

ZIMBABWE

PUBLIC EXPENDITURE REVIEW

2017



Volume 4: Primary & Secondary Education



GLOSSARY

AfDB	African Development Bank
AFROSAI	African Organization of Supreme Audit Institutions
AMTO	Assisted Medical Treatment Orders
ARDCZ	Association of Rural District Councils of Zimbabwe
BCC	Budget Call Circular
BEAM	Basic Education Assistance Module
BOP	Balance of Payments
BSP	Budget Strategy Paper
BSP-Z	Better Schools Programme-Zimbabwe
CAPEX	Capital Expenditure
CCT	Conditional Cash Transfer
CIT	Corporate Income Tax
CNFA	Cultivating New Frontiers in Agriculture
COFOG	Classification of Functions of Government
CPI	Consumer Price Index
CSC	Civil Service Commission
DEA	Data Envelopment Analysis
DFID	Department for International Development (United Kingdom)
DPO	Development Policy Operation
DRRR	Disaster Response and Risk Reduction
DSA	Debt Sustainability Analysis
DSS	Department of Social Services
ECD	Early Childhood Development
EDF	Education Development Fund
EMIS	Education Management Information System
EMTP	Education Medium Term Plan
ETF	Education Transition Fund
FAO	United Nations Food and Agriculture Organization
FY	Fiscal Year
GDP	Gross Domestic Product
GEC	Girls Education Challenge
GMIS	Government Financial Management Information System
GFSM	Government Finance Statistics Manual

Glossary

GNU	Government of National Unity
GoZ	Government of Zimbabwe
GPE	Global Partnership for Education
HIV/AIDS	Human Immunodeficiency Virus Infection and Acquired Immune Deficiency Syndrome
HQ	Headquarters
HSCT	Harmonized Social Cash Transfer System
IBRD	International Bank for Reconstruction and Development
ICT	Information and Communications Technologies
IDA	International Development Association
IDBZ	Infrastructure Development Bank of Zimbabwe
IFIs	International Financial Institutions
IFMIS	Integrated Financial Management Information System
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
INTOSAI	International Organization of Supreme Audit Institutions
I-PRSP	Interim Poverty Reduction Strategy Paper
IPSAS	International Public Sector Accounting Standards
IT	Information Technology
KPA	Key Performance Area
LA	Local Authority
LAPF	Local Authorities Pension Fund
LEAP	Livelihood Empowerment Against Poverty program
LLECE	Latin American Laboratory for Assessment of the Quality of Education
MAMID	Ministry of Agriculture, Mechanisation and Irrigation Development
MASAF	Malawi Social Action Fund
MDA	Ministries, Departments, and Agencies
MIS	Management Information System
MLGPWNH	Ministry of Local Government, Public Works, and National Housing
MoAMID	Ministry of Agriculture, Mechanisation and Irrigation Development
MoFED	Ministry of Finance and Economic Development
MoHCC	Ministry of Health and Child Care
MoPSE	Ministry of Primary and Secondary Education
MPSLSW	Ministry of Public Service, Labor and Social Welfare
MSMECD	Ministry of Small and Medium Enterprises and Cooperative Development
MTEF	Mid-Term Expenditure Framework
MTFF	Mid-Term Fiscal Framework
MWAGCD	Ministry of Women Affairs, Gender and Community Development
MYIEE	Ministry of Youth, Indigenization and Economic Empowerment
NGO	Non-Governmental Association

NPL	Non Performing Loan
NSSA	National Social Security Authority
OAG	Office of the Auditor General
OECD	Organisation for Economic Co-operation and Development
OPC	Office of the President and Cabinet
OSISA	Open Society Initiative for Southern Africa
OVC	Orphans and Vulnerable Children
PAC	Public Accounts Committee
PASEC	Program on the Analysis of Education Systems
PAYG	Pay-As-You-Go
PCW	Public Community Works
PER	Public Expenditure Review
PFM	Public Financial Management
PFMA	Public Finance Management Act
PFMEP	Public Financial Management Enhancement Project
PICES	Poverty, Income, Consumption, Expenditure Survey
PIM	Public Investment Management
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PIT	Personal Income Tax
PLAP	Performance Lag Address Programme
PSNP	Productive Safety Net Programme
PPPs	Public-private Partnerships
PSC	Public Service Commission
PSIP	Public Sector Investment Programme
PSPF	Public Service Pension Fund
RBB	Results-Based Budgeting
RBM	Results-Based Management
RBZ	Reserve Bank of Zimbabwe
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAP	Systems Application Products
SDC	School Development Committee
SDG	Sustainable Development Goal
SDR	Special Drawing Rights
SEDCO	Small Enterprises Development Corporation
SERA - USAID	Strategic Economic Research and Analysis Program (USAID)
SERA	State Enterprises Reform Agency
SFA	Stochastic Frontier Analysis

Glossary

SMEDCO	Small and Medium Enterprises Development Corporation
SMP	Staff Monitored Program
SEPs	State-Owned Enterprises
SSN	Social Safety Nets
STAP	Seasonal Targeted Assistance Program
TA	Technical Assistance
TCPL	Total Consumption Poverty Line
TDIS	Teacher Development Information System
TIMSS	Trends in International Mathematics and Science Study
TMS	Teacher Minimum Standards
UCAZ	Urban Councils Association of Zimbabwe
UCT	Unconditional Cash Transfer
UIS	Institute for Statistics (UNESCO)
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value-Added Tax
WFP	United Nations World Food Program
ZAMCO	Zimbabwe Asset Management Company
ZIA	Zimbabwe Investment Authority
ZIMASSET	Zimbabwe Agenda for Sustainable Socio-Economic Transformation
ZIMRA	Zimbabwe Revenue Authority
ZIMSTAT	Zimbabwe National Statistics Agency
ZIMVAC	Zimbabwe Vulnerability Assessment Committee
ZINARA	Zimbabwe National Roads Administration
ZINWA	Zimbabwe National Water Authority



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EXECUTIVE SUMMARY

Control/Challenges

- Zimbabwe spends significant resources on education, both public and private. The current economic growth and fiscal challenges leave little room for further increase of this spending envelop in the short and medium term.
- The need to provide equal opportunities to quality education for all Zimbabwean children is paramount, which calls for more effective use of the available resources.
- This PER analysis points to several imbalances in the education spending. Zimbabwe's secondary-to-primary-student public spending ratio of 1.66:1 far exceeds the averages for OECD countries (1.15:1) and other developing countries with similar demographic characteristics (ranging from 0.83-1.14:1). Of particular note is the very high share of public spending on salaries, crowding out public resources for infrastructure development and quality improvement. Total families' contribution is equally large but the capacity to contribute varies with poorer communities not capable to pay fully as their income is limited. This resulted in a wide variation of actual per student spending at the school level which depends almost exclusively on parents' contribution and posed the risk of students dropping out and not completing schools as expected.

Choices/Options

- One way to improve the effectiveness of resource utilization is to budget and monitor spending using unit costs. For the wage bill, the key variable is the Pupil-Teacher Ratio. Zimbabwe's average PTR for junior education is not high, and even low by international standards in secondary education. PTRs can however go as high as 84 in junior and 61 in secondary while they can also go as low as 5 in junior and 3 in secondary, pointing to the existence of very crowded classes as well as extremely small classes. For the capital spending, the key variable is the Pupil-Classroom Ratio. Again there is a significant variation in this ratio across levels of education and across provinces.
- The unit cost approach will guide the discussion on whether (i) they are reasonable; and (ii) rooms for reduction (if deemed unreasonably high) or increase (if deemed unreasonably low) can be identified. This will help frame the discussion on who need more resources and why, enabling the savings to be used for equalization or need-based targeting investment to take place.
- It will also strengthen the Program-Based Budgeting efforts that are being implemented in the education sector in Zimbabwe. The specification of the outcomes and in particular outputs to be delivered at the end of the budget cycle should be developed in light of the unit costs. Spending proposal should be justified in terms of how many more students will be served. Unit cost budgeting will also enable a more structured and transparent framework to make trade-off decisions (between levels of education, salary vs non-salary/capital or public/private share) especially when the system faces hard budget constraints.

Coordination

- This approach calls for making good use of essential education and finance data. Zimbabwe has rich databases (EMIS, Examination, TDIS, Payroll and IFMIS) but they need to be linked, analyzed and used in the budgeting, implementation and monitoring processes.
- Evidence generated by the data will need to be shared and used by the key decision making bodies (MoPSE, Ministry of Higher and Tertiary education, Public Service Commission, Ministry of Finance and Economic Development and Provinces) in a coordinated manner. By working with a broader set of partners to make the most of the available data, Zimbabwe could develop innovative solutions to tackle the problems in education even in a fiscally challenging situation.

1 INTRODUCTION

As Zimbabwe recovered from the protracted economic crisis from 2000 to 2008, the Government of Zimbabwe (GoZ) made major efforts to restore service delivery in education. Public funding for primary and secondary education rebounded from two percent of GDP in 2009 to about 5.4 percent of GDP in 2013. Owing to strong investment in education by the GoZ, households, and donors, pass rates by 2013 had risen to more than 50 percent for seventh grade exams,² and textbook/pupil ratios had reached 1:1 for core subjects.³ School attendance recovered. Primary net attendance rose from 90 percent in 2009 to 94 percent in 2014. Secondary net attendance increased from 45 percent to 58 percent over the same period. ECD programs expanded, with about 22 percent of three- to five-year-old children attending ECD programs in 2014 - up from 18 percent in 2009.⁴

Expanding access to high-quality education is a major policy priority for Zimbabwe. The Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimAsset), the GoZ's plan to achieve sustainable development and social equity, provides a strong mandate for investment in education. It calls on the government to "continue to improve the quality of education from ECD to vocational and tertiary levels to enhance literacy levels and skills development."⁵ The goal of the Education Medium Term Plan (EMTP) 2011-2015, endorsed by the Cabinet in May 2012, is to "revitalize the provision of relevant, quality, inclusive and holistic education, sport, arts and culture for all Zimbabweans in line with the MDG targets by 2015," and set ambitious targets across seven strategic priorities, including: (i) restore the professional status of teachers; (ii) revitalize learning quality and relevance; (iii) restore and improve conditions of learning; (iv) ensure quality assurance and staff development; (v) reinvigorate school and system governance and management; (vi) focus resources on those with greatest needs; and (vii) revitalize sports, arts, and culture. When economic growth slowed again in 2012, the MoPSE and donors involved in education conducted a strategic review and agreed on a revised operational plan accounting for the smaller than anticipated fiscal space for education.

The development of the next five-year sector plan for 2016-2020 is underway. Initial public consultations involved 600,000 participants at more than 8,000 school centers. Though the need for fiscal funding for education is universally accepted, communities voiced desires to contribute to the education of their children. A school financing policy is to be developed under this plan, recognizing the importance of both public and private education funding.

The following volume analyzes public, household, and donor expenditures in primary and secondary education during economic recovery from 2009 to 2015, focusing on the effectiveness, efficiency, and equity of spending. The analysis covers all expenditures financed by the Ministry of Primary and Secondary Education (MoPSE),⁶ and expenditures of the Basic Education Assistance Module (BEAM) program of the Ministry of Public Service, Labor and Social Welfare's (MPSLSW). It also covers donor and household financing.

² Up from 39.7 percent in 2009.

³ An increase from 2008, when the textbook/pupil ratio was about 1:8 for primary students and 1:16 for secondary students, as per DFID monitoring reports and the OSISA.

⁴ According to the 2014 MICS Report and the 2009 MICS Report, respectively.

⁵ Page 39, *Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimAsset)*. October 2013-December 2018. Government of Zimbabwe.

⁶ The MoPSE was previously known as the Ministry of Education, Sport, Arts and Culture, but its name was changed in 2013.

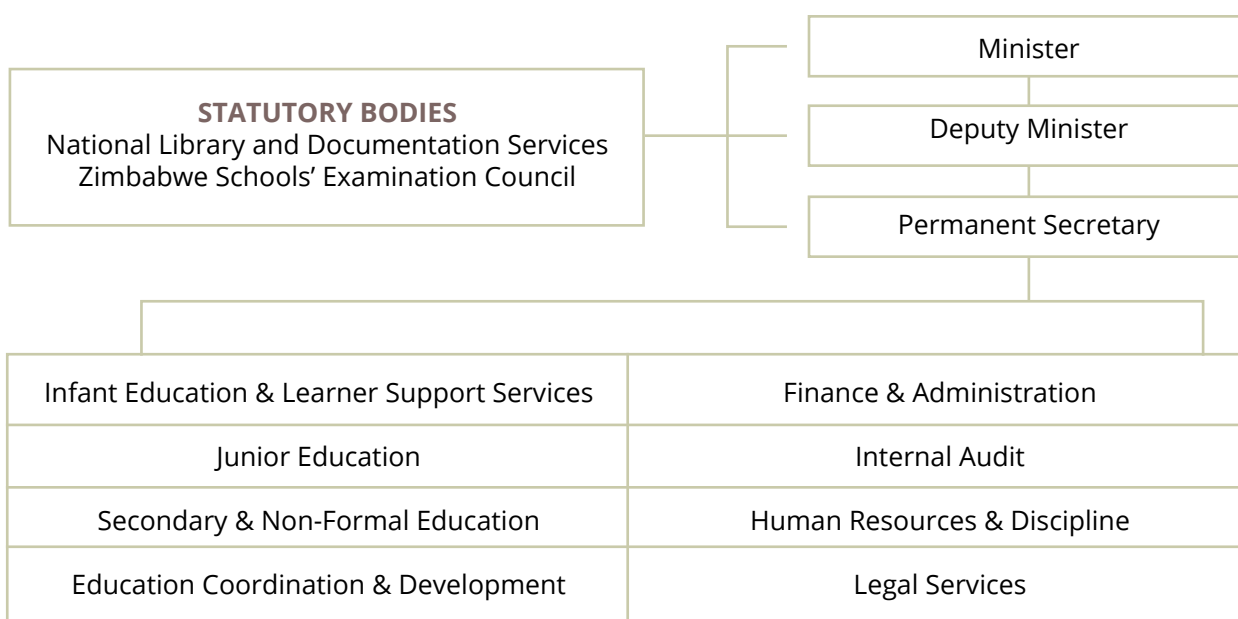
2 SECTOR GOVERNANCE

A. INSTITUTIONAL ARRANGEMENTS

National Level

The MoPSE is the key national-level institution responsible for primary and secondary education. Its mission is to “promote and facilitate the equitable provision of quality, inclusive and relevant Infant, Junior and Secondary Education.”⁷ The MoPSE sets policy; monitors performance; maintains quality assurance; supports capacity building and operations at the provincial and district levels; and manages resources and personnel. Figure 1 illustrates the MoPSE’s core organizational structure.

Figure 1: Organizational Structure of the MoPSE



Source: MoPSE Establishment Table, as of December 31, 2013 (latest available).

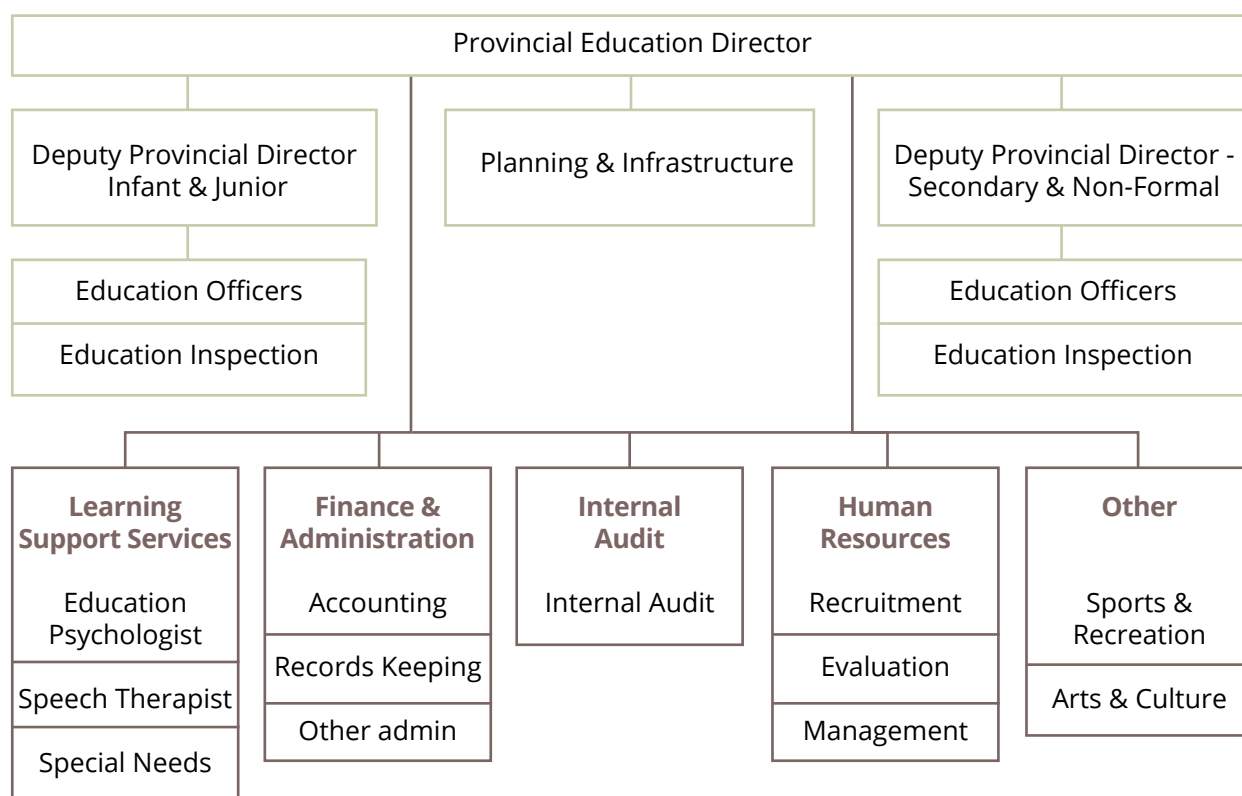
Other national-level ministries are involved in education through specialized programs - most focusing on students’ health and well-being, or promoting equity in education spending. As mentioned MPSSLW administers the BEAM program, which provides financing directly to primary and secondary schools to cover fees for economically disadvantaged children, especially orphans. The Ministry of Youth, Indigenization and Economic Empowerment supports technical and vocational education programs in the country. Finally, the Ministry of Higher and Tertiary Education, Science and Technology Development oversees the upper levels of Zimbabwe’s education system.

⁷ Zimbabwe MoPSE Vision, Mission and Core Values.

Provincial and District Level

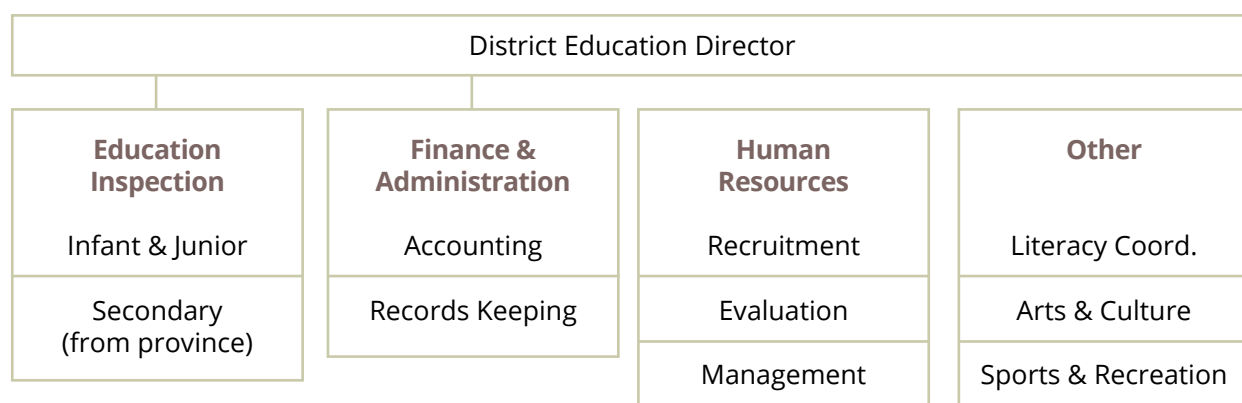
At the sub-national level, the MoPSE has offices in each of Zimbabwe’s ten administrative provinces, and each of its 72 districts. The Provincial Office is largely responsible for: (1) implementing policies determined at the national level; (2) overseeing certain HR management and recruitment functions for the province; (3) assisting with planning and infrastructure; (4) managing the process of registration of new schools; and (5) supporting district level offices and schools as needed. District offices, on the other hand, are continuously engaged with schools in districts, conducting financial oversight and education quality assurance, and helping schools manage other issues as they arise. The structures of the provincial and district education offices are shown in Figures 2 and 3.

Figure 2: Provincial Education Office Organizational Structure



Source: MoPSE Establishment Table, as of December 31, 2013 (latest available).

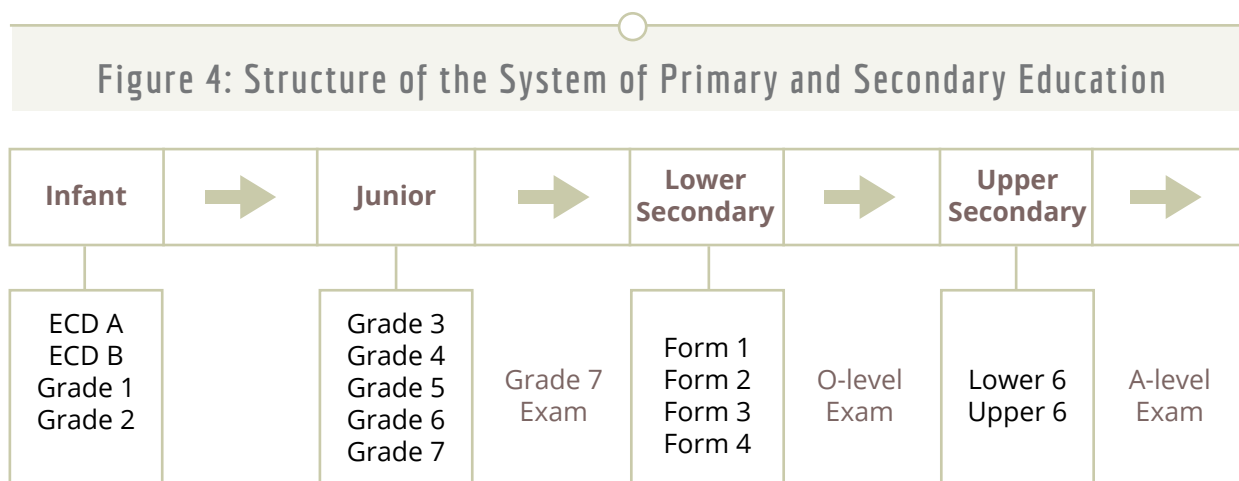
Figure 3: District Education Office Organizational Structure



Source: MoPSE Establishment Table, as of December 31, 2013 (latest available).

School Level

For the formal primary and secondary systems, Zimbabwe follows a modified 7-4-2 structure,⁸ with an additional two years of early childhood education. Following a renewed effort in 2005 to reinforce ECD, Zimbabwe added two additional years to primary education, and in 2014, split Infant Education and Junior Education.⁹ Infant Education includes two years of pre-school (ECD A and ECD B), and Grades 1 and 2. Junior Education includes Grades 3 through 7. Lower secondary is commonly referred to as Ordinary Level (O-Level), and includes Form 1-4. Upper secondary, referred to as Advanced Level (A-Level), includes two years known as “Lower 6” and “Upper 6.” Students participate in terminal exams at the end of Grade 7, at the end of Form 4 (O-level), and at the end of Upper 6 (A-level).¹⁰ This progression is summarized in Figure 4.



Zimbabwe categorizes schools at the primary and secondary levels based on their organizational structure, location, and status of registration with the government. Students may attend either government schools or non-government schools (religious, trust schools, company-owned, community, or others). Schools are further classified according to their location, which determines funding received from the national level. The designations P1 and S1 refer to primary and secondary schools in low-density urban areas, while P2 and S2 refer to schools in high-density urban areas. P3 and S3 refer to schools in rural areas.

These categories were created to differentiate between the resources available to different schools. In addition, these categories are used to define the levels of fees that each type might charge its pupils.¹¹ Finally, a school meeting all statutory requirements for government registration will be classified as a “registered school”. Schools that have not yet met these requirements, but are on their way to achieving them, are known as “satellite schools” and operate under the guidance of a registered “mother” school. Figure 5 summarizes these overlapping categories of schools.

⁸ As of 2013, the UNESCO Institute for Statistics (UIS) classified Zimbabwe as having a 7-2-4 school structure, which is unaligned with the nationally-defined school system structure of 7-4-2.

⁹ Provisions are set out in the Secretary’s Circular No. 14 of 2004 (ECEC); Director’s Circular No. 12 of 2005 (ECD); and SI 106 of 2005 (ECD centers); 2014 was the first year when Infant Education represented a separate sub-vote in the budget for the MoPSE.

¹⁰ Progression from primary to O-Levels is unimpeded by results of 7th grade exams. However, some schools may have selection criteria based on exam scores. Progression from O-Levels to A-Levels is contingent on passing exams, and schools admit students based on performance on exams.

¹¹ This issue is discussed in more detail later in this report.

Figure 5: Typology of Primary (P) and Secondary (S) Schools

Government	●	●	●	Registered
	●	●	●	Satellite
Non-Government	●	●	●	Registered
	●	●	●	Satellite
	P1/S1	P2/S2	P3/S3	

Source: Authors' presentation.

In addition, Zimbabwe has a number of niche schools, such those serving special needs students.

B. SCHOOL FINANCING MECHANISMS

Primary and secondary education in Zimbabwe is financed through several channels, including the national budget, school fees and levies, donor financing, and other locally generated funds. In 2014, public and private sources each accounted for just under US\$800 million, with donor funds adding approximately US\$50 million more to the sector (see Figure 6).

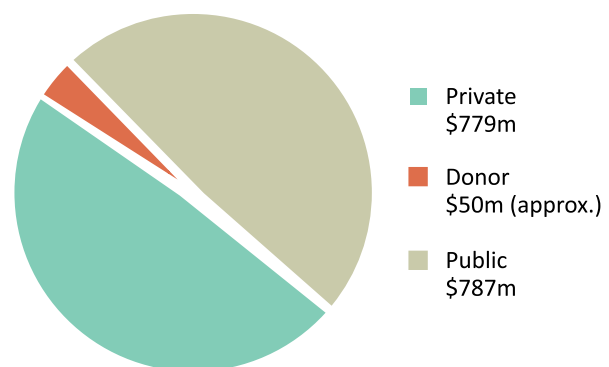
National Budget

The MoPSE's budget should normally fund a mixture of salaries; non-salary recurrent spending; transfers; to provinces; schools and districts, and capital spending. In practice,

however, most budgeted and obligated funding is dedicated to salary expenses, leaving little to finance other needs.

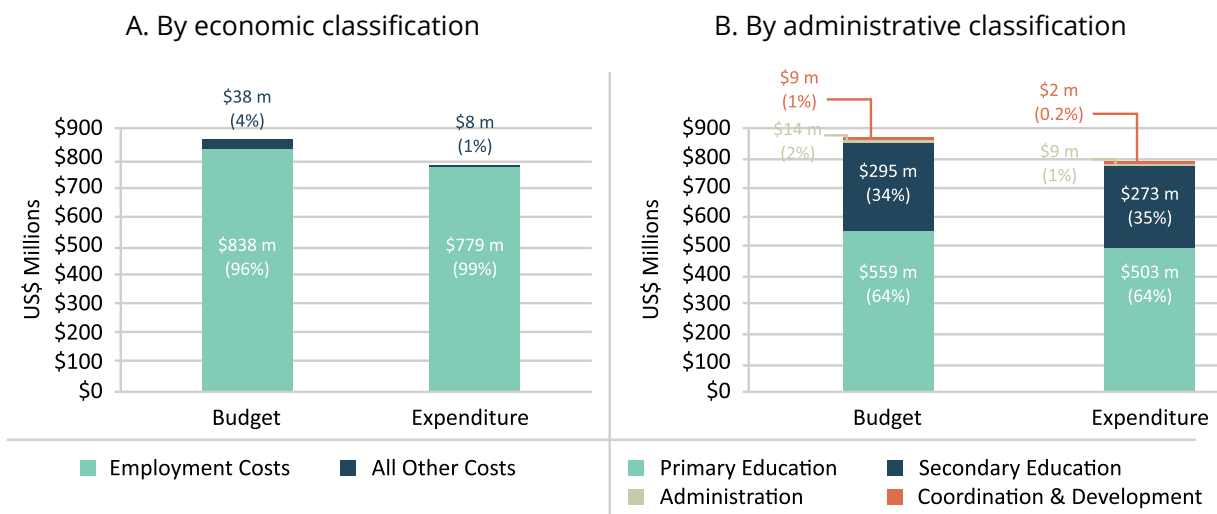
Despite increases in overall government spending on primary and secondary education, financing of non-salary recurrent expenses remains low and continues to fall. Spending by the MoPSE increased from US\$176 million in 2009 to an estimated US\$787 million in 2014. However, non-employment recurrent expenditures fell from about \$9 million in 2009 to about US\$5.9 million in 2014. On a per pupil basis, this represented a drop from US\$2.77 per pupil in 2009 to US\$1.46 in 2014. Of MoPSE's total budget of US\$877 million, only US\$38 million (4 percent) was allocated to non-personnel costs in 2014 - and only US\$8 million (1 percent) was spent (see Figure 7). In 2014, about 64 percent of MoPSE's budget was allocated to primary education (including ECD), and 34 percent to secondary education. In 2014, MoPSE budgeted three percent to education administration, coordination, and development - though spent only one percent.

Figure 6: Estimated Financing of Primary and Secondary Education by Source, 2014



Sources: MoPSE financial reports, EMIS 2014 data, and donor reports.

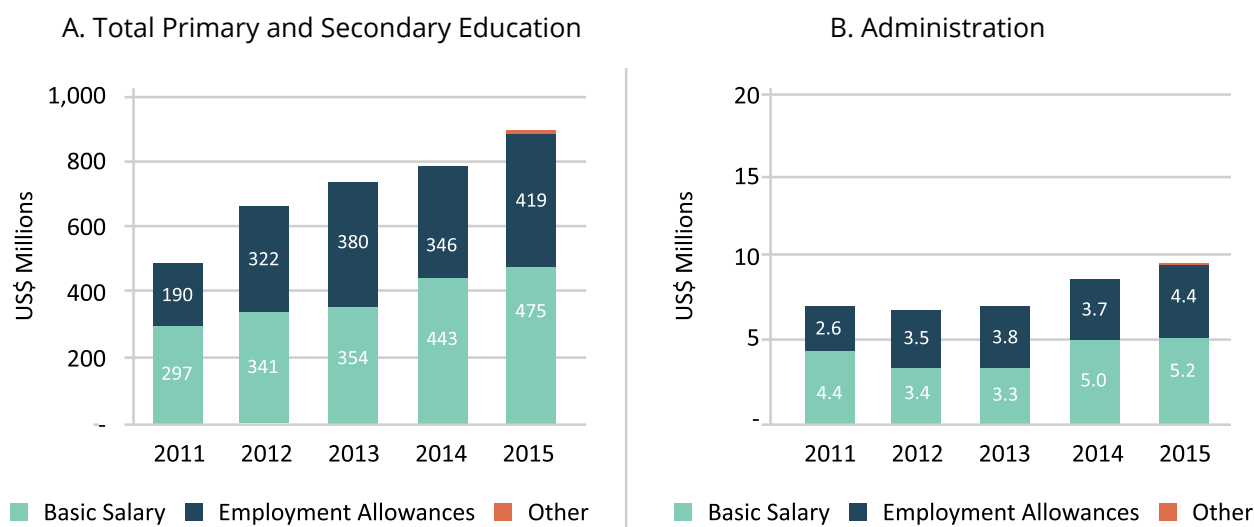
Figure 7: MoPSE Budget and Expenditure, 2014 (US\$ Millions)

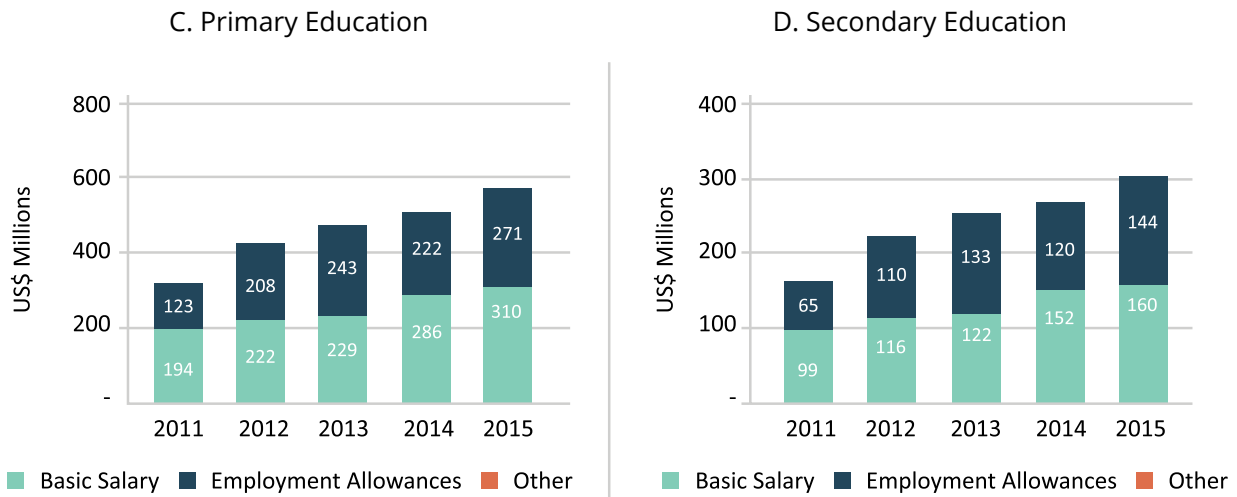


Source: MoPSE financial reports.

Within the employment costs classification of MoPSE’s budget, substantial growth has occurred in the category of employment allowances, and to a lesser extent base salaries, in primary and secondary education. The MoPSE’s expenditures on the wage bill grew by 83 percent from US\$ 487 million in 2011 to US\$ 893 million in 2015. Primary education in 2015 accounted for two-thirds of the wage bill, but the growth in wage bill expenditure was split equally between primary and secondary education, with wage bills in both sub-sectors nearly doubling over five years. Meanwhile, expenditure on administration grew slightly. In terms of MoPSE’s expenditure categories within primary and secondary education, employment allowances grew by 120 percent and base salaries 60 percent. Housing and transportation allowances were the main factors in employment allowance costs. Total expenditure on housing allowances grew by more than 150 percent from US\$ 71 million in 2011 to US\$ 180 million in 2015, while spending on transport allowances rose by more than 110 percent from US\$ 71 to US\$ 150 million. The sustainability of public education spending depends in large part on the MoPSE’s ability to slow the growth of spending on these allowance categories - and on the wage bill as a whole.

Figure 8: MoPSE Wage Bill Expenditure, 2011-2015 (US\$ Millions)





Source: The Ministry of Finance and Economic Development.

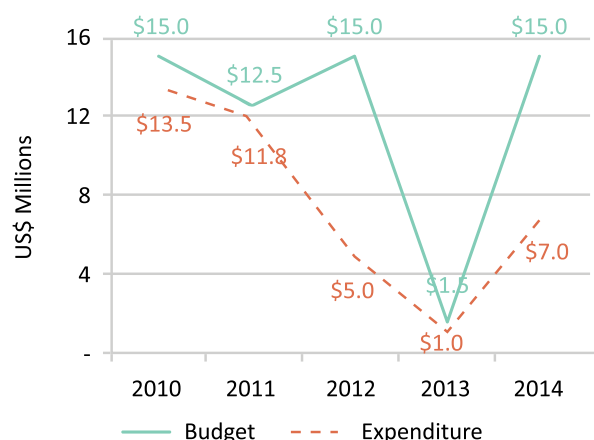
Most spending for school-level recurrent expenditures is based on locally sourced revenues.

However, nongovernment schools receive some support from per capita school grants, and government schools receive tuition grants. The central government transfers such grants to schools to purchase school books and learning supplies. Under normal circumstances these transfers would support a fixed amount per pupil. Yet education provinces, having received much less grant revenue than anticipated in the tight fiscal environment, have rationed funds to support the neediest schools. Current low levels of public spending on non-salary support are inadequate to meet the basic costs of running a school, such as paying for teaching and learning supplies, and school utilities. This low level also cannot sufficiently maintain the operations of the MoPSE’s national, provincial, or district offices, which often lack funding for basic needs, such as fuel to conduct audits or quality assurance functions.

Similarly, spending on capital expenses is far behind in meeting the needs of the sector. Overall capital spending averaged about US\$3.4 million per year between 2009 and 2014—representing only 0.6 percent of overall spending. This spending fell far short of budgeted amounts, which averaged US\$8.9 million per year, or about 1.6 percent of the overall budget. Building grants, which are transfers from the central government budget for school capital improvement projects, are schools’ main source of funding for undertaking capital improvements.

A final source of funding from the national budget is the BEAM program. BEAM is a transfer program established in 2001 to improve access to quality education for orphans and vulnerable children (OVC). The GoZ initiated funding for BEAM, but donors began contributing by late 2008. This program, which is managed by the Department of Social Services (DSS) of the MPSSLW, transfers funds directly to primary and secondary schools to cover fees and levies of eligible students, and examination fees in secondary schools. From 2010 to 2014, the GoZ budgeted an annual average of US\$11.8 million to BEAM, though the yearly budgeted amount varied somewhat—from US\$15 million in 2010, 2012, and 2014, to only US\$1.5 million in 2013. Actual spending on BEAM also varied, ranging from US\$13.5 million in 2010 to only US\$1 million in 2013. In 2012 and 2014, \$15 million was budgeted, but just US\$5 million and US\$7 million were spent in these years respectively, as shown in Figure 9.

Figure 9: MPSLSW Funding of BEAM, 2010-2014 (US\$ Millions)



Source: MPSLSW.

School Fees

Due to fiscal constraints, financing of non-salary educational expenses remains low and falling, which has left many schools without sufficient resources to meet their basic needs. Consequently, the primary and secondary education systems have developed a complex system of school fees and levies,¹² which helps to finance learning materials, pay utilities, finance capital projects, fund non-teaching staff, and in some cases supplement teacher incomes. The national level mandates school fees to cover basic educational costs,¹³ and fees differ according to the type of school (e.g. P1, P2, etc.). School levies, however, are determined by schools to cover other costs, as agreed annually by the School Development Committee (SDC) and approved at the provincial level. These include contributions to fund capital projects, school utility costs, or teaching and learning materials not covered by the school fees.¹⁴

According to the 2014 EMIS figures, the median school fee paid by households is US\$40 per year per primary pupil, and US\$95 per year per secondary pupil. This amount varies widely, however, based on the type and location of the school. The reliance on private fees has grown in recent years, putting additional pressure on households unable to afford these payments. In the second half of 2015, for example, the cost of pre-primary and primary education—as measured by the consumer price index (CPI)—grew by more than 11 percent, representing a sharp increase in out-of-pocket costs for many Zimbabwean households. The topic of private fees is discussed in more detail in the section on equity in Zimbabwe’s education system.

Donor Financing

Domestic sources of financing for education in Zimbabwe, especially financing for recurrent spending, are supplemented by funding from international partners, which play a modest but strategic role in filling the gap in education. Donors contribute approximately US\$50 million to Zimbabwe’s education sector each year. From 2009, the largest source of support has been the Education Transition Fund (ETF) and the Education Development Fund (EDF). The ETF is a multi-donor funding mechanism set up in 2010. The ETF’s first phase focused on supporting the education sector to regain its footing after Zimbabwe’s period of instability. The second phase of the ETF reinforced gains by making strategic investments, including helping the GoZ to reduce the textbook-pupil ratios of core subjects¹⁵ from 1:10 to 1:1.¹⁶ As Zimbabwe moved from stabilizing to strengthening the education system, the ETF 1 and 2 were superseded by the EDF in 2012. Also a multi-donor funding mechanism, the EDF provided about US\$115 million in funding from 2012 to 2015. Managed by UNICEF, the EDF receives funding from Germany, the United Kingdom, the European Union, Sweden, Finland, Norway,

¹² Some schools may differentiate between types of levies – such as School Development Committee (SDC) levies, building levies, sports levies, and boarding levies or fees, if applicable. Many schools will combine fees and levies in their financial records, and report only the total amounts charged to parents. For simplicity in this report, we designate only between fees, which are a government mandated, and levies.

¹³ They are meant to cover only teaching and learning supplies, though it is unclear if this is closely monitored.

¹⁴ Prior to 1999, fees paid at the school level were collected in a treasury account and redistributed based on government priorities. However, a decision was made to institute a “School Services Fund”, which allows schools to retain fees collected at the source, and use them to finance non-salary costs at that school.

¹⁵ The four core subjects include English, mathematics, environmental science, and one vernacular language.

¹⁶ http://www.educationandtransition.org/wp-content/uploads/2007/04/Zimbabwe_EEPCT_2010_Report.pdf.

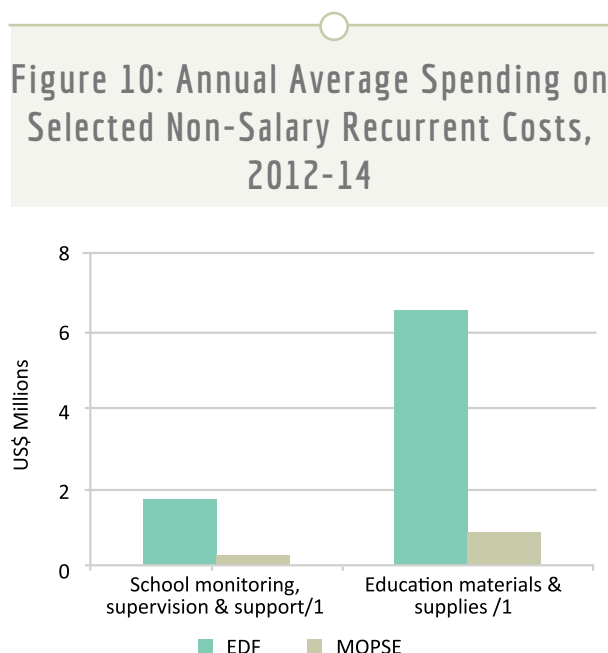
and the Open Society Initiative for Southern Africa (OSISA). Table 11 in Annex 2 provides details on major activities funded by the EDF.

The Global Partnership for Education (GPE)—a multilateral organization helping developing countries to improve their education systems—began supporting Zimbabwe in 2013, through a grant of US\$ 23.6 million for programming between 2013 to 2015. The lead coordinating agency for GPE in Zimbabwe is the United Kingdom’s Department for International Development (DFID). The lead managing agency is the United Nations Children’s Fund (UNICEF). Of the about \$50 million provided by the EDF and the GPE in 2014, roughly half went directly to help schools implement their development plans.¹⁷ Table 13 in Annex 2 provides details on the major activities funded by the GPE.

DFID also supports activities in Zimbabwe related to education. This includes £12 million dedicated to education under DFID’s £24 million contribution to the Child Protection Fund (CPF), a multi-donor trust fund, which supports phase II of the government’s National Action Plan for Orphans and Vulnerable Children. In addition, DFID supports two centrally funded projects under the Girls Education Challenge (GEC), providing £24 million to two NGOs to support additional bursaries for girls’ education, and a transformative program to empower girls within their schools and communities.

In addition, donors have contributed to the BEAM program, which subsidizes education for orphans and vulnerable children. Donors began contributing to BEAM in late 2008 through the CPF. The first round of funding, however, had negligible impact due to hyperinflation. During the next round of funding from 2009 to 2011, BEAM disbursed US\$60.2 million directly to primary and secondary schools to cover fees, levies, and examination fees in secondary schools—45 percent of which was provided by donors.¹⁸ Since 2012, donors have phased out support for BEAM, though several donors continued to support the CPF through end-2015.

Given the GoZ’s funding shortfalls for non-salary recurrent spending, donors have provided the most resources for such costs (see Figure 10). From 2012 through 2014, EDF provided more than five times the spending of MoPSE on school monitoring and supervision, and 7.5 times the spending of MoPSE on educational materials and supplies.



Notes:

¹ School monitoring, supervision, and support: For the EDF, includes amounts spent on the School monitoring, supervision, and support sub-program; For the MoPSE, includes amounts spent on vehicle maintenance, oil and fuel, and quality assurance programs for each sub-vote.

² Education materials and supplies: For the EDF, includes amounts spent on the purchase and delivery of teaching and learning materials, and provision of text books sub-programs; For the MoPSE, includes all amounts spent on education materials and supplies line items, as well as line items for programs, including the Better schools program, Schools on the shop floor, School library book fund, Education revitalization, Zim-science kit, Syllabus development and printing, E-learning in secondary schools, and Rural pre-schools.

Note: Data presented in Figure 10 does not include expenditure covered by school fees and levies. As noted above, school fees and levies contribute significantly to these costs

¹⁷ <http://www.dailynews.co.zw/articles/2015/02/27/increase-education-budget-unicef>.

¹⁸ Smith, Harvey, Patrick Chiroro and Paul Musker “2012 Zimbabwe: Evaluation of the Basic Education Assistance Module Programme” UNICEF, accessed online 4/16/2015 http://www.unicef.org/evaldatabase/files/BEAM_Evaluation_Final_Report.pdf.

Current spending allocations are insufficient to meet school funding requirements: many P3 and S3 schools have only basic facilities and supplies, and households bear most costs.

As donor support diminishes, the MoPSE will need to consider options for increasing budgetary spending to sustain school operations. For example, the MoPSE will soon need to start replacing ETF2/EDF-funded textbooks, which were provided in 2012 but have about a five-year life span. Assuming that the MoPSE replaces a quarter of the old textbooks each year from 2017 to 2020, the MoPSE will need to spend US\$2.27 million per year at the primary level, and US\$1.39 million per year at the secondary level.¹⁹ Table 14 in Annex 2 provides details on unit costs of supplies and services delivered under the ETF2/EDF.

C. ACCOUNTABILITY

Over the past several years, Zimbabwe has put in place new systems and approaches to enhance accountability in using resources at all levels of the education sector. Such approaches include strengthening national public financial management (PFM) and human resource management systems, improving performance management, and reinforcing mechanisms for school-based management.

Public Financial Management Systems

At the national level, the Public Financial Management System (PFMS) allows the treasury to release funds only if a corresponding budget allocation is authorized and funds are earmarked to cover that expenditure. This system prevents overspending on approved line items,²⁰ except for public utility costs, which are billed post-service based on actual use. Overall, this policy promotes accountability and predictability in the whole PFM system.

The MoPSE has strengthened its internal auditing department, though weaknesses remain due to financing gaps. The MoPSE has four chief internal auditors at its national offices—up from one in 2014. At the local level, the Ministry has about 70 auditors, and about 20 vacancies in provinces due to a lack of qualified candidates. Auditors are not always able to fulfil their responsibilities in the field as they lack funding for vehicle repairs and fuel for supervision missions. As a result, auditors tend to more closely supervise schools in urban areas, while smaller, rural schools go several years between audits. The audit department is mounting an ambitious effort to audit all 8,451 institutions (of which about 8,300 are schools) under their purview in a four-year period, though funding for this effort is not guaranteed.

Provincial and district offices benefit from the PFMS and electronic payroll, but few goods and services are procured at this level due to low funding for non-employment costs. Provinces and districts have another source of funding for non-salary costs: the Better Schools Programme-Zimbabwe (BSP-Z). Under the BSP-Z, schools transfer between \$0.10 and \$1 per child of collected school fees to the district level, which provides a fraction to the provincial level. Provincial and district staff are meant to use these resources to finance supervision and teacher trainings benefitting schools. Yet there is less transparency in using these funds, which do not run through the PFMS, as do funds transferred from the central treasury. One recent innovation to improve transparency is UNICEF's fuel smart-card system, which provides cards to provincial and district offices permitting the easy monitoring and supervision of fuel costs. The MoPSE may consider adopting this system to monitor fuel costs financed through other government programs—such as the BSP-Z.

¹⁹ These calculations include replacement of 4 core textbooks at the primary level (at a cost of \$0.86 per textbook) and 4 core textbooks at the secondary level (at a cost of \$1.32 per textbook). The projected number of students requiring textbooks is based on estimated enrollments of primary and secondary student, which was calculated by taking an average of progression/repeat rates by grade, as well as growth rates for the entry of students into ECD A, ECD B, and Grade 1 (as not all students who enter Grade 1 will have necessarily have completed both ECD A and ECD B).

²⁰ Unless a manual order is executed to allow for a cost overrun.

Human Resource Management

The MoPSE manages more than 120,000 employees—most of whom are teachers throughout the country. The high number of dispersed teachers makes it challenging to maintain a qualified workforce, ensure teachers and staff report for duty, manage discipline issues, and identify and address cases of absenteeism.

Salary payments are submitted to several levels of inspection. Both the Public Service Commission (PSC) and the treasury must concur on salary payments after the head of each department confirms that employees on payroll were on-duty during the period in question. Payroll is executed through an electronic payroll system.

Hiring at the provincial and district levels is overseen by the PSC, but the process was recently revised. In mid-2013, the PSC assumed full jurisdiction over hiring decisions of the MoPSE, which proved problematic as the PSC did not always hire teachers for posts for which they were qualified. In January 2015, an adjustment was made to the hiring decision process: the PSC remains on the hiring committee and must provide approval, but MoPSE staff at the provincial and district levels have roles in ensuring that the most qualified candidates are selected.

The MoPSE has implemented mechanisms to better manage teacher qualifications. To better catalogue and track its teaching staff, the MoPSE began implementing in 2013 the electronic TDIS database, which includes a census of all teaching staff, their credentials and specialties, and matches between qualifications and current assignments. This database also helps to minimize the possibility of ghost workers. Under its 2011-2015 Medium Term Plan and Operations Strategy, with support from DFID and UNICEF, the MoPSE started a Teacher Development Strategy that established Teacher Professional Standards (TPS). This strategy supports a Continuous Professional Development Program to improve the skills of teachers, implementation of a Performance Lag Address Programme (PLAP), and upgrading skills of ECD paraprofessionals and teachers without O-level math, science, and language.

Results-Based Management Techniques

The GoZ began implementing Results-Based Management (RBM) in 2006, with a view to reinforcing public sector performance and service delivery through better strategic planning, more efficient use of resources, and improved monitoring and reporting on performance information. In Zimbabwe, RBM involves four main initiatives: (1) personnel performance system, (2) monitoring and evaluation, (3) management information system, and (4) Results-Based Budgeting (RBB). These reforms have been driven by the Office of the President and Cabinet (OPC), which created the Department of Reforms within the OPC to move the process forward. The Ministry of Finance and Economic Development and the PSC have also supported these reforms.

A few of these initiatives made strides in recent years. A results-based personnel evaluation system was deployed throughout the public sector. Public sector employees are now annually evaluated against specific results related to their job description. The government is beginning to roll out RBB with the MoPSE and two other pilot ministries that adopted this approach in 2015. More information on RBB is included in Box 1 below.

Box 1: Program/Results-Based Budgeting in the MoPSE

In late 2014 and early 2015, the MoPSE began transitioning to Program/Results-Based Budgeting. This form of budgeting re-groups planned and actual expenditures on a set of outputs these expenditures aim to provide, and links spending to output, outcome and impact indicators. Program/Results-Based Budgeting has advantages over traditional forms of line item budgeting, including, among others: (1) increased focus on service provision and sector strategy priorities over administrative divisions; (2) improved planning and operations because real costs of service delivery are clearer; (3) increased information to promote the efficiency and accountability of results; and (4) more informed tradeoffs for budget negotiations.²¹

To begin this process, the MoPSE defined its programs and sub-programs, established key indicators, set baselines and targets for indicators, and translated the current year’s budget from line item format into program budget format. The programs and sub-programs are defined as follows:

<p>Program 1: Management & Support Services</p>	<p>Program 2: Education Research & Development</p>
<ul style="list-style-type: none"> • Sub-Program 1: H.R. Management & Development • Sub-Program 2: Financial Management • Sub-Program 3: Internal Audit • Sub-Program 4: Legal Services • Sub-Program 5: Administration • Sub-Program 6: Information Technology • Sub-Program 7: Ministerial Affairs and P.S. 	<ul style="list-style-type: none"> • Sub-Program 1: Curriculum Development • Sub-Program 2: Policy Research & Planning
<p>Program 3: Infant Education</p>	<p>Program 4: Junior Education</p>
<ul style="list-style-type: none"> • Sub-Program 1: Teaching & Learning • Sub-Program 2: Quality Assurance 	<ul style="list-style-type: none"> • Sub-Program 1: Teaching & Learning • Sub-Program 2: Quality Assurance • Sub-Program 3: Non-Formal Education
<p>Program 5: Secondary Education</p>	<p>Program 6: Learner Support Services</p>
<ul style="list-style-type: none"> • Sub-Program 1: Teaching & Learning • Sub-Program 2: Quality Assurance • Sub-Program 3: Non-Formal Education 	<ul style="list-style-type: none"> • Sub-Program 1: Learner Welfare Services • Sub-Program 2: Special Needs Education • Sub-Program 3: Psychological Services

The resulting “program budget” provides a much clearer picture of the costs of service delivery for the ministry. This is because several major costs for service provision cross administrative units in the budget structure, thus obscuring the picture of how the ministry spends its budget.

²¹ <http://www.imf.org/external/pubs/ft/wp/2003/wp03169.pdf>.

For example, all of the ministry's spending on school construction and maintenance is executed through the Administrative and General sub-vote, despite representing costs for infrastructure in primary (infant and junior) and secondary education. Another example is budget allocations to infant education. Based on the administrative structure, in the 2015 budget the MoPSE allocated only about US\$ 1.8 million to infant education. This amount is much below the actual allocation, however, as the budget for teachers in infant education and grades 1 and 2 was provided in the junior education subvote. The program structure corrects this issue; in the 2015 program budget, infant education received an estimated allocation of US\$ 110 million.

Annex 1 provides the trends in administrative and program-based budgeting and expenditure.

RBB is one of the core elements of the GoZ's efforts to implement RBM. Efforts to implement RBB have been ongoing since around 2011, though progress accelerated in late 2014 and early 2015. In 2011 and 2013, staff at the Ministry of Finance and select line ministries were trained on RBB concepts. These trainings did not result in major adjustments in budgeting practices until 2014 and early 2015, when authorities signaled to donors that implementing RBB was a top priority.

School-Based Management Systems

At the school level, the School Head plays a major role in managing school finances. The School Head is involved in annual budgeting and strategic planning exercises, and in administering the budget on a day-to-day basis. If sufficient resources are available, some schools may also have a bursar or school accountant who supports financial management. That said, School Heads or Teachers-in-Charge are teachers rather than managers by training, and often take on school financial management responsibilities without strong backgrounds in financial management. In 2013 and 2014, as many as 90 percent of all School Heads underwent training in financial management at public service training centers with the assistance of UNICEF. A full financial management manual was developed and disseminated, along with reporting templates. Accountability of funds was reported to have improved significantly. This progress could be confirmed if more regular audits are possible.

Zimbabwe has developed a system of SDCs as a control mechanism for school finance and service delivery. SDCs have a role in reviewing the annual school development plan and the annual budget required to implement the plan, before the plan and budget go to the full Parents' Assembly for authorization. The annual budget is accompanied by the estimated school fees and levies required to mobilize annual funding requirements. At the end of the year, the SDCs review the final accounts for the year. Furthermore, SDCs designate a smaller finance committee to help monitor financial management issues more regularly and make decisions on the use of funds. The finance committee should be composed of the School Head, the Deputy Head, a chairperson and a vice chairperson. In addition, each school should have a procurement committee that oversees purchases, evaluates quotations, and justifies purchases based on competitive procurement processes.²²

Given the role of SDCs in managing schools, the ETF I and the MoPSE trained two to four SDC members from each school in 2010 to monitor the delivery of learning materials provided by the ETF.²³ The Finance and Administrative Manual provides guidelines for processes and requirements for SDCs, finance committees, and procurement committees. More training or materials for SDC leaders may be warranted, since turnover is quite high, as parents may only be able to commit for one or two years, or leave after their children graduate from school.

²² For more see, GoZ, "Financial Management Training Manual for the Non-Finance Education Managers," MoPSE, Finance Administration, October 2013.

²³ This activity covered 5519 out of 5644 primary schools in Zimbabwe. For more details, please see "School Development Committee Capacity Reinforcement Project in Zimbabwe April 2011." SNV Netherlands Development Organisation, April 2011.



EFFICIENCY AND EFFECTIVE SERVICE DELIVERY

A. ADEQUACY AND SUSTAINABILITY

Zimbabwe's public expenditure on primary and secondary education has grown considerably since the nadir of the economic crisis in 2008. Overall, the voted budget allocated to the MoPSE increased fivefold—from \$177 million in 2009 to \$876 million in 2014, then to \$890 million in 2015. In actual budget expenditures, spending by the ministry increased from \$176 million in 2009 to an estimated \$787 million in 2014.

However, government spending does not yet fully finance the needs of general education. In fact, private sources are estimated to have contributed \$779 million to primary and secondary schools in 2013. Donors contribute an additional \$40-50 million to the sector each year, with a large portion going directly to schools.

Compared to neighboring countries, Zimbabwe fares well in public spending allocated to primary and secondary education. For example, primary and secondary education (including ECD) in the 2015 MoPSE budget made up about 20 percent of the total 2015 national budget. In comparison, nearby Zambia allocated only 16 percent of its 2015 budget to primary and secondary education. The difference is more pronounced measured as a share of GDP. Though Zimbabwe allocated 6.2 percent of GDP to primary and secondary education in 2015—three times what it spent in 2009—Zambia budgeted only 3.9 percent in 2015 (a modest increase from 2009).

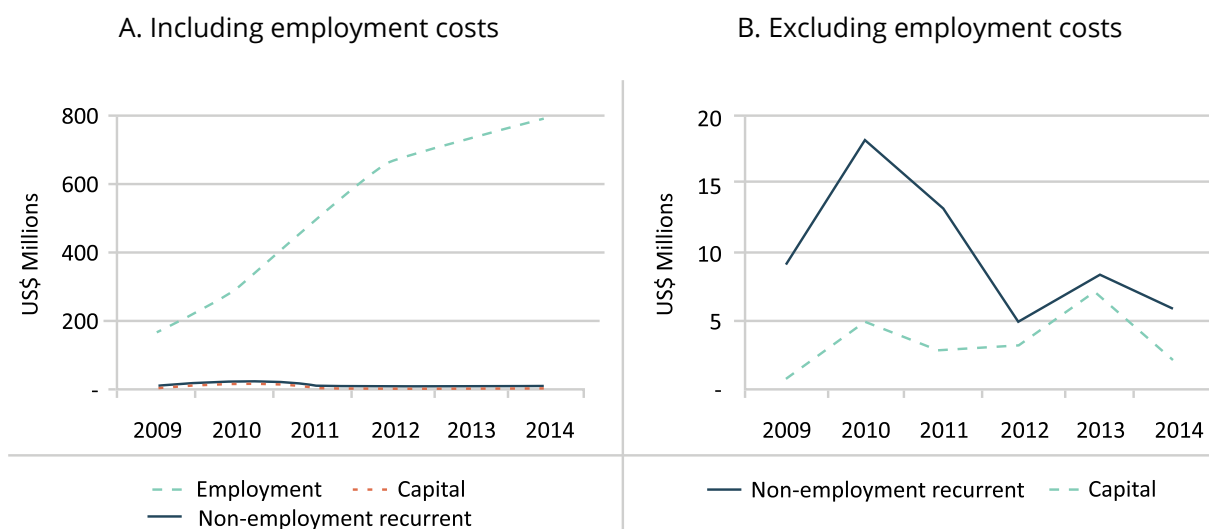
Despite the vast improvements since 2008, the adequacy and sustainability of public spending remain a concern for the education sector. The large share of spending from private and, to a lesser extent, donor sources point to inadequate public financing to meet basic educational needs. Financing of non-salary recurrent and capital costs, as discussed below, largely falls within the realm of private contributions. The sustainability of relying on off-budget sources to support schools' basic operations is a concern for this fast growing sector.

B. ALLOCATIVE EFFICIENCY

One way to measure the efficiency of public expenditure is to assess whether resources are optimally allocated across different expenditure categories to achieve desired objectives. In other words, are funds being spent in the right areas to ensure a quality education, or would reallocating resources make the sector more efficient?

In allocative efficiency, a key concern in Zimbabwe is the high share of the MoPSE budget devoted to salaries. Employment costs dominate spending by the ministry, accounting for virtually the entire increase in MoPSE spending between 2009 and 2014 (see Figure 11). Employment costs rose steadily from \$167 million to \$779 million over this period. Meanwhile, non-salary recurrent and capital costs decreased from \$10 million to \$8 million—despite a growing student population. Zimbabwe's 99 percent of public spending devoted to employment costs—with only 1 percent spent on all other inputs—is among the most lopsided ratios in the world.

Figure 11: Overall Trends in MoPSE Expenditure, 2009-2014



Source: MoPSE financial reports.

Non-salary spending is insufficient for two reasons; the first is that the allocation approved in the annual budget is not adequate to fund school investment and operating costs. In the 2014 budget, MoPSE was allocated US\$877 million, but only US\$38 million—about 4 percent—was allocated to non-salary spending. In the 2015 budget, MoPSE's allocation to non-salary spending fell to US\$17 million—or less than 2 percent. In 2014, this non-salary allocation equaled US\$9 per student, far less than necessary to ensure proper learning conditions. In fact, of the total resources for capital expenditures in primary schools, most comes from private sources. In secondary schools, capital financing is sourced more equally between public and private sources. Compared to other countries, Zimbabwe's school system generally underfunds capital investment (see Table 1), and the low share of publicly financed investment is particularly troubling.

Table 1: Capital Expenditure as a Percent of Total Education Expenditure

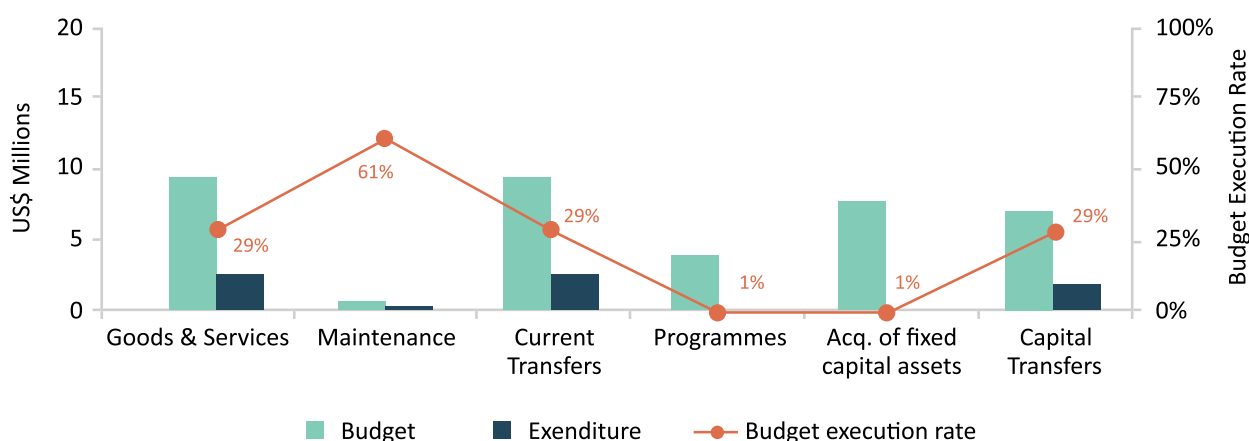
	PRIMARY	SECONDARY
Brazil (2011)	8.6	7.5
Chile	n/a	n/a
Indonesia (2013)	14.0	7.9
Mexico (2012)	2.5	2.6
Turkey (2012)	4.6	6.5
OECD average (2012)	7.1	6.8
Zimbabwe (2013)	5.1	3.4
<i>Of which from public sources:</i>	0.3	1.7
<i>Of which from private sources:</i>	4.8	1.7

Sources: Calculations using data from the EMIS and MoPSE financial reports; OECD (2015), "Education at a Glance," Table B6.1.

The second reason for inadequate spending on non-salary items is low budget execution. In 2014, the MoPSE reported a 90 percent execution rate of its overall budget. However, no non-salary line item surpassed 61 percent. MoPSE disbursed only US\$0.4 million of its budgeted US\$0.7 million for maintenance costs. Budget execution for goods and services, together with current and capital transfers, reached only 29 percent. Meanwhile, acquisitions of fixed capital assets and the implementation of special budget programs—such as quality assurance, e-learning, and school feeding—received less than 1 percent of allocated amounts (see Figure 12). In comparison, budget execution for employment costs reached 93 percent. As a result, less than US\$2 was spent per child from the 2014 MoPSE budget to finance operating and capital costs in Zimbabwe’s schools.

Delaying the release of funds for non-salary spending has deeply negative consequences. Maintenance and operations must be financed according to a regular schedule, and capital investment projects are especially dependent on predictable funding. The failure to release budgeted funds undermines the ability of local education authorities to design and execute performance plans, and undermines the credibility of national authorities.

Figure 12: Budget Execution of MoPSE Non-Employment Expense Categories, 2014



Sources: MoPSE financial reports.

The allocative efficiency of MoPSE’s spending can also be reviewed by looking at the budget split between primary and secondary education.²⁴ Primary schools enroll 76 percent of Zimbabwe’s four million students but receive 64 percent of the MoPSE’s total spending. Secondary schools account for 24 percent of enrollment, and 35 percent of MoPSE spending.²⁵ Though delivering the secondary school curriculum is more costly, as it requires more teaching hours and learning materials per student, the secondary to primary ratio in public spending per student is out of line with international comparators. In Zimbabwe, secondary education receives 1.66

²⁴ For the purpose of this analysis, ECD is included with primary education. A broader discussion of this topic can be found in the equity section below.

²⁵ The rest, 1% of MoPSE expenditure in 2014, was spent on administration and coordination.

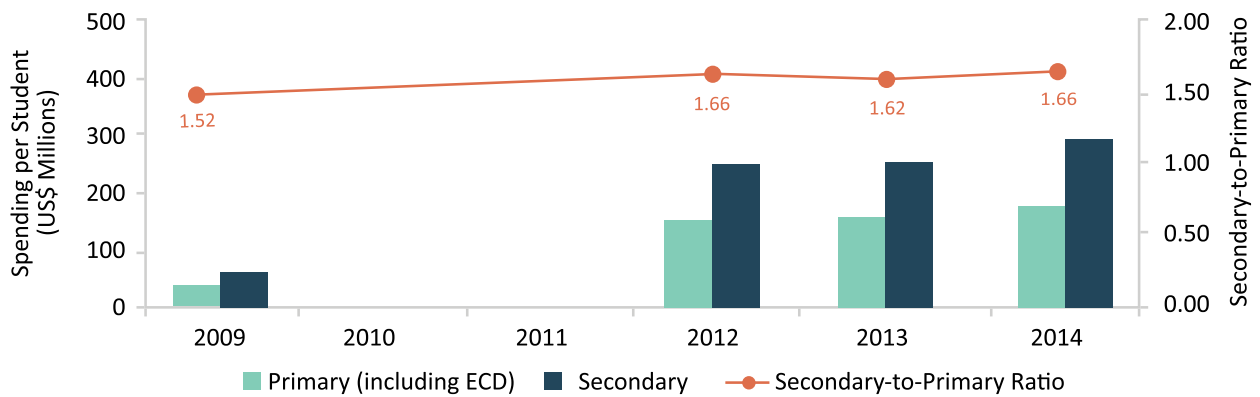
Table 2: Secondary to Primary Ratio in Public Expenditure per Student

Brazil (2012)	0.98
Chile (2013)	0.87
Indonesia (2013)	0.83
Mexico (2012)	1.14
Turkey (2012)	1.13
OECD average (2012)	1.15
Zimbabwe (2014)	1.66

Sources: Calculations using data from the EMIS and MoPSE financial reports; OECD (2015), “Education at a Glance,” Table B1.1a.

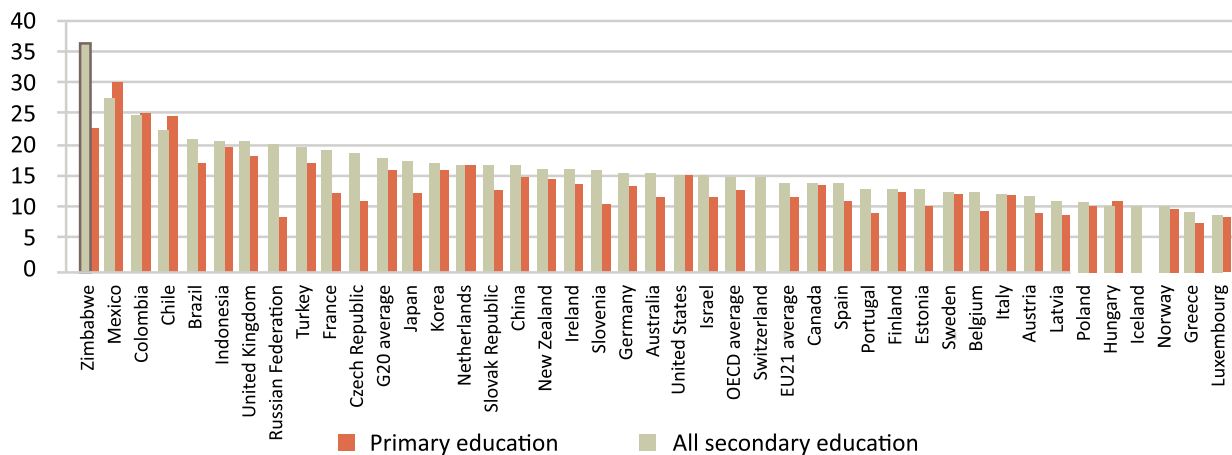
times as much funding per student as primary education (in 2014, \$301 and \$181, respectively, with the latter including ECD).²⁶ This ratio has been generally stable in recent years, though it increased slightly from 2009 to 2012. In parallel, the total amount spent per student more than quadrupled between 2009 and 2014 (see Figure 12). In comparison, the secondary to primary ratio of spending per student among OECD countries is approximately 1.15. Brazil, Chile, and Indonesia, which support education systems with young and growing student populations, are more generous to primary education (see Table 2).

Figure 13: MoPSE Spending per Student in Primary and Secondary Education, 2009-2014



Sources: MoPSE financial reports and EMIS reports.

Figure 14: Student-Teacher Ratios in Zimbabwe (2014) and OECD Countries (2013)



Sources: EMIS 2014 preliminary report and OECD (2015), "Education at a Glance," Table D2.2.

²⁶ All but \$2 of this per student amount is used to finance salaries.

As 99 percent of MoPSE spending goes to personnel costs, the difference in per-student allocations between the primary and secondary levels can be attributed to differences in student-teacher ratios. According to the 2014 EMIS, the average student-teacher ratio was 35 in ECD classes, 36 in primary schools, and 23 in secondary schools.²⁷ Though ECD and primary school classes are large by necessity—there are not enough classrooms and qualified teachers—secondary school classes and student-teacher ratios are smaller because more resources are available. In fact, Zimbabwe’s student-teacher ratio in secondary schools is lower than that of Chile, a high-income member of the OECD (see Figure 14). Since only half of Zimbabwe’s students progress to secondary education, the relatively generous resource allocations to secondary schools (exhibited in small class sizes) may be unaffordable in a country working to ensure adequate ECD coverage.²⁸

Box 2: Using Technology to Improve Learning in Large Class Environments: Case of South Korea

South Korea is widely viewed to be a pioneer in using Information and Communication Technologies (ICTs) in the classroom. South Korea’s first master plan for ICT in education dates to 1996, and educators have since increasingly integrated ICTs into education at all levels. South Korea’s innovations and dedication to quality teaching have paid off – Korea routinely scores at the top of Programme for International Student Assessment (PISA) rankings for math, science and reading—despite having higher pupil-teacher ratios than other countries in the OECD. A recent trend in the South Korean approach is “SMART Education”—that is, education which is “Self-directed”, keeps students “Motivated”, “Adapts” to the learners’ needs, includes a rich set of “Resources” in the system, and embeds “Technology” throughout the learning process.

ICT education in South Korea includes a mix of training on the use of ICTs and ways to use ICTs to teach other subjects, such as language arts, mathematics, and science. The ICT skills curriculum covers computing skills (hardware and software), the role of information in society and ethical issues related to technology, and other IT skills, such as data analytics and web development. Training on ICT skills is widespread at the elementary (primary) level: 77 percent of primary students receive such training. This falls to 22 percent in middle school and 35 percent in high school. This model demonstrates the importance of introducing ICTs to students at an early age to maximize impact. ICTs are used to teach more traditional subjects, such as mathematics, science and language arts, through interactive, digital textbooks, which in many cases supplement physical learning materials. These textbooks allow students to engage with the subject matter in a self-paced manner through interactive learning modules, games, tests, and activities. Teachers have access to learning outcome information to better understand the challenges facing individual students, and customize their teaching methods to individual students.

South Korea’s success is due to several factors: alignment of education policy; investments in ICTs at the school level; e-learning embedded in the curricula; trainings of teachers on ICTs in the classroom, and private sector partnerships to develop education content innovations through digital textbooks and e-classroom modules. The master plan for ICT in education was a key step for South Korea to begin mainstreaming ICT in its education system. Building on that experience, the World Bank is working with the MoPSE to develop a draft policy framework for ICT in Education. The policy framework is intended to provide cost-effective, innovative and sustainable options for using ICT to connect schools, districts, and provinces with one another and with the Head Office. The framework will also support decision-making, policy analysis, management, and administration of Zimbabwe’s education system.

Sources:

Jeong, Euisuk, “Digital Textbook Project in Korea: An Adaptive Model of Digital Textbook in Korea.” Presentation at the Global Symposium on ICT in Education 2014, Gyeongju, Republic of Korea, November 2014

²⁷ The ECD ratio showed substantial variation across different provinces, ranging from 23 in Bulawayo to 42 in Masvingo. Meanwhile, the primary and secondary ratios were relatively uniform throughout the country, ranging between 33 and 39, and 20 and 24, respectively.

²⁸ Larger class sizes do not necessarily lead to poor education outcomes. An interesting example of a country achieving high quality education with larger than average class sizes is South Korea (Republic of Korea), which has done so partly through the use of technology in the classroom (see Box 2).

Lim, Sungbin, "2014 White Paper on ICT in Education Korea." Korea Education and Research Information Service, December 2014.
 Sohn, Byeong-Gil, "ICT in primary and secondary education policy and prospects in Korea." Presentation at the IADB Conference
 The Role of ICT4E Policy in Education Transformation, Montevideo, Uruguay, April 2011.

In sum, the per-student allocations from public sources are skewed toward employment costs over recurrent and capital expenses, and toward secondary education over primary education and ECD. These imbalances present challenges in allocative efficiency, and heavily influence the equity of public resource allocation. Equity-related aspects are explored in the equity section below.

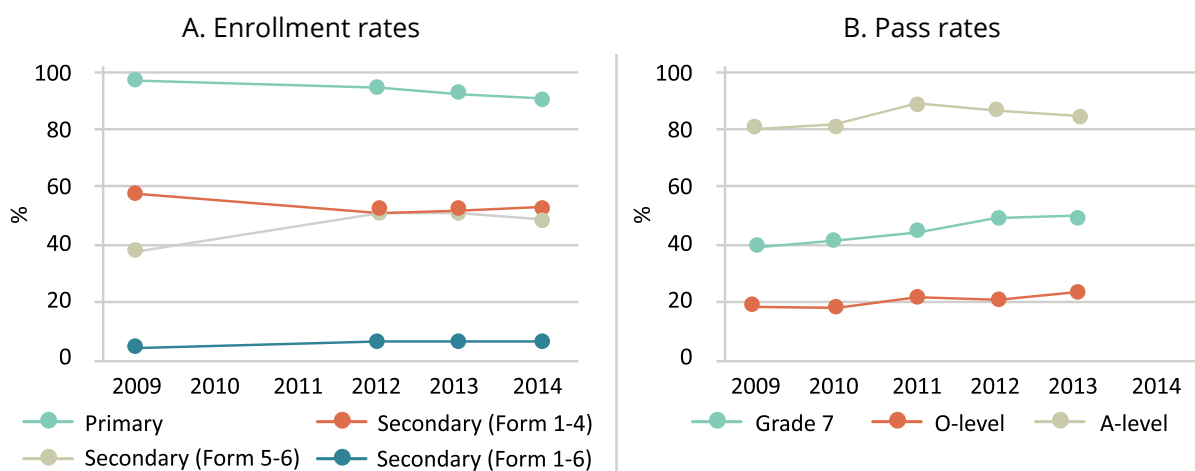
C. TECHNICAL EFFICIENCY

In addition to examining resource allocation, efficiency can be measured by assessing how well resources are being utilized to achieve desired objectives after allocations are made.²⁹ This approach, known as technical efficiency, is the study of expenditures in relation to results, expressed through various service delivery indicators. These indicators can be input-oriented, such as student-teacher ratio, student-qualified teacher ratio, student-classroom ratio, computers per 100 students, average class size, and average school size. Indicators can also be output-oriented, such as enrollment rates, completion rates, student learning outcomes, and so forth. Several indicators are discussed in the equity section below. This section focuses on assessing efficiency by analyzing unit costs, student-teacher ratios, and student learning outcomes.

Despite the nearly fivefold increase in the primary and secondary education budget from 2009 to 2014, key output measures in education barely changed. According to preliminary 2014 EMIS data, net enrollment rates have fallen slightly since 2009 from 97.7 percent to 92.2 percent, while enrollment in secondary education rose from 38.6 percent to 49.6 percent. The increase in secondary education enrollment was most evident at the A-level (Form 5-6), where net enrollment grew from 4.8 percent in 2009 to 7.2 percent. Meanwhile O-level (Form 1-4) enrollment rates experienced a slight decline.

The pass rates of the three main examinations changed little since 2009. The Grade 7 exam, taken by pupils at the end of primary education, improved the most: pass rates increased from 39.7 percent to 50.2 percent from 2009 to 2013, though this is still below the pre-crisis rate of 70 percent in 2007. Despite Zimbabwe's expanding education budget since 2009, pass rates for the O-level and A-level exams stayed largely unchanged at around 20 percent and 85 percent, respectively—though rates fluctuated moderately from year to year.

Figure 15: Enrollment and Examination Pass Rates, 2009-2014



Source: EMIS 2014 preliminary report.

²⁹ Measuring the efficiency of frontline service delivery units in the public sector is a growing field utilizing various methods to assess the relative efficiency of achieving the desired outcomes by schools, clinics, public administration offices, etc., with a given level of inputs (see Box 3).

As reflected in Figure 16 and Table 3, the unit costs of providing education vary across Zimbabwe's provinces. The school-level expenditure per student—excluding centrally paid staff salaries—ranges from \$35 to \$319 in primary schools, and from \$267 to \$841 in secondary schools. The provinces with the highest costs are not remote, rural areas where costs are expected to be greater owing to higher transport costs and lower class sizes in less dense areas. Instead, the two metropolitan provinces— Bulawayo and Harare—are where spending per student is the highest. This is because urban households tend to have higher living costs and a greater ability to pay school fees, which makes available more resources to urban schools.³⁰

Student-teacher ratios are relatively uniform across the country. The average number of students per teacher employed in primary schools (including ECD) ranges from 32 to 39, while secondary schools average from 20 to 24 across provinces. The large difference in students per teacher between primary and secondary schools is arguably suboptimal. By international standards, Zimbabwe's provinces range between Chile (25) and the United Kingdom (18) in students per teacher in secondary education,³¹ which may be unaffordable given Zimbabwe's emergence from a deep economic crisis.

Box 3: Measuring Efficiency at School Level in Primary and Secondary Education

An education system aims to develop students' cognitive and non-cognitive skills, consistent with a country's education policy and priorities. To achieve desired outcomes, which can be measured through student learning assessments or other methods, schools use a mix of available inputs. These inputs, which contribute to the learning process to different degrees, include: teachers with varying levels of training; non-teaching staff; financing—both public and private; learning materials and technology; educational facilities; and so forth. Additional non-school factors influence how inputs are converted into learning outcomes. These factors include the socioeconomic background of students (e.g., parental education and income levels) and characteristics of schools and communities, such as urban-rural location. Non-school factors are outside the control of the school system, but can impact student performance.

Technical efficiency is generally measured by comparing the level of output achieved with a given level of input, or by comparing the level of input needed to achieve a given level of output. An education "production function" can be constructed to determine the technical efficiency of each production unit (e.g., a school or a district), which will calculate an "efficiency score" for each unit. Various techniques can derive such scores—some simple and other complex. At its most straightforward, an efficiency analysis can compare schools achieving high marks with low levels of inputs (e.g., low levels of per-student spending and/or below-average socioeconomic status of students). Such schools are deemed relatively technically efficient, while schools with high levels of inputs but low scores are relatively inefficient. Sophisticated methods to calculate efficiency scores include econometric techniques, such as parametric and non-parametric estimation.

Two common methods from literature in education and health are Data Envelopment Analysis (DEA) and Stochastic Frontier Analysis (SFA). Both approaches calculate an efficiency score for each school or district by constructing an "efficiency frontier" against which all schools can be mapped. The distance to this frontier is considered that school's efficiency score. In DEA, for example, units lying on the frontier are considered "perfectly efficient", and receive the maximum score of 1. This analysis requires reliable measures of student learning outcomes, and detailed school-level data on education inputs (e.g., spending by school on various expenditures, student-teacher ratios) and school context (students' socioeconomic background). It also requires a high familiarity with advanced econometric techniques, and an ability to work with large data sets using modern statistical software. Increasingly, ministries of education and ministries of finance

³⁰ A thorough review of cost drivers in the urban provinces is underway to investigate whether these preliminary findings are a result of errors in the underlying data or arise from legitimate spending differences among Zimbabwe's schools.

³¹ OECD (2015), "Education at a Glance." Table D2.2. OECD calculations done using full-time equivalent teachers.

in different countries are beginning to invest in data and analytical capacities to enable staff to execute such analyses, with a view to identifying how to efficiently deliver high-quality education in resource-scarce environments.

For more information see:

Coelli, Timothy, D.S. Prasada Rao, Christopher O'Donnel and George Bettese, *An Introduction to Efficiency and Productivity Analysis*, Second Edition. New York: Springer Science and Business Media Inc., 2005.

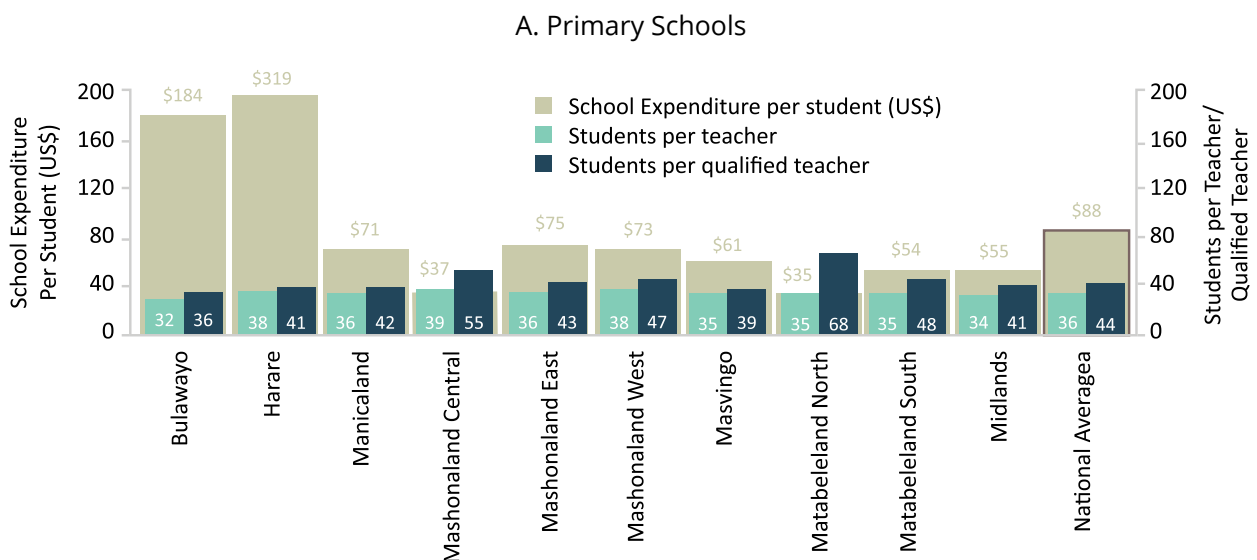
Cornali, Federica, "Effectiveness and Efficiency of Educational Measures: Evaluation Practices, Indicators and Rhetoric." *Sociology Mind*, Vol 2, No. 3, July 2012.

Santin, Daniel and Gabriela Sicilia. "Measuring the efficiency of public schools in Uruguay: main drivers and policy implications." *Latin American Economic Review*, 2015.

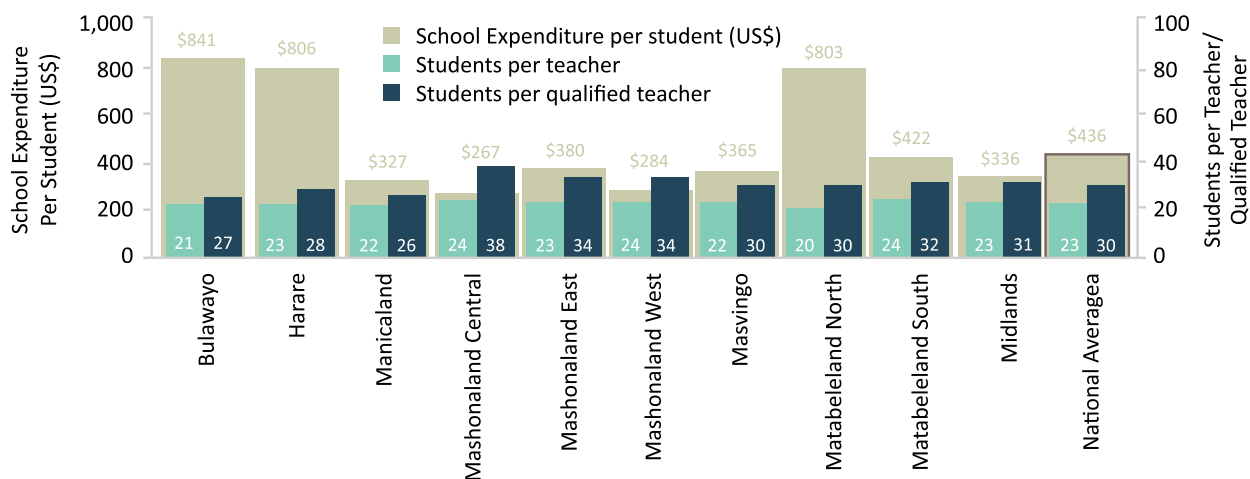
Smith, Peter and Andrew Street, "Analysis of Secondary School Efficiency: Final Report." Department for Education and Skills, United Kingdom, 2006.

Yet a sizeable share of teachers lack proper qualifications. The ratio of students per *qualified* teacher is substantially higher—between 36 and 68 in primary schools (including ECD), and between 26 and 38 in secondary schools. Nationwide, the share of unqualified teachers in primary school is 11 percent, reaching as high as 39 percent in Matabeleland North province. In secondary education, 26 percent of teachers lack proper qualifications. The share of unqualified ECD instructors is a whopping 67 percent nationally, but reaches 90 percent in Matabeleland North and South provinces. Teacher training colleges are working to fill the gap with qualified ECD teachers, but the current output of about 2,000 new teachers per year struggles to keep up with demand.³² Resolving this challenge will be essential for Zimbabwe to attain the Sustainable Development Goal (SDG) #4, which aims to ensure that all girls and boys have access to quality ECD, care, and preprimary education by 2030. In the short term, officials may need to explore alternative methods of providing ECD in areas with high teacher shortages, such as technology-based ECD models, which can support interactive audio instruction.

Figure 16: Selected Service Delivery Indicators by Level of Education and Province, 2014



B. Primary Schools



Notes:

¹ Expenditure data collected in 2014 corresponds to the 2013 academic year and includes school-level expenditure from all financing sources (public, private, and donor).

² Number of teachers as reported to the TDIS in 2014.

³ Data for primary schools include ECD due to an inability to obtain separate expenditure data for ECD grades.

Source: Calculations using EMIS 2014 and TDIS data.

³² MoPSE estimates that 16,568 ECD teachers are currently needed in the system, which now employs 3,960 qualified and 8,164 unqualified ECD teachers.

Table 3: Selected Service Delivery Indicators by Level of Education and Province, 2014

	NUMBER OF SCHOOLS	NUMBER OF STUDENTS	TOTAL EXPENDITURE ¹ (\$)	NUMBER OF TEACHERS ²	Of which:		Service Delivery Indicators		
					QUALIFIED TEACHERS	UNQUALIFIED TEACHERS	EXPENDITURE PER STUDENT (\$)	STUDENTS PER TEACHER	STUDENTS PER QUALIFIED TEACHER
Primary Schools³	5,863	3,086,516	271,431,813	86,253	70,052	16,201	88	36	44
Bulawayo	130	115,738	21,246,786	3,634	3,236	398	184	32	36
Harare	225	275,831	88,059,984	7,342	6,745	597	319	38	41
Manicaland	865	496,274	35,286,672	13,896	11,897	1,999	71	36	42
Mashonaland Central	488	289,072	10,792,146	7,503	5,271	2,232	37	39	55
Mashonaland East	688	334,607	25,004,527	9,350	7,733	1,617	75	36	43
Mashonaland West	719	359,117	26,185,494	9,574	7,644	1,930	73	38	47
Masvingo	866	419,934	25,413,742	12,111	10,771	1,340	61	35	39
Matabeleland North	580	212,777	7,467,995	6,021	3,127	2,894	35	35	68
Matabeleland South	507	178,345	9,580,328	5,028	3,742	1,286	54	35	48
Midlands	795	404,821	22,394,138	11,794	9,886	1,908	55	34	41
Secondary Schools	2,424	979,644	427,018,764	43,361	32,171	11,190	436	23	30
Bulawayo	52	52,226	43,900,729	2,475	1,927	548	841	21	27
Harare	94	96,165	77,502,707	4,238	3,390	848	806	23	28
Manicaland	391	152,696	49,900,186	7,085	5,903	1,182	327	22	26
Mashonaland Central	209	76,678	20,466,497	3,166	2,000	1,166	267	24	38
Mashonaland East	331	121,296	46,114,519	5,164	3,609	1,555	380	23	34
Mashonaland West	348	113,819	32,297,458	4,839	3,370	1,469	284	24	34
Masvingo	338	130,445	47,559,414	5,837	4,289	1,548	365	22	30
Matabeleland North	174	53,790	43,205,171	2,648	1,815	833	803	20	30
Matabeleland South	157	54,582	23,040,522	2,251	1,713	538	422	24	32
Midlands	330	127,947	43,031,559	5,658	4,155	1,503	336	23	31

Notes:

1 Expenditure data collected in 2014 corresponds to the 2013 academic year and includes school-level expenditure from all financing sources (public, private, and donor).

2 Number of teachers as reported to the TDIS in 2014.

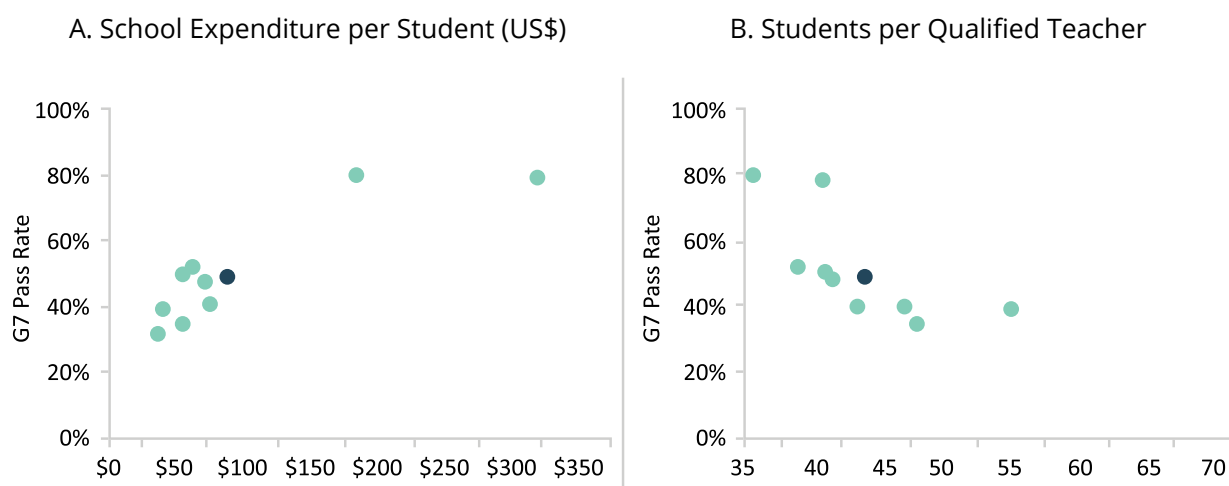
3 Primary schools include ECD.

Source: Calculations using EMIS 2014 and TDIS data

Partly due to shortages in school financing and qualified teachers, learning outcomes vary substantially across the country. In primary schools, an average of 49 percent of internal candidates passed Grade 7 (G7) exams in 2013. However, the pass rate ranged from 32 percent (Matabeleland North) to 80 percent (Bulawayo). In secondary schools, 23 percent of O-level internal candidates passed the 2013 exam—ranging from 17 percent in Matabeleland North to 27 percent in Harare. Of those who reached A-levels, the vast majority (83 percent) passed in 2013—ranging from 70 percent in Matabeleland North to 88 percent in Mashonaland East.

Not surprisingly, a strong correlation is observed between provinces performing well on exams and those where school resource endowments were more plentiful.³³ This is particularly striking at the primary school level. Provinces with higher per-student spending tend to have higher G7 pass rates (see Figure 17). Provinces with fewer qualified teachers—and higher ratios of students per qualified teacher—tend to have lower G7 pass rates. As consistently shown in international research literature, spending levels are generally not a strong predictor of student learning outcomes, but a minimum level of financial resources is a necessary (but not sufficient) condition for learning. Zimbabwe’s schools and provinces (such as Matabeleland North) that fail to meet this condition are likely to continue providing a low quality education to students.

Figure 17: Grade 7 Pass Rates in Relation to Selected School Resources, 2013



Note: ♦ = national average.

Source: Calculations using EMIS 2014 and TDIS data

Though supporting a robust system of national examinations, Zimbabwe lacks an effective mechanism for system-wide quality assessment. Various international, regional, and national mechanisms for measuring education quality are being used throughout the world. Zimbabwe is a member of the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), but Zimbabwe’s last set of publicly available SACMEQ assessment results is from 2007. To better understand the relationship between student learning outcomes and the allocation of resources—including issues relating to equity and efficiency—Zimbabwe might consider joining an international program providing regular measurements of the quality of education. One such program is *PISA for Development*, which is being implemented by the OECD (see Box 4).

³³ While student learning outcomes are affected by a wide range of factors, resource availability is likely to play a role in determining learning outcomes in Zimbabwe.

Box 4: International Programs of Student Learning Assessment

The last 20 years has seen tremendous growth in the use of international systems for student learning assessment. Such assessments aim to provide information on education system performance, typically relative to an agreed set of standards or learning goals, to inform education policy and practice. International assessments can be similar to ones used at the national or subnational levels, but they introduce an element of comparability and standardization across countries, facilitating easy benchmarking of results internationally.

Popular international systems for student assessment include **TIMSS** (Trends in International Mathematics and Science Study), **PIRLS** (Progress in International Reading Literacy Study), and **PISA** (Programme for International Student Assessment). Regional systems also exist, such as **SACMEQ** (Southern and Eastern Africa Consortium for Monitoring Educational Quality), **PASEC** (Programme d'Analyse des Systèmes Educatifs / Program on the Analysis of Education Systems), and **LLECE** (Latin American Laboratory for Assessment of the Quality of Education).

Though systems differ in their goals and the methods for measuring achievement, the top scoring education systems on international assessments are typically considered among the most successful and most emulated in the world. Countries and cities with top scores on PISA 2012, for example, included Shanghai, Hong Kong, Singapore, Japan, South Korea, and Finland—all of which have a reputation for delivering high quality education to their students.

The OECD, which runs the PISA initiative, recently developed a program of assessments designed to measure the skills and knowledge of 15 year olds in developing countries. **PISA for Development**, as it is called, will conduct its first assessments from 2015 and 2018. Seven countries from Africa, Asia, and Latin America have signed up so far, including Cambodia, Ecuador, Guatemala, Honduras, Paraguay, Senegal, and Zambia. In addition to providing a single reference for rigorously gauging progress on educational quality and equity, PISA for Development emphasizes institutional capacity building to strengthen countries' national assessment systems.

By participating in international programs, such as PISA for Development, Zimbabwe can enhance its use of data in managing the education system by adding robust measures of student learning outcomes and skill acquisition to the pool of assessment information already available for policymakers.

Sources:

<https://www.oecd.org/pisa/aboutpisa/pisa-for-development-participating-countries.htm> and
<http://saber.worldbank.org/index.cfm?indx=8&pd=5&sub=0>.

4 EQUITY

A. ACCESS AND INFRASTRUCTURE MATTERS

Access to education is one of the basic concepts of educational equity. Access is commonly measured using enrollment rates. In such terms, Zimbabwe has achieved widespread and nearly universal access in primary education: 92 percent of boys and girls aged 6-12 are enrolled in primary school (see Table 4). Except for Harare, no province has a net enrollment rate³⁴ below 90 percent for boys and girls. However, the story is different in ECD and secondary education. The net enrollment rate for ECD was only 25 percent in 2014, with Harare the lowest among provinces at 9 percent. Zimbabwe has commendable gender parity in ECD enrollment, and four provinces (Manicaland, Masvingo, Matabeleland North and South) have reached 30 percent net ECD enrollment. However, much work remains to be done to ensure adequate ECD coverage throughout Zimbabwe.

Table 4: Enrollment Rates by Level of Education and Sex, 2014

	MALE (%)		FEMALE (%)		TOTAL (%)		GPI	
	GER	NER	GER	NER	GER	NER	GER	NER
ECD (ages 4-5)	39.5	19.0	39.3	19.3	39.4	19.2	0.99	1.02
Primary (ages 6-12)	109.4	91.9	106.4	92.5	107.9	92.2	0.97	1.01
Lower Secondary / Forms 1-4 (ages 13-16)	73.2	50.8	73.7	56.7	73.4	53.7	1.01	1.12
Upper Secondary / Forms 5-6 (ages 17-18)	12.9	7.6	9.9	6.8	11.4	7.2	0.77	0.90

Notes:

¹ GPI = Gender Parity Index = female enrollment rate / male enrollment rate.

² GER = Gross Enrollment Rate (among children of all ages). NER = Net Enrollment Rate (among children of grade-appropriate ages).

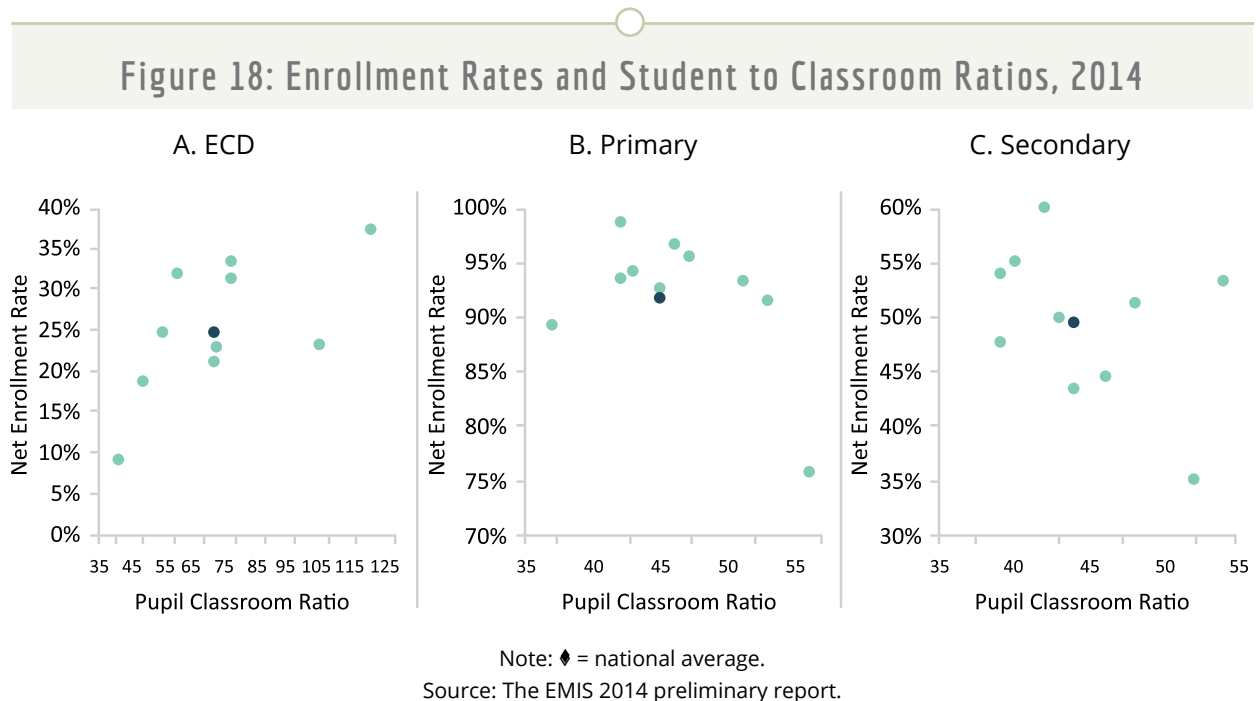
Source: The EMIS 2014 preliminary report.

Secondary education faces equity challenges, especially in the transition from lower to upper secondary school. Based on net enrollment, 54 percent of 13-16 year olds attend lower secondary (Forms 1-4), but only seven percent of 17-18 year olds enroll in upper secondary. Girls outnumber boys in lower secondary, though the gap is narrowed when considering gross enrollment rates. This implies that a larger share of boys enrolls in Forms 1-4 at a later age. In upper secondary, net enrollment rates are low for both boys (7.6 percent) and girls (6.8 percent). Gross enrollment rates for girls and boys

³⁴ *Net enrollment rates* are calculated as the number of children enrolled in each level of education from the appropriate age group (e.g., ages 3-5 for ECD) divided by the total number of children in appropriate age group. *Gross enrollment rates* are calculated as the total number of children enrolled, regardless of age, divided by the total number of children in the appropriate age group.

diverge in upper secondary – with boys attaining a gross enrollment rate of 13 percent and girls a gross enrollment rate of 10 percent. This suggests scope to encourage girls to continue studies in line with the SDG to eliminate gender disparities and ensure equal access to all levels of education. Both boys and girls enroll in A-level classes at a later than expected age. Net enrollment is starkly different across provinces in lower secondary, ranging from 43 percent in Harare to 65 percent in Mashonaland East, and in upper secondary, ranging from 3 percent in Matabeleland North to 10 percent in Bulawayo.

In many parts of Zimbabwe, access to education is impaired by inadequate infrastructure. In primary and secondary education, provinces with higher pupil per classroom ratios tend to have lower enrollment rates (see Figure 18). Harare also has the most crowded classrooms—56 students per primary classroom, and 52 per secondary classroom, substantially exceeding the national averages of 45 and 44, respectively. However, higher enrollment rates in ECD are associated with higher pupil per classroom ratios, suggesting schools may be reluctant to turn children away, instead opting to pack them into severely overcrowded classrooms. The quality of ECD likely suffers as a result. In some provinces, pupil per classroom ratios in ECD exceed 100, such as 107 in Mashonaland Central and 124 in Matabeleland North. Moreover, education authorities would likely find it difficult to provide a quality ECD education even at the national average of 73 children per classroom, suggesting a need to build or identify additional classrooms.



Expanding access to education in these areas requires scaling up public resources and capital investment to fill the infrastructure gap. The most pressing need is in ECD, where reducing the pupil per classroom ratio to 40 students will require at least 4,812 new ECD classrooms—almost double the current stock—assuming no increase in ECD enrollment. Reducing the ratios to 40 students per classroom in primary and secondary education will require constructing 7,911 new primary classrooms and 2,056 new secondary classrooms. Based on MoPSE estimates, these figures translate into a shortage of 1,252 primary schools and 804 secondary schools. The ECD program has been fully incorporated into the primary school curriculum under the Infant Module. The targeted 1,252 primary schools will be mandated to have full-fledged Infant Module Centres. Such ECD investments are anticipated to be included in the new Education Sector Plan for 2016-2020.

One concern about the boom of new community schools, which resulted from the 2000 land reform, is that many were not established in line with the normative framework. The rules of the Directors Policy Circular No. 73 of 1991, which guides the establishment and planning of new schools, were not fully applied in many recently set-up satellite schools. The MoPSE is making efforts to ensure that all schools established henceforth comply with guidelines, and is

considering amending the Circular to accommodate the Infant School Module (ECD). The MoPSE may give priority to public over private schools when establishing new institutions, with a view to reducing user fees in selected areas.³⁵

At present, infrastructure conditions in many schools do not provide an adequate learning environment. Half of Zimbabwe's schools report having no electricity, and one-third have insufficient or inconsistent water supply. Among primary schools, 52 percent lack electricity, though this share is even higher among P3 schools (58 percent), and primary schools in certain provinces, such as in Matabeleland North (67 percent). Sufficient and consistent water supply is available in only 65 percent of primary and 64 percent of secondary schools in the country.

B. RESOURCE ALLOCATIONS ACROSS SCHOOLS AND SCHOOL TYPES

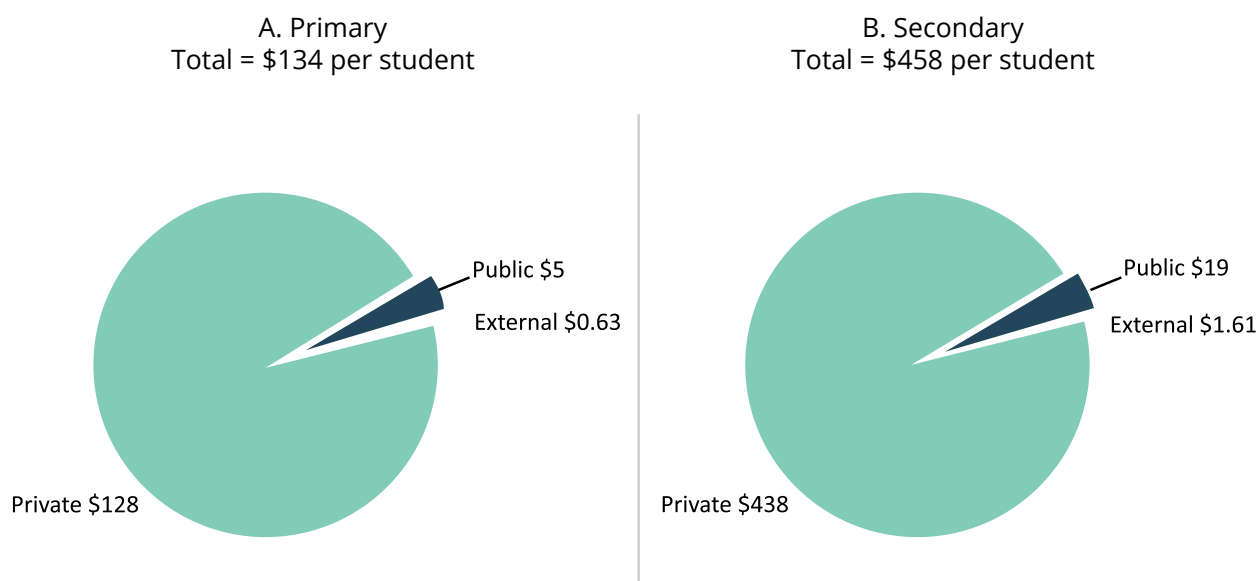
The resources available to different primary and secondary schools varies substantially across Zimbabwe. According to 2014 EMIS data, schools reported a total of \$814 million in income during the 2013 academic year. Of this, \$779 million (96 percent) came from private sources, \$32 million (4 percent) from public sources,³⁶ and \$3 million (0.4 percent) from external sources. This amounts to \$134 in school revenues per student enrolled in primary education, and \$458 per student in secondary education (see Figure 19). Private financing comes from a multitude of levies and fees. Invariably, schools serving children from more disadvantaged socioeconomic backgrounds have less capacity to collect private funds, leading to highly unequal resources available to different categories of schools.

Though public resources are generally allocated to categories of schools that have lower capacity to generate own-source revenue (such as P3 and S3 schools), the distribution of private funds raised by schools is highly regressive. Public financing is transferred to schools through four main channels: per capita grants, salary grants, building grants, and BEAM payments. All of these are distributed in a generally progressive manner. For example, a larger share of public transfers benefit P3 and S3 schools, whose students tend to come from the most disadvantaged backgrounds, who make up 79 percent and 69 percent of primary and secondary school students, respectively. External donor funds reach schools in a generally regressive manner: P1 and S1 schools receive four times as much funds per student as other schools. But the most regressive flows are from private sources. In 2013, P1 schools received \$608 per student in 2013—twice the amount received by P2 schools, and a staggering nine times more than P3 schools. Similarly, S1 schools—receiving \$1,827 per student—collected four times as much in fees and levies as S2 schools, and eight times more than S3 schools (see Table 5).

³⁵ The proliferation of community schools in rural areas has likely exacerbated the need for infrastructure investment in satellite facilities, which do not meet the standards to become registered schools. This, in turn, has led to higher fees to be charged to households in these areas.

³⁶ These totals exclude staff salaries, which are paid directly by the government and make up the vast majority of public spending on education.

Figure 19: School Spending per Student by Education Level and Funding Source, 2013



Source: Calculations using EMIS 2014 data.

Table 5: School Income per Student by Level of Education and School Category, 2013

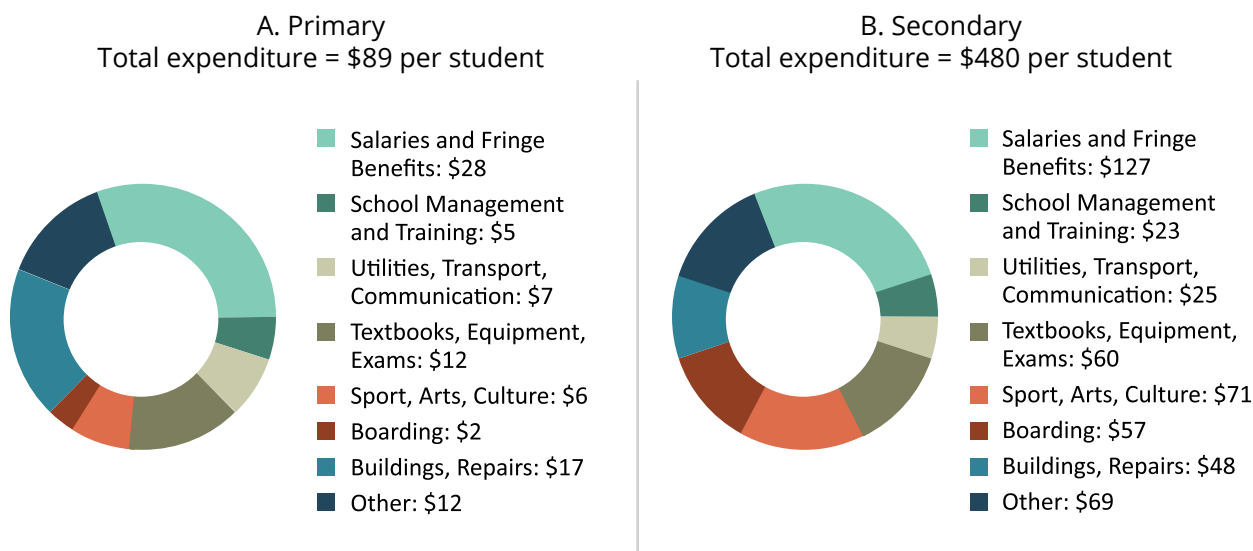
	TOTAL ENROLLMENT	TOTAL INCOME (US\$)	INCOME PER STUDENT (US\$)	Of which (\$):		
				PRIVATE	PUBLIC	EXTERNAL
Primary						
P1	140,562	86,143,013	613	608	3	1. ⁹⁴
P2	509,328	138,322,746	272	268	3	0. ⁴⁷
P3	2,386,888	181,685,080	76	70	5	0. ⁵⁹
Secondary						
S1	82,367	152,686,184	1,854	1,827	22	4. ⁹⁰
S2	196,654	95,268,389	484	474	9	1. ²⁴
S3	611,129	159,883,535	262	239	21	1. ²⁹

Source: Calculations using EMIS 2014 data.

Large differences in spending per student on categories ranging from textbooks to teacher training profoundly alter the opportunities available to students in different schools. Primary schools spent an average of US\$89 per student in 2013—just under a third of which went to salaries³⁷

and benefits (US\$28) and building construction and repairs (US\$17). Secondary schools spent five times as much—US\$480 per student—of which compensation made up a slightly smaller share (US\$127). The rest was spread more or less evenly across sports; textbooks and learning equipment; buildings and repairs; boarding, and other costs (see Figure 20).

Figure 20: School Spending per Student by Education Level and Category, 2013



Source: Calculations using EMIS 2014 data.

However, large differences in equity were observed in level of education. Primary schools in more affluent areas (P1) spent on average US\$634 per child, four times more than P2 schools and 14 times more than P3 schools (see Table 6). P3 schools spent only US\$45 per student in the 2013 school year—one-third of which (US\$14) funded building construction and repairs, with little left for textbooks and learning materials (US\$5) and school management and teacher training (US\$4). The differences are nearly as stark in secondary education. Though S1 schools spent US\$2,049 per student, S2 and S3 schools spent \$638 and US\$217, respectively. S1 schools thus spent three times as much as S2 schools, and nine times as much as S3 schools. In short, though P3 and S3 schools enroll three-quarters of all students in Zimbabwe, they have next to no resources that can be used on teacher training and learning materials—two crucial inputs in the educational process.

³⁷ This does not include the salaries of staff officially employed and paid by the government.

Table 6: School Expenditure per Student by Level of Education and School Category, 2013

	TOTAL ENROLLMENT	TOTAL EXPENDITURE (US\$)	EXPENDITURE PER STUDENT (US\$)	<i>Of which:</i>								
				SALARIES & FRINGE BENEFIT	SCHOOL MANAGEMENT & TRAINING	UTILITIES, TRANSPORT, COMMUNICATION	TEXTBOOKS, EQUIPMENT, EXAMS	SPORT, ARTS, CULTURE	BOARDING	BUILDING REPAIRS	OTHER	
Primary												
P1	140,562	89,110,942	634	316	28	58	51	12	23	65	80	
P2	509,328	73,822,220	145	38	7	15	36	9	2	15	23	
P3	2,386,888	108,459,511	45	9	4	2	5	5	1	14	5	
Secondary												
S1	82,367	168,775,448	2,049	721	81	109	139	269	278	145	307	
S2	196,654	125,441,547	638	145	29	25	81	169	60	53	76	
S3	611,129	132,772,786	217	41	13	13	43	13	26	33	34	

Source: Calculations using EMIS 2014 data

C. SCHOOL FEES AND LEVIES

As demonstrated above, private financing accounts for the overwhelming majority of resources available at the school level. According to 2014 EMIS data, virtually all schools charge some combination of levies and fees. The median amount charged by primary schools was \$40 per student in 2013. The median for secondary schools was \$95. These amounts vary widely across school categories—from \$36 in P3 schools to \$253 in P1 schools, and from \$80 in S3 schools to \$643 in the wealthier S1 schools.

Fees and levies finance everything from capital improvements and classroom construction to staff salaries and learning supplies. In 2013, the single largest category of private funds for primary schools was the building levy, which accounted for one-quarter (\$101 million) of all funds raised by these schools (see Table 7). The Centre/SDA levy (\$96 million) and the tuition fees (\$94 million) were not far behind. For secondary schools, tuition fees brought in the most revenue (\$112 million), followed by boarding fees (\$75 million) and the Centre/SDA levy (\$71 million).

Table 7: Top Categories of School Levies and Fees by Level of Education, 2013

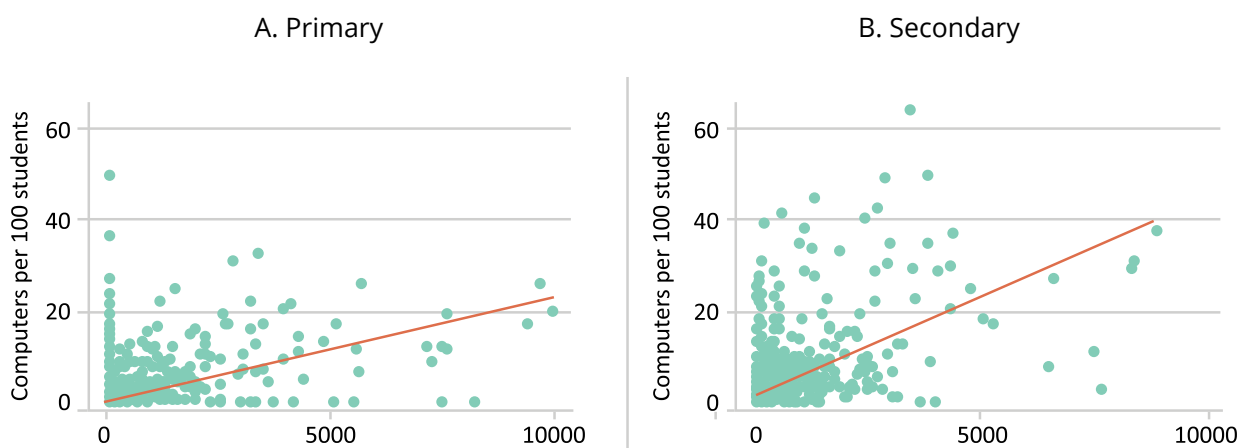
PRIMARY SCHOOLS		SECONDARY SCHOOLS	
1. Building Levy	\$101 million	1. Tuition Fees	\$112 million
2. Centre/SDA Levy	\$96 million	2. Boarding Fees	\$75 million
3. Tuition Fees	\$94 million	3. Centre/SDA Levy	\$71 million
4. General Purpose Fund	\$33 million	4. General Purpose Fund	\$25 million
5. School Activities (including Sports) Levy	\$21 million	5. Building Levy	\$19 million
Total Income of Primary Schools	\$406 million	Total Income of Secondary Schools	\$408 million
<i>Of which, Levies and Fees:</i>	<i>\$389 million</i>	<i>Of which, Levies and Fees:</i>	<i>\$390 million</i>

Source: Calculations using EMIS 2014 data

The level of fees and taxes collected at each school varied substantially according to parents' ability to pay. By law, the level of fees is set by the central government, agreed between the school administration and the respective SDC, and approved by the District Education Office. In reality, the payment demanded from families each term (combining all levies and fees) is often determined by the administration's assessment of what families can afford, along with school needs. Cases of non-payment are widespread, but a recent government decision has barred schools from denying education to children whose families cannot pay. Conversations with several heads of schools confirmed that this decision has resulted in lower levels of payment compliance.

Schools' heavy reliance on highly variable fees has created a system in which parents' ability to pay determines the availability of infrastructure and learning materials in a particular school, perpetuating inequalities. The number of computers in a school, for example, is closely related to the total amount of taxes and fees charged by the school. This relationship is particularly strong in secondary schools where fee levels explain nearly one-third of the variation in the total number of computers (see Figure 21). Also, investments in teacher training and school infrastructure reflect the level of private financing received by each school.

Figure 21: Number of Computers per 100 Students and School Fees, 2014



Note: A small number of outliers (10 schools) with fees exceeding \$10,000 are omitted from the analysis.

Source: Calculations using EMIS 2014 data.

At present, no equalization mechanism exists to ensure an adequate and equitable distribution of resources across Zimbabwe's schools.³⁸ Studies have shown that equalizing education financing can contribute to improvements in access to education and learning outcomes for disadvantaged populations.³⁹ The introduction of an equalization mechanism to allocate financial resources more equitably across schools and school types should, therefore, be considered in Zimbabwe—potentially within the framework of the existing BSP-Z program.



ANNEX 1: MoPSE BUDGET FINANCING OF EDUCATION

Table 8: MoPSE Budget and Expenditure, Economic Classification, 2009-15

	2009	2010	2011	2012	2013	2014	2015	% Change 2009 - 2014	Average 2009 - 2014
	<i>Budget (US\$)</i>								
Employment Costs	137,570,966	290,430,541	494,378,000	685,002,000	709,857,000	838,340,000	873,210,000	509%	525,929,751
Goods and Services	10,542,668	5,284,325	10,126,000	5,211,000	7,033,000	9,356,000	4,606,000	-11%	7,925,499
Maintenance	1,286,336	431,546	1,767,000	761,000	751,000	721,000	546,000	-44%	952,980
Current transfers	18,542,575	12,124,628	7,170,000	12,800,000	11,250,000	9,430,000	2,063,000	-49%	11,886,201
Programs	2,843,181	300,080	1,480,000	1,429,000	3,346,000	4,112,000	1,712,000	45%	2,251,710
Acquisition of fixed capital assets	4,145,120	1,389,604	3,743,000	4,500,000	7,900,000	7,710,000	5,535,000	86%	4,897,954
Capital transfers	2,399,880	3,192,999	-	1,500,000	10,000,000	7,000,000	2,465,000	192%	4,015,480
TOTAL	177,330,726	313,153,724	518,664,000	711,203,000	750,137,000	876,669,000	890,137,000	394%	557,859,575
<i>Expenditure (US\$)</i>									
Employment Costs	166,718,167	286,917,000	486,886,459	662,409,609	733,044,336	779,488,299	-	368%	519,243,978
Goods and Services	1,462,262	5,151,338	5,851,981	2,912,613	3,404,192	2,722,201	-	86%	3,584,098
Maintenance	154,671	420,750	915,833	589,038	465,423	437,998	-	183%	497,286
Current transfers	7,387,802	12,212,818	6,179,818	1,295,999	4,110,000	2,737,900	-	-63%	5,654,056
Programs	69,774	300,080	474,688	109,215	69,996	22,293	-	-68%	174,341
Acquisition of fixed capital assets	154,236	1,401,682	2,975,585	3,270,633	7,047,349	57,510	-	-63%	2,484,499
Capital transfers	438,561	3,292,999	-	-	-	2,000,000	-	356%	955,260
TOTAL	176,385,473	309,696,668	503,284,364	670,587,107	748,141,296	787,466,201	-	346%	532,593,518

³⁸ The MoPSE reports that an equalization grant was used in the past to provide additional funding to underfunded schools, but was discontinued during the 1990s.

³⁹ See, for example, Gordon and Vegas (2004), "Education Finance Equalization, Spending, Teacher Quality and Student Outcomes: The Case of Brazil's FUNDEF." Available at: http://www.rti.org/files/conferences/intl-educ-finance-05/background/equity/gordon_vegas_06_01_04.pdf.

Table 9: MoPSE Budget and Expenditure, Administrative Classification, 2009-15

	2009	2010	2011	2012	2013	2014	2015	% Change 2009 - 2014	Average 2009 - 2014
	<i>Budget (US\$)</i>								
Administration	20,421,798	6,996,796	9,850,000	10,082,000	9,910,000	13,770,000	13,045,000	-33%	11,838,432
Education Coordination and Development	935,664	2,641,205	6,383,000	6,435,000	8,428,000	8,652,000	5,887,000	825%	5,579,145
Secondary Education	46,473,153	102,057,201	163,726,000	235,937,000	247,190,000	295,120,000	297,830,000	535%	181,750,559
Primary Education	109,500,111	201,458,521	338,705,000	458,749,000	484,609,000	559,127,000	573,375,000	411%	358,691,439
<i>Of which:</i> <i>Junior Education</i>	109,500,111	201,458,521	338,705,000	458,749,000	484,609,000	553,692,000	571,604,000	406%	357,785,605
<i>Infant Education</i>	-	-	-	-	-	5,435,000	1,771,000	n/a	n/a
TOTAL	177,330,726	313,153,724	518,664,000	711,203,000	750,137,000	876,669,000	890,137,000	394%	557,859,575
<i>Expenditure (US\$)</i>									
Administration	10,967,966	7,030,354	9,385,186	9,893,597	8,643,650	9,462,902	-	-14%	9,230,609
Education Coordination and Development	195,695	2,740,677	3,810,728	3,044,674	8,127,563	1,565,977	-	700%	3,247,552
Secondary Education	54,954,952	102,187,980	168,928,069	226,856,698	256,359,765	273,014,882	-	397%	180,383,724
Primary Education	110,266,860	197,737,657	321,160,380	430,792,138	475,010,318	503,422,440	-	357%	339,731,632
<i>Of which:</i> <i>Junior Education</i>	110,266,860	197,737,657	321,160,380	430,792,138	475,010,318	503,022,440	-	356%	339,664,966
<i>Infant Education</i>	-	-	-	-	-	400,000	-	n/a	n/a
TOTAL	176,385,473	309,696,668	503,284,364	670,587,107	748,141,296	787,466,201	-	346%	532,593,518

**Table 10: MoPSE Education Budget and Expenditure,
Approximated Program Classification, 2009-15⁴⁰**

	2009	2010	2011	2012	2013	2014	% Change 2009 - 2014	Average 2009 - 2014
	<i>Budget (US\$)</i>							
Program 1: Management and Support Services	16,619,004	5,175,580	8,730,714	8,408,302	8,431,520	11,987,350	-28%	9,892,079
Program 2: Education Research and Development	769,173	2,584,332	3,071,000	2,935,000	1,424,400	2,651,040	245%	2,239,157
Program 3: Infant Education	19,200,649	36,261,426	63,281,196	85,634,566	89,808,796	108,828,532	467%	67,169,194
Program 4: Junior Education	92,872,296	166,623,106	278,042,467	376,214,652	400,350,558	454,896,301	390%	294,833,230
Program 5: Secondary Education	47,058,011	102,050,334	163,975,658	236,387,642	248,618,517	296,538,022	530%	182,438,031
Program 6: Learner Support Services	811,593	558,946	1,562,965	1,532,837	1,503,209	1,767,755	118%	1,289,551
TOTAL	177,330,726	313,253,724	518,664,000	711,203,000	750,137,000	876,669,000	394%	557,876,242
<i>Expenditure (US\$)</i>								
Program 1: Management and Support Services	10,736,879	5,097,278	8,551,683	8,070,010	7,999,245	8,697,000	-19%	8,192,016
Program 2: Education Research and Development	195,503	2,683,803	893,456	973,316	1,105,193	1,565,977	701%	1,236,208
Program 3: Infant Education	20,607,684	35,575,152	60,439,874	81,649,121	90,587,951	94,168,645	357%	63,838,071
Program 4: Junior Education	89,690,666	163,595,510	263,404,850	351,602,921	389,804,917	409,323,795	356%	277,903,776
Program 5: Secondary Education	54,952,679	102,185,864	169,222,136	227,505,442	257,830,152	272,944,882	397%	180,773,526
Program 6: Learner Support Services	202,063	559,060	772,366	745,752	813,838	765,902	279%	643,164
TOTAL	176,385,473	309,696,668	503,284,364	670,587,107	748,141,296	787,466,201	346%	532,593,518

⁴⁰ This program structure was agreed to by the MoPSE in February 2015. Note that these are estimates only, based on assumptions developed for the 2015 budget to map expenditures from individual line items to programs.



ANNEX 2: DONOR FINANCING OF EDUCATION

Table 11: Funding of Major Activities Under the EDF, 2012-2014

	2012	2013	2014	2015	Overall
	Disbursed	Disbursed	Estimated	Planned	
(i) School and Systems Governance, including school grants	3,790,280	8,487,105	25,934,678	27,469,000	65,681,063
Sector Wide Planning	1,066,796	188,794	915,648	335,000	2,506,238
School Improvement Grants	1,166,652	6,562,788	23,267,393	26,379,000	57,375,833
School monitoring, supervision & support	1,556,831	1,735,524	1,751,637	755,000	5,798,992
(ii) Quality of teaching and learning	13,535,204	11,652,900	4,351,961	6,711,000	36,251,065
Teacher Quality	1,115,320	2,097,942	1,710,927	3,605,000	8,529,189
Learning Outcomes					
Purchase and delivery of teaching & learning materials	380,979	268,256	876,910	1,415,000	2,941,145
ZELA learning assessment	2,311,597	7,543,182	947,287	650,000	11,452,066
ZELA learning assessment	1,997,398	646,906	816,837	1,041,000	4,502,142
Provision of text books	7,729,910 ⁴¹	1,096,614	-	-	8,826,523
(iii) Out-of-school young people	120,663	2,150,072	4,005,193	1,587,000	7,862,929
Policy sector analysis	-	-	30,822	157,000	187,822
Return to Mainstream Education	-	1,389,560	2,531,526	1,430,000	5,351,086
Out of school technical education	120,663	760,513	1,442,845	2,560,000	4,884,020
Administrative Costs	1,091,903	1,848,887	1,899,975	1,800,000	6,640,765
TOTAL	18,538,050	24,138,964	36,191,807	37,567,000	116,435,821

Table 12: Major Contributors to the EDF, 2012-2014

<i>(Current US\$ million)</i>	2012	2013	2014	Overall Received
	Received	Received	Received	
DFID	14,196,469	11,048,988	10,619,220	35,868,464
EC	5,672,229	15,645,153	945,517	21,560,554
Germany	13,337,579	7,395,767	19,131,538	38,431,277
Finland	3,688,732	3,032,192	92,808	6,883,996
Norway	6,689	-	-	6,689
Sweden		500,000	-	500,000
OSISA	691,686	215,320	1,869,159	2,776,165
Pooled (DFID, AusAID, Finland, New Zealand)	2,377,627	-	-	2,377,627
TOTAL	39,971,011	37,837,420	32,658,242	108,404,771

⁴¹ These textbooks were purchased in 2011.

Table 13: GPE Funding, 2014/15

<i>(Current US\$)</i>	Budget Received to Date	Cumulative Spending to May 2015
Component 1		
1.1 Early Reading Initiative	3,211,960	1,745,153
1.2 Performance Lag Address Programme	3,354,449	1,168,140
Component 2		
2.1 Teacher Professional Standards	1,854,583	1,328,971
2.2 Teacher Development Information System	2,691,294	1,287,742
Component 3		
3. Education Sector Plan 2016-2020	434,900	105,950
Management and M & E costs	923,167	716,267
Harare Overheads	315,702	176,483
TOTAL	12,786,055	6,528,705

Table 14: Unit Costs from the EDF, 2012/13-2014/15

Unit Cost	Definition	Baseline	2013/14	2013/14	2014/15
Text book unit cost (Primary School Text Book-core)	Av cost per school textbook procured including delivery	\$4 in ETF 1 and \$2 in EDF	\$0.86	\$0.86	\$0.86
Text book unit cost (Primary School Text minor Languages)	Av cost per school textbook procured including delivery for minor Languages -Tonga and Sesotho	No baseline set			\$11.11
Text book unit cost (Secondary School Text Book)	Av cost per school textbook procured including delivery	\$2	\$1.32	\$1.32	\$1.32
Text book unit cost (Secondary School Text book- minor Languages)	Av cost per school textbook procured including delivery for minor Languages -Tonga and Sesotho	No baseline set			\$3.82
Teacher Training cost	Average cost per teacher for the delivery of training	No baseline set	\$406	\$708	\$660
Teacher Training cost-Science Kit	Av cost per teacher trained on Science kit	No baseline set		\$230.82	\$230.82
Unit cost of provision of materials – Science Kits unit cost	Ave cost per science kit procured and delivered.	\$4,000	-	\$3,532.62	\$3,532.62
Cost of delivering per capita grant per pupil per year	Total expenditure per pupil (including overheads) under the school grants program, divided by number of children	\$10	\$115.95	\$102.70	\$9.64
Cost of conducting a school visit		No baseline set			\$22.00

Source: UNICEF

