
Human Development in Sub-Saharan Africa

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Sub-Saharan Africa's economic decline since 1980 has stalled its earlier progress in education and health. The facts of the economic decline are stark. Sub-Saharan Africa's GDP per capita fell by 1.3 percent per annum in the 1980s, 5 percent below the growth of other developing countries. Indications are that economic performance has not improved in the 1990s: from 1990–94, the decline in GDP per capita worsened to 1.8 percent, widening the gap with other low-income countries to 6.2 percent.¹ Although education and health indicators have not fallen with the economic statistics, their post-Independence growth has slowed to a crawl. Whereas life expectancy on the sub-continent rose by ten years between 1960 and 1980, it rose only two years between 1980 and 1994. This performance is particularly bad relative to that of other developing regions such as South Asia, where life expectancy rose by ten years between 1980 and 1994. Similarly, although Africa underwent a massive educational expansion after independence, gross educational enrollment ratios remained constant at 39 percent between 1980 and 1994. In South Asia, they rose from 37 percent to 53 percent during the same period.

Although these African statistics are depressing, conventional thinking

on development strategies towards education and health is upbeat. Education and health are widely seen as economically productive measures of “human capital” or “human resources.” African governments are encouraged to invest in these social sectors in order to promote economic growth. Estimates suggesting that the “rate of return” to primary education in Sub-Saharan Africa may be as high as 24 percent have been widely cited in policy documents. The main obstacle to making such apparently lucrative investments is seen to be the fiscal constraints on governments: the region’s economic decline has eroded government per capita expenditures on health and education. One way to generate more funds would be to increase user charges for health and education. This strategy has been advocated by a wide spectrum of opinion, including both the World Bank and many African health ministers (in the “Bamako Initiative”). According to advocates of user charges, the effects of charges on the take-up of services will be small because the demand for health and education services is relatively “price inelastic.” This might perhaps be expected, given the very high private returns previously noted. Indeed, the most attractive aspect of the “cost-sharing” strategy was that the revenues raised could be used to increase access. This could be done either by funding increased supply to meet existing excess demand or by raising demand itself through improvements in the quality of the services offered.

However, recent research and experience have raised large question marks over such conventional thinking about human resource development. Better macroeconomic data and more careful methods of analysis have shown that the evidence for growth effects of educational expansion is not as strong as commonly thought. Studies of African labor markets since 1980 have challenged the conventional wisdom that primary education in particular has high economic returns, while a persuasive reassessment of early evidence for the sub-continent has questioned whether the conventional wisdom ever held. Recent experience with user charges suggests that they have a much bigger effect on take-up of social sector services than anticipated, and consequently bring in much less revenue than hoped for. These recent developments make discussions about social sector policy much less comfortable than was conventionally the case. Policy prescriptions cannot rely on “scientific” appraisals of the rates of return to different services. Indeed, even the intuition that education is good for growth might be un-

reliable. User fees might be able to improve services for some, but at the expense of excluding many who may be among the poorest. No new consensus has yet replaced the old orthodoxies. Those researchers who have challenged the received wisdom do not argue that social sector services are wholly unproductive, still less that they should be retrenched. Critics of user charges may advocate increased state funding, but can have only very limited expectations of what is possible given economic circumstances in the sub-continent. Instead, thinkers are left to

seek means of improving the quality of social sector services and the returns to human resources. Recommendations are often tentative and speculative, suggesting hypotheses and strategies to be tested rather than advocating the adoption of a “magic

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This paper has three substantive sections. The first assesses the current state of health and education in Sub-Saharan Africa. The second summarizes the new research findings that question the conventional wisdom about high economic returns to investments in education. The final section reviews recent evidence on the effects of cost-sharing in the social sectors. The paper concludes by evaluating where these new pieces of evidence leave the policy debate.

The State of Human Development

Measuring Human Development

It is a commonplace of theorizing about development that it consists of more than mere increases in per capita GDP. The “Human Development Index,” introduced by the United Nations Development Program (UNDP) in 1990, attempts to provide a broader measure of human welfare by giving life expectancy and educational achievement equal weight with GDP per capita. The index is an attempt to operationalize Amartya Sen’s notion that indicators of various human “capabilities” should be used to assess welfare, rather than conventional money

metric measures of “utility” (preference).² However, whether assessed by GDP per capita or by the wider Human Development Index (HDI), Sub-Saharan Africa appears to have the lowest level of human welfare (see Table 1).³

Table 1: Human Development Indicators by Region in 1994

	HDI	GDP per capita (PPP\$)	Life Expectancy	Adult Literacy	Combined Educational Enrollment
Sub-Saharan Africa	0.380	1377	50.0	55.9	42
South Asia	0.459	1686	61.4	49.7	53
Arab States	0.636	4450	62.9	54.7	58
East Asia	0.652	3001	69	81.8	59
S.E. Asia & Pacific	0.672	3628	64.3	86.3	78
E. Europe & CIS	0.760	4203	68.1	98.1	75
S. America & Caribbean	0.829	5873	69	86.2	69
Industrial Countries	0.911	15986	74.1	98.5	83

Health in Sub-Saharan Africa is particularly poor: life expectancy averages eleven years less than that in the second poorest performing region, South Asia. Much of the lower life expectancy in Africa reflects higher child mortality. Mortality rates for children under five years of age are 55 percent higher in the sub-continent than in South Asia, and infant mortality rates are 33 percent higher. However, adult mortality is also much higher than elsewhere. The explanation for the higher child mortality is probably not undernutrition: the proportions of low-birth weight infants and of underweight children under five years old are much lower in Sub-Saharan Africa than in South Asia. Instead, inferior health care is likely to be a factor. Immunization rates are considerably lower: only 53 percent of African one-year-olds are fully immunized against measles, compared to 75 percent in South Asia. Access to health services is lower in the sub-continent: only 53 percent can reach a health facility by foot or by local means of transportation within one hour, compared to 78 percent in South Asia. This partly reflects the lower population density in Sub-Saharan Africa. However, there are

also fewer medical personnel. In the sample of countries for which information is available, there are estimated to be 18,514 people per doctor in Africa, compared to 3,704 in South Asia. Another factor may be lack of access to "safe water": only 51 percent of Africans have access to safe water, compared to 76 percent of people in South Asia.

Table 2: Educational Attainment of Those Over Age 15 by Region in 1990 (%)

	None	Full Primary	Full Secondary	Full Higher	Mean School Years
Sub-Saharan Africa	48.3	7.6	1.8	0.5	2.93
South Asia	55.2	7.5	6.4	1.7	3.85
Middle East and North Africa	41.0	9.8	8.5	2.4	4.47
East Asia and Pacific	15.4	26.1	11.5	3.5	6.08
Former Centrally Planned Economies	1.6	15.7	20.9	7.7	9.98
Latin America and Caribbean	17.3	13.2	7.4	3.7	5.24
OECD Countries	4.5	16.0	15.3	10.2	9.02

Sub-Saharan Africa is often thought to have made relatively good achievements in education, given its income. For example, adult literacy is estimated to exceed that in South Asia. This largely reflects the higher rates of literacy among women in Africa compared to women in South Asia (women are also less disadvantaged in terms of mortality in Sub-Saharan Africa than in South Asia). However, these achievements are being eroded: school enrollment rates are now lower in Africa than in any other region. Moreover, the conventionally used statistics may overstate Africa's achievements in terms of education. A better measure may be the recent estimates of the educational attainment of adults (see Table 2).⁴ According to these data, Sub-Saharan Africa has fewer people over the age of fifteen with no education than does South Asia. However, Sub-Saharan Africa

does not have appreciably more people with complete primary schooling. These two facts can be reconciled by noting that Sub-Saharan Africa has far more people with incomplete primary schooling than South Asia (29.5 percent compared to 13.7 percent). This may partly reflect higher initial ages at enrollment in Sub-Saharan Africa (i.e., more Africans over the age of fifteen may still be in primary school) but more importantly reflects higher dropout and repetition rates. Sub-Saharan Africa compares particularly poorly at the post-primary levels: it has less than a third as many secondary school completers and university graduates as South Asia. An overall measure of educational attainment is simply the mean years of schooling per person aged fifteen or over. In 1990, this was nearly a third higher in South Asia than in Sub-Saharan Africa.

Two Lost Decades?

Sub-Saharan Africa's position as the poorest-performing region in terms of human development is a relatively recent phenomenon. Comparisons of incomes designed to adjust of international differences in purchasing power imply that income per capita in Sub-Saharan Africa exceeded that in both South and East Asia in 1960. However, Asia has enjoyed a period of strong sustained growth since the late 1970s, while Sub-Saharan Africa has experienced a decline in per capita incomes since 1980. In 1960, life expectancy averaged 39.9 years in Sub-Saharan Africa, four years less than in South Asia. A similar differential prevailed in 1980, after which trends in the two regions diverged sharply. Between 1980 and 1994, life expectancy rose from forty-eight years to fifty in Sub-Saharan Africa; in South Asia it rose from fifty-one to sixty-one years. This period also marked the greatest divergence in economic performance between the two regions. In education, Sub-Saharan Africa was roughly equal to South Asia in terms of proportions of primary school graduates in 1960 and actually had much higher proportions of secondary and tertiary completers. However, the 1980s cannot be blamed for the present unfavorable comparison in terms of educational attainment: educational attainment grew much more slowly in Sub-Saharan Africa than in most other developing countries in the 1960s and 1970s. The 1980s have affected, perhaps adversely, the quality of education in Sub-Saharan Africa rather

than the quantity. Spending per primary student as a percentage of GDP per capita declined from 0.16 in 1980 to 0.1 in 1990; per secondary student, the decline was from 0.68 to 0.39. During the same period in South Asia, spending per primary student rose slightly as a proportion of GDP per capita, while spending per secondary student fell only slightly. Given that GDP per capita in the two regions greatly diverged during this period, these ratios imply even larger divergence in absolute educational expenditures per student. Health expenditures also fell in real terms in most Sub-Saharan countries.⁵

The Effects of Education and Health on Economic Development

Education—A New Priority in the 1990s?

Although economic decline has adversely affected health and education in Africa, many have argued that increasing funding of these sectors would be good for growth. Indeed, in industrial countries, the 1990s have seen an increasing emphasis on the productive role of education in debates on economic policy. A recent poll of American economists asked what was the most important thing governments could do to raise the growth rate in the United States. Most confessed they did not know, reflecting both the economists' general predisposition to *laissez faire*, and more specifically, the conclusion of neoclassical growth theory that long-run growth depends solely on exogenous technological advances. However, of those economists who ventured a response, the most common was that the government should promote education. This endorsement of education—although somewhat half-hearted—reflects a number of factors. The late 1980s saw a renaissance of theoretical and empirical work on the determinants of growth, amongst which education featured prominently. Various “new economic growth” models were developed that made technology endogenous, the result of an accumulation of knowledge which may partly occur via education. Empirical work on “growth accounting” and intercountry growth comparisons seemed to show that education explained a substantial proportion of growth. At a more microeconomic level, the returns to education in the U.S. and several other OECD countries appear to have risen since 1980, contributing to widening wage inequalities. There are two main hypotheses to explain this: new technology and globalization. The

former asserts that new developments in technology, such as information technology, have been complementary with skills. The latter focuses on the increased share of international trade in manufactures coming from labor-intensive developing countries, particularly in East Asia. In a variant of Heckscher-Ohlin trade theory, it is argued that this will increase the return to skills in skill-intensive economies.

These debates in the context of industrialized countries have tended to reinforce the longer-standing emphasis in the development community on the productive effects of educational expansion. Often, the case for educational expansion is made by citing conventional estimates of the rates of return to education in developing countries. In a very influential series of articles, George Psacharopoulos of the World Bank has summarized these rates of returns, and his figures are widely cited in policy documents.⁶ According to these statistics, Sub-Saharan Africa has the highest rate of return to education, with returns being particularly large at the primary level. The social rate of return in the sub-continent is reported to be 24 percent for primary education, 18 percent for secondary education and 11 percent for tertiary education; private returns are even higher at 41 percent, 27 percent, and 28 percent respectively. These returns comfortably exceed the 10 percent discount rate conventionally used for evaluating the desirability of government investment projects. Further support for giving renewed priority to education is provided by some analyses of the East Asian experience. The high and sustained growth of this region has often been attributed to their investment in basic education.⁷

The Search for Macroeconomic Substantiation

The last decade has seen an explosion of interest in cross-country comparisons of growth, or "cross-country growth regressions." These typically attempt to explain variations between countries' growth in GDP per capita (or sometimes per worker) over the last few decades (starting in 1960 or 1965 and continuing until 1985). Typically, the samples analyzed include eighty to one hundred countries for which data is available, with over twenty being from Sub-Saharan Africa. A wide variety of variables has been used as explanatory variables, although nearly all studies include some measure of physical investment or capital, along with GDP per

capita at the start of the period. Much of the earlier literature was based on rather poor proxies for education, such as school enrollment ratios. However, in the 1990s, estimates of the educational attainment of the adult population (such as those presented in Table 2) became available. According to simple correlations of the data, GDP growth is strongly positively related to investment, weakly positively related to initial educational attainment, and negatively related to growth in educational attainment. That is to say, countries which have expanded education a lot since the early 1960s—mainly developing countries—have tended to grow less strongly. Africa is perhaps the most visible example of this, but the same is also true of South Asia and South America. East Asia is an exception, but its high income growth was not accompanied by an atypically high growth of education relative to other developing countries, although its educational attainment at the beginning of the growth process was relatively high. East Asia and Sub-Saharan Africa are distinguished in terms of their differential accumulation of physical rather than human capital.

Of course, one cannot infer causality from simple correlations: countries that expanded education a lot also tended to have started with less education and to have lower physical investment. To go further than these simple correlations, one needs to conduct multivariate analysis controlling for the various different determinants of growth. Unfortunately, despite a recent plethora of such studies, there is no agreement over the estimated effect of education, and studies using very similar data-sets have reached contradictory results. For example, Lant Pritchett of the World Bank has written a paper entitled “Where has all the education gone?” finding no effect of changes in educational attainment on economic growth. However, a seemingly similar analysis by Norman Gemmell of Nottingham University, which included the effects of both changes in educational attainment and their initial levels in 1960, found more positive results. Both initial primary school attainment and its growth appeared to raise growth; secondary school did not have statistically significant effects.⁸ By contrast, Robert Barro and Jong-Wha Lee of Harvard University and the University of Korea respectively, found male secondary education to have a significant effect on growth, but not primary schooling. Female secondary education had a significant negative effect. A reworking of the Barro-Lee study, controlling for unobservable characteristics of the sample

countries reversed their results: female secondary education became positive and male secondary schooling insignificant. Less attention has been given to the impact of health on economic growth, but there are indications that the story is similar to that with education. Using conventional techniques, countries with higher initial life expectancy appear to have subsequently grown significantly faster, other things being equal. However, this result disappears once controls are made for unobserved heterogeneity between countries.⁹ From this short review of the macroeconomic evidence, it is clear that the field has so far failed to provide reliable insights for policy. Contrary to what is often assumed, it is not well established that education has promoted growth in recent decades, still less what kind of education is important: male or female; primary or secondary.

In the theoretical debate, questions have also been raised about whether “new economic growth models” imply a particularly important role for education in growth. Education featured most prominently in an early model devised by Robert Lucas of the University of Chicago. However, Lucas subsequently dis-

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owned this model on the grounds that the key result of a long run effect of education on growth de-

pendent on a “knife-edge” assumption about the technology of human capital accumulation. Most recent work on endogenous growth models has tended to focus on specific “endogenous innovations” and the role of research and development, rather than the accumulation of “broad capital” (physical and human capital) in general.¹⁰ It is not clear how relevant this literature is to Sub-Saharan Africa, where research and development is likely to play only a marginal role in economic growth. A more relevant issue is likely to be fostering the transfer of technology from abroad. Having an educated workforce will surely assist in the process, but this issue has received little theoretical or empirical attention.

Revisionist Microeconomic Evidence

The lack of clear results from macroeconomic studies about the productivity effects of education makes microeconomic evidence particularly important. The conventional wisdom of high returns, particularly to primary education, has been persuasively challenged by Paul Bennell of the University of Sussex. Bennell revisited the original African studies on which George Psacharopoulos based his conclusion that the rate of return to primary education was 24 percent. Bennell showed that the evidence used in Psacharopoulos's original study was ambiguous: in only four of twelve countries studied did differences between primary and secondary rates of return exceed two percentage points. In these four countries, the data used were often based on government salary scales, and sometimes estimates of the earnings of the uneducated were "guesses and assumptions." In particular, the implied returns to primary education were implausibly high, sometimes incredible even to Psacharopoulos—returns in excess of 100 percent were treated as 100 percent for the purpose of averaging. Bennell argues that in the subset of seven studies with adequate data, the social returns to secondary schooling appear substantially higher than those to primary. Similar conclusions have been drawn by the author from a review of fourteen studies of African labor markets since 1980.¹¹ The average (private) returns to education were substantially below those presented by Psacharopoulos. This is true for both primary and post-primary schooling, although the latter still appears to have substantial returns. The studies show that on average, primary schooling raised wages by 4 percent per year of schooling. For secondary schooling and tertiary schooling, the corresponding figures were 8 percent and 17 percent.¹²

Some microeconomic evidence suggests that returns to education may have fallen in Africa, at least in the case of primary education. The wage premium to primary education for male blacks in urban South Africa appears to have fallen from 6 to 3 percent from the early 1970s to the mid-1990s. In Kenya, there is also evidence of falling returns to primary schooling; returns to post-primary education appear to have been better maintained.¹³ However, the rise in the returns to education observed in OECD countries does not appear to have taken place in Sub-Saharan Africa. This is perhaps not surprising given the hypothesized explanations: new technologies and globalization. New technologies such as comput-

erization have probably had only a minor impact on African economies. To the extent that Sub-Saharan Africa has increased in openness to international trade, the neo-Heckscher-Ohlin theory implies that returns to skills should fall in such a skill-scarce region. Indeed, Adrian Wood and Kersti Berge of Sussex University have used the theory to argue that it is difficult for Sub-Saharan Africa to follow East Asia's path of high growth in manufacturing exports.¹⁴ They show that East Asia had a high initial endowment of education relative to land, giving it a strong comparative advantage in manufacturing rather than agricultural exports. For Sub-Saharan Africa, the situation is reversed: its high land-to-skills ratio is better suited to agriculture than to manufacturing.

Although most attention has been focused on returns in wage employment, returns in agricultural and non-agricultural self-employment are also important for Sub-Saharan Africa and other developing countries. There is some fragmentary evidence indicating that returns in non-agricultural self-employment are comparable to those in wage employment.¹⁵ Returns in agriculture appear modest. One survey of the literature has found that estimated returns average around 2 percent per year of primary schooling.¹⁶ Moreover, no significant effects of education were found in half of the studies surveyed—characterized as being of “traditional” as opposed to “modernizing” environments—including the only two studies of Africa. A more comprehensive survey of the African evidence by the author and Arsene Balihuta of Makerere University also found typically insignificant results, although the estimates were often of a non-trivial magnitude. Recent estimates from Uganda are very close to the 2 percent developing country average for primary schooling, with insignificant effects of secondary schooling (a common finding). There was tentative evidence that the education of neighboring farmers raised own-farm productivity.¹⁷

Experience with Cost-sharing

During the early post-Independence period, African governments struggled to provide education and health services to all their people free of charge. User charges, it was thought, would reduce take-up of these services, particularly amongst the poorest. However, falling incomes in the 1980s led many to abandon this principle. Inadequate government budgets meant that services had to be rationed or

provided at very low quality. In such circumstances, introducing fees might increase rather than reduce take-up of services, if the revenues raised were used to increase supply or enhance demand by improving quality. This reasoning underlies the 1988 Bamako Initiative, devised by the African health ministers and now covering nineteen countries.

With tertiary level services, those provided by hospitals and universities, the case for user charges is often linked to the restructuring of social sector expenditure toward those of a primary level. One means of conducting such restructuring would be to increase fees at the tertiary level and use the revenue raised to fund primary services. Restructuring can be justified on both efficiency and equity grounds. It is commonly argued that tertiary facilities were less cost-effective than primary facilities. The recent evidence about the wage benefits to education noted above does not undermine this, since the argument that tertiary education has a lower return depends not on its benefits being low but on its costs being very high. Furthermore, the usage of these facilities is regressive. In part, this is simply a matter of location—most tertiary facilities are in urban areas, while in Africa a much higher proportion of rural than urban residents are poor. It also reflects the outcome of the systems used to ration access: for example, in education, the children of the affluent tend to perform better in examinations and hence are more likely to be eligible for a place at a university. Although these arguments in favor of restructuring are old, they continue to be relevant. Some African governments have undergone restructuring, perhaps the most striking example being Burkina Faso in the 1980s.¹⁸ Perhaps more typical, however, is the case of Uganda in 1990–91, where virtually all primary health care was financed by donors while the government used its locally raised funds to pay for tertiary health care. Charges are common for primary and secondary education, but user fees for higher education are often negligible and generous living allowances are provided for students. A survey of fifteen African universities found that only half of them charged fees, and these covered only 10 percent of their recurrent costs.¹⁹

In contrast to the consensus within the development community on restructuring from tertiary to primary facilities, there has been fierce disagreement over charges for basic services. During the 1980s, some World Bank staff began arguing a limited case for raising charges, and the imposition of fees was some-

times included in the conditionality attached to structural adjustment loans. Conversely, critics of adjustment have often made adverse effects on social sector provision a central part of their critiques.²⁰ In the mid-1990s, however, there were signs of a move towards a new consensus. Recent discussion papers published by the World Bank, UNICEF, and other development bodies reach very similar conclusions.²¹ User fees for basic services are not advocated and likely problems with them are noted. In particular, it is observed that their revenue raising potential may be less than sometimes thought, their impact on take-up may often be greater, and that it is often difficult in practice to exempt the poor. However, it is recognized that user fees may be unavoidable in certain situations, and attention is given to implementing them in order to minimize their disadvantages. Several forces have moved the two sides of the user fee debate closer together.

On one side, the critics of user fees have been led to rethink their position following the Bamako Initiative. The Initiative has the attractions of being “home grown,” of originating from the sub-continent, and of stressing community involvement in the use, as well as collection, of revenue. More importantly, it reflects a persuasive “second-best” argument for fees as seen from the point of view of African health ministers. That is to say, although the “first best” policy might be free basic services funded by general taxation, raising user fees may be preferable to providing grossly inadequate services out of the limited allocations currently provided from general revenue.

On the other side of the debate, the World Bank appears more cautious as a result of the experience of imposing fees in the 1980s.²² “Before and after” studies have often described dramatic declines in the utilization of health facilities following the introduction of user charges. According to Germano Mwabu and other colleagues at Nairobi University, the decline was around 50 percent in government health centers in Kenya following the introduction of modest fees in 1989. When fees were suspended in 1980, usage redounded by 41 percent. Similar declines have been observed in some facilities in Mozambique and Zambia.²³ These figures may over estimate the ultimate effect on health care usage: demand may be diverted to private institutions and the negative effects may be temporary.²⁴ Nonetheless, it appears that early predictions about low elasticities of de-

mand for health care were too optimistic about the potential of fees to raise revenue. A common concern is that falls in demand will be most pronounced amongst the poor, who are least able to pay charges. Often it is argued that this problem can be solved through the use of exemption schemes. However, in Sub-Saharan Africa, the prevalence of subsistence and self-employment makes identification of the poor extremely difficult. Consequently, it is unsurprising that exemption schemes have a poor record in practice. In a review of experience under the Bamako Initiative, Barbara McPake and colleagues at the London School of Hygiene and Tropical Medicine concluded: "Exemption schemes in case study countries generally have a very limited scope (as in Nigeria, Burundi, and Kenya), appear ineffective in practice (Uganda) or do not exist (Guinea.)"²⁵

A key element in many arguments for user fees is that the revenue raised be retained within the health sector and used to improve services. In addition, it is often argued that success is more likely with local retention of revenue, as opposed to transfers to central health ministries. However, in many cases such as Zimbabwe, revenues raised by fees have gone straight to the treasury. Often, as in the case of Zambia, official guidelines about the requirement for quality improvements have not been translated into practice: it is not specified how quality is to be measured, still less how it is to be improved. A common, although not universal, finding is that utilization falls when fees are imposed without simultaneous quality improvements (e.g., Ghana, Mozambique, and Swaziland) but rises when both fees and quality are raised (e.g., Benin, Guinea, and Sierra Leone.)²⁶

The introduction of fees appears to have had less pronounced effects in education than in health. In Ghana, the introduction of primary school fees in 1992 led to a 4 percent drop in enrollments. In neighboring Côte d'Ivoire, effects were of a similar magnitude. However, this does not mean that the cumulative effect of fees is small. A large stock of unenrolled school-age children can accumulate, with the effect of fees only being clear if they are removed. The abolition of user charges in some African countries in the 1970s (e.g., Kenya and Tanzania) led to large surges in enrollments. The experience has been repeated in the 1990s. In Malawi, the abolition of charges for primary education in 1994 led to a 50 percent increase in enrollment. In Uganda in 1997, the effect was even more dramatic: abolition led to a doubling of the number of children at primary school.

Conclusions

The 1980s have seen a sharp deterioration of Africa's performance in indices of "human development" relative to other developing regions. This largely reflects falling per capita incomes in the region compared to sustained growth in Asia. Recent evidence casts doubt on the received wisdom about education and health policy. Widely cited statistics about the returns to education in the sub-continent are based on a questionable reading of early studies and are contradicted by more recent data. Even the intuition that education is good for growth appears less strongly grounded in evidence than has been commonly thought. At the same time, optimism that health and education in Africa could be revitalized by increased private finance appears to have been misplaced. User charges appear to have a stronger effect on utilization of services than previously thought. These pieces of "news" may be related: if the returns to education were as high as conventionally believed, then one might expect fees to have relatively little effect on take-up. High responsiveness to user charges may reflect low expected benefits from using health and education services on the part of some households.

Nonetheless, it might be thought that the recent evidence has contradictory implications for social sector policy. Low returns might be thought to weaken the case for public subsidy on "economic" grounds. High responsiveness to fees implies that reductions in public subsidies will have more severe consequences for measures of human development. However, those responsible for challenging the received wisdom about the returns to education have not advocated reduced state support for education.²⁷ They note that the estimates of wage returns to education were often over-emphasized in discussions about government policy, at the expense of broader evaluations of the societal and individual benefits of education. These include improvements in child health and reductions in fertility. They also argue that there may be high returns to improvements in the quality of the social services provided and that the returns to education may rise to the extent that complementary improvements occur in the wider economy. Adverse experience with user fees does imply that governments cannot expect the simple imposition of such charges to revitalize the social sectors. However, much can be done to improve the resource allocation without raising such charges or over-stretching

government budgets. We will end by focusing on two of the most promising possibilities: liberalization of the private sector and reform of the public sector.

Liberalization of the private sector might be a preferable means of raising private finance for health and education than further cost-recovery within the public sector. It is often very difficult in African countries such as Tanzania to obtain permission to set up private schools or health clinics. The consequent absence of private alternatives makes deficiencies in state provision far more damaging. For example, the falling quality of state schools is commonly blamed for the decline in primary school enrollment in Tanzania in the 1980s. Some of this decline might have been avoided if it was possible for private schools to be established in rural areas to provide better quality services. However, in practice it was extremely difficult to obtain authorization for such initiatives. Similarly, shortages of essential drugs in public clinics are less harmful if supplies are readily available from private sources, but can be devastating if private outlets are prohibited either *de jure* or *de facto*. Pressures for over-expansion and regressive subsidization of national public universities might be alleviated if private universities were permitted and accredited to give full degree qualifications. Privatization of national hospitals might also reduce political pressures to be over-resourced at the expense of primary facilities. In principle, it might be desirable for the government to regulate private health and education providers. However, in practice, a relatively liberal approach may be most effective. In many sub-Saharan countries, the government is hard put to keep control of activities within the public sector, while still less closely supervising those within the private sector.

Indeed, widespread inefficiencies in the delivery of public services mean that there is substantial scope for improvements without increases in resources. The case for restructuring expenditures within the social sectors has been noted and remains largely unanswerable. There are also compelling reasons for believing that the mix of inputs in the public sector is unbalanced. There is too much emphasis on building rather than maintenance. Staffing is often too high given shortages of high-return non-labor inputs such as textbooks and essential drugs. At a more mundane level, there is much that could be done to improve the administration and management within the public sector. For example, a study tracking public expenditures on education in Uganda found that two-thirds of

the recurrent non-staff budget for primary education never reached the schools, but was retained to fund district administration.²⁸ More generally, the scale of social sector ministries implies that they have enormous opportunities for experimentation and piloting possible interventions. Given the woeful state of human development in Africa, and the limitations of our knowledge surrounding it, these opportunities should be more fully exploited. ●

Notes

1. For more on Africa's economic misfortunes, see P. Collier and J. Gunning, "Explaining African economic performance," *Journal of Economic Literature* (forthcoming 1998).

2. A.K. Sen, "Capability and Well-being" in: M. Nussbaum and A. K. Sen, eds., *The Quality of Life* (Oxford: Clarendon Press, 1993).

3. The aggregates for Sub-Saharan Africa mask enormous heterogeneity within the sub-continent. For example, it includes the world's fastest growing economy, Botswana. There are also marked variations in education and health between African countries. For example, Botswana has markedly lower life expectancy than nearby Lesotho. The source for Table 1 and most other statistics in the paper is UNDP, *The Human Development Report* (Oxford: Oxford University Press, 1997).

4. Robert J. Barro and Jong Wha Lee, "International Measures of Schooling Years and Schooling Quality," *American Economic Review Papers and Proceedings* 86, no. 2 (1996): 218–223. This is also the source for Table 2.

5. David Sahn, "Public Expenditure in Sub-Saharan Africa During a Period of Economic Reforms," *World Development* 20 (1992): 673–93.

6. The latest in the series is: George Psacharopoulos, "Returns to Investment in Education: A Global Update," *World Development* 22 (1994): 1325–44.

7. See N. Ogawa, G. W. Jones, and J. G. Williamson, eds., *Human Resources in Development along the Pacific Rim* (Oxford: Oxford University Press, 1993); World Bank, *The East Asian Miracle: Growth and Public Policy* (Washington: World Bank, 1993).

8. See Lant Pritchett, "Where Has All The Education Gone?" Policy Research Working Paper, World Bank, 1996: 1581; Norman Gemmell, "Evaluating the Impacts of Human Capital Stocks and Accumulation on Economic Growth: Some New Evidence," *Oxford Bulletin of Economics and Statistics* 58, no. 1 (1996): 9–29. One might speculate that the two papers can be reconciled if we recall that growth in education attainment was negatively related to initial educational attainment. If both the initial level and the growth of education have positive effects on growth (as Gemmell finds for primary education), Pritchett's omission of the initial educational attainment may bias downwards the estimated coefficient on the growth of education. Alternatively, the differences between the two papers may reflect differences in the data used.

9. See F. Caselli, G. Esquivel and F. Lefort, "Reopening the Convergence Debate: A New Look at Cross-Country Growth Empirics," *Journal of Economic Growth* 1 (1996): 363–389.

10. See R. E. Lucas, "On making a miracle," *Econometrica* 61 (1993): 251–272, and N. Crafts, "Productivity Growth Reconsidered," *Economic Policy* (1992): 389–426.

11. Wage premia for different levels of education are often termed "Mincerian" rates of return to education. They will equal private rates of return under certain assumptions, most notably that

the cost of education is in terms of the opportunity cost of earnings forgone.

12. These figures are obtained by simple averaging of the seventeen studies presented in Table 4 of Simon Appleton, John Hoddinott, and John Mackinnon, "Education and Health in Sub-Saharan Africa," *Journal of International Development* 8, no. 3 (1996): 307–339. Where relevant aggregate figures were not available, those for men only and for lower, rather than upper, secondary schooling were used.

13. Peter Moll, "The Collapse of Primary School Returns in South Africa, 1960–90," *Oxford Bulletin of Economics and Statistics* 58, no. 1 (1996): 185–210; J. Knight, R. Sabot, and D. Hovey, "Is the Rate of Return to Primary Schooling Really 26%?" *Journal of African Economies* 1 (1992): 192–205.

14. Adrian Wood and Kersti Berge, "Exporting Manufactures: Human Resources, Natural Resources and Trade Policy," *Journal of Development Studies* (forthcoming 1998).

15. W. Vijverberg, "Educational Investments and Returns for Women and Men in Côte d'Ivoire," *Journal of Human Resources* 2 (1993): 933–974; P. Krishnan, "Family Background, Education and Employment in Urban Ethiopia," *Oxford Bulletin of Economics and Statistics* 58, no. 1 (1994): 167–184.

16. D. T. Jamison and L. J. Lau, *Farmer Education and Farm Efficiency* (Baltimore: Johns Hopkins Press, 1982); see also J. M. Phillips, "Farmer Education and Farm Efficiency—a Meta-Analysis," *Economic Development and Cultural Change* 43 (1994): 149–165.

17. Simon Appleton and Arsene Balihuta, "Education and Agricultural Productivity in Uganda," *Journal of International Development* 8, no. 3 (1996): 415–444.

18. K. Savadogo and C. Wetta, "The Impact of Self-Imposed Adjustment: The Case of Burkina Faso, 1983–1989," in: G. Cornia, R. van der Hoeven, and T. Mkandawire, eds., *Africa's Recovery in the 1990s* (London: St. Martin's Press, 1993).

19. R. Blair, *Financial Diversification and Income Generation at African Universities*, AFTED Technical Note 2, World Bank, Washington, 1992.

20. World Bank, Education Sector Policy Paper (1980) opened by quoting Article 26 of the UN Declaration of Human Rights—that education should be free—and never subsequently contradicted it. Perhaps the first Bank paper to mark a more favorable stance towards user fees was Nancy Birdsall, "Strategies for Analyzing User Fees in the Social Sectors," paper for Country Policy Department (Washington: World Bank, 1983). Malawi was the first example of a country raising fees on Bank advice. An influential critique of adjustment is G. Cornia, R. Jolly, and F. Stewart, *Adjustment with a Human Face* (Oxford: Clarendon Press, 1987).

21. Arvil Van Adams and Teresa Hartnett, "Cost Sharing in the Social Sectors of Sub-Saharan Africa," World Bank Discussion Paper No. 338 (Washington: World Bank, 1996); Sanjay Reddy and Jan Vandemoortele, *User Financing of Basic Social Services: A Review of Theoretical Arguments and Empirical Evidence*, Staff Working Paper (New York: UNICEF, 1996); M. Foster, "Suggested Principles for the Application of User Charges for Health and Education," mimeo (London: Overseas Development Association, 1997). The views expressed in these documents are not necessarily endorsed by the organizations publishing them.

22. There may also be an important "public relations" aspect. Imposing fees for basic social sector services is likely to be very unpopular with the Bank's critics—such as NGOs—and with public opinion in general.

23. Germano Mwabu, J. Mwanzia, and W. Liambila, "User Charges in Government Health Facilities in Kenya: Effect on Attendance and Revenue," *Health Policy and Planning* 10, no. 2 (1995): 164–170; R. Green, "Health for All, Participation, Cost Sharing, and Poverty" (Sussex: Institute of Development Studies, 1994); D. Booth, et al., "Coping with Cost Recovery," mimeo (Stockholm: Department of Social Anthropology, Stockholm University, 1995).

24. In some countries, such as Ghana and the Gambia in the 1980s, falls in demand following the introduction of fees, although sharp, proved to be temporary. However, in other countries

such as Burkina Faso and Zambia in the 1990s, this phenomenon does not appear to have been repeated.

25. Barbara McPake, Kara Hanson, and Anne Mills, "Implementing the Bamako Initiative in Africa: A Review and Five Case Studies" DPHP publication no. 8 (London: London School of Hygiene and Tropical Medicine, 1992).

26. UNICEF/BIMU and M. Renzi, "Economic Crisis, Adjustment, and the Bamako Initiative: Health Care Financing in the Economic Context of Sub-Saharan Africa," background document for the Pan-African Conference on Community Financing in PHC, Kinshasa, Zaire, 25–27 June (New York: Bamako Initiative Management Unit, UNICEF, 1990). For an exception, see S. Haddad and P. Fournier, "Quality, Cost, and Utilization of Health Service in Developing Countries: A Longitudinal Study in Zaire," *Social Science and Medicine* 40, no. 6 (1995): 743–753.

27. See Bennell (1996) and Pritchett, *supra* note 8.

28. Fred Opio, "Tracking of Public Expenditure on Primary Education and Primary Health Care," Economic Policy Research Center, Kampala, 1996.