



Adequacy and Effectiveness of

Public Education Spending in Ethiopia



Policy Brief
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Consultant Team

V. J. Ravishankar
Abdulhamid Kello
Alebachew Tiruneh

Sponsorship: Department of International Development (DFID), United Kingdom
Oversight: Ministry of Education, Federal Democratic Republic of Ethiopia

Design, Layout and Printing: New Concept Information Systems Pvt. Ltd.
communication@newconceptinfosys.com

Photographs: Geetha Ravishankar

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Introduction

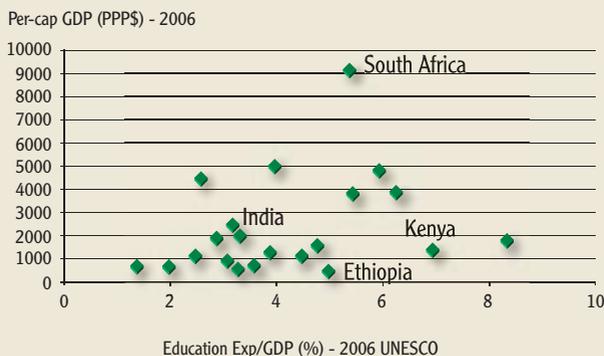
1. This Policy Brief is based on the draft Ethiopia Education Public Expenditure Review (EPER, 2010), sponsored by the UK DFID, produced by a consultant team and overseen by a Technical Committee housed in the Ministry of Education. It summarizes the main findings and key issues identified in that report, to inform and feed into the policy making and planning process for achieving Ethiopia's ambitious education goals.

Main Findings

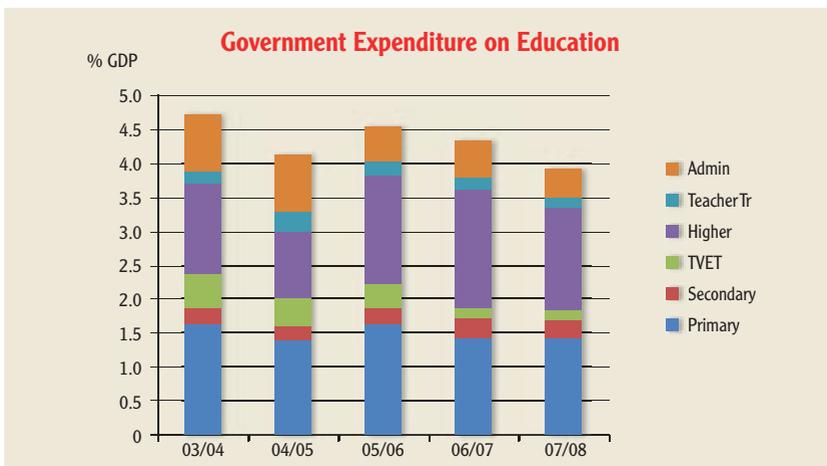
Adequacy and Composition

2. Total education spending, public and private, as share of GDP, is relatively high in Ethiopia, given its level of per-capita income; and public spending accounts for over 90% of the total. However, the composition of public education spending is relatively top heavy, with higher education absorbing more than 50% in 2008/09 and 2009/10.

Relatively High Education Spending - for Ethiopia's per-capita Income



Source: UNESCO, 2006

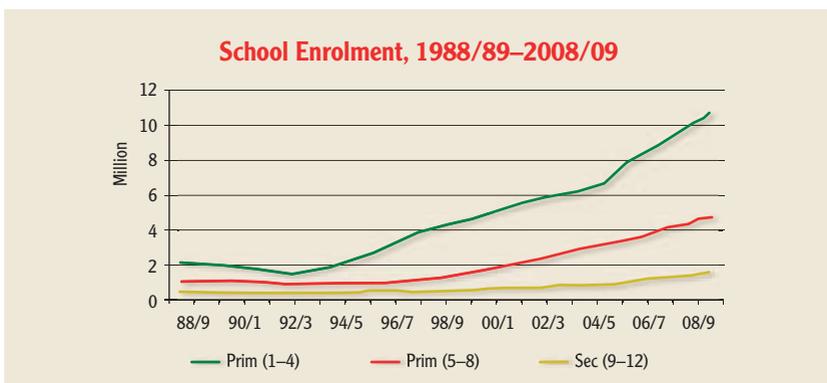


Share of Higher Edn > Share of Primary!

Source: Ministry of Finance and Economic Development (MoFED), Audited Accounts

3. The country is going through a period of rapid expansion in school enrollment, giving rise to growing need for public expenditure on General Education, both of recurrent and capital nature. In spite of real growth in total and per-pupil recurring expenditures in schools, budgetary resources are constrained at the lower levels, especially in the hands of the *woredas* (local governments), relative to the level of inputs needed for achieving output efficiency and desired learning achievement.

4. The consolidated government expenditure on education amounted to 13.5 Billion Birr in 2008/09, equivalent to 4.1% of GDP. The share of



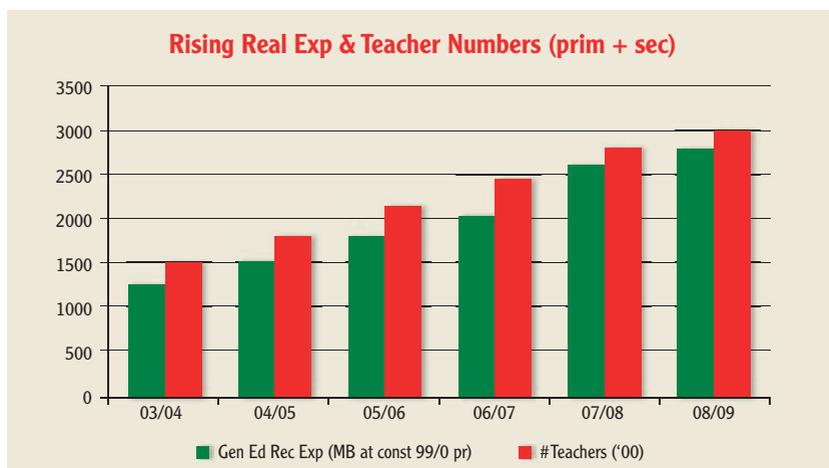
Source: Annual Abstracts, Ministry of Education, Government of Ethiopia

federal level spending on education has risen to above 50%, from 45% five years ago. General education spending was less than 2% of GDP.

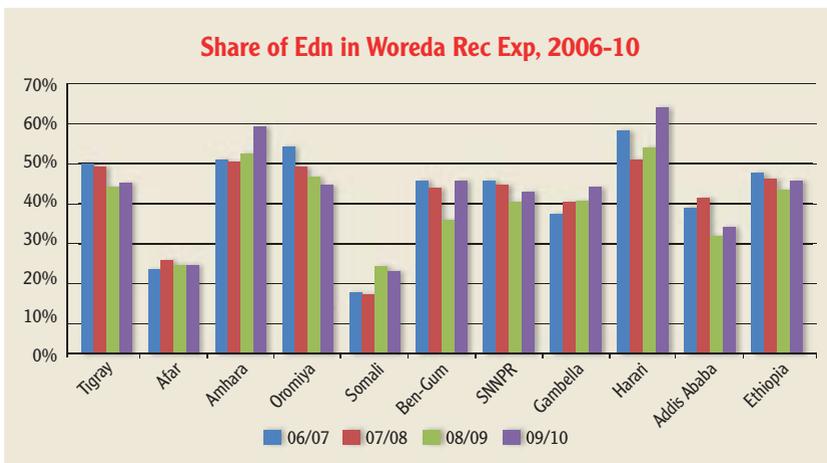
General Education

5. The past decade has witnessed a very major expansion of the public schooling system in Ethiopia, with primary (1-8) enrollment rising from 5.7 million to 17 million, and secondary enrollment from 0.5 to 1.6 million. Initial success has been achieved in bringing schools closer to where people live, thereby overcoming a key barrier to families' willingness to send their children to school.

6. Education has maintained its share at over 40% of woreda level recurrent spending, in all regions except Afar and Somali. Recurrent expenditure per primary student, which had declined by about 20% in real terms during 1998-2003 as a result of massive enrollment increase, recovered during 2003-08. Pupil-teacher ratios have improved, from 67 to 54 in primary (grades 1-8) and from 52 to 41 in secondary schools (grades 9-12) during 2003-09. However, this aggregate picture hides considerable regional variation. Primary teacher numbers have not kept pace with enrollment in the case of SNNPR, Somali, Afar, and Benishangul. Pupil-teacher ratio in primary (1-8) was higher than 65 in SNNPR in 2008/09, compared to the policy target of 40.



Source: MoFED and Annual Abstracts, MoE



Source: MoFED; Provisional Financial Estimates

- Capital spending on primary and secondary schools rose by about 20% in real terms during 2003-08. The number of additional classrooms created per year rose even more impressively, as a result of community contributions to complement capital budget resources. Such contributions accounted for 40% of classroom construction costs in primary schools of Oromiya in 2007/08; the national average is assessed to be lower, around 30%. Pupil-section ratios have improved in this period – from 76 to 65 in primary and from 85 to 70 in secondary. This is



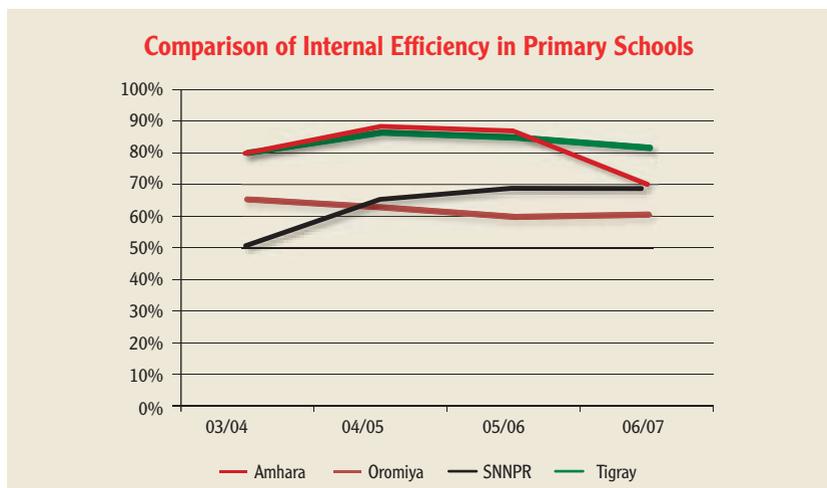
only partial success, as 70 students per secondary section is still too high a ratio for effective learning, as is a primary class of 65.

8. The non-salary share of recurring expenditure by regional and local governments suffered a decline during 2003-08, has recovered slightly during 2008-10, but still remains less than 20% in most regions. Fiscal

Share of Non-salary O&M in Regional Rec Exp on Education

	03/04	07/08	09/10
	Actual	Actual	Prov
Tigray	18.8%	13.2%	13.2%
Afar	22.9%	24.2%	21.2%
Amhara	15.0%	13.3%	10.6%
Oromiya	16.6%	12.5%	16.2%
Somali	18.7%	38.3%	34.5%
Benishangul	8.3%	8.1%	19.6%
SNNPR	13.0%	14.1%	15.7%
Gambella	19.0%	11.3%	20.5%
Harari	16.9%	18.9%	23.9%
Addis Ababa	26.0%	21.0%	39.1%
Dire Dawa	42.7%	26.9%	38.2%
All Regions	16.9%	14.6%	16.7%

Source: MoFED, Finance Accounts (2003-08), Provisional 2009/10



Source: Study Team Calculations



space remains constrained for purchase of books, desks, consumables and even regular school maintenance. Text books remain severely in short supply, both in primary and secondary schools, a problem that is expected to be addressed in 2010/11, through the General Education Quality Improvement Program (GEQIP).

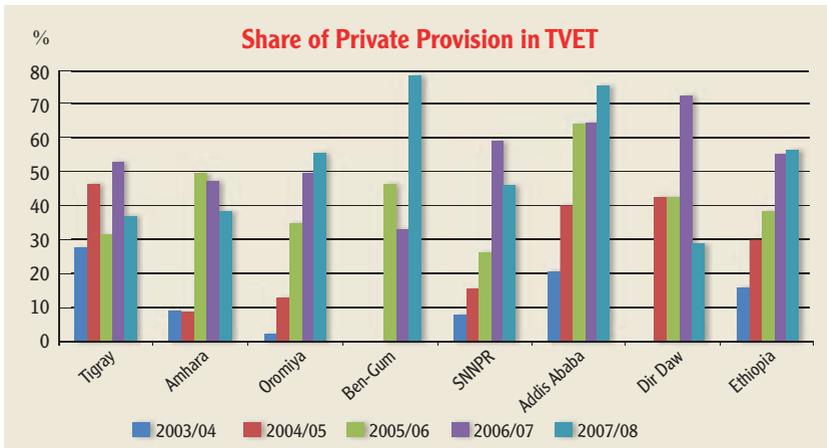
9. Gender parity at primary level is improving in all regions; however, internal efficiency of primary education remains low due to the persistence of high drop-out rates, for both boys and girls. The Coefficient of Efficiency in primary education, calculated at 50.4% for boys and girls combined in 2006/07, for Ethiopia as a whole, has declined to 48.5% in 2007/08. This implies that half the resources being deployed are on pupils who drop out before completing the eight years of primary schooling; and the situation worsened in 2007/08 from the previous year.
10. Analysis of age-specific enrollment data from SNNPR for 2003-08 reveal a strong negative impact of late entry on survival rates. Rate of survival till Grade 5 was 46% for those who entered in time, and 36% for those who entered one year late; while the rate of survival till Grade 8 was 40% and 18% respectively. The good news is that the proportion of the cohort entering in time rose from 39% to 80% during 2003-08 in SNNPR; survival rates and internal efficiency also improved in this region. This positive trend of families increasingly enrolling their children in time

is less strong in the emerging regions, and in Oromiya, where 70% of entrants were over age 7 in 2007/08.

11. Per-pupil recurrent expenditures in secondary education have risen in real terms in the majority of regions. It rose by 36% in the country as a whole during 2003-08. The improvements in PTR and PSR, already noted, can be expected to have some positive impact on survival rates and internal efficiency of secondary schools.
12. Monitoring improvements in quality will become more important in the coming years, given that quality will be the key driver for achieving the millennium development goal. This calls for regular *comparable* learning assessments across regions, at grade levels 4, 8, 10 and 12, with a more transparent policy of publishing the results and more effective feedback to policy making and planning.

TVET: Boom in Private Provision

13. Private provision of TVET services has expanded to serve 57% of total trainees in 2007/08, up from 16% four years earlier. The number of families willing to pay commercial fees has grown much more than the World Bank’s prediction in 2004, a reflection of faster than expected GDP growth and improved prospects for non-agricultural employment for technically trained persons. Demand for TVET has clearly outstripped public supply capacity in Oromiya, SNNPR and Amhara, leading to rapid growth of private provision to fill the unmet demand.



Source: MoFED, Finance Accounts



14. The trend in Addis Ababa is unique, with a clearly revealed preference of trainees to enroll in private rather than in public TVET facilities. Fees charged by private providers in Addis suggest lower unit costs than in public facilities.

Higher Education: Can slow down public investment to spend better

15. The rate of expansion of public provision of higher education has been so rapid that capital expenditure absorbed 65% of the total higher education budget during 2003-08, and the Federal Government could not keep up with recurrent expenditure needs. Per-pupil recurrent spending declined in real terms before recovering in 2007/08. Consistent and large shortfall in executing the federal capital budget reflects significant time and cost over-runs.
16. There are several reasons for the Federal Government to slow down the pace of *public* investment in higher education, such as to ensure adequate space for recurrent inputs and to improve the quality of investment spending. The case is even stronger for enhancing the space for private financing to contribute to higher education expansion. The rationale is weaker today than before to heavily subsidize university

students when more than half of all TVET trainees are paying commercial fees in private institutions.

Prospects & Cost of Universal Primary Education

17. Given that over-age entry is declining in all the large regions in the country, future trend in gross intake in Grade-1 will follow a hill-shaped curve. Intake will peak and then decline before settling to a population based growth rate, once net enrollment reaches 100%. Future trend in total primary enrollment depends entirely on what happens to survival rates. Calculations for SNNPR show that primary enrollment, estimated to have peaked at 3.5 million in 2008/09, will remain at or below that level in the future at present survival rates, whereas it would rise to 4.5 million by 2015/16 if survival rates rise to 100%.
18. It is useful to compare projected expenditure on primary education under three alternative scenarios: (i) Status Quo (SQ) Scenario, assuming that per-pupil inputs and internal efficiency remain at current low levels; (ii) Big Push (BP) Scenario, assuming that per-pupil inputs rise to desired national norms resulting in 95% of school age population completing 8 years of primary schooling by 2015; and (iii) Big Push Plus (BP+) Scenario, same as BP but with the school-age population assumed to be 10% higher than the census based estimates.
19. Expenditure on primary education is projected to rise from Birr 4.2 billion in 2007/08 to Birr 9.7 billion in 2015/16 under the SQ scenario; to Birr 17.9 billion under the BP scenario, and to Birr 20 billion under the BP+ scenario. Total cost of the General Education program is projected to rise to 2.6% and 2.8% of GDP respectively, under BP and BP+ scenarios, from a little less than 2% at present. These projections are based on assuming 8% real GDP growth and 7% annual inflation in the medium term future.



Financing Sources & Strategy

20. Domestic sources financed 82% of education expenditure in the country

in 2008/09 – 76% public and 6% private and community contributions. External donor assistance and loans accounted for the remaining 18%. Developments in recent years have revealed new sources of additional financing for education. Measures to raise cost recovery that were considered politically unacceptable in the past could become possible in the future, given higher than expected economic growth and market development.

21. The present ratio of government education spending to GDP, at 4%, is a reasonable upper bound for the level of budgetary resources available for education in the medium term future. As against this, the full projected

Sources and Uses of Funds for Gen Education & TVET in 2008/09

(Mln B at cur.pr)

Sources of Funds		Uses of Funds	
Regional Govt Edn Budgets		Primary Education	
Recurrent	5891	Teachers	3086
o/w Donor Funding	1828	Non teaching staff	310
Capital	838	Training	84
Total	6729	School Operating costs	450
		Government Admin	590
Community Contributions	328	Construction & Equipment	1094
Off-Budget Donor Funds	881	Total	5614
		Secondary Education	
		Teachers	490
		Non teaching staff	93
		Training	129
		School Operating costs	144
		Government Admin	128
		Construction & Equipment	281
		Sub Total	1265
		Advisory & Support Services	845
		TVET	
		Public Facilities	213
Private out-of-pocket	293	Private Facilities	293
Total Financing	8231	Total Expenditure	8231

Sources: (i) Provisional Accounts, MOFED; (ii) Ministry of Education; (iii) consultant estimates.

cost of the education programs is about 4.5% of GDP in 2015. Likelihood of resources falling short of the full program cost calls for careful prioritizing and sequencing of additional public investments.

Key Issues

22. ***Available resources are likely to remain significantly short of what is needed to achieve the General Education goals including MDGs, if the composition of education spending on budget remains skewed and top heavy.*** The resource needs for achieving universal primary education (UPE) by 2015, and the implied level of secondary education capacity, is projected to reach 2.6% of GDP, compared to less than 2% of GDP being allocated at present. Enhancing cost recovery and private participation in higher education could help improve the composition.
23. ***Raising survival rates till Grade-8, from less than 50% in 2007/08 to almost 100% by 2015, is the key challenge to achieve the MDG of***



universal primary education. Having invested heavily in expanding primary school capacity, Ethiopia faces the challenge of improving the effectiveness of such spending so as to achieve the desired output of ensuring at least 8 years of schooling for all, and the desired outcome of achieving a minimum level of learning among all boys and girls in the country, without exception.

24. ***The focus of school managers, woreda and regional authorities need to shift from expanding enrollment to reducing drop-outs in primary school by improving service quality.*** Regional governments could consider requiring woredas and schools to publish comparable scores on internal efficiency, to foster comparison and competition for improved results. External donors could consider ways to link additional resources to the achievement of higher internal efficiency and/or learning quality.
25. ***Given the persistence of high pupil-teacher ratios in many schools and woredas (esp. in Amhara, Oromiya and SNNPR), concerned regional authorities could explore ways to improve the distribution of block grants to woredas, to better align available resources to where teacher***





shortages are most acute. For instance, if the excess of woreda specific pupil-teacher ratios in 2009/10, above the desired norm, is used as the criterion for distributing a sizable component of the block grants during 2010-15, it could lead to better targeting of resources to address the variable levels of teacher shortages.

26. ***Lack of reliable estimates of age-specific population in each region, zone and woreda poses a problem for tracking progress towards universal net intake in Grade-1.*** Estimates of age-specific population derived from decadal Census data, through interpolation and application of standard demographic parameters, are being used to calculate the Net Intake Rate (NIR) in primary schools of Ethiopia. This methodology is leading to NIR values of over 100% in various woredas and zones, a theoretical impossibility. Having invested in a system of annual school census that feeds into a national Education Management Information System (EMIS), it may make sense to use this system to generate more reliable estimates of 6 and 7 year olds, by counting out-of-school kids in each locality, in addition to those enrolled.
27. ***Late or over-age entry in Grade-1 remains large in some regions, while it is on its way out in at least three large regions*** (Amhara, Tigray and

SNNPR). Late entry increases the probability of dropping out. Over-age entry remains large in Oromiya and the emerging regions, where it may be worth launching communication campaigns in favor of enrolling in Grade 1 no later than age 7.

28. ***As primary completion rates rise, entrants demanding secondary enrollment could rise from 1 to 1.5 million during 2010-15.*** A minimum target that has been pursued is for every woreda to have at least one full-fledged secondary school. For additional capacity creation, a cost-effective option would be to permit selected primary schools with 8 grades to accommodate Grades 9 and 10 within their campus, to save on capital cost as well as administrative costs. In addition to cost saving, such an option may also improve access for girls by reducing the distance to the nearest general secondary class. Pursuit of this option would require appropriate amendments in policy and guidelines.

