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Evidence from Africa on the Intrasectoral Allocation of Social Sector Expenditures

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CORNELL FOOD AND NUTRITION POLICY PROGRAM



**EVIDENCE FROM AFRICA ON THE INTRASECTORAL ALLOCATION
OF SOCIAL SECTOR EXPENDITURES**

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1. INTRODUCTION

Market failures in the social sectors represent a justification for the state to assume a prominent role in protecting and improving the quality of human resources. The challenge of the state is to efficiently provide and promote social services, particularly health care and education. The budgetary constraints of most sub-Saharan Africa countries that have resulted from the economic crisis and subsequent efforts at adjustment have prevented the government from responding effectively to this challenge. This inability has emerged as a major failing. The concern over the crisis and adjustment has characteristically been framed in terms of the prospect of shrinking budgetary resources destined for the health and education sector. The empirical evidence that shows no generalizable pattern of falling social sector expenditures, either in absolute or relative terms, in conjunction with adjustment (Sahn 1992), has in part allayed this concern.¹

Little consolation, however, can be found in the fact that central government budgets for health and education have not been decimated, and that the low quantity and quality of government inputs into human resource development in Africa is not a result of structural adjustment. The sobering fact remains that while the role of the state is critical in providing health and education services and in promoting an appropriate complementary role for the private sector, the actions of the state have been woefully inadequate. This in large part contributes to the relatively low levels of education and poor health in Africa. Therefore, while aggregate government spending on health and education has not declined precipitously during the years under adjustment, spending in key areas of social service provision remains extremely low relative to the requirements for effective intervention. This is especially so in light of emerging health crises such as AIDS, and the increasing importance of education in a world where technological change and improvements in productivity are the keys to economic growth.

One issue that arises in the context of constrained resources to respond to social sector needs is the appropriateness with which available moneys are used. In particular, has the structure and nature of spending out of the health and education budgets been appropriate from the point of view of efficiency and equity in the years before the crisis, and during adjustment? This question is compelling since, to the extent that vulnerable groups were not served by the existing system of social services prior to adjustment, they would be immune to any cuts that follow. The corollary of the question about how resources were

¹ Of course, the general picture does not imply that deterioration in social sector budgets did not occur in some countries, just as improvement was noted elsewhere.

being spent is: has structural adjustment tackled the problem of misallocation of resources? While foreign financing to the low-income countries of Africa has bolstered social sector expenditures relative to what they would have been in the absence of adjustment (and for the most part, countries were quite successful at maintaining or even increasing social sector spending during the 1980s), the equally pertinent issue related to the subject of adjustment is whether existing resources have been reallocated in response to the needs of the most vulnerable. This issue is the subject of this review.

We limit our analysis to the narrow issue of public expenditure policy, recognizing that the data presented are deficient in a number of ways. First, data constraints limited our analysis to information on central government allocations. In that regard, for the most part the data on actual expenditures are shown, although in some cases and for more recent years, budget figures, rather than actual spending, are reported.

Second, we were limited to the information that was contained in the most recent documents of the World Bank that were made available. Undoubtedly, their confidential or preliminary nature meant that certain of the most timely documents were not accessible. Furthermore, given that it was not possible within the confines of this exercise to gather and review primary source documents for each country, such as budget material produced by each ministry, we were left with the far less preferable option of relying on secondary sources.

But more important is, third, that while state budgets tell a partial story about social sector expenditures, it is far from complete. The role of the private sector and how it is facilitated or impeded by state intervention is critical. Various attempts have been made to estimate the magnitude of private sector involvement in health care and education. For example, in Zimbabwe, private care providers accounted for around 37 percent of health expenditures. In Malawi, approximately 45 percent of the country's health services are made up of church-related and other private voluntary health organizations. Vogel (1988) reports that in some countries (e.g., in Sudan and Guinea), expenditures on private care actually exceeded public sector expenditures, while in Benin, private sector payments had a value greater than that of public recurrent expenditures. In Ethiopia, private expenditures on health were estimated at two-thirds of the government expenditures, of which only 23 percent came from the government's domestically financed budget. The remainder was from external donors, nongovernmental organizations, and other sources. While most of the nongovernmental expenditures were for nongovernment provided services, even within the government health services, about 16 percent of the ministry's recurrent costs were in the form of fees for services, a high share relative to other countries in sub-Saharan Africa.

Another recent study by Serageldin et al. (1992) also indicated that mean private spending was substantially higher than aggregate government health expenditures in Côte d'Ivoire and Ghana. In the case of Burundi, 30 percent of primary health care facilities were run by religious missionaries. They were in part subsidized by external charities, although user charges covered most

operating costs, in contrast to the state-run system where only about 10 percent of operating costs were recovered.

While evidence on the share of education expenditures assumed by the state is more limited than health care, nonetheless a similar story emerges. In Zaire, for example, it was found that parents contributed 60 and 67 percent of the total, respectively, to primary and secondary education. These included expenditures on textbooks, uniforms, transport, supplementary payments to teachers, as well as attendance fees. Similarly, in Cameroon, the private sector was very active in education. In 1988/89, for example, enrollment in private sector schools comprised 44 percent of total secondary, 30 percent of primary, and 36 percent of preprimary enrollments. In Burkina Faso, while only 10 percent of primary school enrollments were in private institutions, 40 percent of those enrolled in secondary school were in private institution. In Benin, although the state has committed itself to managing education, including taking over religious private schools, 65 percent of the financing for primary and secondary schools was in fact left to the parents. Many public and private schools in Uganda were financed largely by fees, with one estimate of the percentage share of private financing being as high as 90 percent. And in Côte d'Ivoire, 11 percent of primary school students, 26 percent of lower secondary school students, and 15 percent of upper secondary school students were enrolled in private school. These numbers, however, do not take into account fees paid in public school, as well as related expenses. In fact, textbooks alone comprised a large financial input by parents. Given that the price of books was the same as in France, owing to the near monopoly of the government-backed publishing houses and the virtual absence of competition among retailers, the burden to poor households was palpable.

Thus, in the remainder of this paper when we focus on the expenditures of the state on social services, it is important to keep in mind that we are only telling part of a complex story of who pays for, and who provides education and health services. What is observed in terms of public expenditure policy, therefore, should not be confused with what actually is occurring in terms of total spending in the social services. This realization, in fact, contributes to the fourth major qualification about the intent and scope of this paper: that the links between the patterns and levels of spending, and human resources outcomes such as health status and knowledge are tenuous, and not easily understood or quantifiable. There are two reasons for this: first, data on quality and equity indicators are scarce; and second, there are time lags between the adoption of adjustment policies and the time at which the impacts of spending on health and education outcomes become evident.

To amplify, this paper makes no attempt to quantify the relationship between patterns and levels of social sector expenditures and social economic outcomes. Indeed, such an exercise is an important complementary exercise; however, it is best dealt with on a country specific level. Nonetheless, some implicit normative assumptions underlie the data. These assumptions suggest some understanding about the contribution of various types of government spending to desired outcomes such as equity and poverty alleviation. In particular, exploring the

issue of government spending is motivated by the assumption that the present patterns are technically efficient for alleviating poverty and raising living standards. This assumption, however, is not proven in this paper.

To amplify, the unsubstantiated expectation is that greater allocations to primary education and primary health care would move the state closer to realizing the objective of improving the welfare of the poor. This is predicated on factors such as the fact that it is the poor who are presently left out of the education and health service systems, and that the social returns to investments in primary health care and primary education are greater than returns to investments in hospitals and universities. Indeed, such assertions are not always correct and suffer from oversimplification. That is, while more spending on primary education and preventive and promotive health care may be the rational choice in most countries most of the time, policymakers oriented to raising living standards certainly should not take this assumption as doctrine. Rather, the complex of social and economic conditions that prevail determine the technical efficiency of government spending, and how resources need to be allocated, even if the objective function places higher value on raising the education and health status of the poor. Examples of such, discussed later in the text, may indicate that greater emphasis on higher education may be warranted. Similarly, certain unpredictable or catastrophic events may necessitate allocating a larger share of health resources of hospitals for curative services.

It is also the case that the objective functions of policymakers often give little weight to poverty alleviation, and instead, may be more concerned with political survival and distribution of rents. So even when it may seem beyond question that a reallocation of resources is warranted to achieve the objective function of donors or advocates for the poor, such evidence may be not in the least compelling for government policymakers.

With these qualifications, the remainder of this paper is organized into two main sections. The first deals with expenditure patterns in education, the second in health. These are divided into a discussion of overall biases in intrasectoral spending between different levels of the education and health sectors, sector personnel and wage expenditures, and the relative shares of recurrent and development spending, and how, if at all, these allocative decisions have been affected by adjustment.

2. EDUCATION

DISCRIMINATION AGAINST PRIMARY EDUCATION

Table 1 presents the distribution of spending by education level for the most recent year for which data were available. Caution in examining this table is required since the shares to various levels of education are limited to those which are distinguishable by level, with general administrative and other expenses that are not allocable netted out of the calculation. The underlying assumption, therefore, is that the unallocable shares would be distributed proportionately to those that are allocable.

The results indicate a wide variation in the allocable shares that were destined for primary education. The share of total education expenditures, summing recurrent and development spending, allocated to primary education ranged from a low of 10.8 percent in Botswana, to a high of 85.9 percent in Ghana. When this information is disaggregated, at the low end of the spectrum we find that in Uganda only 29.9 percent of recurrent expenditures were for primary education. Guinea-Bissau's 76.4 percent was the highest share of recurrent expenditures destined for primary education, with Chad having the next highest figure. For most countries, however, the share was between 40 and 50 percent, including for Burkina Faso, Cameroon, Lesotho, and Zambia.

The biases that exist in terms of recurrent expenditures were generally worse for investment. For example, most of the investment expenditures in education in Benin were destined for secondary and university education. In Kenya, where 57.1 percent of the recurrent budget was allocated to primary schooling, with 18.3 percent destined for higher education in 1990, 72.6 percent of the capital budget was destined for higher education in 1990, with virtually none targeted for primary education. Similarly, while higher education in Mozambique received 20.1 percent of the recurrent budget, this figure was 31.9 percent of total capital allocations. And while technical education's share of the recurrent budget was around 8 percent, the share of the capital budget was 59.9 percent in 1990. In Côte d'Ivoire, while primary school received 52 percent of the recurrent budget, during the mid-1980s, 64 percent of the development budget went to the Higher National School of Agronomy, alone. According to the Public Expenditure Review of 1987, this investment in the School of Agronomy was an inappropriate and financially infeasible project. It not only wasted investment resources, but also would have severe future recurrent cost requirements. While most recent data from 1990 suggest some realignment of priorities, the share of development expenditures for primary expenditures still remains low, at 27.4 percent of the total, compared to 52.0 percent for recurrent spending.

Table 1 - Shares of Education Expenditures Allocated to Different Levels (Most Recent Year)

Country	Type	Distribution of Allocable Shares			Total Allocated	Unal-located	Year
		Primary	Secondary	Higher			
		Percent					
Benin	Both	54.4	27.8	17.7	79.0	21.0	1988
Botswana	Both	31.3	45.0	23.7	96.1	3.9	1991
Burkina Faso	Recurrent	45.7	24.5	29.8	94.0	6.0	1990
Cameroon	Recurrent	42.1	25.0	32.9	100.0	0.0	1992
Cape Verde	Recurrent	65.1	{---34.9---		100.0	0.0	1986
Central African Republic	Both	54.0	25.0	21.0	100.0	0.0	1990
Chad	Recurrent	68.1	28.7	3.2	75.2	24.8	1988
Côte d'Ivoire	Recurrent	52.0	32.5	15.5	100.0	0.0	1990
	Development	27.4	52.8	19.8	100.0	0.0	1990
	Both	51.8	32.7	16.5	100.0	0.0	1990
Gambia	Both	48.8	39.3	11.9	84.0	16.0	1989
Ghana	Both	85.9	{---14.1---		100.0	0.0	1988
Guinea	Recurrent	36.0	32.3	31.7	92.8	7.2	1990
Guinea-Bissau	Recurrent	76.3	21.3	2.4	71.2	28.8	1989
Kenya	Recurrent	57.1	24.7	18.3	94.0	6.0	1990
	Development	0.0	27.4	72.6	83.5	16.5	1990
	Both	49.8	25.1	25.2	92.6	7.4	1990
Lesotho	Recurrent	44.4	32.5	23.1	86.5	13.5	1987
Madagascar	Both	{---72.0---		28.0	100.0	0.0	1990
Malawi	Recurrent	58.0	16.3	25.6	81.5	18.5	1988
	Development	4.1	21.5	74.4	87.4	12.6	1988
	Both	45.7	17.5	36.8	82.8	17.2	1988
Mali	Recurrent	38.0	41.4	20.7	92.0	8.0	1988
Mozambique	Recurrent - Total	37.2	42.7	20.1	100.0	0.0	1990
	Development - Total	8.2	59.9	31.9	100.0	0.0	1990
	Recurrent - Including aid	50.0	35.6	14.4	100.0	0.0	1990
Nigeria	Both	{---81.2---		18.8	100.0	0.0	1984
Senegal	Recurrent	48.9	25.5	25.5	94.0	6.0	1991
Tanzania	Recurrent	62.1	24.2	13.7	91.2	8.8	1986
	Development	15.9	63.7	20.4	76.1	23.9	1986
	Both	52.7	32.7	14.7	87.9	12.1	1986
Togo	Recurrent	38.9	33.6	27.5	97.0	3.0	1990
Uganda	Recurrent	29.9	51.0	19.1	89.1	10.9	1989
	Development	41.6	14.6	43.8	93.0	7.0	1989
	Both	32.9	42.0	25.2	90.0	10.0	1989
Zaire	Both	{---66.0---		34.0	100.0	0.0	1986
Zambia	Recurrent	45.0	30.9	24.1	90.1	9.9	1986
Zimbabwe	Both	55.3	30.4	14.3	95.8	4.2	1990
	Recurrent	49.4	29.7	20.8	90.4	9.6	
	Development	16.2	40.0	43.8	90.0	10.0	
	Both	49.3	30.6	20.2	90.9	9.1	

Sources: Benin - World Bank (1991a); Botswana (World Bank, 1992b); Burkina Faso - World Bank (1991b); Cameroon - World Bank (1992d); Cape Verde - World Bank (1987c); Central African Republic - World Bank (1991c); Chad - World Bank (1988a); Côte d'Ivoire - World Bank (1991e); Gambia - World Bank (1990d); Ghana - World Bank (1990e); Guinea - World Bank (1990h); Guinea-Bissau - World Bank (1991g); Kenya - World Bank (1991i); Lesotho - World Bank (1989e); Madagascar - World Bank (1990i); Mali - World Bank (1989g); Mozambique - World Bank (1992j); Nigeria - World Bank (1988g); Senegal - World Bank (1986i); Tanzania - World Bank (1990o); Togo - World Bank (1991q); Uganda - World Bank (1991s); Zaire - World Bank (1990q); Zambia - World Bank (1987m); Zimbabwe - World Bank (1992p).

In addition to the broad picture of misallocation of resources between primary and higher levels of education, the former also experienced more subtle forms of discrimination. For example, in Cameroon teachers were well paid at the university level, while at the primary school level, wages were low, and student/teacher ratios were high.

While it is apparent that governments bear a large responsibility for the inefficient use of resources, the bias against primary education is not only to be blamed on the countries themselves. In fact, some evidence shows that external assistance also shares some responsibility for observed distortions, especially when it comes to the capital budget, where they play a prominent role. There are myriad examples of such donor driven biases. During the first half of the 1980s, 40 percent of Zaire's education-related foreign aid money was allocated to higher education, with little of the remainder going to primary schools. Canadian financial support for the technical schools in Cameroon, and the Spanish-financed Yaounde University project only aggravated the bias against primary education that occurred in the allocation of government's own resources. In Benin, in 1986, 57 percent of the external aid went to university education, including 28 percent used for overseas scholarships. In the case of Zambia, 37 percent of donor education funding went to higher education in 1987. And in Equatorial Guinea, where the government's budget does not include higher education, Spain contributed US\$ 1,460,000 to the country for education, nearly twice the country's own budgetary outlay for education of US\$ 860,000. The problem, however, was that US\$ 700,000 of Spain's contribution was designated for scholarships abroad, US\$ 60,000 for university courses, and an additional US\$ 590,000 for secondary education, vocational training, and polytechnic schools. This left little money for primary education, a sector desperately short of resources. This need was manifested in poorly paid teachers, an acute shortage of textbooks and materials, a lack of infrastructure, and so forth. Likewise, in Comoros, where France covered 23 percent of the recurrent education expenditures and 95 percent of the investment budget, any misallocation of resources, especially in terms of investment, was clearly an issue that went far beyond the role of the state.

Another example of foreign assistance being biased against primary education was observed in Mozambique. While half of the Ministry of Education's recurrent expenditures were allocated to primary schooling in 1990, when one includes the external assistance that was budgeted for recurrent costs, including salaries, the allocation to primary education dropped to only 37.2 percent. This was largely because 38.6 percent of the recurrent aid was for the University Eduardo Mondlane. Similarly, the investment budget, almost entirely externally financed, with the World Bank alone contributing 54.7 percent of the total between 1991 and 1993, was heavily concentrated in Maputo, and to higher education. While this was partially justified in terms of the war, which made it difficult to work in rural areas, where most primary educational facilities are located, a need to reorient the allocation process, especially in light of the improvements in the security situation, is manifest.

A further point of concern that relates to the budgetary bias in favor of higher education is that a large share of those expenditures was for subsidies

on boarding, meals, medical care, and so forth. For example, in Burkina Faso, 38 percent and 80 percent of the secondary and higher education budgets, respectively, were allocated to student subsidies in 1990, including those paid to students studying outside the country. The comparable figures for the Sahel as a whole were 15 percent and 57 percent. Thirty percent of university spending in Kenya was accounted for by student boarding and allowances. In Madagascar, 53 percent of university spending went for grants and related social expenditures to support students, instead of salaries, infrastructure, and equipment used for teaching. Similarly, the nonpedagogical expenditures in the university budget were less than half of the total in Senegal, while in Mozambique, there were high costs associated with subsidizing secondary boarding schools, including tuition and living allowances.

Federal secondary schools in Nigeria spent almost 30 percent of their recurrent budgets on other student-related services. While in Uganda, 60 percent of secondary school public expenditures went to boarding and student allowances in 1991. This same expenditure item received 40 percent of recurrent spending at the university level. This pattern of grants and scholarship, an onerous burden on the budget, was also extant in Côte d'Ivoire. In the alternate case, in fact, board, lodging, and transport comprised 20 percent of the university budget in 1986. But even worse is that during the 1980s, the government made more progress at instituting school fees at the primary than at the secondary and university levels even though the potential for cost recovery was greater in the case of the latter, whether by direct payment or loans that would be repaid through schemes such as a variable levy on earnings of graduates.

The disproportionate expenditures on subsidies to higher education was occasionally in support of students overseas. For example, the high share of the budget allocated to higher education in Burkina Faso was in part due to expenditures on students studying abroad. Another example of this phenomena that illustrates its excesses and shortcomings is found in Ethiopia where of the nearly 13,800 students studying abroad, at least 50 percent were government-sponsored. The crux of the problem, however, was that the rate of return among students who completed their degree was quite low, a situation that is typical in most other countries in the region.

Some countries, such as Uganda, have taken measures to reduce or cut entirely government subsidization of secondary school and university boarding expenses. Similarly, in Comoros, in 1985, 15.9 percent of the government education budget went into the entitlement that baccalaureate's received fellowships abroad after one year of national service as a lower secondary teacher. Beginning in 1986, measures were introduced to terminate these fellowships, although it is not clear to what extent this was actually done. These efforts to reduce the large subsidies going to the privileged few, however, appear to be the exception, not the rule. In Togo, where scholarships typically accounted for 34 percent of public spending on higher education, the percentage of students receiving scholarship fell from 75 to 57 percent in 1990.

While the above data show the general pattern of discrimination against primary education, this problem is perhaps better illustrated by placing the budgetary allocations in the context of enrollments at various levels of the educational system. We can then derive a cost per student figure. In Table 2, we show expenditures per pupil in secondary and higher education as a share of primary education. The results on these unit costs indicate that in a sample of 18 countries, secondary education spending per pupil ranged from 174 to 1,500 percent of primary education unit costs and higher education spending per pupil ranged from 971 to 22,500 percent of the primary education spending level. The unweighted averages are 482 and 5,114 percent of primary education expenditures for secondary and tertiary education, respectively.

While lower unit cost ratios are generally a sign of greater commitment to primary education and equity, they are not always a positive development. For instance, in Comoros, the low ratio of spending on lower secondary to primary students was a reflection that the majority of the teachers in the former group were low-paid secondary school graduates performing one year of national service prior to obtaining scholarships for higher education. These individuals were not only paid as unqualified teachers, but the quality of their instruction was shown to be inadequate. Nonetheless, the fact remains that in cases like Uganda and Zambia, the extremely high ratios of higher to primary school strongly suggest a misallocation of limited budgetary resources.

Just as reports on the allocation of expenditures across countries shows a strong bias against primary education, there was little evidence uncovered that this tendency has been reversed since the beginning of structural adjustment. One example of a positive trend, however, was found in Mozambique. The share of the domestically financed recurrent education budget that was destined for primary education increased from 44 percent in 1985 to almost 50 percent in 1990. Between 1975 and 1987, there was also some indication that the share of the education investment budget allocated to primary schooling increased. This, however, was at the expense of spending on secondary education and teacher training, as higher education's share of the total has fallen off only slightly from 16.5 percent of 14.4 percent.

Ghana has also been a success story. Adjustment has been accompanied by an increasing share of the budget being allocated to primary education, something that has been facilitated by the success of cost recovery measures. There was similar progress in Guinea where primary education's share rose from 31.0 percent in 1986 to 33.4 percent in 1990 (World Bank 1990). And in Nigeria, there is also some indication that government reforms have endeavored to increase the emphasis on primary education. Specifically, in the early 1980s, 18.8 percent of the combined federal and state education budget was allocated for universities, with this figure being between 46 and 62 percent of the federal moneys alone. While it is difficult to take issue with the concept that the federal government should concentrate its resources on higher education, leaving the states to assume the responsibility for primary and secondary schooling, in practice this led to a neglect of the primary education as serious shortages in materials and teacher salaries occurred. Moreover, by 1984, two-thirds of the states had instituted tuition fees for primary and secondary education (World Bank 1990; Nigeria:

Table 2 — Education Spending per Student as a Percent of Primary Education (Most Recent Year)

Country	Secondary	Higher	Year
	Percent		
Benin	252	1,988	1991
Cameroon	212	1,677	1991
Chad	306	1,794	1988
Cape Verde	190	...	1985
Comoros	312	11,800	1985
Equatorial Guinea	979	3,929	1986
Ethiopia	198	4,014	1987
Gambia	230	4,120	1990
Guinea	306	4,362	1980
Guinea-Bissau	174	977	1989
Kenya	578	...	1990
Lesotho	634	2,349	1987
Mali	1,428	1,700	1987
Mozambique	628	9,344	1990
Nigeria	337	6,017	1985
Rwanda	1,233	8,591	1986
Senegal	210	1,867	1986
Togo	325	3,370	1990
Uganda	1,500	22,500	1991
Zaire	436	1,591	1986
Zambia	608	11,985	1990
Average	482	5,114	

Sources: Benin - World Bank (1991a); Cameroon - World Bank (1992d); Cape Verde - World Bank (1987c); Chad - World Bank (1988a); Comoros - World Bank (1986b); Equatorial Guinea - World Bank (1987f); Ethiopia - World Bank (1987h); Gambia - World Bank (1990d); Guinea - World Bank (1990h); Guinea-Bissau - World Bank (1991g); Kenya - World Bank (1991i); Lesotho - World Bank (1989e); Mali - World Bank (1989g); Mozambique - World Bank (1992j); Nigeria - World Bank (1988g); Rwanda - World Bank (1991n); Senegal - World Bank (1986i); Togo - World Bank (1991q); Uganda - World Bank (1991s); Zaire - World Bank (1990q); Zambia - World Bank (1992o); Zimbabwe - World Bank (1992p).

Primary Education Project). In response, the federal government in 1986 resumed direct involvement in primary education, although the effectiveness of this renewed role remains indeterminate. In Togo, the share of spending (excluding administration) allocated to primary education rose from 39.4 percent in 1986 to 42.2 percent in 1988, but fell to 38.9 percent in 1990 due to an increase in secondary education's share. Thus, there was a reversal of the reduction in higher education's share between 1986 and 1988. Finally, Niger, as part of its 1986 structural adjustment loan, channeled resources from transfers, subsidies, and higher user charges in higher education to primary schooling (Noss 1991).

In a number of other countries, however, we find that in recent years the discrimination against primary education has gotten worse. For example, the share of recurrent expenditures allocated to university education in Kenya rose from 11.8 percent in 1985, to 14.4 percent in 1988, to 18.3 percent in 1990. The share of capital expenditures devoted to higher education increased just as rapidly, although the implication for other categories was even greater since the share originally allocated to higher education was much higher.

Gambia's intrasectoral allocation of the education budget also worsened, as primary education's share of total education expenditures fell from almost 60 percent in 1985 to 48.7 percent in 1988. The decline was accompanied by an overall fall in education spending of nearly one-third, exacerbating the deleterious effects of intrasectoral shifts on primary education. In Zimbabwe, the share of the education budget allocated to primary school declined from 71.1 percent in 1982 to 55.3 percent in 1989/90, before increasing slightly the year after. Cape Verde's intrasectoral allocation of the education budget also worsened during the mid-1980s. In particular, the share for basic education fell from 71.4 percent in 1982 to 65.1 percent in 1986. Another country which has witnessed a falling share of budget allocated to primary education is Senegal. Higher education's share of the total increased from 16.1 percent in 1986/87 to 25.5 percent in 1991. Making matters worse was that the share of the university budget allocated to pedagogical activities, instead of subsidies, was not responsible for this increase. Instead, between 1984 and 1988, the share of subsidies and fellowships increased from 39 percent to 52.9 percent of the university budget. Thus, there is little indication that the quality of university instruction increased. The end result was that the reorientation of budgetary priorities contributed to the crisis in education, characterized by limited access to primary education, poor quality of instruction and management, and financial constraints due to the misallocation of resources.

The above examples portend a failure of adjustment to reorient social sector priorities. However, a reduction in the share of spending to primary education is not always altogether negative. For example, in Malawi, primary education's share of total spending showed no trend, averaging around 46 percent during the period 1984 to 1987. This share, however, dropped to 38 percent the next year, a statistic that indeed raises some concern about changes in priorities. It is only by distinguishing between recurrent and development spending that the explanation behind this story emerges. In particular, the share of recurrent expenditures for primary education grew from 49.8 percent in 1984 to 58.0 percent in 1988, certainly a positive development. In contrast, the share of the

development budget for primary education fell drastically during the same period, from 56.8 to 4.0 percent. This drop reflected the termination of a large multiyear investment program in primary education, and a concurrent shift in priorities toward teacher training colleges. This commitment to improve the number and quality of teachers in primary schools was a sound investment, because the ratio of students to teachers is extremely high, more than 100 to 1 in urban areas. In contrast, secondary and higher education have been favored, as manifested by low student to teacher ratios, which in fact, could be increased without doing any harm. At the same time, however, the fact that investments were not deferred in higher education, was a source of weakness in the budgeting process.

Another example of a decline in the overall share of resources allocated to primary schooling that may have been justified was observed in Botswana. In that case, primary education accounted for 39.4 percent of the total recurrent budget in 1985, falling to 31.3 percent in 1991. However, in evaluating this decline, it is also worth taking into account the position of the country, in terms of the accomplishments of the education sector. In particular, Botswana, has achieved near-universal access to primary education of a reasonable quality. The stated policy of giving more attention to secondary, technical, and higher education is, in such cases, reasonable. This is especially so in light of the heavy dependence on expatriates that occupy key positions in the government and economy, suggesting the need for additional technical and vocational training.

In Tanzania, the pattern of a smaller share of budgetary resources going to primary education was also found, and needs to be interpreted cautiously. Specifically, the share of the budget allocated to primary education fell from 42.1 percent in 1982 to 41.4 percent in 1986. This was in part explained by the increase in higher education's share from 10.5 to 14.7 percent (due in large part to an increased share of capital spending going to higher education). However, most of the decline in the share of resources to primary education and to administration occurred in order to expand the secondary education sector. The share of total expenditures on secondary education rose from 19.3 percent to 25.7 percent. This shift was considered a favorable development in light of the government's traditional policy of restricting the expansion of secondary education.

Most often, however, the data are ambiguous as to whether there have been meaningful trends during the 1980s in the intrasectoral distribution of education resources. For example, in Benin, primary education received 45 percent of the education budget in the mid-1970s. This share declined during the early 1980s, but by the end of the decade, primary education's share had once again returned to the level observed in the mid-1970s. Cape Verde's education budget also showed no trend in terms of intrasectoral allocation between 1982 and 1986, and likewise for Cameroon during the four-year period 1989 to 1992. And in Burkina Faso, the share of the budget allocated to primary school between 1988 and 1990 increased only slightly, from 43.6 percent to 45.7 percent, despite extensive donor support for the education sector, including a number of projects financed by the World Bank. It is interesting, nonetheless, that virtually all documents reviewed on Burkina discuss according priority to increasing resources for

primary education, limiting expenditures on student subsidies in secondary and higher education, as well as promoting private sector initiatives. These types of proclamations were the rule, not the exception in the documents reviewed, both recent and old. For the most part, however, pronouncements have led to only limited action.

WAGES AND SALARIES

Wage and salary payments absorb a very large share of the education budgets of most countries examined. This is a cause for concern since in most cases, the disproportionate allocation for such payments reflects a general failure of the state to recognize and act upon the need for supplies, equipment, and maintenance. Quite simply, the efficacy of teachers is compromised when nonwage expenditures are squeezed in order to maintain the payroll.

The problem that arises in examining the existing data across a large number of countries, however, is the difficulty in formulating a normative basis for determining when wage payments are excessive relative to nonwage expenditures. Is 90 percent too high, and 80 percent just right for primary school? How much lower should these figures be for secondary education? In fact, the answer to these questions is context specific. It depends on a number of issues, such as the level of teachers' salaries, the availability of complementary financing for nonwage costs, for example, through the in-kind contribution of the community. So too is the concern over wage payments in part determined by the degree to which the high salary burden of education is driven by high administrative overhead costs, versus paying for teachers actually out in the classrooms working with students, even in a resource-poor environment. Thus, given the difficulty of addressing these issues on a country-by-country basis in a report of this type, once again the objectives are more limited: to provide the empirical evidence, while making some normative judgments founded primarily on inference and the accompanying stories from a select number of countries, with the intention of highlighting what may indeed be a serious problem, and setting the stage once again for the more detailed country studies that should follow.

Table 3 demonstrates the high share of wages in the recurrent budget. In addition to the high overall share of wages and salaries, this observation is particularly prominent for primary education, becoming less acute for secondary and higher education. For example in Burkina Faso, the salary share is 91.8 percent for primary education, declining to just 19 percent for higher education. The decline in salary share across education levels, however, is primarily due to funds being allocated to scholarships, and related payments for boarding, transport, supplies, and so forth, as discussed above. A similar pattern is observed in Benin, where 99.2 percent of the primary education budget is for salaries, in contrast to just one-third of the university education expenditures. This high rate of wage expenditures was in part owing to the overabundance of teachers since the education sector has been the sponge that absorbs unemployed graduates that are guaranteed a job by the state. These policies took a particularly severe toll on primary education. Training, when provided, was of

Table 3 - Salaries as a Share of Current Education Expenditures (Most Recent Year)

Country	Level	Share (%)	Year
Benin	Primary	99.2	1986
	Secondary	86.3	1986
	University	33.0	1986
Burkina Faso	Primary	91.8	1990
	Secondary	57.8	1990
	University	19.0	1990
Cameroon	All	74.0	1992
Cape Verde	All	75.0	1986
Central African Republic	All	82.0	1990
Chad	Primary	96.0	1988
Côte d'Ivoire	All	94.9	1990
	Primary	66.7	1990
	Secondary	45.2	1990
	University	78.0	1990
Equatorial Guinea	All	56.0	1986
	Primary	92.0	1986
	Secondary	44.0	1986
	University	7.0	1986
Ethiopia	Primary	91.0	1987
Ghana	All	67.8	1990
	University	85.0	1990
Guinea	All	70.3	1990
Guinea-Bissau	All	98.0	1988
	Primary	89.0	1989
Kenya	Primary	91.3	1989
	Secondary	42.0	1989
	University	50.3	1989
Lesotho	All	90.0	1987
Madagascar	Primary	93.7	1991
	Secondary	85.7	1991
Malawi	Primary	59.4	1989
Mozambique	All	76.4	1989
	University	83.8	1989
	Secondary	81.1	1989
	Primary	97.6	1989
	Other	39.2	1989
Nigeria	Primary	57.1	1990
	Secondary-federal	52.4	1991
	Secondary-state	88.0	1991
	University	59.0	1986
Rwanda	Primary/secondary	86.2	1987
Sao Tome and Principe	All	90.0	1989
Senegal	All	74.2	1986
	Primary	95.0	1992
	Secondary	87.8	1986
	University	68.8	1986
	Other	62.3	1986
	University	72.5	1992
Tanzania	Primary	95.0	1991
Togo	All	73.9	1990
Zaire	Primary/secondary	95.0	1988
Zambia	Primary	97.0	1992
Zimbabwe	All	90.0	1990
Average	All	77.8	
	Primary	90.2	
	Secondary	70.7	
	University	53.9	

Sources: Benin - World Bank (1991a); Burkina Faso - World Bank (1991b); Cameroon - World Bank (1992d); Cape Verde - World Bank (1987c); Central African Republic - World Bank (1991c); Chad - World Bank (1988a); Côte d'Ivoire - World Bank (1991e); Equatorial Guinea - World Bank (1987f); Ethiopia - World Bank (1987h); Ghana - World Bank (1992g); Guinea - World Bank (1990h); Guinea-Bissau - World Bank (1991g); Kenya - World Bank (1991i); Lesotho - World Bank (1989e); Madagascar - World Bank (1990j); Malawi - World Bank (1990j); Mozambique - World Bank (1992j); Nigeria - World Bank (1991l, 1990l, 1988g); Rwanda (1991n); Senegal - World Bank (1992l, 1992n, 1986j); Tanzania - World Bank (1991p); Togo - World Bank (1991q); Zaire - World Bank (1990q); Zambia - World Bank (1992o); Zimbabwe - World Bank (1992p).

poor quality, and there was a lack of pedagogical materials, equipment, textbooks, and instructional leadership.

In Kenya, 91.3 percent of the recurrent budget was for salaries in primary education. While not extraordinarily high in comparison to other countries, such a number was part of an overall management of government spending as manifested in the disproportionate number of growth in the teachers as opposed to students. Concurrently, nonwage expenditures fell to a level of less than one-half the price of one textbook per student per annum.

In Zimbabwe, salaries represented 90 percent of total recurrent expenditures. Similarly, since 75 percent of the recurrent education budget in Cameroon was for primary education, few resources remained for teacher training, learning materials, and maintenance of school facilities. Quality of education, therefore, suffered. And in Equatorial Guinea, while 92 percent of the primary education budget was for salaries, less than half of the secondary education budget was for salaries. This discrepancy reflects a policy of acute neglect of nonwage resources in primary education. Even worse, however, was that this high salary share was part of a pattern of the low priority accorded education by the government, as manifested in the fact that only 3.7 percent of the total budget was allocated for education in 1986, a figure that was extremely low by any standard. At the same time, wages for teachers were extremely low, indicating that the high share of wage payments did not reflect the interests of teachers.

The fact that wages and salary payments assume a disproportionate, and as discussed below, often a growing share of the state's education budget, is only rarely attributable to high levels of remuneration. Indeed, in some cases, teachers were found to be well paid. In Burkina Faso, for example, secondary school teacher salaries were relatively high at 26 times GNP per capita. For primary school teachers, the figure was 13 times GNP per capita. Similarly, in Côte d'Ivoire where personnel costs were 94.9 percent of the recurrent expenditures at the primary level and 78 percent overall, teacher salaries were higher than in certain European countries, including Spain. In fact, while teachers comprised one-third of the public sector work force, their contribution to the government's total wage bill was 60 percent. Another measure of the distortion between wages and the rest of the sector's expenditures was that expenditures per capita for primary education were higher in Côte d'Ivoire than the rest of Africa, although expenditures on materials were considerably below the regional average.

However, high salaries were the exception, not the rule. In few cases were high wage and salary shares in education budgets caused by teachers being overpaid. For example, in Zaire, the index of real wages of teachers fell from 100 in 1975 to 16 in 1985. This contributed to resignations, absenteeism, and even unethical practices such as extortions of contributions. Indeed, recent salary increases in 1989 and 1990 partly restored the wage levels, although the rapid inflation that followed quickly eroded the benefits. Similarly, in the mid-1980s teachers in Cape Verde received less than car drivers, government clerks, and sales persons, and began to call for higher salaries. Salaries were

also extremely low in Chad, even though 96 percent of the recurrent budget was targeted for teachers' salaries. In fact, the base pay in 1988 was only 60 percent of the rate established in 1967, and furthermore, on average, payment was made 2.5 months late. Wages for teachers in Guinea Bissau were also very low. And in Cameroon, university staff were well paid, but the low wage scale for primary school teachers was identified as a problem. The dilemma is that it is difficult to determine where wages increases will come from without a significant increase in the primary education budget, especially in light of the inadequate supply of affordable and appropriate textbooks.

The need for institutional reforms and restructuring of education ministries is therefore obvious. In many countries, high costs of administrative personnel contributed to inefficient use of resources. This inefficiency is nowhere more clearly seen than in Cameroon, where one-third of the salaries were for administration. Similarly, in Burkina Faso, the high proportion of nonteaching staff, particularly at the university level, raised the wage bill. This fact encouraged the university to review its operations in 1988, with the intent to increase efficiency through, among other measures, instituting a monitoring system to determine how staff time was used.

As in the case of the allocation of resources between primary and higher levels of education, the role of donors in perpetuating, or at least not dealing with, the scarcity of financing for nonwage current expenditures needs to be considered. For example, in Botswana, despite years of World Bank-supported education projects that effectively promoted the expansion of the schooling system, far too little attention was given to improving the quality of the system. This is manifested in the fact that 31 percent of the teachers were untrained, as well as in the severe shortage of teaching equipment and supplies. The poor quality of instruction, then, was in part donor driven, as no external money was allocated to staff training, and less than 5 percent of the most recent project funded by the World Bank was for textbooks and other instructional materials. While these complementary expenditures were expected to be picked up by bilateral donors, much of this expected assistance never materialized.

The above discussion is instructive in painting the picture of the severe shortages of budgetary resources for textbooks and materials. We are also interested, however, to know whether this problem has been abated in recent years, especially as part of larger efforts at sectoral reform or in conjunction with foreign financed education projects.

In Zaire, the share of salary payments has remained high throughout the 1980s, even though the International Development Association (IDA) has supported the education sector with five credits during the last two decades. In Kenya, the share of primary education spending allocated to wages has remained above 95 percent throughout the 1980s, and while the nonwage share in secondary education jumped in 1989, there was no indication of a trend, especially in light of the considerable yearly fluctuations. In Madagascar, the share of the primary and secondary education budgets allocated to personnel also showed no change during the five-year period 1987 to 1991. No change was observed in the share of the

budget allocated to wages during the period 1982 to 1988 in Zimbabwe, although the level throughout the period was lower than in most other countries.

In a few countries the share of the budget allocated to salaries declined. For instance, in Cape Verde, salaries fell from 81 percent to 75 percent of the ministry budget between 1982 and 1986. But as indicated above, this only eroded further the low levels of salaries being received. More often, salary and personnel costs rose relative to other expenses. In Côte d'Ivoire, for instance, the ratio of personnel to nonpersonnel expenditures increased from less than 2 in the latter half of the 1970s, to around 10 in the period 1986 to 1988. Chad also witnessed an increase in the share of the education budget for wages, rising from 82.7 percent in 1985 to 96.1 percent in 1988. However, the education rehabilitation project begun in 1989 with World Bank support is expected to partly address this imbalance, not so much through reallocating the limited existing resources, but through enlarging the resource base. And in Benin, owing to the rise in the share of the budget at the university level allocated to salaries, personnel expenses rose more rapidly than other categories. However, caution is advised in analyzing such figures, since the salaries did not increase at the expense of the operating budget, but instead of subsidies to students, including scholarships, transport, and materials. This is arguably a reasonable shift in priorities.

DEVELOPMENT VERSUS RECURRENT SPENDING

It has been observed that as countries face acute economic crises, money is reallocated from capital to recurrent expenditures, especially to protect politically important civil service salaries. In turn, as countries emerge from crisis and receive sectoral adjustment loans and other forms of financing, one would expect capital spending to increase. Such an expectation however, does not take into account other factors. For example, in many countries in Africa, the economic crisis was precipitated by uncontrolled spending, including investments in the social sectors, which almost certainly would need to be restrained during adjustment. Likewise, donor finances are being employed increasingly for recurrent expenditures.

But regardless of the actual relative importance of recurrent and capital spending in the social sectors and the factors that influence their evolution, there is once again a difficulty in arriving at, a priori, a reasonable expectation concerning what is the proper balance, just as there was in regard to the discussion of the wage and nonwage allocations. For example, favoring capital expenditures during a period of austerity or recovery may increase the likelihood that capital expenditures are simply being used to replace assets that have deteriorated because of shortages of funds for operations and maintenance. Infrastructure such as school and health clinics may also be underutilized. Conversely, policies that dampen capital spending raise the concern about the long-term implications, that future improvements in the social sectors may be at the expense of short-term wage payments.

While sorting these issues out is once again beyond the scope of this document, the experiences of a few countries is informative, in both corroborating and contradicting some of the expectations, as in reinforcing and mitigating some of the concerns discussed above. For example, for some of those countries for which data are available, the share of development spending in the total education budget fell during the structural adjustment period (Table 4). In Malawi, for example, development spending declined between 1985 and 1988 from 32.4 to 21.6 percent of total education spending. This shift in allocation, however, has failed to address the problem of acute underfunding of recurrent expenditure items such as textbooks and teaching materials. Another example where the process of adjustment was concurrent with a reduction in investment spending is also found in Cameroon. In this case, the vigorous expansion of physical facilities that occurred in the 1970s and 1980s has been reduced in the face of the downturn in oil revenues that led to adjustment. This reduction was not as deep in terms of the recurrent budget. Nigeria witnessed a similar decline in the investment budget's share of total education spending, falling from 40.9 percent to 26.8 percent between 1980 and 1988. Guinea, a country with a relatively high percentage of education spending allocated to investment, reduced investment spending from 43.2 percent in 1986 to 34.9 percent in 1990.

In contrast, development spending grew from 19.8 percent of total spending in 1988 to 24.0 percent in 1990 in Uganda. An increasingly large share of the total education budget has also been for investment spending in Mozambique since 1988. This increase was largely in response to the deterioration of educational infrastructure in the wake of years of war and neglect. As in the case of Uganda, it was only made possible by the infusion of donor finance in support of such efforts. Another example where the share of total spending allocated to capital projects has increased was Kenya. Between 1980 and 1985, the development budget jumped from 5.4 percent of the total to 13.8 percent. This jump was largely in order to finance investments in higher education.

In other cases no major change occurred in the allocation between recurrent and development spending. In Ethiopia, for example, no trend over the period 1975 to 1987 was observed. This reflected the stability in the level of donor finance which supported on average a 75 percent share of capital budget, with the capital budget generally accounting for 15 percent of the total budget. The evidence thus points to a situation where the allocation between recurrent and capital spending was primarily driven by the decisions of donors, not the state.

A final, albeit unremarkable, observation from the limited empirical evidence available is that investment spending as a share of total expenditures tended to be lower for primary schooling, than for other categories. Exceptions, such as in Côte d'Ivoire, were noted. Considering that wage payments shares are much higher for primary education, the overall implication is that virtually all primary education budgets were for wages and salaries. To the extent that adjustment programs reverse this situation whereby little money was allocated for other investment spending, however, planners need to be cognizant of the future nonwage recurrent cost implications.

Table 4 - Share of Recurrent to Total Spending in Education (Most Recent Year)

Country	Primary	Secondary	Higher	Unallocated	All	Year
Chad	...	...	...	...	83.0	1988
Côte d'Ivoire	99.6	98.7	99.0	97.8	99.2	1990
Ethiopia	{-----91.0-----}		79.7	...	...	1987
Guinea	...	...	...	...	65.1	1990
Guinea-Bissau	80.0	31.5	86.7	...	...	1988
Kenya	...	90.4	63.1	86.4	85.8	1990
Lesotho	...	...	...	...	93.1	1987
Malawi	97.9	73.4	53.9	82.2	78.4	1988
Mozambique	93.4	90.1	68.8	66.1	76.3	1990
Nigeria	79.3	...	74.0	...	...	1991
Rwanda	...	...	...	...	87.2	1982-86
Senegal	...	...	...	...	90.6	1990
Togo	...	...	...	...	92.5	1990
Uganda	68.6	91.4	57.0	83.2	76.0	1990
Average	74.1	79.2	72.8	83.1	84.4	

Sources: Chad - World Bank (1988a); Côte d'Ivoire - World Bank (1991e); Ethiopia - World Bank (1987h); Guinea - World Bank (1990h); Guinea-Bissau - World Bank (1988c); Kenya - World Bank (1991i); Lesotho - World Bank (1989e); Malawi - World Bank (1990j); Mozambique - World Bank (1992j); Nigeria - World Bank (1991l, 1990l); Rwanda - World Bank (1989j); Senegal - World Bank (1992n); Togo - World Bank (1991q); Uganda - World Bank (1991s).

3. HEALTH

Government-run health ministries in sub-Saharan Africa are often inefficient and wasteful, even in the face of severe total budget constraints. This inefficiency comes in numerous forms. At the extreme is the pilferage and theft of equipment and supplies, particularly pharmaceuticals that are in short supply. Poor management of the health care system, however, is even more pervasive. Examples include patients bypassing lower level facilities where care should be provided, in part due to poor health care practice and in part due to the distortion of overinvesting in secondary and tertiary care facilities; inadequate procurement procedures for drugs and other supplies, and an absence of proper control and distribution procedures that contributes to expiration and spoilage of pharmaceuticals;² and overstaffing of facilities, especially with nontechnical workers, further inflating the wage bill relative to other forms of expenditures (Serageldin et al. 1992). But perhaps most important is that inefficiency in the health care system derives from inappropriate priorities: emphasizing curative care instead of prevention and the delivery of basic services.

Addressing the causes and results of these structural problems is beyond the scope of this paper. Instead, in this section we more modestly attempt to address the issue of how limited government health budgets are allocated, and the impact of adjustment programs on such decisions. We are primarily interested in the preventive versus curative dichotomy. Also of concern is the functional distribution within these subsectors: whether reorientation of state spending has been oriented to increase efficiency through ensuring a correct balance between wage and salaries and payments, and development and recurrent spending.

PRIMARY VERSUS SECONDARY AND PREVENTIVE VERSUS CURATIVE

Examining budget figures regarding how much money is spent on primary versus secondary, and preventive versus curative services is hampered by the fact that budgets are rarely constructed to allow such straightforward delineation. Furthermore, not only do presentations and categorizations vary from one country to the next, but so do the definitions.

To illustrate the dual problems of definition and classification, the curative versus preventive or promotive distinction in Kenya is instructive. Two estimates of the share of expenditures allocated to these two categories were available. One is that such spending comprised approximately 15 percent of all health expenditures during the mid-1980s. The other estimate was that 45 percent

² According to Serageldin et al. (1992), an astonishingly low \$7.00 for each \$100 spent on drugs is used effectively.

of the budget was allocated to prevention. The former is undoubtedly an underestimation, as preventive and promotive health care spending in hospitals are excluded. The latter is an overstatement since it counted all hospital outpatient department expenditures as preventive care. This included outpatient care at the referral hospital, Kenyatta National Hospital in Nairobi, which alone absorbed between 8 and 15 percent of the ministry's budget during the 1980s.

Malawi provides another example where the data overstated the bias towards curative care. All expenditures by hospitals and clinics were classified in government reports as "curative." Thus, in 1987/88, when 73.2 percent of total health expenditures was supposedly spent on "curative care," the statistic was misleading since the hospitals and clinics that received the funds actually carry out many important preventive programs.

A number of other related problems arise in examining the data. For example, it would be ideal to desegregate hospitals into regional hospitals backstopping primary health care clinics in the villages, versus the major tertiary care centers. Likewise, it would be useful to know the extent to which the large hospitals in the city serve as primary care facilities for the urban poor; how the share of the operating and infrastructure costs is associated with tertiary medical care; or the degree to which administrative overhead associated with such facilities is excessive and wasteful. These questions are all important when evaluating the data that follow, and as indicated above, the answers reinforce the importance of country case studies. Nonetheless, while not being able to resolve the accounting and definitional problems, the data overall seem to paint a picture that despite the assertions of most governments, preventive care was neglected at the expense of curative care.

For example, as shown in Table 5, in Burundi the disproportionate share of the budget allocated to hospitals has resulted in inadequate health care staffing at the primary levels. In Chad, health centers and preventive medical care each received only 19 percent of the recurrent budget, while hospitals received twice that amount, with management receiving an additional 23 percent. Similarly, in Comoros, hospital services alone received 34 percent of recurrent expenditures in the early 1980s. Capital expenditures, too, have been concentrated in the hospital sector, where for the most part they have been squandered owing to the lack of corresponding staff, equipment, and supplies to make them functional.

Even in Angola, during the period it was under the tutelage of Cuba and the Soviet Union, recurrent expenditures and investment were markedly skewed toward hospital services, primarily in Luanda, and to a lesser extent in other urban areas.

Côte d'Ivoire had a public health system with a strong curative care bias. Almost 54 percent of total recurrent expenditures and 61 percent of development expenditures were allocated to the tertiary level in 1990, compared to only 35 and 22 percent to recurrent and development expenditures, respectively, being allocated to the primary level. This contributed to a variety of problems, including technical inefficiencies such as the channeling of demand toward the

Table 5 - Shares of Health Expenditures to Different Levels (Most Recent Year)

Country	Level/Type	Share (%)	Year
Angola	Primary - Development	6.0	1992
	Secondary - Development	20.0	1992
	Tertiary - Development	28.5	1992
	Other - Development	45.5	1992
Burundi	Primary - Development	18.0	1983-87
	Hospital - Development	70.0	1983-87
	Other - Development	12.0	1983-87
	Primary - Recurrent	20.0	1983-87
	Hospital - Recurrent	80.0	1983-87
Central African Republic	Curative - Recurrent	97.0	1988
	Preventive - Recurrent	3.0	1988
Chad	Preventive - All	19.0	1988
	Primary - All	19.0	1988
	Hospital - All	39.0	1988
	Administration - All	23.0	1988
Côte d'Ivoire	Primary - Recurrent	34.9	1990
	Secondary - Recurrent	11.5	1990
	Tertiary - Recurrent	53.5	1990
	Primary - Development	22.0	1990
	Secondary - Development	17.0	1990
	Tertiary - Development	61.0	1990
Ghana	Primary - Recurrent	23.0	1990
	Primary - Development	44.1	1989
Kenya	Curative - All	50.2	1990
	Preventive - All	10.3	1990
	Hospital - All	8.2	1990
	Rural - All	18.8	1990
	Other - All	11.3	1990
Lesotho	Hospital - Recurrent	70.0	1984
	Primary - Recurrent	14.0	1984
Madagascar	Primary - Recurrent	18.3	1991
	Secondary/tertiary - Recurrent	42.7	1991
	Administration/Other - Recurrent	39.0	1991
Malawi	Preventive - All	6.8	1988
	Curative - All	73.2	1988
	Administration/Training - All	20.1	1988
Mozambique	Preventive - Recurrent	64.0	1989
	Curative - Recurrent	36.0	1989
Nigeria	Preventive - Recurrent	20.0	1985
	Curative - Recurrent	80.0	1985
Senegal	Hospital - Recurrent	42.0	1990
	Other - Recurrent	58.0	1990
Tanzania	Hospital - All	68.0	1991
	Preventive - All	6.0	1991
	Other - All	26.0	1991
Uganda	Preventive - Total - All	60.0	1989
	Preventive - Government - All	33.0	1989
	Preventive - Donor - All	83.0	1989
Zimbabwe	Administrative - All	6.6	1988
	Medical care - All	80.7	1988
	Preventive - All	12.0	1988
	Research - All	0.8	1988

Sources: Angola - World Bank (1992a); Burundi - World Bank (1987b); Central African Republic - World Bank (1991c); Chad - World Bank (1990b); Côte d'Ivoire - World Bank (1991e); Ghana - World Bank (1990g); Kenya - World Bank (1991i); Lesotho - World Bank (1985h); Madagascar - World Bank (1989f); Malawi - World Bank (1990j); Mozambique - World Bank (1989h); Nigeria - World Bank (1989i); Senegal - World Bank (1992m); Tanzania - World Bank (1989l); Uganda - World Bank (1991s); Zimbabwe - World Bank (1990r).

highest level of the health infrastructure. The excessive number of patients seen at hospitals, often by physicians instead of more appropriate paramedics, contributed to these inefficiencies. Furthermore, the government shouldered most of the fiscal costs of such misallocation, as less than 6 percent of the expenses of the tertiary level were recovered through patient fees.

Likewise, in Madagascar during 1991, 42.7 percent of recurrent expenditures were spent on secondary and tertiary health services, with an additional 39.0 percent spent on administration and other services. This left only 18.3 percent of the budget designated for primary care. Zimbabwe too had a health system that is top-heavy and urban-oriented, with curative services comprising a disproportionate amount of the budget. In 1987/88, only 12.0 percent of the budget was allocated to preventive services, with only 6.4 percent of the salaries allocated for preventive care. Another statistic that was perhaps more revealing was that out of the total health budget, around one-half was for tertiary care hospitals, and 30 percent for secondary level hospitals in the districts and mission hospitals. Only one-fifth of the total was for primary health care clinics in rural and urban areas, combined. In Nigeria, also, too little attention was accorded to preventive care, accounting for only one-fifth of total spending in 1985. This fact, coupled with inadequate emphasis on primary health care, institutional fragmentation and duplication, inadequate manpower planning, and poor cooperation between private and public sectors contributed to the ineffectiveness of the health care system.

A rare example of the allocation of resources within the health sector being consistent with stated policy of according priority to primary and preventive health care was observed in Mozambique. Only one-third of the recurrent budget was allocated to the central hospital. Despite the truly good intentions and follow-through of the ministry to use resources in an equitable manner, however, the severe budgetary constraints of the state nonetheless has squeezed the operating budget, heightening the importance of improving efficiency through training and improved management. In addition, cost recovery to expand the resource base was also of importance to address the shortage of budget resources.

Experiences from several countries also indicate that like for education, donor financing has sometimes exacerbated distortions. For example, in Burundi, 80 percent of the government recurrent budget was for hospitals. There were similar distortions in the investment budget financed by donors. In particular, between 1983 and 1987, the investment programs allocated 70 percent to the hospital subsector (half of which was for one hospital). Of this investment budget, 70 percent was covered by foreign aid. Such cases exemplify how the same political economy factors, and the conspicuous plight of urban dwellers, particularly in the capital city, capture the attention of donors, just as they do politicians. This was again well illustrated by the case of Angola, where after the end of the war, external investment resources were notably concentrated on rehabilitation of municipal hospitals, even though most of the primary and secondary health facilities needed to be replaced or repaired.

While the static picture is not encouraging, of paramount importance is the changes in resource allocation that have occurred. In Kenya, the evidence

through the end of the 1980s suggests no reorientation of spending away from the heavy emphasis on curative activities. While the most recent budget estimates for 1990 showed a substantial increase in planning allocations for preventive services, a considerable amount of skepticism exists as to whether these allocations will actually be made. No data, however, are available to determine whether this skepticism is warranted; although the fact that during the 1980s, the ratio of budgeted to actual spending has been less for preventive or promotive care than for curative care, suggests that such a concern is warranted.

This consistency over time in the low share of budgetary resources being allocated to primary care was observed in a number of other countries. For example, in Madagascar, primary health care's share of recurrent expenditures remained virtually unchanged between 1986 and 1991. While the share of the development budget allocated to primary health care surged in 1987 and 1988, since then, the figures have fallen closer to the level of 1986.

In a number of other countries, it is also difficult to discern any change in policy, although the short time series for which data are readily available precludes reaching firm conclusions. For example, in Uganda, the share of expenditures allocated to primary versus other spending was relatively stable between 1988 and 1990. And in Ghana, despite financing for the health sector from the World Bank, the share of the recurrent budget for primary health care remained at between 23 and 24 percent between 1988 and 1990.

While no discernable change was found in most countries, there were exceptions. For example, in Côte d'Ivoire, the share of the health budget allocated to hospital-based care rose from 40.2 percent in 1980 to 56.2 percent in 1986. Most of this increase was due to higher spending at university hospitals, which nearly doubled. This was at the expense of spending on pharmaceuticals, as primary health care maintained its low share of around 10 percent of total spending throughout the period.

In Senegal, the share of the health budget spent on primary health services declined from 50 to 42 percent between 1982 and 1990, representing another setback in the government's pursuit of a primary health care strategy designed to improve allocative efficiency. Problems such as the poor management of the nonhospital sector, lack of essential drugs, inadequate training of personnel, and inequitable regional distribution of care, particularly in rural areas where 60 percent of the population lacks access to health services, were for the most part not addressed.

In contrast, one case of success in reorienting at least part of the budget, particularly capital spending, was Zimbabwe. Since independence, preventive health activities and facilities serving rural areas showed a major improvement. Financed primarily by external sources, capital expenditures in immunization programs, rural water supplies and latrines, training of public health workers, construction of training centers, and so forth have been extensive, and shifted the balance in favor of the needs of the rural poor. Nonetheless, the urban bias persists, and efforts to improve allocative efficiency are still required.

In many instances, the lack of change in priorities that we could empirically verify was matched by pronouncements and plans suggesting that change was imminent. For example, in Burundi, the 1988-1992 public investment program indicated that primary health care's share of the investment budget will more than double from 18 percent to 45 percent during the period. As 80 percent of the budget was being financed from foreign aid, of course, we suspect that some external pressures underlie the reordering of priorities. Benin's action plan for health consists of strengthening basic health services, particularly mother and child health, family planning, and immunization programs. Malawi's National Health Plan (1986-1995) seeks the expansion of a primary health care approach by strengthening community-based services. Due to budgetary constraints, the Plan assumes no real increase in the Ministry of Health's recurrent budget, instead emphasizing improved cost recovery and cost effectiveness. Similarly, Tanzania, facing a serious budget crisis, intends to introduce reforms to improve the personnel incentive structure and adequately finance the requisition of pharmaceuticals and medical supplies. Finally, Zimbabwe also recognizes that in order to overcome its inability to adequately finance its health sector, measures must be implemented to mobilize resources through the introduction of user fees, to promote greater allocative and technical efficiency, and to improve the management of the health system. Such ambitions, however, are not easily distinguished from those not fulfilled in the past. For example, in Côte d'Ivoire, the Fifth Plan (1986-1990) gave central attention to an intensification of policies promoting health education and prevention, yet in 1991, the World Bank reported that health expenditures were still biased toward hospital care. Kenya, despite the stated intentions by the Ministry of Health, consistently underspent budgeted allocations for preventive health services. And similarly, in 1989, Senegal adopted a National Health policy that gave priority to promoting primary health care. However, the Ministry of Health has not attempted to restructure the hospital sector despite the preponderance of hospital expenditures in the health budget. A healthy skepticism about official statements, coupled with careful monitoring of whether policy change actually occurs, therefore, would be an important complement to any external finance conditioned upon such reforms.

WAGES AND SALARIES

The share of the recurrent budget allocated to wages in the health sector has been variable, but generally high relative to other expenditures (Table 6). For example, personnel costs represent 77 percent of recurrent health expenditures in Côte d'Ivoire, 75 percent in the Central African Republic, 73 percent in Senegal, 70 percent in Madagascar and 69.5 percent in Benin. As in the case of education, however, these very high wage payments as a share of the recurrent budget were not necessarily attributed to workers being overpaid. For example, in Benin, low pay for health workers has been argued to contribute to poor motivation. However, other factors ranging from the lack of availability of supplies and drugs, poor definition of personnel functions, absence of training programs, and so forth, also contributed to low moral. Of equal concern, however, is that in some instances, part of the blame for the high wage costs was

Table 6 - Salaries as a Share of Current Health Expenditures (Most Recent Year)

Country	Level/Type	Share %	Year
Angola	All	63.0	1990
Benin	All	69.5	1988
Burundi	All	55.0	1986
Central African Republic	All	75.0	1988
Chad	All	70.0	1988
Comoros	All	57.0	1983
Côte d'Ivoire	All	77.4	1990
Ethiopia	All	70.0	1986
Ghana	All	41.0	1990
Guinea-Bissau	All	60.0	1989
Kenya	All	55.0	1986
Madagascar	All	70.0	1986
Malawi	All	26.6	1986
Nigeria	Federal - All	68.0	1985
	State	74.9	1985
	Local	93.1	1985
Senegal	All	73.3	1990
Togo	All	75.0	1990
Uganda	All	54.0	1987
Zimbabwe	All	66.7	1987
Average	All	61.9	

Sources: Angola - World Bank (1992a); Benin - World Bank (1989a); Burundi - World Bank (1987b); Central African Republic - World Bank (1991c); Chad - World Bank (1990b); Comoros - World Bank (1992e); Côte d'Ivoire - World Bank (1991e); Ethiopia - World Bank (1987g); Ghana - World Bank (1990g); Guinea-Bissau - World Bank (1991g); Kenya - World Bank (1988d); Madagascar - World Bank (1989f); Malawi - World Bank (1990j); Nigeria - World Bank (1991m); Senegal - World Bank (1992m); Togo - World Bank (1991r); Uganda - World Bank (1991s); Zimbabwe - World Bank (1990r).

in the allocation of resources to administration. This was noted, for example, in Malawi, where administrative overheads, mostly salaries, increased dramatically in 1988.

In other countries such as Burundi, the share of personnel expenditures in the entire budget was considered more reasonable at 55 percent of the total. The remaining 45 percent left sufficient funds for drugs, maintenance, and supervision. Ghana was a case with an even lower share of the budget allocated to personnel. In fact, 59 percent of total health expenditures were allocated to goods and services in 1991. In Kenya, 55 percent of the Ministry of Health budget in 1986 was for personnel, while in Zimbabwe, only two-thirds of the recurrent budget was for salaries in 1986/87.

A few cases show some indication that in conjunction with efforts at sectoral reform, personnel expenditures may have fallen relative to the total budget. Ghana, during the period of 1988 to 1990, successfully lowered the personnel allocation in the budget from 46 percent to 41 percent. In Benin, while the actual expenditure figures available between 1982 and 1987 show no change, the projections for 1988 and 1989 show a nearly doubling of nonwage costs. This change, in fact, was largely attributable to the planned increase in spending, including on essential drugs, to be paid for out of a social fund established by the government and donors. As shown elsewhere, these projections should be viewed with caution. In Malawi, too, the share of recurrent budget for wages has been declining. Unlike in Ghana, however, this is not a positive development. Rather, it reflects a shortage of medical and clinical health personnel, in large part due to the brain drain. This has at the same time made the country rely increasingly on expatriates, whose salaries are largely paid by foreign governments. Furthermore, the decline in wage payments has not been complemented by equal improvements in basic supplies and drugs, although success in improving the cold chain for immunizations was noted.

In other instances, the personnel share has actually increased. For example, in Côte d'Ivoire, despite considerable fluctuations, the 1990 figure for personnel's share of the budget (77.4 percent) was a substantial jump over the figures earlier in the 1980s, which fluctuated a couple of percentage points above and below 70 percent. In nominal terms, in fact, nonsalary expenditures fell from CFAF 1,222 per capita in 1981 to CFAF 670 in 1990, seriously affecting material inputs and supplies.

Madagascar also witnessed an increase in personnel costs prior to adjustment, from 57 percent to 70 percent between 1977 and 1985. Only a small share of this increase was due to expenditures associated with the expansion of primary health care. In effect, this shift meant a 65.5 percent decline in nonpersonnel expenses in the preadjustment and stabilization periods, something not reversed in recent years during adjustment. This has been felt in a number of ways, including the shortage of pharmaceuticals at primary health care facilities. In fact, the 1989 budget for drugs was \$0.07 per capita, a small share of what would be required to run an effective primary health care system. Thus, despite the government's intention to expand the health sector, it failed

to improve health conditions largely because of the inability to allocate sufficient resources to support the planned expansion.

The nonwage share of recurrent spending also fell during the 1980s in Kenya, resulting in a growing imbalance between operating expenditures and personnel costs. In fact, just between 1985 and 1988, the share of nonwage costs declined from 6.4 percent to 4.4 percent. This contributed to a deterioration in the efficiency of health workers, and the coverage and quality of health services delivered, especially due to the acute shortfalls in the availability of drugs, as well as vaccines in rural areas.

A picture of rising shares for salary payment was also found in Senegal, where the percentage of personnel payments in health spending rose from 65.4 percent in 1983 to 73.3 percent in 1990, with most of the increase taking place in the last year. Likewise, efforts to expand the availability of health services in Ethiopia has meant that salaries were assuming an increasingly large proportion of the recurrent budget, although, by comparison with other countries, the figure was not excessively high.

DEVELOPMENT VERSUS RECURRENT SPENDING

Just as with the education sector, it is particularly difficult to arrive at practical and simple parameters by which to judge the appropriateness of expenditure allocations between development and recurrent expenditures. This is especially so in Africa, where the rehabilitation of infrastructure is such a large challenge, and where in some instances, it costs less to build new facilities than to rehabilitate old ones. Nonetheless, the limited information from a number of countries at least provides a benchmark, which can formulate the basis for expectations and comparison. As shown in Table 7, the share of recurrent expenditures is relatively high for most countries, averaging 78.8 percent for the available sample. Côte d'Ivoire spent the largest share of its health budget on recurrent items (94.7 percent), while in contrast, Madagascar allocated only approximately half as much of the total health budget to recurrent spending.

This low share of moneys allocated to recurrent expenditures in Madagascar represents a good example of an evolutionary process driven in large part by donors. In 1986, development spending comprised just 27.4 percent of the total health budget, increasing to 47.4 percent in 1989, before falling to 42.8 percent in 1991. This increase, however, was in large part attributable to the foreign financing, with its share of the total increasing from 28 percent in 1986 to 49 percent in 1989, and then falling to 40 percent, tracking closely the share of the development budget in the total. Another example of an increasing share of expenditures going to investment spending is found in Angola since 1989. This has been primarily foreign financed as well, focusing on the rehabilitation of hospitals damaged by the war.

Table 7 - Shares of Recurrent and Development Spending in Health (Most Recent Year)

Country	Level/Type	Shares		Year
		Recurrent	Development	
Angola	All	86.0	14.0	1991
Côte d'Ivoire	All	94.7	5.3	1990
	Primary	96.6	3.4	1990
	Secondary	92.3	7.7	1990
	Tertiary	94.0	6.0	1990
Ethiopia	All	85.1	14.9	1985
Kenya	All	74.8	25.2	1990
	Curative	86.4	13.6	1990
	Preventive	40.1	59.9	1990
	Rural	43.8	56.3	1990
Lesotho	All	94.6	5.4	1985
Madagascar	All	57.2	42.8	1991
	Primary	46.8	53.2	1991
	Secondary/Tertiary	66.8	33.2	1991
Malawi	All	73.2	26.8	1988
	Preventive	86.3	13.7	1988
	Curative	71.0	29.0	1988
	Administration	76.5	23.5	1988
Nigeria	All - Federal	73.2	26.8	1988
Uganda	All	70.6	29.4	1990
	Primary	73.4	26.6	1990
	Other	65.9	34.1	1990
Average	All	78.8	21.2	1990

Sources: Angola - World Bank (1992a); Côte d'Ivoire - World Bank (1991e); Ethiopia - World Bank (1987g); Kenya - World Bank (1991i); Lesotho - World Bank (1985i); Madagascar - World Bank (1989f); Malawi - World Bank (1990j); Nigeria - World Bank (1991m); Uganda - World Bank (1991s).

Kenya, too, witnessed a large increase in capital spending in 1990, after five years of relative stability. This, however, was not a positive development. First, it was taken from funds for nonwage recurrent spending, which already was extremely constrained. Second, the capital expenditures were being made in the absence of a comprehensive public investment program. No serious effort was made to analyze the cost-effectiveness of alternatives and priorities.

In contrast is the case of Nigeria where recurrent expenditures increasingly dominated total health expenditures. This trend was a reflection of the fiscal crisis that confronted Nigeria in the wake of the downturn in oil prices, not compensated by foreign financing. Thus, while the recurrent budget accounted for less than 60 percent of the total federal health budget in the early 1980s, during the second half of the decade, the share was more than 70 percent on average. This shift, however, was largely designed to protect personnel costs, and did little to improve the quality of services as fundamental problems such as shortages of drugs and a disregard of preventive care were not addressed. Still other countries exhibit no trends. For example, the economic and social crisis that occurred in Ethiopia between 1974 and 1985 did not squeeze capital spending. Likewise, in Malawi there have been large fluctuations in the share of total spending allocated to investment, although no clear trend. Nonetheless, the evidence suggests that even with one-quarter or less of the total budget for investment, recurrent expenditures were systematically underfunded. One estimate is that between 1984 and 1988, the increment in recurrent expenditures was about 25 percent of what would have been sufficient to service capital investments made during the period 1984 through 1987.

The challenge in allocating expenditures between recurrent and capital spending, is therefore, ensuring that the latter are not only consistent with priorities such as increasing the availability of primary health care networks, but with the ability of the government to pay recurrent expenditures associated with investments. This likely precludes undertaking large lumpy investments, such as in central hospitals, but instead concentrate on improving lower level primary health care facilities and preventive health care which both have lower investment costs, and lower associated recurrent costs, in addition to being distributionally progressive.

4. CONCLUSIONS

This paper has shown that social sector expenditures have been and continue to be biased against spending on primary services in the health and education sectors in sub-Saharan Africa. Furthermore, among *most* countries for which time series data were available, there was no widespread evidence that any major restructuring of priorities in the social sector occurred during the 1980s. In contrast, official pronouncements that priorities will change were common, which at the very least signifies an awareness of a problem. In some cases it is too early to judge whether actions will follow from words, although previous experience suggests skepticism in assessing the importance of official pronouncements. Whether this lack of consistency is due to the emptiness of intent that follows rhetoric, or the state's inability to implement policy (owing to a shortage of capacity in policy analysis, planning, budgeting, management, evaluation, and so forth), the fact remains that there is compelling evidence that much work needs to be done to reform public expenditure policy in the social sectors and that altering intrasectoral allocative decisions is of equal, if not greater importance than increasing the total available resources.

While this review portrays African governments during the 1980s as continuing to misallocate limited resources between primary and higher level services, a number of other issues were also addressed. One of particular importance is the share of personnel costs in both the health and education sectors. The data presented leave little question that they are too high, and in the past have increased relative to nonsalary costs. The severe resource constraints being confronted by health and education ministries have tended to be met by reduced spending on drugs and books, equipment, maintenance, and so forth, even at the expense of efficiency and effectiveness. At the same time, efforts to avoid personnel cuts have contributed in many cases to extremely low wages, coupled with the fact that workers were not properly trained, motivated, or equipped with complementary resources, to perform their roles. The challenge, therefore, is to design personnel policies through redeployment, retraining, and reclassification that foster more rational use of limited resources. Recognizing that personnel and related costs are a critical, although not sufficient category of expenditures, will also inevitably have political economy ramifications, especially if it means ending practices such as providing guaranteed jobs to all graduates. And while such reform measures are necessary to improve equality of services delivered, the fact remains that there is little managerial capacity, or actual experience to draw upon to restructure personnel expenditures, ranging from training to placing persons in jobs with corresponding skills requirements.

Another issue that did not fall within the domain of this paper, which nonetheless is strongly related, is that of the financing of health budget. The fact is that the source of revenues is linked to how they are allocated. This is nowhere better illustrated than in the case of international finance which plays the central role in supporting, and therefore allocating the investment

budgets, and a potentially pivotal role with regard to allocating recurrent budgets, within the social sectors. The rhetoric of donor institutions concerning the need to change priorities within the social sector has neither been widely embraced by the countries themselves, nor has it always translated into practice on the part of donors.

In terms of recurrent expenditures, sources of domestic finance will continue to play a key role. This, however, raises a number of fundamental problems. First is that not only does cost recovery contribute only a small share of the resources that get spent (generally far less than 10 percent), but the poor who have been overtly discriminated against by the social sectors are least able to participate in the generation of revenues through fees for service. Yet, user fees and allocation of budgetary resources are inevitably and strongly linked. For example, the payment of fees for higher level services, such as hospitals, will discourage their overutilization. The process of rationalizing the referral process, in particular in the health care system, will leave a greater share of the resources to be spent on primary services. Thus, charging higher user fees, especially for hospital and higher level forms of treatment, will not only expand the resource base of the health ministries (if the fees are channelled back into the sector, which is not always the case), enabling them to improve the quality of basic health facilities, but coupled with the price incentive, encourage patients to seek treatment at lower level facilities, rather than at overcrowded, underpriced hospitals. Similarly, the expansion of fees for secondary and higher education offers the possibility of generating additional revenues and facilitate the rationalization of the intrasectoral allocation of education expenditures as well. An important qualification underlying these considerations is that some provision needs to be made for the fact that the poor are more price sensitive, and have more limited resources. This would suggest that some form of targeted subsidies be considered to not exclude those without means from benefiting from higher education and referral health care. It would also imply that certain preventive services, especially those with a large divergence between the social and private rates of return, continue to be largely financed by the state. Nonetheless, it must be recognized that already, the private sector is a major player in the delivery of social services, despite the fees charged to users. Indeed, there is a strong argument that the reason user fees are impractical is not a budget constraint issue, but that efforts at cost recovery should not be tried, and will not work when the quality of services offered is poor. The challenge, therefore, is to break the cycle of low quality services precluding effective cost-recovery, which in turn contributes to the underfunding of social services and their poor quality.

Another issue addressed in this paper concerns the allocation of resources between development and recurrent expenditures. While the data on this issue is scarce, the small body of information available does indicate that increased development tends to accompany economic recovery programs, relative to recurrent expenditures. While this finds justification in terms of the need to reinvest and rebuild the social sector, like all other types of infrastructure, a number of concerns arise from the experience to date. First is that the biases in recurrent expenditures against primary services is even more pronounced among capital expenditures. This in part reflects the heavy element of donor finance

in these budgets, and the propensity to address the easily identified and acute needs of the city, such as rebuilding a dilapidated hospital, instead of addressing the more dire needs of remote rural areas. Governments, of course, are also prominent in these decisions, influenced by the venerable issue of patronage and job creation for the key constituency in the megacities. Such a tendency needs to be resisted, however, if rural schools and clinics are to get their fair share.

A second concern that arises when capital spending is increased is of the recurrent cost implications of such expenditures. The reality is that African countries require, and in many cases, receive, external support for recurrent costs. As countries continue on their path to recovery, and increased investment, however, the ability to run and maintain new infrastructure represent an increasingly prominent concern in need of constant vigilance.

Overall, the failure to witness a major change in the intrasectoral allocation of expenditures in most countries toward serving the needs of the poor has a number of implications. The potentially most important of these, the effect on outcomes such as health status and education, however, is simply not quantifiable in the type of cross-country exercise embodied in this paper. In particular, while the limited data set compiled allowed us to explore simple input-output and behavioral relationships, no systematic patterns were found. For example, we examined whether there was a relationship between intrasectoral allocation of expenditures and overall sectoral expenditures as a percentage of total expenditures or GDP. We performed simple regression analysis that related school enrollments to overall levels of sectoral expenditures and the share to primary school. We also explored whether countries with higher GDP were more likely to favor primary schooling, or less likely to devote most of their budgetary resources to wages. The results of those, and many other similar empirical investigations, did not prove fruitful. This, in part, is likely due to small sample sizes, as for most parameters, data were available on only 10 to 15 countries. However, it is equally likely that a combination of poor quality data and the absence of information underlying structural relationships, including historical information and other unobserved characteristics, precluded any serious efforts at statistical analysis. This, once again, reinforces the importance of doing in-depth, country case studies, and synthesizing such results as the way to reach generalizations.

Despite these shortcomings, the results of this study bare witness to the fact that reform in Africa is a slow process, and that it would be unrealistic to expect large scale reallocation of ministerial budgets to occur quickly. Perhaps the biggest constraint to massive restructuring is political, since the gains in technical efficiency will come at the expense primarily of the elite who were responsible for, and benefited from existing distortions. Nonetheless, the slow pace of change, especially among countries receiving adjustment loans, on the one hand, suggests that the donors have met with only limited success in reorienting priorities. On the other hand, the lack of change may reflect a low priority accorded to reforming social sector allocative behavior. While it is not possible to sort out the relative contribution of these factors to the inertia of the status quo, it does reinforce the message that reform will only

occur when such change is incorporated into a new incentive structure of policymakers. But of greater importance, is that this change in incentives will inevitably be driven by international institutions as well as domestic political reform.

On this last point, particularly the role of international institutions, it was found that in most countries, regardless of whether spending priorities have been reformed, the history of external support for the social sectors is extensive. Most of this support has been in the form of project assistance designed to improve the institutional capacity to deliver services. In addition, considerable donor resources have gone into efforts that are oriented more toward service delivery, such as targeted intervention programs. It was only recently, however, that the concept of adjustment lending in the social sectors, where financing is provided to support policy change directly, has been introduced. Employing external assistance for social sector reform, if seriously implemented, may be the key to addressing the acute weakness in the present institutional structures, and lay the foundation for major improvements in living standards. While there is evidence from other studies that donor financed immunization campaigns, nutrition education efforts, and related activities can bring about improvements, particularly in health, the long-term viability and sustainability of such efforts is predicated on more fundamental institutional change, including altering sectoral budget priorities, and the related management structures and incentive framework.

Another issue regarding the role of donors is the use of social action programs and emergency funds to provide requisite services for the poor in response to the low level and skewed nature of social sector spending. While examining the merit and effectiveness of such efforts is beyond the scope of this paper, it is quite clear that these efforts are at best a bridging mechanism until the fundamental rationalization of government expenditure policy occurs. It would be a mistake, however, to allow such action programs to become an excuse for not moving to achieve the requisite restructuring of social expenditures. Simply, effective micromanagement of the actions of the state through social action programs and emergency funds is beyond the means of donors, and not in the long-term interest of the recipient countries. Instead, moving rapidly to increase indigenous capacity, and integrating external finances into the normal budget process is essential.

In the final analysis, efforts to reform social sector expenditures, however, must also be a part of a larger effort to restore macroeconomic stability and rationalize the broader role of the state in the economy. For example, the long-standing practice of ensuring that graduates of higher education were ensured jobs, a practice pervasive in countries such as Benin, Burkina Faso, Guinea, and Niger, not only had major budgetary implications that squeezed discretionary resources available to the social sectors, but also raised the demand for higher education. This, in turn, exacerbated the budgetary distortions in the education sector whereby large subsidies were provided primarily to the urban elite who continued beyond primary schooling. Similarly, the fact that the wage structure in the civil service in countries such as Cameroon was not dependent on responsibility or experience, but instead on the

type of diploma, has a strong impact on the demand for secondary and higher education. While these types of practices have been, or are supposed to be abandoned in many countries, once again the political costs in terms of loss of patronage and support for the ruling elite has clearly slowed the pace of reform.

Thus, in the absence of moving forward on the fundamental macropolicy framework, and related issues of governance, it is difficult to see how social sector objectives will be redefined and rationalized. Likewise, sustainable improvements in human resources that require a sound social infrastructure, will be difficult to achieve in the absence of addressing long-term development issues. Conversely, however, it is paramount that any strategy to restore growth through structural adjustment recognize the vital role of human resources. This suggests that adjustment programs give greater priority to rationalizing these sectors, just like it would promote agricultural or financial sector reforms, something that this review indicates has not been done.

REFERENCES

- Birdsall, Nancy, Francois Orivel, Martha Ainsworth, and Punam Chuhan. 1986. *Paying for Health and Schooling Services in Rural Africa: A Mali Case Study*. Washington, DC: Population, Health and Nutrition Department, The World Bank.
- Diop, Francois, Kenneth Hill, and Ismail Serageldin. 1991. *Economic Crisis, Structural Adjustment and Health in Africa*. Working Paper WPS 766. Washington, DC: Population and Human Resources Department, The World Bank.
- Foster, S. D. *Improving the Supply and Use of Essential Drugs in Sub-Saharan Africa*. 1990. Working Paper WPS 456. Washington, DC: Population and Human Resources Department, The World Bank.
- Hecht, Robert, Catherine Overholt, and Hopkins Holmberg. 1992. *Improving the Implementation of Cost Recovery for Health: Lessons from Zimbabwe*. Africa Technical Report. Technical Working Paper No. 2. Washington, DC: Population, Health and Nutrition Department, The World Bank.
- Mwabu, Germano. *Financing Health Services in Africa: An Assessment of Alternative Approaches*. 1990. Working Paper WPS 457. Washington, DC: Population and Human Resources Department, The World Bank.
- Russell, Sharon Stanton, and William Deane Stanley. 1988. *Human Resources Discussion Paper: Republique Côte d'Ivoire*. Washington, DC: Africa 1: Population and Human Resources Division, The World Bank.
- Sahn, David E. 1992. "Public Expenditures in Sub-Saharan Africa During a Period of Economic Reform." *World Development* 20 (5). May.
- Serageldin, Ismail, A. Edward Elmendorf, and El-Tigani E. El-Tigani. Undated. "Structural Adjustment and Health in Africa in the 1980s." Draft. Washington, DC: The World Bank.
- Vogel, Ronald J. 1988. *Cost Recovery in the Health Care Sector: Selected Country Studies in West Africa*. World Bank Technical Paper No. 82. Washington, DC: The World Bank.
- Vaughn, J. Patrick. 1992. *Health Personnel Development in Sub-Saharan Africa*. Working Paper WPS 914. Washington, DC: Population and Human Resources Department, The World Bank.
- World Bank. 1992a. *Staff Appraisal Report - People's Republic of Angola: First Health Project*. Washington, DC: South Central and Human Resources

Operations Division, South Central and Indian Ocean Department, Africa Region, The World Bank.

_____. 1992b. *Project Completion Report - Botswana: Fourth Education Project*. Population and Human Resources Division. Washington, DC: Southern Africa Department, Africa Regional Office, The World Bank.

_____. 1992c. *Burundi: Public Expenditure Review*. Washington, DC: Country Operations Department, South Central and Indian Ocean Department, Africa Region, The World Bank.

_____. 1992d. *Cameroon: Education and Training Sector Reform Options*. Washington, DC: Population and Human Resources Division, Occidental and Central Africa Department, The World Bank.

_____. 1992e. *Project Completion Report - Comoros: Health and Population Project*. Washington, DC: Population and Human Resources Operations Division, South Central and Indian Ocean Department, Africa Regional Office, The World Bank.

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