nongovernment revenue for higher education, the problematic cost recovery of any student loan program, and the demonstrable willingness and ability of a significant number of parents in all African countries to contribute to the higher education of their children suggest together that a parental contribution is not a potential source of revenue that can be foregone.

Conclusions on Tuition Fees and Student Loans

Although there is great variation within the higher educational financing schemes in sub-Saharan Africa, and although even descriptive (not to mention genuinely analytical and evaluative) information is uneven at best,[9] I offer the following conjectures about the search toward workable solutions to the many problems in financing higher education in sub-Saharan Africa.

1. Sub-Saharan African universities and other tertiary level institutions need to supplement their limited government (taxpayer) revenues with revenues from parents and students.
2. These revenues should take the form both of user charges for governmentally or institutionally provided lodging and food and of tuition fees to cover a portion (say, one-quarter) of institutional costs of instruction.
3. Given the inevitable political resistance to cost-sharing, a multi-year progression of stages should be presented, with further shifts of costs to parents and students clearly supplemental to government funding, and tied as much as possible to: (a) improvements in the quality of higher education, (b) expansion of opportunities and enrollments, and (c) extension of participation and accessibility to hitherto underserved populations.
4. Universities must actively and transparently continue to seek efficiencies (even at some disaccommodation and pain) that minimize the per-student costs of instruction without jeopardizing quality.
5. The imposition of a tuition fee should be accompanied by a program of means-tested grants, drawing on clearly identifiable and verifiable characteristics (i.e., proxies for income) such as parental occupation and educational levels, type of housing, ownership of car or access to a driver, children's schooling (specifically, whether tuition fees are being paid for secondary education), and the like.
6. A single-track, up-front tuition fee (albeit one that can vary by institution and/or by program) is preferable to a dual-track system that rations a small number of tuition-free places according to measured academic preparedness—and thus inevitably rations according to the social class of the aspiring students. However, a dual-track tuition fee is preferable to no fee at all and should be implemented if it is politically and/or constitutionally impossible to collect tuition fees from all.
7. Politically acceptable language and euphemisms for tuition fees such as "deferred contributions" may be necessary but should not have the effect of substituting a larger (albeit deferred) contribution from students for an up-front contribution (a tuition fee) expected from parents to the limit of

their financial ability to pay. Similarly, an expected student contribution through a student loan program (income-contingent or otherwise) is probably a good step, and it may be a way to accommodate an up-front tuition for some students. But it should not be adopted as a wholesale substitute for an up-front tuition to be collected wherever possible from parents or extended families.

8. Setting tuition fees should be depoliticized as much as possible. Countries should consider an independent but politically accountable board, buffered from both the government and the universities and other tertiary institutions, to establish the base year tuition fee(s) and annual increases.
9. A student loan program should be designed to collect something reasonably close to the amounts lent, according to the present value of the reasonably expected repayments discounted at the government's borrowing rate, not counting losses from defaults and other purposefully designed subsidies or repayment forgiveness features.
10. Student loan programs must be equipped with the legal authority to collect, with the technology to maintain accurate records, with collectors who can track borrowers and verify financial conditions, with advisors and repayment counselors in the universities, and with the ability to enlist both the government's tax-collecting authority and employers in the collection of repayments.
11. An income-contingent repayment mode should not be employed unless incomes can be reasonable verified. If income contingency is politically necessary, it should not be the "default" repayment obligation, but rather an optional means of payment that requires borrowers to demonstrate that they can discharge the repayments by paying a percentage of earnings from a single employer who represents the dominant earnings stream.
12. Mechanisms need to be added to the repayment process, especially if the repayment mode is a conventional, fixed schedule one, to accommodate borrowers whose earnings are low, either temporarily or permanently. In short, a conventional loan needs the same kind of genuine low earnings protection that presumably follows by definition from an income-contingent form of repayment obligation.
13. A loan program needs to have a collection agency that is viewed as professional, incorruptible, and technically expert. Universities and other eligible tertiary level institutions must be enlisted as partners in the program, especially in impressing upon the student recipients that loans are legally enforceable obligations that must not be taken lightly or used in excess, and

in keeping track of the borrower's whereabouts, at least during the in-school years.

African universities continue to experience severe financial austerity to the detriment of both institutions (and their faculty, staff, physical plants, and most of all their students) and the countries as a whole (due to the constraints on participation or accessibility). However, throughout sub-Sarahan Africa are university leaders, faculty, and ministers who are imaginative, courageous, and visionary, and there are indeed *things that work,* giving hope to a continent that needs and deserves both strong higher educational institutions and accessibility to them.

Notes

1 Where technology is introduced into tertiary education, it tends to add costs—and arguably to add quality, and thus possibly to add efficiency—but rarely to diminish unit costs.

2 Time and space do not allow a discussion here of those elements of the tertiary education financial reform agenda that are essentially cost-side—that is, efforts to increase productivity or efficiency. Cost-side measures remain important in spite of the fact that the lowest-hanging fruits of productivity enhancements have in most instances been harvested long ago. However, placing all of the hoped-for solutions on the revenue side—and primarily on variations of cost-sharing—is almost certainly politically untenable. Thus, revenue-side solutions, especially those that entail shifting of higher education expenses to parents and/or students, must in most instances be accompanied by a continuing effort to find additional solutions on the cost side—probably causing additional pain and altered behavior on the part of faculty, staff, university management, and government bureaucracies.

3 The two principal issues in such a plan, especially in its applicability to developing and/or transitional countries, are (a) the degree to which earnings and other forms of incomes are likely to be known and verifiable and thus to be reported and "taxed" for the purpose of repaying the student loan debt, and (b) the degree to which such a deferred tuition has the effect of transferring what might have been a parent-borne expense (i.e., the up-front tuition fee) to an additional student-borne burden, which is likely to be unevenly collected at best (Johnstone, 2003b).

4 Nigeria has adopted a slightly different kind of dual track fee policy. Its politically visible and volatile national universities have been kept tuition-free, while the regional state universities have been allowed to charge tuitions (Odebiyi & Aina, 1999, cited in Ishengoma, 2002).

5 Such fees, in accord with what is called "high tuition-high aid" in the United States, could in theory have the opposite effect and actually broaden access by

increasing the availability of grants or bursaries for the less fortunate. Probably Makerere and other African universities have been in such dire financial straits that the expansion of accessibility has been a lesser priority, but governments could steer them in this directions with appropriate rules and incentives.

6 Policymakers throughout much of the world, politically apprehensive about requiring students to bear some costs for their higher education, are increasingly turning to euphemisms for both tuition and loans, referring to "post-graduate contribution schemes"—for example, Australia's Higher Education Contribution Scheme (HECS) or Scotland's mandatory "contributions" to the Scottish University Endowment Fund.

7 Similarly, there are trade-offs among the various kinds of built-in student loan subsidies, including (a) total subsidization of interest during in-school years and grace period versus either substantial or minimal subsidization of interest during the repayment years; and/or (b) subsidization for all students, versus subsidization only for students whose parents were poor at the time of the initial borrowing, versus subsidization of borrowers who themselves experience low incomes during their repayment years (which is the essence of the so-called income-contingent loan plans).

8 Expressed another way, a minimally subsidized loan reduces both needless lending and also the effective opportunity cost of whatever unnecessary lending might remain.

9 The Association of African Universities has publicly but carefully endorsed cost-sharing, among other elements of reform (Sawyer, 2002). A 10-nation conference (predominantly Eastern and Southern Africa) in 2001, sponsored by the University of Dar es Salaam and the University of Buffalo's International Comparative Higher Education Finance and Accessibility Project, endorsed cost-sharing and provided information from most of the countries (Mwamila et al., 2003). A larger conference sponsored by the Association of African Universities and the World Bank in September 2003, for which this paper and others were first written, also suggested that the concept of cost-sharing is widely accepted, although the execution is still uneven and unevenly described.

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Student Loans: Potential, Problems, and Lessons from International Experience

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Abstract

This article, prepared for a conference on Financing Higher Education: Diversifying Revenue and Expanding Accessibility held in Dar-es-Salaam in March 2001, draws on a wide range of experience throughout the developing world to inform policies attempting to create student loans programs in Africa. It outlines problems common to student loan programs (most of which, in Africa, have not been successful), ranging from inadequate capital to excessive subsidization to the inability to surmount political opposition to loans. There are several key policy decisions, answers to which will largely determine the possible recovery rate but which will also determine the accessibility of the program to students and may also affect the likely political receptivity to the idea of loans. The article concludes that loan programs can be designed to be more effective and efficient and thus to contribute revenue diversification in Africa.

Résumé

Cet article, préparé pour une conférence portant sur le « Financement de l'enseignement supérieur : diversification des revenus et élargissement de l'accès », qui a eu lieu à Dar-es-Salaam en mars 2001, s'inspire de différentes expériences tirées des pays en développement, dans le but de mieux orienter les politiques de mise en place de prêts étudiants en Afrique. Il souligne les problèmes communs à ces programmes de prêt (qui ont pour la plupart été un échec en Afrique), allant d'un capital inadéquat à des subventions excessives, en passant par l'incapacité à venir à bout de l'opposition politique à l'octroi de ces prêts. Il existe un grand nombre de décisions clés à prendre, dont l'issue déterminera largement l'éventuel taux de recouvrement, et déterminera également l'accès des étudiants à ces

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programmes, et pourrait même bien influer sur la possible réceptivité politique à l'égard du concept de prêts. Cet article conclut que les programmes de prêts peuvent être définis pour être plus efficaces, afin de contribuer à la diversification des revenus en Afrique.

Introduction: Cost-Sharing and Student Loans

As higher education systems everywhere face the twin pressures of financial austerity and rising demand, financial assistance to enable students to pay direct and indirect costs of higher education (tuition fees, books, and living expenses) has become an urgent issue in many countries; and the case for some form of student support to ensure equality of opportunity, equity, and social justice is rarely questioned. What is still a matter of fierce dispute however, is what form that financial support should take—in particular, whether it should be in the form of universal or means-tested grants or bursaries, competitive scholarships, sponsorship by employers, subsidized job opportunities, or student loans. There is also sharp disagreement about whether student loan schemes are feasible—whether they can ever work successfully, particularly in developing countries—and if so, how best to design and manage student loan programs effectively.

That is the main focus of this paper, which draws on a body of international experience of student loans, including a forum on student loans in Africa organized by the International Institute for Educational Planning (IIEP) (Woodhall, 1991). Researchers can now appraise the quite extensive experience of student loan schemes around the world: Around 50 countries currently operate government-sponsored student loan programs, and several more are considering or planning the introduction of student loans. Some schemes are regarded as highly successful, but others face huge difficulties. A few loan programs have already been abandoned. Added to this wealth of international experience are comparative studies such as Bruce Johnstone's comparison of student financial assistance in the United Kingdom, Germany, France, Sweden, and the United States of America (Johnstone, 1986) and the International Comparative Higher Education Finance and Accessibility Project at the State University of New York at Buffalo, which is collecting extensive information on higher education costs and student support in different countries. It can now be particularly valuable to examine the effects of alternative systems and to identify their strengths and weaknesses.

Johnstone's (1986) work on international comparisons of student support is based firmly on the concept of "cost-sharing" among four financial partners: students, parents, taxpayers, and institutions (including contributions from philanthropy or donors) and on the inevitability that "any cost shifted *from* one

source must perforce be shifted *to* another" (Johnstone, 1986, p. 6). His work demonstrates that cost-sharing and the diversification of revenue sources are a near-universal response to financial austerity, juxtaposed with a general trend towards mass participation in tertiary education.

Given what he describes as the "imperative" of cost-sharing, it is equally imperative that governments should design and implement equitable and effective systems of student support to help those who would otherwise be denied access to higher education on grounds of poverty and financial need. Student support can take many different forms. Most governments either provide *grants* (which may be called scholarships or bursaries and which may be means-tested or targeted in other ways) or provide and guarantee *loans* that must be repaid after the student graduates, or a combination of grants for the neediest students and loans for others. Loans may also take several different forms, with varying degrees of subsidy and methods of repayment. For example, graduates may be obliged to repay the loan over a fixed period of time (mortgage-type) or to commit a fixed proportion of their income until the loan is repaid (income contingent). Some countries have considered imposing a "graduate tax," but no such program has yet been implemented, although the tax authorities may be involved in collecting income-contingent loan repayments as in Australia. In some programs, graduates are expected to repay their loans by working in a specific occupation (e.g., teaching) or a specific area (e.g., home province or rural areas) for a fixed period, or through the national service. This paper focuses on student loans, although it concludes that loans often work best when combined with grants or bursaries, rather than being the only form of financial support. It also considers what conditions are necessary for student loans to be feasible and effective, concluding that, in some countries, particularly in Africa, it may be better to start by introducing a scholarship program and then move gradually toward providing loans, or a mixture of grants plus loans, as these conditions are met.

This paper draws on my work on international experience of student loans, which began more than 30 years ago in 1969, when I carried out a study of student loan schemes in Scandinavia, the USA, and elsewhere. At this time, the British government had considered but rejected introducing student loans in the United Kingdom. The conclusion of that study was that "to regard a system of student loans as either a panacea ... or as an evil to be avoided at all costs is equally mistaken. Some of the more exaggerated statements of both the opponents and advocates of student loans in Britain fall into perspective when viewed in the light of the working experience of other countries" (Woodhall, 1970, p. 184). Since then I have had a strong interest in the actual working experience of student loan schemes, both in industrialized countries

and in developing countries; and I have carried out comparative studies for the World Bank (Woodhall, 1983), the Commonwealth Secretariat (Woodhall, 1987), for government and policy makers in the United Kingdom and elsewhere (Woodhall, 1989; 2002), and for IIEP in a series of international forums on student loans between 1989 and 1993, including one on English-speaking Africa (Woodhall, 1991). I edited a special issue of *Higher Education* devoted to student loans in developing countries that included articles on Botswana (Mokgwathi, 1992), Ghana (Kotey, 1992), Nigeria (Chuta, 1992) and Uganda (Kajubi, 1992), as well as more general reviews of international experience (Albrecht & Ziderman, 1992; Woodhall, 1992). More recently, I surveyed experience in Africa for *African Higher Education: An International Reference Handbook* (Teferra & Altbach, 2003) and edited a special issue of the *Welsh Journal of Education* (2002) devoted to the international experience of student support programs, which includes articles by Bruce Johnstone on "Imperatives and Limitations of Revenue Diversification in Higher Education," by Roy Jackson on the National Student Financial Aid Scheme of South Africa (NSFAS), by Adrian Ziderman on the differing objectives of student loan programs around the world, and by Bruce Chapman and Chris Ryan (2002) on the Higher Education Contribution Scheme (HECS) in Australia. Finally, I have recently worked as a consultant in Mozambique, helping the Ministry of Higher Education, Science, and Technology (MESCT) and the World Bank to prepare a higher education project that includes a national scholarship program and an innovative program of loans for private higher education institutions.

My paper draws on this work and on other reviews of international experience, (esp. Ziderman & Albrecht, 1995; Barr, 2001), and tries to condense the lessons from international experience with a particular focus on sub-Saharan Africa. It is in three parts. The first examines the *potential* of student loans to contribute to the finance of higher education and gives a brief summary of the arguments in favor of loans as a means of student support. The second part frankly acknowledges the *problems* that have been encountered in administering student loan schemes and identifies 10 policy decisions that face governments considering or designing a loan program. The third summarizes the main *lessons* from international experience and considers some conditions that are necessary if loans are to work effectively.

The Potential of Student Loans

Student loans have been advocated by economists and higher education policy analysts for nearly 50 years, but the idea has always raised fierce controversy. The theoretical justification for loans is that higher education is a profitable

private investment, offering graduates high returns in the form of better job opportunities and higher lifetime earnings. Loans give potential students from poor families, who would otherwise be denied access to higher education on grounds of poverty, the chance to invest in their own future by providing them with financial aid when it is needed and allowing them to repay it when they can afford to do so. The rationale can be summed up in the slogan of the first student loan program in Latin America: ICETEX in Colombia: "We lend to the student and the professional pays us back."

Arguments in favor of repayable loans are based on both efficiency and equity. Efficiency arguments for loans rather than grants are that loans will (a) reduce demands on the government budget and on taxpayers, (b) provide additional resources to finance the expansion of higher education to widen access, and (c) increase students' motivation by making them aware of the costs of higher education and requiring them to evaluate both costs and benefits in the light of the obligation to repay their loans. The equity arguments also focus on costs and benefits, concluding that, since most university graduates can look forward to substantially higher lifetime incomes as a result of their education, those who benefit from higher than average earnings should not be subsidized by taxpayers with average or below average earnings.

Such arguments formed the basis of the World Bank's three conclusions:

1. "Too great a share of public resources goes to higher levels of education, relative to lower" (World Bank, 1986, p. 10).
2. "Since higher education systems are financed by the entire population but available only to a small minority, they have a regressive fiscal impact" (World Bank, 1994, p. 23).
3. "Cost-sharing cannot be implemented equitably without a functioning student loan program to make funds available to all students who need to borrow for their education, and without scholarship programs that guarantee necessary financial support to academically qualified poor students. . . . Given that in every developing country students attending higher education represent an elite group, with income-earning potential significantly higher than that of their peers, it is appropriate that the major form of student financial assistance offered be government-guaranteed student loans rather than grants. . . . Improving the efficiency and broadening the coverage of existing student loan programs are major challenges for developing country governments." (World Bank, 1994, pp. 46–47, 50).

Against these arguments, critics of loans (who usually advocate grants instead of loans) argue that higher education is a profitable social investment and therefore should be financed from public, not private funds. They attack loans as inefficient, citing as reasons: (a) the complexity and high costs of administration, particularly the costs of collecting loan repayments, (b) the risk of non-repayment if graduates are unable to repay due to unemployment, low earnings, or illness; or if they simply default by refusing to repay, emigrating, or disappearing, and (c) the danger of distorting students' choices of subject or career by encouraging them to opt for high earnings rather than courses or jobs that may be socially valuable but which offer low earnings prospects. The equity arguments focus on the fear that the obligation to incur debt and to repay loans will discourage students from low-income families, particularly women (who may regard the obligation to repay loans as a "negative dowry") or mature students (who will have a shorter working life than other graduates, in which to repay their loans, because of their age).

The problem with much of this debate is that it treats grants and loans as alternatives, rather than as potentially complementary forms of student support. Advocates of grants also ignore the severe financial austerity facing developing countries, particularly in Africa, and the fact that a system based entirely or mainly on grants may be affordable when only a tiny minority of the population enter higher education but would impose impossible burdens on the public budget as countries expand access and move toward mass higher education.

Instead of prolonging the debate on loans versus grants, I prefer to highlight the potential for student loans to contribute to (a) cost-sharing and revenue diversification by increasing the feasibility or acceptability of introduction or increases in tuition or other fees, (b) improving equity by providing financial support for students who might otherwise be denied access and ensuring that those who derive substantial benefits from higher education contribute to its cost, and (c) increasing sustainability by ensuring that loan repayments from past cohorts of students help to finance financial support for the next generation. I believe that the potential is real and significant, but that it also has limitations. Student loans will not, and can never, by themselves, solve the financial problems facing higher education, but I believe that loans can contribute to creating a sustainable and equitable system of financing higher education, provided that certain crucial problems are addressed and the schemes are well designed and efficient. This is the subject of the next section.

Problems with Student Loan Programs

Political controversy has frequently surrounded the introduction of student loans. A classic case was in Ghana, when student opposition to the introduction of loans in 1971 contributed to the fall of the government and, in the following year, to the abandonment of the scheme. This experience has been cited to suggest that student loans are unworkable in Africa, but in fact Ghana now has an interesting loan scheme, and there were many reasons for the failure. Of that first experiment in Ghana, for example, Williams (1974) concluded that failure to mobilize public opinion on the advantages of student loans, and a feeling among students that they were being made "scapegoats of the country's failure to control higher education costs" help to explain strong opposition to the measure. He believed that loans "seemed to have become accepted by the public at large and even student opposition was less vocal once the scheme was in operation" (Williams, 1974, p. 343). Another country that has faced severe problems with student loans in the past is Kenya. Adrian Ziderman and Douglas Albrecht (1995) calculated the loan-recovery ratio of more than 20 student loan schemes in the 1980s and concluded that, after allowing for the costs of interest subsidies, losses due to default, and administrative costs, the loan program in Kenya "actually cost more than would outright grants" (p. 74). But once again, this negative conclusion refers to a system that has since been reformed, and more time will be needed to determine whether the current loan scheme in Kenya is more successful than its predecessor.

There are five main problems encountered by loan programs around the world, not just in Africa. The first, particularly severe in many developing countries, is to secure and maintain adequate capitalization. Achieving this goal requires not only substantial initial capital but also regular injections of funding thereafter. Student loans are a very long-term investment: It will take years before repayments can generate a substantial stream of income for financing higher education. Moreover, the idea that is sometimes put forward of a fully "revolving fund" is a myth. Because most loan schemes involve substantial interest subsidies (which, as argued below, represent a substantial "hidden grant"), and there will be some inevitable loss due to illness, unemployment, default, and death of borrowers, loan repayments from existing graduates will never be sufficient to finance the next generation of students in full, even in a steady state, quite apart from the additional requirements of expansion. Loan repayments from past students can *reduce* the need for public funding for financial support but cannot eliminate it.

Another possible way to reduce the need for public funding would be to rely on the private sector (banks or other financial institutions) to provide loans to students; but even in industrialized countries, banks are unwilling to do so

without some form of guarantee. Financially needy students cannot provide any collateral; so without a guarantee, they will be unable to borrow from banks. That is why most student loan programs involve government guarantees; the government undertakes to repay the loan if the borrower cannot do so due to unemployment, illness, or death. The difficulty is that this arrangement may encourage default and discourage banks from actively pursuing defaulters, since both believe that the government will pay. In this case, a student loan scheme will not significantly reduce the demands on the public purse, since banks will take the attitude "it is not our money" and graduates will not take seriously the obligation to repay their loans.

In many loan schemes, governments not only provide guarantees but also subsidize the interest rate charged on student loans. A few schemes provide interest-free loans, while others charge only the current rate of inflation, making the loans interest free in real terms. These subsidies can be very costly. In the United Kingdom, where the interest rate on student loans is linked to inflation, Barr (2001) estimates that for every £100 lent by the Student Loan Company, the government gets back only £50. Between £15 and £20 are lost due to nonrepayment because of low income, illness, or default, but £30 to £35 because of the interest subsidy. This subsidy represents a substantial "hidden grant"; but because it is hidden (borrowers often do not understand interest rates), it is also inefficient, since it is not targeted. Everyone benefits from the subsidy, even graduates with very high incomes, yet fear of debt may still discourage some potential students from low-income families from applying for education. For this reason, many economists (for example, Barr, 2001) recommend charging an interest rate equal to the government's cost of borrowing (which will still be less than what commercial banks would charge), while providing explicit grants, not hidden grants, for the neediest students.

Another major problem in administering student loan schemes is to secure repayment and minimize default. In fact the term "default" is rather misleading, since nonrepayment may be due to low income, unemployment, illness or even death (in which cases loan obligations are often cancelled), rather than refusal to pay. If the scheme allows borrowers to defer repayment, it would be more accurate to say "delayed payments" rather than nonrepayment. In any scheme, however, there will be some losses due to nonrepayment, whether this is due to genuine default on the part of borrowers, postponement or deferral of payments, or weaknesses in the collection process. The problem therefore is how to minimize these losses by designing the loan program to ensure maximum chances of recovery and by ensuring that the collection process (whether the responsibility of a government agency, banks, or employers) is as efficient as possible.

One potentially serious problem has already been identified: how to make student loans politically acceptable. In Ghana in 1971, as discussed above, the introduction of student loans was blamed for helping topple a government. In the United Kingdom in 2001, the question of student grants and loans was a major issue in the election campaign, which forced the government to announce a review of student aid policy as soon as it was reelected. This review took place from 2001 to 2002, and the fact that it took over a year is an indication that student support is regarded as politically sensitive as well as complex. In fact, the politically explosive issue, both in the United Kingdom from 1997 to the present and in Ghana in 1971, was not the introduction of student loans but the abolition of grants. Of course, students would prefer grants, which do not have to be repaid, to loans, which do. Given the choice, who would not choose grants rather than loans? The fact is that in most developing countries students do not have that choice. Only a tiny minority gets any form of financial assistance at all. In these circumstances, student loans, particularly on the same terms as British students—income-contingent repayment and a zero real interest rate—would be hugely popular. The question of political acceptability therefore depends critically on what financial support was previously available. If students have previously been eligible for grants, as in Ghana in 1971 and in the United Kingdom until 1998, then loans appear less attractive. If most students previously had no access to any form of financial support, then loans, particularly if backed by a government guarantee and interest subsidies, will be politically attractive. Whether the political acceptability of student loans is a problem depends crucially on the availability and generosity of previous forms of support, as well as on the terms of the loans.

In the light of these problems—potential or real—what are the policy decisions that must be faced in designing a student loan program? These can be summarized in terms of 10 policy decisions:

1. What form/combination of student support should be provided (scholarships/bursaries, means-tested grants, or loans)?
2. How will a grant or loan program be funded? (Such funding requires annual allocations in the case of grants and initial capital plus annual allocations for interest subsidies, etc., in the case of loans.)
3. Who will administer loans (government, independent agency, universities, or banks)?
4. Who will be eligible for scholarships/loans (all students or will they be selected on the basis of merit, financial, or manpower need)?
5. What are the requirements for collateral or loan guarantees (parental or other personal guarantee or government guarantee)?

6. What should be the role of universities (certifying eligibility, selecting needy students, and/or advising students on financial support)?
7. What is an acceptable (maximum) level of debt for students?
8. What should be the interest rate (zero, linked with inflation—i.e., zero *real* interest rates, subsidized, or market rate)?
9. What should be the repayment terms (mortgage-type or income-contingent repayment, length of repayment, and what possibilities for deferment or cancellation)?
10. Who should collect repayments (by a student loan agency, banks, employers, or a national tax or insurance system)?

A review of international experience shows that different countries have made quite different policy decisions on all these issues. No single system has solved all potential problems. The final section draws some lessons from international experience.

Lessons from International Experience

There has been a marked shift since the late 1980s toward greater reliance on loans as a form of financial support, both for tuition fees and living expenses. The year 1989 saw the introduction of the first student loans in the United Kingdom (called "top-up" loans, since they were intended to supplement, rather than replace grants), and the Higher Education Contribution Scheme (HECS) in Australia. During the 1990s, new loan schemes were introduced in several developing countries, including China, Thailand, and Vietnam; and loans are gradually being introduced or considered in Eastern Europe and the former Soviet Union. When the IIEP Forum on student loans in English-speaking Africa took place in 1991, student loan schemes were still comparatively rare in Africa, cost recovery and student fees were matters of bitter political controversy, but declining government budgets and a shift of government and donor priorities in favor of primary education meant that the financial crisis facing African universities was more severe than in other regions. (One participant spoke of a bitter "wind of stringency" blowing across the continent.) Equity implications of prevailing patterns of higher education finance were being increasingly questioned in Africa, for example, in Uganda where living allowances for university students absorbed over 80% of the university budget in 1988. Coupled with sharply rising demands for higher education, this situation meant that the need for new forms of higher education finance was increasingly recognized and that fees and student loans were high on the political agenda in the region.

At that time, Ghana, Kenya, Lesotho, Malawi, Nigeria, and Zimbabwe all had loan schemes; and Botswana, Tanzania, and Uganda were actively considering introducing loans. Some schemes (e.g., in Kenya) had run into deep difficulties, with high levels of default; but examples of innovative approaches to managing student loans were also heard—for example, linking loan repayments with the national insurance scheme in Ghana. Thus, despite problems there was still guarded optimism about student loans. Since the IIEP forum, several countries, e.g., Kenya, have introduced reforms that include: (a) increasing interest rates, so that graduates pay a positive real interest rate, rather than a rate lower than inflation; (b) improving selection criteria, through the development of effective tests of family income to identify the most needy students; (c) improving mechanisms for storing and processing data, including installation of computerized systems, with specially developed software; and (d) improving loan collection mechanisms. South Africa introduced the Tertiary Education Student Financial Assistance scheme (TESFA) in 1991, which has now developed into the National Student Financial Aid Scheme (NSFAS) (Jackson, 2002).

The overall conclusion of the forum was that student loans are feasible in Africa but that they needed to be very carefully designed to overcome the problems identified. Here are four additional lessons from the IIEP forum and other international experience:

1. Objectives must be clear. Is the main emphasis equity or cost recovery?
2. Subsidies for student support must be well targeted and efficiently administered to ensure the effective use of public funds and to achieve equity.
3. Explicit subsidies (e.g., grants) are more effective than "hidden" subsidies (e.g., interest subsidies).
4. To ensure access for disadvantaged students, loans should be combined with means-tested (needs-based) grants or scholarships, rather than being the sole form of student support (e.g., the combined loan-bursary provided under NSFAS in South Africa).

On the design and administration of student loans, experience suggests at least six requirements for a successful loan scheme:

1. Efficient institutional management, including adequate systems for the selection of borrowers, the disbursement of loans, record-keeping, data storage, and data processing.

2. Sound financial management, including setting appropriate interest rates to cover inflation, thus maintaining the capital value of the loan fund and covering administrative costs.
3. Effective criteria and mechanisms for determining eligibility for loans, for targeting subsidies, and for deferring or forgiving loan repayments.
4. Adequate legal frameworks to ensure that loan recovery is legally enforceable (e.g., the National Student Financial Aid Scheme Act of 1999 in South Africa)
5. Effective loan collection machinery, using either commercial banks, the income tax system (as in Australia, the U.K., and several other developed countries), national insurance mechanisms (as in Ghana), or employers (as in Kenya and South Africa) to ensure high rates of repayment and to minimize default.
6. Information and publicity to ensure that recipients understand and accept the underlying principles and consequent obligations for the borrowing and repayment of loans.

Some loan programs meet all or most of these requirements, while others still have a long way to go. Not every country is ready to introduce student loans. Passionate advocates of income-contingent loans include Nicholas Barr in the United Kingdom and Bruce Chapman in Australia, who seem to suggest that this type of scheme would be suitable in any country. For example, Chapman, drawing on the successful experience of HECS in Australia, has proposed the use of income-contingent loans in Ethiopia (Chapman, 1999); but Johnstone and Tekleselassie (2001) argue very convincingly that the lack of workable income-tax collection mechanisms in Ethiopia means that an Australian HECS-type income-contingent loan scheme is just not feasible at present.

Indeed, Chapman (2002) himself seems to agree, for he acknowledges:

> An income contingent loan approach requires that a government is able to do at least two things efficiently. First, individual students' incomes need to be recorded accurately over time. This requires a mechanism involving a unique income identification system. This need not necessarily be the same as that used in Australia (income taxation), but some mechanism is still necessary. Second, there has to be an efficient collection mechanism. That is, if there are simple ways for former students to avoid repayment obligations, income contingent approaches will not work. (p. 79)

If income-contingent loans will not work, what should be done? Chapman recommends: "The advantages of income contingency for policy are such as to suggest that major energies need to be directed to overcoming these critical administrative challenges" (2002, p. 79). Johnstone and Tekleselassie (2001), in contrast, recommend a more conventional loan scheme, with a fixed repayment schedule but with a provision for deferment in the case of unemployment or clearly demonstrated financial hardship. In both cases, the recommendation would be that Ethiopia should try to develop the type of collection mechanisms that would make loan recovery efficient. But in the meantime, other solutions must be found.

In conclusion, I turn to another country in Africa where the government has decided that it is not yet ready to introduce student loans but which will first provide scholarships to help needy students finance tuition fees and living expenses. In Mozambique, a new higher education project, to be financed with the help of the World Bank, will include a national scholarship fund to be administered on a provincial basis. Student loans were considered as an option; but the necessary conditions, including an efficient banking or tax collection system which could be used to collect loan repayments, are not yet in place. Instead, a scholarship fund will be established on a pilot basis in three provinces, taking account of an existing program in Nampula province, called NISOME (which means Let's Study). The NISOME program, financed by the Dutch government, incorporates a type of loan element but with repayment in the form of work rather than cash: Scholarship recipients undertake to work in Nampula for a specific number of years after graduation. It is too early to judge whether this approach will be effective. It may be just as difficult to enforce this requirement as to collect loan repayments. But it represents an interesting variant on the idea of students receiving financial support which must later be repaid.

Another interesting innovation in Mozambique is that the higher education project will include a component to provide financial support for higher education institutions to carry out capacity building, quality improvement, and innovations (a quality and innovation fund). In the case of public institutions, this support will be in the form of a grant; but private institutions will be required to repay the amount received over ten years at a favorable but positive rate of interest. These repayments will be channeled into the national scholarship fund. Thus, loan repayments from private institutions will be converted into scholarships that students can use to finance higher education in either public or private institutions.

Conclusion

The great variety of student loan schemes and other forms of financial support that exist around the world demonstrate that there is no single model that is appropriate for all countries. Certainly no government is yet satisfied that it has solved all the problems summarized in this paper and designed the "ideal" system. There are still skeptics who argue that student loan schemes "do not work" particularly in Africa. I believe there is evidence to the contrary, and that loans can contribute to revenue diversification and make cost-sharing more feasible. But there is still much to be done, to improve the efficiency and effectiveness

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Privately Sponsored Students and Other Income-Generating Activities at the University of Nairobi*

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Abstract

Beginning in the 1994–1995 academic year, the government sharply cut university funds from the Kenyan exchequer, challenging the University of Nairobi to diversify its revenue sources. In response, the university adopted the concept of the "entrepreneurial university" and created a wholly owned, independent, profit-making holding company, the University of Nairobi Enterprises and Services Limited (UNESL). Those involved in the planning determined that the university should concentrate on its core competence, which was adding value to knowledge. The most fruitful—and radical—development was the addition of the Module II (or parallel) programs that accept privately sponsored students, thus embracing tuition fees and the concept of cost-sharing at least for these students but for the benefit of the entire university. Overcoming initial resistance, Model II and other income-generating activities have allowed the university to greatly enhance its financial base and increase access to its educational programs.

Résumé

Au début de l'année académique 1994–1995, le gouvernement avait brutalement supprimé les fonds universitaires en provenance du ministère kenyan des Finances, mettant ainsi l'Université de Nairobi au défi de diversifier ses sources de revenus. En réaction à cela, l'Université a aussitôt adopté le concept de « l'université entrepreneuriale », en mettant en place une société holding indépendante et rent-

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able – University of Nairobi Enterprises and Services Ltd (UNESL). Les responsables du planning devaient se focaliser sur sa principale compétence : apporter de la valeur ajoutée à la connaissance. Le développement le plus rentable (mais également le plus radical) fut l'ajout du Module II (ou module parallèle) intégrant les étudiants qui s'autofinancent, adoptant ainsi la pratique des droits d'inscription, ainsi que le concept de la participation aux coûts, au moins pour ce type d'étudiants, au profit de l'ensemble de la communauté universitaire. Le « Model II », ainsi que les autres activités génératrices de revenus, qui sont parvenus à vaincre le mur des nombreuses résistances à ce programme, ont permis à l'université d'améliorer substantiellement sa base financière et d'élargir l'accès à ses programmes d'éducation.

Introduction

Cost-sharing refers to a shift of at least some of the burden of higher education costs from the government (or taxpayers), to parents and/or students, either in the form of tuition to cover part of the costs of instruction or as "user charges" to cover the costs of governmentally or institutionally provided accommodation. Proposing and implementing cost-sharing, however, has been a contentious issue (Johnstone, 2002, p. 72). The issue is even more problematic because paralleling the stream of students who are matriculating under government sponsorship is a group of students who pay full tuition fees to the universities. In addition, this category of students does not normally receive accommodation by the universities; in cases where they do, they must pay market prices, in contrast to the first category of students whose lodging is substantially subsidized.

In East Africa, forms of "dual track" tuition fees have been employed in Uganda (Ssebuwufu, 2002) and Kenya (Kiamba, 2002) and more recently and tentatively in Tanzania (Ishengoma, 2004a, 2004b). In Kenya, the category of students who pay full tuition is referred to variously as "parallel students," "Module II students," or "privately sponsored students," while the students who are either fully or partially supported by the government are referred to as "regular students" or "Module I students." The category of fee-paying student was developed recently as part of the strategy for direct income generation by public universities in Kenya with a view to supplementing decreasing government support (at least in real terms) to public universities. This paper examines the financing of public universities in Kenya with special reference to the experience of the University of Nairobi in the conceptualization and implementation of the category of full-fee-paying or fully self-supporting students.

The Genesis of the Fee-Paying Students

Over the past decade or so, public universities in Kenya have continued to receive lower financial allocations from the government than their estimated expenditures, a trend which is expected to persist. Consequently, the cost of staff, learning and research materials, food, and lodging, coupled with inflationary pressures, made it difficult to sustain the operations of these universities. The implication of such a scenario was an increasing debt burden that threatened to compromise the very essence of the objectives and functions of the universities. The government, indeed, made it quite clear that it would no longer be able to fully finance public universities. The Kenyan 1994–1998 Development Plan stated:

> The central thrust of the new policies is to rely on market forces to mobilize resources for growth and development with the role of the government increasingly confined to providing an effective regulatory framework and essential public infrastructure and social services. The government will limit direct participation in many sectors and instead promote private sector activity.

As a consequence, the government during the 1994–1995 fiscal year, reduced the education budget from 37% of its total annual recurrent budget to about 30% with the argument that higher allocations were not sustainable. In these circumstances, public universities were called upon to explore ways and means of financing university programs partly with funds generated from sources other than the exchequer. The need for public universities to diversify their activities to include income generation formed a major theme in the speeches of the chancellor and the president of the university of the country during the University of Nairobi's 1994 graduation ceremony. The evolving government policy was further emphasized by the Minister for Education at a vice-chancellors' workshop at Egerton University, Njoro, Kenya, in 1994:

> This is a turning point in the development of our pubic universities, where they are being called upon to adopt business-like financial management styles. It is also a point in time when universities have to plan well ahead about resources expected to be forthcoming from sources other than the Exchequer.... [The] time has come to seriously take account of the universities' potential to generate income internally. It is an open secret that some of our universities are capable of generating substantial amounts of money from the resources at their disposal.... Income from such sources should be exploited and treated as definite sources of university revenue.

Further, an academic staff industrial action about the poor terms and conditions of service during the 1994–1995 academic year deepened the financial crisis facing public universities in Kenya, literally bringing to a halt university functions and thereby creating the impetus for a quick solution to the crisis. The unrest, which initially was occasioned by the refusal of the government to register a universities academic staff union that was championing the staff's cause, lasted about six months. As the "mother" of the university system in Kenya, the University of Nairobi was the center of the staff unrest. Faced with this crisis, the university moved quickly to explore ways to generate additional income by using the resources at its disposal to the fullest advantage.

The Business Model and the New Institutional Structures

Against this background, in 1994, the university set up the Income Generating Committee "to look into income generation activities in the university and make recommendations."[1] The committee introduced the concept of the "entrepreneurial university," adding a "business model" to the conventional mission of the university. To achieve this end, the committee stressed the need to identify university resources and their commercial exploitation. The model also assumed that universities must more vigorously market what they know best—namely, teaching, research, and service. But such marketing can be achieved only after careful analysis of the existing market opportunities, followed by a deliberate attempt to create new demands and new markets for the university's tradable goods and services. The committee further noted increasing evidence to show that any university, given its reservoir of expertise in the development and transmission of knowledge, could become adaptive and entrepreneurial simply through an innovative use of the existing conventional structures, but with appropriate change in delivery systems, personnel, and organizational structures.

To achieve the goals and purpose of an entrepreneurial university, the conventional academic programs and those generating income require differentiated organizational structures. The committee also observed that, while the organizational structure of academic departments and faculties was suitable for conducting conventional academic and research programs in a reasonably efficient and effective manner, such structure was less effective in an entrepreneurial undertaking. Alternative or complementary organizational arrangements—for example, private companies, industrial science parks, dedicated research institutes, etc.—had proved to be more efficient and effective. In a business-oriented model, the university would act as a "parent" or "holding" company with decentralized centers or entities acting as the entrepreneurial centers or "cost" or "profit" centers. Such entities would be created and main-

tained with the expectation that they would attain financial self-sufficiency. The heads of such centers would be expected to be managers, rather than the traditional heads of an academic department.

In its report, the committee therefore noted that the university should separate the management of the income-generating activities from its educational and research functions while ensuring that the income generated from these activities would fund the university's learning, research, and staffing objectives, thus justifying the adoption of business-like income generation and financial management strategies (University of Nairobi, 1994). The committee recommended that to ensure the observance of sound business practices in running income-generating activities, a limited liability company wholly owned by the university should coordinate such activities.

University of Nairobi Enterprises and Services Limited (UNES)

Against this background, a wholly university-owned company, known as the University of Nairobi Enterprises and Services Limited (UNES) was incorporated on May 1996, as authorized by a resolution of the University of Nairobi Council, November 24, 1994, and in accordance with Part II Section 3(2)(d) of the University of Nairobi Act, to promote, manage and coordinate the income generating activities and consultancies (UNES, 1996). The university through UNES intended, therefore, to: (a) identify the resources within the University of Nairobi that could profitably be used for commercial activities; (b) apply those resources in the development of commercial ventures where competitive advantage could be gained; (c) contribute in other ways that might help the University of Nairobi to achieve its mission; (d) formulate and popularize strategies to allow a high degree of productivity within the university community; and (d) help, create, encourage, and support group initiatives in the university's competence areas that focused on the broader objectives of the company.[2]

UNES's Board of Directors represents the broad spectrum of the university's stakeholders. The chairman of the University Council, the vice-chancellor, the deputy vice-chancellor responsible for administration and finance, and the deputy vice-chancellor responsible for academic matters represent the university as the parent company. The permanent secretary of the national Ministry of Education, Science, and Technology and the permanent secretary of the national Ministry of Finance represent the government as the university's sponsor. The board also includes representatives from the private sector, the Central Bank of Kenya, the University Council, and members of the university's income-generating units.

A managing director, competitively appointed by the Board of Directors, handles the company's day-to-day administration, assisted by administrators,

finance staff, and a company secretary. UNES contracts with academic staff to provide technical assistance in their areas of competence. In turn, the UNES managing director sits on the university's management board and the senate, both of which are chaired by the vice-chancellor. Further, the managing director furnishes regular reports to the University Council, the University Management Board, and the college academic boards on the financial status of the new programs. These interactions between the traditional university structure (the council, managing board, senate, and college academic boards) and the UNES allow for the interpenetration of ideas and decisions and the relative involvement of stakeholders in the decision-making processes of the new environment.

Education as Core Competence

As indicated earlier, it was clear that the university's competitive advantage in income-generation was in the knowledge-driven areas; hence the company's motto became "Adding Value to Knowledge." The knowledge-driven sectors of the economy were seen not only as areas of core university competence, but also as those sectors that were growing and breaking scientific ground. In becoming involved, the university would thus not only be conducting good business but also showing that the new educational opportunities created by the company would save money that would otherwise have been spent abroad, therefore benefiting the country's foreign exchange.

Given the available human and other resources of the university, the university regarded the establishment of continuing education programs as a top priority. Using slack periods in scheduling (evenings and weekends), the university was able to open strategic windows of educational opportunities to the many Kenyans who meet university admission requirements but who cannot be admitted because of the limited capacity of the regular programs. These opportunities are also available to those whose full-time jobs and other personal commitments do not allow them to pursue further studies on a full-time basis. These educational programs have enabled the university to generate revenue that supplements the exchequer's support to finance its functions.

The Module II Academic Programs

During early 1998, the university resolved to engage in activities where it has core competence, or comparative advantage, and in particular those areas that are knowledge driven. Thus, it began introducing academic programs for privately sponsored (Module II) students. The first of these programs was a master's degree in business administration (MBA) in the Faculty of Commerce, soon followed by a bachelor of laws program in the Faculty of Law, a bachelor of commerce in the Faculty of Commerce, and a bachelor of education in the

Table 1: Undergraduate Enrollment Modules I and II, 2002-2003

Faculty, Department, Academic Program	Module I	Module II	Total
Agriculture	647	6	653
African studies	367	6	373
Architecture, design, & development	526	122	648
Arts	2,328	743	3,071
Commerce	1,075	1,345	2,420
Computer science	157	85	242
Dental sciences	84	43	127
Education	1,363	1,232	2,595
Engineering	1,207	233	1,440
External studies	0	5,064	5,064
Law	485	610	1,095
Medicine	917	581	1,498
Pharmacy	160	136	296
Science	1,487	284	1,771
Social sciences	0	288	288
Veterinary medicine	287	122	409
Grand total	11,090	10,900	21,990

Faculty of Education. By the end of 1998, similar programs were introduced in the faculties of medicine, pharmacy, dental sciences, engineering and the Institute of Computer Science.

Creating a particular academic course under the Module II program was determined by a number of interrelated factors including the demand that existed for the program, the presence of "champions" in the departments, and the lack of resistance by staff. In this connection, largely professional programs like commerce and business administration, law, and medicine were trail blazers. The experience gained from these programs was quickly used in launching programs in the other faculties and departments. Further, the financial benefits from these "champion" programs were spread throughout the university, to some extent jolting the "doubting Thomases" into developing Module II programs in their departments.

Table 2: Diploma Student Enrollments, 2002–2003 Academic Year

Faculty, Department, Academic Program	Module I	Module II
Agriculture	0	16
Architect, design, & development	0	5
Arts	0	145
External studies		
Early childhood education	0	60
Business management	0	600
Sales and marketing	0	163
Public relations	0	131
Human resource management	0	100
Total	0	1,220

Currently, there are Module II Programs in almost all faculties of the university. They enroll about 14,880 students, compared with about 13,000 students registered in the Module I programs. Tables 1, 2, and 3 capture the 2002–2003 numbers of students registered, comparing the numbers in the Module I and Module II programs. It is clear that within a period of six years, the number of students in the new programs have not only equaled but surpassed those in the traditional programs in which students are subsidized entirely by the government.

Managing Resistance to the New Programs

Early on, there was some resistance to the introduction of the new parallel programs, especially from students. Demonstrations against these programs closed the university for a month. The justification for the programs, however, was so solid that the university administration decided that there was no going back. Sponsors of the new program also realized that, except for setting up the committee and considering its report, the University Management Board had perhaps not sufficiently involved students and staff in consultations about the novel idea; hence, the broader university community did not initially feel "ownership" over the new policy. For example, the aforementioned Income Generating Committee was a committee of the university management rather than a committee of the university. There was therefore an impression that the new policy was "top down" rather than "bottom up," a perception that hampered easy acceptance by the stakeholders.

Table 3: Postgraduate Student Enrollments, 2002/03 Academic Year

Faculty, Department, Academic Program	Module I	Module II	Total
Agriculture	182	10	192
Architect, design, & development	71	16	87
Arts	493	626	1,119
Commerce	263	1,329	1,592
Dental sciences	16	0	16
Education	105	346	451
Engineering	29	0	29
External studies	0	146	146
Housing & building research	5	2	7
Law	33	0	33
Medicine	386	10	396
Nuclear science	4	0	4
Pharmacy	5	0	5
Population studies	49	9	58
Science	178	263	441
Veterinary medicine	56	4	60
Grand total	1,875	2,761	4,636

In view of this, the university launched an aggressive campaign to hold consultations and workshops to sensitize, train, and identify new opportunities for all academic units. The university administration together with the committee managed this process. Government statements in the print media and at public ceremonies such as commencements demonstrated official support for the new policy directions in the higher education sector. (For example, on November 21, 2000, the Minister for Education, Science and Technology, in response to a parliamentary question, defended the University of Nairobi Enterprises on the floor of the Parliament.)

It is important to realize that, by the time parallel programs began in 1998, the concepts of cost-sharing and student loans were already accepted realities in public universities, having been instituted during the 1980s. To some extent, therefore, the parallel programs seemed like a continuation of university financing strategies. This perception obviously helped the university community and other stakeholders accept the new programs. The funds generated from new academic programs were used in visible and credible projects—especially government initiated capital/development projects in the university

that had been stalled for many years. Thus, the fact that most stakeholders were receiving a fair share of the benefits was also important in enhancing the acceptability of the new programs.

Income-Generating Activities

A policy has evolved, and indeed continues to evolve, of distributing or apportioning income or benefits from the different income-generating activities or projects to the various stakeholders or entities of the university. Such distribution has not necessarily been uniform due to varying contributions from the participants and the university. At present, these major categories of income-generating activities have been recognized, based on the value of respective inputs by the participants (staff) and the university:

1. Pure Consultancies. In this category, the investment is greater on the part of the participants than it is on the part of the university due to the high intellectual input from the participants. An example was providing two seasons of financial, managerial, and other advising to a local enterprise on the establishment of a commodities exporting subsidiary.
2. Specialist-Based Production Units. This category includes production units whose survival requires specialized or technical human resources in the teaching departments. The university provides initial physical and material investments and any subsequent investments of the same type. Examples of this category are the body embalming facility at the Department of Human Anatomy, the diagnostic services facility at the Department of Diagnostic Radiology in the Faculty of Medicine, and the computer assembly facility at the Institute of Nuclear Science.
3. General Production Units. This category includes income-generating activities which are artisan-based without heavy dependence on specialized human resources of a professional nature. Ideally the cost of employment is met as part of the production costs with worker-incentives coming from bonus payments based on the surplus income that these units realize. Examples are the farms at the College of Agriculture and Veterinary Sciences and timber and metal production workshops at the Estates Department, College of Architecture and Engineering, and College of Biological and Physical Sciences.
4. Module II Programs. These programs, also referred to as "parallel programs," are academic programs in which the registered students are privately sponsored and therefore paying full tuition as distinct from

the "regular" or "Module I" programs in which students receive about 80% sponsorship from the government under a cost-sharing arrangement. It was clear early in the initiation of the Module II programs that they should be considered a special category in the distribution formula, largely because the service providers (staff teaching in the academic programs) were spread across the entire university.

5. Seminars, Workshops, and Short Courses. This category includes workshops and seminars conducted by the various units and/or individuals in which the corporate name of the university is used. Also included in this category are certificate courses that are completed within three months.

Table 4 shows the current formula for distributing the revenue earned from the various categories of income-generating activities to the respective stakeholders as approved by the University Council. The development of the distribution policy is the result of intensive discussions at many levels of the university including faculties, colleges, the Management Board, and UNES Board, with final approval coming from the University Council.

Table 4. Revenue Distribution Formula

Unit/Entity	Resource/Cost Element	MII %	PC %	SBPU %	SWC %	GPU* %	AF %	MF %	RF %	EF %	ID %
IGU Staff	Direct Service Providers	35.0	65.0	35.0	57.0	12.0**	0	0	0	0	0
Department	Consumables	3.0	1.5	18.0	3.0	12.0	5.0	0	5.0	2.5	0
	Telecommunications	1.0	0.5	0.5	0.5	2.0	0	0	0	0	0
	Transport	0.75	0.25	0.5	0.3	1.0	0		0	0	0
	Management & other support services	3.0	3.0	3.0	3.0	3.0	3.0	0	0	3.0	0
	Marketing	0	0.5	1.0	4.0	1.0	15	0	0	0	0
	Equipment & Furniture	2.5	1.0	2.5	2.5	2.5	0	0	0	0	0
Faculty	Consumables	1.0	0.5	1.0	0.5	2.8	5.0	0	10.0	20	0
	Telecommunications	1.0	0.5	1.0	0.5	1.0	0	0	0	0	0
	Transport	0.75	0.25	0.5	0.25	0.25	0	0	0	0	0
	Management & other support services	2.0	2.0	2.0	2.0	2.0	10	0	5.0	10	0
	Equipment and furniture	0.5	0.25	0.5	0.20	1.0	10	0	0	0	0
College	Management/other services & sec.	2.2	1.0	1.0	2.0	2.2	0	0	3.0	10	0
	Physical space & safety	0.5	0.25	0.25	0.25	1.5	0	0	0	0	0
	Utilities	2.5	2.0	2.5	2.0	7.5	0	0	0	20	0
	Transport	0.5	0.25	0.5	0.25	1.5	0	0	0	0	0

TLibrary	Management & other support services	0.75	0.25	0.75	0.25	0.25	0	0	0	0	0
	Consumables	0.25	0.25	0.25	0.25	0.75	0	0	0	0	0
Central Admin.	Management & other support services	2.0	1.0	2.0	2.0	2.0	0	0	0	0	0
	Meetings	0.25	0.25	0.25	0.25	0.25	0	0	0	0	0
	Public relations/alumni affairs	0.25	0.25	1.0	0.25	0.25	0	0	0	0	0
	Physical space, safety & insurance	0.5	0.25	0.25	0.25	5.0	0	0	0	0	0
	Rates and ground rent	0.5	0.25	3.0	0.25	5.0	0	0	0	0	0
	Records, certification & equipment	0.25	0.25	0.20	0.25	0.25	0	0	0	0	0
	Debt reduction – general	1.0	0.7	1.0	1.0	2.0	0	0	0	0	0
	Debt reduction – pension	2.0	1.0	1.0	1.0	3.0	0	0	0	0	0
	Utilities (including telecommunications)	9.8	2.0	2.5	2.5	10.0	0	0	0	0	0
	University-wide adminis-trative responsibilities	1.0	1.0	1.0	1.0	1.0	0	0	0	0	0
University-wide service providers		4.0	1.0	1.0	1.0	2.0	0	0	0	0	0

Table 4. Revenue Distribution Formula (contd)

Unit/Entity	Resource/Cost Element	MII %	PC %	SBPU %	SWC %	GPU* %	AF %	MF %	RF %	EF %	ID %
Academic Div.	Management										
& BPS	& support services	1.0	0	0	0	0	12	0	27	12	35
	Adverts, admissions & exams	0	0	0	0	0	40	0	50	22.5	65
UHS	Management & support services	0	0	0	0	0	0	35	0	0	0
	Out-patient student health	0	0	0	0	0	0	65	0	0	0
UNES	Management services	7.25	3.0	7.25	2.0	***	0	0	0	0	0
Develop. Fund	Physical development	4.0	3.3	2.3	3.0	6.0	0	0	0	0	0
	Staff training & development	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0
	Library collections & equipment	3.0	1.0	1.0	1.0	1.0	0	0	0	0	0
	Research grants	1.0	1.0	1.0	1.0	2.0	0	0	0	0	0
	Research & development	0.5	0.5	0.5	0.5	2.0	0	0	0	0	0
Staff Welfare	Staff health support fund	1.0	1.0	1.0	1.0	1.0	0	0	0	0	0
	Staff education support fund	2.5	2.5	2.5	2.5	2.5	0	0	0	0	0

Student.											
Welfare	Student										
	activities support fund	0.5	0	0	0	0	0	0	0	0	0
Total		100	100	100	100	100	100	100	100	100	100

Key to abbreviations:
MIIP = Module II (parallel) Programs
PC = Pure Consultancies
SBPU = Specialist-Based Production Units
SWSC = Seminars, Workshops, and Short Courses
GPU = General Production Units
AF = application fees
MF = medical fees
RF = registration fees
EF = examination fees
UHS = university health services
ID = identity card

* Distribution under this category is based on surplus funds (gross revenue less production costs)
** A bonus payment to staff in these units is calculated as a percentage of the surplus
***UNES is paid a 7.25% management fee as part of its production cost. Where departments/faculties jointly conduct programs or income-generating activities, they share allocations on the basis of their respective inputs.

Table 5: Income Earned from the Various Income-Generating Activities through UNES, 1997–2002 in Kenya shillings (ksh)

Year	Module II Programs	Other Projects	Total
1997/1998	12,964,110	66,696,046	79,660,156
1998/1999	233,153,499	82,001,499	315,154,998
1999/2000	377,144,631	84,160,615	461,305,246
2000/2001	602,836,675	78,166,941	681,003,616
2001/2002	944,096,451	73,359,334	1,017,455,785
2002/2003	1,209,512,592	106,877,915	1,316,390,507
Grand total			3,870,970,308

**Source:* University of Nairobi (2003).
Note: US$1 = Ksh 76

Actual Revenue Generated

Table 5 shows the income earned by the university through the income-generating projects managed under UNES, especially the Module II academic programs, since 1996 when UNES was incorporated and the new programs began in 1997. To a great extent, the university has been able to achieve its financial objectives as stated in the UNES Corporate Strategic Plans for 1997–2001 and 2001–2007 (UNES, 1997, 2001).

Application of the Funds Generated

Table 6 illustrates the areas where funds have been applied in accordance with the distribution formula. Staff salaries and related welfare areas was the largest category, taking about 45% of the total. In view of the poor terms and conditions of staff employment, which were important reasons for starting the new ventures, a substantial proportion of the new income has been allocated to improve staff benefits. Rough indications are that the extra compensation has gone some way toward enabling the university to attract, motivate, and retain competent staff and to slow down the heretofore accelerating brain drain. Expenditures on academic materials and equipment to improve the learning environment, including teaching materials, library acquisitions, etc., amounted to about 28%. These expenditures have obviously improved the quality of teaching and research that had hitherto suffered greatly. Expenditure on utilities amounted to about 8%. Expenditure on capital projects, especially on stalled

Table 6: Summary of Total Expenditure and Commitments (1997–2002)*

Expenditure Items	KSHS	Percent of Total
Capital development projects	392,298,125	10
Teaching methods	324,951,349	8
Office & teaching equipment	126,466,877	3
Purchase of books & journals	109,483,156	3
Raw materials	191,027,953	5
Utilities	37,745,953	9
Colleges & university-wide	344,701,308	9
Staff welfare	103,317,687	3
Research grants	49,616,687	1
Service providers	1,604,355,208	41
UNES management fees	269,483,649	7
Refundable caution money	17,522,433	1
Total	3,870,970,385	100

* *Source:* University of Nairobi (2003).

projects that the government started during the 1980s, also received priority because of the need for more classroom space. Renovating and maintaining university property has also been given priority ; the physical deterioration of the university estate has largely been checked.

Table 7 presents the total funding environment of the university over the last 10 years. Thus, it illustrates the increasing importance of the university's new efforts at income generation, especially through Module II programs. The contribution of Module II income to the total university income rose dramatically from about 3.8% in 1997–1998, 14% in 1988–1999, 19.6% in 1999–2000, 23% in 2000–2001, 29% in 2001–2002, and 33% in 2002–2003. Within six years, therefore, income from Module II was contributing about one-third of the university's total income. As a proportion of the total government allocation to the university, Module II constituted about 6% in 1997–1998 but, six years later, was contributing about 68% in 2002–2003. By the end of the 2002–2003 financial year, income from students/parents (a combination of Module I and Module II fees) contributed almost 40% of total university income and over 76% of total government allocation to the university during that year. The total government allocation dropped from about 70% of the total university income in 1995–1996 to about 49% in 2002–2003.

Table 7. Sources of Total University Funding, 1992–2002

Year	Bursary (Government HELB*)	Loan (HELB)	Direct Fees (Module I)	Government Allocation Grant	Grants/ Donor Support	Fees (Module II)	Other	Total
92/93	15,256,840		130,443,600	648,435,600	86,265,900		171,502,300	1,051,904,240
93/94	11,915.350		127,202,120	780,447,460	122,580,180		186,148.980	1,030,427,824
94/95			131,701,680	943,108,220	130,961,020		151,631,200	1,357,402,120
95/96	19,812,099	84,816,000	91,379,821	1,109,897,220	138,296,120		140,78,300	1,444,201,260
96/97	21,062,650	79,952,000	137,814,590	1,078,320,000	135,588,240		138,065,820	1,590,703,300
97/98	21,802,000	69,512,000	303,910,945	1,305,564,580	148,692,850	79,014,955	144,572,301	2,073,069,631
98/99	23,414,000	71,464,000	175,212,979	1,377,787,160	114,958,414	305,158,167	130,323,388	2,198,318,108
99/00	22,418,000	73,304,000	198,821,213	1,480,440,764	202,660,698	524,332,347	178,259,276	2,680,236,298
00/01	25,913,000	70,656,000	166,190,480	1,589,748,454	216,556,264	681,682,389	178,259,276	2,929,005,863
_	24,957,000	71,072,000	158,648,135	1,625,717,154	404,996,193	1,015,998,465	182.397,849	3,301,388,947
02/03	25,780,000	74,032,000	158,648,135	1,791,438,854	221,193,358	1,209,512,592	182,580,247	3,663,185,186

* HELB = Higher Education Loans Board, the body that manages loans to university students.

In summary, the contribution of direct income generation, especially income from the new Module II programs to university financing, had become a significant phenomenon by the end of 2002–2003. Given the university's strategic thinking in income generation, as reflected by the UNES Corporate Strategic Plan for 2001–2005 (especially in the planned consolidation and expansion of current business areas accompanied by diversification into new areas where the university has competitive advantages), the significance of income generation will even become more important to financing the university.

Conclusions

The introduction of direct income generation, as part of the idea of an entrepreneurial university, has been very challenging but has had an important impact on the financial environment of African universities where it has been introduced (Marginson & Considine, 2002; Ogot, 2002). At the University of Nairobi, this development is especially significant because of the new category of full-fee-paying students and the related Module II or parallel academic programs. Once the decision was made to start the process, the university proceeded rather professionally. First, it conducted a thorough exercise in identifying the potentially viable areas for income generation (and, by the same token, viable Module II academic programs); and second, it adopted a theoretically justifiable organizational restructuring to ensure that management issues were addressed very early during the process—hence, the creation of a university wholly owned subsidiary company to manage the new environment. New interactions between the traditional organizational structure and UNES have been put in place. Indeed, the experiment continues to evolve. The process has stood the university in good stead because it has provided an expanded income base and related innovations in organizational arrangements and financial management.

Initially, however, the new efforts were not without problems. Indeed, problems persist in certain areas. Early resistance threatened the innovation; but following an aggressive campaign to ensure that both staff and students were involved and owned the process, the university launched a process that greatly enhanced its financial base and capacity to realize its core objects and functions. The policy for distributing the revenue generated by the new activities has undergone several revisions and improvements to ensure that it fully supports critical university functions. Increased access to university education and safeguarding the foreign exchange rate have also been nationally important results of the new phenomenon.

However, if public universities like the University of Nairobi continue to play their role as significant social institutions, they will still require enormous

financial investments from their respective governments. As has been recognized, beyond the traditional mission of creating and transmitting knowledge to society, public universities are still essential to most basic research. Although a market-driven and entrepreneurial culture creates greater resilience in the university's capacity to weather financial storms, it is not above criticism. As the University of Nairobi case shows, academic programs with strong market and resource opportunities, like commerce, business administration, law, and medicine, have the tendency to be the winners. Others, such as the arts and other technical areas (especially because of the relatively high costs), with fewer market opportunities, can become impoverished backwaters. This condition risks the loss of nationally important and strategic academic and developmental disciplines. In short, there is an ongoing need to find the appropriate mix of activities and programs to meet the strategic needs of the university community.

Notes

1 I served as a member of this committee.
2 Vice Chancellor Matthew Luhanga (2002) described a very similar Income Generation Unit (IGU) at the University of Dar es Salaam.

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Student Loans in Kenya: Past Experiences, Current Hurdles, and Opportunities for the Future

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Abstract

Kenya has a long history of lending to students; but in the 1980s, the program was criticized for its poor administration, high costs, and low recovery rates. The establishment of the Higher Education Loans Board in 1995 ushered in reforms that have broadened the program beyond the public universities to other postsecondary institutions and to some students in Kenya's growing private sector and improved loan recoveries. This article describes these efforts to improve recoveries and makes a number of recommendations, including more realistic (i.e., higher) interest rates, more aggressive enforcement of loan recoveries, more effective targeting (i.e., means testing), and greater use of banks and other private capital sources. The use of student loans is an effective tool for increasing participation and equity, although the government must do more to improve the accessibility of secondary education, which is where much of the inequity currently resides.

Resume

Le Kenya a une longue tradition de prêt aux étudiants. Cependant, dans les années 80, ce programme avait été critiqué pour sa mauvaise administration, ses coûts élevés et son faible taux de recouvrement. La mise en place de la Commission des prêts pour l'enseignement supérieur en 1995 a entraîné des réformes qui ont élargi ce programme aux autres institutions post-secondaires, ainsi qu'à certains étudiants du secteur privé kenyan en pleine expansion, améliorant ainsi le recouvrement des prêts. Cet article décrit les efforts fournis en matière d'amélioration du recouvrement des prêts et fait un certain nombre de recommandations, parmi lesquelles l'application de taux d'intérêt plus réalistes (c'est-à-dire plus élevés), un système

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de recouvrement de prêts plus agressif, un ciblage plus effectif (justification des ressources), ainsi qu'un recours plus fréquent aux banques et autres sources de capital privé. L'utilisation des prêts pour étudiants est un moyen efficace pour améliorer la participation et l'équité, même si le gouvernement doit en faire davantage pour faciliter l'accès à l'enseignement secondaire, domaine où règne actuellement la plus grande inégalité.

Introduction

The genesis of student loans in Kenya dates back to 1952, when the government, then British colonial, set up the Higher Education Loans Fund (HELF) to assist those pursuing university education outside East Africa—mainly in Great Britain, the USA, India, the USSR, and South Africa. On attaining independence, the African government more or less suspended the scheme and opted to directly meet the costs of higher education. This policy was in line with the recommendation of the Kenya Education Commission to train highly skilled African personnel to take over the running of the government from the departing Europeans (Republic of Kenya, 1964). Subsequent policy documents such as Sessional Paper No. 10 of 1965 on "African Socialism and Its Application to Planning in Kenya" (Republic of Kenya, 1965a), the first Development Plan, 1965–1970 (Republic of Kenya, 1965b) as well as the report on "High Level Manpower Requirements and Resources in Kenya, 1964–1970" (Republic of Kenya, 1964) all stressed that high- and middle-level human resources are a critical resource in achieving rapid economic growth and that the production of high-level human resources is one of the goals of university education. The government used these arguments as the basis for expanding and subsidizing higher education. University education as such became virtually free to students, as the government bore most of the direct costs.

The increased enrollments in university education coupled with dismal economic performance mainly occasioned by the oil shocks of 1970s forced the government to rethink its policies on financing university education. As a result, it "introduced" a loan program in the 1973–1974 financial year. In reality, it was simply a reactivation of the 1952 program, which had never been formally discontinued; the government had merely stopped funding it. The program was reintroduced as the University Students' Loan Scheme. The 1973 program was not administered by an autonomous body but by the Loan Disbursement and Recovery Unit in the Ministry of Education. The government did not articulate policies to guide this unit's operations but gave it seven goals:

1. To ensure that the beneficiaries of higher education and training meet part of their education.

2. To promote equality of opportunity to qualified students irrespective of their background circumstances.
3. To provide a continuous source of finance, through a fund that becomes self-perpetuating.
4. To reduce dropout rates by giving students an added incentive through economic commitments to complete their studies.
5. To encourage students to make right choices for their career based on labor market opportunities.
6. To complement the government's financial commitment to university education and thereby increase the number of students.
7. To contribute to national development by encouraging investment in education to meet human resource requirements.

The goals and aims of the scheme as spelled out by the government were indeed noble. What is amazing is that nothing of a practical nature was done to ensure that they were achieved. The money was literally dished out to students with no serious attempts to recover it. Perhaps the government was blinded by the small university population, which meant that the proportion of budgetary allocation to the scheme was manageable. In the subsequent years, however, budget allocations to the Ministry of Education comprising the loan scheme increased steadily from 3.1% in 1974–1975 fiscal year to 6.1% in 1992–1993 (Republic of Kenya, 1975/1976-1992/1993). It was the fastest growing component of university education (Mungai, 1989), even though the government acknowledged that it was poorly administered (Republic of Kenya, 1988) and that recoveries were low.

Several factors undermined the program's successful operation. First, the ad hoc manner in which it began meant that no precautionary measures were taken to guard against default. Second, its staff lacked requisite skills in debt recovery. By all accounts, it was grossly ill equipped to handle the challenges of running a loan program. Its personnel were drawn from other ministry departments, even though the government could have done better by seconding people with skills and experience in debt management from state-owned commercial banks, the national treasury, or even the Central Bank. Third, the beneficiaries were not educated on both their obligations and the benefits resulting from repayment. Indeed, when the program was introduced in 1974, students protested and rioted against its implementation, arguing that they were being forced to incur debts. Ironically, when changes were made in the 1990s to reduce the amount of loans, students again protested—this time that they were being "impoverished." The government had not anticipated such a backlash. Fourth, as a result of the hurried implementation, the scheme had no legal

basis. It became difficult to enforce recoveries from past students. Other legal obstacles also stood in the way of recovery, such as the Limitations of Actions Act which renders unrecoverable any debt not claimed within six years from the time it is due. The HELB Act of 1995 has since exempted the program from this law.

The government undertook piecemeal reforms including requiring students to apply for and get the loans from their home districts (rather than from their campuses); having the loan application forms endorsed by the chiefs/local administrators; introducing meal cards and then what became known as PAYE (Pay-as-you-eat) instead of free meals; and abolishing "boom," an unrestricted stipend of Kenya shillings (Ksh) 5,000 (US$64) per semester. This stipend was designed as pocket money. Students mainly spent it on buying music systems, cinema, other forms of entertainment, and transport.

These reform measures, however, proved ineffective in improving the program since they did not address some of its fundamental shortcomings. It was the need to overcome such hurdles, coupled with pressure from the World Bank and the International Monetary Fund that made the government embark on thorough reforms to the loan program. The two institutions were dissatisfied with the program's piecemeal reforms and pushed for more comprehensive restructuring within the broader framework of the structural adjustment programs they had been sponsoring since the late 1980s.

More comprehensive reforms were realized in 1995, when the government set up the Higher Education Loans Board (HELB) through an Act of Parliament. The board was charged with five responsibilities:

1. To facilitate the disbursement of loans, scholarships and bursaries to needy Kenyan students.
2. To recover all outstanding loans given to former university students since 1952 through the Higher Education Loans Fund (HELF).
3. To establish a revolving fund from which funds could be drawn and lent to needy Kenyans pursuing higher education. The government anticipated that this revolving fund would ease national education expenditures, which had been close to 40% of the national budget.
4. To invest surplus funds in any investments authorized by law.
5. To seek additional funding from other organizations (the private sector, philanthropic organizations, foundations etc).

Performance Review and Hurdles Ahead

Eight years after the board was set up, a performance review shows that the board had tried to overcome some of the difficulties experienced by the previous

Table 1: Loan Disbursement by University Type and Amount for Academic Year 2002–2003

University		Applicants			Loan Amount		% of All
		All	Awarded	% Awarded	Ksh*	US$	Recipients Covered
P							
R	UEAB	416	332	79.81	10,462,000	454,870	25.4
I	CUEA	354	303	85.59	9,525,000	414,130	20.5
V	USIU	106	74	69.81	2,377,000	103,348	3.2
A	Daystar	263	195	74.14	6,173,000	268,391	10.8
T							
E							
All private		1,139	904	77.3	28,537,000	1,240,739	15.0
P	Nairobi	8,931	8,426	94.35	284,982,500	12,390,543	60.3
U	Moi	6,551	6,276	95.80	210,159,000	9,137,348	61.5
B	Kenyatta	5,586	5,271	94.36	177,087,500	7,699,457	52.8
L	Egerton	5,006	4,775	95.36	159,887,000	6,951,609	47.9
I	JKUAT	2,205	1,997	96.99	67,320,000	2,926,957	51.3
C	Maseno	2,524	2,370	93.90	79,389,000	3,451,696	34.4
	All public	30,803	29,115	95.1	978,825,000	42,557,609	51.4
	All universities	31,942	30,019	86.2	1,007,362,000	43,798,348	33.2

*Kenya shillings. US$1 = Ksh 23, 2002 purchasing power parity.
Key to abbreviations:
UEAB = University of Eastern Africa at Baraton
CUEA = Catholic University of Eastern Africa
USIU = United States International University
JKUAT = Jomo Kenyatta University of Agriculture and Technology

Loan Disbursement and Recovery Unit. One of the board's major achievements has been the increase in the number of students funded in both public and private universities, made possible by the board's aggressive campaign to recover outstanding loans. When the program was set up, students in private universities were not entitled to loans on the assumption that they are from financially able families. Although the number of students in private universities applying for the loans is lower than those in the public universities, more than half of the private university students who apply are granted loans (Table 1). A crucial category of higher education students not covered is the national polytechnics. This is a challenge for the board because polytechnic education is not only expensive (thereby justifying assistance), but most of the graduates also have better job prospects than university graduates, increasing the likelihood of repayment.

Data presented in Table 1 indicate that, notwithstanding improvement in widening participation in the loan program, only one third of all Kenya's university students accessed HELB loans for the 2002–2003 academic year, thus excluding a significant number of students. They include students in parallel or alternative degree programs who are currently ineligible according to HELB criteria. Further, less than 1% of postgraduate students access loans. The limitation of loans to regular program students in itself amounts to serious inequity since self-sponsored students account for about 22% of undergraduate enrollment (See Table 2).

The assumption that self-sponsored students are financially able does not hold; most were not admitted in the regular program for failure to meet the university admission requirements. the university admissions criteria favor the sons and daughters of wealthy families, who attend elite secondary schools and continue by dominating university admissions. The popularity of these programs is not therefore due to affordability but to an increased demand for higher education, which is seen as the escape route from the poverty that stalks most of the population. Currently, up to 56% of Kenyans live below the poverty line (Republic of Kenya, 2002). Thus, even children of the poor sacrifice to enroll in public universities and in alternative (Module II) programs in public universities, albeit in comparatively fewer numbers.

The low proportion of private university students applying for the loans, particularly at the United States International University (USIU), could be attributed both to the fact that the majority are from rich families and also to the perception that loans are "meant" for public university students. USIU is the largest, most expensive, but also the most popular private university. It is largely patronized by students whose parents work with international organizations in Kenya including diplomatic missions. It is also the only university that is 100% dependent on fees. Still, it is also the only university so far with functional

Table 2: Enrollment in Undergraduate Programs, 2001–2002

Program	Male		Female		Total	
	N	%	n	%	n	%
Regular	30,574	71	12,773	29	43,347	78
Module II/SSP*	7,901	65	4,185	35	12,086	22
All programs	38,475	69	16,958	31	55,433	100

Source: Mwiria & Ng'ethe (2002)
*SSP = self-sponsored programs

student aid programs. Arguably, private university students are averse to incurring future debts when their parents are able to meet the present cost of their education. For example, between 25 and 30% of the public university students do not apply for loans, instead opting to finance their studies directly. These are students from able families, at least some of whom attended expensive high schools in which the annual fees were much higher that university fees. If this category of students were eliminated, together with the 22% enrolled in parallel programs, only about half of the students in universities apply for loans. It would therefore not be far fetched to argue that those who do not receive loans constitute less than 20% of the entire university population.

The sheer growth in the amount of loans disbursed by the board is also testimony to the progress it has made, particularly given the decline in government funding for higher education. While enrollment in public universities has grown in excess of 400% between 1987 and 2000, government funding increased by only 30% (Ramani, 2001). The loan program also evolved from being the fastest growing component of university education (Mungai, 1989), with yearly funding reaching a high of Ksh 880 million in 1995 but dropping to the current Ksh 600 million (a 32% decline). This diminished government funding, however, has been accompanied by a gradual increase in the amount of loans disbursed by HELB (See Table 3.)

Table 3: Total Loan Disbursements, 1993/1994–2002/2003 AYs

Year	Cumulative Disbursements Ksh	US$	% Increase
1993/1994	4,802,516,543.00	208,805,067	—
1994/1995	5,845,769,503.00	254,163,891	17.8
1995/1996	7,169,391,939.00	311,712,693	18.5
1996/1997	8,124,181,961.30	353,255,303	17.6
1997/1998	8,956,953,104.12	389,432,744	9.3
1998/1999	9,814,187,581.12	426,703,808	8.7
1999/2000	10,761,479,881.12	467,890,430	8.8
2000/2001	11,700,952,981.12	508,737,086	8.0
2001/2002	12,633,945,331.12	549,301,971	7.4
2002/2003	13,641,307,331.12	593,100,319	7.4

Source: Higher Education Loans Board, 2002.

The HELB board has made some steps towards limiting over-reliance on government funding. Currently, up to 50% of disbursed funds are generated from recoveries, which, as of 2002, averaged Ksh 50 million (US$2,173,913) per month. Despite this achievement, the board is far from achieving full cost recovery, a daunting task for many loan programs.

One of the objectives for which the program was initiated is to establish a revolving fund, under the assumption that the loan program would be fully self-sustaining or, in other words, achieve full cost recovery. This assumption has been challenged severally in literature on student loans, including Johnstone (2001a). Several factors militate against the theory of self-sustenance, or the so-called revolving fund. These include diminishing governmental outlays for loan programs relying on government capitation, natural increases in student population with consequent increases in demands for financial support, the realities of unemployment, the hidden subsidies in most programs, and the death of the recipient—a serious concern in some developing countries given the high morbidity resulting from the HIV/AIDS pandemic. In Kenya, reportedly more than 20 teachers succumb to this scourge per month, yet repayments by teachers constitute more than half of all repayments in the program.

Another factor that is likely to impede the realization of "self reliance" is the bursary component of the loans. Not only does it pose a challenge to the flow of funds for the program, but it also raises deep equity issues. The bursaries on average constitute about 7% of the total funds disbursed (See Table 4).

Table 4: Summary of Bursary Awards, 1995/1996–2002/2003

Year	Bursary Ksh	US$	% of Loans	Loan Awards	Bursary Awards All	Bursary Awards % Loan Awards
1995/1996	53,543,203.00	2,327,965	4.0	33,283	8,148	24.5
1996/1997	60,027,555.00	2,609,894	6.3	31,441	8,606	27.4
1997/1998	64,628,000.00	2,809,913	7.8	27,882	8,701	31.2
1998/1999	64,622,000.00	2,809,652	7.5	28,748	9,026	31.4
1999/2000	68,959,000.00	2,998,217	7.3	29,835	12,531	42.0
2000/2001	79,980,000.00	3,477,391	8.5	29,019	13,527	46.6
2001/2002	73,041,000.00	3,175,696	7.8	28,206	14,381	51.0
2002/2003	56,051,000.00	2,437,000	5.6	31,942	10,630	33.3

Source: Computed from data provided by HELB, 2002.

The board gives a maximum bursary of Ksh 8,000; but the amount is determined by need, meaning that not everyone gets a full bursary. The maximum sum is the equivalent of full tuition for a year. Given that the very poor constitute only 7.54 of university students (Fig. 1), the award of bursaries seems fairly generous, as the analysis in Table 4 indicates that in some instances more than half of those who get loans also get bursaries. This pattern raises the possibility that even some who do not deserve the bursaries benefit from them. Such a possibility is not surprising since anecdotal reports indicate that students lie about the financial backgrounds of their parents/guardians so they can benefit from the loan program. It is thus necessary to tighten the means-testing procedures.

There is no doubt that bursaries are an important instrument in ensuring equity, given that those from the upper and upper middle income groups who get the loans are invariably enrolled in more "prestigious" programs like medicine and law and were qualified/admitted into these programs because of the higher grades they scored in national secondary examinations, again because of the better schools they attended. They, therefore, have higher prospects of landing better paying jobs faster, not only because of "ready" jobs, but also due to their family connections. Bursaries are, therefore, one means of increasing poorer students' access to funds. They also minimize the burden of repayment.

While the extent to which only the needy benefit from bursaries in the Kenyan program is yet to be investigated, these awards limit the possibility of recovering the real value of loans, since bursaries are full grants. In effect, a loan program that has a bursary component can hope to recover only a certain proportion of funds disbursed, even if there are no subsidies such as low interest rates. Ideally, a loan program will never fully satisfy demand. In other words, it is not likely for the situation to develop in which more funds are available than are needed.

The decline in the rate of growth of disbursements as reflected in Table 3 is mainly due to the increase in the number of students qualifying for HELB loans and the widening of the list of eligible applicants coupled with reduced government funding. Initially, the board gave loans only to public undergraduate students. It has since included private university students as well as master's and doctoral students in public universities. Though fewer, the loan value for postgraduate students is significantly higher. For instance, while the maximum loan for undergraduate students is Ksh 42,000 (US$1,826), doctoral students get loans of up to Ksh 150,000 (US$6,522) per year, which is 3.5 times that for an undergraduate student. The doctoral students are given loans on condition that they are simultaneously repaying the loans received during their undergraduate studies. This policy is one way of encouraging repayment among those envisaging postgraduate education.

Improving Recovery Rates

When it was set up, the board inherited a large portfolio of unpaid debts, with the rate of recovery being very low (only 3.3%). This rate has increased to over 18%. The increase is attributed to aggressive public education, the enactment of a legal instrument binding borrowers and employers to ensure repayment, and streamlined record keeping, among other factors. It may be argued that the recovery rate of 18% in 2000–2001 is only a modest improvement and that it is still very low; but considering that it was only 3.3% less than 10 years ago and further considering Kenya's low economic growth rate, high unemployment, staff lay-offs, and high death rates resulting from the HIV/AIDS pandemic, all indications are that it will surpass the 20% mark by the end of 2002.

Sustained overall improvement in loan recoveries will depend to a great extent on the effort made by the board to enforce recoveries from beneficiaries outside the public sector. Currently, the bulk of recoveries are from those in government and quasi-government/public bodies (Table 5), with collections from teachers alone accounting for about 56%, while together with other government departments and state corporations, they account for nearly 76%.

Table 5: HELB Loan Recovery by Employment Category, January–September 2002

Sector/Employment Category	Amount		% of
	Ksh	US$	Total
Agricultural organizations	332,482.10	14,456	0.71
Diplomatic missions	19,696.60	856	0.04
Educational institutions:			
schools, colleges	2,333,973.00	101,477	4.97
Financial institutions	1,885,788.50	81,991	4.02
Individuals/self employment	1,219,417.90	53,018	2.59
Insurance companies	493,539.70	21,458	1.05
Manufacturing	1,635,772.80	71,121	2.91
Government ministries/			
departments	6,942,656.80	301,855	14.80
Nongovernmental organizations	387,028.80	16,827	0.82
Parastatals/state corporations	2,900,182.40	126,095	6.18
Service industries	1,451,874.60	63,125	3.09
Teachers' Service Commission	26,167,766.30	1,137,729	55.77
Others	1,420,806.80	61,774	3.03
Average total	46, 920, 986.30	2,040,043	

Source: Higher Education Loans Board, 2002

Whereas the recoveries reflect trends in employment, with the government being the largest employer, the low recoveries from other sectors point to the difficulty in reaching those in the private sector or in dealing with sheer unwillingness to repay. Nongovernmental organizations for example employ a significant number of past borrowers, but these individuals are very mobile since they change jobs frequently or may be stationed in remote parts of the country or even in neighboring countries but with bases in Kenya. Equally difficult to reach, though few in number, are employees of diplomatic missions, since their employers cannot be legally compelled to abide by the provisions of the HELB Act or any other law.

Recoveries depend both on accessing past borrowers and on enforcement. The board may be able to access borrowers but be unable to enforce recoveries, legal provisions notwithstanding. The issue of the income from which loan repayments may be drawn from is more crucial in income-contingent repayment plans than with mortgage-type loan schemes. Consequently, the

concern with this type of loan is not the borrower's total income but rather with his/her ability to meet the fixed schedule of monthly repayments. Such thinking is reflected in the Kenyan program, although it does not account for some borrowers who are willing to repay but who are not in salaried jobs. This situation should not be overlooked, especially in a country where the formal employment sector has contracted and in which a significant number of graduates find themselves in the informal sector. It is such failure to define "income" that partly explains why the recovery rate from individuals is low.

For loan programs that provide for a grace period—in Kenya, this period is two years—it makes sense to compute a net recovery rate on the basis of the matured loans. The recovery information discussed above represents gross recovery. It would then mean that the actual recovery rate would be much higher if computed on the former criterion. While the provision of a grace period is contestable on the grounds, among others, that it delays recovery, it makes sense in systems that are characterized by high unemployment. Kenya's unemployment is currently 26%, in itself a serious setback to recovery efforts because the economy is not generating enough jobs to make repayments possible from the employed. In such a case, the borrower is not penalized for late or delayed payment. However, where there is chronic unemployment, as in Kenya, the borrower may not be able to start repaying even when the two-year period is over. According to HELB data on matured loans for most of the university programs running for an average of four years, in 1995, HELB disbursed a total of Ksh 630 million as loans to 6,316 first-year students. From this cohort, it has so far recovered about Ksh 6.420 million (US$279,000) monthly from 3,000 loanees, the majority of whom are teachers. If it were recovering loans from all borrowers for that year, the total would be Ksh 12.7 million (US$552,174). Thus, less than 50% of this cohort are repaying their loans (Cheboi, 2002).

Arguably, the lending authority may also lose track of the graduates in the two-year grace period through job mobility, emigration, or the sheer difficulty in reaching those who return to rural areas and remain unemployed. The situation is worsened by lack of follow-up arrangements between borrowers and universities on the one hand, and between borrowers and HELB on the other. As noted elsewhere (Otieno, 1997), there are no arrangements for reconciling records between the program, universities, MoE/CHE and banks disbursing the loans.

The mere recovery of loans should not be taken to mean that a program is performing well. No loan program can so far claim to have achieved a 100% repayment rate, not even the much-vaunted success stories of Australia and New Zealand (Johnstone, 2001a). Factors such as the length of repayment,

interest rates, costs of administration, etc., make full cost recovery impossible. One option for the Kenyan program is to convert itself into an income-contingent scheme, the reasoning being that those with higher earnings can repay their loans faster. Johnstone and Aemero (2001) discount the applicability of income-contingent repayment plans in Ethiopia and, by extension, in other developing countries. It should be noted, however, that other variants of income-contingent repayment plans, not necessarily modeled on the Australian HECS type but depending on each country's socio-economic experience, could be developed. Loan programs the world over are still evolving, and none of them is perfect.

Converting the Kenyan program into an income-contingent plan is likely to yield two advantages. First, the loans will be recovered in good time before their value is further eroded. Second, borrowers will pay off debts fast enough to allow further borrowing for other purposes, in the event that this is a possibility. Third, the program would be able to cushion itself against the eventualities of death, emigration, and lays-offs (popularly known in Kenya as retrenchment), etc., especially in a depressed economy like Kenya's. Already, the board is exploring this option ("Job Cuts," 2001). This option has become more attractive following massive government layoffs in 2000–2001 that saw several borrowers lose their jobs before completing or even starting loan repayment.

Means Testing for Equity

The idea of means testing was never an issue in the loan program as designed in 1974, since students were given full loans irrespective of their backgrounds. It was only after significantly reforming the program in 1995 that the government thought it necessary to introduce a means test. The decision was as much a result of its realization that students come from different socio-economic backgrounds as it was dictated by fiscal limitations that did not permit it to award the maximum loan to all applicants. The board uses information given in the application forms as the means-testing instrument for identifying needy students and has developed criteria for awarding need-based loans. The category "1" is the neediest (See Table 6.)

Table 6: HELB's Criteria for Allocating Loans to Undergraduate Students

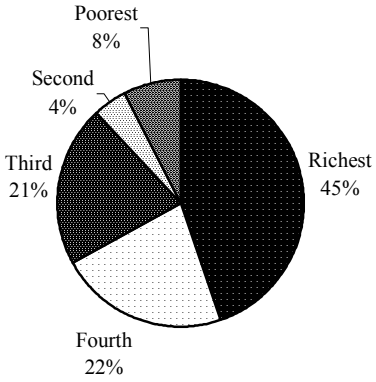
Category	Amount (Ksh	Tuition per Semester (paid directly to university)		Allowance Disbursed to Student Accounts		Total to Student Account per Year
		1st semester	2nd semester	1st semester	2nd semester	
1	42,000	4,000	4,000	17,000	17,000	34,000
2	40,000	4,00	4,000	16,000	16,000	32,000
3	35,000	4,000	4,000	13,500	13,500	27,000
4	30,000	4,000	4,000	11,000	11,000	22,000
5	27,000	4,000	4,000	9,750	9,750	19,000
6	25,000	4,000	4,000	8,500	8,500	17,000
7	20,000	4,000	4,000	6,000	6,000	12,000

Source: Mwiria & Ng'ethe (2002).

All students get the maximum allocation for tuition but receive differentiated living allowances. The categories are developed on the basis of the parents/guardians' financial ability, as described in the application form. Thus, a student in the median category would get about Ksh 10,000 less than the neediest. The total loans range from Ksh 20,000 (US$870) to Ksh 42,000 (US$ 1,826), and bursaries range from Ksh 4,000 (US$174) to Ksh 8,000 (US$348). Out of the university fees, the board pays tuition fees of Ksh 8,000 (US$348) direct to the universities for every student who is awarded a loan. The balance is paid directly to the students for their personal expenses through their respective bank accounts. In effect, and in line with the government policy of cost-sharing, the board supplements parental contributions toward a student's financial requirements.

Arguably, the inadequacy of the means-testing instrument is that it fails to categorize the students in realistic clusters such as expenditure groups. Obviously, the information provided by the students (even where full objectivity is assumed), is not representative enough to place students into realistic, nationally accepted norms of income and expenditure groups. If adequate information could be obtained on the financial backgrounds of students, it would be a more practical mechanism for determining need and hence allocation of loans. However, the board does not have the capacity to perform such a function, although it could borrow the expertise of the relevant government departments such as the Central Bureau of Statistics that compiles socio-economic data

Figure 1: Distribution of university students across per capita expenditure quintiles (%) (Kenya 1994)



Source: Deolalikar (1999).

yearly on the population. The problem of more detailed information-collecting is that it could actually increase the overall cost of loan administration.

At this point, it is pertinent to ask how far a financing instrument, such as a loan program, is capable of contributing to equity in university education? The answer depends on the pattern of university enrollments. When, as in Kenya, a majority of the students come from the higher socio-economic groups (Fig. 1), the program can do little in redressing inequities inherent in the national educational system. Certainly, the Kenyan loan program exacerbates inequity insofar as it disproportionately benefits (subsidizes) the education of the more affluent segment of the society, which constitutes 45% of university students. Redressing such inequities is, however, beyond the means of the loan program since these inequities stem from the lower-level (secondary) school system. Equally, where there are gender disparities in Kenyan university education, the loan program can do little to enhance equity. In a nutshell, it is highly debatable what means testing, no matter how rigorous, can do when the majority of the loan applicants already come from the higher income bracket, even though it could be argued that such a case makes it all the more urgent to ensure that the few resources available go to deserving people.

Table 7: Tuition Fees at Private Universities, 2001-2002

University	Tuition Fees	
	Ksh	US$
USIU	171,540 (57,180 per quarter)	7,458
CUEA	117,760 (58,880 per term)	5,120
UEA - B	144,000 (48,000 per quarter)	6,261
Daystar	131,000 (65,500 per semester)	5,696

Source: Fees structures, various universities.

Another deep equity issue is the sufficiency of the loan funds in meeting recipients' needs. In theory the tuition component at public universities is fully defrayed for those students who get maximum loan amounts; however, such a sum constitutes a very insignificant portion of tuition costs at private universities where tuition can be 11 times higher than at regulated public universities (See Table 7). For high-cost universities like USIU, the maximum loan would cover only 4.7% of the tuition, while for low-cost universities like Catholic University of Eastern Africa, it is still only 6.8%. The board cannot increase the tuition component to private universities without triggering demands from public universities for tuition fee increases. The board, in that case, would more or less be obliged to provide loans covering half of tuition costs, which would be good news for the universities since it would mean increased income. Thus, current differences are almost certain to persist.

Other Hurdles on the Way

A major challenge facing the board is raising enough revenue to fully satisfy the demand for loans. First, as already shown, though all students admitted in public and private universities are eligible for the loans, only a small fraction eventually benefit from them. Even students who do benefit often complain that their loan constitutes a paltry proportion of the expenses they have to meet. Consequently, some students have resorted to various coping mechanisms including doing menial jobs within the universities to the detriment of their studies. It is not uncommon to find university students working as barbers, cobblers, hairdressers, brokers in computer typing and printing, vendors/hawkers of light goods such as writing/photocopying papers, electronics, cigarettes, etc.

In the period preceding the establishment of HELB, not much thought was given to recovery, and the government gave loans without expecting repayment. Attempts to recover the loans were casual at best. It is only with the establishment of HELB that serious efforts were made to recover the loans. Still, the current recovery rate of about 20% could be substantially improved. However, several obstacles stand in the board's way of achieving this goal. First, the Act of Parliament that established HELB (1995) empowers it to collect loans only from people who are formally employed. With unemployment at 26%, many people have resorted to self-employment and cannot therefore be reached by the board. The informal sector is currently the largest and fastest-growing sector of Kenya's economy. Economic growth in the last three years has been less than 1% and, indeed, has sometimes been negative.

Second, the board has only four loans inspectors—far short of enough staff to visit all of the employers to verify the status of their employees. It should also be noted that, when the idea of the loans board was introduced in the country, it encountered some degree of hostility from the students, community, and parents. Most students had viewed the loans as free grants from the government, an attitude which has slowed loan repayments. Recoveries are not likely to increase markedly due to the poor economy, systematic lay-offs in both public and private sectors, a significant freeze in public sector employment, massive unprecedented emigration, and high death rates resulting from HIV/AIDS pandemic, among others. Recovery will call for ingenuity in overcoming these hurdles.

While the board has tried to improve its record keeping, it still faces the challenge of scanty records from earlier periods. Records of borrowers between 1983 and 1986 are permanently missing and cannot be found (Bogonko 1992). Three years constituted a full university undergraduate cycle at the time. Thus, it seems possible that either by collusion or connivance, somebody who benefitted during that period deleted the records to escape the responsibility of repayment. This scenario is possible because some of those employed in the disbanded Loan Disbursement Recovery Unit were themselves borrowers and may have used their presence in the section to secure their future by tampering with the records.

The means-testing instrument, although better than the earlier system's, is not rigorous enough. Reportedly, up to 25% of loan recipients have lied about the education, employment, and income status of their parents (Mwiria & Ng'ethe 2002). Some even claim that their parents are dead when they are alive and working. The board is obviously unable to verify the information provided by the applicants on the form by visiting their homes and families.

The board has tremendous powers conferred upon it by its enabling act (1995), including its exception from the Limitations of Actions law. HELB is allowed to retroactively apply not only the exemption clause but also the entire act. The board also has powers to prosecute employers and beneficiaries who fail to comply with the provisions of the act. In addition, employers are legally obligated to provide the board with records of borrowers in its employment. However, there is no evidence so far that the board has taken any employer/employee to court. Known borrowers in public sector employment (e.g., the universities) are not repaying their loans, yet the board has taken no action against them. Part of the reason for this reluctance is the lack of political will to implement measures that are seen as politically sensitive. Implicitly, prosecuting borrowers for noncompliance can have negative public relations, as it will create a perception of the board as a vengeful tax man and discourage late but willing borrowers. However, prosecution could also work positively by sending a strong signal that the board is determined that every employer and borrower will meet her or his obligation.

Johnstone (2001b) and Johnstone and Aemero (2001) cited two major, and partly conflicting, goals for student loan programs: (a) supplementing governmental revenues (which depends on the degree of effective cost recovery and on tapping private capital), and (b) expanding participation in higher education. The Kenyan program has not been very successful in either regard, save for a scholarship arrangement with the Visa Oshwal community in Kenya that is benefiting 101 students for the duration of their studies in the public universities (Mwiria & Ng'ethe 2002). Assuming that the board would give full loans of Ksh 42,000 for each student, the assistance amounts to savings of Ksh 4,242,000 (US$ 184,435) per year and Ksh 16,968,000 (US$737,739) for the four-year study duration. Other than this one-time assistance, the program is dependent on the traditional government subventions and recoveries, though it is mandated to secure other forms and sources of funding.

Without doubt, there has been a significant expansion of higher education in Kenya, particularly in the last five years, and the board has been a significant source of funding for students particularly in the public universities. Still, the overall expansion of higher education in Kenya cannot be attributed solely to the loan program for several reasons, two of which stand out. First, a significant proportion of the expansion (22%) is due to the initiation of Module II (parallel) programs. So far, these students are not eligible for support from the loan program. Second, there has been a significant growth in the number of Kenya's private universities, which enroll about 15% of all university students.

The Kenyan program is highly subsidized, given that it carries an interest rate of only 4%, effective on repayment after a two-year grace period. Because

the market interest rate is 17—20%, the program has been criticized as being too lenient. However, subsidies associated with government-funded student loans can be defended as connected to the government's obligation to provide social services to its citizens in exchange for their taxes and compliance with the law. As the custodian of collective social interest, the government properly bears a portion of the cost of services it gives the citizens. However, it is also facing competing interests for its few resources. On this score, it makes sense to expect student loan programs to generate sufficient funds not only to sustain themselves but to release the government's limited resources to service other sectors.

Internally, the need to expand higher education access through such available cost-sharing instruments as student loans justify the elimination of subsidies and the institution of real cost recovery measures. This aim constitutes part of the twin but competing (if not contradictory) goals of student loan programs as ably expounded by Johnstone and Aemero (2001). The issue of subsidies in loan programs must not only deal with the economics of lending and borrowing but must also recognize political realities, particularly in the developing world where students constitute an important and volatile political constituency. It would be highly imprudent for a government to provoke students by implementing decisions that they consider punitive. It is for this reason that the current loan repayment terms are not likely to change in the near future.

The Way Forward for Kenya's Loan Program

Drawing lessons from the seven-year existence of HELB as well as from its predecessor organization, several measures and policies call attention to themselves as needing consideration before the program can fully meet the objectives for which it was set up. The challenges include facilitating the expansion of university education, addressing issues of equity and efficiency in funding universities and other postsecondary/tertiary institutions of education, enhancing recovery, and tapping additional sources of finance than the government. The board needs to look beyond itself and recognize other sources of funding available to those desiring higher education, including commercial banks. Students and parents may not be going to these facilities because they have believe that HELB is the only local source of education funding and have not been informed about alternative borrowing sources. There seems to be absolutely no reason why people should borrow money from commercial banks for physical investment but be unwilling to borrow the same for human capital/educational investment. HELB program managers need to conduct campaigns of public education for the borrowers and for Kenyan society in general. There

is no compelling financial reason why students and their parents cannot, for instance, borrow from the market to finance shortfalls from HELB assistance, especially since 45% of the students in Kenyan universities come from its wealthier sections. Accessing private credit would release a significant portion of funds, which could in turn be used to expand the places available in higher education. There have been no attempts so far to encourage banks to initiate softer loan facilities for education with probable government guarantees. The argument normally given for not accessing credit from commercial banks for education is that the bank rates are too high. While this is true (some banks charge interest rates exceeding 25%), avenues do exist outside banks. Savings and credit societies, for instance, already give loans for lower level/ secondary education. Curiously, some secondary-level students are educated with loans from cooperative saving and credit societies, but their parents are not ready to obtain the same loans to finance university education, mostly due to the belief among Kenyans that university education should be "free," as it has been for a long time.

Other opportunities relate to making university education more relevant to the needs of the Kenyan society. The board does not have the capacity to ensure this goal on its own since its responsibility is to disburse loans to those qualifying for university education. However, it could insist on the adoption of some policies that will satisfy its clients. Currently, the board disburses the tuition component of the loans to the university where a student has been admitted. Only the living allowances are disbursed directly to students' accounts. This policy has resulted in complacency among the universities, as they are sure that students will be forthcoming. Were the whole amount to be placed in the students' hands in a liberalized admission regime, the students could take the money to a different university than the school where they are admitted. Thus, the board could lobby for a revision of admission policies, allowing students to invest the funds in the courses/programs in which they see the most returns, whether monetary or otherwise.

A number of equity concerns in the program also demand the board's attention. One of the program's aims is to promote equality of opportunity in higher education. Equality implies justice or fairness. The loan program as such should open avenues for access to higher education for those who qualify and equitably distribute financial support to the qualifying students. The program has compromised this goal, as the bulk of the students now benefiting have been public university students. Other higher education students (defined as postsecondary tertiary institutions) have been locked out of the program, understandably due to limited funds that the board can disburse in any given year. Even for the qualifying public university students, the loans are not scaled

to the demands of the programs or courses. Medicine and engineering, for instance, are labor intensive, requiring greater financial commitments. Even laboratory courses such as chemistry are very demanding. Students enrolled in one program may have different financial needs and requirements than students in another program. If two students are admitted in the school of education, one taking subjects such as history and religious studies while the other takes fine art or home economics, and if they receive similar loans, equity is not addressed. The first student needs only a lecture room, board, chalk, and writing materials while the second has to spend additional money on fabrics, colorings, supplies, etc. The financial burden of the second is thus greater. Still, the program must be commended for providing loans to qualified students irrespective of gender or socio-economic background. The increase in university opportunity index attests to this fact.

Indicatively, since primary and secondary education respectively form the foundation for higher education, achieving equality of opportunity and equity at the university is possible only when the provision of education at the base (primary and secondary levels) is equitable both in access to and distribution of educational resources. Given manifestations of inequalities in the two levels of education (Deolalikar 1999; Mitha et al. 1995; Karani, et al. 1995), it is only logical to address the two issues at these levels first. Suffice it to say, then, that achieving equality of opportunity and equality in higher education calls for implementing a whole set of intervention measures that will address ills inherent in the entire education system beginning at the primary level. When this is done, the loan program could be used, along with other measures (fees, grants, and scholarships), to enhance equity.

Relying exclusively on the loan program to achieve equity goals in higher education is both shortsighted and impractical. An examination of the rates of return to the different levels of education and the costs borne by the government and households in Kenya (Table 8), and their implications underscores the futility of trying to address the twin goals at the higher education level by means of the loan scheme without targeting the lower level of education. Within the framework of the loan program, options include setting an interest rate more realistic than the current highly subsidized rate of 4%. Investing in primary education, which would clearly yield higher social benefits, draws credence from the current pattern of expenditure that is heavily tilted in favor of higher education, with the government bearing up to 92% of the costs of university education, while households bear as little as 8%.

Table 8: Rates of Return to Education in Kenya, 1994, and Cost Borne by Government and Households

Level	Rate of Return			Percent of Costs Borne by:	
	Social	Private	Difference	Government	Households
Primary	8.1	13.5	5.4	69	31
Secondary	7.4	12.6	5.2	40	60
University	5.7	19.7	14.0	92	8

Sources: Republic of Kenya (1996, 1998); Ayako et al. (2000).

By 1997, the government spent only Ksh 2,774 (US$ 121) per primary school pupil and Ksh 9,418 (US $409) per secondary school student while expenditure per university student was Ksh 115,812 (US$5,035), meaning that the government spends 42 times more on a university student than on a primary school pupil (Abagi 1997). Taking a chunk of funds from university education and transferring it to the primary level would be more optimal. On the other hand, the relatively low benefits to an individual from secondary education reflect the expensive nature of this level of schooling. The import of the high cost is that only those who are financially able to purchase secondary education eventually benefit from the highly subsidized loan program at the university. Students from disadvantaged socio-economic backgrounds are effectively excluded from both secondary and university education. (See Fig. 1.) Stated differently, the current loan arrangement in Kenya gives clear preference at the university level to families who are able to purchase secondary education for their children. This factor strengthens the case for a review of loan program features that would make the financing regime both realistic and equitable.

It has been argued elsewhere (Johnstone 2001a, 2001b) that using more specialized government agencies such as the income tax departments could enhance recoveries. In Kenya, this could be done by contracting with the state tax collection agency, the Kenya Revenue Authority (KRA). Such a move would likely result in better recovery rates because the KRA already has records of employed graduates, something that the HELB does not have. Indeed, the rate is low because HELB has relied heavily on recoveries from those graduates in government, parastatals (state corporations), the Teachers' Service Commission, and a few private companies, mostly because these known entities are easy to reach. The HELB does not know where many other graduates are currently working or if they are working at all.

The KRA's well-organized operations and mandate positions it advantageously both for tax collection and debt recovery. For example, it has divided the country into tax regions for the purposes of ensuring tax compliance. Each region has officials whose responsibility is to visit employers at random to see if there are traders or firms evading tax payments. HELB inspectors have so far been unable to effectively discharge their similar responsibility. The KRA could arguably be singled out as one of the very few efficient public institutions in Kenya today. Given that it has records of borrowers, it will not even need to search for them, but only put them on notice of the effective date when it will affect the recoveries. Such a move would not be totally new. In the past, the KRA has undertaken dues collection on behalf of National Hospital Insurance Fund and Catering Levy Trustees, resulting in significant increases in collections, even though the NHIF policy was scuttled after a very short period without valid reasons being given. This should by no means be a deterrent, for the circumstances of students loans are quite different. However, there must be very strong and visible political support for such an initiative to succeed.

Some of HELB's plans indicate that it is indeed on the right track in widening access to credit by those desiring to invest in higher education. According to the HELB secretary, it is currently negotiating with commercial banks, through their umbrella body, the Kenya Bankers Association to offer soft loans to students with the HELB guaranteeing the loans (personal communication). It is envisaged that the negotiations might yield useful results by the beginning of the new year (2003). If it succeeds, it will revolutionize higher education financing in Kenya since banks have expressed unwillingness to engage in educational lending due to the high risks involved (Otieno, 1997). More significant is the likelihood of freeing funds that the board could then use to expand access to higher education by awarding more loans or by increasing the amount of loan per student. The degree to which the initiative succeeds will depend on the number of banks involved, the total volume of the funds available for lending, and the terms of lending. Ideally, given the positive increase in recovery rate, the board should have no problem in convincing the banks that the loans are recoverable. If, as a nonbanking institution it has been able to recover Ksh 50 million monthly, the banks with more experience and infrastructure in debt management should do better. Such success will, however, depend on whether the banks will recover the monies directly or whether the board will recover the loans on their behalf.

Conclusion

The Kenyan loan program has come a long way. From an institution registering a gross loss of over 103% (Albrecht & Ziderman, 1991), it is currently one

of the few functional loan programs in Africa (with the possible exception of the South African program) which has significantly reduced government dependence to about 50% of its disbursements, yet like most loan programs all over the world, it must overcome a number of obstacles, including raising enough funds to serve all of the qualifying claimants, thereby expanding access to higher education and ensuring real cost recovery while limiting debt burdens in a way that it will encourage borrowers to repay. While the current recovery rate is not good enough, it is a significant achievement in less than 10 years. Not only has the board been able to raise recoveries significantly, it has also reduced administration costs and procedures, including setting up an interactive Website. A tighter form of means testing will ensure that the loans serve the purpose for which the program was introduced, namely, to expand access to higher education through equitable distribution of available funds.

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Cost-Sharing in Higher Education in Tanzania: Fact or Fiction?

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Abstract

In the early 1990s, Tanzania reintroduced a policy of higher educational cost-sharing, designed to slowly move some of the costs of higher education, which in recent years had been borne almost exclusively by the government, toward parents and students as well as toward other nongovernmental parties. This article reports research into the difference this policy seems to have made at Tanzania's major public university, the University of Dar es Salaam (UDSM), with particular attention to the enrollment of privately sponsored (i.e., fee-paying) students and other changes discernable in university finances during the early years of this policy implementation. The report concludes that cost sharing in higher education in Tanzania is justified on the grounds of the sheer need for nongovernmental revenue for public higher education institutions because of the declining government appropriations to these institutions, along with the dire need to expand access to higher education; however, its implementation has been lackadaisical.

Resumé

Au début des années 90, la Tanzanie a réintroduit dans l'enseignement supérieur une politique de participation aux coûts. Cette politique vise à faire supporter des coûts relatifs à l'enseignement supérieur (exclusivement supportés par le gouvernement) aux parents, étudiants et autres organisations non gouvernementales. Cet article décrit les différences notées au niveau de la principale université publique

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de Tanzanie, l'Université de Dar-es-Salaam (UDSM), après l'introduction de cette politique, et s'intéresse particulièrement à l'inscription des étudiants qui s'autofinancent (c'est-à-dire ceux qui paient des droits d'inscription), ainsi qu'aux autres changements notables intervenus dans les finances de l'université, quelques années après l'introduction de cette mesure. Ce rapport conclut donc que la participation aux coûts est justifiée, car les institutions de l'enseignement supérieur ont énormément besoin de revenus non gouvernementaux, étant donné que le gouvernement se désengage de plus en plus des ces institutions ; en outre, les institutions concernées ont besoin d'élargir l'accès à l'enseignement supérieur. Cependant, cette mesure a été introduite sans grande rigueur.

Introduction

Cost-sharing in higher education has been defined as "a shift in the burden of higher education costs from being borne exclusively or predominantly by government, or taxpayers, to being shared with parents and students" (Johnstone, 2003a, p. 351). Johnstone (2003a, 2004a) identifies various forms of cost sharing adopted in both developed and developing countries including: (a) the introduction of tuition fees where public higher education was formerly free; (b) sharp increases in tuition fees where public higher education tuition fees has already existed; (c) the imposition of user charges to recover the expenses of formerly subsidized food and accommodations; (d) the diminution of student grants or scholarships; (e) an increase in the effective recovery of student loans; and (f) official encouragement to the tuition fee-dependent private higher education sector to absorb some of the higher educational demand.

A variation on the implementation of tuition fees—especially popular in countries that are ideologically and politically opposed to tuition fees but which nonetheless acknowledge an urgent need for some tuition fee revenue—are policies that preserve free tuition for students admitted at the top of the competitive admission examinations (sometimes referred to as "governmentally sponsored" students), but that allow universities to admit others scoring below the cut-off scores for a fee. These fee-paying students and the programs that admit them—most notably in Uganda, Kenya, and Tanzania (and also in many of the formerly Communist countries of the former Soviet Union and Eastern and Central Europe)—may be called parallel degree, third party, privately sponsored, dual tuition-fee students and/or programs. This form of cost-sharing in higher education—maximizing enrollments of fee-paying students—has been particularly successful at two prominent East African public universities: Makerere University in Uganda and the University of Nairobi in Kenya[1] (Ssebuwufu, 2002; Kiamba, 2003).

Tuition fees in public higher education, as Johnstone (2002a, p. 60) argues, are especially important when: (a) there is an urgent need for additional revenue to upgrade quality and expand capacity; and (b) there is little or no chance for additional governmental, or taxpayer, revenue for the public higher education sector. Tuition fees are generally thought to be equitable when: (c) higher education is partaken of by very few, and disproportionately by the children of more affluent parents; (d) the costs of (public) higher education are overwhelmingly borne by all citizens through direct or indirect taxation; and (e) provision is made for means-tested grants and generally available loans or all truly qualified students. All of these conditions (except "e") are present in virtually all African countries, making some form of tuition fees in public higher education critical for expanding capacity and promoting more equitable participation. Yet tuition fees as a policy are still extremely controversial and hence absent in most of the countries of the African continent, with the exception mainly of South Africa and of the aforementioned dual (or parallel or privately sponsored) tuition fees in East Africa and Ethiopia.

In this context of slowly emerging cost-sharing in Africa, research was conducted at the University of Dar es Salaam in Tanzania from January to May 2003 to study the implementation of cost-sharing policies in higher education in Tanzania. The University of Dar es Salaam, Tanzania's oldest and largest public university, with more than 10 years experience of implementing cost sharing and revenue diversification, served as a case study. Indicators were the government's professed objectives for reintroducing cost sharing in higher education. The research addressed the following questions:

1. To what extent has the Tanzanian government actually implemented (through the 2002–2003 academic year) its stated cost-sharing objectives of: (a) expanding participation in higher education, (b) requiring that beneficiaries of higher education contribute to its costs, and (c) making student hostels and cafeterias operate more efficiently?
2. What has been the additional nongovernmental income generated by the University of Dar es Salaam from these early steps of cost sharing, and what has been the impact on the institution's net revenue and capacity expansion?
3. What has been the seeming impact of any net increase in revenue and/or capacity on expanded access to this university?[2]

Cost Sharing in Higher Education

The conventional rationales for cost sharing and revenue diversification in higher education worldwide are three: (a) greater equity, both through a better

alignment of those who bear the costs and those who reap the benefits as well as through the expanded participation of those who had formerly been left out; (b) improved efficiency of both systems and institutions as well as improved producer responsiveness to both the student and the society; and (c) what may be the most important—and certainly less controversial—rationale: the sheer need for revenue sources other than the government for expanded quality, access, and participation (Johnstone 2002b, 2003a, 20004a, 2004b; World Bank, 1994).

The rationale for expanded participation, and thus improved equity, is based on two propositions: First, the added revenue from additional tuition fees, even after some additional grants or discounts, can expand capacity—both for classroom instruction and for living accommodations—and thereby increase participation. The principal measures of expanded capacity are the numbers and seating capacity of new instructional facilities and the bed space of new living accommodations. Second, the added revenue can be stretched to more students—and thus to even greater participation—by providing loans, which in turn can put more revenue into the hands of needy students (at least for the present value of the dollar) than grants or tuition fee discounts.

The second presumed rationale—the presumption of greater internal efficiency and producer responsiveness (institutional efficiency) with the advent of tuition fees—is thought to come about as the consumers or buyers (i.e., students and their parents) bear more of the higher education costs. This phenomenon infuses into higher education some virtues of the market (Johnstone, 2003a, p. 355). The major assumption is that payment of tuition fees or other related higher education costs will make students and their families more discerning consumers and will also make universities more cost-conscious providers. The notion of producer responsiveness is premised on the assumption that cost-sharing through tuition fees and other related costs would make universities more responsive to the individual, societal, and labor market demands.

Finally, proponents of the sheer need rationale claim that public institutions of higher education must increasingly supplement their governmental revenue through cost-sharing and other revenue diversification activities due to decreasing public resources allocated to these institutions, which are already overwhelmed by the demand pressures for higher education. This demand pressure is a function of demographic increases as well as the expansion in the traditional college-age cohort to include nontraditional students (such as mature-age entrants and private candidates in Tanzania), compounded by the increasing number of secondary school graduates who are academically qualified and who want to pursue higher education. The decline in available tax-based public resources to higher education, especially in developing countries

like Tanzania, may be due to the competition of the public higher education sector with other politically and socially compelling needs such as health care or clean water.

Reinstituting Cost-Sharing in Higher Education in Tanzania

Cost-sharing in higher education is not new to Tanzania. The policy existed during the colonial period and in post-independence Tanzania until 1967 when the government adopted African Socialism. However, during the colonial period and even after independence, students in higher education institutions paid tuition fees, and students from poor families received the assistance of government bursaries (URT, 1998, 75–76).

In 1967, the government decided to grant bursaries to all students admitted to the University College of Dar es Salaam, which was then the only public university. In 1974, the government abolished the bursary system and assumed all of the higher education costs of students admitted to public higher education institutions. (The university continued the practice of charging tuition fees, but charged it only to the government—thus making the tuition fee the accounting equivalent of a per-student governmental appropriation.)

Cost-sharing in higher education in Tanzania was officially reinstated in the late 1980s largely due to the government's inability to finance free public higher education in addition to all of the other pressing public needs. Some movement toward greater cost-sharing was part of the wide-ranging economic and social reforms under the IMF/World Bank-sponsored structural adjustment programs. The government first decided upon a course of cost-sharing in higher education in 1988 but, for reasons of political expedience, made its formal announcement of the policy in January 1992.[3] The government's announcement described the introduction of cost-sharing in higher education as necessary to maintain the quality of academic programs, to encourage needy students to attend higher education, and to improve access to higher education, while at the same time containing government expenditures in higher education (URT, 1998, 76).

The new policy was to be implemented in three phases over a number of years:

1. Phase I began in the 1992–1993 academic year. In this phase, students and parents were required to pay the student's transportation, application, registration, entry examination, and student union fees, as well as "caution money" (deposits for covering breakage and other small debts owed to the university). In addition, small numbers of privately sponsored students—admissible but not scoring high enough to qualify for

governmental sponsorship—were admitted on the payment of tuition fees.

2. Phase II was implemented during the 1993-1994 academic year. In addition to Phase I costs, students were required to also pay for food and accommodation. The higher education allowance paid to students in public higher education institutions was also eliminated during this phase, and the government introduced student loans to cover accommodation and meal costs. These loans are accessible by all Tanzanian students admitted to public universities and accredited private universities and colleges.
3. Phase III, which has not yet begun as of the end of 2003 and has no announced official starting date, will require students to pay tuition and examination fees, books and stationery costs, special projects costs, field practice expenses, and medical insurance, in addition to the costs mentioned in Phases I and II. The government at present retains the responsibility of paying for these costs.

To this point, then, higher education cost-sharing in Tanzania consists of the introduction of a very limited tuition fee in public higher education institutions charged only to students not eligible for the official governmentally sponsored tuition-free places (i.e., the so-called dual track tuition program); the imposition of more substantial charges for food and accommodation; the abolition of students' stipends and allowances; official encouragement of the tuition-dependent private higher education sector (as of 2003, still very limited); and the introduction of various revenue diversification activities in public higher education institutions as well as the privatization, or commercialization, of some of the students' and university's municipal services.

Participation and Access at the University of Dar es Salaam

A principal objective of cost-sharing in Tanzania was to increase participation at and accessibility to all institutions of higher education, including the flagship university of Dar es Salaam. However, the past 11 years have shown only a very slight increase in undergraduate admission rates and a modest expansion in total undergraduate enrollments at the University of Dar es Salaam and the other three public universities. The tentative beginnings of cost sharing seem to have had little impact on enrollments, either positive (i.e., from the additional revenue) or negative (i.e., from the increased fees). In fact, however, these slight increases do not reflect even the increasing numbers of high school graduates over the years or the increasing numbers of applicants with minimum qualifications for admission. Furthermore, they do not generally reflect the

Table 1: High School Examination Results by Division, 1991-2001 (Public and Private Schools)[a]

Year	Division[b]					Total # of Candidates	No. Qualified for Admission (Div. I, II, & III)
	I (%)	II (%)	III (%)	IV (%)	Failed (%)		
1991	825 (16.3)	1,285 (25.4)	2,038 (40.2)	669 (13.3)	241 (4.8)	5,058	4,148 (82. 0)
1992	611 (10.9)	1,221 (21.8)	2,442 (43.6)	924 (16.5)	403 (7.2)	5,601	4,274 (76.3)
1993	547 (8.7)	1,371 (21.8)	3,082 (49.0)	937 (14.9)	352 (5.6)	6,289	5,000 (79.5)
1994	279 (4.7)	747 (12.6)	2,652 (44.7)	1,382 (23.3)	872 (14.7)	5,932	3,678 (62.0)
1995	314 (5.2)	807 (13.4)	2,824 (46.9)	1,146 (20.7)	830 (13.8)	6,021	3945 (65.5)
1996	518 (9.0)	1,164 (20.2)	2,760 (47.9)	887 (15.4)	449 (7.8)	5778	4,442 (77.0)
1997	609 (9.4)	1,335 (20.6)	2,935 (45.3)	972 (15.0)	628 (9.7)	6,479	4,879 (75.3)
1998	773 (10.7)	1,488 (20.6)	3,213 (44.5)	1,148 (15.9)	599 (8.3)	7,221	5,474 (76.0)
1999	702 (8.8)	1,733 (21.7)	3,689 (46.2)	1,246 (15.6)	615 (7.7)	7,985	6,124 (77.0)
2000	805 (8.4)	2,223 (23.2)	4,791 (50.0)	1,246 (13.0)	508 (5.3)	9,573*	7,819 (82.0)
2001	1,108 (10.4)	2,910 (27.3)	4,754 (44.6)	1,503 (14.1)	394 (3.7)	10,670*	8,773 (82.2)

Sources: Adapted from United Republic of Tanzania (1996, p. 21); United Republic of Tanzania (1997, p. 24); United Republic of Tanzania (2002c, p. 29).

[a]Excludes those who sit for high school final exams as private candidates, outside the formal school system.

[b]High school final exam results are classified into divisions depending on points obtained from principal and subsidiary subjects examined (A = 5, B = 4, etc.). Division I is the highest, obtained by scoring A's in major subjects. Those in Division I are virtually guaranteed admission to public universities under government sponsorship (free higher education). The figures for examination results by division were given as percentages in the sources cited above, but I recalculated them into numbers.

*Numbers summed across columns may not always equal the totals, due to rounding.

Tanzanian population growth from 23.1 million in 1988 to 34.6 million in 2002. And finally, the current admission rates also do not reflect the increase in total enrollments in high schools, which constitute the potential university entrants, public and private; students in high schools increased from 10,562 in 1991 to 24,807 in 2001 (a 5% increase).

Table 1 shows high school examination results in number and percentages by divisions, or categories of examination scores, from 1991–2001, while Table 2 shows trends in undergraduate admissions vis à vis applicants with minimum entry qualifications (Divisions I, II, and III) at the University of Dar es Salaam from 1989–1990 to 2003–2004. Table 3 shows trends in undergraduate enrollment at the University of Dar es Salaam and other public universities. Table 4 summarizes available data on the number of privately sponsored students from 1992–1993 to 2003–2004.

Table 1 reveals that the total number of high school graduates increased from 5,058 in 1991 to 10,670 in 2001, an increase of 111%. During the same period, the number of high school graduates who were qualified for admission into higher educational institutions increased from 4,148 to 8,773, an increase of 111.4%. The percentage of candidates with minimum and maximum qualifications for admission into higher education institutions—i.e., candidates who passed in Divisions I, II, and III—ranged between 62 and 82.2% of the total candidates graduating from high schools, while the number and percentage of high school graduates obtaining maximum qualifications (Division I) for admission to governmentally sponsored places in public universities declined from 825 (16.4%) in 1991 to 703 (8.8%) in 1999 before marginally increasing from 805 (8.4%) in 2000 to 1,108 (10.4%) in 2001. The declining trend in number and percentages of Division I graduates can be attributed to the increasingly tough examinations set by the National Examination Council of Tanzania (NECTA), ostensibly as a means of improving secondary education quality and standards but in practice (and probably in intent) limiting the costly allocation of expensive tuition-free places.

The more than double increases in the total number of high school graduates reported in Table 1, which reached 10,670 in 2001 over a period of 11 years (for both public and private schools) do not reflect or translate to expanded access to advanced secondary education, a *sine qua non* for access to higher education. In fact, the total number of high school graduates in 2001 was only 0.03% of the total population (33.5 million) of the Tanzania mainland in 2002 (URT, 2003, p. 2). This is not surprising. Tanzania's secondary schools are few (only 1,044 in 2002) and unevenly distributed. Furthermore, the country has abysmally low participation rates in secondary education, even when compared only to other countries in sub-Saharan Africa: only 6% of the

age cohort in 2000 compared to 19% in Uganda and 31% in Kenya (World Bank, 2003, pp. 80–82).

An important question is why, 43 years after independence in 1961, Tanzania still has such a low participation rate in secondary education compared to Kenya and Uganda. There seem to be two major reasons. First, compared to other education sub-sectors such as basic, teacher, tertiary, and higher education, the government has not allocated adequate financial resources to public secondary education. For example, the percentage share of total allocation to the secondary education sub-sector declined from 9.5% in 1994–1995 to 7.6% in 1999–2000. In contrast, the tertiary and higher education sub-sector saw an *increase* from 20.1% to 23.4% (URT, 2002e, p. 70). Interestingly, the inadequate allocation of resources to public secondary education sub-sector has already necessitated the introduction of some forms of cost sharing at this level. The second reason may be that, until the late 1980s when Tanzania abandoned central planning and socialism altogether, secondary school expansion was linked only to the nation's manpower requirements. For this reason, secondary school expansion was deliberately controlled and regulated by the government. The government also controlled access to the first level of public secondary education through a quota system.

Table 2 shows trends in the University of Dar es Salaam undergraduate admissions vis-à-vis applicants with minimum and maximum entry qualifications from 1989–1990 to 2003–2004. These data depict the very low admission rates at the University of Dar es Salaam for the past 15 years. In fact, for some years (e.g., 1989–1990 through 1996–1997), admissions were almost stagnant, hovering slightly above 1,000 students per academic year. The decline of the admission rate from 40.2% in 1989–1990 to 35% in 1990–1991 can be attributed partly to the fact the University of Dar es Salaam was closed for continuing students for the whole 1990–1991 academic year because of a student strike in April 1990. But I cannot explain why admission rates dropped from 41% in 1991–1992 to only 32.6% in 1996–1997. In 2002–2003, 2,555 students were admitted, all of them under government sponsorship following a government directive to the UDSM that the number of candidates to be selected for its sponsorship should not exceed 2,555. Data on the number of candidates admitted under private sponsorship programs for this academic year were not available to me; but if the university had not admitted privately sponsored students in the 2003–2004 academic year, admissions would have declined by 27.6%—from 3,531 undergraduates in 2002–2003 to 2,555.[4]

Table 2: University of Dar es Salaam Undergraduate Applicants with Minimum Entry Qualifications and Those Admitted, 1989–1990 through 2003–2004

Year	Applied	Admitted	% Admitted
1989–1990	2,578	1,037	40.2
1990–1991	2,850	994	35.0
1991–1992	2,644	1,081	41.0
1992–1993	3,407	1,136	33.4
1993–1994	3,711	1,243	33.5
1994–1995	3,058	1,147	37.5
1995–1996	3,800	1,280	33.7
1996–1997	4,100	1,339	32.6
1997–1998	4,233	1,607	38.0
1998–1999	4,992	1,805	36.1
1999–2000	5,132	2,457	48.0
2000–2001	n.a	3,000	n.a
2001–2002	n.a	2,950	n.a
2002–2003	n.a	3,531	n.a
2003–2004	8,000	2,555*	32.0

Sources: Committee of Vice Chancellors and Principals in Tanzania (1997, p. 54); University of Dar es Salaam (2003a); University of Dar es Salaam (2002b, p. 13); University of Dar es Salaam (2001b, p. 25); Higher Education Accreditation Council (2001, p. 11).
n.a. = data not available
* = applicants to be admitted on government sponsorship only as per the directive from the chief academic officer (University of Dar es Salaam, 2002c).

Furthermore, the fluctuating admission rates shown in Table 2 do not at all reflect the increase in the total number of high school graduates, which more than doubled from 5,058 in 1991 to 10,670 in 2001. Nor does it show the total number of high school graduates with minimum entry qualifications, which also more than doubled from 4,148 to 8,773 during the same period. The admission rates revealed in Table 2 likewise fail to capture the increasing demand for university education in Tanzania, one sign of which which may be manifested in the increasing number of applicants for admission at the

University of Dar es Salaam, which rose from 2,578 in 1989–1990 to 8,000 in 2003–2004, an increase of 210%.

These above observations bring us to some important questions concerning access to higher education in Tanzania and, in particular, to the flagship University of Dar es Salaam: Where do applicants go who do not get admitted, or who get admitted but do not secure government sponsorship and are unable to pay private sponsorship tuition fees? What could be the possible explanation for low admission rates at the UDSM, given the high and unsatisfied social demand for university education manifested by the increasing number of university places?

There are four possible answers to the first question. First, it is likely that many applicants who are not admitted, or who are admitted but without government funding, apply for admission in less prestigious and cheaper public nonuniversity institutions the following academic year. Second, some may reapply to join the university in the following academic year after resitting for their high school final examinations to improve their scores above the cut-off points for admission into government-sponsored programs. Third, some may apply at private universities. And fourth, some may simply abandon their plans to pursue higher education.

However, admission rates for public nonuniversity institutions and private universities combined are also very low. For example, in 2001–2002, the 15 public nonuniversity institutions admitted 2,475 students in their undergraduate programs, while the 11 private universities and colleges admitted 787 students. Thus, the number of students who are not admitted either at the UDSM or the other public universities in each academic year is too large to be accommodated by the public nonuniversity institutions and the private universities.

Some possible reasons for the low admission numbers at the UDSM revealed in Table 2 are suggested below. First, the admission criteria, or standards, by which so many of the secondary school test takers are weeded out may simply be too high, given the current realities of poorly paid and poorly motivated teachers in addition to inadequate teaching-learning facilities in many secondary schools in Tanzania, especially public secondary schools.

But a second explanation is that the admissions standards are being pushed higher deliberately to keep the numbers of new enrollments low. In reality, the "cut-off point" on the entrance examination is not driven upward by any true academic standard, but only by the need to limit the number of new students to fit the number of available places—which in turn is constrained by too few hostel and teaching-learning spaces and by too few faculty, compared to the increasing number of potentially qualified applicants. For example, after its establishment as a national university in 1970, the University of Dar es Salaam

did not construct or procure any new student hostels or lecture theaters until 1998. Only that year, the government provided funds for two additional hostels and two additional lecture theaters, and the university procured another student hostel through a private investor. Even with these additional facilities, however, anecdotal reports from students describe residential facilities, classrooms, laboratories, and libraries that are still inadequate and congested. More telling is the fact that the teaching staff at the University of Dar es Salaam's main campus actually declined from 594 in 1997–1998 to 539 in 2001–2002, and at Muhimbili College of Health Sciences (MUCHS) from 198 in 1997–1998 to 180 in 2000–2001 (URT, 2002c, pp. 103–104).

Underlying the rising cut-off point on the entrance examination and the consequent low numbers admitted to the coveted governmentally sponsored (tuition-free) places is the declining ability of the government to sponsor all the qualified students who would formerly have been admitted to these places. At the same time, few households are able to pay the fees for the newly added privately sponsored (fee-paying) places. The mean per-capita household monthly income on the Tanzanian mainland in 2000–2001 was TZS 17,928 (US$39), or TZS 215,136 (US$473) per year (National Bureau of Statistics, 2002).[5] The tuition fee for privately sponsored students at the University of Dar es Salaam had been TZS 1,000,000 (US$2,198)—clearly far beyond the reach of the average Tanzanian family. In 2003 the university lowered its privately sponsored tuition fees in acknowledgment of this fact (UDSM, 1997, p. 47, UDSM, 2001a, p. 121; UDSM, 2002d, p. 123).

New Admission Policy, Government Sponsorship Criteria, and the Paradox of Expanding Access to Higher Education

The government since the 2002–2003 academic year has imposed a cap (quota) on the number of students to be admitted on its sponsorship at the University of Dar es Salaam in each degree program and faculty. For example, in 2002-2003, a total of 3,531 students were admitted, but the government decided to sponsor only 2,358 students for the main campus, 300 at the Muhimbili University College of Health Sciences, and 270 students at the University College of Lands and Architectural Sciences for a total of only 2,928 students, leaving 603 students without sponsorship. Opposition parties called the government irresponsible, and students threatened to call a massive strike. After an intensive discussions with university administration and pressure from the students' union, the government agreed to sponsor the 603 students on condition that the university lower its per-student charges for governmentally sponsored students (this fee functioned like tuition but was charged only to the government) from a range of TZS 900,000–1,500,000 (US$1,978–$3,296) depending on

the academic program to a flat fee of TZS 750,000 (US$1,648) per student per year (UDSM, 2002a, p. 13; 2002d p. 1). Thus, the university's finances were constrained not only by what was still a limited number of admissions, but also by a reduced per-capita payment for each government-sponsored student.

For the most recent academic year (2003–2004), the government issued a directive that the university could not select more than 2,555 for government sponsorship and that they must be distributed as follows: bachelor of arts (general) 400; bachelor of arts with education 200; bachelor of education 260; bachelor of commerce 290; bachelor of engineering 315; bachelor of science 420; doctor of medicine and related courses 250; and University College of Lands and Architectural Studies 250 (UDSM, 2003a).

In response to this new government policy, the University of Dar es Salaam established criteria for government sponsorship and raised the minimum cut-off points for admission into individual degree programs for students sponsored by the government, effective July 2002. Under this policy, priority for government sponsorship was to be given to:

- sustaining and allowing for the gradual growth of those degree programs that are new and have few students;
- supporting education and training programs of high national priority and professional programs where there is currently a clear national shortfall; and
- encouraging more female candidates (UDSM, 2002c, p. 1).

Consequently, the minimum entry cut-off points, which were 4 to 4.5 for females and 5 for males for direct entrants, have been raised to between 6.5 and 10.5 points depending on the degree program. In the Faculty of Commerce and Management, for example, the cut-off point in 2003–2004 is 8.5 for males and 6.5 for females; in the Faculty of Law, it is 10.5 for males and 9.5 for females; and in the Faculty of Arts and Social Sciences, it is 9 for males and 7.5 for females (UDSM, 2002c, p. 2). The higher minimums for government-sponsored admission cut-offs led to lower admission rates and increasingly restricted access to free higher education.

Table 3 shows trends in total undergraduate student enrollment at the University of Dar es Salaam and other public universities on the Tanzania mainland from 1989–1990 to 2001-2002. Undergraduate student enrollment at the University of Dar es Salaam increased from 2,839 (1989–1990) to 7,801 (2001–2002), an increase of 174.7%. While statistically this increase seems huge, the fact that it occurred over a 13-year period greatly reduces its significance. In fact, the UDSM's total student enrollment of 7,801, reached in 2001–2002

was only 0.02% of the total population of the Tanzania mainland, and UDSM total enrollment plus the total enrollment in other public universities (7,246 students) in 2001–2002 constituted only 0.04% of the population.

Table 3: Undergraduate Student Enrollments at the University of Dar es Salaam and Other Public Universities[1] in Tanzania, 1989–1990 through 2001–2002

Year	UDSM	Other
1989–1990	2,839	n.a
1990–1991[2]	331	n.a
1991–1992	2,801	n.a
1992–1993	2,992	n.a
1993–1994	2,968	n.a
1994–1995	3,869	n.a
1995–1996	4,308	3,996
1996–1997	4,519	4,851
1997–1998	4,920	5,853
1998–1999	5,221	6,848
1999–2000	6,073	6,592
2000–2001	6,674	7,313
2001–2002	7,801	7,246

Sources: United Republic of Tanzania (1998, p. 24); United Republic of Tanzania (2002a, pp. 1–6); United Republic of Tanzania (2000c, pp. 3–7).
[1]Other public universities include: Sokoine University of Agriculture (SUA) and the Open University of Tanzania (OUT). Until 2001-2002 Tanzania had only three public universities.
[2] The University of Dar es Salaam was closed for this academic year because of student strikes.

The very modest growth in student enrollments at the UDSM, especially from 1998–1999 to 2001–2002, can be attributed mainly to the university's increase in capacity. It purchased two student hostels with government funding (taxes) and constructed a new student hostel funded by an external private investor. The new student hostel was constructed by the National Social Security Fund

(NSSF),[6] at a cost of TZS 16,473,396,379 (US$36,200,490) to be recovered at an interest rate of 7.5% annually over a 10-year period beginning in 2002. The new hostel can accommodate 4,309 students, while the two other hostels can accommodate 2,532 (UDSM, 2002b, p. 1; UDSM 1999, p. 16). The three newly acquired student hostels thus have a total capacity of some 6,841 students, although UDSM current enrollments do not reflect any such expanded capacity—and anecdotal evidence shows that student accommodation facilities are still inadequate.

Privately Sponsored Students

The practice of admitting privately sponsored students—at first, mostly foreigners and those with institutional support, rather than students who were either paying their own fees or whose families did—at the University of Dar es Salaam dates back to the early 1980s[7] when the university started admitting a handful of institutionally sponsored students on a private basis. By 1992–1993 when the cost-sharing policy became officially operational, the university enrolled (106) third party/privately sponsored students (mostly foreigners and those who were institutionally supported) while the Institute of Finance Management (a nonuniversity public higher education institution) had a total enrollment of 560 students under third party/private sponsorship (most of them institutionally supported) (Committee, 1997, p. 65).

The formal and official proposal for admitting privately sponsored Tanzanian students at the undergraduate level at the University of Dar es Salaam was first submitted to the University Council's 121st Meeting on March 7, 1996, and approved on the same date. The council agreed to admit privately sponsored Tanzanian candidates to provide access to university-level education to as many people as possible—a goal in line both with the national higher education policy and with the University of Dar es Salaam's corporate strategic plan to increase the overall student enrollment to 8,000 by the year 2000 (UDSM, 1996, p. 24).

Table 4: Number of Privately Sponsored Students in Undergraduate Studies at UDSM, 1992–1993 through 2001–2002

Year	Number Enrolled	% of Total Enrollment
1992–1993	106	3.5
1993–1994	111	3.9
1994–1995	117	3.0
1995–1996	100	2.3
1996–1997	103	2.3
1997–1998	47	0.9
1998–1999	162	3.1
1999–2000	n.a	n.a
2000–2001	n.a	n.a
2001–2002	289[a]	3.7

Sources: University of Dar es Salaam (2000b); Committee of Vice Chancellors and Principals in Tanzania (1998, p. 65); United Republic of Tanzania (2002c, p. 151).

[a]These figures are for the main campus only. Enrollment figures for the two constituent colleges were not available. These figures also include those who are sponsored by Carnegie Corporation of New York, nongovernmental organizations, the private sector, Human Resources Development Trust Fund administered by the Prospective College of Engineering and Technology, etc.

Following the government's policy of imposing a quota on the number of students it was willing to sponsor each academic year, the university began in 2002–2003 formally to admit two categories of students: those who would be sponsored by the government, and those who would have to find private sponsorship from parents, extended families, self, or other sources. Thus, the university would be able to add students above the limited governmentally sponsored quotas. The 151st University Council meeting on September 6, 2002, officially recommended that the university, after ascertaining the number of governmentally sponsored students, fill any remaining vacancies if possible by privately sponsored, tuition fee-paying students and further recommended that the fee structure be reviewed to attract more privately sponsored students (UDSM, 2002b, p. 33). The university identified the potential clientele for privately sponsored, or dual track, programs as: (a) affluent individual Tanzanian

parents, (b) local government councils, (c) cooperative unions, (d) nongovernmental organizations, (e) private companies, (f) religious organizations, (g) various registered local development organizations, and (h) Tanzania's parastatal organizations (UDSM, 1996, p. 24). In 2002–2003, the university also implemented a different privately sponsored program for the sons, daughters, and spouses of its staff and members of the University Council: exemption from 50% of their tuition fee (UDSM, 1998, pp. 22–23).

The marginal increase in admissions at the UDSM shown in Table 4 cannot be attributed to cost-sharing because of the small number of privately sponsored students. Moreover, most potential students seem to be interested only in admission with government sponsorship. For example, out of 2,757 students in my study sample, only 91 students, or just over 3%, were admitted on a fee-paying basis. Also, there is no evidence that the university deliberately and strategically attempted to implement what Johnstone (2001a) calls "tilting" admissions and enrollments toward students who can pay, or "maximizing the enrollment of fee-paying students," as Makerere and Nairobi universities have done.

Despite the existence of privately sponsored program for the past 12 years, despite the enormous need for supplemental revenue, and despite the large and increasing numbers of high school graduates who pass the minimal entrance qualifications but who do not qualify for governmental sponsorship, the enrollments in this program have remained very low. In 2001–2002, privately sponsored students at the main campus of the University of Dar es Salaam numbered only 289, or 3.7%. In fact, in all years of admitting privately sponsored students through 2002–2003, the University of Dar es Salaam has enrolled only approximately 1,200 privately sponsored, fee-paying students (Kisembo, 2003). The actual numbers of additional Tanzanian young persons able to attend Dar es Salaam and other institutions of higher education through the privately sponsored programs may be even lower, as reportedly foreigners and institutions rather than parents, households, or individuals purchase most of the privately sponsored slots available.

Enrollments in privately sponsored programs in other public universities and nonuniversity institutions, according to data compiled for the first time in 2001–2002 academic year, are also low. Enrollment at the Muhimbili University College of Health Sciences (MUCHS), one of the university's constituent colleges, is slightly higher at 25, or 8% of first year enrollment, while the newest public university, Mzumbe, elevated from the status of an institute only in 2002, is considerably larger, with 363 students, or 34% of its entering class, entering on a fee-paying, or privately sponsored, basis (URT 2002c, p. 151). Overall, privately sponsored enrollments are greater in the public

nonuniversities—averaging a little more than 12%—but the total number is still small: some 383 out of a total public nonuniversity enrollment of some 3,136 in 2001-2002.

The major reason there is more private sponsorship (cost-sharing) in public nonuniversity higher education institutions than in the University of Dar es Salaam (including its two constituent colleges) and the other Tanzanian universities is probably that the public nonuniversity institutions charge lower tuition fees for both the privately and the governmentally sponsored students. For example, tuition fees in the nonuniversity institutions in 2002-2003 ranged between TZS 217,000 and TZS 1,044,200 (US$477 and $ 2,295) per year. In contrast, tuition fees for privately sponsored students at Dar es Salaam and the other public universities (except for the Open University of Tanzania) charged between TZS 600,000 and 1,500,000 (US$1,319 and $3,296) per year, the high tuition fee being that charged by Muhimbili University College of Health Sciences (MUCHS) (Higher Education, 2000, pp. 16-28).

Compared to the Makerere and Nairobi success stories of privately sponsored, or parallel, programs elsewhere in East Africa, the numbers of fee-paying enrollments at the University of Dar es Salaam are miniscule. Because some of the privately sponsored vacancies at the University of Dar es Salaam and perhaps in other public universities are reportedly purchased by foreigners or foreign institutions (e.g., the U.S. Carnegie Corporation or Rockefeller Foundation) rather than Tanzanian individuals or households, the number is even lower. In short, the entire policy of cost-sharing through privately sponsored, or dual-track, tuition fees in Tanzanian public universities becomes murky, if not elusive.

This low number of privately sponsored students may be explained in part by the fact that students admitted on a privately sponsored, fee-paying basis must have passed the mandatory matriculation examinations with at least the minimum scores to qualify for admission. (Different degree programs have different cut-off points.) But the low numbers seem to extend beyond limited supply to include limited demand—meaning that most Tanzanians are apparently unwilling to pay for their educations and hence do not enroll under this option. But are they unable to pay? Although circumstances would differ family by family, some Tanzanian parents pay for their children to attend expensive private and international secondary schools and/or the private academies that are mushrooming in urban Tanzania and also pay their children's tuition fees at universities in neighboring countries like Kenya and Uganda, and even in Europe and the United States. However, the majority of Tanzanian parents are evidently not prepared to purchase higher education offered by public universities.[8]

To strengthen Tanzania's emerging policy of cost-sharing in higher education, it seems important to understand why Tanzanians, compared to Kenyans and Ugandans, are purchasing so many fewer privately sponsored places at public universities. Part of the explanation may lie in the different political and economic paths that the three countries took after their independence. Kenya and Uganda maintained free-market economies, which encouraged private entrepreneurship and the establishment of private schools and higher education institutions. In addition, Kenya still maintains a pre-colonial cultural tradition of "*harambee,*" meaning: "let us pull together," in which the community contributes funds and labor for school construction and even mobilizes funds for the child of a community member who is admitted to an institution of higher education but whose parents are unable to pay. The concept of cost-sharing in higher education, then, has existed in Kenya and Uganda since colonial times.

Tanzania, on the other hand, maintained a free market economy and free enterprise system for only the first six years after independence (1961–1967). In 1967, Tanzania adopted African Socialism: abolishing free enterprises, nationalizing all privately owned educational institutions and all major means of production, and ending fee payment in schools and publicly owned higher education institutions. The 136 (in 1999) Catholic seminaries and the Nyegezi Social Training Institute, a Catholic tertiary educational institution, which have existed since 1960, were allowed to continue. From 1967 until the late 1980s, when cost-sharing in higher education policy was officially adopted, Tanzanians enjoyed free public higher education in tandem with such free social services as medical care.

While it is true that the majority of Tanzanian households are too poor to pay the fees charged by universities, an even greater hindrance is the cultural values and other socialist remnants of free services that make Tanzanians reluctant to pay tuition fees at public universities. Students also share this expectation. As a result, Prof. Immanuel Baru, former UDSM professor in the Faculty of Arts and Social Sciences and chairman of the University of Dar es Salaam Council, recently urged all Tanzanians in strong terms, to "cultivate the habit of paying for fees for their children's higher education." He further observed, "If this call goes unheeded, we should not be surprised to see the large number of privately sponsored students coming from outside Tanzania to pursue their higher education in this University" (Kisembo, 2003). The reluctance of Tanzanians to pay for their children's higher education prompted the Executive Secretary of the Inter University Council for East Africa, Chacha Nyaigotti-Chacha (2002), speaking at the conference on university financing in Dar es Salaam in March 2002, to admonish Tanzanians to extend the

"*harambee*" (extravagant) style of weddings in Tanzania to more generous support of education for their children.

In fact, Dar es Salaam University's Council actually lowered the tuition fees for privately sponsored students in November 2003 ostensibly "to enable more people with an average income to pursue higher education," thus implying that university fees impeded access to the privately sponsored programs in particular, and to higher education in general (Kisembo, 2003). Yet the university had been charging what was, by most measures, a modest tuition fee of between TZS 600,000 and TZS 1,000,000 (US$1,319 and $2,198) per year for privately sponsored students for all academic programs except for doctor of medicine degree (TZS 1,500,000, US$3,295), in addition to a medical capitation fee of TZS 100,000 (US$220), a registration fee of TZS 5,000 (US$11), and examination fee of TZS 12,000 (US$ 26). While the UDSM charged TZS 1,500,000 (US$ 3,296) as tuition fees for the doctor of medicine degree, private universities in Tanzania were charging TZS 4,520,000 (US$9,933) for the same academic program (Higher Education, 2000, pp. 32-33). The International Medical and Technological University, owned by Vighan Foundation of India, required that even Tanzanian students in Tanzania pay in U.S. dollars.

Cost-Sharing and Expanding Access through a Tuition-Fee-Dependent Private Higher Education Sector

The contribution of the private higher education sector to the expansion of enrollments and general access is almost negligible in Tanzania, mainly due to their limited capacity to admit many students and also to their limited infrastructure and lack of academically qualified faculty. The government granted official permission for private universities and colleges to operate only in 1997, and as of 2003, there were 11. Most of them offered first degree and advanced diploma courses in business administration, health sciences, law, journalism and mass communication, education, and religious studies. All except one (Hubert Kairuki Memorial University) are affiliated with religious organizations in Tanzania and abroad. Total enrollment in private universities and colleges increased from 545 in 1997–1998 to 1,793 in 2001–2002 (URT, 2002c, pp. 29–31). But it is not likely that this sector will expand very fast because their financial stability depends on foreign donations and on the fees they collect from students; however, the government must approve their tuition-fee rates, and a private institution cannot raise its tuition fees without applying to and securing the approval of the government. Furthermore, about one-third of the students admitted fail to attend because of lack of sponsorship (Committee, 1997, p. 65). However, students admitted in accredited private universities and colleges are eligible for loans to cover food and lodging from a govern-

ment student loan scheme. These loans constitute a possibly significant, although indirect, governmental subsidy—especially given the government's apparent inability or disinclination (as of 2003) to collect them.

Cost-Sharing Through "Other Fees"

Cost-sharing may also be pursued through small, "other-than-tuition" fees that cover, or at least contribute to, incidental institutional costs other than basic instruction. However, such student and parental contributions to higher education are currently limited to an array of small "fees" whose impact on institutional net revenue, as shown in Table 5, is negligible. The government still covers all or most of the major costs of instruction, food, lodging, books and stationery, medical insurance, and field practice. In fact, comparable fees in primary and secondary education, as shown in Table 6, are higher (URT, 2002a, p. 49). The average "fee" contribution that parents made toward their children's education in government secondary schools in 2000 was TZS 156,356 (US$344), while students and/or parents in public universities averaged contributions of only TZS 93,200 (US$205). Parents' contribution in private secondary schools, educational academies, and international schools are even higher.

Table 5: Current Annual Contribution to Higher Education by Students and Parents in Public Universities in Tanzania

Item	Tanzania Shillings	U.S. Dollars
Caution money	2,000	4.40
Student union fee	1,200	2.64
Transportation	47,000*	$103.00
Application fee	5,000	11.00
Registration fee	5,000	11.00
Matriculation examination fee	15,000	33.00
Examination fee	12,000	26.00
Graduation fee	5,000	11.00
Student ID card	1,000	2.20

Source: Field research conducted between January and May 2003; prospecti of universities.
*Mean expenditure per semester; calculated from students' responses to a question on how much private money they spend on university education.

Table 6: Estimated Educational Costs Borne by Parents in Government Secondary Schools

Type of Expense	Mean Expenditure
School fees	TZS 60,694 (US$146)
School uniforms	TZS 16,161 (US$39)
Pocket money	TZS 12,481 (US$30)
Transportation	TZS 27,766 (US$67)
Private tuition	TZS 21,262 (US$51)
Other expenses	TZS 17,992 (US$43)
Average total cost	TZS 156,356 (US$375)

Source: Adapted from Omari (2000, p. 88).

These discrepancies in parental contributions to higher and secondary education support the World Bank's long-time argument that cost-sharing in education in Tanzania (as in most African countries) is currently inequitable and that government funding should give highest priority to primary and secondary education, and not to higher education, which can expand its capacity with revenue generated from more realistic cost-sharing. The practical lesson here is that some Tanzanian households—at least those whose children have graduated from private secondary schools—are almost certainly capable of continuing to pay at least a comparable level of fees at the university, which is, after all, considerably more prestigious and sought-after than the high school diploma and which returns benefits to both the student and the household.

Recovering the Costs of Food and Accommodation

Another important element of the Tanzanian long-range plan for phasing in cost-sharing is the shift from wholly subsidized food and lodging to requiring that students and parents take over all or some of those expenses. Along with shifting some of the costs to students and/or parents may come an effort to require more efficient operation from the hostels, cafeterias, and other auxiliary enterprises, regardless of how the costs are shared.

The very limited data available reveal certain problems among the University of Dar es Salaam's student hostels and cafeterias. For example, some students illegally sublet their rooms/beds to other students to reduce their expenses, even though they pay only TZS 300 per day per bed (US66¢) for their on-campus room. As a result, rooms meant to accommodate two students are now ac-

Table 7: University of Dar es Salaam Cafeteria Income and Expenditures, 1995-2000, in TZS

Income / Expenditures	1995	1996	1997	1998	1999	2000
Sale of meals	134,094,683	111,029,188	178,214,441	86,048,988	107,944,116	27,713,603
	US$448,657	US$368,280	US$559,877	US$248,962	US$278,7241	US$306,665
Cost of foodstuffs	196,365,367	171,555,136	145,400,169	91,500,861	131,560,183	107,183,735
	US$657,004	US$569,043	US$456,788	US$264,736	US$339,703	US$257,369
Profit or loss	-62,270,684	-60,525,948	32,814,272	-5,451,873	-23,616,067	20,529,868
	-US$208,347	-US$200,763	US$103,089	-US$15,774	- US$60,979	US$49,296
Gross margin %	-46.44	-54.51	18.41	-6.34	-21.88	16.07

Source: Adapted from United Republic of Tanzania (2002b, p. 19).

commodating up to five or six, some sleeping on the floors. Also, rooms without facilities for cooking and washing utensils are now heavily used to prepare meals. Electric cookers place heavy demands on the rooms' standard electrical circuits, consume a great deal of electricity, and at times cause short circuits. Because of these problems, the upkeep of hostels has dramatically deteriorated (URT, 2002b, pp. 21-22). The subletting problem is so great that the University Students Accommodation Bureau (USAB), in its ninth meeting held on November 1, 2002, recommended fines and evictions (UDSM, 2002a, p. 1).

A related problem is extensive nonpayments. By September 1995, 380 undergraduate students had defaulted on their room rents. All but 100 paid when the university withheld certificates and academic transcripts. Consequently, beginning in 1995-1996, continuing students could register for classes only if their room rent was not in arrears (UDSM, 1995, p. 10). About 27% of student tenants defaulted on room rents between 1997 and 1999. (UDSM 2000, p. 17).

The University Students Accommodation Bureau (USAB), a semi-autonomous service agency, was established in 1999 because the previous system for collecting room rents had failed; however, this bureau likewise has not worked as efficiently as anticipated. The bureau, which is fully owned by the university and operates under the auspices of the Income Generation Unit (IGU), had to be subsidized by the government at TZS 450,000,000 (US$988,881) to meet its operational costs in 2002-2003 (UDSM, 2002b, p. 7-8). The USAB is supposed to operate independently and pay for all its operational costs as well as generate income.

One of the major reasons for USAB's failure to operate independently and to generate profit is that it is required to charge very low accommodation fees (TZS 300 per bed per day or U.S. 66¢)—far below market and far below even the expenses of operation--so that it will not exceed the government's accommodation allowances provided to students as part of their student loans (which are not likely to be repaid anyway).

In 2000, USAB had proposed to the University Council that it be permitted to raise accommodation fees from TZS 300 per bed per day to TZS 600 (US 66¢ to US$1.32) in order to operate profitably. The University Council approved the proposal, but it was not to be implemented until the government raised the amount of loans given to students. In 2001, the government increased the amount of loans granted to students, but the accommodation fees levied for University of Dar es Salaam's student residential facilities remained at TZS 300 (US 66¢) (UDSM, 2002b). Apparently, the USAB will not raise the accommodation fees for fear of possible student strikes; hence, this element of cost-sharing has been badly compromised.

Table 8: Income Generated through Various Activities and Sources at the University of Dar es Salaam, 1995–2000, in TZS

Source of Income							
Year	Private Tuition	Room Rental	Cafeteria	Government	Total	Private Tuition	% Non-Govt.
1995	41,898,950	n.a	134,094,683	4,409,036,715	4,585,030,348	0.9	3.3
	US$92,073	US$294,674	US$9,688,912	US$10,075.661			
1996	78,285,199	896,950	111,029,188	6,392,281,713	6,582,493,050	1.2	2.9
	US$172,032	US$1,971	US$243,988	US$14,047,118	US$14,465,110		
1997	327,407,317	43,354,227	178,214,441	7,410,746,076	7,959,722,061		
	US$719,481	US$95,271	US$391,628	US$16,285,206	US$17,491,588	4.1	6.9
1998	393,755,289	46,764,899	86,048,998	6,628,862,803	7,155,431,989	5.5	7.4
	US$865,282	US$102,766	US$189,093	US$14,567,008	US$15,724,150		
1999	273,691,653	74,158,633	107,944,116	9,437,749,989	9,545,694,105	2.8	4.8
	US$601,440	US$162,964	US$237,208	US$20,739,572	US$20,976,781		
2000	611,977,434	111,870,645	127,713,603	10,908,361,001	11,163,220,908	5.4	7.6
	US$1,344,828	US$245,837	US$280,652	US$23,971	US$24,531,316		
Total	1,727,015,842	277,045,354	745,045,029	45,187,038,300	46,991,592,460	3.6	5.8
	US$3,795,138	US$608,810	US$1,637,245	US$99,299,077	US$103,264,607		

Source: Adapted from United Republic of Tanzania (2002b, p. 19).
n.a = data not available

The limited available evidence also suggests that the student cafeterias, which are operated by private vendors, have not been generating profits or even breaking even. As Table 7 demonstrates, the cafeterias have lost money in all years surveyed except two, and in those the profits were marginal.

There are two main major reasons why these cafeterias have not been profitable. First, the cafeterias cannot charge the equivalent of a market price on meals sold to students. Rather, prices must correspond to the government's meals allowance: TZS 1,300 (US$2.86) per day for breakfast, lunch, and dinner. It is feared that charging market prices on student meals would lead to a student strike. Second, most students cook their own meals in their rooms or buy cheaper meals from informal sources *(mama lishe)* located on and around campuses. Thus, neither the cafeteria nor the hostel operations have been able to lessen the university's dependence on governmental revenue.

Evaluating Cost-Sharing and Revenue Supplementation

The purpose of cost-sharing and revenue supplementation is to acknowledge the unlikelihood of significant additional governmental, or taxpayer, revenue and to seek at least some of the additional revenue needed to expand capacity and upgrade quality. These nongovernment sources include parents, students, investors, philanthropists, and other nongovernmental sources. While data on nongovernmental revenue generated by the university has been difficult to obtain because much of it is confidential, the available data, much of it presented in this article, suggest that such revenue is too small to allow for any substantial increase in enrollments or accessibility to Tanzania's flagship University of Dar es Salaam.

Nongovernmental income generated from different revenue diversification activities and coordinated by the University's Income Generation Unit (IGU) is presented in Table 8. Total gross nongovernmental income generated from different sources increased 384%—from TZS 175,993,663 (US$386,748) in 1995 to TZS 851,561,682 (US$1,871,317) in 2000. In the same period, income from private tuition fees increased 1,361%—from TZS 41,898,950 (US$92,073) in 1995 to TZS 611,977,434 (US$1,345,000) in 2000. However, this increase is not paralleled by an increase in privately sponsored students. Data in Table 8 indicate that private tuition fees could become a major source of nongovernmental revenue for the university if strategically harnessed. Considering the university's annual budget, which from 1993–1994 to 2002–2003 has ranged between TZS 8,149,135,676 (US$17,907,827) to TZS 14,413,011,824 (US$31,672,772), the amount of nongovernmental revenue generated each year from 1995 to 2000 is not significant. Neither is the total

gross nongovernmental income of TZS 2,749,106,225 (US$6,041,195) generated over the same six years.

The income generated from private tuition fees is used for topping up the salaries of faculty who assume extra teaching loads at the department level (UDSM, 1998, p. 21). But this measure has not checked faculty brain drain. For example, between 1990 and 1999 the University of Dar es Salaam lost 85 faculty members, including 5 professors, 5 associate professors, 10 senior lecturers, 25 lecturers, and 40 assistant lecturers (UDSM, 2002d, p. 6). There is no evidence that the nongovernmental income generated by the university over the years surveyed was invested in expanding the number of faculty, especially in fields of very high growth and high student demand such as engineering, computer science, law, and commerce. Available data reveal that in 2002 the university had 308 unfilled faculty vacancies, including 60 at the level of professor, 54 at the level of associate professor, 87 at senior lecturer, 69 at lecturer, and 38 at the level of assistant lecturer (UDSM, 2002d, p. 5). Nor was the net revenue used to expand capacity (for example, building a new student hostel), thus increasing access. Although there are claims that, by 1999–2000, the University of Dar es Salaam was saving approximately TZS 334,446,200 (US$734,950) per year by shifting expenditures to students and families during Phase I of the cost-sharing plan, there were no indications where any of these savings may have been invested (URT, 2002b, 19).

At the same time, the university has undertaken various capacity expansion activities as part of implementing its Institutional Transformation Program (ITP) by using government and private investor funds. Conceivably, this additional capacity could lead to substantial enrollment expansion, which in turn would suggest the possibility of significant additional cost recovery, depending on the stance taken by the University Council toward all of the cost-sharing potential in such measures as privately sponsored students, more reasonable rents, cafeteria food priced more nearly at the market rate, and other elements that are already part of the future phases of the government's long-range plans for cost-sharing and revenue diversification.

Conclusions and Observations

Although data remain elusive, I can make some observations and tentative conclusions about the implementation of cost-sharing at the University of Dar es Salaam and, by extension, at other public universities and colleges in Tanzania.

Low enrollments in the privately sponsored, tuition-fee-paying programs, the failure to charge break-even fees on the university's cafeteria and hostel

operations, the proposals to give more loans to cover items that were supposed to have been covered by students and/or parents in Phase III of the cost-sharing program, the apparent inability and/or unwillingness to begin serious efforts to collect on these loans, and the government's general reluctance to introduce Phase III of the program are all indications that real cost-sharing in higher education in Tanzania has a long way to go.

Consequently, the University of Dar es Salaam remains almost totally dependent on government subventions for recurrent budgets and foreign donations for capital development. The timidity with which the government has moved toward cost-sharing—including its increasing reliance on making loans that it does not seem seriously inclined to recover—has not benefited the poor or otherwise led to expanded participation in higher education. On the contrary, access to higher education in Tanzania compared to other East African and some other sub-Saharan African countries is still extremely low, as manifested by low cohort participation rate and low total enrollments, given Tanzania's total population of 34.6 million.

The official policy of cost-sharing in higher education in Tanzania is justified on the grounds of sheer need for nongovernmental revenue for public institutions of higher education because of declining government appropriations. Furthermore, the ever-increasing social demand for higher education makes it clear that expanding access to higher education is a necessity (Ishengoma, 2004, p. 226). In short, what is needed is the strong political will to move forward, implementing these already established policies. The government and the public institutions of higher education must cultivate cost-sharing in higher education. If they do not, the universities—even the flagship University of Dar es Salaam—will remain undernourished and unable to participate as fully as it must in the expansion of participation and opportunity for future generations of Tanzanians. While as Luhanga (2003, p. 6) correctly observes that cost-sharing in higher education in Tanzania is a political sensitive issue, it remains a sine qua non for expanding participation in higher education.

Notes

1 These policies have a counterpart in the United States, which is a country not at all opposed to tuition fees, but in which some tuition-dependent private colleges and universities practice (although without always acknowledging it) "enrollment management," or what Johnstone (2001a, p. 9) calls "tilting admissions and enrollments toward students who can pay."

2 An additional question still to be examined in the larger research program, but not reported in this article, concerns access to higher education. The government of Tanzania defines expanded access to higher education as the availabil-

ity and affordability of higher education to more people than hitherto. My further research will look at the socio-economic, regional, and gender impacts of the government's early tentative steps toward the implementation of cost-sharing at the University of Dar es Salaam.

3 The first multiparty general elections were held in 1990. Probably the government did not want to give opposition political parties an agenda for their campaign.

4 The modest increase in enrollments at the University of Dar es Salaam as revealed in Table 2 may actually be even lower, due to the allegedly increasing number of forged certificates and diplomas submitted by applicants for admission into various programs. Parallel to the submission of forged certificates used for admission purposes, second-, third-, and fourth-year students have also been caught using forged certificates (Kalembo, 2003, p. 16).

5 I calculated the conversion from Tanzanian shillings to U.S dollars according to their 2001 purchasing power parity as $1 = TZS455.06.

6 The National Social Security Fund (NSSF) is an autonomous government-owned parastatal organization.

7 When I was an undergraduate student at the University of Dar es Salaam in the early 1980s a handful of privately sponsored students were in fields such as education and arts and social sciences, mainly sponsored by the Bukoba Cooperative Union (BCU), which owns a number of private secondary schools in Kagera region. For this reason, BCU had to sponsor teachers at the UDSM to staff for its schools, an arrangement that still continues.

8 Student files at the University of Dar es Salaam also revealed that some students—even those from rich and well-placed families whose parents are top civil servants and politicians (both retired and in active service)—who were admitted as self- or privately sponsored students in their first year, were offered government sponsorship in their second year after their parents requested or indirectly pressured top officials at the university and Ministry of Science, Technology, and Higher Education to do so, claiming that both parents had lost their jobs or that their businesses had gone bankrupt.

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Means Testing: The Dilemma of Targeting Subsidies in African Higher Education

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Abstract

Means testing, a form of subsidy targeting, attempts to distribute at least some higher education subsidies on the basis of need or estimated ability to pay. This article explores the major principles, approaches, and challenges as well as some of the controversies surrounding means testing, taking into account the unique context of the African continent. For example, in many African countries incomes are not only low but are also frequently hidden or partly in kind. Assets are often both minimal and extremely illiquid. These conditions limit possible cash contributions toward higher education but also make it difficult to measure and to verify the subsidies to which many families are entitled. Therefore, many developing countries complement measures or estimates of income and assets with so-called categorical indicators of need (e.g., race/tribe/ethnicity, parents' education, type of employment, secondary school attendance, possession of an automobile or access to a car driver) which are readily observable and more difficult to hide than conventional measures of incomes or assets. This article acknowledges some imperfection in these measures but argues that rough justice in estimating ability to pay is still preferable to equal subsidies for all. It concludes with some recommendations about targeting subsidies to higher education in Africa.

Résumé

L'enquête sur les revenus, qui est une forme de ciblage pour l'accès aux subventions, vise à distribuer des subventions de l'enseignement supérieu, sur la base des besoins

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ou de la capacité à payer. Cet article s'intéresse aux principes, approches et défis de base, ainsi qu'aux controverses autour du concept d'enquête sur les revenus, en prenant en compte le contexte spécifique du continent africain. Dans un grand nombre de pays africains, par exemple, les revenus sont non seulement bas, mais ils sont parfois tout simplement dissimulés, ou alors, ils sont en grande partie en nature. Les biens sont à la fois minimes et très peu liquides. Ces conditions limitent les contributions en espèces à l'enseignement supérieur, mais limitent également la possibilité de mesurer et de vérifier les subventions auxquelles un grand nombre de familles a droit. Au vu de cette situation, plusieurs pays en développement complètent les mesures ou estimations de revenus et de biens à l'aide d'indicateurs catégoriques de besoins (ex : race/tribu/ethnicité, niveau d'instruction des parents, type d'emploi, la fréquentation du lycée, possession d'une automobile ou d'un chauffeur), qui sont plus visibles et plus difficiles à dissimuler que les méthodes conventionnelles de mesure du revenu et des biens. Cet article reconnaît les imperfections de ces mesures, mais soutient toutefois que l'application de règles strictes permettant de définir la capacité à payer les prêts vaut mieux qu'une politique de subventions égales pour tous. Il conclut en émettant des recommandations relatives au ciblage des subventions de l'enseignement supérieur en Afrique.

Estimating and Verifying Family Means

Throughout the world, including the African continent, countries are turning to various forms of higher education cost-sharing, shifting at least some of the costs once borne exclusively or at least predominantly by the government, or taxpayers, to being shared, or borne partly by parents, students, and other non-governmental sources of revenue. Johnstone's article in this issue (Johnstone, 2004; see also Johnstone 1986, 2002, 2003) cites examples of this shift and presents the rationales for, or forces behind, this shift as threefold: (a) the view that having parents and/or students share some of the costs is more equitable because students (also parents) receive considerable benefits from higher education and therefore ought to bear a portion of the costs; (b) the view that tuition fees and/or bearing some of the costs of food and lodging can lead to greater efficiency and greater responsiveness in providing these expensive services; and (c) the view—especially relevant to developing countries—that there is simply no additional tax capacity (or if there were, any additional claims of higher education would be far down in the queue of unmet public needs) and that universities and other tertiary-level institutions must therefore turn to parents and students for additional revenue. In fact, the alternative to additional revenue from parents and/or students in the form of tuition fees as well as fees for lodging and food may be increasingly underfunded and deteriorating public universities and other institutions of higher education or increasingly constrained capacity or both. Such a condition would harm most severely children

of the poor and middle class who do not have the alternatives of seeking higher educational opportunities abroad or in the emerging private sectors.

In "Higher Education Finance and Accessibility: Tuition Fees and Student Loans in Sub-Saharan Africa" (this issue), Johnstone elaborates on these forces and describes the emergence of dual, or parallel, tuition fees in East Africa, as well as continuing pressure for some kind of cost-sharing in other countries as possibly the only way to expand capacity to meet some of the rapidly increasing (in sub-Saharan Africa, the virtually exploding) demand for higher education. Aside from the need to increase capacity, cost-sharing may be the only way to improve the deteriorating conditions of most sub-Saharan African universities, hold on to faculty, and generate resources to provide grants and loans that are absolutely essential if students from other-than-affluent families are to have a chance at higher educational participation. The incomes of the average family in most of Africa, however, are extremely low, and the resources available to many or most families are insufficient to meet new expectations of paying tuition fees as well as costs of student living. Thus, the advent of (or sharp increases in) tuition fees and other parent- or student-borne costs must be met with some form of targeted subsidies in the form of means-tested grants and/or loans if cost-sharing is not to preclude the possibility of higher education for the majority of families with low incomes.

At the same time, one of the very great dilemmas for higher educational policy in Africa and virtually all developing countries is means testing—determining and verifying the amount that a family can reasonably be expected to contribute toward its children's higher education. In 1988, McMahon first called international scholarly attention to the sheer technical difficulty of ascertaining and verifying incomes and assets. This limitation hampers the implementation of *means-tested,* or *need-based,* or *targeted* systems that underlie conventional financial assistance in the Organization for Economic Cooperation and Development (OECD) countries. This difficulty goes beyond the mere extent of poverty, great though it is in most of Africa. Successful means testing to preserve and even enhance higher educational accessibility in the face of increasing cost-sharing requires, first, a culture that accepts the underlying appropriateness of the expectation that parents and possibly extended families will contribute to the higher education expenses of their children, at least to the extent of the family's financial ability. But this expectation cannot be assumed in countries where these costs have traditionally been borne almost entirely by the government. A second assumption is that the culture accepts the right of the government (or of the university—which may be seen as essentially the same) to ask very personal and perhaps even financially threatening questions about incomes and assets. Third, means testing requires the govern-

ment or the university to be able to verify this underlying information despite natural incentives and abundant opportunities for families to hide income and assets from the prying eyes of the authorities. In most developing countries, all three of these conditions are limited or absent altogether. Further contributing to the difficulty of means testing in very poor countries of Africa and elsewhere are these facts:

1. There may be no effective taxation of income except, perhaps, of civil servants.
2. Many adults may be employed in second and third jobs in cash economies where relatively few accurate records are kept and where even fewer are shared routinely with the government.
3. Many families use banks seldom or not at all. Banks may also have little or no ability or inclination to link either deposits/withdrawals or interest paid on accounts to individuals and to share this information with authorities.
4. The market value of real property may not be clearly known.
5. Finally, to the extent that real property might be included in assessing financial means, there may be few ways to convert this asset to cash short of selling it. That is, the possibility of mortgaging or borrowing with the property as collateral may be limited.

In short, countries that are attempting to introduce tuition fees and other elements of cost-sharing in higher education—and that also wish to preserve higher education's accessibility to academically talented young men and women from poor and rural families—need to find a reasonably fair and cost-effective way to ascertain and verify a family's income, or the means to pay for the higher education of their children.

This article explores the underlying principles of, and approaches to, means testing and need analysis in determining the appropriate financial contribution to expect from parents, extended families, and/or students in meeting their share of the costs of higher education. This share includes costs of living as well as the institutionally borne costs of instruction.[1] We will deal first with the broad range of policies that target the delivery of both transfer payments and publicly funded goods and services to the poor. We will consider the advantages and disadvantages of assessing "need" through the self-reporting of incomes and/or assets as opposed to using categorical indicators (e.g., occupation or place of residence) as proxies for sometimes hidden or misreported incomes and assets. We will then explore "means testing" and "needs analysis" as these terms apply to the targeting of subsidies in the delivery of higher

education, focusing on the rationale for need-based financial aid in higher education, typical needs analysis formulae, and the use of categorical indicators for estimating both "means" and remaining "financial need" in low-income countries.

The second part explores means testing and need analysis as these terms apply to higher education, focusing on (a) the rationale for need-based financial aid in higher education, (b) typical need analysis formulae, and (c) the use of categorical indicators, or proxies, for estimating both means and remaining financial need in low-income countries.

We then examine the use of means testing and need analysis as used for the targeting of higher educational subsidies in two highly industrialized economies, the United States and Japan, and one less industrialized, developing economy, the Philippines, which has a heavy reliance on private higher education and so has worked hard to develop a means-testing system to target more efficiently the scarce government resources devoted to higher education. The paper concludes with some reflections and recommendations for the greater targeting of higher education subsidies in Africa.

Political and Economic Reasons for Targeting

Experience in many countries suggests that the affluent and well-connected societal groups disproportionately use and benefit from public services. Evidence supports this finding even for services that are meant to be freely available to all, including hospitals in urban centers, public primary and secondary schools, and higher education in many developing countries. The drawbacks of the universal provision of supposedly "free" public services are clear. Most countries cannot afford to provide such services universally, and this distributional impact is almost certainly inequitable (Walle, 1995). In response to these drawbacks, many studies (e.g., Atkinson, 1995; Nichols & Zeckhauser, 1982; Sen, 1995) establish the need for the increased targeting of government expenditure toward the poor. The theoretical rationales for targeting include both equity and efficiency. According to Sen (1995), "The more accurate a subsidy in fact is in reaching the poor, the less the wastage, and the less it costs to achieve the desired objective" (p. 11).

Concerns about Income-Tested Transfers

Most targeted schemes use income as the main barometer to identify the population that suffers certain deprivations. The agency or unit responsible for distribution takes steps to identify the deprived population and target it to receive the benefits. For example, in a social welfare program designed to alleviate poverty, the target population will be families whose incomes fall below the point deter-

mined as minimum income for healthy living, given such factors as family size, costs of food and lodging, and other country-specific indicators. In such an case, the head-count ratio of those below the line to the total population measures the aggregate level of poverty (Atkinson, 1995), while the total amount by which the incomes of the poor fall short of the poverty line suggests the extent of the poverty gap. Once the target population and the extent of the deprivation have been identified, the next step is to assess the distributional impact of the proposed poverty-ameliorating scheme—that is, the efficiency of the targeting. This efficiency is measured in two ways: vertically and horizontally.

Vertical efficiency refers to the accuracy and the comprehensiveness of the program in assisting only the target group (Kanbur, Keen, & Tuomala, 1995). Vertical efficiency diminishes when those who are not poor receive payments or when the poor receive excess payments. *Horizontal efficiency* is the degree to which the targeted program redresses the problem. It is measured by the ratio of the benefits going to the target group to the total benefits that would be needed for them to move above the cut-off line (Atkinson, 1995; Sen, 1995). While vertical and horizontal efficiency are both, in theory, desirable, they are sometimes in competition. For example, it is possible to achieve a high level of horizontal efficiency simply by transferring uniform benefits to all people below the poverty line, but such an achievement comes at the cost of losing vertical efficiency (Atkinson, 1995; Cornes, 1995). Such a problem is particularly serious, as Atkinson argues, where the available budget is far short of the total poverty gap—a reality in most low-income countries. An alternative, *targeted* approach, for example, would reduce these gaps by a roughly equivalent degree, thus requiring greater transfers to the poorest rather than distributing equal amounts to all of the poor.

Notwithstanding the seeming precision of using measured total income and/or measured wealth in targeting the distribution of transfers and other public benefits, income-tested transfers suffer from several problems. In theory, income-tested transfers function well if: (a) the government operates a personal income tax system;(b) everyone files a tax return; (c) the information is deemed sufficient to determine a fair payment; and (d) the administrative machinery exists to effect the payments (Atkinson, 1995; Sen, 1995; Cornes, 1995). In practice, however, most income-tested transfers are not automatic, even in high-income counties. They thus require measuring income at two stages: claiming and verification (Atkinson, 1995; Cornes, 1995). Problems related to both claiming and verification include the huge administrative cost associated with audits, creating penalties to be imposed in cases of income underestimation or deliberate deception, and requiring employers to perform the laborious chore

of collecting and documenting their employees' current income. Thus, employers tend to discourage potential recipients from claiming the benefit.

An alternative approach to simplify the process is to maintain a given payment for a longer period of time—that is, to establish both the overall eligibility for, as well as the appropriate amount of, the income transfer only infrequently, as opposed to continually "fine-tuning" eligibility and benefits to fit the changing financial circumstances of the targeted individuals. In such a system, however, the benefits paid will not necessarily remain proportional to either current income or the current need. The use of past earning-periods also inevitably means that some current recipients would not have qualified on the basis of their current circumstances (Cornes, 1995). However, such simplification may reduce the administrative costs (which are sometimes greater than the costs of the transfers themselves), thus theoretically increasing the resources available for the pool of transfer benefits.

Irregularities and distortions of information, according to Sen (1995), will inescapably allow some individuals in income-tested transfer schemes to gain targeted benefits they do not deserve and may similarly exclude some deserving recipients from obtaining the benefit at all. But even without such misinformation and misrepresentation of information, income-tested transfers can lead to distortions of one's economic behavior. This possibility occurs when benefit eligibility is based on a factor that is not only readily available but also capable of manipulation. Examples are working and earning only enough to maintain the benefit, shifting some remuneration into another "benefit year" or to another member of a family unit, or shifting from monetary to nonmonetary forms of remuneration. Such activities, not technically illegal, can diminish the efficiency of the targeted scheme and become a labor disincentive in the economy as a whole (Schultz, 2001).

Means Testing and Categorical Indicators

Fortunately, income is not the only indicator for assessing means or determining need. Indicators other than income are referred to as *categorical* indicators. A categorical approach generally employs multiple indicators to supplement whatever is available on income and assets and to maximize the social objective for which the transfer schemes are designed. Categorical indicators, for example, might include occupation, type of housing, region of residence, automobile ownership, family size and age of children, gender, ethnicity, and other characteristics that are not only relevant in estimating means and need but which may also enable the system to target beyond means for additional social purposes. Some examples of such targeting would be ethnicity, language, region, single parenthood, or other attributes that the government chooses

to assist. Such indicators have the additional advantages of being difficult to manipulate (hence, less susceptible to corruption) and relatively easy to observe (hence, less costly to measure). As such, categorical indicators can be used either as an alternative or as a complement to income testing. In practice, Cornes (1995) notes, almost all means-tested schemes are conditional, not just on income, but also on satisfying certain categorical criteria.

As useful as they are in supplementing the information obtained through determining or estimating income, categorical conditions have their own problems. Imperfect targeting, for example may arise either from a loose connection between the categorical indicator and the benefit or social program (e.g., family size or place of residence and eligibility for welfare benefits), or from errors or ambiguities in identifying the categorical indicator itself (e.g., place of residence or ethnicity). These imperfections may lead to false negatives, or Type I errors, resulting in the exclusion of eligible families. They can also lead to false positives, or Type II errors, resulting in benefits awarded to families or individuals who are not in need and who ought not to have been eligible (Atkinson, 1995; Sen, 1995; Walle, 1995).

Another problem is "incomplete take up," or the failure of eligible recipients to claim the income transfer or other public benefits to which they are entitled (Atkinson, 1995; Kanbur, Keen, & Tuomala, 1995; Sen, 1995). Potential recipients may simply lack information about their entitlements, or they may be aware of their entitlements but choose not to make the claim—for example, if they regard the status of "welfare recipient" as "stigmatizing."

Notwithstanding these problems, adding categorical indicators to information on income and assets can still increase efficiency and accuracy. Atkinson (1995), for example, advocates linking measures of income/assets to categorical conditions of age, gender, illness, social surroundings, and the like. Thus, assessment would go beyond personal income alone in measuring whether potential recipients have the capability of functioning (or not) in society. Sen (1995) claims that using a broad set of categorical measures may ease some of the practical and political problems associated with targeting because of:

- *The frequently lower manipulability of observed functioning.* Some elementary deprivations (illiteracy, illness, etc.) can serve as categorical conditions because neither reason nor choice allows their deliberate cultivation on tactical grounds.
- *The fixedness of predispositional characteristics.* The causal factors underlying some functional deprivations can go much deeper than income deprivation and may be very hard to adjust (old age, gender) and are not open to incentive effects in the way adjustable features are.

- *The usefulness of self-selection.* There is particular value in using a method of targeting that allows the individual to weigh different life-related considerations and opportunity costs beyond income.
- *The nontransferability of benefits tied to personal functioning.* Unlike income, most service benefits typically cannot be shifted nor sold and hence are not of much use to those who do not need them.

Even supplementing income/asset measurements with categorical indicators does not solve all of the limitations of subsidy targeting, and the search for workable approaches is a continuous exercise—one which is just beginning in only a few developing countries.

Complications in Applying Means Testing to Targeted Subsidies

Using a parental/family means test to determine eligibility for targeted subsidies in higher education presents special complications in all countries, particularly in developing countries. These difficulties are not fatal to the concept of cost-sharing or to determining workable indicators of parental and/or student means. However, even in developing countries, each of these (and other) complications needs to be taken into account and addressed in some way. This section considers four complications in applying means testing to targeted subsidies: (a) the treatment of assets, (b) official limitations on the family's financial responsibility; (c) stipulation of the parental/family unit deemed financially responsible; and (d) the effective tax rate, or relationship between the increasing financial means of the parental/family unit and the increase in the expected contribution.

Treatment of Assets

Assets, or wealth (over and above current income) may occur in the form of savings, investments, or ownership of a home, business, or farm. Such assets contribute to parents' and/or student's financial strength and to their presumed ability to contribute toward the costs of higher education. Thus, such assets are frequently part of a means test for the targeting of subsidies. However, the correlation between income and assets is far from perfect; and including assets in the determination of means—and thus in consideration of how much the parent or student is expected to contribute toward college costs—can be highly controversial. Furthermore, the consideration of assets in determining the expected parental/family contribution, while almost always controversial, can be used in three quite different ways.

First, insofar as assets in most cases correlate reasonably well with current income, measuring assets can corroborate other measures of income and pos-

sibly even signal unreported income. Whether an asset is a reasonable indicator of current income or ability to pay may depend on the culture and the economy. For example, ownership of an automobile, a television set, or a personal telephone in an otherwise low-income country might be considered at the very least a signal of high means and the likelihood of a commensurately high ability to contribute something toward higher education expenses, even though such assets in moderate and high income countries might be considered virtual necessities and bear almost no relationship to current income. Also, the values of homes and agricultural land may be pushed up over time by a rising market far in excess of any rate of increase in the family's earnings—and thus in excess of the family's actual ability to contribute from current earnings without being forced to sell the home or farm.

In developing countries generally, and especially in Africa, such assets are especially illiquid—that is, not easily converted into the cash necessary to actually pay college costs—at least not without selling the asset and destroying or severely diminishing the home or means of livelihood. However, given that measures of current income are notoriously unreliable in developing countries, using assets to at least corroborate current income and overall means to pay may be very helpful. Real property is more difficult to hide than liquid assets, which can be held in an unreported account in another country. It is true that asset measurements may also be unreliable, especially where assets can be hidden from authorities and where there has not been a free market in operation with enough transactions to establish proper valuation of assets. However, a combination of several unreliable measures may still be better than relying on only the single unreliable measure of current earnings.

Second and more important—but also the source of considerable controversy—sufficient assets, especially investments and other liquid forms of savings, may not only corroborate reported current income or earnings but may in fact be assumed to be part of the actual parental contribution. In such a targeted cost-sharing system, it would be assumed that a portion of the family's assets could be liquidated, or cashed in, to supplement some portion of current income, thus paying the expected parental share of the dependent child's higher education expenses. This assumption poses a special problem in the case of assets that are not only highly illiquid but which may also consist of the family home, farm, or business.

In means testing in the United States, such assets are either excluded altogether or their value is counted only after a considerable exemption. For example, the official U.S government means test known as the "federal methodology" ignores all assets for families with income under $50,000 and excludes home equity from consideration altogether. In contrast is the "independent

methodology" used by many of the very expensive private colleges and universities for their own grants and price discounts. Operated by the independent, nongovernmental College Board, this method considers all liquid and nonliquid assets, including home assets for all applicants for financial assistance (Baum, 1999; Creech & Davis, 1999; Lind & Gilroy, 1997).

Very different philosophies underlie these two approaches (Baum, 1995; Creech & Davis, 1999). The federal methodology asserts the principle that homes and family farms are nonliquid assets, the consideration (or effective taxation) of which might require families to liquidate these assets, thus disrupting their lives in unacceptable ways to finance their expected share of their children's higher education costs. In contrast, the College Board's independent methodology asserts that both assets and income contribute to the family's financial strength independently and that a family that has chosen to hold its assets in the forms of home ownership ought not to be treated more favorably (i.e., assigned a lower expected parental contribution) than a family that has chosen to rent its home and to hold most of its assets in the form of savings or investments that are presumably easy to liquidate. (In fact, the ease of refinancing, or arranging for a second mortgage, in the United States means that a family owning its home should not have to sell it to meet an expected parental contribution that has been influenced in part by the home's value.)

Considering the political unpopularity of cost-sharing, it is politically tempting to exclude or at least to greatly discount real property in means-tested targeting and to consider only the most liquid of assets, such as savings. However, a case can also be made for excluding savings earmarked explicitly for the children's college expenses. The rationale for such an exclusion is that the consideration of such special college savings will usually increase the parent's expected contribution and diminish the chances, or the amount, of any targeted subsidies. Thus, the exclusion of savings made explicitly to contribute to the children's future higher education expenses may enhance the incentive for such savings. And as the parents' share of higher education costs (especially private higher education costs in the United States and elsewhere) rises beyond the amounts that can reasonably be expected to come from current family income—and even beyond the amounts that can be expected from current plus future income (that is, from parental borrowing)—most parents expecting to contribute financially to their children's higher education must begin saving for these future college costs far in advance of the actual event (that is, also from past income). While such considerations may seem distant to most African countries, they must still be considered and resolved before the effective implementation of any comprehensive means-testing system.

A third way in which assets may enter into the consideration of family means, or the ability to contribute financially toward the children's higher education expenses—anticipated in the preceding paragraph—is the ability of assets to support borrowing. This factor is especially critical in the United States and a few other advanced industrialized countries (AICs) where officially expected parental contributions can be extremely high and where borrowing is relatively simple and inexpensive given good collateral like a home or similar assets.

In other words, the real property allows the family to make contributions not simply out of current income (which diminishes current living standards) or even out of past income (which depends on savings that may or may not be there, or upon the sale of the assets, which may be disruptive), but also out of future income (or the capacity of current assets to collateralize borrowing). Thus, many U.S. families borrow to meet at least some of their calculated expected parental contribution; and the least expensive way to borrow is to provide assets as collateral, as in refinancing a home. However, home mortgaging (not to mention second mortgaging) is simply not a part of the economy or the culture in the developing world, and the home, farm, or small business of a Ghanaian or a Kenyan family probably cannot be collateralized for a loan at an acceptable rate of interest. Therefore, we are back to the question of what including home or farm equity in the means test is meant to accomplish. In the absence of the ready ability to convert such assets to cash, their usefulness may lie mainly in the first rationale: using multiple measures of assets, including real property, to get a truer picture of total means and to signal serious underreporting of current income.

Limiting Parental Financial Responsibility

The bedrock of cost-sharing in most countries where it is official policy lies in the expectation of a means-tested parental contribution to the higher educational expenses of their children. In such cases, the student, at least for the purpose of establishing this officially expected financial contribution, is still considered a financially dependent child. (The exception is Scandinavia, where university students are automatically designated as financially independent and where the cost-sharing applies only to the student, generally by government-assisted borrowing.) However, it is clear that the official expectation of a parental financial responsibility, even in the case of affluent parents, must have a limit—some point at which, or circumstances under which, the student can be considered financially independent regardless of his or her parents' financial means. At this point, whatever targeting exists with respect to financial assistance or eligibility for other targeted subsidies would apply only to the

students' income and assets (or sometimes to the income and/or assets of a spouse).

For example, the limit on the parental financial responsibility might last through the first degree only, or only to a certain age of the child, or to the point of marriage. In the United States, the rules for receiving means-tested grants and guaranteed loans from the federal government automatically convey independent status for graduate and professional students, married students, veterans, orphans, wards of the court, individuals with legal dependents, and students over age 24 (Dick & Edlin, 1997). Determining independent status in other countries, such as the Philippines, New Zealand, or Japan is, by and large, consistent with the above criteria.

Policies dealing with such a need for a limit also respond to instances in which the parents may simply refuse to contribute. (In Germany and Austria, the expected parental financial contribution to their children's higher education expenses is a legal obligation, enforceable either by the children or by government authorities.) Policies also need to acknowledge that many students want to be considered "independent"—even though such students are generally not financially independent at all but merely prefer dependence on the government (that is, on other taxpayers) to financial dependence on their parents. In short, any targeted subsidy system built on an expected parental contribution must establish rules for when a student may be considered independent—that is, no longer dependent on his or her parents regardless of their financial means.

Stipulating the "Parental/Family" Unit Responsible

In advanced industrialized countries, targeting is based on the means (however defined) of the immediate, or nuclear, family, and effectively considers the current incomes and assets of the parents and student. This situation gets complicated when the student wishes to declare financial independence from the parents, as discussed above. In AICs, the principal complication is the status of the noncustodial parent in legal divorces or separations. Again, such situations are fairly easy to resolve through clear stipulations in the policies governing means testing and need analysis. The most typical situation is defining the financial responsibility of an absent father: Should the "family means," which determines eligibility for grants, loans, or other subsidies, include the income and assets of noncustodial parent? Are the authorities prepared to take legal action against the noncustodial parent who has sufficient means but who refuses to acknowledge any financial responsibility for the higher education expenses of the children?

In African countries and other less industrialized countries, especially in rural or nonmetropolitan regions, stipulating the appropriate unit for calculating the expected family contribution to higher education expenses may be even more complex. Frequently, financial responsibilities are shared within extended family units that may include not only several generations, but also the combined families of siblings.[2] Conceivably, in very early periods of higher education participation, only one youth from a small village may be fortunate enough to attend the university. Even if the government pays the tuition, it does not always pay living expenses. Anecdotes report that sometimes the village assumes financial responsibility, thus complicating systems of means testing.

Again, these matters can be resolved simply and in any number of ways. But they must be resolved officially and in written form, even in developing countries just beginning a means-tested system of financial assistance to higher education students.

Officially Calculating Means and Subsidies

A means-tested subsidy is a benefit (e.g., a grant, tuition fee discount, or access to a subsidized loan) that is targeted to families or directly to students with minimal means. The system may provide a benefit to which the student/family unit is either entitled or is not. Or the system may call for benefits that rise with the diminishing calculated family means. Or from the opposite perspective but with the same meaning, the system may call for a grant that diminishes with increasing incomes or measured means. A system in which the student either is or is not entitled to the full benefit has the advantage of being simple to calculate and easy to dispense. At the same time, such a system places great financial stakes on entitlement status, especially when the calculated means are close to the "tipping" point. The incentive is thus very great to shift incomes or earnings out of the period upon which the entitlement is to be based or even to suppress or fail to report income altogether. Finally, vertical equity is compromised, with many families of quite different means being entitled (or not) to the same benefit.

Therefore, the more ideal and equitable means testing provides a more continuous relationship between the officially calculated financial means of the parental or family unit and the value of the means-tested grant (or conversely, the size of the expected family financial contribution). Such a targeting system, then, resembles an income tax in which, at least between some maximum grant (or minimum family contribution) and a phase-out of the grant altogether (or maximum family contribution), there is a defined relationship between increases or decreases in calculated means and increases or decreases in the

grant or the effective fees. This system has the advantage of reducing the incentives to alter the calculated means near the tipping point, thus providing what is probably a more equitable system of targeting. At the same time, such a system is also complex and implicitly rewards income shifting or underreporting for all of the families eligible for some financial assistance or discounted fees, not just those near the tipping point.

As a practical matter, developing countries just beginning a system of cost-sharing and targeted subsidies may have to implement the simpler system: the "rough justice" by which a student either is or is not entitled to the subsidy. Along with improvements in the calculation and verification of means, however, such countries might attempt to institute a more sophisticated system with a more continuous relationship between the calculated means and the targeted benefit.

Examples from Three Countries

The principles of means testing and need analysis may be illustrated by considering means testing and need analysis as these policies are applied in three quite different countries: the United States, Japan, and the Philippines, each of which has considerable experience with cost-sharing and the targeting of higher education subsidies. The United States, for example, enjoys relatively high individual incomes plus highly developed systems of income verification and the enforcement of income tax obligations, which in turn have created a culture of high income tax compliance. Upon these factors, a system for means testing can be built rather easily. Such systems begin with determining what constitutes income. This determination requires differentiating between gross and net income, mainly by deducting expenditures incurred to earn the income. It thus more nearly and fairly equates the incomes of salaried employees and wage earners (which can be reported with presumed accuracy by the employer) with the more variable incomes of farmers, artisans, independent contractors, and other self-employed workers.

The United States also has systems of capturing, as well as cost-effectively reporting and monitoring, "unearned income": e.g., dividends, interest, capital gains on sales of assets, and even winnings from gambling. Finally, because of a free market economy and many years of transactions, market prices have been established for virtually all individually held major assets such as homes, businesses, and farms—allowing a means test to employ assets in addition to income or earnings for the more complete determination of financial ability to pay. In short, parental means can be determined quite precisely from the records used to pay individual income taxes, since these records contain much finan-

cial information on assets in addition to earnings. Consequently, there is no need to employ categorical indicators as proxies for measured means, although categorical indicators are still useful in complementing income and asset measures, such as, for example, the number of dependents in the household and the number of dependents already in college (Atkinson, 1995).

Japan also has a highly developed economy along with a well-developed and relatively efficient income tax system that can be tapped for indicators of means in determining eligibility for means-tested grants and subsidized loans. Means testing in Japan assesses income broadly, treating salaried and nonsalaried incomes differently and including income earned by any member of the household. This category includes any unmarried member of the family including siblings living separately. These indicators of income and assets (including home equity) are combined with various categorical indicators—such as number of household members, disabilities, unusual medical expenses, and the like—to determine family means and eligibility for certain targeted subsidies (Japan Scholarship Foundation, 2000).

The Philippines, a developing country with limited resources, has the highest proportion of students served by the private higher education sector of any country. It suffers from many of the same problems as Africa and other low-income countries, including the uneven taxation of income, a prevalence of employment in the informal economy, and a lack of transparency in many financial transactions. The Philippines thus relies on a combination of reported income and assets, plus a range of categorical indicators, together with rigorous verification of these reports for the distribution of student financial assistance. For example, in addition to the usual requirement to report taxable income, home equity, and other liquid and illiquid assets, households making a case for targeted subsidies are required to submit major bills (e.g., water and electricity), their mode of daily transportation (including the availability and type of any vehicle), type of high school completed by the student, major appliances and facilities (e.g., TV and washing machine), and any private life insurance. These categorical indicators are used partly to complement or adjust the reported measures of incomes and assets—presumably for a more refined and equitable measure of ability to pay—and partly as independent indicators to corroborate reported income and assets (or to signal likely underreporting). (CHED, 2001).

Means Testing and Need Analysis in Low-Income Countries

Some details of the need analysis systems described above may be less applicable to very low income countries, including many in Africa. Such countries typically lack not only reliable and verifiable information on incomes and as-

sets, but also lack information on some of the categorical indicators that may be used to support targeting or to verify the self-reported data on means. Subsistence agriculture, on which the economies of most of these countries are based, coupled with scattered and unplanned settlement patterns and underdeveloped communication systems, make the task of tracking the income and/or assets of potential recipients exceedingly difficult. Therefore, determining eligibility based on these indicators becomes less feasible. Under these conditions, especially early in the use of government-sponsored targeting, whether for higher education or any other subsidies or benefits, it may be necessary to rely mainly on rough and easily observable categorical indicators. Observers such as Merisotis and Wolanin (2002), who have done work in Mozambique, and Schultz (2001), suggest the following indicators to approximate need among applicants in low-income countries.

1. *Race, ethnicity, sex, tribe, caste, and related attributes.* The rationale for using these attributes is the historical underrepresentation of certain ethnic groups in higher education and the need to redress such disparity. Data may be obtained from the enrollment records of ministries and the universities. The population census may also help to identify linguistic and ethnic groups whose participation in higher education is far below the national average. Implementing such policies, however, requires working closely with local and regional governments, both to justify the rationale of the policy and to identify the right group that deserves the benefit package. Identifying and verifying ethnic and/or linguistic groups in the multilingual/multiethnic countries of the African continent is not only politically controversial but is also technically exceedingly difficult. A particular problem is forged documents that undeservedly identify individuals as members of the underrepresented ethnic groups.
2. *Parents' education.* Children from educated families disproportionately reap the benefits of higher education. For example, Mayanja (1998), reports that children from the best-educated parents are most likely to enjoy the benefits of free higher education at Uganda's Makerere University. Unlike income, which is subject to manipulation, educational level is nonadjustable and will not have a disincentive effect on labor (Shultz, 2001).
3. *Regional targeting.* The rural populace generally has limited access to basic primary and secondary education and is therefore underrepresented in higher education. Farming families may experience too-high opportunity costs if they allow older children to go to school. Finally, trans-

portation and living expenses are higher because the student cannot commute to a college or university from the home. All of these factors can restrict participation in higher education. Using this criterion will thus help to identify an underserved sector of the society.

4. *Type of employment.* Type of employment—e.g., civil service, farmer/herdsman, small business owner, hourly wage laborer, etc.—is not a precise predictor of ability to pay, although certain readily identifiable and verifiable employment types might help exclude professions from entitlement to targeted subsidies in the absence of other high-need indicators. For example, most salaries from civil service, private employment, nongovernment organization, or nonprofit entity jobs are almost always sufficiently high to appropriately exclude the family from automatic entitlements, including need-based grants for the children's higher education. Placing the burden of proof upon such families to demonstrate why they should nevertheless be entitled to targeted aid should considerably reduce the inappropriate assignments of such aid.
5. *Secondary school attendance.* Where demand for higher education far outstrips capacity—which is the case for most of Africa and most developing countries—entrance to higher education is extremely competitive, and parents who have the financial means frequently send their children to elite secondary schools and invest considerable resources in tutorial and other preparatory programs. Conversely, the children of low-income parents have no option but to attend the generally lower quality rural high schools, which give students little chance to qualify for postsecondary admission. Mayanja (1998) writes that in Uganda, the lion's share of the performance-based subsidy in Makerere University goes to students who come from high-fee-charging "first world" schools. Similarly, a significant number of students who enjoy free higher education in Ethiopia went to prestigious private secondary schools. Thus, data on the type of secondary school completed can provide a fairly good picture of parental affordability in low-income countries. Indeed, using this criterion has both political and economic justifications. Among other things, enforcing these criteria means that parents who have managed to pay for their children's secondary education may have a greater stake in paying for their higher education.

The Special Case of Foreign Remittances

A complication in many developing counties, and especially in many African countries from which large numbers of the most educated and productive have emigrated, is the treatment of remittances: income (and occasionally assets

such as automobiles) which are sent back to families from temporary or permanent émigrés now working in high-income countries such as the United States, Europe, Saudi Arabia, Japan, or, increasingly, South Africa or even Botswana. Remittances raise all of the complications of asset inclusion, income verification, and the determination of the appropriate family unit. Foreign remittances are particularly likely to be hidden—not only because most income, or at least most high income, is apt to be hidden, but also because foreign remittances are more likely to be implicated in tax evasion or black market transactions. Also, foreign remittance may well be nonsustainable and hence not able to be counted upon.

However, while the majority of beneficiaries of foreign remittances will probably hide the actual amount and even the sources of their good fortune, they are not likely to continue to lead the kind of visibly destitute life that would result in receiving the maximum higher education subsidy. Rather, those receiving remittances nearly always invest in better homes, cars, or business opportunities. Thus, they are likely to join those whose ability to pay is determined, or at least revealed, by their visible assets or lifestyles. Many Africans who depend heavily on foreign remittances appear to be spending this new income on personal property, business investments, and on various alterations in lifestyle (including sending their children to expensive private schools), all of which makes them stand out in their communities and stand out in contrast to the backgrounds they had occupied only a few years before a close relative emigrated.

Examples of Means Testing in Africa

In Mozambique, parents are required to submit information about household income and assets. According to Merisotis and Wolanin (2002), this income/asset information is supplemented with categorical information on parents' occupation, whether the home has running water and/or electricity, and the principal mode of family transportation (e.g., car, public transportation, car and driver provided by business or government agency, etc.)

In Uganda, several proxy variables are used to signify income and determine ability to pay for higher education. The father's level of occupation and the mode of transportation used are the major barometers to classify students among three income groups (Mayanja, 1998).

Classified as high income are families with professional fathers who have more than 15 years schooling (i.e., first degree or above); businessmen fathers with private or official vehicles; and professional fathers with 15 years or less of schooling but with a personal or official car.

Classified as middle-income families are those whose fathers are professionals with 15 years or less of schooling but with cars and businessmen and farmers with no personal or official vehicles. Classified as low-income families are peasants and those who are not employed.

The use of such social or categorical indicators in determining the family's ability to pay is not without its problems. First, it is very labor-intensive to verify the accuracy of the information obtained. In addition, as discussed earlier, some social, or categorical, indicators are either highly subjective or may bear only a tenuous connection with ability to pay, making them of little use in determining ability to pay in fine degrees, or on a continuum. In such cases, they are useful mainly in determining whether the family has either no ability or some ability to pay (Merisotis & Wolanin, 2002).

Still, the social, or categorical, indicators are useful and their weaknesses can also be minimized. For example, limiting verification to a random sample of those who apply can minimize the high costs associated with verification, as in any audit. However, the efficacy of sampling, or spot-checking, according to Merisotis and Wolanin (2002), depends on the severity of the penalty for cheating. Arguably, publicly exposing those who cheat in the media, for example, and making them subject to social sanctions could minimize the problem. However, since social sanctions are culture bound, exposing someone for cheating the government would be met with indifference in some contexts.

Conclusion

With limited or nonexistent information on either incomes or assets, with no cultural tradition of voluntary disclosure of such information, and with little risk of sanctions for underreporting, the difficulties of creating reliable, verifiable, and cost-effective systems for means testing in developing countries are formidable. To some, these difficulties are so formidable as to preclude most forms of subsidy targeting, including means-tested grants and loans for higher education. The near absence of successful cost-sharing in virtually any African country (with the exception of South Africa, which is an exceptional African country in most ways), seems to support a conclusion that cost-sharing will remain a distant goal, forever frustrated by the combination of political, ideological, and technical obstacles. The paucity of African examples of successful means testing conforms to the paucity of successful African examples of loan recovery or successful adoption of even a modest tuition charge applicable to all students (again, with the exception of South Africa).

At the same time, the prospect of meeting the rising costs of the rapidly increasing African demand for higher education with only public revenues seems even more remote—making some cost-sharing and subsidy targeting in

African higher education, however limited, an imperative. Thus, we conclude that African and other developing countries must continue to work at systems of means testing and targeting in providing subsidies for higher education and other social services. Because we cannot point to a genuinely successful and generally replicable model in Africa, we offer these summary conclusions based on our understanding of means testing in the developed world and on the limited experiences with subsidy targeting in Africa. We hope that they might be helpful to countries attempting to devise schemes of means testing and subsidy targeting in pursuit of greater and more equitable access to higher education.

First, means testing in developing countries must combine: (a) voluntary reporting of income and assets, with (b) some stipulated set of verifiable categorical indicators, or attributes, both to measure additional capacity to pay and also to corroborate the voluntary reports and other measures of income and asset values, enforced by (c) a system of random sample verification, and (d) appropriate and enforceable sanctions.

Second, all means-testing schemes—even those used in AICs like the United States—involve compromises and imperfections. The means-testing schemes even conceivable in Africa, particularly at this initial stage, will be imperfect and will involve compromises on both of the essential goals: equity and efficiency. At the same time, experience from developed nations suggests that a thoughtful, comprehensive, and transparent policy, even in the absence of all of the supporting data, traditions, and systems that have existed for decades in many of the OECD countries, can minimize those avoidable imperfections in means-testing schemes that emerge simply from the failure to have thought through the kinds of complications we have discussed in this article and to have devised some—any—clear and workable resolution.

For example, the issues surrounding the treatment of home or farm assets have lots of resolutions—all of them technically complex and most of them either politically unpopular or fiscally unworkable (and some both). But the only completely unacceptable and truly costly one is no resolution at all: pretending that it does not matter how assets and incomes can be transformed from one to another, producing an outcome that is unpopular and unfair and unsuccessful in diversifying higher education's revenue. In other words, targeting schemes that fail to foresee potential perils are no better than untargeted schemes and are hardly defendable on the grounds of either equity or efficiency.

Third, means-testing and/or need analysis schemes need not be perfect, but they must be clear and predictable. In the end, a truly effective and efficient system of targeting must rely substantially on voluntary participation and com-

pliance. This in turn requires people to believe that the system, however much it may disadvantage them, is (a) essentially fair and (b) unacceptably costly to evade or misrepresent. Such an outcome calls for systems that are not only predictable and clear but that actually convey confidence and motivation. The inevitably complex and imperfect multiple indicators and verification procedures have the inevitable potential, not only to anger the politically powerful, but also to discourage low-income and ethnic or linguistic minority parents and students from beginning or completing the application procedures. Under these circumstances, clarity and predictability are essential. Equally important is providing technical assistance for needy families to fill out the applications. Such assistance will increase the cost but is justified in helping to assure both the vertical and the horizontal equity of higher education subsidy targeting.

Fourth, the development and especially the implementation of cost-sharing and targeting schemes require adequate participation with local constituencies, including religious authorities, local governments, community organizations, and cultural groups. For example, stipulating the appropriate family unit needs to be sensitive to cultural and religious mores, including the acceptance, for example, of the practice of polygamy. A workable and enforceable scheme for determining expected family contributions, then, must go beyond the central government to the grassroots constituencies—both to solidify political acceptance of policies that are almost inherently unpopular and also to appropriate local mechanisms of verification and enforcement.

Fifth, a workable and cost-effective scheme of cost-sharing accompanied by means-tested student financial assistance requires the participation of a host of existing government agencies extending far beyond the higher education ministry. These include ministries and agencies involved in secondary education, tax collection, the census, immigration, the postal service, welfare and other social services, and other agencies at both the central and provincial levels. All of these agencies and their top government officials and civil servants have their own, often overwhelming, problems. The formation and successful execution of a scheme of cost-sharing and revenue diversification requires a strong and committed government.

The stakes are high for institutions of higher education, for the students, and for the larger society. In the end, cost-sharing, revenue diversification, targeting, and means testing are merely devices to serve the much larger goals of higher education itself: the creation and preservation of knowledge, the foundations of a democratic civil society, the training of a productive workforce, the realization of individual potential, and the assurance of social justice.

Notes

1 "Means testing" and "need analysis"convey slightly different meanings to the same policy end. As used in this article, "means testing" refers to various schemes used to determine a household's or individual's ability to pay for higher education, generally including estimates of current income and major assets such as a home, a farm, or investments. "Need analysis" refers to estimates of the financial need remaining after subtracting an estimated family/student contribution (based on the means test) from the total cost of higher education attendance counting all fees as well as food, lodging, and other costs of living.

2 The tradition of polygamy in many parts of Africa is a further complication. Not only do polygamous families have many children, but many of these children are close in age, potentially requiring higher education almost simultaneously. At the same time, anecdotal evidence (some from francophone African graduate students) suggests a close association between polygamy and family wealth (land, cattle), making polygamy a possible signal of other substantial assets and current income. Thus, although these families have high needs, they may also simultaneously have high ability to contribute to their children's higher education.

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