11

Recovery in Service Delivery: Evidence from Schools and Health Centers

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It is commonly held that Uganda had a well-functioning social service delivery system in the 1960s. The subsequent economic and social decay all but decimated this system, however. Undoubtedly, institutional recovery is more complex than implementing policy reforms by "a stroke of the pen." While evidence on economic performance is fairly readily available, much less information exists on Uganda's institutional recovery during the past 15 years, either in terms of institutional assessments or systematic recording of performance indicators. This chapter sheds light on service delivery in education and health. The two subsequent chapters, which explore household responses to recent policy initiatives in these two sectors, complement this analysis.

The principal motivation for the study reported in this chapter was the substantial increase in public spending on basic services, albeit from a small base, since Uganda's recovery started in the late 1980s, while several officially reported outcome and output indicators remained stagnant. The most obvious disparity in output indicators was in primary school enrollments. Despite increases in budgetary allocations for education, officially reported enrollments increased only slightly during the first half of the 1990s. The hypothesis for the study was that actual service delivery, or output, was much worse than budgetary allocations implied because public funds, or inputs, were subject to capture by bureaucrats and did not reach the intended facilities (see, for example, Bardhan and Mookherjee 1998). To test this hypothesis, the study's author compared budgets and actual spending in the primary education and health care sectors.

This chapter draws on Ablo and Reinikka (1998). Comments by Jakob Svensson are greatly appreciated.

While this chapter does not attempt a comprehensive analysis of public sector efficacy, the government's ability to translate budgetary allocations into actual spending at the facility level can be a useful proxy for it. As adequate public accounts are not available in many African countries, including Uganda, a diagnostic survey of schools and clinics was carried out to collect actual spending data.[1] Survey work is typically limited to examining the effects of policies and interventions on households and firms, while inputs, such as flows of public funds, and outputs, such as primary enrollments, are left solely for official statistics or administrative records. As this study shows, a diagnostic survey of the supply side can provide a useful reality check when institutions are weak and official statistics are not a reliable guide for policymakers.

While the Ugandan school survey results indicate some improvement in the input flow to service facilities during 1991–95, particularly in salary payments, they also confirm a serious lack of accountability. For example, only 2 percent of public nonwage education spending reached the schools in 1991, and only 20 percent in 1995. If efficiency of input flow is an indicator of the extent of institutional recovery, by 1995 this recovery was limited at best. The dismal situation revealed by this school survey sparked action by the central government, which began publishing information about monetary transfers to districts and demanding that transfer information be posted at schools and district headquarters. A recent replication of the school survey shows that schools now receive more than 90 percent of the nonwage spending intended for them, although often with delay (Republic of Uganda 2000). Hence, at least in some areas, institutional recovery in Uganda appears to be accelerating.

The 1996 school survey unearthed other important information critical to understanding the education delivery system and the efficacy of potential interventions. First, instead of being stagnant as official statistics indicate, primary enrollments increased by 60 percent in 1991–95. This indicates that, while input flow suffered from major problems, education system performance in the first half of the 1990s improved more than the information system that reports it. Furthermore, in 1997 the universal primary education initiative, discussed in chapter 12, resulted in a sudden increase in enrollment as households responded strongly to the president's election pledge of free education for four children per family.

Second, the survey showed that public primary education was mostly funded by parents who, on average, contributed as much as 73 percent of total school spending in 1991 (42 percent at the median school). When the government retreated from funding and managing primary schools during the repressive Amin and Obote regimes, parents took over. The survey data show

1. In 1990, the government initiated efforts to develop and implement a financial tracking system for primary education and health (Republic of Uganda 1990, 1992). These efforts bore little or no fruit.

that by 1991 this situation had not changed much. However, the government's share increased during the survey period, and by 1995 parents financed 60 percent of total school spending on average (at the median school the parental share was roughly halved to 23 percent). Strikingly, parental contributions continued to increase in real terms despite higher public spending.

The health facility survey showed that these facilities did not keep systematic financial or patient records in 1991–95. Therefore, assessing the flow of funds or services delivered was not possible. The public service facilities in the two sectors seem to vary their institutional behavior depending on the institutional context and incentives. However, limited, recent evidence from four districts shows that operations such as opening hours and staff availability, as well as recordkeeping, have improved in health facilities since 1996 (World Bank 1999).

The prevailing normative view of government assumes that once the right policy or intervention has been found—to correct market failure or externalities or to achieve a better distribution of income—the government implements it as designed, and the desired effects will follow. Some view governments as benevolent single agents, behaving in the same way everywhere in the world, and policymaking as a technical problem rather than a political process that varies between countries (Dixit 1996). New theoretical literature, however, takes a more nuanced view by differentiating governments as providers of public goods. Svensson (1997), for example, finds that as society's polarization and degree of social conflict increase, the control of public policy is less effective. This results in more public spending, but fewer public goods. This emphasizes the importance of separating the effects of public capital on welfare from the effects of public spending on public capital.

Pritchett (1996) argues that governments differ from the private sector in the degree to which they behave as profit-maximizing investors. If public investment is guided by motives other than profitability, the cost of cumulated public capital is likely to be higher than its value in terms of future returns. Therefore, using investment cost to measure public capital across countries may be misleading. Similarly, as demonstrated in this chapter, using budget allocations to measure actual frontline service delivery may be misleading.

Several recent empirical papers also highlight the divergence between the actual and potential impact of public spending on health outcomes in developing countries. Filmer and Pritchett (1999) find that 95 percent of cross-national variation in child mortality can be explained by factors not related to health policy, such as per capita income, income distribution, female education, and various cultural factors. Meanwhile, the impact of public spending—typically measured by budget allocations—is very small and statistically insignificant.

The rest of this chapter is divided into four sections. The first section briefly describes the diagnostic survey carried out in Uganda in 1996. The next section examines official data on primary enrollments over time and compares them with the facility survey data for 1991–95. It presents the main results of

the primary school survey with respect to actual public and private spending at both the national and regional level. The chapter then explores service delivery and public spending on primary health care. Finally, the chapter concludes and summarizes the policy changes the government introduced following the survey findings. The concluding section also highlights recent evidence on improvements made since 1996.

Diagnostic Survey

Ideally, the public accounting system should provide timely information about actual spending on various budget items and programs. This is not often the case in many low-income countries. Because the revival of the accounting system has been slow in Uganda, a field survey was necessary to gauge the extent to which public resources actually filtered down to the intended facilities. A survey of 19 districts covering 250 government-aided primary schools and nearly 100 health clinics was carried out in 1996, covering the period 1991–95.[2]

Apart from school and health unit income and expenditure, the objective of the survey was to collect data on primary enrollments and patient records at the facility level.

From 10 to 20 schools were visited in each district.[3] Of the districts surveyed, Bushenyi had the most primary schools, with 399 in 1994, while Bundibugyo had the least, with 59. In the districts with fewer than 100 government-aided schools, the enumerators visited 10 schools; in districts with 100–200 schools, they visited 15; and in those with more than 200 schools, they visited 20. The primary school-leaving examination results,

2. For the sample selection, the country was first divided into regions. To bring out regional differences more clearly, the traditional four regions (north, east, west and central) were reconfigured into seven regions, namely: northwest, north, northeast, east, central, southwest, and west. Kampala was treated as a separate region because it enjoys many advantages over the rest of the country. The 39 districts were then arrayed into 3 groups, based on the fiscal year in which a particular district first received a separate budget vote under the decentralization program which commenced in 1993. The objective was to pick one district per region in each successive phase of decentralization. In practice, only two districts were selected from the smaller regions. After some other minor adjustments, the following 19 districts were selected: Kampala; Arua, Moyo (northwest); Apac, Gulu (north); Soroti, Moroto, Kapchorwa (northeast); Jinja, Kamuli, Pallisa (east); Mukono, Mubende, Kiboga (central); Bushenyi, Kabale (southwest); and Kabarole, Hoima, Bundibugyo (west). Kiboga, which is a new district, had to be dropped subsequently because of limited data availability.

3. At the time of the survey, there were about 8,500 government-aided primary schools, which were supposed to receive a large proportion of their funding from central and local governments. The rest of the schools, about 1,500, were either private or community schools.

supplemented by information about school facilities, were used as criteria to select schools within a district. Both good and poor performers were included in the stratified random sample.

Every district had many more schools than health facilities. Two districts—Kapchorwa and Kisoro—had no government health centers, while some had as many as 10. In some cases, missionary, private, or nongovernmental organization (NGO) facilities compensated for the lack of government facilities. Enumerators visited five primarily government facilities in each district, such as two health centers, two dispensaries/maternal units, and one aide post, or some other combination.

Most of the enumerators who collected the data from schools and clinics were former teachers and health workers who lived in those districts. They used standardized forms, and supplemented the quantitative data with qualitative observations. Enumerators were trained and closely supervised by a joint Ugandan-World Bank research team to ensure quality and uniformity of data collection and to assess the standard of recordkeeping in schools and clinics.

Education and Public Spending

Before the introduction of free universal primary education in 1997, official data indicates that primary school enrollment in government schools was almost stagnant for 10 years (table 11.1). Because the number of children of

Table 11.1. Official Enrollment Data from Government-Aided Primary Schools, 1987–97

Year	*Number of schools*	*Number of teachers*	*Number of students (millions)*
1987	7,627	72,970	2.31
1988	7,905	75,551	2.42
1989	7,684	81,418	2.53
1990	7,667	81,590	2.28
1991	8,046	78,259	2.54
1992	8,325	86,821	2.36
1993	8,430	91,905	2.67
1994	8,442	84,043	2.60
1995	8,531	—	2.64
1996	—	82,600	2.74
1997[a]	10,000	98,700	5.30

— Not available.

a. These data are from a nationwide headcount of pupils and teachers in August.

Source: Ministry of Education data.

primary school age had increased along with high population growth, it follows that net primary enrollment rates must have fallen.[4]

The official data cannot, however, be easily verified without going to the school level because the districts kept virtually no reliable educational statistics at the time. The well-developed recordkeeping of the 1960s broke down during the political and military turmoil of the 1970s and early 1980s, and had not recovered by mid-1990. The main source of official data for primary enrollments was the annual school census carried out by the Ministry of Education, which sent questionnaires to district education officers. The officers sent them on to schools, which returned the questionnaires through the same channel. Fieldwork by the school census staff was minimal.

Chapter 12 discusses in more detail the free universal primary education for four children per family introduced in January 1997. This substantially increased primary enrollment, which rose to 5.3 million students, based on a nationwide headcount later in 1997, revealing a high private demand for education. Most of the increase was in the first grade (P1). Both underaged and overaged children entered P1 in 1997, producing an exceptionally large cohort of 2.1 million children.

The school survey results, however, did not correspond with the trend in the official enrollment figures (table 11.2). Instead of being stagnant, primary enrollment in the sample schools increased 60 percent between 1991 and 1995. The overall student-teacher ratio increased from 26:1 in 1991 to 37:1 in 1995. The survey results seem more plausible than the official figures, given the continuous improvement in the political and socioeconomic environment and public finance since 1986. As the survey was based on a careful examination of individual school records, it suggests that the

Table 11.2. Enrollment Data from Surveyed Schools, 1991–95

Year	*1991*	*1992*	*1993*	*1994*	*1995*
Number of students	81,318	90,330	109,063	119,919	129,087
Annual increase in students (%)	8	11	21	10	8
Number of teachers	3,077	3,312	3,663	3,897	3,498
Annual increase in teachers (%)	—	8	11	6	–10

— Not available.
Source: School survey.

4. The 1992/93 integrated household survey recorded an average gross primary enrollment of slightly more than 90 percent, while net enrollment (the proportion of children between 6 and 12 years of age enrolled in school) was 67 percent nationally. The net enrollment rate among the lowest expenditure quintile was only 46 percent, and 59 percent for the second lowest quintile, compared with 81 percent for the highest quintile. High dropout and repetition rates were also common (World Bank 1996a,b).

officially reported enrollment statistics grossly understate the progress made in the 1990s. Determining where in the delivery system the incentive to underreport was the highest or how it might have changed over time is difficult. At the school level, it would have meant fewer tuition fees remitted to the district, while at the district level underreporting would have required smaller transfers of capitation grants to schools.

Availability of Data on Public Spending

The total budgetary allocation for recurrent expenditure on education almost tripled in real terms during 1991–95 (table 11.3). Neither functional nor spatial disaggregation of education spending is easy, however. First, at the central government level, data were not available on salaries paid to primary school teachers either by district or by school in 1991–95. The only data available were the aggregate salary payments, which lumped together payments to teachers in the primary, secondary, and tertiary levels, as well as those made to nonteaching staff. This made systematic comparison of budget allocations for teacher salaries and actual spending at the school level impossible. Also, some teachers were not on the central government payroll, which further complicated efforts to track salary spending. Additional teachers were hired directly by schools and funded by parent-teacher associations (PTAs). The only systematic spending data available at the central government level were capitation grants for nonwage spending.

Second, initially the intention was to track public spending through the entire delivery system, which included the central government, districts, and schools. The field survey revealed that the district-level records for both nonwage and wage spending were even worse than at the central government level. The quality of available information both on transfers from the center and disbursements to schools was so poor—both before and

Table 11.3. Recurrent Budget Allocation for Education, 1991–97
(1991 prices)

Year	*U Sh (millions)*	*Index*
1991	19,202	100
1992	30,002	156
1993	24,569	128
1994	32,258	168
1995	51,891	270
1996	49,027	255
1997	68,081	355

Note: The exchange rate ranged from U Sh 960 to U Sh 1,200 per U.S. dollar during 1991–95. Data are from fiscal years.

Source: Ministry of Finance and Economic Planning data.

after decentralization—that districts were excluded from the expenditure tracking exercise. School records were relatively comprehensive, however. Presumably parents who contributed substantially to school income before 1997 demanded financial information and accountability from the school. Therefore a detailed comparison of budgetary allocations and actual spending could only be made between the central government outlays for nonwage spending and the equivalent school income.[5]

Actual Spending at Primary Schools

Table 11.4 presents a summary of the sources of income for the 250 sample schools (both cash and in-kind). During 1991–95, the central government's financial contribution to primary education consisted of three components: primary teacher salaries, capital expenditure, and capitation grants.

Teacher salaries was the largest item, consistent with the finding that public spending choices tend to favor teacher salaries over their actual contribution in producing educational outputs (Pritchett and Filmer 1997). Capital expenditure was limited almost entirely to rehabilitation rather than

Table 11.4. Summary of School Income Data, 1991–95
(1991 prices in millions of U Sh)

Income	*1991*	*1992*	*1993*	*1994*	*1995*
Teachers' salary payments by government	213.9	214.7	381.3	748.6	914.6
Capitation grants received by schools	4.2	15.8	58.0	60.9	58.3
Other government funding	73.8	62.5	73.6	118.7	147.1
Total government contribution	291.9	293.0	512.9	928.2	1,120.0
Tuition collected	55.4	96.8	116.6	136.2	141.3
Amount of tuition retained by schools	2.2	7.4	10.6	23.7	50.3
PTA levies	591.1	609.6	775.2	934.9	1,032.7
PTA salary payments	125.8	134.1	196.0	300.7	475.9
Total parent contribution	772.3	840.5	1,087.8	1,371.8	1,649.9

Source: School survey.

5. Donor assistance for primary education has come in two main ways. First, financing has been made available for textbooks and other scholastic materials. Second, donors have provided substantial financing for school construction. With the exception of one major donor-funded project, tracking of donor and NGO expenditures was difficult in the absence of any disaggregated data at the center.

new construction.[6] The capitation grant for nonwage expenditure is a payment per student enrolled and is a 50 percent matching government contribution against the mandated tuition fees paid by parents. The capitation grant is intended to defray part of the costs of textbooks and other learning materials, as well as general school running costs.

The survey confirmed that the main sources of income for government-aided primary schools were, in order of importance, (a) PTA levies collected from parents by the school, (b) central government transfers and PTA contributions for teacher salaries, (c) government funding for capital expenditures and capitation grants, and (d) retained tuition fees. PTA funds are under the full control of the schools, and the PTA executive committee oversees their use. Because their level depends on the ability of parents to pay, these levies vary widely between schools and across regions.

The government's total contribution to the funding of primary schools almost quadrupled during 1991–95 in real terms, albeit from a negligible base. This is proportionately more than the overall increase in education spending. Despite an increase in government spending, spending by parents doubled during the same period. The average parental contribution per student increased by 35 percent in real terms between 1991 and 1995, while the average government contribution more than doubled (table 11.5).

Table 11.6 shows total expenditure by parents and government at the median school during 1991–95. A comparison of the means and medians shows that the distribution of parent expenditure at the school level is highly asymmetric, with the median only a fraction of the mean. Hence the median is a better measure of the general tendency in parent expenditure. The distribution of government spending is much less asymmetric, although the medians are lower than the means. Parent expenditure per student doubled during 1991–95 at the median, while the increase in government spending was almost fivefold during the same period.

Table 11.7 shows the proportion of school income from parents and government during 1991–95. Although declining in importance during the survey period, parental contributions were clearly the mainstay of finance in

6. Since the 1970s the central government had virtually abandoned its responsibility for classroom construction. In principle, the provision of classrooms became the responsibility of local governments. As the local government tax base needed to support school construction is underdeveloped, local governments in turn passed the responsibility for classroom construction on to parents. To shoulder this and other school-related financial obligations, PTAs increasingly resorted to PTA levies. In addition, the central government is responsible for counterpart funding, which is the government's share of the cost of donor-financed development projects. The central government also incurs expenditure on teacher training, examinations, and school inspections, which have a separate allocation.

Table 11.5. Mean Parental and Government Contribution to School Income Per Student, 1991–95
(1991 prices in U Sh)

	Parents				*Government*			
Year	*Tuition fees collected*	*PTA levies*	*PTA salaries*	*Total*	*Capitation grant*	*Salaries*	*Other*	*Total*
1991	682	7,269	1,547	9,498	68	2,630	908	3,606
1992	1,072	6,749	1,484	9,305	118	2,377	692	3,187
1993	1,069	7,108	1,797	9,974	280	3,496	675	4,451
1994	1,136	7,796	2,507	11,439	352	6,243	990	7,585
1995	1,094	8,000	3,687	12,781	330	7,085	1,139	8,554

Source: School survey.

Table 11.6. Median Parental and Government Contribution to School Income Per Student, 1991–95
(1991 prices in U Sh)

Year	*Parents*	*Government*
1991	1,173	1,639
1992	1,631	2,215
1993	1,792	4,179
1994	2,209	4,467
1995	2,291	7,729

Source: School survey.

Table 11.7. Parental and Government Contribution to Total School Income, 1991–95
(percent)

	Parents		*Government*	
Year	*Mean*	*Median*	*Mean*	*Median*
1991	73	42	27	58
1992	74	42	26	58
1993	68	30	32	70
1994	60	33	40	67
1995	60	23	40	77

Source: School survey.

government-aided primary schools. In 1991–92 parental contributions accounted for more than 70 percent of school income on average; by 1995 the share had declined to 60 percent. However, for the median school, parental financing was less important, declining from 42 percent in 1991 to 23 percent in 1995. This indicates a highly skewed distribution of spending.

Without an adequate breakdown of the salary data at the central government level, one of the key questions this study sought to answer was how much of the nonwage expenditure (capitation grants) made available by the central government actually reach the schools. The government's stated policy was to disburse the grant in full to the schools either in cash or in-kind through the district education officers. The capitation grant was set in 1991 at the nominal rate of U Sh 2,500 per child enrolled in grades P1–P4 and U Sh 4,000 per child enrolled in grades P5–P7. These rates remained the same until 1997, although they grossly underestimated the cost of providing scholastic materials and maintaining the physical facilities. Inflation, although moderate since 1993, eroded the real value of the grant. Thus, the real increase in total recurrent expenditure over time (table 11.3) was

not reflected in nonwage spending on primary education. To compensate for the inadequacy of the central government provision for nonwage (and wage) expenses, school administrators resorted to PTA levies.

Table 11.8 indicates the amount of capitation grant disbursed by the central government and the average amount received by the schools (in 1991 prices).[7] While the central government's contribution in real terms was at its highest in 1991, the schools received on average only 2 percent of this grant. However, even if 1991 and 1992 are viewed as extreme cases, the figures for 1994–95, although higher, are still extremely low. In the best year the schools received, on average, one-fifth of the capitation grant (zero at the median). Recent evidence from a similar school survey shows that the situation has improved greatly since 1995. With increased transparency, 90 percent of the capitation grant is now released to the schools (Republic of Uganda 2000).

Interviews during the 1996 school survey confirmed that local government authorities retained the bulk of the grant. Some districts apparently disbursed the grant on the basis of how many students had paid tuition. The funds intended for children who had enrolled but not paid tuition fees were typically retained by the urban or district councils. This practice certainly hurt poorer communities the most, because in these communities parents are more likely to default on the payment of tuition fees. Some local governments reported that the discrepancy was used to cover the expenses of the district education officer. In some districts the funds retained by the local authorities were spent for purposes unrelated to education. In addition, part of the intended grant apparently remained at the center, as the government budgeted and disbursed the grant on the basis of the 1991 enrollment figures. As enrollment increased over time, the grant per student actually disbursed to the districts certainly decreased.

During the survey period, parent contributions toward financing primary education consisted of (a) tuition fees at the nominal rate of U Sh 2,500 per child in grades P1–P4 and U Sh 4,000 per child in P5–P7 to match the capitation grant paid by the government, (b) PTA levies that varied from district to district and from school to school, and (c) contributions to teacher salaries. Tuition fees collected by the schools were not remitted to the central government. Rather, each district determined how the funds raised should be redistributed among the schools. In some districts, the schools were allowed to retain a certain percentage or a fixed amount of the tuition fee collected per student, with the balance transferred to the district education officer. In other districts the tuition fees collected were all remitted to the district headquarters. Subsequent disbursements to schools, either in cash or in-kind, may or may not have taken place. Collection efficiency of tuition fees was very low in 1991, but has improved since 1992 (table 11.9).

7. The average capitation grant was based on the assumption that 70 percent of students were in grades P1–P4 and 30 percent were in grades P5–P7.

Table 11.8. Average Capitation Grant Per Student, 1991–95
(1991 prices)

Year	Intended grant amount (U Sh)	Schools actually received: Mean: U Sh	Schools actually received: Mean: Percentage of intended amount	Schools actually received: Minimum	Schools actually received: Median	Schools actually received: Maximum: U Sh	Schools actually received: Maximum: Percentage of intended amount
1991	3,100	68	2	0	0	2,509	26
1992	1,966	118	9	0	0	1,916	47
1993	1,869	280	28	0	0	1,867	67
1994	1,850	352	27	0	0	1,826	69
1995	1,737	330	26	0	0	1,734	56

Note: 997 observations; 71 observations omitted from the sample as outliers.
Source: School survey.

Table 11.9. Average Tuition Per Student, 1991–95
(1991 prices)

Year	Tuition fees collected (mean)	Tuition fees retained by schools					
		Mean				Maximum	
		U Sh	Percentage of fees collected	Minimum	Median	U Sh	Percentage of fees collected
1991	682	27	4	0	0	256	38
1992	1,072	82	8	0	0	395	37
1993	1,069	97	9	0	0	398	37
1994	1,136	197	17	0	0	605	53
1995	1,094	390	36	0	0	546	50

Source: School survey.

In 1991 schools received, on average, 4 percent of the tuition collected. By 1995 this had improved considerably, but schools still only retained 36 percent of the average tuition fees. Hence, as shown in table 11.9, local government authorities not only retained the bulk of the capitation grant, but also kept a large portion of the tuition fees paid by parents. Variation between districts was also substantial.

Despite anecdotal evidence that teacher salary payments suffered from delays and other problems in the flow of funds, interviews during the survey indicated that government salary payments mostly reached the schools.[8] Because of the lack of annual disaggregated data at the center, salaries could not be tracked through the system, but the school survey provides other useful information.

Teachers derived salaries from three sources: the government, PTAs, and others such as NGOs (table 11.10). In 1991 and 1992 nearly half of teacher salaries came from sources other than government. From 1993 on, the government contribution rose significantly, thanks to a presidential directive that called for annual salary increases for teachers. Increased budgetary allocations were reflected in higher salary payments at the school level, but this alone is not adequate to determine the extent to which budgetary allocations translated to actual spending. Parental contributions fluctuated from a quarter to a third of the total wage bill during the survey period. Note that the share of total PTA contributions used for teacher salaries increased from 16 percent in 1991 to 29 percent in 1995, despite the quadrupling of government spending on salaries.

Total spending on instructional materials and other nonwage items by schools increased only by 20 percent in real terms between 1991 and 1995, while the equivalent spending on salaries (government and parents combined) tripled during the same period and more than tripled per teacher. Not only did public spending choices favor teacher salaries over nonwage spending, but teachers may have exerted a disproportionate influence over PTAs as well.[9]

However, the starting point was extremely low (U Sh 11,360, or around US$12 per month, in 1991). This was less than a quarter of what the civil service reform program considered a minimum living wage at the time. Survey interviews confirmed that absenteeism was a serious problem, as teachers were compelled to make a living outside their profession. Although the targeted living wage had not yet been attained by 1995, the situation had improved considerably from the teachers' point of view.

While teacher salaries were given priority over instructional materials and other nonwage items, a major pay increase was perhaps warranted to

8. The only systematic way of misappropriating funds was by having "ghosts" on the payroll. A total of 15,000 ghost teachers (around 20 percent of all teachers) was removed from the payroll in 1993.

9. To some extent, donor funds compensated for slow growth in nonwage spending, but only in some schools.

Table 11.10. Contributions to Teachers' Salaries, 1991–95
(1991 prices)

	Government		*PTA*		*Other*		*Total*	
Year	*U Sh (million)*	*Percent*	*U Sh (million)*	*Percent*	*U Sh (million)*	*Percent*	*U Sh (million)*	*Percent*
1991	213.9	51	125.8	30	79.7	19	419.4	100
1992	214.7	52	134.1	33	61.5	15	410.3	100
1993	381.3	59	196.0	30	72.4	11	649.7	100
1994	748.6	66	300.7	26	86.7	8	1,136.0	100
1995	914.6	61	475.9	32	104.7	7	1,495.3	100

Source: School survey.

reduce absenteeism and restore the quality of teaching. Some evidence suggests that this strategy worked, given the finding that enrollment increased by 60 percent. At the same time, a more balanced spending pattern between salaries and instructional and other materials might have produced an even better result.

Regional Differences

As national averages conceal regional variations, it is useful to explore actual spending in the subregions in the survey. Table 11.11 shows government expenditures per student that reached the schools by subregion (in 1991 prices). The western region appears to have the lowest per student public spending at the school level, possibly indicating worse inefficiency in the transfer system between the center and the schools than in other subregions. As schools are not larger in the west than elsewhere, a lower unit cost is not likely to result from a higher student-teacher ratio and a resultant lower wage bill.[10]

The opposite is probably true in the north and northeast, where classes are smaller and the per student expenditure is therefore higher. To explore regional differences in efficiency further, the capitation grant is a good proxy, as this was intended to be the same amount per student across the country. When the share of the capitation grant spent on the intended purpose is regressed on a regional dummy variable (using ordinary least squares), only the north (Apac and Gulu districts) entered negatively and highly significantly (at 1 percent). The north is one of the poorest regions in Uganda, as measured by household expenditure, and continues to suffer from conflict.

Parent expenditure per student has a much larger spatial spread than public spending (table 11.12). The level of private spending is the highest in the better-off central region and Kampala, while the three poor northern subregions and the west have extremely low spending levels per student.[11]

Impact of Decentralization

Before fiscal decentralization, which began gradually in mid-1993, the bulk of public funds came from the central government. The Ministry of Education

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10. This appears to be the case in Kampala, where the share of public funding is the smallest and classes are large.

11. The district-level (Spearman rank) correlation coefficient between public spending on primary schools and poverty measured by household expenditure is –0.228. Poorer districts seem to benefit from a somewhat higher level of public spending per student available to the schools. However, this may also reflect a lower student-teacher ratio, as households in those districts can afford to send fewer children to school. There is a positive correlation (0.56) between household expenditure and private spending on primary education.

Table 11.11. Average Government Contribution Per Student Reaching Schools by Subregion, 1991–95
(1991 prices in U Sh)

Year	*Northwest*	*North*	*Northeast*	*East*	*Central*	*Kampala*	*Southwest*	*West*
1991	1,623	4,866	2,599	3,546	5,878	1,067	5,718	1,958
1992	1,772	3,972	2,781	3,315	4,220	2,348	4,392	2,488
1993	3,964	4,664	5,138	4,516	6,122	3,535	6,285	3,307
1994	7,384	7,526	8,405	8,048	10,120	6,438	7,962	6,235
1995	12,811	8,151	7,748	8,179	10,318	8,636	7,300	5,977

Source: School survey.

Table 11.12. Average Parental Contribution Per Student by Subregion, 1991–95
(1991 prices in U Sh)

Year	*Northwest*	*North*	*Northeast*	*East*	*Central*	*Kampala*	*Southwest*	*West*
1991	1,345	1,048	839	6,932	27,545	49,084	3,064	1,480
1992	976	991	1,195	4,709	20,134	65,829	3,436	1,559
1993	1,107	1,763	1,175	5,500	22,176	46,170	4,440	1,988
1994	1,880	2,074	1,070	7,196	27,576	41,792	6,053	2,189
1995	2,034	2,277	999	8,522	31,568	37,286	6,520	1,795

Source: School survey.

played a major role in primary education, controlling nearly all the recurrent budget allocations for the sector. The district administrations, however, channeled these funds to schools even before decentralization. Following decentralization, district authorities and the district and urban councils gradually gained control of the funds provided by the central government for primary education. In 1996, estimates indicate that the ministry controlled only about a quarter of the total recurrent spending on primary education.

The standard capitation grant is a good proxy for exploring the impact of decentralization on the flow of public funds to schools, as it was supposed to be the same (nominal) amount per student throughout the study period in all districts. Using ordinary least squares, the share of the capitation grant reaching the schools is regressed on time dummies and a decentralization dummy variable. The latter takes the value one when the district where the school is located was decentralized; otherwise it is zero.[12]

As table 11.13 shows, the input flow at the school level improved at a statistically significant level over time, albeit modestly. The decentralization variable (DECEN) enters significantly negative, indicating that decentralization adversely affected the flow of funds to schools. The schools affected by decentralization received, on average, 9 percentage points less of the intended capitation grant per student than their counterparts in

Table 11.13. Impact of Decentralization on the Flow of Capitation Grants to Schools, 1991–95

Year	*Coefficient*	*t-statistic*
1991	0.022	1.204
1992	0.060	3.332
1993	0.149	8.767
1994	0.221	11.617
1995	0.224	12.079
DECEN	–0.093	–3.862
R^2	0.085	n.a.
Number of observations	997	n.a.

n.a. Not applicable.

Note: Ordinary least squares estimation. Dependent variable is the share of the capitation grant that reached the school, 1991–95 are time dummies, and DECEN is a binary variable taking the value one if the school is located in a fiscally decentralized district, zero otherwise.

Source: School survey.

12. For example, schools located in the districts that were decentralized first in mid-1993 take the value one from the beginning of the following school (calendar) year. The second phase of fiscal decentralization occurred in mid-1994 and the last phase was in mid-1995.

nondecentralized districts. Instead of receiving 22 percent, they received 13 percent in 1995. The deterioration in decentralized districts may be temporary, but it serves as a reminder that decentralization could come with an adjustment cost in terms of service delivery.

Health Care and Public Spending

As in primary education, limited official data exist from central government health services at the time of the survey. Contrary to the education sector, however, the health unit survey found little systematic facility-level information on financial flows or outputs, such as the number of inpatients or outpatients. One explanation for such a marked difference in facility-level behavior between the two sectors could be that the PTAs that financed most of the school-level expenditure in 1991–95 demanded basic recordkeeping and accountability, while users in health clinics exerted no such pressure. A long-term relationship between providers and beneficiaries that characterizes primary education—in contrast to health care, where the relationship is typically short and more ad hoc—clearly favors better organization on the demand side.

At the design and pilot stage of the survey, the researchers did not fully anticipate the lack of almost any financial information at the facility level and the heavy reliance on in-kind measures throughout the system. As the data gathering proceeded, any hope of systematic tracking of expenditure on the basis of data from primary health facilities faded. Many of the resources received by health units were in-kind with no value indicated, and hence not easy to compute. Although user fees are collected and retained at the health facility level, records on their use were either not available or patchy. Unlike in primary education where school income and expenditures could be related to pupils enrolled, records on patients were extremely poor and unreliable.[13]

Availability of Data on Health Spending

For the survey period, reliable health spending figures are available only for 1992/93 because of the difficulty of obtaining information about annual donor flows. Public spending was only US$4.38 per capita (including donor assistance) in 1992/93, while private spending was US$5.36. Although the level of health spending is low in Uganda, this study attempts to examine the flow of those minimal public funds from the center to service facilities.

13. Based on a cross-section of 61 developing countries, Uganda's health outcomes are worse than expected given its level of overall gross national product (GNP). An infant mortality rate of only 71 (compared with 97) would be predicted for Uganda given its per capita GNP in 1994 (Demery and Dorabawila 1997).

Poor efficacy magnifies the negative impact of a low level of spending on health outcomes.

Recurrent budgetary allocations for health increased 2.5 times between 1991 and 1995 (table 11.14). However, donors finance the bulk of public expenditure on primary health care. According to the data for fiscal year 1992/93, donors financed 77 percent of health spending, while the government's share was only 23 percent (World Bank 1996b). For hospitals, the distribution was reversed, with donors funding 36 percent and the government funding 64 percent. With decentralization, nonwage recurrent expenditure on primary health care became part of the block grant, but drugs and other supplies funded largely by donors continue to be delivered from the center. The central government's main responsibilities were the salaries of health workers. Most primary health workers were central government staff seconded to local authorities; direct hiring by the local authorities was limited. Despite decentralization, this was still the case during the survey period. As in education, data on staff salaries were not disaggregated either by district or health facility for 1991–95. At the district level, locally recruited health workers are paid out of the district's own resources, but this information was patchy. Similarly, donor funding could not be disaggregated either by district or by facility.

As public resources dwindled from the mid-1970s, government health facilities at all levels increasingly resorted to various informal charges for drugs, meals, consultation, treatment, and operations. Attempts were made in 1989 to formulate a national policy on user fees for public health services, but were soon abandoned for another decade. The new national policy on user fees was adopted in 1999. Before then districts theoretically could set user fees for their health services, although in practice, the imposition of charges was left to each facility. The Ministry of Health issued fee-for-service guidelines that allowed up to 50 percent of fees collected to be spent on staff incentives; up to 25 percent on drugs and supplies; and the rest on maintenance, supervision, and outreach.

Table 11.14. Recurrent Budgetary Allocations for Health, 1991–97
(1991 prices)

Year	*U Sh (millions)*	*Index*
1991	6,381	100
1992	9,109	143
1993	8,863	139
1994	14,429	226
1995	16,819	264
1996	16,470	258
1997	19,925	312

Note: These are fiscal years.
Source: Ministry of Finance and Economic Planning data.

Qualitative Survey Results

Although the enumerators found little or no reliable quantitative output and financial information at the health facilities they visited, they provided the following qualitative observations of the situation in health care facilities in 1995.

- Drugs were the main nonwage recurrent input into the primary health care delivery system. They are supplied quarterly, directly to the health units from the center. The central delivery system ensures that the drugs reach health units with little or no leakage.
- Clinic compliance to user fee guidelines provided by the Ministry of Health was minimal.
- Salaries for seconded staff generally reached the intended facilities, although remuneration of health workers was low, resulting in unethical conduct that adversely affected delivery of and access to primary health care. Local recruited staff were paid less, and less regularly, which caused additional problems.
- Health workers devoted very little time to the activities of health units.
- Health workers had a high rate of attrition.
- Rural health units did not attract qualified health workers.

While the survey found that in-kind inputs into the health care system provided by donors and the government mostly reach the intended facilities, another study carried out around the same time sheds more light on other problems regarding efficacy of services at the facility level (McPake and others 1999). Researchers studied 12 health units in the Bushenyi and Iganga districts in depth, using focus groups, exit polls, and direct observation, to determine the socioeconomic survival strategies of health workers and their implications for formal health financing policy. One of the findings was that health workers in all but two facilities routinely charged users above the formally agreed levels, and the drugs supplied by donors or the government were routinely used as a source of additional income. The leakage estimate ranges from 40 to 94 percent of the public supply of drugs to the facilities. McPake and others (1999, pp. 61–62) summarize the findings of their study as follows:

> The situation described by the preceding results suggest that almost all elements of the system which were once public have been incorporated into the private business activity of the health workers. More than half the drugs supplied to public health units had become the private property of health workers. The estimated drug leakage rate of the median facility was 78 percent! The result is that very few free services were delivered in the public health facilities, and almost none at all were delivered to the poor.

Little information exists about improvements in the health service in the latter half of the 1990s. Although limited, a recent rapid assessment of data availability for a new public expenditure tracking survey in four districts (Bushenyi, Iganga, Ntungamo, and Tororo) indicated that both operational

efficiency of the health facilities and information on inputs and outputs had improved compared with 1994–96 (World Bank 1999).

Conclusions and Policy Changes

This study was inspired by the observation that officially reported primary enrollments did not improve in the first half of the 1990s, despite substantial increases in budgetary allocations for the education sector. The hypothesis was that without institutional recovery and improvement in accountability, public funds were subject to capture before they reached the schools. A diagnostic survey of 250 schools and 100 health units was carried out in 1996 to measure the actual outputs and public spending at the facility level to proxy public sector efficacy by its ability to translate budgetary allocations into actual spending at the level of service facilities.

From the perspective of institutional recovery and accountability, the survey provided three major findings. First, the behavior of public service providers varies considerably between sectors, depending on the institutional context and incentives faced. Primary schools kept relatively good records on enrollments and financial flows, while health clinics had an almost complete void of information both on outputs, such as inpatients and outpatients, or financial information, such as user fees and cash and in-kind transfers of public resources. This survey and other evidence from Uganda indicates that educational institutions improved faster in funding accountability than health institutions. Such a marked difference could occur because in primary education parents financed most of the public school system. PTAs contributed as much as 73 percent of the total school expenditure in 1991 and 60 percent in 1995, and are likely to insist on accountability and exert pressure on the schools to provide services in return for their contributions. (Parental contributions were 42 percent at the median school in 1991, which indicates a highly skewed spending distribution.) However, parents seemed to have little control over public spending, which was dominated by central and local government bureaucrats. Users of public health clinics were likewise unable to exert much pressure on these services. As shown in chapter 13, Ugandans, including the poor, most often opted for private services.

Second, instead of being almost stagnant as the official data indicated, primary enrollment increased by 60 percent between 1991 and 1995. While the survey results cast serious doubt over the reliability of the officially reported data, they also point to a considerable improvement in the performance of the system at the school level. Increasing enrollment rates seem plausible, given the improvement in Uganda's political and socioeconomic conditions.

Third, while the survey results indicate some improvement in input flow—such as in teacher salaries, the main public spending item in education—they also confirm that serious accountability problems remained in 1995. Only 2 percent of public nonwage education spending had reached the schools in 1991, and four years later this share had increased only to about 20 percent.

Although this is a significant improvement, the share remained abysmally low. District authorities captured most of the nonwage public funds intended for schools. Regression analysis also shows that decentralization negatively affected input flow in the delivery system, at least temporarily.

In health care, drugs and medical supplies were transferred in-kind without records of their value, making it impossible to generate systematic quantitative information about public funding reaching the facilities. Qualitative observation during the field survey generally confirmed that drugs and other supplies reached the health units directly from the center. However, a study by McPake and others (1999) suggests that, unlike in education, the leakage occurred at the health unit level, where the staff siphoned off 78 percent of the drugs and supplies to compensate for their low pay. Although not fully comparable, recent evidence suggests some improvement in health facilities since then.

The central government initiated the following immediate measures in 1996 in response to the survey findings to improve information flow and transparency:

- Monthly transfers of public funds for wage and nonwage expenditure to districts are now regularly published in the main newspapers and broadcast by radio.
- All district headquarters and government primary schools are required to maintain public notice boards and post monthly transfers of funds.
- Measures to enhance accountability and dissemination of accounting information were incorporated in the 1997 Local Government Act.
- Districts are required to pay all conditional grants for primary education directly on individual school accounts. School-based procurement also replaced the highly inefficient central supply of construction and other materials.
- A renewed effort is under way to put in place basic budgeting, accounting, and auditing systems for the public sector, including local governments.

The school survey was replicated in 1999, showing that the flow of funds to schools has improved dramatically since 1995. This resulted from the central government's initiative to disseminate information monthly on transfers through newspapers and radio and to insist that all schools post information on the funds released to them (Republic of Uganda 2000). Schools now receive more than 90 percent of the intended capitation, on average, although apparently with considerable delays because of inefficiencies in the districts and the banking system. The median receipts of the capitation grant are also around 90 percent.[14]

14. A preliminary analysis of the data shows that considerable variation remains in what individual schools receive per student. In particular, variation can be explained by schools in Kampala having an advantage over rural areas.

Nevertheless, this represents a welcome improvement, particularly as the universal primary education initiative of 1997, covered in chapter 12, has substantially increased resource flows to the districts from their previous levels, including the capitation grant.

Overall, this study demonstrates that improvements in institutions and accountability are much more difficult to achieve than macroeconomic reform. Although improved since the beginning of the 1990s, service delivery continued to suffer from major inefficiencies in the mid-1990s. Compared with the evidence presented in chapter 3 on the adverse effects of cash management of the budget on expenditure programs, it appears that the volatility the "cash flow" system creates for some spending items may be relatively insignificant compared with gross inefficiencies caused by lack of accountability. At the same time, Uganda's experience shows the power of information and transparency—publishing and posting of resource flows—in improving accountability and service delivery.

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