

CHAPTER 3

EDUCATION COST AND FINANCING

As shown in Chapter 1, the government has maintained a high macro level budget priority for Tanzania’s mainland education sector over the last decade. Beyond the total amount and share of public resources allocated to the education sector, it is however necessary to: (i) identify the areas of underspending in the education system. Chapter 1 has also shown that over the next decade, the fiscal space to further increase the global volume of public education expenditure will be narrower than in the past. This situation raises the necessity for policy makers to also: (ii) find scope for cost savings in specific spending items or within education subsectors.

This chapter aims to provide some insights to these two basic questions by analyzing, in as much detail as data permit, how public resources channeled to the education sector are used. In particular, it analyses the allocation of public resources (recurrent and development expenditures) to various education subsectors (from preprimary to higher education, including teacher training, vocational education and adult and non formal education). It also reviews, within each subsector, how expenditure is distributed according to the two main allocations: personnel emoluments and *other charges*.⁴⁷

Households and communities also play an important role in funding education services in Tanzania. The total amount of their investment and the way they fund education services must also be analyzed. These questions are to be monitored by the government, particularly in the context of the fee-free primary education policy and the secondary and higher education cost-sharing policy.

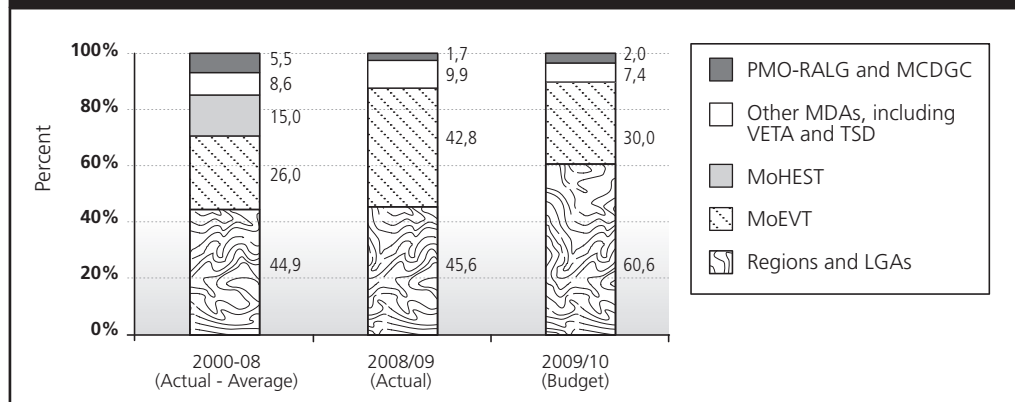
A Foreword: Tracing Public Education Expenditure

The way public education expenditures are computed is of great importance. In the case of Tanzania, public education expenditure is spread across the “votes” of various ministries, parastatal agencies, regions and Local Government Authorities (LGAs).⁴⁸ Moreover, there have been various institutional restructuring exercises within the education sector since 2000/01, adding challenge and complexity to the tracking exercise. The case of the current Ministry of Education and Vocational Training (MoEVT) is an illustration of these institutional changes. For example, one can find that the former Ministry of Education and Culture was also in charge of funding some Culture related activities between 2000/01 and 2005/06 (including Sport development in 2000/01). Also, in July 2008, Higher education and some Technical institutions were moved from the Ministry of Higher Education, Science and Technology (MHEST) to MoEVT. Another major institutional change occurred with the decentralization of Secondary education expenditures since July 2009.

To achieve data consistency through time, this chapter has made some assumptions in its trend analysis: (i) the 2008/09 institutional set-up is used to classify public education expenditure by funding source; but (ii) when analyzing expenditure trends by subsector, all public expenditure channeled to each subsector is captured according to the cycle/level, irrespective of the prevailing institutional arrangements at the time.

Development partners’ contributions to the sector as global budget support have been included in public expenditures, which is in fact the case of most external funding. External contributions that are received through different channels (nonbudget resources) are not necessarily included in the computations, mainly because of the difficulty in obtaining the data.

Figure 3.1: Total Public Education Expenditure, by Implementing Institution, FY2000/01-FY2008/09
Percent



Source: Authors' calculations based on MoFEA and VETA data.

A considerable share of education spending is decentralized. Regions, LGAs and the Ministry of Education and Vocational Training (MoEVT) jointly account for a considerable share of public education expenditure (71 percent on average over the 2000-08 period) as shown in Figure 3.1. The remaining share, over the same period, was spread across the Ministry of Higher Education, Science and Technology (MHEST, 15.0 percent), the Prime Minister's Office for Regional Administration and Local Government (PMO-RALG, 4.7 percent), the Ministry of Community Development, Gender and Children (0.8 percent) and 8.6 percent was channeled through various other MDAs (4.9 percent), including the VETA (3.4 percent) and the Teacher Service Department (TSD– 0.3 percent).

For FY 2009/10, following the decentralization of the administration of secondary schools, the government plans to transfer 60.6 percent of the total public education budget to regions and LGAs (up from 45.6 percent real expenditure in FY 2008/09); 30 percent of the budget is to be spent by MoEVT (compared with 42.8 percent real expenditure in FY 2008/09). MoEVT, the regions and LGAs will therefore remain the main entities responsible for executing the public education budget on the mainland.

The next sections' analysis focuses on actual expenditures as much as possible. Some adjustments (or item reclassifications) have been made to raw data in order to better estimate education expenditures according to their real nature (recurrent or development), and avoid potentially considerable underestimations of recurrent expenditure. Recurrent expenditures recorded under development expenditure have been systematically identified and reclassified. This was the case of 54 percent of MoEVT capitation grants for FY 2006/07, which are recurrent by nature, but were recorded as development. Misclassified recurrent expenditures are less common, but they have also been reclassified to ensure consistency in the trend analysis.

Public Education Expenditure

● Distribution by Nature

Data for public recurrent education expenditure are available since FY 2000/01, whereas a comprehensive picture of development expenditure can be provided only since FY 2003/04. Global computations are presented in Annex Table 3.1, and summarized in the following table.

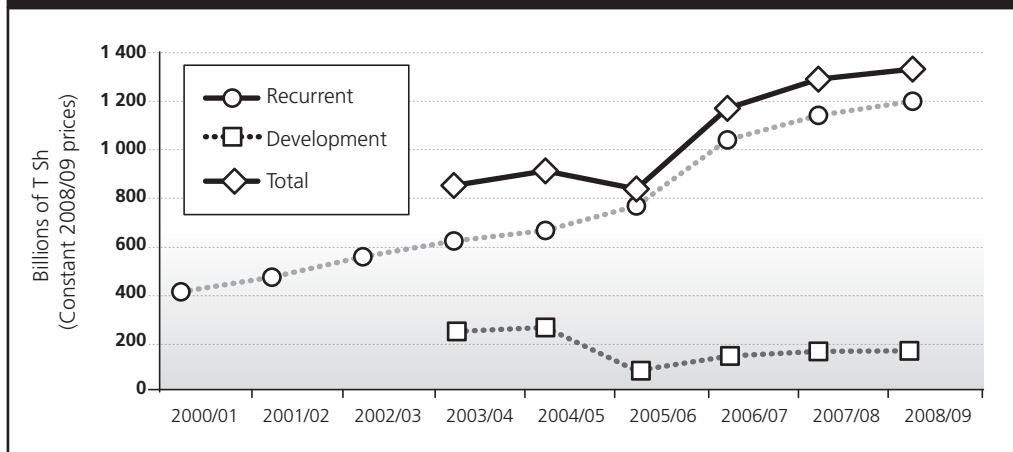
Fiscal Years	2000/01	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Current T Sh							
Recurrent (R)	216.4	407.6	466.0	572.2	834.6	1,004.1	1,172.9
Development (D)	—	155.4	178.2	53.0	107.1	134.3	152.0
Total (T)	—	563.0	644.2	625.2	941.8	1,138.4	1,324.9
Constant 2008/09 T Sh							
Recurrent (R/G)	394.7	602.9	645.9	749.3	1,019.8	1,120.5	1,172.9
Development (D/G)	—	229.8	247.0	69.4	130.9	149.8	152.0
Total (T/G)	—	832.7	892.9	818.8	1,150.7	1,270.3	1,324.9
Memo Item (G)							
GDP Deflator (2008/09 = 100%)	54.8%	67.6%	72.1%	76.4%	81.8%	89.6%	100.0%

Source: Annex Table 3.1; MoFEA for the GDP deflator.

Note: The GDP deflator has been used to convert spending data from current to constant T Sh. It shows that nominal prices (inflation) have increased by 82.4 percent [= (100/54.8) - 1] between FY 2000/1 and FY 2008/09.

The volume of recurrent expenditures has increased substantially since 2001. Public recurrent education expenditure has increased by a factor of 5.4 between FY 2000/01 and FY 2008/09, from T Sh 216.4 billion to T Sh 1,172.9 billion. This impressive trend has however partly been fuelled by price-inflation; it is estimated that prices have increased by 82 percent over the period (equivalent to an annual inflation rate of 7.8 percent). When removing this price effect, the volume of public recurrent education expenditure, in constant 2008/09 T Sh, has increased threefold, still a substantial change. Conversely, development expenditure has fallen in real terms: between FY 2003/04 and FY 2008/09, development expenditure dropped by 34 percent, from T Sh 230 billion to T Sh 152 billion, in constant 2008/09 T Sh (See Figure 3.2 below).

Figure 3.2: Real Public Education Expenditure, by Nature, (FY) 2000/01-2008/09
Billions of Constant 2008/09 T Sh



Source: Table 3.1.

Secondary, higher and technical education expenditures have increased significantly. Although rises in public recurrent education expenditures have been observed for all education levels, the bulk of the increase has been absorbed mainly by the secondary and higher levels (whose recurrent expenditures have increased by a factor of four), and technical education (whose allocation has increased by a factor of 3.4). For adult and nonformal education, vocational training and primary education expenditures, increases have been much lower than average, and only marginally above average for teacher education.

The global drop in development expenditure is mainly attributed to the lower allocations given to primary education and teacher education (reduced by 20 percent in real terms between FY 2003/04 and FY 2008/09), and vocational training (reduced by 40 percent in real terms). Indeed, despite the global downward trend, some subsectors have recorded significant increases in their development expenditures. The greater capital spending for the secondary level is the most impressive, having been multiplied by 35.8 between FY 2003/04 and FY 2008/09. Higher education's capital spending increased by a factor of 4.2, and technical education's by a factor of 3.8 over the same period.

Trends have been irregular since 2006, and a saturation effect is noticeable. Whereas development expenditure has fluctuated over the years (See Annex Table 3.1), the evolution of recurrent expenditure has been smoother, although the growth rate has softened since 2006, suggesting the presence of a saturation effect. This effect, that applies to all subsectors, is consistent with the fact that education's share of government recurrent expenditure (after debt service) is now close to its maximum (See Chapter 1):

- (i) The volume of primary education recurrent expenditure has remained fairly constant over the 2007-09 period, after a significant increase in FY 2006/07;

- (ii) Secondary education recurrent expenditure stabilized in FY 2008/09, after significant real increases (17 percent annual growth over 2004/05-2006/07);
- (iii) The higher education recurrent expenditure increase was lower in FY 2008/09 (7 percent in real terms) than in previous years (37 percent average annual increase over the 2004/05-2006/07 period);
- (iv) On the other hand, technical education has benefitted from ongoing spending increases, with the highest rate recorded in FY 2008/09 (37 percent growth, compared with an average of 15 percent since FY 2000/01); and
- (v) Vocational training recurrent expenditure has been variable, although recent increases (nine percent in FY 2007/08 and five percent in FY 2008/09) are much lower than in the two previous years, when they averaged 14 percent.

● Allocations by Subsector

Recurrent Expenditure

Cuts in primary education spending have mainly benefited higher education. Primary and preprimary recurrent expenditure decreased from 58 percent in 2000/01 to 48.7 percent in FY 2008/09. While the country has been progressing toward universal primary education (UPE) as shown in the previous chapter, the decrease of the share of Primary education can be reflecting the Government' policy to expand secondary education. However, Secondary education spending also dropped between FY 2000/01 and FY 2003/04 (from 9.9 percent to 7.5 percent), before rising anew to 12.9 percent in FY 2004/05 with the launch of the Secondary Education Development Program (SEDP I), and stabilizing in FY 2008/09 (Secondary was allocated 13.5 percent of recurrent education expenditure).

The cuts in primary education spending have mainly benefited higher education, whose share has increased from 17.4 percent in FY 2000/01 to 23.6 percent in FY 2008/09. Over this period, technical education has also benefitted from a greater allocation, rising from 6.4 percent of recurrent education expenditure to 7.4 percent.

Development Expenditure

Budget priority has shifted from primary to post primary levels. A sizeable share of development education expenditure (almost 84 percent) was allocated to primary and preprimary in FY 2003/04; their share has now decreased to approximately 22 percent. On the other hand, the share of development education expenditure allocated to secondary and teacher training increased substantially in FY 2006/07, certainly due to the implementation of the SEDP I that launched a building programme to provide each ward with an O-Level school. Other subsectors such as higher, technical and adult and non formal education have witnessed continued allocation increases.

Table 3.2: Distribution of Actual Public Education Expenditure, by Nature and Subsector, (FY) 2000/01-2008/09

Percent

	Recurrent				Development			Total		
	2000/01	2003/04	2006/07	2008/09	2003/04	2006/07	2008/09	2003/04	2006/07	2008/09
ECD	—	0.04	0.06	0.04	0.02	0.00	0.16	0.04	0.05	0.05
Preprimary and Primary	58.0	61.0	56.9	48.7	83.9	25.7	21.4	67.3	53.3	45.6
Secondary	9.9	7.5	12.5	13.5	0.3	34.7	17.3	5.5	15.0	13.9
Teacher Education	2.4	3.3	1.8	2.5	0.7	1.6	0.4	2.6	1.8	2.3
Adult and Non formal Education	2.0	1.8	1.7	1.3	0.0	0.5	3.3	1.3	1.5	1.6
<i>Vocational Education and Training</i>	3.8	3.7	3.0	3.0	8.0	1.5	7.0	4.9	2.8	3.5
Under VETA	3.3	3.3	2.6	2.6	7.5	1.1	5.3	4.4	2.5	2.9
Folk Education	0.4	0.5	0.4	0.4	0.5	0.4	1.8	0.5	0.4	0.6
Higher/University Education	17.4	16.1	18.6	23.6	4.6	23.3	29.1	12.9	19.1	24.2
<i>Technical and other Tertiary</i>	6.4	6.6	5.5	7.4	2.5	12.6	21.3	5.4	6.3	9.0
Technical - MoEVT	1.3	0.9	0.5	0.7	0.5	2.6	4.7	0.8	0.8	1.2
Community Development	0.2	0.1	0.2	0.2	0.2	1.6	0.2	0.2	0.4	0.2
Other Tertiary	5.0	5.5	4.8	6.5	1.8	8.4	16.4	4.5	5.2	7.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Based on Annex Table 3.1.

Note: Expenditure for the Teacher Service Commission has been distributed across adult and nonformal education, primary, preprimary, secondary and teacher education.

Beyond these aggregate figures, a detailed analysis of vocational education and training (VET), technical and higher education expenditures is required. According to the classification used, VET expenditures include public spending on folk education and government subsidies of VETA (either direct, from MoEVT or the Ministry of Labour; or indirect, through the Skills Development Levy). VETA received 83 percent of the government's allocation to the VET subsector in FY 2008/09; the remaining 17 percent funded folk education. The previous table shows that whereas the share allocated to folk education has remained constant (recurrent expenditure) or increased (development expenditure), the share allocated to VETA has globally decreased, both for recurrent and development expenditures.

Similarly, technical education expenditure funds training provided by MoEVT, MCDGC (community development colleges) and subsidizes technical institutions managed by some 20 other Ministries or Department Agencies (MDAs). For FY 2008/09, it is estimated that the latter absorbed almost 85 percent of all recorded technical education expenditure, compared with only two percent for MCDGC and 13 percent for MoEVT. Compared with FY 2003/04, the share of education expenditure allocated to these MDAs has increased (both recurrent and development expenditure), whereas MoEVT's expenditure allocation has been redistributed, with a slight reduction of recurrent expenditure, and an increase in development expenditure.

Finally, the higher education expenditure presented in Table 3.2 only includes universities, despite the fact that some technical institutions also offer degree courses. The National

Council for Technical Education (NACTE), classifies these institutions as “Higher Technical Institutions”⁴⁹. In fact, these expenditures should be merged with the university ones. In FY 2008/09, T Sh 39.3 billion of recurrent expenditure was allocated to these technical higher institutions, representing 46 percent of the technical education subsector’s recurrent spending, or 3.4 percent of the recurrent expenditure of the whole education system. Considering this share with that of universities, it is estimated that 26.9 percent of recurrent education expenditure was devoted to higher education. The remaining share recorded under technical education, of four percent, was spent on “Other technical non Higher leaning institutions” (See Table 3.3).

Table 3.3: Reclassification of Public Recurrent Education Expenditure among Postsecondary Levels, FY 2008/09
Percent

Sub-sector [1 st Arrangement]	%		Sub-sector [2 nd Arrangement]	%
University Education	23.6		University Education	23.6
Technical Education	7.4		Higher Technical Education	3.4
			Postsecondary non Higher Education	4.0
Postsecondary	30.9		Postsecondary	30.9

Source: Table 3.2 and authors’ calculations based on NACTE data.

● International Comparisons

Given that spending patterns may differ according to the structure of national education systems, the comparison of Tanzania’s spending patterns with those of other African countries with similar levels of economic development is based on various criteria and assumptions:

- (i) Primary education’s share of recurrent education expenditure is compared with that of countries also providing seven uninterrupted years of primary education. Before making the comparisons, Tanzanian data was adjusted to discount the share of the preprimary level, based on available information on teacher salaries and pupil-teacher ratios for preprimary and primary streams. It is estimated that 90.7 percent of *primary and preprimary* expenditures are devoted to the primary cycle;
- (ii) Given that national secondary education cycles differ in terms of their duration and organization, Tanzania is compared with African low-income countries offering 13 cumulated years of primary and secondary education;
- (iii) Tanzania’s higher education allocation has been adjusted to include technical higher institutions, and the share of technical non higher learning institutions has been merged with that of vocational training, to obtain the share of public recurrent education expenditure allocated to TVET, which is internationally comparable; and

- (iv) Comparisons are based on all African low-income countries fulfilling the above criteria, and for which data are available.

Table 3.4: Comparison of the Allocation of Public Recurrent Education Expenditure, by Cycle, Tanzania and Selected African Countries' Average, 2006 or MRV		
Percent		
	Mainland Tanzania (2008/09)	Comparable African Countries' Average
Primary	44.2	48.6 *
Secondary	13.5	20.7 **
<i>TVET</i>	7.0	5.0 ***
Technical Nonhigher	4.0	—
VETA	2.6	
Folk Education	0.4	
<i>Higher Education</i>	26.9	20.8 ***
University Education	23.6	—
Technical Higher	3.4	
<i>Other</i>	8.3	4.8 ***
Preprimary	4.5	—
Teacher Training	2.5	
Adult and Nonformal Education	1.3	
Total	100.0	100.0

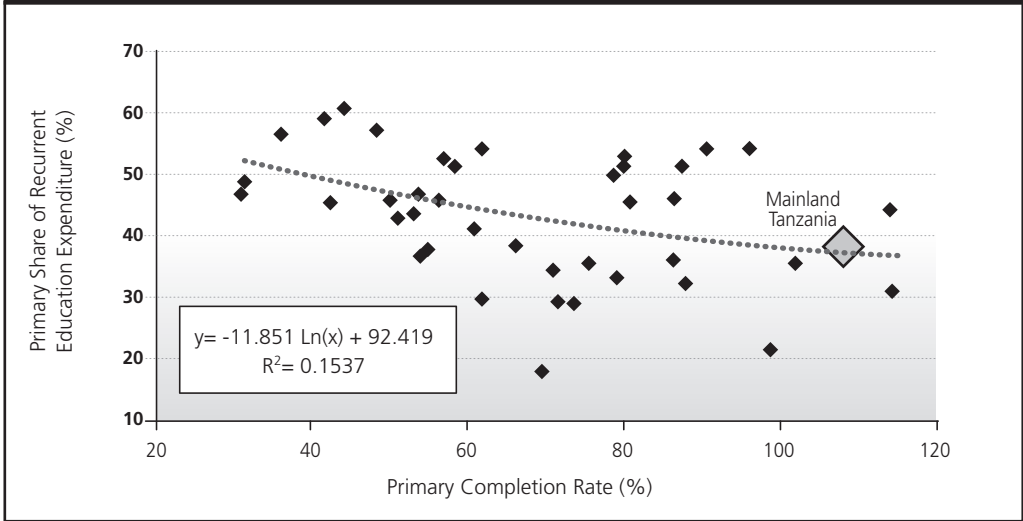
Source: Tables 3.2 and 3.3 and authors' calculations based on MoFEA and EMIS data for Tanzania; and Pôle de Dakar-UNESCO/BREDA for other countries.

Note: * Based on the average of Botswana, Lesotho, Mozambique, Namibia, South Africa, Swaziland, Uganda, Zambia and Zimbabwe; ** Obtained by deducting the share of primary (48.6) from the average total share allocated to primary and secondary education in Benin, Burkina Faso, Burundi, Central African Republic, Chad, Côte d'Ivoire, Guinea, Niger, Senegal, Togo, Uganda and Zimbabwe; *** Based on the averages of all African low-income countries for which data were available.

The Primary Education Allocation

Tanzania's resource allocation to the primary cycle is similar to that of other countries close to achieving universal primary education. Although Table 3.4 suggests that the primary level's share of recurrent education expenditure is below average, this direct comparison is biased given that primary education is less developed in these countries (the average Primary Completion Rate (PCR) is 80 percent, compared with 94.5 percent in Tanzania). Comparing Tanzania with African countries close to achieving universal primary education provides a better benchmark. Figure 3.3 below shows that in general, the closer a country is to achieving universal primary education, the lower the share of resources it allocates to the primary cycle. Tanzania fits in with this global trend: the share of expenditure allocated to the primary cycle is similar to that of countries with similar primary completion rates.

Figure 3.3: The Primary Cycle's Allocation of Public Recurrent Education Expenditure, by PCR, Tanzania and Comparable African Countries, 2006 or MRY
Percent



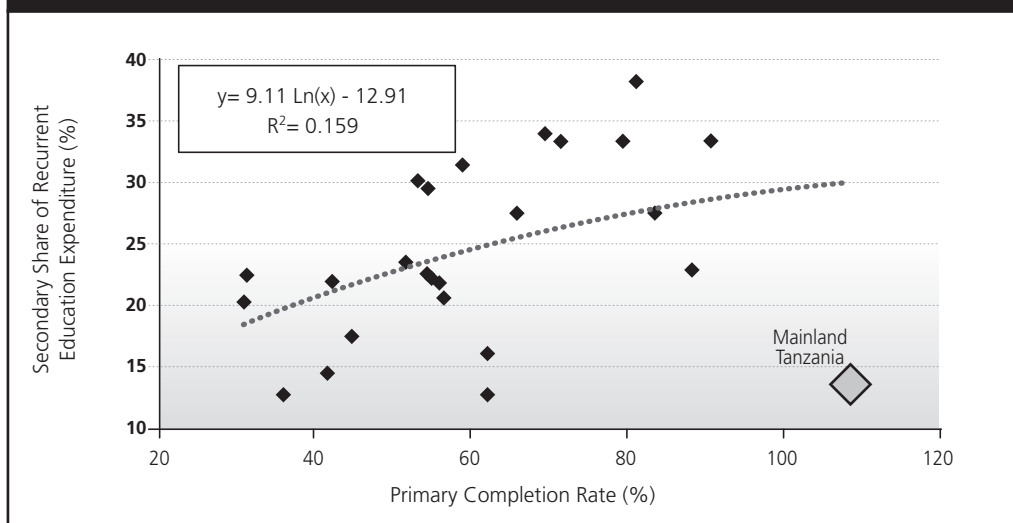
Source: Authors' calculations based on Table 3.4 for Tanzania, and Pôle de Dakar for other countries.
Notes: The share of recurrent education expenditure devoted to primary education is estimated for countries where the cycle is at least six years, and proportionally adjusted to a six year period, for the purpose of the comparison. Data were available for 42 African countries. The figure for Tanzania was estimated at 37.9 percent [44.2 * 6/7].

The Secondary Education Allocation

Tanzania's expenditure allocation to the secondary cycle is excessively low. Table 3.4 above shows that comparable countries allocate a much higher share of their recurrent education budgets to the secondary level (20.7 percent on average, against 13.5 percent for Tanzania). Tanzania's secondary cycle receives 35 percent less funding than its peers, which may be due to the fact that the coverage of secondary education (GER) is currently much lower in Tanzania. The government's strategy to expand secondary education (more enrollments with improved quality of service) is not however being met by the current budget trade-offs within the education sector. Some scope to further increase the allocation to the secondary level must be found, and assessed through policy discussions based on a simulation model.

Figure 3.4: The Secondary Cycle's Allocation of Public Recurrent Education Expenditure, by PCR, Tanzania and Comparable African Countries, 2006 or MRY

Percent



Source: Authors' calculations based on Table 3.4 for Tanzania, and Pôle de Dakar-UNESCO/BREDA for other countries.

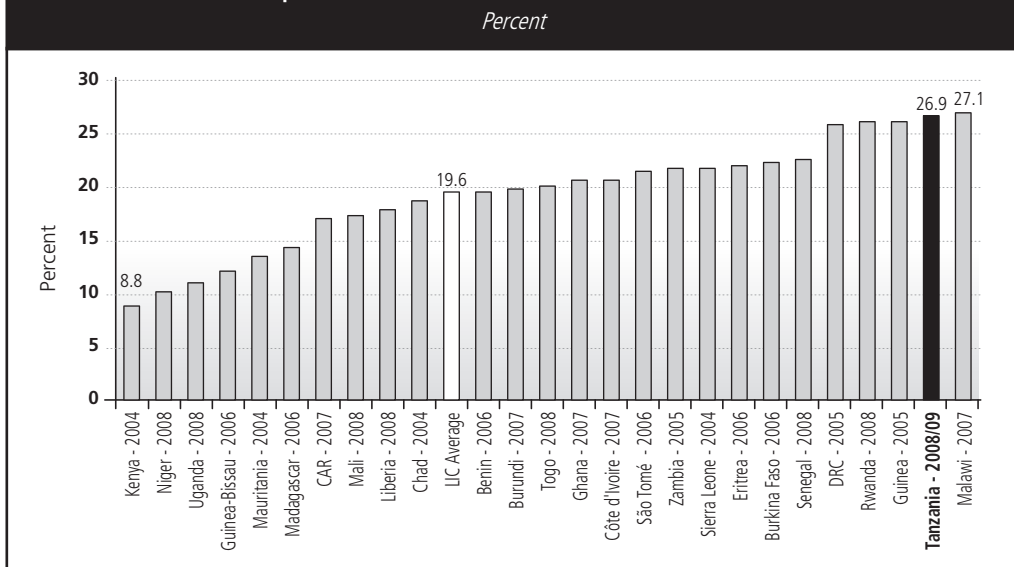
Notes: The share of recurrent education expenditure devoted to secondary education is estimated for countries where the cycle is at least six years, and proportionally adjusted to a six year period, for the purpose of the comparison. Data were available for 25 African countries.

The Higher Education Allocation

Higher education has benefited from the government's underspending on the secondary cycle. At 26.9 percent, the share of recurrent education resources allocated to higher education is six percentage points higher in Tanzania than in other comparable African low-income countries (20.8 percent on average). Tanzania's higher education allocation is the fifth highest of 41 countries for which data were available,⁵⁰ and among the highest of all African low-income countries (See Figure 3.5 below).

In the perspective of reducing the funding imbalance within the Tanzanian education sector, more resources should be channeled to secondary education. Although it may not be possible to reallocate funds from higher education to secondary, the government must look for efficiency gains and/or potential cost-saving measures within the higher education cycle. These issues are examined in further detail in this chapter's section on unit costs.

Figure 3.5: Higher Education's Allocation of Public Recurrent Education Expenditure, Sample of African Low-income Countries, 2006 or MRY



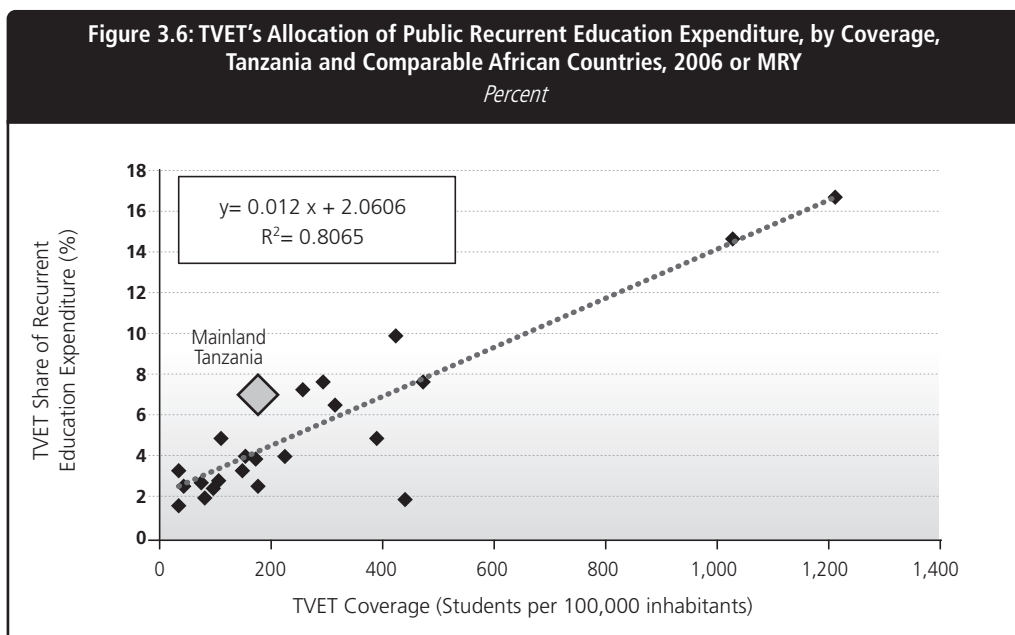
Source: Table 3.4 for Tanzania and Pôle de Dakar-UNESCO/BREDA for other countries.

The TVET Allocation

The Tanzanian TVET system is not as underfunded as in many African countries. TVET's share of recurrent education expenditure in mainland Tanzania (seven percent) is both comparatively higher than in other African countries (five percent), and relatively higher than the share that would be proportional to enrollment according to the regional pattern (See Figure 3.6 below). So, although the TVET system tends to be underfunded in Africa, it is relatively less so in Tanzania.

Trade-offs within the TVET system particularly favor technical non higher education, which absorbs almost 57 percent of all public recurrent expenditure allocated to the TVET system. In comparison, vocational education courses delivered through VETA are allocated 37 percent of TVET resources, and folk education absorbs the remaining six percent. This funding imbalance within the TVET system is questionable, given that vocational education faces huge social and economic demand. Indeed, the following are worthy of consideration: (i) many children were obliged to curtail their studies after primary because of the limited number of places in secondary school (See Chapter 2); (ii) these children are likely to be eligible for some kind of vocational training; and (iii) this social demand for vocational training can also be viewed as an economic demand: there is a sizeable unskilled labor force working in the traditional and informal segments of the economy, where labor productivity is very low (See Chapter 6).

In a double perspective of reducing poverty and satisfying the need for skilled human capital to contribute to economic growth, policy makers face the challenge of reducing the funding imbalance within the TVET system. As with higher education, to achieve this will require: (i) the identification of potential efficiency gains within the technical non higher stream, and (ii) the implementation of cost-effective policies in the vocational stream to better respond to economic and social demands with reasonable quality standards (See this chapter's section on unit costs).



Source: Authors' calculations based on Table 3.4 for Tanzania, and Pôle de Dakar-UNESCO/BREDA for other countries.

No detailed comparative data are available for the remaining segments of the Tanzanian education system (preprimary, teacher education, adult and non formal education). Only a general picture can be provided, showing that these three subsectors receive comparatively higher shares of recurrent expenditure in Tanzania than in other countries.

Household Education Spending

The volume of household contributions to education varies according to whether the child attends a government or nongovernmental institution. However, even for government schooling, households contribute to costs such as uniforms, school fees, school materials and transportation. Estimates based on the Household budget surveys of 2007 (HBS, 2007) reveal that in FY 2008/09, the amount estimated to have been invested in education by households amounted to T Sh 205.1 billion, equivalent to 0.76 percent of GDP (See Table 3.5 below).

Table 3.5: Household Spending on Education, by Level, FY 2008/09

	Pre-Primary	Primary	Secondary			Post-secondary	Total (Average)
			O-Level	A-Level	Total		
2007 (HBS)							
Household Spending per Student (T Sh)	17,430	13,754	24,600	33,405	25,097	61,485	14.288
2008/09 (Estimates)							
Household Spending per Student (T Sh) *	20,421	16,115	28,821	39,138	29,404	72,037	16.888
Total Household Spending (billions of T Sh)	18.1	135.8	37.9	2.5	40.5	10.8	205.1
As % of Public Recurrent Expenditure							
Excluding HESLB Loans	32.3	26.4	-	-	21.0	3.0	18.2
Including HESLB Loans						53.3	32.2
As % of GDP							
Excluding HESLB Loans	-	-	-	-	-	-	0.76
Including HESLB Loans	-	-	-	-	-	-	1.20

Source: Authors' computations based on HBS, 2007; EMIS and MoFEA data.

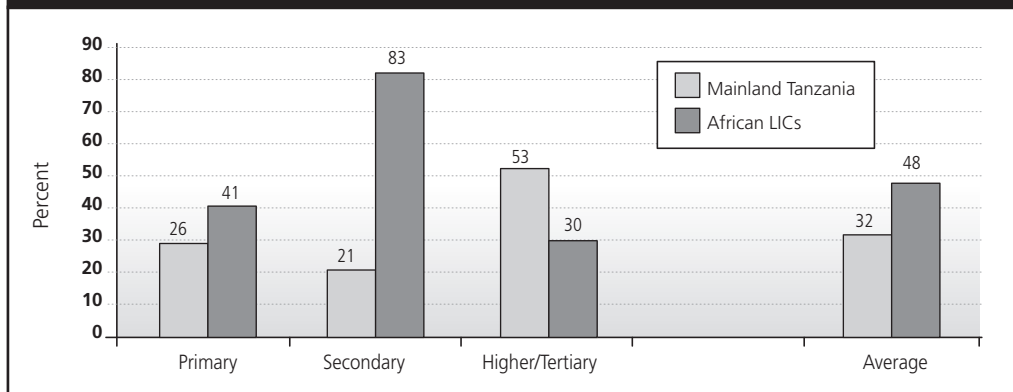
Note: * Based on an estimated annual inflation rate of 11.1 percent between 2007 and 2008/09 (See Chapter 1).

This amount should be viewed as an underestimation of household education spending for two reasons: (i) substantial community contributions to school construction, both in kind and in labor, are not accounted for; and (ii) the amount is the direct investment by households, and does not include their indirect investment, in particular the loans repayable to the Higher Education Student Loan Board (HESLB) in the future.

Therefore, given that HESLB recurrent expenditure (on government subsidies, and not including salaries) was estimated at T Sh 119 billion in 2008/09,⁵¹ the total amount of household spending is closer to T Sh 324.1 billion, or 1.2 percent of GDP.

The education burden on household budgets is lower than in other African low-income countries. Table 3.5 shows that household direct and indirect investments are equivalent to 32.1 percent of public recurrent education expenditure (not including HESLB loans), meaning that for every T Sh 100 spent by the government, households spend a further T Sh 32. This global level of household spending on education is lower than in other African low-income countries, where household contributions are equivalent to 48 percent of government recurrent education expenditure, on average (Brossard et al., 2008; Rwanda CSR, 2010).

Figure 3.7: International Comparison of Household Spending on Education, by Level, 2009 or MRV
Percentage Equivalent of Public Recurrent Education Expenditure



Source: Table 3.5 for Tanzania; Rwanda CSR, 2010 and Brossard et al., 2008 for 17 African low-income countries.

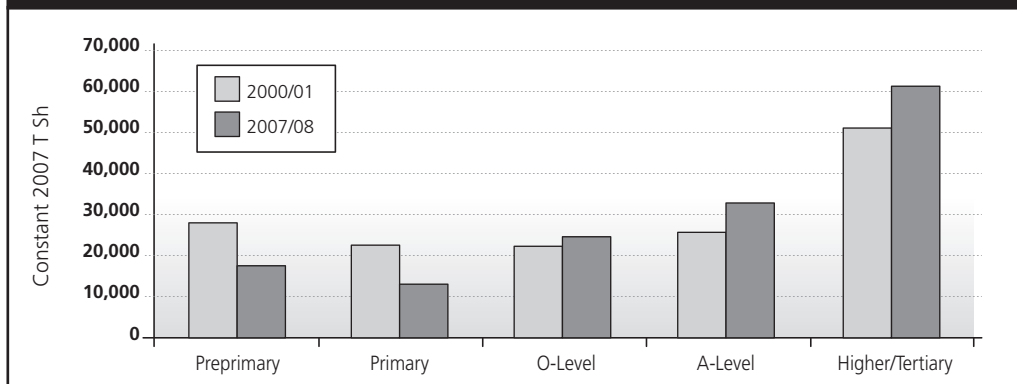
Note: 18 African low-income countries are considered here: Benin, Burkina Faso, Cameroon, Chad, Congo, Côte d'Ivoire, Djibouti, Guinea Bissau, Madagascar, Malawi, Mali, Mauritania, Niger, Rwanda, Senegal, Sierra Leone, Togo and Uganda.

Higher Education Cost-Sharing

The higher education cost-sharing policy has contributed to reduce the government's financial burden. Household spending on education is equivalent to less than 30 percent of government expenditure for the primary and secondary levels, but more than 50 percent for higher and tertiary education. Tanzanian households' investment in higher education is also comparatively higher than in other African countries (See Figure 3.7). Recent studies show that with the current high level of higher education unit costs, governments cannot be the sole financiers of this cycle, especially in a context of rapid expansion and given the need to improve the quality of service delivery (Pôle de Dakar, 2007; World Bank, 2010). That Tanzanian families pay just over a third of the cost of higher education shows that the cost-sharing policy has been effective in lowering the government's financial burden. However, the management of the loan-recovery mechanisms of the HESLB should be strengthened to ensure the financial sustainability of the loan scheme.

Trends in household education spending have been analyzed on the basis of data from the Household Budget Surveys (HBS) for 2000 and 2007, focusing on spending per student. Figure below 3.8 shows that household spending per child has decreased in real terms for the preprimary and primary levels, by 40 percent over 2000-07, but increased significantly for A-Level and postsecondary levels, by 29 percent and 21 percent respectively.

Figure 3.8: Direct Household Spending per Student, by Level, (FY 2000/01 and 2007/08)
Constant 2007 T Sh



Source: Authors' computations based on HBS, 2000 and 2007.

Note: The GDP deflator has been used to adjust direct household spending from 2000 T Sh to constant 2007 T Sh.

The decrease in household spending per student at primary and preprimary levels over 2000-07 is attributed to the abolition of all direct contributions by parents to government schools since 2001, in the context of the Primary Education Development Program (PEDP I). The reduction has been greater for poor families, reaching a 58 percent drop in household spending per student for families from the poorest quintile. The increase in household spending per student for higher and tertiary education is linked to the significant increase in the size of the private sector: 21 percent of higher and tertiary education students were enrolled in private institutions in 2007, compared with only seven percent in 2000). This increase may also reflect the significant private returns expected from postsecondary studies, as well as the fact that most students at this level come from wealthier families (See Chapter 5 on equity).

Public Recurrent Spending Per Student (Unit Costs)

The data on public recurrent education expenditure and student enrollment in government schools were used to calculate government recurrent expenditure per student (unit costs) for each level of education in FY 2008/09, and to compare these figures against FY 2000/01 levels of spending. This trend analysis has not been performed for postsecondary education however: although higher education expenditure benefits some students in technical institutions, nongovernmental higher learning institutions and those studying overseas, this spending can not be distributed among the mentioned levels for years other than FY 2008/09, due to the lack of disaggregated data.

Overview

As previously explained, the distribution of the education budget among subsectors has been adjusted since FY 2000/01. Table 3.6 shows how these public spending trends have affected public spending per student over the 2000-08 period.

	Preprimary and Primary			Secondary	Teacher Education	Adult and Non formal Education	Vocational Training
	Pre-primary	Primary	Total				
Unit Costs (2009)							
Thousands of T Sh	63.6	62.4	62.5	135.7	1,541.2	13.7	1,464.6
US\$	50.4	49.5	49.6	107.5	1,221.6	10.9	1,161.0
% of GDP per Capita	9.4%	9.3%	9.3%	20.1%	228.5%	2.0%	236.7%
Unit Cost Index (ref. Primary) *	1.0	1.0	1.0	2.2	24.6	0.2	23.4
2001-09 Real Increase (%)	n.a.	n.a.	35.1%	-45.3%	113.3%	90.3%	n.a.
Memo Items							
Enrollments 2008-09 ('000s) **	828.2	8,304.8	9,133.1	1,164.8	19.2	1,154.0	23.9
Spending in 2008/09 (T Sh billion)	52.7	518.6	571.3	158.0	29.6	15.8	35.0

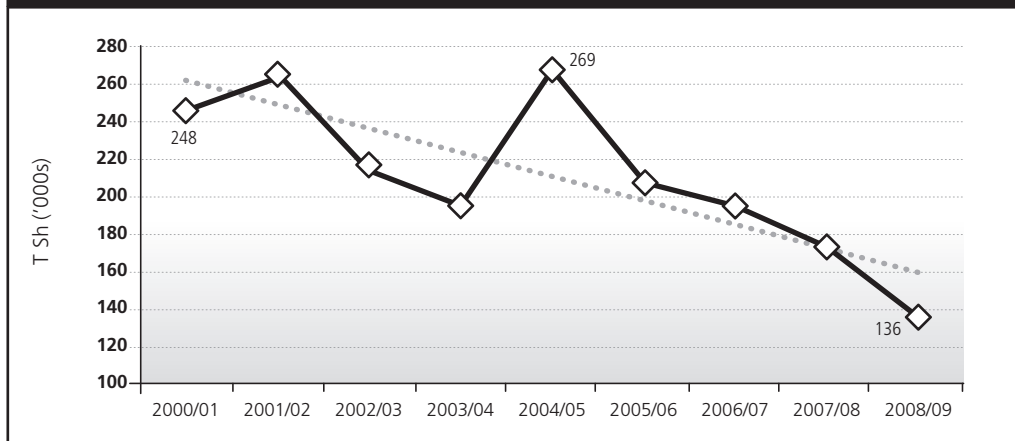
Source: Authors' calculations based on MoFEA and EMIS data.

Note: * The unit cost index compares each level's unit cost to the primary unit cost: for example, the adult and nonformal education average unit cost is about 20 percent of the primary unit cost; ** Data are averages for 2008 and 2009; for AE/NFE, enrollment includes ICBAE and COBET only; for VET, enrollment is based on authors' estimates including only VTC and FDC long courses.

In FY 2008/09, unit costs ranged from T Sh 14,000 for adult and nonformal education to T Sh 1.5 million for teacher Education and vocational training. The overall cost of a preprimary or primary school child is T Sh 62,500 (or US\$ 50) per year. The secondary level unit cost is 2.2 times that amount, and the teacher training and vocational education unit costs are almost 24 times the primary unit cost. These huge variations are due to the type of service delivered.

Secondary level unit costs are worthy of specific mention, given that since FY 2000/01, public spending per student at the secondary level has halved. Table 3.6 shows that the real public spending per secondary student has halved between 2000-08, while other subsector unit costs have continued to rise: teacher education and adult and nonformal education spending per student has doubled on average, and preprimary and primary unit costs have risen by 35 percent. This confirms that the government has been underspending on secondary education over the period: although public enrollment has increased by a factor of 7.4, allocations have only increased four-fold.

Figure 3.9: Secondary Education Public Unit Costs, (FY) 2000/01-2008/09
Thousands of Constant 2008/09 T Sh



Source: Authors' computations based on MoFEA and EMIS data.

When put in international perspective, the primary education unit cost, at 9.3 percent of GDP per capita, is slightly lower than the African low-income countries' average, of 11.5 percent, and the secondary level unit cost is markedly lower, at 20.1 percent of the GDP per capita, than the African LICs' average, of 32 percent.

Tanzania's preprimary unit cost seems low in regional perspective: it is similar to that of primary, whereas in 15 African countries for which data are available, the preprimary unit cost is generally 2.2 times higher.⁵² Tanzania's administration of this level, using similar teaching approaches as for primary (similar teacher salaries, pupil-teacher ratios and similar school premises) has helped to lower the unit cost. It has also increased enrollments: Tanzania's preprimary gross enrollment ratio is close to 40 percent, compared with just eight percent on average for other African countries, whose preprimary unit costs are considerably higher (25 percent of GDP per capita).

● Higher and Technical Education Recurrent Expenditure

In computing public postsecondary unit costs, the total amount transferred to private institutions and for students studying overseas must be analyzed in detail, because the classifications of enrollment and per student spending are not always harmonized: (i) some expenditures that appear in the higher education budget (such as HESLB loans) benefit students in technical institutions; (ii) the government funds some nongovernmental learning institutions, either through transfers from the HESLB or direct subsidies from the ministerial budget; and (iii) the government provides scholarships for overseas study (through HESLB loans).

The Higher Education Student Loan Board (HESLB)

In FY 2008/09, the HESLB granted loans to 59,033 students in 51 postsecondary institutions (47 on the mainland and four in Zanzibar), including: (i) 31 universities, and 20 technical institutions; (ii) 27 public and 24 private institutions; and (iii) 39 higher education institutions, and 12 nonhigher (See Annex Table 3.2). These institutions accounted for 95.2 percent of all HESLB disbursements, the remainder financing overseas scholarships.

Therefore, in order to reach reliable estimates of public higher education unit costs it is first necessary to distribute the amounts devoted to HESLB loans among their beneficiaries, differentiating between universities and technical nonhigher institutions.

A total amount of T Sh 135.1 billion was disbursed by the HESLB in FY 2008/09: 85 percent for university students, and 15 percent for students in technical institutions. Also, about 36 percent of overall disbursements were for students in private institutions (See Table 3.7).

	University	Technical Education		Total	%
		Higher	Non-higher		
HESLB National Loans					
<i>Mainland Tanzania</i>	105,447	18,335	943	124,725	96.9%
<i>Government HLIs</i>	63,787	14,399	300	78,485	61.0%
Transferred to HLIs	16,593	3,559	72	20,223	15.7%
Transferred to Students	47,194	10,840	228	58,262	45.3%
<i>Nongovernmental HLIs</i>	41,660	3,936	643	46,240	35.9%
Transferred to HLIs	14,835	2,154	212	17,202	13.4%
Transferred to Students	26,825	1,782	431	29,038	22.6%
Zanzibar	3,965	0	7	3,972	3.1%
Subtotal	109,412	18,335	950	128,697	100.0%
%	85.0%	14.2%	0.7%	100.0%	
All HESLB Funding					
National Loans	109,412	18,335	950	128,697	95.2%
Overseas Students	—	—	—	6,444	4.8%
Total	109,412	18,335	950	135,141	100.00%

Source: HESLB and authors' calculations.

Another key feature of the HESLB's activities to be considered is that 30 percent of loans were transferred directly to institutions, to cover tuition fees and special faculty requirements. The remaining 70 percent was transferred to students' bank accounts, for them to finance their meals and accommodation, books and stationery, practical training and research (See Annex Table 3.3). A total amount of T Sh 47.3 billion was transferred by the HESLB to the private sector in 2008/09, equivalent to 12.6 percent of public recurrent

spending for higher and technical education. Three modalities were used: (i) 36.4 percent was transferred directly by the HESLB to nongovernmental postsecondary institutions; (ii) 61.4 percent was transferred to students' bank accounts; and (iii) the remaining 2.2 percent were for ministry subsidies to other nongovernmental postsecondary institutions.⁵³

Reconstructed Total Public Recurrent Expenditure for Higher and Technical Education

Table 3.8 includes the above amounts alongside other public recurrent expenditure for higher and technical education (mainly subsidies to public education and educational institutions, and MoEVT, TCU and NACTE overheads and management costs).

Table 3.8: Reconstructed Public Recurrent Expenditure for Higher and Technical Education, by Level, Source, and Type of Expense, FY 2008/09
Millions of T Sh and Percent

	University		Technical Education				Total	
	Amount	%	Higher		Non-higher		Amount	%
			Amount	%	Amount	%		
Institutional Funding	157,808	62.2	45,059	75.5	57,706	94.2	260,573	69.6
<i>Government Institutions</i>	142,973	56.4	42,905	71.9	56,461	92.2	242,338	64.7
Salaries	105,483	41.6	23,537	39.4	28,034	45.8	157,055	41.9
Other Recurrent Expenditures	37,489	14.8	19,367	32.5	28,427	46.4	85,283	22.8
<i>Other Charges Direct Subsidies</i>	20,897	8.2	15,809	26.5	28,355	46.3	65,060	17.4
HESLB Transfers	16,593	6.5	3,559	6.0	72	0.1	20,223	5.4
Nongovernmental Institutions	14,835	5.8	2,154	3.6	1,246	2.0	18,235	4.9
Ministry of Health Subsidies	0	0.0	0	0.0	1,033	1.7	1,033	0.3
<i>HESLB Transfers</i>	14,835	5.8	2,154	3.6	212	0.3	17,202	4.6
Student Loans	74,019	29.2	12,623	21.2	659	1.1	87,301	23.3
In Government Institutions	47,194	18.6	10,840	18.2	228	0.4	58,262	15.6
In Nongovernmental Institutions	26,825	10.6	1,782	3.0	431	0.7	29,038	7.8
General Administration	21,876	8.6	1,999	3.3	2,865	4.7	26,739	7.1
At Home *	15,172	6.0	1,999	3.3	2,865	4.7	20,036	5.3
Subsidies to External Organizations **	259	0.1	0	0.0	0	0.0	259	0.1
Scholarships for Study Abroad	6,444	2.5	0	0.0	0	0.0	6,444	1.7
Total	253,702	100.0	59,680	100.0	61,231	100.0	374,613	100.0
Transfers to Private Institutions	41,660	16.4	3,936	6.6	1,677	2.7	47,274	12.6
Scholarships for Study Abroad	6,444	2.5	0	0.0	0	0.0	6,444	1.7
Other Recurrent Expenditures	205,598	81.0	55,744	93.4	59,554	97.3	320,895	85.7

Source: Authors' calculations based on MoFEA and HESLB data.

Notes: * These figures include MoEVT's headquarter expenses for higher and technical education; the personal emolument component of government subsidies to various parastatal agencies (the TCU, the TEA- Education Fund, the HESLB and the NACTE); the other charges component of government subsidies to various parastatal agencies (TCU, TEA-Education Fund and NACTE; and a share of MoEVT's operational costs (administration, finance and accountancy, policy and planning, internal audit, procurement, information and communications, the Chief Education Officer and the UNESCO commission); ** These subsidies include payments made to the Commonwealth Secretariat and to the Inter-University Association.

Higher and Technical Education Unit Costs

Table 3.9 displays the unit costs for higher and technical education in FY 2008/09. The analysis does not consider internally generated income and expenditures, that are generally not included in the government's annual budget.

Table 3.9: Higher and Technical Education Public Unit Costs, by Level and Composition, FY 2008/09 <i>Thousands of T Sh and Percent</i>										
	Higher Education						Technical Nonhigher		Total	
	University		Technical		Total		Amount	%	Amount	%
	Amount	%	Amount	%	Amount	%				
<i>Pedagogical Expenses</i>	2,042.2	69.5	1,882.9	77.0	2,003.1	71.1	2,469.0	94.8	2,095.2	75.5
Personnel Emoluments	1,506.7	51.3	1,032.9	42.2	1,390.4	49.4	1,225.9	47.1	1,357.9	48.9
<i>Other Expenses</i>	535.5	18.2	849.9	34.7	612.7	21.8	1,243.1	47.7	737.3	26.6
<i>Other Charges Direct Subsidies</i>	298.5	10.2	693.8	28.4	395.6	14.0	1,239.9	47.6	562.5	20.3
HESLB Transfers to HLIs	237.0	8.1	156.2	6.4	217.2	7.7	3.1	0.1	174.8	6.3
Student Loans	674.1	23.0	475.7	19.4	625.4	22.2	10.0	0.4	503.7	18.2
Management Costs	220.4	7.5	87.7	3.6	187.8	6.7	125.3	4.8	175.5	6.3
Total Unit Cost	2,936.8	100.0	2,446.3	100.0	2,816.3	100.0	2,604.2	100.0	2,774.4	100.0
US\$	2,327.9	n.a.	1,939.1	n.a.	2,232.4	n.a.	2,064.3	n.a.	2,199.2	n.a.
Multiple of GDP per Capita *	4.4	n.a.	3.6	n.a.	4.2	n.a.	3.9	n.a.	4.1	n.a.
Memo Items										
Enrollment in Public Institutions **	70,008	60.5	22,787	19.7	92,795	80.2	22,868	19.8	115,663	100.0
Public Expenditure (Millions of T Sh)	205,598	64.1	55,744	17.4	261,341	81.4	59,554	18.6	320,895	100.0

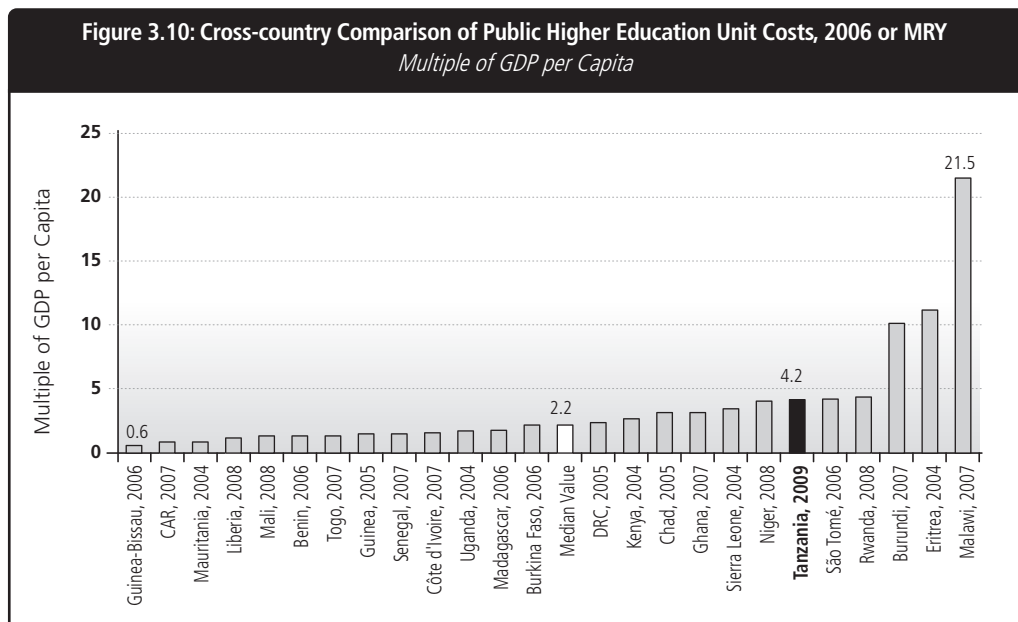
Source: Authors' calculations based on Table 3.8, adjusted enrollment data and MoFEA data.

Note: *GDP per capita is T Sh 674,500; ** Slightly inflated estimates, to account for missing data for technical nonhigher education, and compute reliable unit costs. The adjusted higher education figure (92,795) is close to that provided by TCU/NACTE (92,537), but the technical nonhigher figure (22,868) is 30 percent higher than the official NACTE/BEST data (17,634). The total figure (115,663) is five percent higher than the official figure (110,171).

In FY 2008/09, the average public postsecondary unit cost was close to T Sh 2.8 million, or about US\$ 2,200. The university unit cost of T Sh 2.94 million is 16 percent higher than the technical education unit cost, of T Sh 2.53 million (average of technical higher and technical nonhigher), mainly due to teaching personnel emoluments. Indeed, the *other charges* component of direct government subsidies are 3.2 times higher for technical education (T Sh 967,300 per student) than for university education (T Sh 298,500 per student).

For the purpose of international comparisons, the aggregate of university and higher technical education is used. In Tanzania, the higher education unit cost is estimated at T Sh 2.82 million (or US\$ 2,232), which is eight percent higher than the technical nonhigher education unit cost, of T Sh 2.60 million. The public cost of higher education per student enrolled in a government HLI is 4.2 times mainland Tanzania's GDP per capita. This is 20

percent higher than for other African low-income countries, where the average unit cost is 3.5 times GDP per capita (See Figure 3.10), which calls for an analysis of the areas where cost-savings and/or efficiency gains can be made.



Source: Table 3.4 for Tanzania and Pôle de Dakar-UNESCO/BREDA for other countries.

Cost-savings and Efficiency Gains

Scope to reduce costs and improve efficiency exists at two interrelated levels: (i) the funding allocations to individual postsecondary institutions; and (ii) the composition of public expenditure per student.

Cost-Saving/Efficiency-Gain Measure 1: Improve the Link Between Funding Allocations and Needs

Other charges per student vary considerably among postsecondary institutions. Although they are expected to be higher for technical institutions than for universities (due to the type of teaching, the technical materials and equipment required, and so on), the difference noted in Tanzania of a factor of 3.2 is questionable.⁵⁴ This situation requires further analysis by subject area however, given the diversity of courses offered, and training types, inputs and costs.

NACTE has clustered various technical fields into five subject areas, and established a Subject Board to handle each subject area. The five subject areas and their corresponding boards

are: (i) agriculture, natural resources and environment; (ii) business and management; (iii) engineering and other sciences; (iv) health and allied sciences; and (v) planning and welfare. Surprisingly, planning and welfare courses are twice as expensive as health and allied sciences; engineering courses are the most expensive, almost 13 times more than business and management, which is the least costly subject (See Table 3.10).

	Higher		Nonhigher		Average	
	Unit Cost	Unit Cost Index	Unit Cost	Unit Cost Index	Unit Cost	Unit Cost Index
Agriculture, Natural Resources and Environment	n.a.	n.a.	576.6	1.0	576.6	2.3
Business and Management	168.9	1.0	669.8	1.2	247.4	1.0
Engineering and Other Sciences	2,701.3	16.0	3,616.6	6.3	3,110.2	12.6
Health and Allied Sciences	n.a.	n.a.	830.0	1.4	830.0	3.4
Planning and Welfare	1,601.2	9.5	1,744.8	3.0	1,687.1	6.8
Average	693.8	n.a.	1,239.9	n.a.	967.3	n.a.

Source: Authors' calculations based on MoFEA and NACTE data.

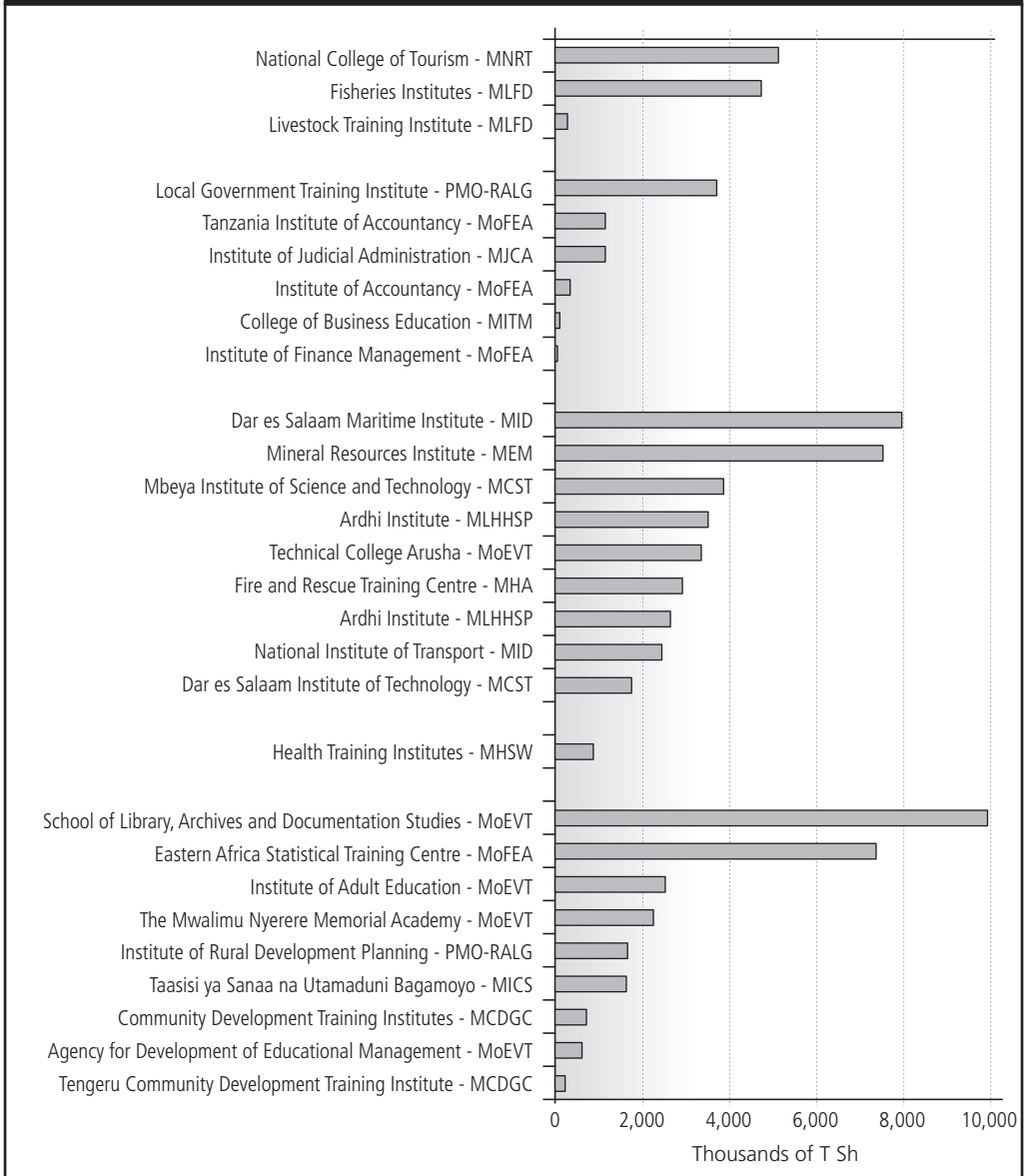
Notes: The unit cost index is obtained by dividing the unit cost for a given subject area by the lowest unit cost of all subject areas. For instance, the other charges per student for planning and welfare studies are 6.8 times those of business and management.

However, even for a same subject area, and among institutions with comparable levels of enrollment, the variation in the resources devoted to *other charges* is large (See Figure 3.11 below).

The planning and welfare training centers show the greatest disparity in other charges per student: the School of Library, Archives and Documentation Studies and the Agency for the Development of Educational Management, both under MoEVT, each had an average 300 students enrolled per year over 2008-09, but the *other charges* per student of the latter (T Sh 9.9 million) were over 16 times higher than those of the former (T Sh 0.6 million). Likewise, the variations are significant within engineering courses: the Ardhi institute located at Tabora (under the Ministry of Lands, Housing and Human Settlements Development) and the Mineral Resources Institute (under the Ministry of Energy and Minerals) each had an average of 125 students enrolled per year over 2008-09, but the *other charges* per student of the latter (T Sh 7.5 million) are more than double those of the former (T Sh 3.5 million).

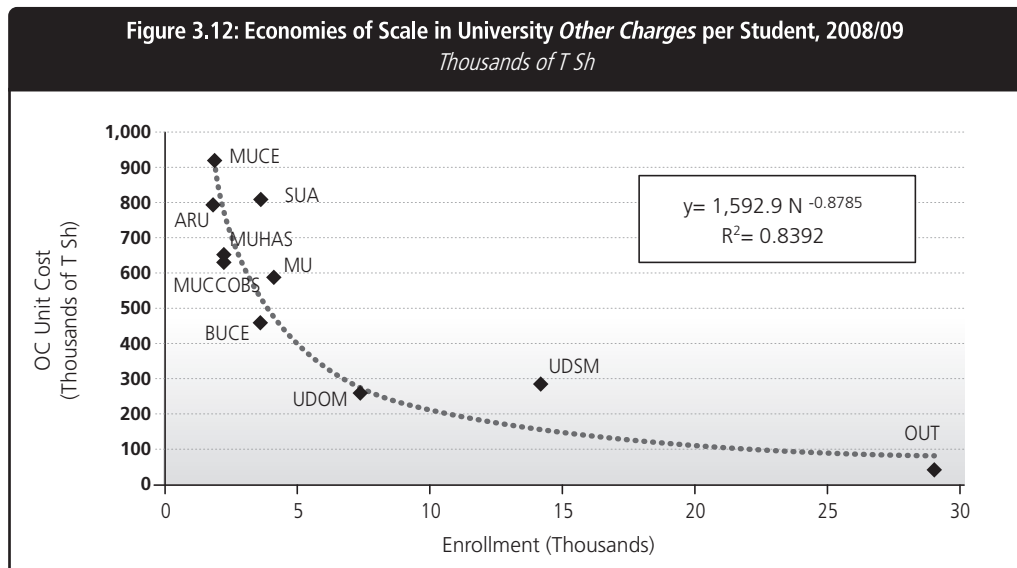
The majority of the technical institutions offering agricultural or health trainings are not subsidized, in the sense that they do not have an autonomous budget. Although the real *other charges* per student per institution were not available, their consolidated amount by subject area for public health training institutes and livestock and fisheries training institutes has been captured.⁵⁵

Figure 3.11: Other Charges Direct Subsidy per Student (OC Unit Cost), for Selected Public Technical Training Institutions, by Subject Area, 2008/09
Thousands of T Sh



Source: Authors' calculations based on MoFEA and NACTE data.

Conversely, other charges at universities are highly correlated to their number of students. In general, an enrollment increase of 20 percent (that is the overall increase observed over 2007-08 for mainland public universities) lead to an increase in other charges ranging from three percent to nine percent. *Other charges* increase at a lower rate than enrollments, due to economies of scale: indeed, the *other charges* unit cost for universities with 20 percent more students is 14 percent lower, on average (See Figure 3.12).



Source: Authors' calculations based on MoFEA and TCU data.

Notes: Unit costs are for FY 2008/09, and enrollments are averages for 2008 and 2009. Even by removing the Open University of Tanzania (OUT) from this graph, the correlation remains high: $Y = 1,135.1 N^{-0.56}$ ($R^2 = 0.749$).

Cost-Saving/Efficiency-gain Measure 2: Increase University Enrollment, at Lower Cost

The existence of economies of scale indicates a certain rationality in the allocation of *other charges* unit costs (OC unit costs) among universities, and has two favorable implications:

- (i) OC unit costs are much higher for small universities. Figure 3.12 shows that these costs rise sharply for universities with fewer than 7,000 students. The seven public universities that have less than 5,000 students enroll just 28 percent of all public university students (most of them are underutilized - See Chapter 7 on management), and OC unit costs range from T Sh 470,000 to T Sh 920,000, compared with less than T Sh 300,000 for universities with 7,000 students or more; and
- (ii) Fixed cost allocations, at times of questionable magnitude, can be reviewed in the light of the institution's needs according to the type of training delivered, to identify potential cost-savings (agriculture courses will require greater resources than education courses). Currently, universities with only 2,000 students (close to the

minimum average per year for all public universities over 2008-09) receive an approximate OC allocation of T Sh 1.64 billion, regardless of their subject specializations.

Cost-Saving/Efficiency-Gain Measure 3: Target Social Expenditures at the Students in Greatest Need

To improve the quality of teaching and learning, priority is given to pedagogical expenditures, that account for 71.1 percent of higher education unit costs (including loans received directly from the HESLB). A further 6.7 percent cover central management costs (MoEVT, HESLB, TCU and NACTE operational costs). The remaining significant share of spending (22.2 percent) are loans transferred directly to students, and are considered as social expenditures (See Table 3.9 above). In fact, a comprehensive approach to social expenditures would include those loans transferred directly to students in private institutions, in which case the share of social spending rises to 27.6 percent (See earlier Table 3.8). In this respect, Tanzania has the eighth (out of 19 African countries for which data are available) highest share of social expenditures within the higher education subsector (not including scholarships for study abroad).

Table 3.11: Social Expenditures, by Level and Type of Institution, FY 2008/09
Percent, and Millions of T Sh

	Higher Education	Technical Nonhigher	Total
Share of Student Loan Beneficiaries (%)	47.9%	1.3%	38.5%
In Government Institutions	43.0%	0.6%	34.6%
In Nongovernmental Institutions	65.4%	3.9%	52.6%
Amount of the Loan (Millions of T Sh)	2.18	2.37	2.18
Students in Government Institutions	1.96	2.25	1.96
Students in Nongovernmental Institutions	2.69	2.43	2.69
Overseas Scholarships	6.23	-	6.23
Share of the Loan Transferred Directly to Students	70.0%	69.9%	70.0%
Students in Government Institutions	74.2%	76.1%	74.2%
Students in Nongovernmental Institutions	62.7%	67.0%	62.8%
Memo Items			
<i>Number of Loan Beneficiaries</i>	56,798	398	57,196
In Government Institutions	39,858	133	39,991
In Nongovernmental Institutions	16,940	265	17,205
Overseas Scholarships	1,034	0	1,034

Source: Authors' calculations based on HESLB, NACTE and TCU adjusted data.

Social expenditures effectively depend on three main factors: (i) the share of students that benefit from loans; (ii) the average amount of the student loan; and (iii) the share of that amount that is transferred directly to students for their social expenses. In 2008/09, 57,196 students on the mainland benefited from an HESLB loan, representing 39 percent of all students in public and private mainland postsecondary institutions (See Table 3.11 above). The average loan value was T Sh 2.18 billions (or US\$ 1,729), approximately 70 percent of which was transferred directly to students' individual bank accounts. Although the value of the loan appears to be in line with the Tanzanian cost of living, the share of students receiving a loan (almost 48 percent of higher education students) appears to be excessive: less than 10 percent of postsecondary students' families are from the poorest quintiles (See Chapter 5 on equity). This is clearly inequitable, and calls for an improvement in the loan targeting mechanisms.

● Vocational Training Public Expenditure

This section focuses on public spending for folk education and other VET activities managed by VETA. Although folk education is directly funded by the government (through a specific MCDGC budget allocation), VET activities under VETA are funded differently: in addition to subsidies received directly from the government, VETA benefits from indirect subsidies through the Skills Development Levy, and generates income from its operations (training, boarding, evening course fees and production activities). However before analyzing this funding arrangement in greater detail, it is first necessary to review the structure of vocational training recurrent expenditures, to better understand the issues affecting unit costs.

Administrative Costs

A quarter of folk education recurrent expenditure is retained at the ministerial level to cover overheads (the remaining 75 percent is allocated directly to Folk Development Colleges). This share is comparatively higher than for other education subsectors: for basic education, central administrative costs represent approximately 10 percent of total public recurrent expenditure, and for higher and technical education, they are just seven percent. This suggests that there is scope to reduce administrative overheads, in benefit of the share of resources channeled directly to FDCs, especially for underfunded pedagogical items (teaching, training and learning materials).

Table 3.12: Distribution of Folk Education Public Recurrent Expenditure, by Key Items, FY 2008/09
Percent

	Share (%)
<i>FDC Subsidies</i>	75.0
Personnel Emoluments	58.2
<i>Other Charges</i>	16.8
Student Meal Allowances	3.6
Teaching, Training and Learning Materials	1.5
Student Books and Stationery Allowance	0.0
Other Recurrent Expenditures	11.8
<i>Central Administration Overheads</i>	25.0
Personnel Emoluments	15.2
<i>Other Charges</i>	9.9
Total	100.0
In Constant 2008/09 T Sh (billions)	4.936

Source: Authors' calculations based on MoFEA data.

VET recurrent administrative costs are higher still. In 2009, the aggregate amount spent on VET sector management was close to 27 percent of recurrent expenditures, and a further 31 percent was devoted to VETA's administrative, institutional, and financial costs (See Table 3.13 below).⁵⁶ Effectively, only 42 percent of the recurrent budget was devoted to the actual delivery of training, in the form of direct allocations to 21 VETA-owned training centers.⁵⁷

VET overhead costs may appear high when compared with those of other education subsectors, including folk education, especially when considering that VETA-owned centers only account for eight percent of VET enrollment. However, it is important emphasize that since 2004 VETA provides a level of support to the VET subsector and other providers, partially explaining its high overheads. This support is either direct (capacity building, supply of modern equipment and tools, subsidies) or indirect (quality assurance, labor market monitoring, VET marketing and communication, and any activity that benefits the subsector by providing useful information for planning and improving the quality and relevance of training).

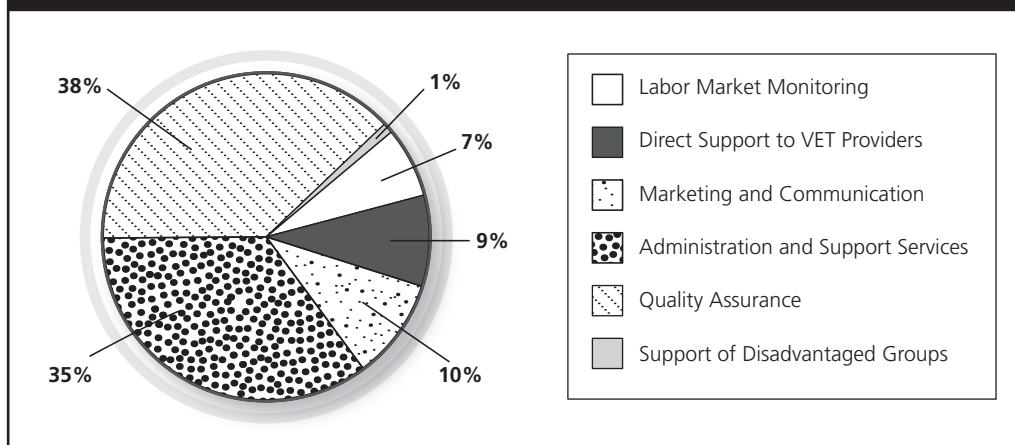
Table 3.13: Value and Distribution of VETA Public Recurrent Expenditure, by Key Items, 2001 and 2009
Constant 2009 T Sh (Billions)

	2001		2009		Real Change (%)
	Value	Share (%)	Value	Share (%)	
<i>Training Expenses (VETA-owned Centers)</i>	10.44	60.9	10.26	41.9	-1.7%
<i>Long Courses</i>	8.02	46.8	8.70	35.5	8.5%
Personnel Emoluments	3.46	20.2	3.97	16.2	14.7%
Training Materials	1.38	8.1	1.72	7.0	24.6%
Boarding Expenses	0.39	2.2	0.66	2.7	69.2%
Maintenance of Utilities and Facilities	2.79	16.3	2.35	9.6	-15.8%
Short Courses	2.42	14.1	1.56	6.4	-35.5%
VET Sector Management Costs	0.00	0.0	6.58	26.8	n.a.
<i>Administrative and Institutional Costs</i>	5.60	32.7	7.43	30.3	32.7%
Personnel Emoluments (VETA-HQ)	1.85	10.8	2.55	10.4	37.8%
Maintenance of Utilities and Facilities	1.10	6.4	1.19	4.8	8.2%
Production and Other Operations	2.65	15.5	3.70	15.1	39.6%
Financial and Other Operating Expenses	1.11	6.4	0.24	1.0	-78.4%
Total Recurrent Expenditure	17.15	100.0	24.52	100.0	43.0%

Source: Authors' calculations based on VETA and MoFEA data.

VET sector management costs are mainly devoted to quality assurance (38 percent), marketing and communication (10 percent), direct support to other VET providers (nine percent), labor market monitoring (seven percent) and one percent is spent on supporting disadvantaged groups (See Figure 3.13). The remaining 35 percent cover administration and support services.

Figure 3.13: Composition of VET Management-related Costs, 2009
Percent



Source: VETA planned expenditures for 2009.

Recent additional VET budget allocations have especially favored the sector management by VETA, while the amount devoted to VETA-owned centers, stable in real terms, has increasingly financed long training courses. Over the decade for which data are available, the share of VETA headquarters' administrative and institutional costs has remained fairly constant (30 percent of VETA's recurrent spending in 2009, down slightly from 33 percent in 2001), while the share allocated to VETA-owned centers decreased from 61 percent to 42 percent, and the share allocated to VET sector management reached 27 percent. In real terms, the volume of resources channeled to VETA-owned centers has been constant, at approximately T Sh 10.3 billion (in constant 2009 prices). However, the volume of resources spent on short training courses has decreased by 35 percent over the period, compared with an overall nine percent real increase for long courses.

VETA's Funding Sources

Resources from the Skills Development Levy (SDL) have accounted for 88 percent of VETA's total income on average over the last decade, followed by income from own operations (8.1 percent) and other sources, including government grants (3.9 percent). The SDL is a six percent contribution of the formal sector to training, automatically discounted from the payroll, and VETA receives 33 percent of the amounts collected. This high dependency on the SDL raises the issue of the diversification of funding sources, which could include a greater government direct subsidy. Indeed, the principal reliance on the SDL could hinder VETA's ability to expand the coverage of its activities, given the embryonic state of Tanzania's formal sector, despite the recognized fact that demand for vocational training is high and increasing.

Table 3.14: VETA Income, by Source, 2001 and 2009

Billions of Constant 2009 T Sh

	2001		2009		Real Change (%)
	Value	Share (%)	Value	Share (%)	
Total Income, by Source	15.8	100.0%	36.1	100.0%	128%
Skills Development Levy	13.6	86.4%	30.8	85.4%	126%
Funds from Operations	1.8	11.6%	4.2	11.6%	128%
Fees from Operations *	1.0	6.4%	2.9	8.0%	182%
Production Activities	0.8	5.2%	1.3	3.6%	60%
Other sources	0.3	1.9%	1.1	3.0%	255%
Total Expenditures, by Nature	18.1	100%	36.4	100%	101%
Recurrent	17.1	94.9%	24.5	67.4%	43%
Development	0.9	5.1%	11.9	32.6%	1,176%
Expenditures as % of Total Income	115%	n.a.	101%	n.a.	n.a.
Recurrent	109%	n.a.	68%	n.a.	n.a.
Development	6%	n.a.	33%	n.a.	n.a.

Source: Authors' calculations based on VETA and MoFEA data.

Note: * Includes fees from training, boarding, evening courses, and various other services.

VETA's total income is now in line with expenditures. In 2000, VETA's recurrent spending was close to its total income, and development spending represented an additional 15 percent, bringing total costs to slightly more than 15 percent above total income (average for 2000-03). The growth in income has allowed to reduce the deficit significantly, making the financing of VETA more viable (See Table 3.14 above), and to raise development expenditures to 32.6 percent of total spending. Concomitantly, the share of the budget devoted to recurrent expenditure was reduced from 95 percent in 2001 to 67 percent in 2009.

Vocational Training Unit Costs

Public recurrent unit costs have been computed on the basis of the information presented above on VET public recurrent expenditures and enrollments (See Table 3.15). As mentioned above, the unit costs obtained are only indicative, as it was not possible to obtain disaggregated data on public expenditures other than for folk education and VETA-owned training centers. VET sector management costs have been spread across FDCs, VETA-owned centers and other VET providers, according to their respective shares of enrollments, assuming that VET management costs per student are uniform across the subsector, regardless of the provider.

	Vocational Education ***			Technical Nonhigher	TVET
	Folk Education	VETA-owned Centers	Total/Average		
<i>Recurrent Expenditures (Billions of T Sh)</i>	5.4	19.1	24.5	59.6	84.1
VET Management Costs *	0.4	0.9	1.3	0.0	1.3
Other Recurrent Expenditures	4.9	18.3	23.2	59.6	82.7
Enrollment in Government Institutions **	4,889	10,159	15,048	22,868	37,916
Public Unit Costs					
Thousands of T Sh	1,099	1,883	1,628	2,604	2,217
US\$	871	1,493	1,291	2,064	1,757
As a Multiple of GDP per Capita	1.63	2.79	2.41	3.86	3.29
Unit Cost Index					
Relative to Folk Education #	1.00	1.71	n.a.	n.a.	n.a.
Relative to VET ##	n.a.	n.a.	1.00	1.60	n.a.
As a Multiple of Primary Education Unit Costs	n.a.	n.a.	26.0	41.6	35.4
As a Multiple of Secondary Education Unit Costs	n.a.	n.a.	12.0	19.2	16.3

Source: Authors' calculations based on Tables 3.9, 3.12, 3.14 and MoFEA data.

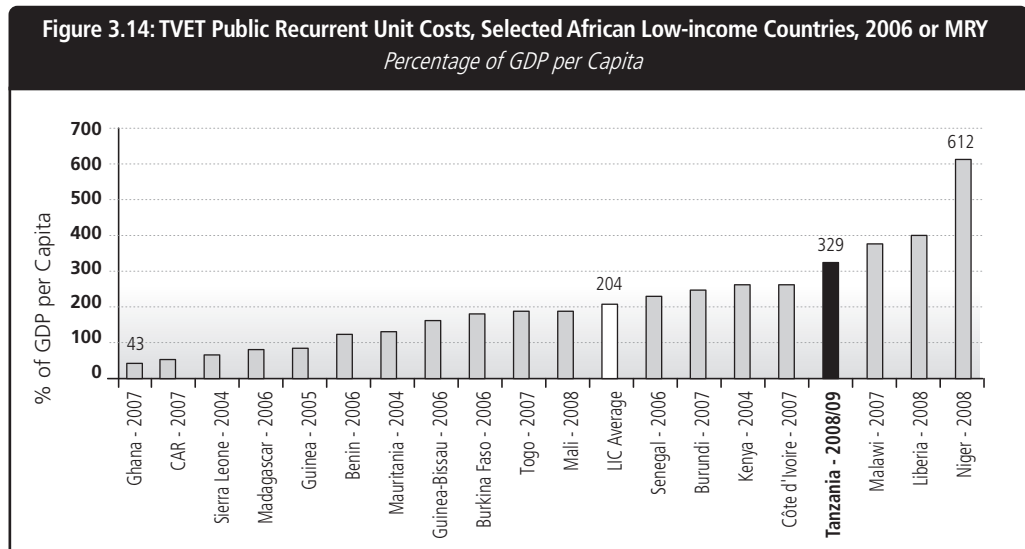
Note: * Distributed between FDCs and VETA-owned centers on the basis of their enrollment shares, of 7.4 percent and 14.8 percent respectively (the remaining 77.8 percent is for other VET providers not considered here); ** Averages for 2008 and 2009, and authors' estimates for VETA-owned centers and technical nonhigher institutions; *** Enrollments on VETA and FDC long courses only; # Ratio between the unit costs in VETA-owned centers and FDCs; ## Ratio between the unit costs of technical nonhigher education and vocational education.

The average public unit cost for vocational education and training is about T Sh 1.63 million. This figure does however conceal huge disparities within the subsector: unit costs are 70 percent higher for VETA-owned centers than for folk development centers. On the one hand, this suggests that folk education may be underfunded. However, the extent of the resource gap in folk education should be considered in the context of the community-based services offered, whereas VETA-owned institutions are considered to be VET centers of excellence. On the other hand, it suggests that enrollment in VETA-owned centers could increase, making high quality vocational training accessible to a greater number of youth.

Table 3.15 above also includes technical nonhigher education unit costs, in order to obtain TVET figures that are internationally comparable. The unit cost for technical nonhigher education is estimated at T Sh 2.6 million, 60 percent higher than the vocational training unit cost.

International Comparison

Tanzanian TVET unit costs are higher than in comparable African countries. Estimated at T Sh 2.22 million (US\$ 1,760), the TVET unit cost is 3.29 times GDP per capita. This is 67 percent higher than the TVET unit cost for other African low-income countries, where it averages 2.04 times GDP per capita (See Figure 3.14). To date, this level of per student spending has not constituted a major constraint to the expansion of the subsector, which has benefited from a higher share of education resources than other African countries (See earlier Table 3.4). In a future context of rapid and increasing demand for TVET services however, such high unit costs may limit access to the subsector.



Source: Table 3.15 for Tanzania and Pôle de Dakar-UNESCO/BREDA for other countries.

In conclusion, it appears important to rationalize the level of TVET unit costs, for the subsector as a whole, and especially for technical nonhigher education. Furthermore, the TVET funding imbalance should be reduced in order to scale-up vocational education and training activities.

● Basic Education Public Expenditure

Basic education recurrent expenditure (including preprimary, primary, secondary, teacher education, and adult and nonformal education) amounted to approximately T Sh 782.9 billion in FY 2008/09, representing 66 percent of public recurrent education expenditure. A sizeable share of this investment is allocated directly to schools/education institutions (88 percent), the rest being devoted to general administration and support services, either within central government (MoEVT, and various other parastatal agencies) or at regional and local government authority levels. However, this overall pattern differs from one subsector to another (See Table 3.16).

Table 3.16: Composition of Basic Education Public Recurrent Expenditure, by Subsector, FY 2008/09

Percent

	Primary & Preprimary	Secondary	Teacher Training	Adult & Nonformal	Average /Total
<i>Government School Subsidies</i>	88.3	95.4	69.6	65.6	88.5
Personnel Emoluments *	77.2	83.2	53.0	57.4	77.0
<i>Other Charges</i>	11.2	12.1	16.7	8.2	11.5
Capitation Grant **	9.7	2.2	0.0	0.0	7.7
Student Meal Allowances	0.8	8.9	14.8	0.0	2.8
Teaching, Training and Learning Materials	0.3	1.1	1.9	0.8	0.5
Other Recurrent Expenditures	0.4	0.0	0.0	7.5	0.5
<i>Administration and Support Services</i>	11.7	4.6	30.4	34.4	11.5
Regions and LGAs	5.8	0.0	0.0	6.6	4.5
<i>MoEVT</i>	5.9	4.6	30.4	27.8	7.1
Personnel Emoluments	1.3	1.4	0.9	16.2	1.7
Other Charges	4.7	3.2	29.4	11.7	5.4
Examination Expenditures ***	3.5	0.5	0.1	2.8	2.8
Subsidies to Non Education Institutions #	0.2	0.2	0.2	0.2	0.2
Employment Allowances	0.3	1.4	24.0	2.2	1.4
Other Recurrent Expenditures ##	0.6	1.1	5.2	6.4	1.0
Total	100.0	100.0	100.0	100.0	100.0
Memo Items: Public Recurrent Expenditure					
In Billions of Constant 2008/09 T Sh	584.0	151.8	28.0	19.1	782.9
Share of Public Recurrent Education Expenditure (%)	49.2	12.8	2.4	1.6	66.0

Source: Authors' calculations based on MoFEA data.

Notes: Table 3.16 is based on reconstructed expenditures. * Includes trainees allowances for licensed and contract teachers; ** Includes secondary school fee subsidies, paid directly to schools to encourage the enrollment of poorer students; *** Includes NECTA other charges; # Includes the other charges component of government subsidies to various parastatal agencies (Dakawa, National Correspondence Institute, Tanzania Institute of Education, Chewata, Workers Councils); ## Includes a share of MoEVT overhead costs (administration, finance and accountancy, policy and planning, internal audit, procurement, information and communication, the Chief Education Officer, the Inspectorate and the UNESCO commission) and the Teacher Service Department's recurrent expenditures.

Adult and nonformal education and teacher education both devote considerable shares of their budget to administration and support services, 32 percent on average, which is significantly higher than the basic education subsectors' average, of 11.5 percent. This is undesirable in the case of adult and nonformal education, where more resources should be channeled to learning institutions to improve the coverage of ICBAE/COBET training, and reduce illiteracy (27 percent of Tanzanian adults are illiterate). Such high administrative allocations directly prejudice learning through their amputation of the other charges budget: when devoted to expenses such as employment allowances or student meal allowances, few funds are left available to purchase critical inputs such as teaching and learning materials.

The secondary school capitation grant allowance is notoriously low, at just 2.2 percent of the level's total budget. Whereas capitation grants represent 89 percent of the other charges in primary schools, they only account for 26 percent in secondary schools, where the bulk of other charges spending is on student meals (74 percent). Moreover, the amount of the capitation grant per secondary school student in FY 2008/09 (under T Sh 1,000), represents an all-time low since FY 2004/05 (See Table 3.17).

Table 3.17: Capitation Grants per Student, for Primary and Secondary Schools, (FY) 2004/05-2009/10
Current 2008/09 T Sh

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10 Budget
Preprimary and Primary						
Capitation Grant (Millions of T Sh)	18,760	25,520	65,940	45,430	56,800	81,060 *
Average Capitation Grant per Student (T Sh)	2,391	3,069	7,517	5,017	6,219	8,852
Secondary						
Capitation Grant (Millions of T Sh) **	5,280	14,570	17,110	18,070	1,000	20,330 *
Average Capitation Grant per Student (T Sh)	17,039	34,457	25,934	19,380	858	15,085
Memo Items: ***						
Primary Government School Enrollment	7,845,113	8,317,014	8,771,959	9,056,380	9,133,090	9,157,429
Secondary Government School Enrollment	310,038	422,840	659,793	932,484	1,164,782	1,347,511

Source: Authors' calculations based on MoFEA and EMIS data.

Notes: * Planned expenditures; ** Includes only learning grants, allocated on the basis of the estimated number of students who are exempt from paying for learning materials; school fee subsidies are not included; *** Enrollment for T/T+1 is the average for T and T+1.

If the secondary school capitation grant budget planned for FY 2009/10 (T Sh 15,000 per student) had been spent in FY 2008/09, secondary cycle per student spending would have been 11 percent higher. Even at this level however, equivalent to 21.4 percent of GDP per capita, it would still have been considerably lower than the African low-income countries' average, of 32 percent of GDP per capita. This suggests that the underfunding of secondary education is not only explained by the low level of capitation grants. There also appear to be budgetary constraints in terms of the teachers' wage bill.

Teacher Wages

In most countries, personnel emoluments represent the bulk of public recurrent spending on basic education, and teachers' salaries usually represent the greater share of personnel emoluments, as opposed to the wages of nonteaching staff. Teachers' salaries therefore constitute a key component of basic education unit costs and are hence a key parameter for education policy making. Teachers' salaries ideally need to be set at levels that retain and motivate serving teachers and attract suitable new candidates on the one hand, but make expanding enrollment fiscally feasible on the other. The available evidence on teachers' salaries in 2009 is presented in Table 3.18.⁵⁸

Table 3.18: Average Salaries and Personnel Emoluments, According to the Teacher Salary Scale, 2009

	Salary Grade	Monthly Average Number of Staff		Annual Basic Salary	Average Annual Personnel Emoluments *		
		Total	%	Million T Sh	Million T Sh	Multiple of GDP per Capita	US\$
Primary & Preprimary	A	39	0.0%	1.64	1.94	2.7	1,464
	B	60,446	36.2%	2.08	2.46	3.4	1,854
	C	18,067	10.8%	2.58	3.04	4.2	2,295
	D	13,104	7.8%	4.11	4.85	6.7	3,660
	E	73,289	43.9%	5.26	6.21	8.6	4,684
	F	1,900	1.1%	6.72	7.87	10.9	5,935
	G	107	0.1%	8.68	10	13.9	7,547
	H	16	0.0%	11.02	12.43	17.2	9,377
	Total	166,968	100.0%	3.75	4.42	6.1	3,336
Secondary	A	2	0.0%	1.46	1.73	2.4	1,304
	B	115	0.4%	2.07	2.45	3.4	1,846
	C	19,303	64.4%	2.59	3.05	4.2	2,302
	D	4,908	16.4%	4.07	4.8	6.6	3,620
	E	1,602	5.3%	5.15	6.08	8.4	4,586
	F	3,436	11.5%	6.75	7.96	11.0	6,006
	G	345	1.2%	8.7	10.27	14.2	7,748
	H	270	0.9%	11.41	13.47	18.7	10,160
	Total	29,980	100.0%	3.59	4.24	5.9	3,196
Teacher Education	A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	B	111	4.2%	2.09	2.47	3.4	1,864
	C	755	28.6%	2.6	3.07	4.3	2,318
	D	875	33.1%	4.05	4.78	6.6	3,609
	E	391	14.8%	5.22	6.15	8.5	4,643
	F	360	13.6%	6.8	8.02	11.1	6,054
	G	63	2.4%	8.66	10.22	14.2	7,709
	H	84	3.2%	11.34	13.38	18.5	10,098
	Total	2,639	100.0%	4.44	5.24	7.3	3,957

Source: Authors' calculations based on MoFEA-Tanzanian Government Teacher Scale Payroll data.

Notes: * Includes government contributions to social security and pensions (15 percent of the basic salary), and health insurance (three percent of the basic salary).

Teachers for primary, secondary and teacher training levels are paid by the same scale (with salary grades ranging from A to H), but according to different ranges: B to E for primary teachers, C to F for diploma secondary teachers and D to H for degree secondary teachers.

Table 3.18 above shows that almost half of primary school teachers are at the top of their salary scale (44 percent of them are paid according to salary grade E), whereas almost two-thirds of secondary school teachers are still at the starting point of their salary scale (64 percent of them are paid according to salary grade C). For this reason, the average primary teacher's salary is in fact higher (at T Sh 4.42 million in academic year 2009, or 6.1 times GDP per capita) than the average secondary teacher's salary (T Sh 4.24 million, representing 5.9 times GDP per capita). Furthermore, secondary education has a high proportion of unqualified teachers (24 percent of the public teaching force in 2009), compared with the proportion of unqualified teachers in public primary schools (10 percent of the teaching force), who are underpaid. Table 3.19 provides rough estimates of teachers' salaries at the primary and secondary levels.

	Level Taught	Salary Grade Range		Multiple of GDP per Capita
		Minimum	Maximum	
Degree	Secondary	D	H	8.9
Diploma	Secondary	C	F	5.7
Grade A Certificate	Primary	B – Step 2	E	6.1
Grade B/C (Unqualified Teachers)	Primary	B – Step 1	E	
Teacher Trainees / Licensed teachers	Primary or Secondary	?	?	Primary: 4.9 (or 80% of Grade A teachers' salary) Secondary: 4.5 (or 80% of Diploma teachers' salary)

Source: Authors' calculations based on Table 3.18.

The cost of a Tanzanian teacher is higher at the primary, but lower at the secondary level. In low-income African countries, average teachers' salaries are 4.5 times GDP per capita at the primary level, 6.7 times GDP per capita at the junior secondary level (O-level) and 8.4 times GDP per capita at the senior secondary level (A-level).

Teachers' salaries constitute a key factor of the unit cost of basic education in any country, both as a result of their level, and through the pupil-teacher ratio. In regional perspective, Tanzanian teachers cost more at the primary level (6.1 times GDP per capita, compared with 4.5 times for other African low-income countries), but less at the secondary level (5.9 times GDP per capita, against 6.7 to 8.4 times for junior and senior secondary respectively in comparable countries).

This situation makes the primary teaching profession comparatively more financially attractive in Tanzania, from a subregional perspective: indeed, a Tanzanian primary school teacher earns about US\$ 6,560 per year (in 2005 Purchasing Power Parity –PPP– US\$), against an average of US\$ 4,320 for other African LICs and the East African Community.⁵⁹ It therefore should be straightforward to attract those teachers to the profession that are necessary to improve the pupil-teacher ratios (PTR); but the average PTR in government primary schools was 55:1 in 2009, above the regional average of 50:1, and substantially higher than both the FTI benchmark of 40:1, and the ESDP II benchmark of 45:1, jeopardizing the quality of education. It appears that among other factors, resource constraints have prevented the government from recruiting the required number of teachers.

Tanzania is however now close to achieving universal primary education, and as the demographic pressure on the education system is set to quell (See Chapter 1), the intensity of teacher requirements will also drop. In this context, reducing the primary PTR should be more feasible, improving learning conditions, and ultimately, the quality of service.

The situation of secondary school teachers is quite the opposite. Their low compensation in Tanzania is partly due to the high proportion of unqualified (and underpaid) teachers at this level. Despite the lower public teacher cost, the PTR (of 50:1 in government secondary schools in 2009) is much higher than in other LICs (with average PTRs of 30:1). To deal with the general shortage of secondary teachers (especially qualified ones) MoEVT has developed a multipronged Teacher Development and Management Strategy (TDMS, 2008).⁶⁰ The strategy, which has not yet been fully implemented, focuses mainly on supply side issues. The attractiveness of the secondary teaching profession should also be assessed, to elaborate strategies to better retain candidates, inspired by labor market surveys and cross-country comparisons.

KEY FINDINGS

The increase in public education expenditure has been followed by significant changes in subsector allocations.

The share of primary education has decreased since FY 2000/01, while the country was moving toward universal primary education. The current share of primary (44.2 percent of public education expenditure) is similar to that of countries equally close to achieving universal primary education. The choice of comparable modes of preprimary and primary service delivery has been helpful in lowering unit costs and increasing preprimary enrollment.

Secondary education is underfunded. Tanzania is spending far less on secondary education (13.5 percent of public education resources) than countries who are equally close to achieving universal primary education, and where there are also convincing arguments to expand secondary education.

Higher education has benefited from the government's underspending on secondary education. With 26.9 percent of public education resources, Tanzania's higher education subsector is one of the best financed among African countries (after Lesotho, Botswana, Swaziland and Malawi). Unfortunately, this has led to the halving of secondary education unit costs since FY 2000/01.

Whereas the Tanzanian secondary unit cost is only two-thirds of the African low-income countries' average, the higher education unit cost (the average for university and higher technical education) is 20 percent higher than in other LICs. The government's strategy to expand secondary education is not matched by current budget trade-offs within the sector, and options to increase secondary education's funding must be explored.

Receiving seven percent of public education resources, the Tanzanian TVET system is not as underfunded as in many other African countries. However, technical nonhigher education absorbs almost 57 percent of all TVET resources, against just 37 percent for vocational training, and six percent for folk education. This funding imbalance should be reduced in order to scale-up vocational education and training activities.

Potential efficiency gains and cost-saving options are available.

Basic education focuses too little on spending that directly improves the quality of service delivered. In secondary education, capitation grant spending is 40 percent lower than the norm, and student meals absorb four times as much of the budget. Teacher training colleges also overspend on student meals, to the tune of 90 percent of nonsalary expenditures. Preprimary and primary pupil-teacher ratios are excessively high, partly because the high salaries constitute a constraint to further recruitment. Secondary PTRs are also well above regional averages, due to a quantitative and qualitative shortage of teachers.

A number of policy reorientations constitute feasible responses to these issues. For instance, although it may not be possible to reallocate funds from higher education to secondary, the government can search for efficiency gains and/or potential cost-saving measures within higher education; the identification of potential efficiency gains for technical nonhigher education and of cost-effective policies for vocational training may enable the better coverage of economic and social demands in terms of technical and vocational education and training, while maintaining reasonable quality standards; in secondary schools, the government could examine the feasibility of reallocating a part of meal subsidies to pedagogical expenses, and recover the cost of meals, where possible.

An efficient TVET system can be created through revising subsector budget trade-offs.

The average public unit cost for technical nonhigher education is 60 percent higher than for vocational education and training. This figure does however conceal huge disparities within the subsector: unit costs are 70 percent higher in VETA-owned centers than in folk development centers. On the one hand, this suggests that folk education may be underfunded. However, the extent of the resource gap in folk education should be considered in the context of the community-based services offered, whereas VETA-owned institutions are considered to be VET centers of excellence. On the other, it suggests that enrollment in VETA-owned centers could increase, making high quality vocational training accessible to a greater number of youth. There should also be the possibility for FDCs to benefit from further VETA resources: FDCs are already VETA Trade Test Examination Centers, and FDC long course participants can sit this examination.

Within VETA-owned centers, there is an increased focus on long courses. The volume of resources spent on short training courses has decreased by 35 percent since 2001, compared with an overall real increase of nine percent for long training courses. It may be necessary to increase the budget priority given to short courses, to better respond to the training needs of the huge unskilled labor force working in the informal sector. In order to better respond to these needs, additional and more sustainable resources will be required. Currently, about 90 percent of VETA resources comes from the Skills Development Levy, based on the payroll of the embryonic formal sector, which constitutes a threat to VETA's ability to broaden the coverage of its activities. Its high dependency on the levy raises the issue of the diversification of funding, and the need for a constant and increased direct government subsidy.

At higher and technical education levels, it is necessary to improve the link between funding allocations and students' and market needs.

Higher education is blatantly inefficient, paying little attention to potential economies of scale. Indeed, universities with only 2,000 students (the minimum size in 2008/09) benefitted from fixed other charges allocations of T Sh 1.64 billion (US\$ 1.3 million). Furthermore,

approximately 28 percent of the level's budget (not including expenditures for overseas students) are badly targeted social expenditures (loans directly transferred to students): 48 percent of students benefit from a loan, yet less than 10 percent come from the poorest quintiles, which calls for an improvement in the loan targeting mechanisms.

Other charges expenditure allocations to technical institutions vary considerably. For instance, planning and welfare courses are two to three times more expensive than health and allied science or agriculture courses, which involve more costly inputs. Even among institutions with the same subject specialization and similar enrollment, sizeable differences in other charges allocations exist. This situation merits an improved funding formula and for more coordination in planning and budgeting among parent ministries.

Households also contribute significantly to education funding, although their burden is lower than in other African low-income countries.

Household education spending is equivalent to 32.1 percent of public education expenditure. However, the overall financial effort of households is comparatively lower than in other LICs, where household contributions are equivalent to 48 percent of government recurrent education expenditure on average. Although the higher education cost-sharing policy has contributed to reduce the government's financial burden, the management of the cost-recovery mechanisms of the HESLB should be strengthened to ensure its financial sustainability.

Notes

- 47 Subsidies to public institutions are allocated in two components: personal emoluments and other charges. Further resources are received from the HESLB. Total nonsalary costs are effectively the sum of other charges and transfers from the HESLB.
- 48 In Tanzania, each autonomous entity benefiting from a government subsidy has a “specific vote” in the budget. The computations in this chapter consider education expenditures channeled through MoEVT, regions, LGAs and various other ministries and agencies, including: VETA, the Treasury (vote 21), Home Affairs (votes 28 and 51), Justice and Constitutional Affairs (vote 40), Agriculture, Food Security and Cooperatives (vote 43), Industry, Trade and Marketing (vote 44), Lands, Housing and Human Settlements’ Development (vote 48), Finance and Economic Affairs (vote 50), Health and Social Welfare (vote 52), Community Development, Gender and Children (vote 53), Prime Minister’s Office - Regional Administration and Local Government (vote 56), Energy and Minerals (vote 58), Communication, Science and Technology (vote 68), Natural Resources and Tourism (vote 69), President’s Office - Civil Service Commission (vote 94), Information, Culture and Sports (vote 96), Infrastructure Development (vote 98) and Livestock and Fisheries Development (vote 99).
- 49 They include: the Kivukoni Academy of Social Science (MoEVT), the Institute of Adult Education (MoEVT), the Dar es Salaam Institute of Technology (MCST), the Mbeya Institute of Science and Technology (MCST), the Institute of Accountants - Arusha (MoFEA), the Institute of Financial Management (MoFEA), the Tanzania Institute of Accountancy (MoFEA), the Tengeru Community Development Training Institute (MCGDC), the College of Business Education (MITM), the Dar es Salaam Maritime Institute (MID), the National Institute of Transport (MID), the Institute of Rural Development (PMO-RALG) and the Institute of Social Work - Dar es Salaam (MHSW).
- 50 After Lesotho (36 percent), Botswana (31.6 percent), Swaziland (28.3 percent) and Malawi (27.1 percent).
- 51 This is the figure reported in the MoEVT ministerial budget. However, it is lower than the figure shared by the HESLB (T Sh 135.1 billion; as shown in Table 3.7).
- 52 The countries considered here are mainly francophone: Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo (Rep.), Côte d’Ivoire, Guinea, Guinea-Bissau, Madagascar, Mali, Niger, Senegal and Togo.
- 53 Only the Ministry of Health and Social Welfare subsidies to nongovernmental health training institutes have been captured in this last category.
- 54 Other charges direct subsidies per student expenses are 2.3 times higher for technical higher institutions and 4.2 times higher for technical non higher institutions, than for universities.
- 55 To capture potential imbalances in allocations to individual institutions would have required access to the parent ministries’ specific accounts.
- 56 In 2008, there were 889 vocational training centres, including 53 folk development colleges and 836 VETA managed institutions, of which 21 were VETA-owned. In 2008, 7.4 percent of VET students were enrolled in FDCs; 14.8 percent in VETA-owned centres and the remaining 77.8 percent in other VTCs (See Chapter 2).
- 57 This amount is mainly devoted to long courses (85 percent in 2009, up from 77 percent in 2001), the remainder funding short technical courses.
- 58 Computations are based on yearly average payroll data for all staff under the Tanzania Government Teacher Scale. This differentiated teacher salary scale (for primary teachers, secondary teachers and teacher trainers) has been used here as a proxy for actual teachers’ salaries, as it was not possible to merge MoFEA and EMIS payroll data. In fact, the difference between the total number of preprimary and primary staff recorded in the MoFEA payroll (165,113 for the January to June 2009 period) and in EMIS/BEST (166,844 for 2009) is almost insignificant. Although in the case of public secondary school teachers (24,501 and 25,908 respectively) it is slightly more important, most of the gap is explained by the fact that about 3.5 percent of secondary teachers are not registered under the teacher scale.
- 59 Within the EAC, Tanzanian primary school teachers’ earnings are higher than in Burundi (PPP US\$ 2,550), Rwanda (PPP US\$ 2,180) and Uganda (PPP US\$ 2,600), but lower than in Kenya (PPP US\$ 7,600).
- 60 The strategy includes: (i) The improvement of TTC infrastructure to increase the enrollment of diploma-level students; (ii) The training of a greater number of qualified diploma and degree teachers to meet growing demands in both government and nongovernmental secondary schools; (iii) The introduction of teacher training programs in government universities where they are not on offer; (iv) The motivation of nongovernmental universities to train degree teachers to complement the government’s efforts; (v) The establishment of Constituent Colleges of Education to train more degree teachers; and (vi) The recruitment of Form 6 and degree holders to teacher posts, offering them in-service training (See Chapter 7).

