adults.

In terms of mismatch of levels, debate about unmet demand focuses on undergraduate places, yet much of the supply of international on-line higher education involves postgraduate courses. Presumably, market research shows that it is students seeking postgraduate courses who have the ability to pay.

At the UK e-University, a newly established initiative, the first courses will be at the postgraduate level. The continuous market research by Universitas Global appears to be pointing to a business model involving postgraduate courses.

Similarly, a national survey at Australian universities in 2001 found that 90 percent of "fully on-line" courses were postgraduate. Yet this does not reflect the shape of flexible provision in Australia. In 2000, 64 percent of the Australian students in flexible learning programs and 59 percent of the international students in these programs were undergraduates.

With convergence of modes of delivery, flexible learning is being used to enable a university to teach its standard profile. Once enough universities offer their standard profiles on-line, the dominance of postgraduate on-line course offerings will be seen as an aberration.

With regard to the lack of a quality assurance framework, the yearning is for an international quality framework to ensure that foreign students can be confident that they are getting a quality higher education.

Presumably, market research shows that it is students seeking postgraduate courses who have the ability to pay.

The Observatory on Borderless Higher Education describes genuine borderlessness: a U.K. university providing a degree on-line through a U.K. private company, utilizing a portal in Singapore and a support center in Bahrain. It would be an interesting global quality assurance and accreditation framework that encompasses such an example of on-line higher education.

Responsibility for quality assurance must be on the provider to ensure that the on-line program is at least equivalent in standard to the same program at the home institution, to ensure that the program is effective in achieving its educational objectives (the common test of quality), to have in place a quality assurance system, and to commission independent third party evaluations of its on-line programs.

Responsibility for quality assurance must be on the provider to ensure that the on-line program is at least equivalent in standard to the same program at the home institution.

Conclusion

Universities see new technologies as providing delivery to any student, anywhere, at any time. Flexible delivery is being used as much to solve on-campus problems as to provide off-campus access. Face-to-face, distance, and open learning modes of delivery are converging, and the boundaries between these modes are blurring. The demand for e-higher education is seen as a subset of demand for higher education. Perhaps more accurately, on-line delivery is a mode for supplying higher education. In this context, there is logic in the extent to which e-learning is being supply driven by institutions.

This article is based on the report E-Learning in Asia: Supply and Demand, prepared by Alan Olsen for the Observatory on Borderless Higher Education, www.obhe.ac.uk.

Cost Sharing and Higher Education Access in Southern and Eastern Africa

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A 10-nation conference, "Financing Higher Education in Eastern and Southern Africa: Diversifying Revenue and Expanding Accessibility," was held in Dar es Salaam, Tanzania, in March 2002, cohosted by the University of Dar es Salaam and the International Comparative Higher Education Finance and Accessibility Project of the State University of New York at Buffalo. The conference was funded by the Ford Foundation. The full report of the conference is available on the website of the University at Buffalo Project at: http://www.gse.buffalo.edu/org/IntHigherEdFinance/. The following article is based on this conference.

The policy of cost sharing in higher education dis (or taxpayers), parents, students, and donors. Businesses may be viewed as an additional party to cost sharing, but because business's share is generally just passed on to consumers in the form of higher prices, the *incidence*, or ultimate burden, of a so-called business share becomes rather hard to distinguish from a general sales tax—or even from the inflationary incidence of deficit spending. Most, but not all, of the world is moving in the direction of greater cost sharing, in the form of an increase in the shares borne by parents and/or students and a relative reduction in the shares borne by government (or by taxpayers and consumers). Moving toward greater cost sharing can take the form of introducing tuition or increasing existing tuition rates, imposing almost "breakeven" charges for student dining and lodging, reducing non-means-tested student stipends (and improving repayment collection on student loans), and encouraging a tuition-dependent private sector.

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The Necessity of Cost Sharing

Participants at the Dar es Salaam conference generally agreed that cost sharing in some form is imperative for African higher education. The handful of African universities—including the University of Dar es Salaam and Uganda's Makerere University—that have introduced cost sharing measures seem to be recovering from the catastrophic defunding of higher education in most of Sub-Saharan Africa.

Tuition fees may be considered equitable when higher education is partaken of by a minority—and disproportionately by the children of more affluent parents. An even more compelling—and less ideologically contestable—rationale for tuition fees was identified as the sheer need for revenue, stemming from the enormous and rapidly increasing demand (and need) for higher education and from the likely inability of the taxpayers to meet the expanding revenue needs. This is

so not only because of the difficulty of taxation, but even more because of competing public demands on the same scarce public revenue.

Cost sharing is also more acceptable in the presence of programs for meanstested grants and student loans.

Conferees stressed that the principal source of higher education funding must continue to be the government, or taxpayers, and that cost sharing must be seen as a way to supplement this revenue. The principal beneficiaries of cost sharing must be future students (and therefore the society), rather than the universities, university leaders, or university faculty. Likewise, university budgets must be transparent and generally perceived to be "appropriate" for the introduction of costsharing to be politically acceptable. Stakeholders especially students and their families—need to see that the university has cut costs, become as efficient as possible, and has taken steps to "distribute the pain" of the inevitable shortfall in revenues. Opposition to cost sharing is most vocal in a climate of underlying mistrust of government and university leadership.

Means Testing

Cost sharing is also more acceptable in the presence of programs for means-tested grants and student loans. Means testing is difficult in the absence of verifiable measures of family income and family assets—a situation that characterizes nearly all of sub-Saharan Africa. Therefore, estimates of "family financial means" and "family financial need" will probably have to be used with sufficient auditing and penalties for misreporting, to yield acceptable levels of compliance. Such estimates might include the parents' occupations and education levels and whether the family owns a car or is entitled through a job to a car and driver, has running water, is from a remote region, or belongs to a linguistic, ethnic, or other historically disadvantaged population. Countries are presently experimenting with such measures. Communicating experiences will help policymakers arrive at and share fair and cost-effective methods of judging "family financial need."

In any move toward greater cost sharing, special attention must be shown to the family's willingness to support the higher education expenses of daughters as well as sons. More study is needed on the extent and nature of the problem, and care should be taken not to encourage or sanctify a tradition of lesser support for

daughters. However, some compensation may be called for in the form of a higher means-tested grant for daughters than for sons.

Student loan programs can advance the general aim of cost sharing (as opposed to the aim merely of getting money to students with little concern for its recovery).

Problems of Student Loan Programs

While acknowledging the poor record of student loan programs around the world, including many failed or poorly performing programs in Africa, such programs (or graduate taxes and other ways of deferring student financial contributions) are essential for a program of cost sharing that includes students. Student loan programs can advance the general aim of cost sharing (as opposed to the aim merely of getting money to students with little concern for its recovery). To do so—that is, to shift a portion of higher education costs to students—the loan programs must provide for cost recovery, measured in the discounted present value of the stream of repayments, in an amount nearly equal to (or at least not a great deal less than) the sum loaned or advanced to the student in the first place.

Most "failed" student loan programs throughout the world, as well as in Africa, have failed because of insufficient capital (i.e., lack of savings) to make loans at reasonable rates of interest, insufficient policies and procedures for servicing and collecting the loans (and thus high administrative expenses and default rates), excessive built-in subsidies (generally through overly low rates of interest charged to borrowers). These problems seem mainly solvable, and the conference participants thus looked forward to more success with future student loan programs in the African context.

As elsewhere, there is interest in Africa in the concept of income contingent loans (or their variant, so-called "graduate taxes"), in which the repayment obligation is expressed as a percentage of future earnings rather than as a schedule of fixed repayments (e.g., as in the Australian Higher Education Contribution Scheme). However, income contingent loans require a means of verifying all (or at least most of) borrowers' incomes for their working lifetimes. Such loan schemes can work in a society and an economy where most borrowers work predominantly at one job at a time, in the formal economy, and where their earnings will be known to and monitored by the government along with their income

tax and pension contribution obligations. In societies and economies where many of the borrowers will derive much of their income from the informal economy, or "on the side" from second and third jobs, or will likely leave the country where the loan was originated for much or all of their earning lifetimes—which is the case in most sub-Saharan African countries—full incomes will be hard to verify and may not be legally capturable. In such cases, income contingent loans will probably not work.

According to the students who spoke at the conference, the essence of a student loan program is sufficiency—that is, providing enough money to support the costs of living and any tuition fees. The next most important features, in order, were a sufficiently long repayment period to keep monthly (or annual) repayments "manageably low," a low rate of interest, and the absence of a need for a co-signatory.

Funding and Regulating Lithuanian Higher Education

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Lithuania's higher education system is in a state of constant flux, facing major challenges of expansion, diversification of funding, and changing regulations. The transition from a centrally planned economy to a market-led one has caused Lithuania to restructure the social sector, including higher education. The practice of higher education governance through state control engrained during the Soviet period has been shifting to one of state supervision. Tendencies toward deregulation have been apparent in the policy debates on higher education, starting with the law on science and higher education (1991), the Constitution of the Republic of Lithuania (1992), and the law on higher education (2000).

As in most Central and Eastern European countries, both public and private higher education institutions in Lithuania expanded—going from 12 in 1990 to 35 in 2002. A number of former *technicums* and vocational schools opted to participate in a competition to become fully fledged higher education institutions granting bachelor's degrees. Individuals or religious organizations created 13 new private higher education institutions. The Ministry of Education and Science tightly controlled their establishment though licensing and quality assurance, which slowed the process of expanding private-sector