In developing and transition countries, such as those of Eastern and Southern Africa, higher education plays a significant and growing role. The most economically efficient way for the country to benefit is to queue up persons of higher education entry age in order of their academic preparation or ability to benefit from higher education. Some of these candidates will not be able to pay the required tuition fees. The viability of a cost sharing/revenue diversifying regime depends on distinguishing those who can pay from those who cannot. Means testing is the method for determining who can pay, and the portion they can pay. Means testing can consider the contribution the student's family can pay as well as what the student can pay. In developing countries there are obstacles to collecting and verifying such information, and the questionnaire methodology useful in some countries may be less so in others. An alternative is to use social indicators to distinguish those who can pay from those who cannot. There are practical problems in reviewing the social indicators of an applicant or his or her family, but data can, in some cases, be verified from public records. In any case, it may be very difficult to do means testing in a developing country. Other methods of increasing revenues for higher education must also be sought. Turning first to increasing tuition and fees may prove both unfair and impractical. (SLD)
"Means Testing: Is It Viable in Eastern and Southern Africa?"

by
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Why tuition fees?

As a practical matter, the discussion of diversifying revenue for higher education and cost sharing refers mostly to students and their families bearing some or more of the cost of higher education. This generally means students and their families paying new or increased tuition fees or other user charges.

Three primary reasons are advanced to justify students and their families paying tuition fees. First, students enjoy substantial private benefits from receiving higher education. Their incomes are higher than those who do not receive higher education. They have more interesting and pleasant jobs, they live in better houses, they have higher social status, etc. Since students will enjoy these private benefits of higher education, it seems only reasonable that they should pay some of the cost. Parents will also enjoy some private benefits from the education of their children. The parents will feel pride and satisfaction. Their social status may be increased. They also may be able to look forward to a more secure economic future as their children share with them some of their increased income, or their children may, at least, be available with resources that serve as insurance against future hardship.

Second, parents are expected to pay for the education of their children not only because of the personal benefits the parents can expect to enjoy but also because it is their responsibility and their obligation as parents. Parents should educate their children. This is a common cultural value. However, it is important to note that it is not universal. Cultures clearly vary considerably by the degree to which parents are expected to pay for the education of their children, particularly education beyond secondary school.¹¹

Third, there are political reasons why taxpayers (the government) will not provide enough resources to maintain higher education at the level necessary to serve national needs. These reasons include: Higher education
is a relatively low priority compared to other public purposes. Universities and colleges are relatively weak compared to other claimants on public resources. In contrast to other public needs, policymakers can readily identify an alternative source of revenue to public funding, namely tuition fees. In short, parents and students should pay or pay more because government cannot or will not pay.

**Why means testing?**

In developing and transition countries, such as those of Eastern and Southern Africa, higher education plays a significant and growing role. Higher education is key to poverty reduction through economic growth as well as to the development of just and democratic societies. The threshold requirement for higher education to meet its responsibilities is to select from among the population the appropriate number and type of people to receive higher education. The most economically efficient way to accomplish this is to queue up persons of higher education entry age in the order of their academic preparation or their ability to benefit from higher education. The system then proceeds down the queue admitting into higher education the appropriate number of persons to meet national needs. This is the way to get the maximum amount of public benefits (positive externalities), such as economic growth and poverty reduction, for the public investment put forth.

Some of those selected for admission will not be able to pay the required tuition fees from their own or their family’s resources. In other words, academic ability and academic preparation are not found solely among students from families that can afford tuition fees. Therefore, the viability of a cost sharing/revenue diversifying regime that relies on charging tuition fees depends on distinguishing those who can pay from those who cannot pay from among the group of those admitted according to academic merit. Those who can pay are admitted only if they
Those who cannot pay generally receive some form of public support, which relieves them of the obligation to pay tuition fees.

Means testing is the method by which those who can pay are distinguished from those who cannot. It also enables distinctions to be made among those who can pay. Means testing should distinguish between those who can pay 10 percent of the tuition fees and those who can pay 50 percent or those who can pay 100 percent.

The alternative to using means testing would be to admit only those who were academically qualified and who could pay the tuition fees. This would be neither economically efficient nor morally defensible.

Is Means Testing Viable?

The first element of needs analysis is to determine if there is a family present in addition to the student. In other words, are the tuition fees to be paid by the student and the student’s family, or by the student alone? The case of students who are orphans is the most obvious situation in which there is no family available to share in paying the tuition fees. This may be difficult to verify, in some cases, when documentation has been lost or never existed because of social disruption caused by war or famine or where public record keeping is inadequate.

A more difficult situation is when the student and the student’s family are alienated from each other. That is to say, there is no “family” relationship between the student and the student’s parents. Such alienation may be for good reasons (such as abuse) or for more tangled and ambiguous reasons. If the family, who should pay, refuses to pay, should the entire burden of paying tuition fees fall on the student, should the family be compelled to pay or should public funds be added to the student’s resources to make up for the delinquent family. How can one document that the refusal to pay is genuine and not just economically convenient?
Another issue is up to what age does the responsibility of the family to pay for higher education tuition fees extend. Should the family only be expected to help pay the student’s tuition fees for the first higher education degree beyond secondary school, or for all higher education tuition fees? Should there be an age of the student beyond which the family no longer has responsibility to help pay for tuition fees (21, 24, 30, 35, 40)? The answers to these questions may be driven by their revenue implications but they also involve cultural norms and values that vary among social groups.

The basic point is that the determination of the existence of a responsible family to share in paying a student’s tuition fees raises many difficult political choices and touches on important cultural values. In addition, it raises practical issues of verification and documentation (such as birth and death certificates or court records).

If a family is present, means testing would proceed by adding up the annual income of the family members along with the cash value of their assets. A portion would be set aside to cover the family’s normal living expenses. The costs of a normal standard of living obviously must be defined in each specific cultural context. Another very important issue is who is legitimately a part of a family. Who and how many are in the family will determine the size of the allowance for living expenses. Is the “family” defined as only the immediate family or as a more extended family? For example, which and how many current and former spouses and children are part of either an immediate or extended family? After the living allowance is subtracted from the income and assets of the family, a “reasonable” (socially and politically acceptable) portion of the remainder is expected to be paid by the family for the student’s tuition fees. In determining the family’s ability to pay, account may also be taken of how many children are attending higher education at the same time, the age of the parents, as well as any unusual circumstances and expenses.
The determination of how much the student can pay toward tuition fees would follow basically the same process as for the family. However, the student is generally expected to contribute a higher proportion of his or her income and assets since the student is the primary beneficiary of the education. In addition, the student generally does not have as extensive responsibilities for supporting a family.

The usual means for gathering information about the financial and family circumstances of the student and the student's family is by a standard questionnaire. One obstacle to gathering useful information in the context of Eastern and Southern Africa would be that the income and assets of a substantial segment of the population may not be in the form of cash or cash equivalents. Many people may pay and be paid in kind. Their principal assets may, for example, be in the form of livestock or land rather than bank accounts.

A second and even more important issue is how to determine that the information about the income and assets of the student and the student's family is true and accurate. How can the information provided on a questionnaire be verified? One possibility is to compare the information provided on the means testing questionnaire with the information provided to the government for purposes of collecting either a national income tax or contributions to a national pension system. Such information is usually reasonably reliable because there are serious penalties for providing false tax or pension information and because income information provided for these purposes is often reported by employers. Employers generally do not have an interest in underreporting or concealing the income of their employees, and it is also easier to monitor the records of a relatively limited number of employers rather than each individual taxpayer. However, in many countries of Eastern and Southern Africa there is neither a national income tax system nor a contributory public pension scheme. Or, the income tax system and public pension scheme only cover a small segment of the workforce or their information is not dependable.
Therefore, in many countries the information about income and assets that would be provided on a questionnaire could not be checked or verified, and it could not be characterized as reliable.

An alternative method for means testing is to use various social indicators to distinguish those who have the ability to pay tuition fees from those who do not. Such indicators can be used either in lieu of information about the income and assets of the family and the student or to supplement such information.

One example of the use of such social indicators is the application for financial aid at the Pedagogical University in Mozambique. In addition to asking for information about family income, it also asks about the occupation of the student’s parents or guardian, whether the student’s home has running water and electricity and whether the student relies on public transportation.

Another example is the definition of income categories used in a study of students at Makerere University in Uganda. The study author placed students in income groups according to the following definitions:

"i. High-income was defined from three parameters:
   - Professional fathers with more than 15 years of schooling i.e. first degree level and above
   - Businessmen fathers with private or official vehicles
   - Professional fathers with 15 years or less of schooling, but having personal or official vehicles.

ii. The middle-income sub-grouping was composed of:
   - Professionals with 15 years or less of schooling but without cars
   - Businessmen and farmers with no personal or official vehicles.

iii. The low-income group consisted of peasants and those who were not employed."[4]
The assumption behind the use of such indicators is that the social status and lifestyle that they signify are correlated with family income and assets available to pay tuition fees.

The use of such social indicators in determining ability to pay tuition fees presents some significant practical problems. First, verifying the accuracy of the information with respect to these indicators is very labor intensive. Staff from the Pedagogical University of Mozambique visits the neighborhood and home of the applicant who is maintaining that he or she and the family do not have the ability to pay tuition fees. The staff asks people in the neighborhood, the parish priest, and others whether the information provided is accurate as well as inspecting the quality of the home itself. In non-African developing country contexts, similar strategies exist. For example, at the American University in Kyrgyzstan (AUK)—which collects similar information from applicants for scholarships—university staff sometime actually visits the family and counts the size of their flock of sheep. The confirmation of information in this manner is time consuming and expensive. It might be suitable for small and local scholarship programs but it is hardly suited for larger numbers of students or for student applicants drawn from across a large country.

The data for some social indicators can be verified, at least in principal, using public records. For example, the educational level of the student’s parents could be compared to school records. The AUK checks with the Motor Vehicle Division to determine the number and quality of vehicles owned by the student and the student’s family.

A second limitation of the use of social indicators in determining ability to pay tuition fees is that it is by its nature highly subjective. The best one can probably hope for is a judgment that the student and the student’s family have no ability to pay or have some ability to pay tuition fees. Social indicators are likely to be unreliable in
deciding which family can pay 10 percent of tuition fees or 50 percent versus 100 percent. Social indicators are probably best used as a means of double checking income and asset information. For instance, if a family claims a very low income or if tax records indicate a very low income, but the father is a college graduate and a new automobile is registered to him, there would be good reason for a more careful investigation of the family's economic circumstances and their ability to pay tuition fees.

The difficulty and high cost of verifying information about the ability to pay of families could be minimized or made more manageable by only verifying the accuracy of the information for a sample of those who apply. The efficacy of sampling or spot checking depends on the severity of the penalty for cheating, the certainty that the penalty will be applied if cheating is discovered, and the thoroughness of the verification for the sample. With respect to penalties, AUK's "Regulations on Financial Support of Students" explicitly states, "Any misrepresentation or omission may be the cause for denying financial assistance or expulsion from AUK." It has been suggested that perhaps those who are discovered cheating be publicly exposed, in a newspaper, for example, and be subject to the social sanction that would follow from such exposure. Of course, the power of such a social sanction would depend on the cultural context. In some subcultures in Europe, for example, being exposed for cheating the government would be met with indifference or approbation rather than censure.

The use of means testing at the University of the Philippines represents a good example and summary of the issues that arise and methods that can be used in a developing or transition country. "To assess financial need, the university has had to move beyond income tax returns, which often understate true ability to pay.... (A)plicants must complete a twelve-page questionnaire which asks about family assets, parental occupation and education levels, and location of residence. The questionnaire itself does not stop dishonest applicants, but home visits and
harsh disciplinary actions are believed to make applicants answer questions more truthfully. Home visits verify the accuracy of most reports. Several students have been expelled from the university for giving false information."[5]

In sum, means testing in Eastern and Southern Africa is subject to a number of serious practical difficulties that call into question its viability. Therefore, the implementation of measures for revenue diversification and cost sharing in higher education are likely to be hard to achieve in ways that are economically efficient and socially fair.

Asking Different Questions

There clearly are substantial difficulties in increasing the revenues for higher education in Eastern and Southern Africa through revenue diversification and cost sharing. These difficulties do not, however, eliminate the need that higher education in this region has for increased revenue if it is to successfully meet national economic and social needs. Perhaps we should take a different look at one of the “givens” of this discussion, namely that there are severe constraints on public budgets.

Why are there severe constraints on the funds from public budgets available to higher education? For the sake of argument let us assume that the countries of Eastern and Southern Africa have a tax capacity or public revenue potential of about 20% of GDP. The World Bank suggests that an appropriate share of GDP for education is about 5% (25% of revenues assuming a tax capacity of 20% of GDP) of which about 1% of GDP should be devoted to higher education (about 5% of revenues).[6] However, we know that in general this level of resources does not reach higher education in Eastern and Southern Africa. Why not?
- Adequate revenue is not collected because tax systems are not well designed to generate a reasonable level of resources for government.
- Adequate revenue is not collected because of weaknesses in the ability of government to collect taxes.
- Adequate revenue is not collected because of corruption—deliberate tax evasion and non-compliance.
- Revenue once collected is lost through corruption; it is stolen or diverted for private rather than public purposes.
- Revenue once collected is misspent or wasted on "prestige" products such as expensive government offices or non-essential military hardware.

It is probably safe to say that revenue that represents a very substantial proportion of reasonable tax capacity is lost for these reasons. The "given" that there are severe constraints on public budgets and therefore revenue diversification and cost sharing (tuition fees) are necessary if higher education is to be adequately funded is really an assumption that there needs to be tuition fees to make up for flawed tax systems, weak government tax collection, corruption, and inappropriate spending priorities. In the context of countries with very high levels of poverty, tuition fees as a preferred means for increasing higher education revenues seems to be like trying to squeeze blood from a stone. It might be more productive to increase government resources available for higher education by addressing the problems of the tax system, corruption, and government spending priorities. Once these issues have been addressed and if there are still not enough public funds available to meet the needs of higher education, then one might turn to tuition fees. Turning first to imposing or increasing tuition fees would seem, in the final analysis, to be both inefficient (unlikely to generate much

revenue) and unfair (asking the most of those who have the least).

[3] Even if one were to use some other criteria for admission instead of or in addition to academic merit, the problem would remain. For example, using regional, ethnic or tribal origin as an admission criteria in the context of charging tuition fees would still produce some with the desirable quality who could pay and others who could not.

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