Background Paper

Equitable Financing of Secondary Education in Sub-Saharan Africa

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Secondary Education in Africa:

PREPARING YOUTH FOR THE FUTURE OF WORK

This paper was prepared for the Mastercard Foundation report, *Secondary Education in Africa: Preparing Youth for the Future of Work.* The opinions, findings, and conclusions stated herein are those of the authors and do not necessarily reflect those of Mastercard Foundation.

Equitable Financing of Secondary Education in sub-Saharan Africa

Background paper for the Mastercard Foundation

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Acronyms

CDSS	Community Day Secondary School
DFID	Department for International Development
EMIS	Education Management Information System
ETP	Education and Training Policy
FPE	Free Primary Education
GDP	Gross Domestic Product
GPE	Global Partnership for Education
IEC	Internal Efficiency Coefficient
JCE	Junior Certificate Examination
KCPE	Kenyan Certificate for Primary Education
MSCE	Malawi School Certificate of Education
NESP	National Education Sector Plan
NRP	National Reading Programme
PASEC	Analysis Programme of the CONFEMEN Education Systems
PSLCE	Primary School Leavers Certificate Examination
PSLE	Primary School Leaving Examination
PTR	Pupil Teacher Ratio
ODA	Official Development Assistance
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
USAID	United States Agency for International Development

Summary and recommendations

This report considers key trends in secondary education in particular with respect to enrolment and domestic and aid financing from an equity perspective. While many national governments and international donors have shifted their spending from primary to secondary education since the early 2000s, it is evident that unfinished business remains with respect to primary education, with the poorest and most disadvantaged still unlikely to complete a full cycle of primary education. Even when they do, many are not learning the basics, and their chances of transitioning into secondary education is much lower than their more advantaged counterparts. In order for countries to achieve the Sustainable Development Goal 4 targets by 2030, the way in which governments and international donors disburse their resources will have a huge bearing on countries being on track to ensure no one is left behind. Overall, the report supports the Education Commission recommendation of progressive universalism. Based on the findings, the paper makes the following recommendations:

1. Many children and young people from disadvantaged backgrounds do not complete primary school, with the most disadvantaged continuing to drop out at a faster rate as they progress through the secondary system. In 17 out of 40 countries with data, only around one in three poor rural girls manage to complete a full primary cycle: **To ensure Sustainable Development Goal Target 4.1 is achieved, governments and donors need to invest resources to mitigate those factors which are causing children from disadvantaged backgrounds to drop out before completing primary school**. From a financing perspective, this includes reducing the out-of-pocket expenses poor households are still expected to contribute towards sending children to primary school.

2. Despite unfinished business remaining at primary level, governments and international donors continue to prioritise spending towards post-secondary education even though a negligible number of the poorest reach this state. In 2016, donors disbursed close to one third of their aid to education to post-secondary education. Nine sub-Saharan African countries spend more on post-secondary education than on secondary education: **Governments and donors must follow the principle of progressive universalism when allocating resources, targeting them in a way to ensure the most disadvantaged to ensure no child is left behind.**

3. Universal abolition of secondary school fees is likely to be regressive where large numbers of disadvantaged children and young people have not completed primary school. **Resources need to be targeted at the most disadvantaged students who make the transition to secondary school to enable them to meet costs such as uniform, transport and boarding, for example through bursaries. Greater use of formula funding is also needed to redistribute resources to geographical locations and schools that need them most**

4. Government spending within secondary education is likely to be inequitable and is sometimes inefficient: **The current two-tier secondary school system in many African countries, where an elite tier of government schools consumes the majority of public secondary school resources, needs to be reversed.** Currently the high costs of these schools are a drain to finite resources and perpetuate inequities. In addition, cost per secondary school student could be reduced where pupil-teacher ratios are currently low. This might be achieved as the system expands.

5. Governments are allocating a very small proportion to capital expenditure, even though there is a lack of secondary school infrastructure particularly in rural areas. The latest data shows that capital spending make up more than 25% of total secondary education spending in just four countries. Aid donors are currently allocating a significant proportion of the spending to vocational education, even though very few are enrolled in this form of education. **More careful consideration is needed with respect to how government and donors spend their resources within secondary education.**

Introduction

The shifting demographic of different world regions illustrates how sub-Saharan Africa's population is younger than any other in the world. While 26% of the world's population is aged 0-14 years, the equivalent for Africa was 43%. Similarly, 15-24 year olds make up 16% of the total world population, while that for sub-Saharan Africa, they comprise 20% (UN Population Division, 2017). Forecasts predict that the population of sub-Saharan Africa is set to double to nearly 2 billion by 2050. This translates into an additional 250 million primary and secondary school aged children, a 90% increase compared to current levels (DFID, 2018). Planning for the provision of education and employment opportunities for all these children and adolescents with a particular focus on leaving no one behind, is an important focus of the 2030 Agenda for Sustainable Development. With respect to secondary education specifically, Target 4.1 of the Sustainable Development Goals proposes that, by 2030, *"all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes."* This has been translated into the provision of 12 years of primary and secondary education, of which at least nine years – which is commonly associated with the end of lower secondary – is free and compulsory (UNESCO, 2016). In the sub-Saharan African region primary school enrolments have risen dramatically over the past two decades with the roll-out of fee-free primary education, although many of the most disadvantaged still do not make it to the end of primary school. Moreover, secondary school enrolment rates currently remain low, especially for the most disadvantaged groups. Both governments and international organisation are increasingly prioritising secondary education with a question of whether this is being done in a way that promotes equity.

The paper will provide an assessment of recent trends in enrolment and financing of secondary education in sub-Saharan Africa, placing these in the context of trends across other levels of education. It focuses primarily on public spending from domestic and aid from the perspective of leaving no one behind. We recognise the importance of other sources of funding and, where possible, identify the implications of household spending in particular. However, as noted by the UNESCO Institute for Statistics (2017), reliable data in the region are sparse: only eight household surveys are identified that include reliable information. Philanthropic giving is another potential source of funding for education. However, recent analysis by OECD (2018) shows that this is extremely small even relative to aid (equivalent to just 5% of total aid), and is highly skewed towards health. Of the total amount identified, education receives around 10%. Of overall education spending, secondary education receives 4% and vocational education receives 6.7%. With around 28% of education-related philanthropic spending in Africa (primarily South Africa and Kenya), it is very unlikely that it is currently contributing in any meaningful way in financial terms to most countries in the region.

Based on the observed financing trends, it will propose an approach to funding the necessary expansion in secondary education in Africa from a 'progressive universalism' perspective (linked with the recommendation in the 2016 Education Commission 'Learning Generation' Report).

Section 1: Enrolment Trends

National enrolment trends at secondary for sub-Saharan African

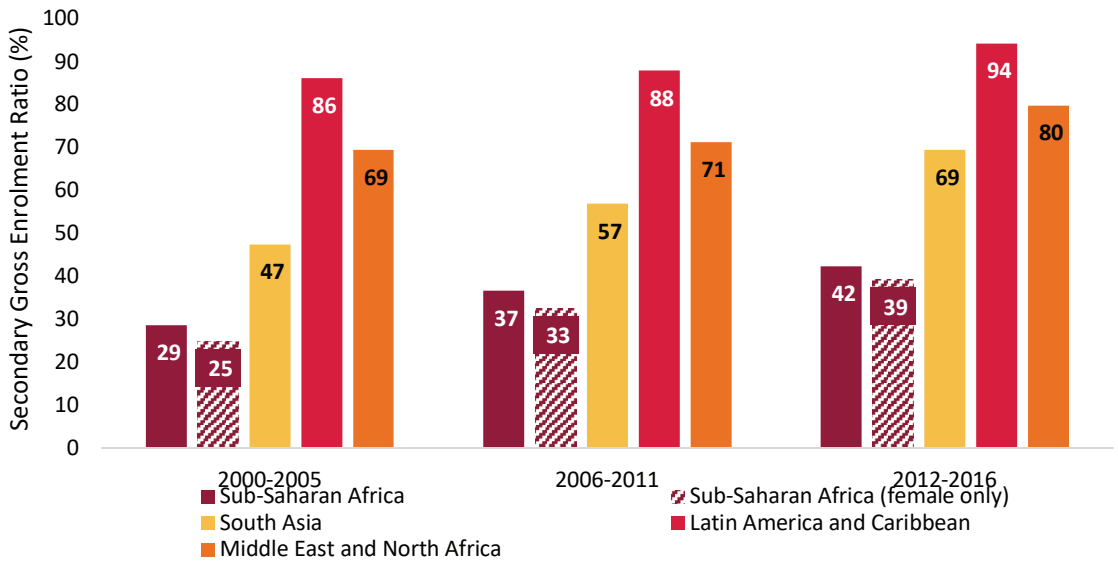
In 2016, 57 million children in sub-Saharan Africa were enrolled in secondary school. This is more than double the numbers in secondary school in 2000. The increase in enrolment of 6% per year between 2000 and 2016 is significantly faster than the developing country average of 2% over the same period. Based on available data from the UNESCO Institute for Statistics (UIS), the majority of students enrolled in secondary institutions are those attending formal secondary schools. Of the 57 million enrolled at secondary level in 2016, 54 million were in formal secondary institutions compared with four million in technical and vocational colleges.[i] Of the 34 sub-Saharan African countries with data, in 27 countries less than 10% of those enrolled at secondary institutes were in vocational courses.

While secondary school enrolments have expanded at a faster rate in sub-Saharan Africa compared to other regions, given this has not kept pace with the rapid growth in the secondary school-aged population, the latest enrolment rates from UIS indicate that the sub-Saharan African region still lags behind that of other developing regions. Even though the secondary gross enrolment ratio has steadily, it has not yet caught up with the ratio in South Asia in the period 2000-2015 **(Figure 1A).** With respect to age-appropriate enrolment, only around one-in-three secondary school aged children in sub-Saharan Africa were enrolled in secondary school over 2012-2016. This has risen slightly from around one-in -four adolescents over 2000-05 **(Figure 1B).**

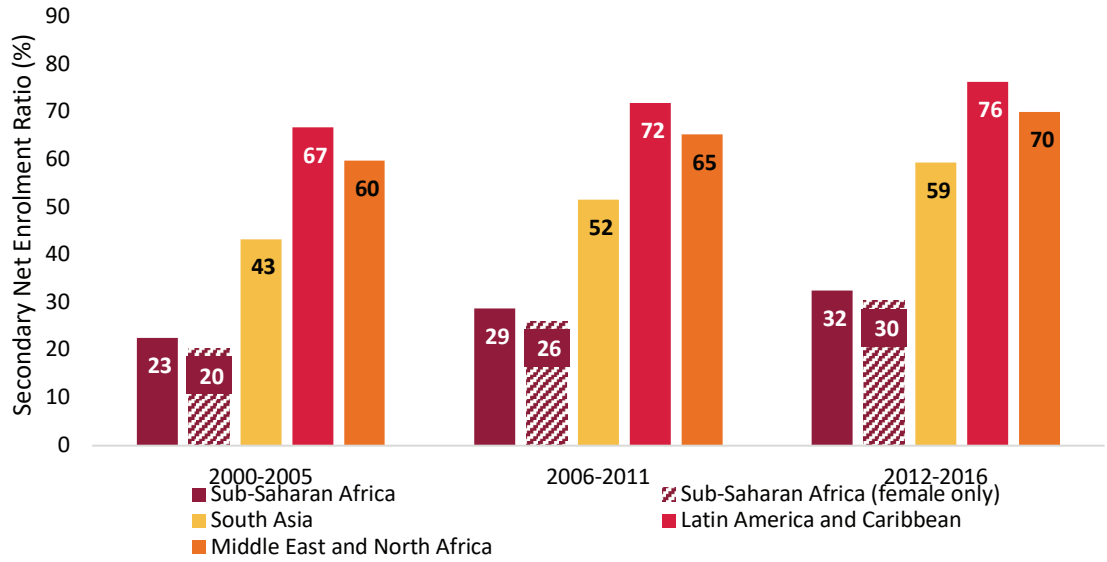
Figure 1: Despite an increase in secondary enrolment over the last decade, sub-Saharan Africa still lags behind other regions

Secondary enrolment ratios over the periods 2000-05, 2006-11 and 2012-16

A. Gross enrolment ratios



B. Net enrolment ratios

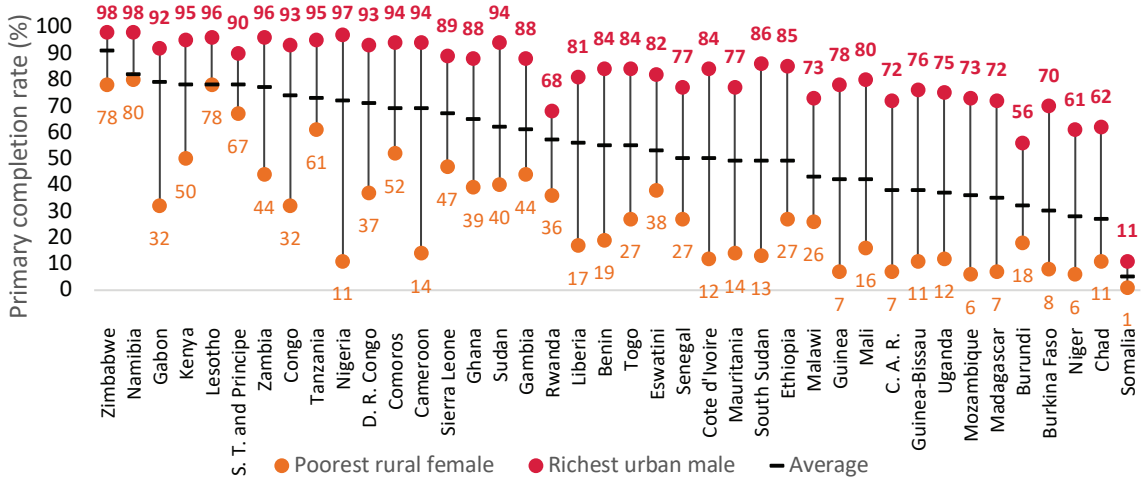


Source: UNESCO-UIS (2018). *Accessed June 2018.*

Secondary school enrolment for different sub-groups at national level

National average enrolment levels mask the huge differences for different population groups, including with respect to wealth, gender and location. Gaps in enrolment are already apparent at the primary level. In Nigeria, for instance, there is almost universal primary completion for the richest boys in urban areas, but only around 11 out of every 100 of the poorest girls in rural areas complete primary school. In 37 out of 40 countries, for every 100 children enrolled, 30 or more complete a full cycle of primary school, on average. Restricting this to poor girls living in rural areas this drops to 17 out of 40 countries **(Figure 2).**

Figure 2: In most countries in the region, primary completion is high amongst the most advantaged, but many of the most disadvantaged fail to complete primary education
Primary completion rates for advantaged children and their disadvantaged peers

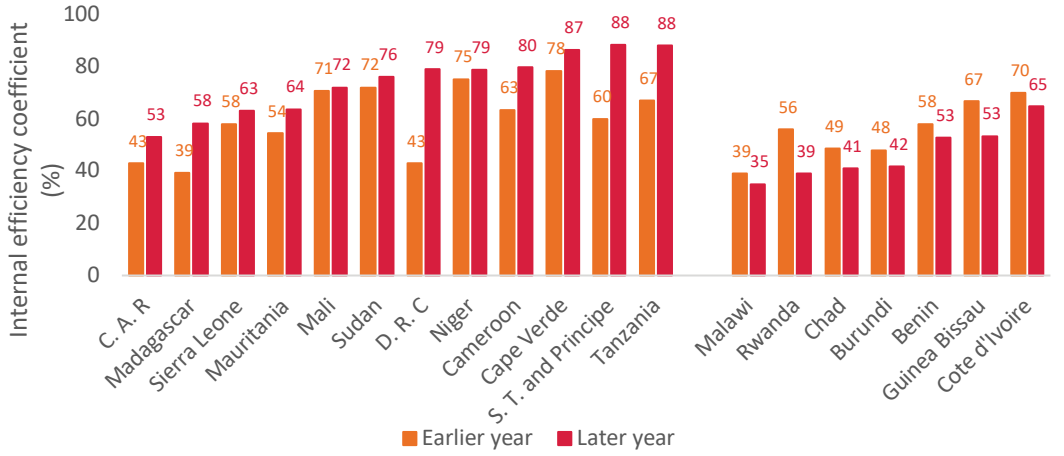


Source: UNESCO-WIDE (2017). *Accessed November 2017.*
Notes: [1] Based on latest household data collected by Multiple Indicator Cluster Surveys (MICS) and Demographic Household Surveys (DHS) between 2006 and 2016.

In addition to the low levels of primary school completion, many education systems, already under resource pressure, are investing in children who are forced to repeat many grades before eventually dropping out of the system. This not only is to the detriment of the children, but also represents a

huge inefficiency for these education systems. In Malawi, for instance, the large rates of repetition and dropout mean that the system is investing 65% of resources in children who will repeat and eventually drop out of the primary system before completing and unlikely to have gained the foundational literacy or numeracy skills. The Internal Efficiency Coefficient (IEC) – a measure which compares the ideal versus the actual number of pupil years required to produce a graduate – is one measure of how efficient a system is.[ii] The closer to 100% the IEC is the more "efficient" the system. **Figure 3** compares this across 19 sub-Saharan African countries for which data exist. Some countries, such as Tanzania, appear to have improved the efficiency of their systems, while others like Burundi, Chad, Malawi and Rwanda have inefficient systems according to this measure.

Figure 3: Some countries continue to experience inefficient primary education systems
Internal efficiency ratio of primary school systems in selected countries (2000-12)



Source: Country Status Reports, selected years.

Even if children succeed in graduating from primary education, they are likely to face challenges in accessing secondary education. One estimate is that just one-in-three adolescents in sub-Saharan Africa who qualify for a secondary school place can be accommodated due to limited places. This is particularly the case for youth living in rural areas where secondary school facilities are more scarce (AAI, 2015). Where children do manage the transition into secondary schools, inequities persist. The elitist system many African countries inherited prior to their independence in the 1950s and 1960s has often created a two-tiered secondary schooling system that still exists today. In Malawi, for instance, better-resourced boarding schools have greater rates of retention and learning outcomes for children who are able to transition into these types of secondary schools compared with those attending community secondary schools (De Hoop, 2010). Community secondary schools, where fees are lower, continue to be attended by children largely from poorer households. They are inadequately financed by government and fail to ensure the minimum quality of secondary education (Chimombo, 2010) (see Annex Malawi Country Profile).

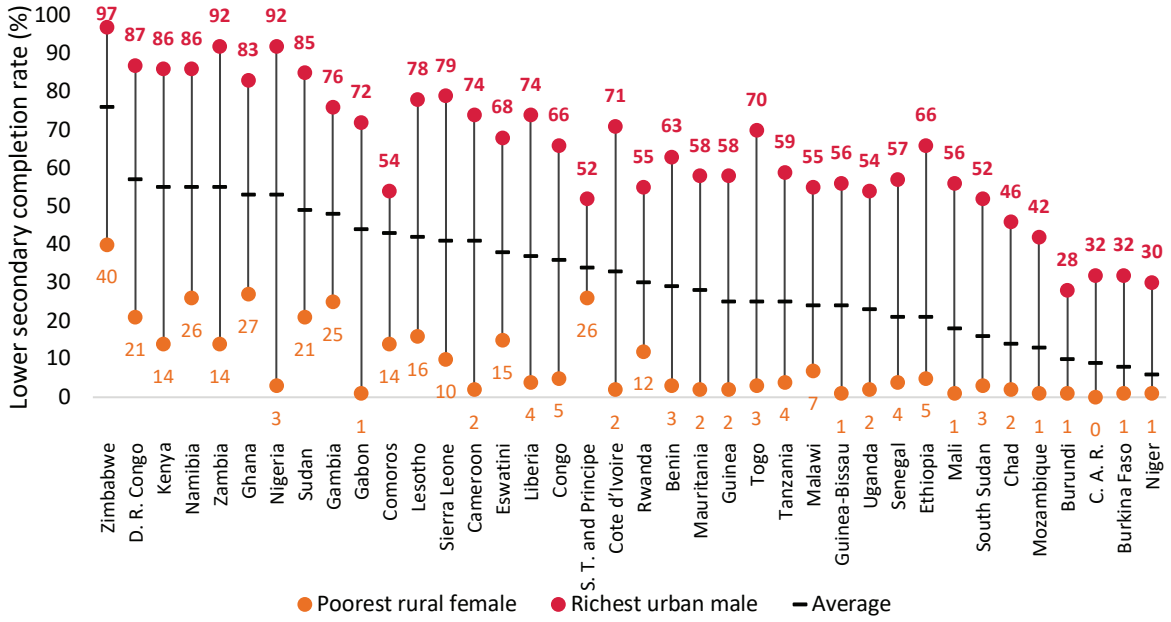
A large percentage of those identified as disadvantaged adolescents will fail to complete the lower secondary cycle. In fact only in Ghana, Namibia, Sao Tome and Principe and Zimbabwe do at least 25 out of every 100 poor rural girls complete the lower secondary cycle. For 24 out of the 38 countries with data, less than one in ten poor, rural girls complete lower secondary education **(Figure 4A).**

Of the 23 countries with comparative data from an earlier period, 20 have seen an overall improvement in rates of completion at lower secondary level. Three countries – Burkina Faso, Togo and Eswatini (formerly Swaziland) – have seen rates of completion deteriorate **(Figure 4B)**. When unpacking the rates in progress by group, 16 countries saw lower secondary completion rates

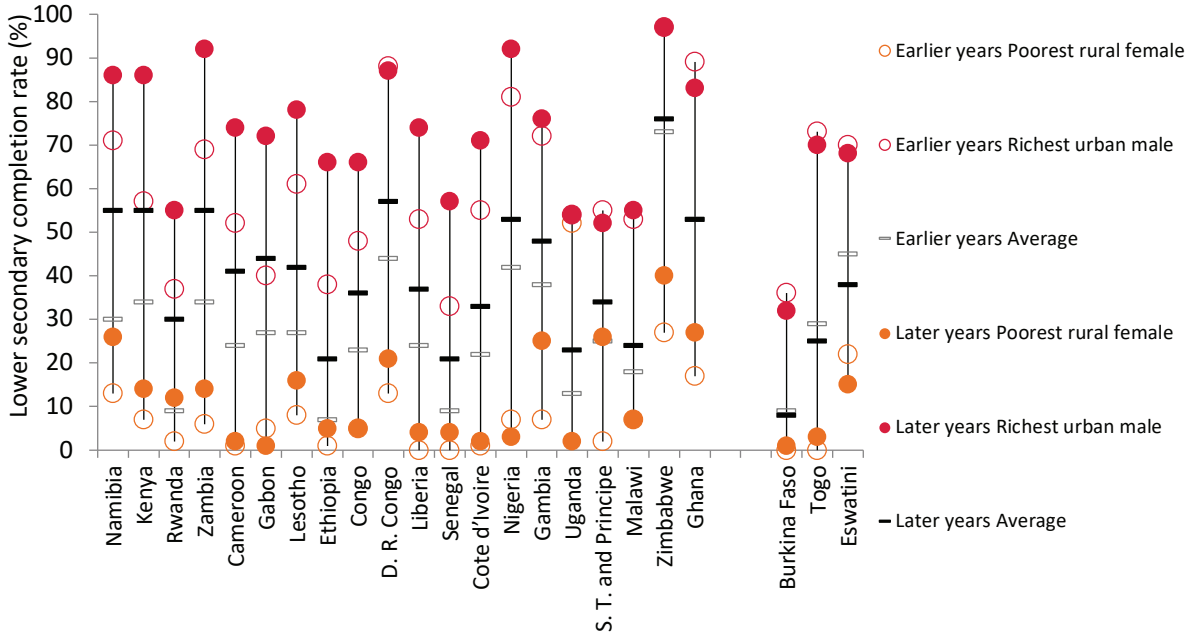
increase more for advantaged groups compared to those who are relatively more disadvantaged. In these countries the gap in rates of progress to complete lower secondary education, therefore, increased over time between the most advantaged and the most disadvantaged. In Kenya, for instance, completion rates at lower secondary level increased from 34% in 2003 to 55% in 2014. However, this disguises the uneven progress between groups. The proportion of rich, urban boys completing lower secondary rose steeply from 57% to 86% over this period. The increase in the proportion of girls from poor rural households completing lower secondary education was much less significant, rising from 7% to 14% over the period. Gambia presents a different picture, where the gap between the two groups narrowed. The proportion of rich, urban boys completing lower secondary rose from 72% to 76% between 2005 and 2013. Levels of lower secondary completion for poor, rural girls – starting from an admittedly low baseline – rose from 7% and 25%.

Figure 4: Few from the most disadvantaged backgrounds complete lower secondary school
Lower secondary completion rates for advantaged and disadvantaged children

A. Latest year for which household data is available



B. Earlier and latest data for which household data is available



Source: UNESCO-WIDE (2017). *Accessed November 2017.*
Notes: [1] Based on household data collected by Multiple Indicator Cluster Surveys (MICS) and Demographic Household Surveys (DHS) between 2006 and 2016.

Using data from household surveys to estimate the share of children who enter the primary schooling system complete, and transition through the primary, lower secondary and upper secondary cycle is also instructive. In Ghana, the differences between the most advantaged and disadvantaged children is already evident at the point of primary completion and the gap remains similar throughout all stages of the education cycle (**Figure 5A**). This differs from Kenya, where the gap between disadvantaged and advantaged grows as children progress throughout the system and peaks at the point of lower secondary completion (**Figure 5B**). In the case of Rwanda and Tanzania, the gaps narrow in later parts of the education system. However, this is largely attributable to a large share of even the most advantaged failing to progress through later levels in the education system indicating a more general problem of system efficiency (**Figure 5C and 5D**).

Comparing across countries is also instructive. A poor rural girl has a greater chance of completing a full cycle of primary education in Tanzania compared to in Kenya. However, a girl who has completed primary education in Kenya is more likely to transition into secondary school compared to her counterpart in Tanzania.[iii] In all four countries, even if the most disadvantaged children transition into lower secondary few manage to complete a full cycle of lower secondary education.

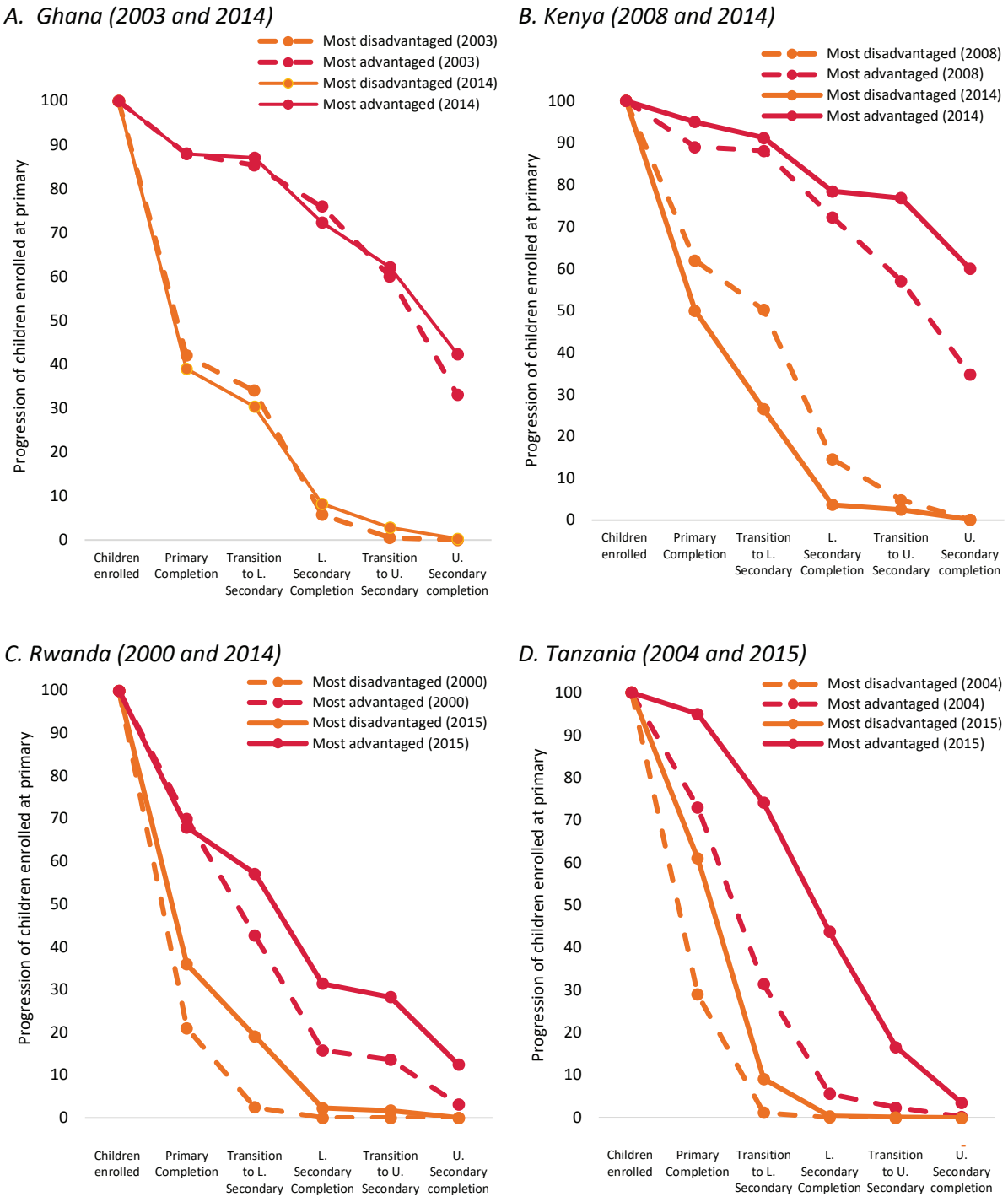
In the case of Ghana, progression throughout the system has stayed stagnant over the time period considered **(Figure 5A).** In Kenya, there have been improvements in progression for the most advantaged but for the most disadvantaged groups the situation has worsened **(Figure 5B).**

Across time, Rwanda and Tanzania have seen improvements in progression for both the disadvantaged and advantaged children. In Rwanda, for instance, the most recent data indicates that 36 out of 100 girls will complete primary school – while this is still low, it is an improvement from 2000 when it was just 21. Transition to secondary has also improved from a very low base, resulting

in the gap between the most disadvantaged and advantaged children has somewhat closed. In 2000 only three poor, rural girls out of 100 who were enrolled at primary school transitioned on to secondary school. In 2014, the equivalent was 19. The equivalent for rich, urban boys over the same time frame was an increase from 43 to 57 students. However, the most disadvantaged continue to be left behind when it comes to completing lower secondary while, at the same time, there have been improvements for the most advantaged. Gaps between the two groups begin to widen at the point of lower secondary completion and are larger in 2014 than they were in 2000 **(Figure 5C).** In Tanzania, similarly, there has been considerable progress for those from the most disadvantaged groups completing a full cycle of primary education. Between 2004 and 2015, for every 100 girls enrolled at primary level those who completed primary school increased from 29 to 61. Among sub-Saharan African countries, this is one of the highest rates of completion for poor girls in rural areas**.** However, the numbers of poor, rural girls transitioning to secondary school has not significantly increased, while the proportion of boys from rich urban backgrounds enrolled a primary who transition into secondary education has significantly increased **(Figure 5D).**

It is further important to highlight that disadvantaged adolescents are still be in primary school. Of the poorest 10-19 year olds, around one-third are still in primary school. Notably also, by this age a sizeable proportion have never attended school, with a slightly higher proportion for girls than boys (16.4% and 12.5% respectively) **(Figure 6)**. This again highlights the need to address progress through the earliest years of the system if universal secondary education for all is to be achieved.

Figure 5: In countries where fee-free secondary education has been introduced the share of disadvantaged children progressing into, and completing, secondary school remains negligible
Progression of children who enrol in primary school through primary and secondary education

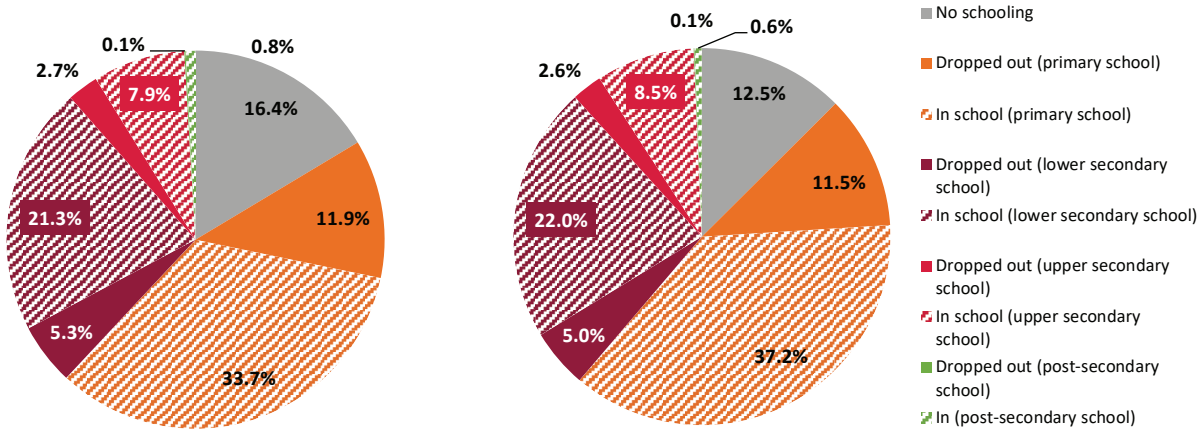


Source: Authors' calculations based on UNESCO-WIDE (2017). *Accessed November 2017.*
Notes: [1] "Most disadvantaged" refers to poor, rural girls and "most advantaged" refers to rich, urban boys; [2] Based on household data collected by Multiple Indicator Cluster Surveys (MICS) and Demographic Household Surveys (DHS); [3] Data on primary completion, transition to lower secondary, lower secondary completion, transition to upper secondary and upper secondary completion are all taken from household surveys in a particular given year. They therefore do not correspond to the same cohort. They have been taken as proxies to following children who have enrolled in primary school throughout the system, based on the current rates of transition and completion.

Figure 6: Many of the most disadvantaged adolescents in sub-Saharan Africa are still in primary school

Distribution of disadvantaged (poorest quintile) 10-19 years old by education status, latest year available

A. Girls *B. Boys*



Source: UNICEF

Trends in learning

It is vital to look beyond enrolment patterns to identify the extent to which children are learning once in school. Information on this is sparse, even more so with respect to secondary education. According to the 2017 Global Education Monitoring Report (GEMR), only 13 countries in sub-Saharan Africa have data available from a national assessment at the end of lower secondary school of relevance for reporting to SDG4.1 (UNESCO, 2017b). Internationally comparable data on learning at the secondary level are even less common. The 2017 GEMR includes data on mathematics from the 2015 grade 8 TIMSS, which only includes Botswana and South Africa from the region. In both countries, fewer than half have reached the minimum proficiency level. The situation is likely to be even worse given that some of those most at risk of not learning are likely to have already dropped out by this stage.

The problem with poor learning starts earlier in the system. The 2013/4 Education for All Global Monitoring Report found that, in sub-Saharan Africa, just 40% of children reach Grade 4 and achieve basic reading skills (UNESCO, 2014). Comparing the rates of those who acquired the basics in reading skills by group indicates the far greater risk of those from disadvantaged backgrounds falling behind compared to their more advantaged peers. Results from the 2017 SACMEQ[iv] (the latest regional data available for Southern and Eastern Africa), for instance, show that including all children, whether in school or not, there is a large gap in attaining the basics between rich, urban boys and poor, rural girls. In Malawi, Uganda and Zambia, for instance less than 10% of poor, rural, girls are learning the basics. The equivalent for rich, urban boys is above 40% (UNESCO, 2014). Rose et. al (2016) further show that, where primary completion rates are below 50%, the gender learning gaps are wider, with poverty compounding these gaps. According to PASEC[v] data, only two girls for every three boys reached minimum proficiency in mathematics in grade 6 in Chad and Niger in 2014 (UNESCO, 2017). These gaps are likely to persist into the secondary cycle, or worsen as those not reaching minimum standards are most likely to dropout.

Section 2: Public domestic expenditure on secondary education in sub-Saharan Africa

Introduction

The Education Commission has estimated the financing needs for sub-Saharan Africa to reach the secondary education targets by 2030 to be US$73.4 billion per year between now and 2030. Of this US$38 billion is for lower secondary, while US$37.4 billion per year will be required for upper secondary levels. The Commission forecasts that financing needs to meet the secondary education goals make up around one-third of all the resources needed to meet the education goals in the region.

The overwhelming majority of resources for sub-Saharan African countries to meet these financing requirements are expected to come from domestic government resources. While international development assistance still remains vital for many of the poorest countries, the growth in the economies of many countries over the last fifteen years indicates that it is less significant than previously. International development assistance as a share of GDP has fallen in 28 out of 45 sub-Saharan African countries between 2002 and 2016.[vi]

This section considers current patterns in domestic government spending, how this relates to resources required to meet the goal of universal secondary education and the extent to which this meets the objective of 'progressive universalism.'

Share of national wealth spent on secondary education

At the global level the latest UNESCO data on government spending indicates that domestic spending on education as a share of GDP has increased from 4.3% to 4.8% between the periods 2000-05 to 2012-17. For sub-Saharan African governments the share has risen from 3.8% to 4.3% over the same period **(Table 1).**

Table 1: Government education spending by region and income group, 2000-17

	Education spending as a % of GDP		Education spending as a % of total government spending		Secondary spending as a % of total education spending	
	2000[1]	**2017[2]**	**2000[1]**	**2017[2]**	**2000[1]**	**2017[2]**
Region						
East Asia & Pacific	4.1	4.6	15.6	15.8	31.8	37.6
Europe & Central Asia	4.4	5.1	12.3	12.2	42.1	37.1
Latin America & Caribbean	4.6	5.5	17.0	18.6	31.3	32.4
Middle East & North Africa	5.5	4.7	13.4	15.3	40.1	41.5
North America	1.7	1.5	11.0	9.0	52.3	44.4
South Asia	3.7	3.8	16.6	16.4	37.3	38.6
Sub-Saharan Africa	3.8	4.3	16.4	16.5	27.1	33.0
Global	**4.3**	**4.8**	**14.6**	**15.1**	**34.8**	**35.9**

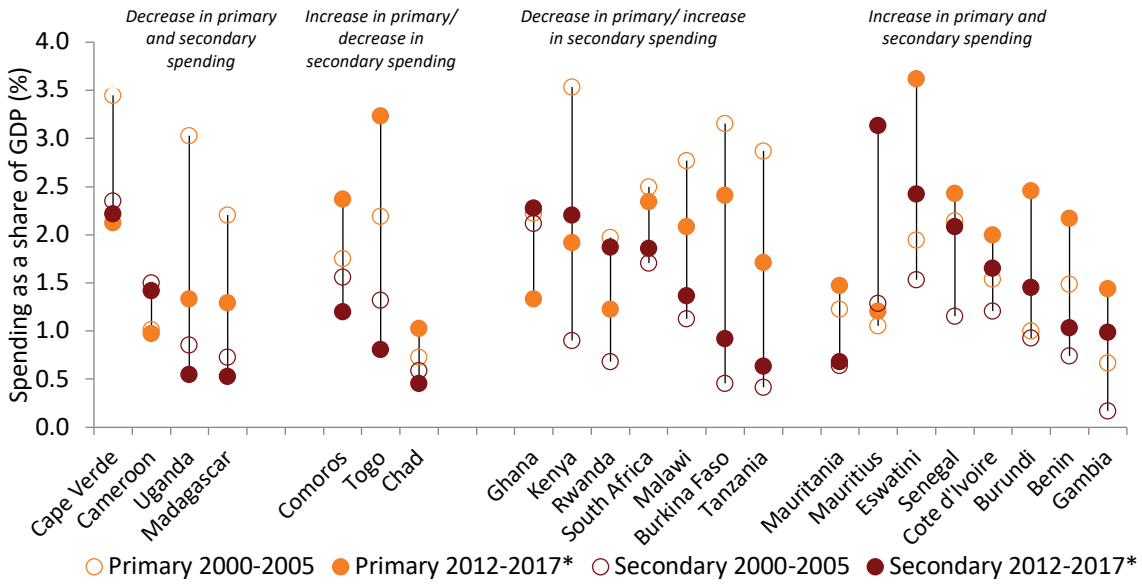
Source: UNESCO-UIS (2018).

Notes: [1] Earliest year refers to the earliest data point between 2000 and 2005, [2] Latest year refers to the latest data point between 2012 and 2017, [3] Averages relate to means and take that subset of countries for which there is both data in the earlier and later period for the indicator in question.

The latest data on public domestic spending on education indicates that, on average, sub-Saharan African countries spent 1.3% of GDP on secondary education, slightly below countries in South Asia. This compares to 1.8% of GDP spent on primary education.

Between 2000-05 and 2012-17, of the 22 sub-Saharan African countries with data in both these periods, 16 increased their spending on secondary education as a share of GDP while four decreased their spending. Of the 16 countries that increased their spending, seven decreased spending on primary education as a share of GDP over the same period **(Figure 7).** This is despite many children – especially the most disadvantaged – failing to complete a primary school cycle in some of these countries. In Burkina Faso, for instance, just three in ten children complete a primary school cycle. This falls to less than one in ten children if that child is poor, female and resides in a rural part of the country **(Figure 2)**. And yet spending on primary education as a share of GDP decreased from 3.2% to 2.4%, while spending on secondary education, as a share of GDP, has increased slightly from 0.5% to 0.9%.

Figure 7: The majority of sub-Saharan African governments have increased secondary education spending as a share of GDP over the last 15 years
Change in primary and secondary spending as a share of GDP, 2000-05 and 2012-17



Source: UNESCO-UIS (2018). *Accessed June 2018.*

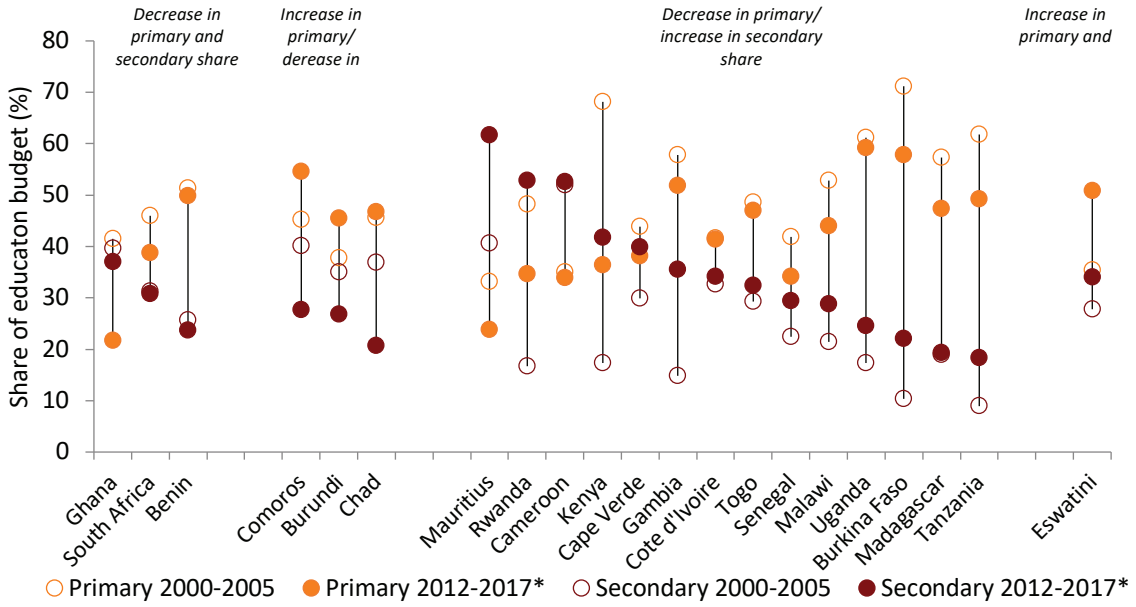
Share of education budget spent on secondary education

Between 2000-05 and 2012-17, the average share of the public budget spent on education by sub-Saharan African governments remained around 16.5%. Secondary education's share of total public education expenditure increased from 27.1% to 33.0% over the same period. For the latest year of data, sub-Saharan African's share of the education budget allocated to secondary education is the lowest after the Latin America & Caribbean region **(Table 1)**.[vii] It is important to consider this in the light of sub-Saharan Africa continuing to have a greater challenge in progress towards achieving primary school completion in many countries.

Of the 21 sub-Saharan African countries with data across 2000-05 and 2012-17, 15 have increased the share to secondary education. Of these 15 countries, 14 have decreased their spending on primary education (these countries include Malawi, Rwanda and Uganda, all countries yet to achieve primary school completion) **(Figure 8).**

Figure 8: The majority of countries with data are shifting spending from primary to secondary education

Change in primary and secondary spending as a share of education budget, 2005-2010 and 2012-2017



Source: UNESCO-UIS (2018). *Accessed June 2018.*

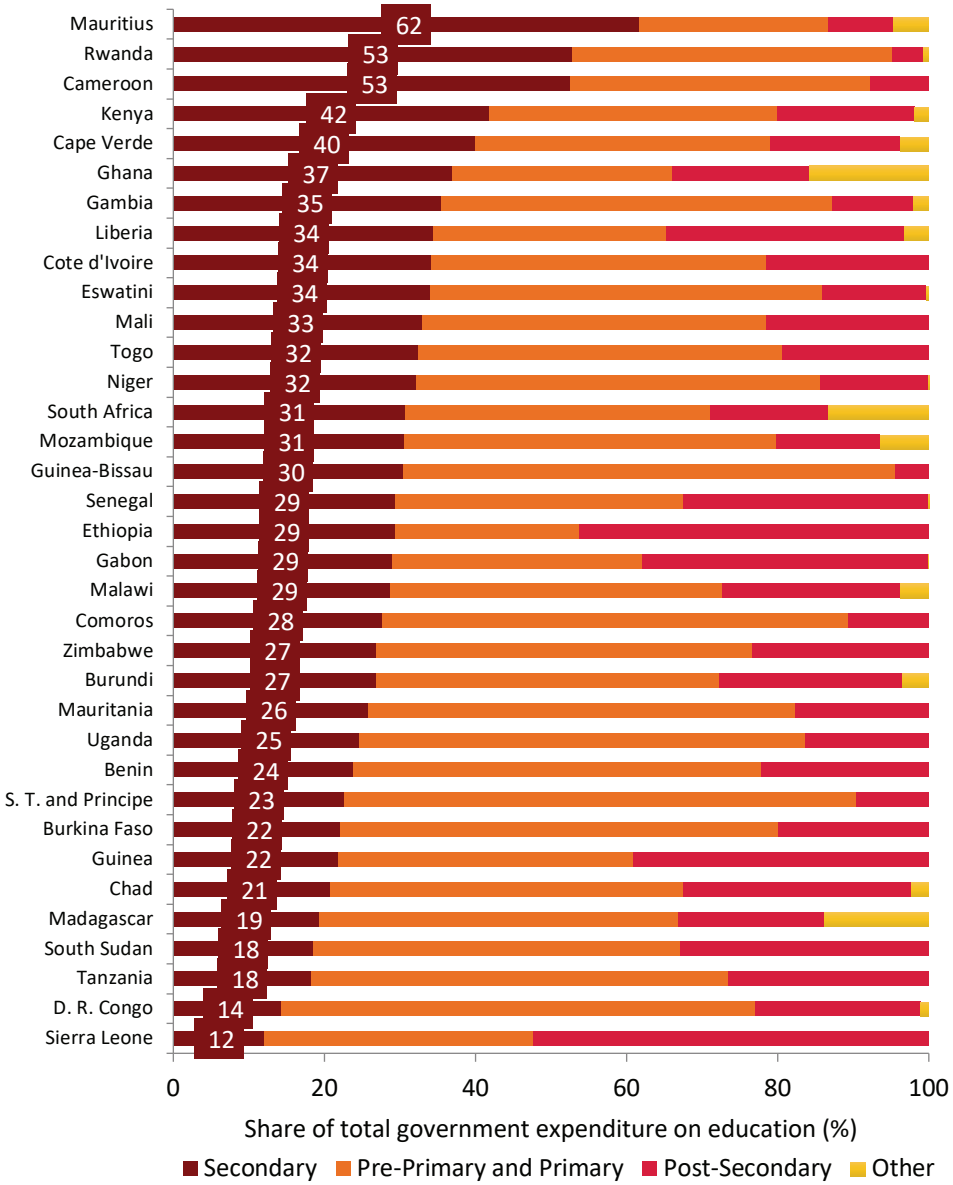
There is great variation among the 35 sub-Saharan African countries for which data exist in relation to spending on secondary education as a share of the total education budget over 2012-2017. Mauritius, Rwanda and Cameroon spent more than half of their education budget on secondary education, while the D. R. Congo, Sierra Leone and Tanzania spend less than 20% to the sub-sector **(Figure 9**).

Eight of these 35 countries (Cameroon, Cape Verde, Ethiopia, Ghana, Kenya, Liberia, Mauritius and Rwanda) allocate a larger share of their education budget to secondary education than to the pre-primary and primary budget combined. For many of these countries, however, the numbers of children completing a full cycle of primary education remains low especially amongst the most marginalised. In Cameroon just one in ten of the most disadvantaged children completes a full cycle of primary education. In Ethiopia, the equivalent is three in ten, and in Ghana just four in ten of disadvantaged children do so.

A large problem also relates to many governments continuing to subsidise higher education to the detriment of the primary education sector, as well as the growing secondary education sector. Nine of the 35 countries (Chad, D.R. Congo, Ethiopia, Gabon, Guinea, Senegal, Sierra Leone, South Sudan and Tanzania) allocate a greater share of their education budget to post-secondary education than to secondary education. This is despite a very small proportion of the tertiary aged population attending post-secondary schooling, with fewer than 1% of the poorest half of the population reaching this level in many sub-Saharan African countries (Ilie and Rose, 2018).

Figure 9: The distribution of education resources between sub-sectors varies widely across countries

Share of government spending on education by sub-sector, latest year (2012-2017)



Source: UNESCO-UIS (2018). *Accessed June 2018.*

While information on spending on secondary education expenditure overall is currently quite well documented, breaking spending down further to identify the type of secondary spending governments fund is less well-reported. Data from UNESCO Institute for Statistics indicates that 41 sub-Saharan African countries had at least one year of recent data availability on domestic spending on education allocated to secondary education. The UIS database does not include an indicator that specifically reports on the share of secondary education to vocational secondary education. However, an indicator on vocational education at secondary *and* post-secondary education as a share of total expenditure on education is available. However, data from 2010 onwards indicates that information is available for just 26 sub-Saharan African countries. Of these, Cameroon and Rwanda are the only two countries that spend 10% or more of education budget on vocational education. A further nine countries – including Kenya, Mali and Uganda – spend between 5% and

10% of the education budget on vocational education. The remaining 15 countries with data spend under 5% of the education budget on this.

Per student government spending on secondary education

A number of studies have highlighted the concern that the current high unit costs of secondary education in the sub-Saharan African region is one of the main impediments countries face in making it universally accessible (Lewin, 2007; Mingat et al., 2010; Malala Fund, 2015). Most secondary school systems in sub-Saharan Africa continue to be marked by a legacy of elitist systems where there are few students, and a high cost per student. Existing literature underlies the need to decrease the unit cost of secondary education in the sub-Saharan African region with particular emphasis on current low pupil-teacher ratios and high boarding costs (Mingat et al., 2010). In the case of the latter, there is a clear difference in the public funding of the more prestigious "boarding" secondary schools versus "day" or "community" secondary schools in existence in some African schooling systems (see Annex: Malawi Country Profile).

Data from the UNESCO Institute for Statistics does not differentiate unit costs between types of secondary schools. Average per student spending at secondary level indicates that, in PPP$, expenditure in many sub-Saharan African countries is highly variable, and very low in some countries **(Figure 10A; 10B).**

In 2016, the Education Commission estimated that in order to reach the Sustainable Development Goal for education low-income countries would need to spend US$368 per secondary student[viii] by 2030. The equivalent for lower-middle income and upper-middle income countries was US$886 and $3,147 respectively (Education Commission, 2016). Nine sub-Saharan African countries with data are currently spending above the proposed target for their income group, supporting the view that it might be possible to achieve efficiencies in spending by increasing the average pupil-teacher ratio, for example (**Figure 10A)**.

D.R. Congo and Sierra Leone, spend less than US$100 per secondary school student, equivalent to around 5% of GDP per capita. Both these countries are spending an extremely low share of their national wealth on education, both as a share of the budget and as a share of GDP. Increasing the overall envelope for education spending is an immediate priority in these cases. The education systems of both these countries also indicates that a large share of the most disadvantaged students are not making it to the end of primary to be able to transition into secondary. Therefore, while it is clear funding for secondary education needs to increase, any increase in domestic spending should not take away resources from primary education.

Rwanda is at the other extreme, where the government is currently spending US$697 per secondary student (compared to US$103 per primary pupil). This is the equivalent of 38% of GDP per capita, and one of the highest ratios in the region. Clearly this has implications for sustainability and equity given the few children from disadvantaged households who manage to transition into secondary schooling **(Figure 5C).** Ilie and Rose (2018) calculate that children in Rwanda from the richest 10% of households received more than six times public expenditure on secondary education than the poorest 10% of households.

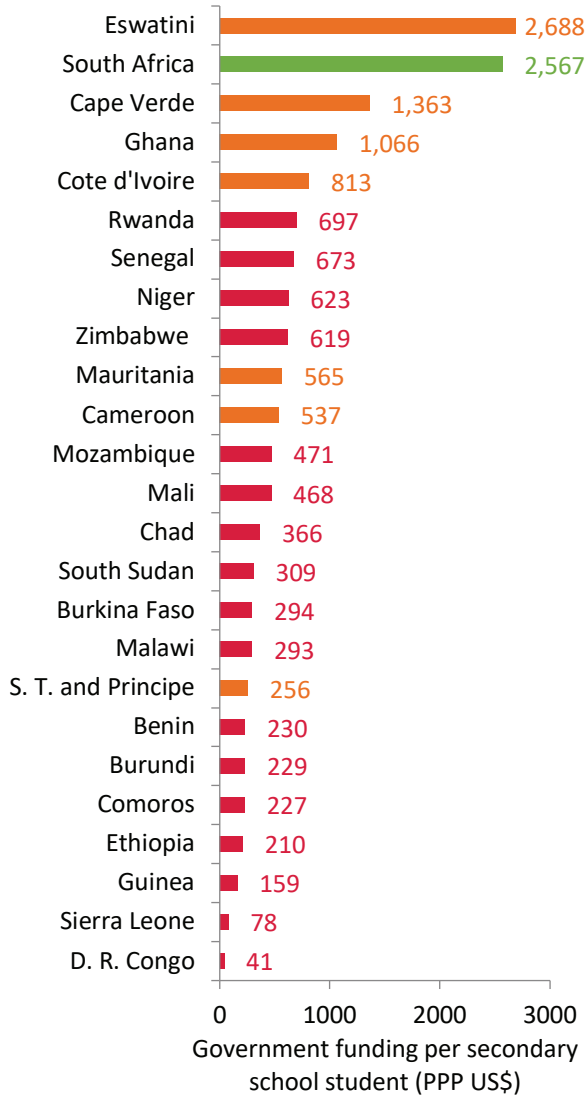
Comparing spending per secondary school student with the amount governments spend per student at primary level, data indicates that across 2012-2017 22 out of 26 sub-Saharan African countries spend more per child/ student enrolled at secondary level. While unit costs are higher at secondary level compared to primary in most education systems is not surprising, the more relevant question remains whether the extent to how much higher the secondary education costs in many sub-

Saharan African systems are due to resources being utilised inefficiently. One study, for instance, estimates that universal access to secondary education would not be achieved in any country where secondary to primary unit costs is more than 3 to 1 (Lewin, 2007). Data show that governments in Ethiopia, Ghana and Mozambique spend three times or more on a secondary school student than they do on children attending primary, and Rwanda spends seven times more.

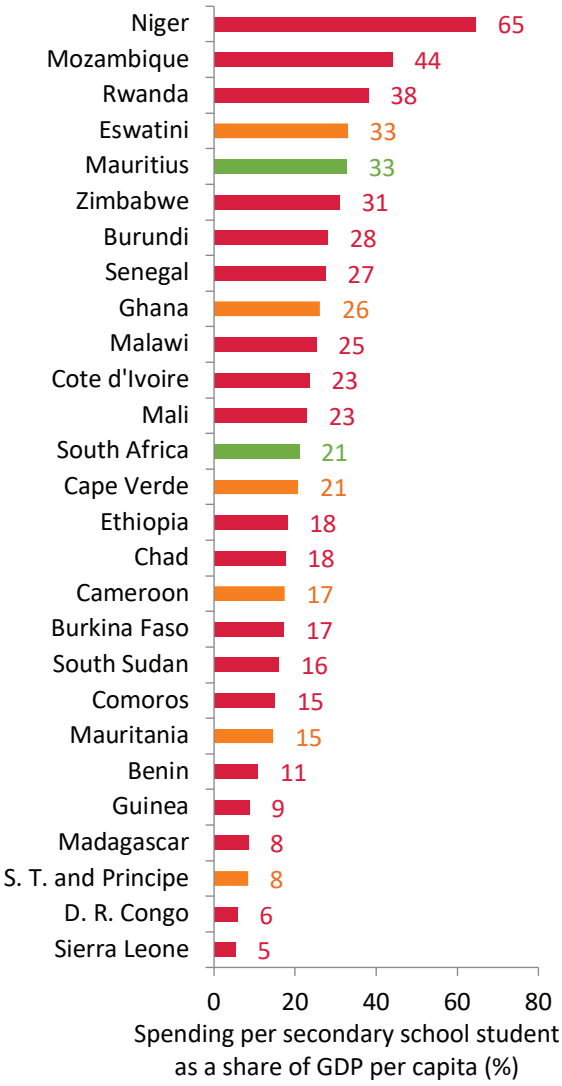
Figure 10: Sub-Saharan African governments vary in the amount spent per secondary school aged student

Per student spending in US$ PPP and as a % of GDP per capita over 2012-17 (latest year)

A. Government spending per secondary student



B. Per student spending as % of GDP per capita



Source: UNESCO-UIS (2018). *Accessed June 2018.*

Note: The colour of the bars relate to the income category of countries according to World Bank estimations in 2018. Red bars refer to low income countries. Orange bars refer to lower-middle income countries. Green bars refer to upper-middle income countries.

The overwhelming majority of spending on secondary education continues to be on salaries

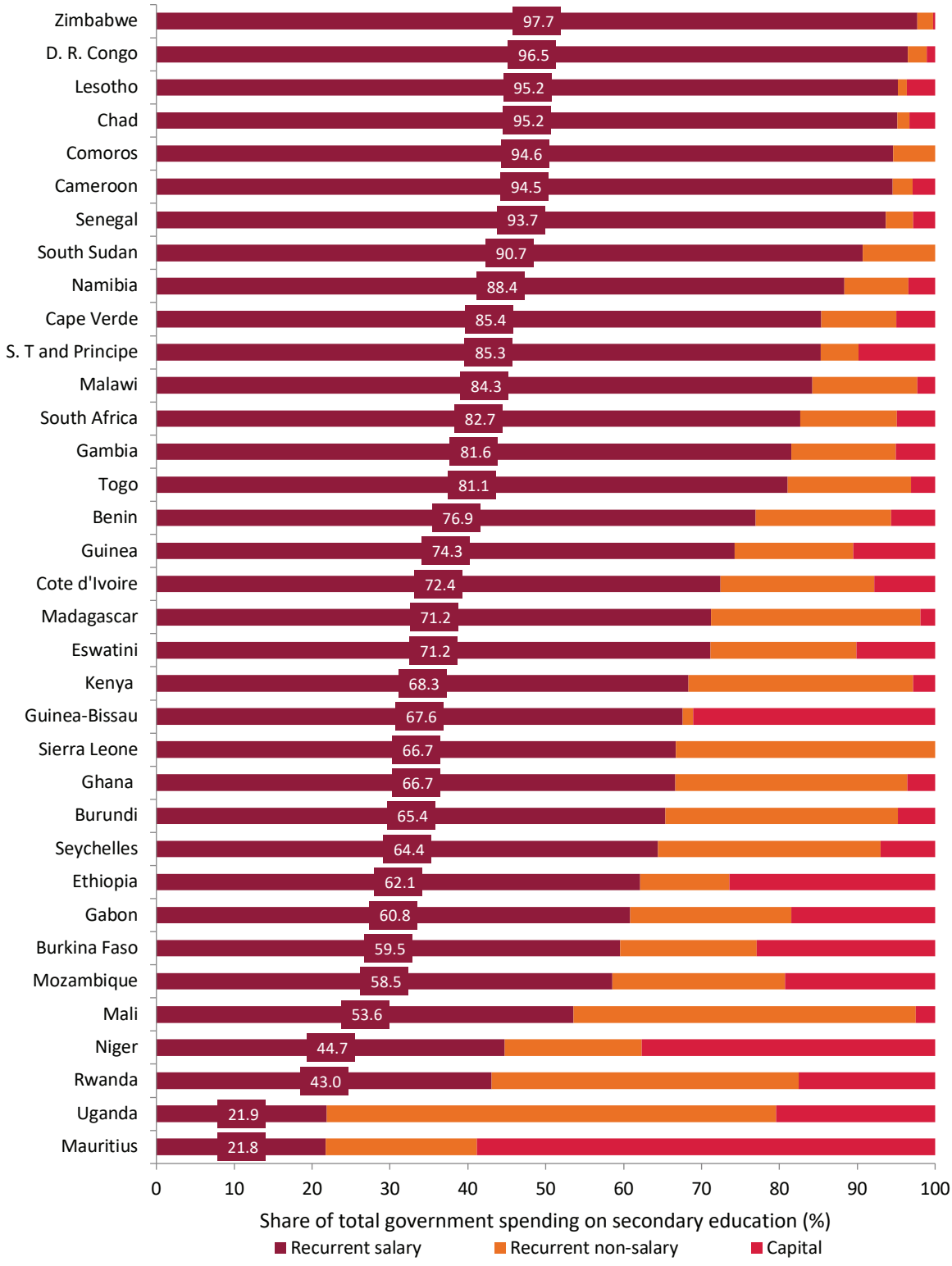
Over the period 2000-05, very limited data were available breaking down the distribution of government spending on secondary education by type of expenditure. In the UNESCO Institute for Statistics database, only 14 of 49 sub-Saharan African countries broke down the composition of secondary spending by recurrent (salary and non-salary) and capital spending. Just five countries reported the share of secondary spending on books and teaching and learning materials (Ghana, Seychelles, South Africa, Togo and Zambia).

Data availability in later years (2010-2017) indicates that information has markedly improved. Over this period, 35 out of 49 sub-Saharan African countries had data breaking down the composition of spending by recurrent (salary and non-salary) and capital spending. The data indicates that for 31 out of these 35 countries, the majority of secondary school spending is spent on salaries. In Zimbabwe, for instance, 97.7% of spending on secondary education expenditure is on salaries. Just 0.3% of the total budget is on development/ capital investment. Mauritius, Niger, Rwanda and Uganda, on the other hand, spend less than 50% of their secondary education budget on salaries. Despite the expansion of secondary education in many countries, capital spending does not form a significant part of secondary education budgets. In just four countries capital spending makes up more than 25% of total secondary education spending: Ethiopia (26.4%), Guinea-Bissau (31.1%), Niger (37.7%) and Mauritius (58.9%) **(Figure 11).**

As a share of total secondary school expenditure, reporting on the amount spent on books and teaching materials is much more poorer. Just 22 out of 49 countries have reported what they spend as a proportion of the secondary education budget on this item since 2010. There is a wide variation amongst countries with data. Guinea-Bissau, Namibia, Niger, Senegal and Zimbabwe spend less than 1% of their secondary education budget on books and teaching materials. Eswatini, Ethiopia, Guinea, Kenya, Mali, Mozambique and Sierra Leone, on the other hand spend well over 10% of the budget on this.

Figure 11: A significant share of secondary school spending is allocated to salaries in many sub-Saharan African countries

Proportion of spending between recurrent and capital spending, latest year (2010-2016)



Source: UNESCO-UIS (2018). *Accessed October 2018.*

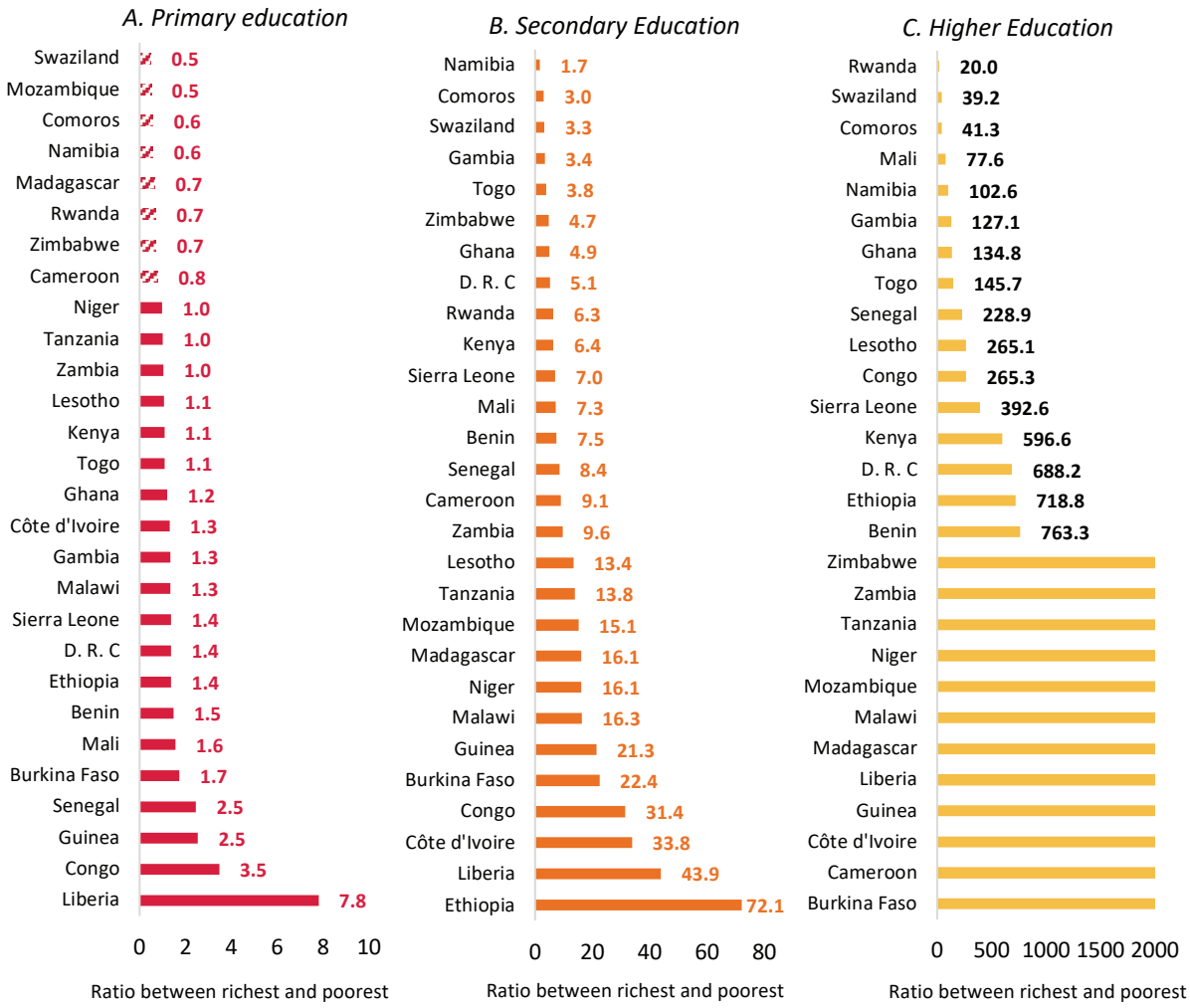
Progressive universalism: equity of secondary education expenditure in sub-Saharan Africa

The emphasis on equity in achieving the targets contained within an ambitious SDG education agenda challenges policy-makers to consider ways to ensure the most marginalised are not left behind. Towards this aim, the proposed 'stepping-stone' approach advocates for interim targets to be adopted for sub-groups of the population to ensure that no one group is left behind in order to meet the 2030 Sustainable Development Goals targets (Rose and Alcott, 2015). Such an approach is complementary to one of the main recommendations of the Education Commission's *Learning Generation* report, namely for governments to distribute scarce resources according to the principle of progressive universalism. Progressive universalism highlights the importance of the expansion of a good quality education for everybody, but through a targeted approach, which prioritises the allocation of resources to those most in need (Education Commission, 2016). This section considers education expenditure of African countries specifically through this principle.

Figure 12 illustrates that spending on secondary education for all countries is regressive, meaning that children from the richest 10% of households receive more than those from the poorest 10%, often significantly so. However, there is great variation in the extent of inequity in public expenditure on secondary education. In Ethiopia richest households receive 72 times more than poorest households in government spending on secondary education. This is in a context where less than one in five females from the poorest rural households completing primary education **(Figure 2)**. At the other end of the spectrum are countries like Namibia and Zimbabwe, where secondary education spending is also regressive, but to a lesser degree. In part this is related to the higher rates of primary completion among disadvantaged children. In Namibia and Zimbabwe 80% of the most disadvantaged complete primary school, of which four in five children go on to transition into lower secondary.

Figure 12: Public education expenditure beyond primary education is regressive for all sub-Saharan African countries

Public expenditure spent on children from the richest households as a ratio of what is spent on children from the poorest households by level



Source: Ilie and Rose (2018).

Given the largely regressive nature of public spending at all levels of post-primary education, one key mechanism for countries to reverse this inequity is the use of a funding formula. This is a way to redistribute public education resources to the most disadvantaged groups, for example by poverty, geographic region or by school. A number of countries – largely middle-income – have made use of funding formulas to distribute public education resources to the most disadvantaged. The examples largely stem from experiences in primary education in countries in other regions. In India, for instance, the Sarva Shiksha Abiyan programme has been in operation since 2000. The Central Government has disbursed additional resources to districts with high out-of-school populations, gender disparities, disadvantaged minorities and children with special needs. Similarly, in South Africa the National Norms and Standards for School Funding was introduced in 2006 to reverse the wide disparities that were created during the Apartheid regime. Under the formula, provincial education offices allocated 60% of non-personnel and non-capital recurrent expenditure to the poorest two quintiles of schools (Zubairi and Rose, 2016). The same principles of formula funding which have been used with redistribution in mind have been less well-documented at secondary level.

Household expenditure continues to subsidise a large share of lower levels of education

In line with the principle of progressive universalism, the Education Commission recommends that governments reorient their education budgets to lower levels of education to avoid households having to pay for school costs that makes education beyond the reach of the most disadvantaged. Household contributions as a share of total sub-sector expenditure, in turn, should be at their lowest at primary and lower secondary and highest at tertiary levels of education given that this is currently mainly accessible to the richest who make it to this stage (Education Commission, 2016). However, as this section indicates, the opposite is often the reality with parents contributing a greater contribution to lower levels of education, while higher education is more heavily subsidised. In such contexts, universal abolition of secondary school fees is unlikely to be equitable in a context where so few children make it to the end of primary school (see, for example, Kenya and Malawi country profiles). Rather, a more targeted approach to supporting the costs of secondary school for the most marginalised, for whom these costs are likely to be prohibitive, is a better option.

Abolition of secondary school fees is becoming an increasingly popular policy announcement in sub-Saharan African countries. While Kenya abolished secondary school fees in 2008, Ghana, Malawi, Sierra Leone and Tanzania have all taken this step following the SDGs have been initiated (see Annex: Kenya, Malawi and Tanzania Country Profiles). More generally, of the 39 sub-Saharan African countries with data, currently 21 are reported to have legislation directing some form of fee-free education (UNESCO, 2017b). There is, however, a wide variation in terms of the number of years at secondary for which there is provision of fee-free education. In Chad and Madagascar, for instance the government legislates that there should be seven years of fee-free secondary education. In Zambia, on the other hand, the provision is for two years of fee-free secondary education.

Even where fee-free secondary education has been introduced, many students continue to pay for both their primary and secondary education in some way through out-of-pocket expenses. For example, these costs relate to examinations and contributions towards school management which may prevent children from sitting end-of-primary examinations. This can, in turn, exclude them from making the transition to secondary school. In Rwanda, there is evidence of children being sent home or not being allowed to attend school if households do not pay costs, notably related to end of cycle examinations (Williams, 2013).

Analysis across 16 sub-Saharan African countries identifies that households contribute around 30% to primary education. The equivalent for lower and upper secondary was 49% and 44% respectively. This suggests that households contribute a sizeable proportion of resources to primary and secondary spending. By contrast, tertiary education's share was just 22% illustrating how higher education in many sub-Saharan African countries continues to be heavily state subsidised even though the majority of those reaching this level are from richer households (UNESCO-UIS, 2011).

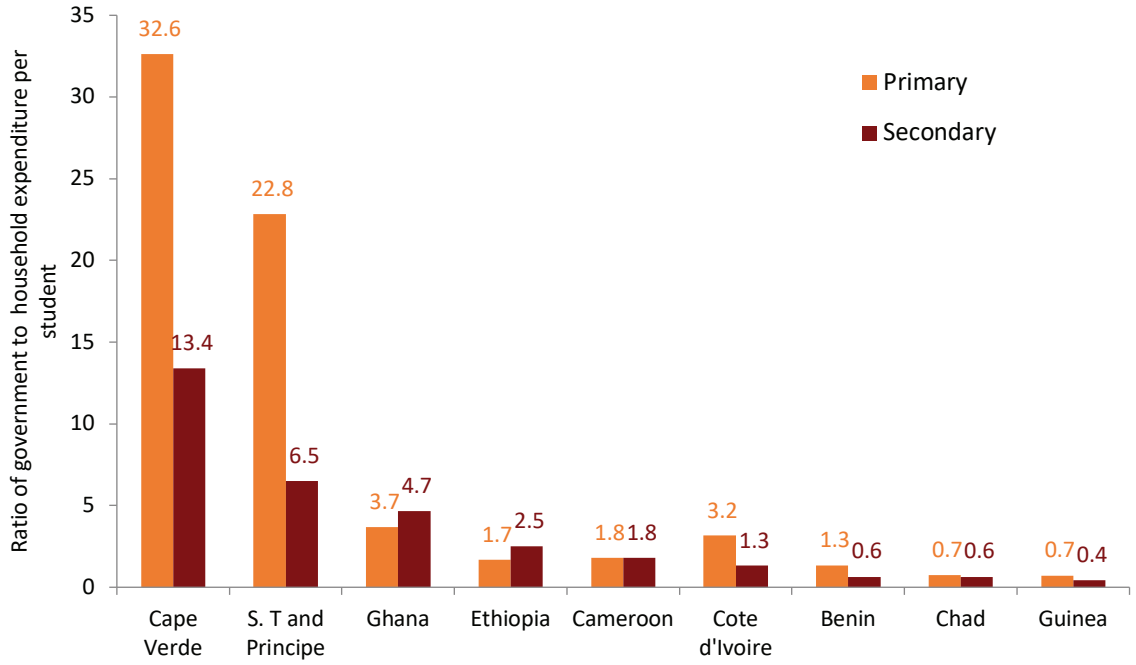
The pattern varies across countries within the region. In Uganda, households are estimated to contribute a similar amount as the government at the primary level. At the secondary level, they contribute around three-quarters of the funds. Their contribution is equivalent to approximately PPPUS$582 per secondary student, which would be out of reach for the poorest households. In Cote d'Ivoire, households are found to contribute a similarly large amount to secondary education, around PPPUS$551. However, in this case, the government is spending more, so that households are contributing around 40% of the total (UNESCO-IIEP et al, 2016).

The UNESCO Institute for Statistics has recently begun reporting on per pupil contributions by source. Of the 14 sub-Saharan African countries with data on per student funding by both

government and households over the period 2010-2016, households in five countries (Benin, Chad, Gambia, Guinea and Togo) were contributing more for secondary student costs than governments. In Chad, Guinea and Togo, households were also contributing more towards primary student costs than governments **(Figure 13)**. By contrast, in Togo and Guinea, government contributions per tertiary student equal and exceed, respectively, the contributions made by households (UNESCO-UIS, 2017).

Figure 13: In some West African countries, households contribute at least as much as governments to primary and secondary spending

Ratio of government spending to household spending on primary and secondary education (2012-17)



Source: UNESCO-UIS (2018). *Accessed June 2018.*

Note: The bars show the ratio of government spending per student to household spending on primary and secondary education respectively. Any figure over "1" denotes that the government gives a higher amount than households. For example, in Ghana government spending on a primary school child is 3.7 more than household contributions per child. Numbers below "1" means that households give a higher amount than government. For example in Chad, the government contribution per secondary school student is just 60% of what a household contributes.

Household expenses often increase sharply when students reach secondary education. In Ghana, for instance, secondary education expenses per student cost households four times the amount it costs them to send a child to primary school (Huebler and Legault, 2017). However, this should be considered in the context where the majority of those reaching secondary school are from richer households, who are more able to allocate their resources to education.

Another study by UNESCO illustrates the differences in the shares of expenditure on secondary education by households depending on wealth. In Madagascar, for instance, legislation dictates that secondary schooling is free for a period of seven years. Yet households have still been spending a large share of their income on other costs. Based on 2001 data, at lower secondary level for instance, expenditure for the poorest 40% of households was largely on school supplies (42%). Expenditure on school fees made up 31% of their total spending on lower secondary education. For the richest households the pattern was the opposite with 48% of spending being on school fees and 36% being on school supplies. Such patterns are also true of Cote d'Ivoire and Mauritania, where expenses for the poorest families are mainly for school supplies, whereas school fees make up the

majority of expenses for the richest households. This is likely to be due to richer households sending their children to private schools (Foko et al., 2012).

Experience from countries that have introduced fee-free secondary education appears to show that households still incur large out-of-pocket expenses for expenditure items such as stationary, school examinations and uniforms. These costs can be a huge burden for the poorest households causing students to drop out even where fee-free secondary education has been rolled out. In Kenya, for instance, fee-free secondary education was introduced in 2008. Students, however, were still required to pay for school uniforms. One survey undertaken in 2010 found that more than half a million children were out of school because they could not afford the cost of primary or secondary school uniforms, the cost of the latter being three times that of the former (Khamati and Nyongesa, 2013).

Given the high costs of secondary schooling are likely to be prohibitive for the poorest children who are in a position to make the transition to secondary school, a targeted approach to supporting their financial costs is likely to be effective. One longitudinal study in Ghana tracked 2,064 Ghanaian students who were awarded, through a lottery, a secondary school scholarship in 2008. It found that scholarship winners were 55% more likely to complete secondary school, obtain 1.3 more years of secondary schooling and score higher on reading and mathematics tests (Duflo et al., 2017). As this paper argues in later sections, given the cost implications of secondary education, a phased approach of supporting the most disadvantaged progress throughout the system could be one way of expanding secondary education enrolment.

The non-governmental organisation Camfed is a good example of where financial support[ix] has been targeted towards girls in some of the most deprived regions of five sub-Saharan African countries in order to help them access secondary education. Currently Camfed supports 146 districts in Ghana, Malawi, Tanzania, Zambia and Zimbabwe and – to date – a total of 286,918 girls have been supported with secondary school scholarships to attend government schools (Camfed, 2017). A recent evaluation of Camfed's programme in Tanzania illustrates its positive effects on retention and learning of some of the most marginalised girls who are Camfed recipients. The combination of bursaries for the most marginalised girls as well as other interventions to improve the quality of education in rural government schools they are supporting shows that, while it might cost more to reach the most marginalised at the secondary level, given the impressive impact on learning, it is also cost-effective – equivalent to two additional years of school for every $100 spent (Sabates et al., 2018).

Section 3: International development assistance on secondary education in sub-Saharan Africa

As noted, aid to education in sub-Saharan African countries is less significant than domestic spending, but can continue to fill important gaps in financing in some countries. Over the last 15 years, total global education ODA disbursements steadily rose and peaked in 2010. Thereafter, disbursements levelled off and continued to stagnate. The decline in levels disbursed was reversed in 2016, with the amount disbursed being the highest recorded since 2002. In 2016 total ODA levels to the education sector reached US$13.5 billion[x], representing an increase of 13% compared to 2015 levels. Aid disbursements to sub-Saharan Africa peaked slightly earlier, in 2009. However, the region has not experienced the recent reversal, as levels have levelled off and not returned to their 2009 peak. The growth in ODA to the education sector for sub-Saharan Africa amounted to a 6% increase between 2015 and 2016, which was lower than the overall global increase. Moreover, the annual average growth rate of ODA levels disbursed to education was 7% per annum globally between 2002 and 2016, while for sub-Saharan Africa the equivalent was just 2%. Given many countries in sub-Saharan Africa are furthest behind from reaching the education SDG, this implies that aid donors are not prioritising countries most in need

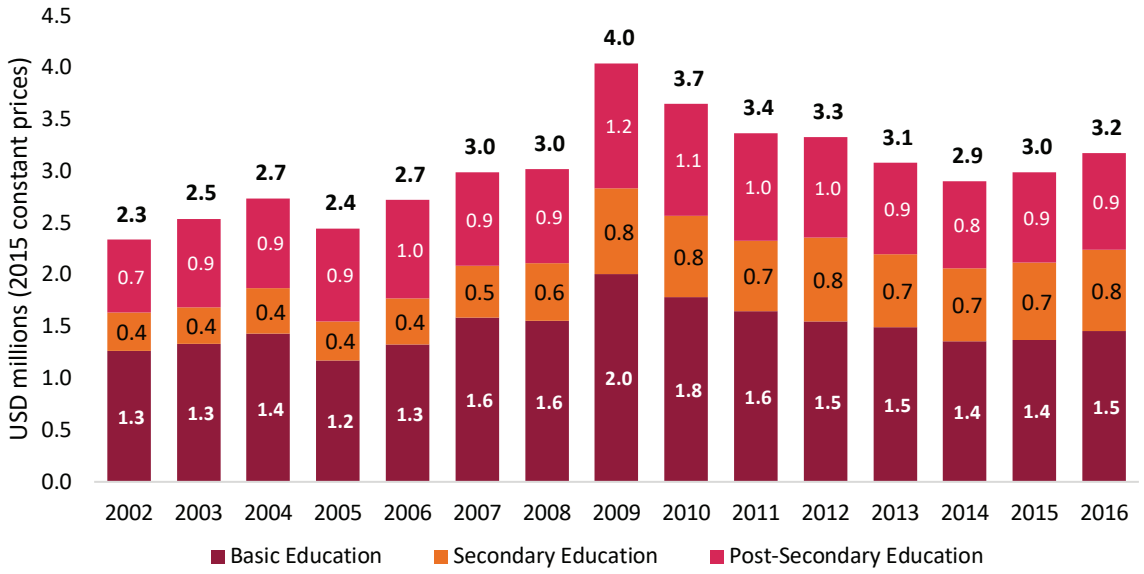
Education aid is also a lower priority in total aid spending in sub-Saharan Africa compared with other regions, and this proportion has also been declining. In South Asia, education spending as a proportion of total ODA has increased from 6.2% to 12.8% between 2002 and 2016. In sub-Saharan Africa, however this share has declined from 9.6% to 6.6% over the same period. As a share of the US$13.5 disbursed globally to the education sector in 2016, just 24% – or US$3.2 billon – was spent in sub-Saharan African countries. The share of total aid disbursed to basic education and secondary education that was allocated to sub-Saharan Africa was 24% and 31% respectively.

The share of education aid allocated to secondary education within sub-Saharan Africa is the second highest (after South Asia) compared to other regions **(Table 2)**. With respect to aid spending on secondary education in sub-Saharan Africa specifically, there has been a greater increase in the amount disbursed to this sub-sector compared to other levels of education **(Figure 14)**. By 2016, the growth in ODA to secondary education had outpaced all other education sub-sectors over the 14-year period. While ODA disbursed to secondary education grew annually by 6% per annum between 2002 and 2016, the equivalent for basic education and post-secondary education was 1% and 2% respectively. As a share of total ODA to education, the amount disbursed to secondary education has increased from 16% in 2002 to 25% in 2016. The increase has come largely at the expense of basic education, whose share has decreased from 54% to 46% over the same period **(Figure 15)**.

Sub-Saharan Africa receives the largest proportion of overall secondary education aid spending. In 2016, the share of total secondary education aid disbursed to sub-Saharan Africa was 30.6%. However, the share has declined since 2002 when 41.9% of global aid to secondary education went to sub-Saharan Africa. This has largely been due to donors shifting their priorities to the South Asia and Middle East and North Africa regions **(Table 2).**

Figure 14: Education aid spending on secondary education has been increasing in sub-Saharan Africa

Education ODA disbursed to sub-Saharan Africa by sub-sector (2002-2016)



Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*

Note: Basic, secondary and post-secondary education includes a portion of "general budget support" and "education unspecified."

Table 2: Distribution of total, education and secondary education ODA by region

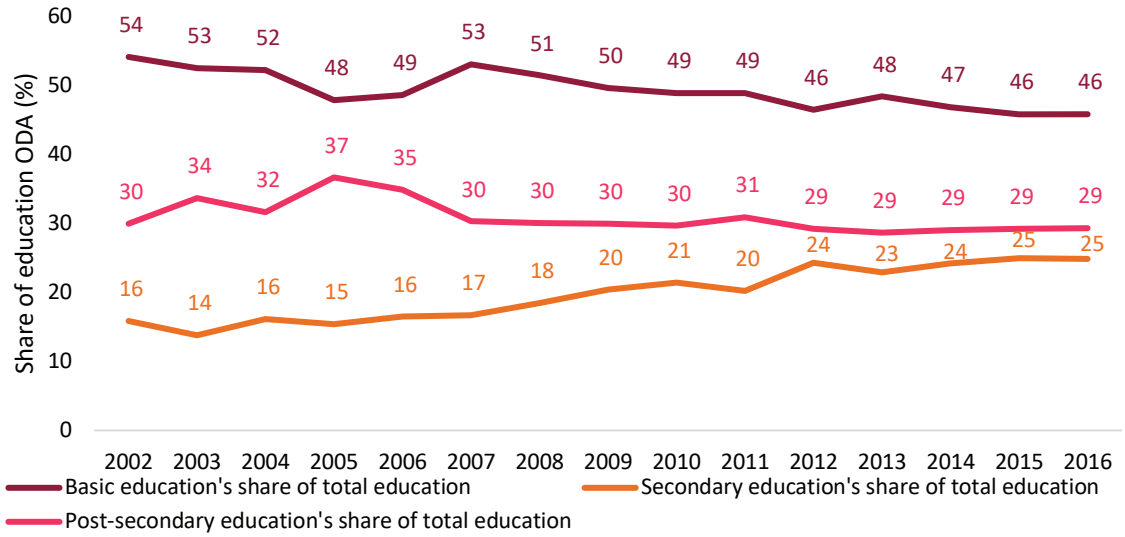
	Total education ODA as a % of total ODA		Total secondary education ODA as a % of total education ODA		Distribution of secondary education ODA by region	
	2002	**2016**	**2002**	**2016**	**2002**	**2016**
Region						
East Asia & Pacific	7.0	11.3	18.0	21.2	13.0	13.1
Europe & Central Asia	3.4	7.2	20.2	18.3	5.4	6.8
Latin America & Caribbean	7.1	6.2	21.0	18.0	10.5	5.4
Middle East & North Africa	12.0	8.9	11.5	13.6	8.2	13.6
South Asia	6.2	12.8	14.8	25.7	11.3	23.8
Sub-Saharan Africa	9.6	6.6	15.9	24.9	41.9	30.6
Global	**7.7**	**7.5**	**15.8**	**19.1**	**100.0**	**100.0**

Source: OECD (2017). *Accessed December 2017.*

Note: [1] Education ODA and secondary education ODA is inclusive of "general budget support" and "education unspecified"

Figure 15: Since the millennium, donors have shifted their spending to sub-Saharan African countries from basic to secondary education

Share of education ODA disbursed to sub-Saharan Africa to education sub-sectors (%)

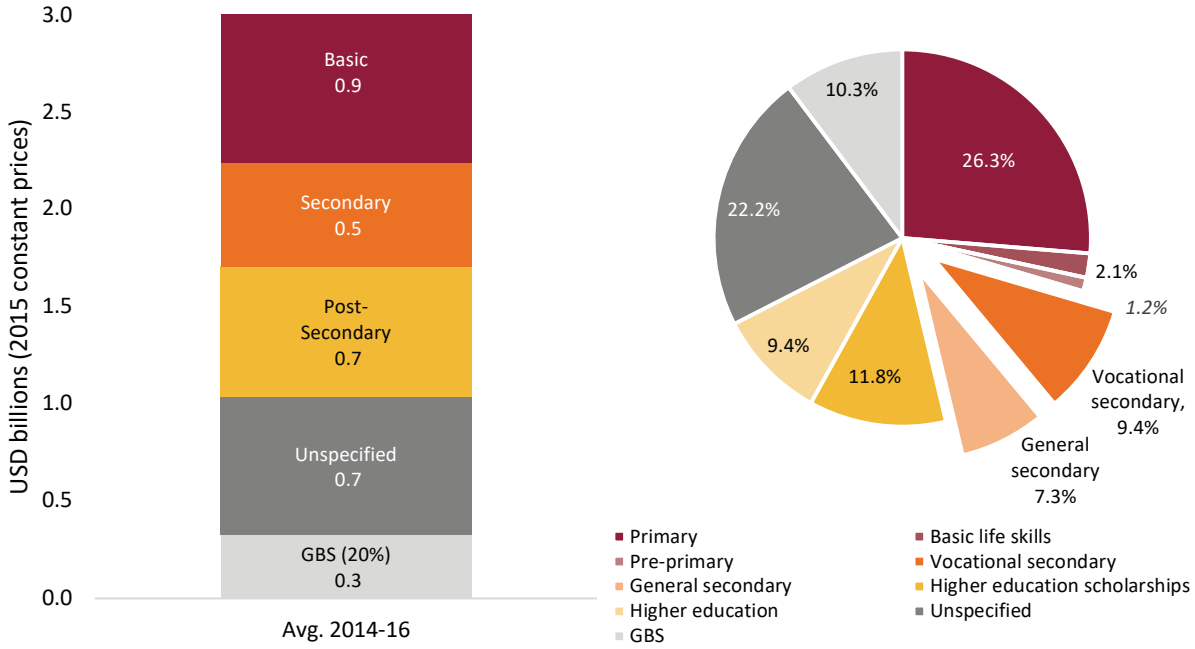


Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*
Note: [1] Education ODA and secondary education ODA is inclusive of "general budget support" and "education unspecified" and [2] the large decrease in education's share of total ODA in 2006 is largely because of debt servicing over this period.

With respect to direct aid to secondary education in sub-Saharan Africa, in 2016, around 56% was spent on vocational secondary education with the remaining 44% on general secondary education. In terms of their share within total education aid in the region, this is equivalent to 9.4% and 7.3%, respectively. As such, vocational education receives a similar share as the amount spent on higher education scholarships for students to study in donor countries, and total secondary spending is less than the amount spent on higher education overall **(Figure 16).**

The share of secondary aid spent on vocational education is disproportionately high considering how few students enrolled at secondary level attend vocational programmes. In 2016, while 56% of secondary aid was allocated to vocational education, just 6.7% of the 57 million students attending secondary education programmes were enrolled on these programmes. In 2016, the five largest donors to vocational secondary education in sub-Saharan Africa – in order of magnitude – were Germany, the African Development Fund, World Bank Republic of Korea and Luxembourg. These donors disbursed close to 60% of vocational secondary aid to the region. In the same year Ghana, Ethiopia, Uganda, Niger and Mozambique were the five largest recipients of vocational secondary education aid. Together these countries received 39% of total vocational secondary education aid going to the sub-Saharan African region. In Ghana, 48% of direct aid to secondary education was for vocational education. This is in spite of just of just 2% of students attending secondary education programmes enrolled on such vocational programmes. In Niger the equivalent share of secondary education aid going to vocational education was 93%, with just 8% of secondary students enrolled on vocational programmes.

Figure 16: In sub-Saharan Africa, direct aid to secondary education is less than higher education
Aid to education by sub-sector and share going to direct secondary education, 2016



Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*

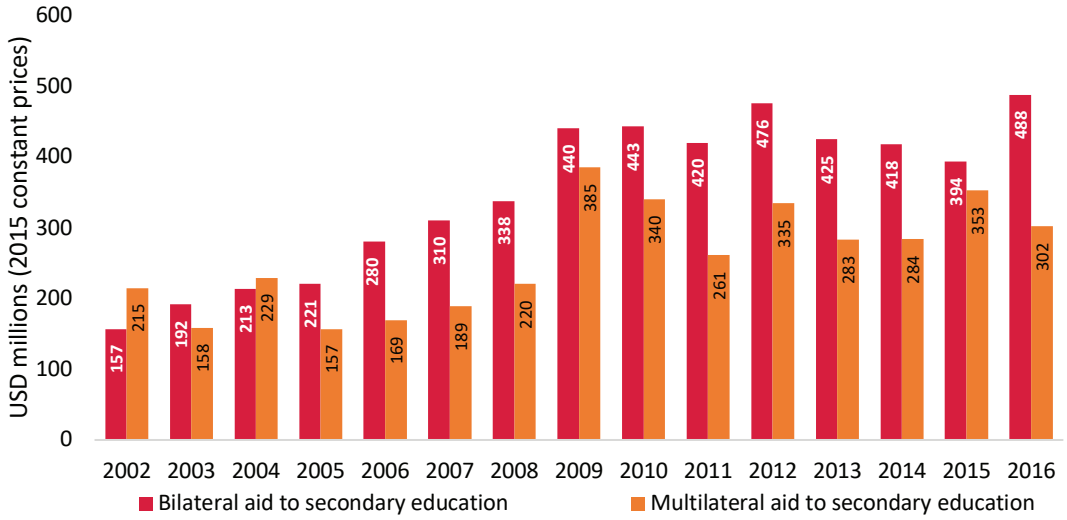
Largest donors to secondary education: The share of total ODA disbursements to secondary education to sub-Saharan Africa by bilateral donors has steadily increased from US$157 million in 2002 to US$488 million in 2016. For multilateral donors the equivalent was a much more modest increase in secondary education ODA, from US$215 million in 2002 to US$302 million in 2016. In 2002, bilateral donors disbursed 42% of total ODA to secondary education (multilateral donors disbursed the remaining 58%). By 2016, the share disbursed by bilateral donors had increased to 62% with multilateral donors disbursing the remaining 38% **(Figure 17).**

As a share of their total ODA disbursements to education, bilateral donors increased disbursements to the sector have meant that they now disburse similar shares of their spending to the secondary sub-sector as do multilateral donors. In 2002, bilateral donors disbursed 12% of their education ODA to the secondary education sub-sector. The equivalent for multilateral donors was 20%. By 2016, bilateral donors had almost doubled the share of education ODA they disbursed to secondary education to 23%. For multilaterals, the equivalent share was 30%.

The largest donors to secondary education in sub-Saharan Africa, in order of volume, were United Kingdom, the World Bank, EU Institutions, France and Germany. Together these five donors disbursed 58.3% of the US$790 million disbursed in aid to secondary education to the sub-Saharan African region **(Figure 18).** In 2016, the United Kingdom overtook the World Bank – which since 2002 had been the largest donor to secondary education to sub-Saharan Africa – as the largest donor in 2016.

Figure 17: In sub-Saharan Africa, bilateral donors spend more on secondary education than multilateral donors

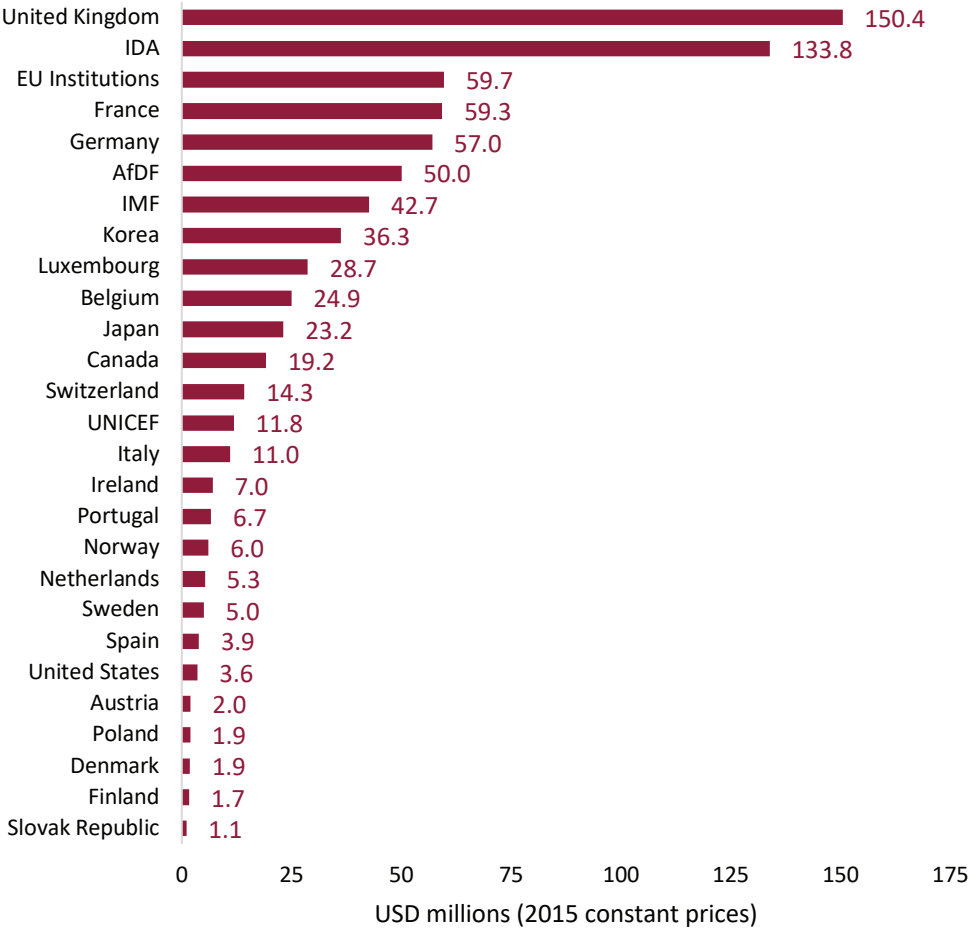
Volume of education ODA to secondary education to sub-Saharan Africa (2002-2016)



Source: Authors' calculations based on OECD database (2017). *Accessed December 2017.*
Note: [1] Secondary education ODA is inclusive of "general budget support" and "education unspecified"

Figure 18: The five largest donors to secondary education in sub-Saharan Africa are responsible for over half of spending

Largest donors to secondary education ODA in sub-Saharan Africa, 2016



Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*
Note: [1] Secondary education ODA is inclusive of "general budget support" and "education unspecified"

The United Kingdom and World Bank were, by far, the largest donors to secondary education to the sub-Saharan African region in 2016. Briefly we discuss their main support to the secondary education sector in sub-Saharan Africa. We also put a spotlight on the Global Partnership for Education, who do not currently report to OECD, and so their spending does not appear explicitly in the preceding analysis.

United Kingdom: In 2016, as a share of the US$269 million that the United Kingdom disbursed to secondary education globally, 56% went to sub-Saharan Africa. Of its education aid to sub-Saharan Africa, 39.5% was spent on secondary education. Tanzania, Ethiopia and Sierra Leone were the top three recipients of the United Kingdom's disbursements to the secondary education sector in the region. These three countries received 68% of the United Kingdom's disbursements for secondary education for the sub-Saharan African region in 2016.

In 2018, the Department for International Development (DFID) released its policy paper on the education sector (DFID, 2018). This sets out how primary and lower secondary will be the main focus of DFID's work to ensure that children learn the basics, but also have attained the necessary transferrable skills. In line with the Sustainable Development Goals of Leaving No-one Behind agenda, DFID pledges particular support for hard-to-reach girls to support them in making *"the critical transition to lower secondary school and, wherever possible, to complete secondary education or training"* (DFID, 2018). The policy paper emphasises support for hard-to-reach girls to complete 12 years of quality education and learning, including making the transition to lower secondary education. Recognising that secondary education will not be feasible for all hard-to-reach girls, the policy also focuses on skills for employment for vulnerable groups (DFID, 2018).

World Bank: in 2016, as a share of the US$430 million in secondary aid that the World Bank disbursed, 31% was to sub-Saharan African region. . Of its education aid to sub-Saharan Africa, 32.6% was spent on secondary education. Ghana, Nigeria and Mozambique were the top three recipients of the World Bank's disbursements to the secondary education sector in the region. These three countries received 50% of the World Bank's disbursements for secondary education for the sub-Saharan African region in 2016.

As of June 2018, World Bank secondary education projects in the African region totalled 170 of which 33 are currently active.[xi] Amongst the projects for which the largest resources were committed were the Quality and Relevance of Secondary and Tertiary Education Project in the Democratic Republic of Congo (US$200 million) and the Ghana Secondary Education Improvement Project (US$156 million). The World Bank's secondary education project in Ghana included the objective of increasing access to senior secondary education in underserved districts, together with improving the quality of low-performing senior high schools in Ghana.

The World Bank's Education Sector Strategy 2020 maps out its' strategy for achieving "Learning for All" and helping countries reach Sustainable Development Goal 4. Among the World Bank's focus areas are (i) investing in young children (from birth to age five), (ii) supporting quality education through teachers, (iii) support to girls and women and (iv) addressing the skills mismatch (World Bank, 2012). In April 2016, the World Bank announced that over the next five years it would be investing US$2.5 billion towards education projects primarily aimed at adolescent girls aged 12 to 17 years of age as direct beneficiaries. Of this total investment, 75% of resources are expected to be disbursed to low-income countries primarily in South Asia and Sub-Saharan Africa (World Bank, 2016).

The Global Partnership for Education (GPE): GPE is also a large funder to the education sector in sub-Saharan Africa. Current GPE does not report its aid disbursements to the OECD Creditor Reporting System, nor does it have a breakdown of what it disburses to education by sub-sector. As such, specific information on its spending to secondary education is not available. GPE data on disbursements to the education sector as a whole, however, indicates that it is a significant funder. As a share of total ODA disbursed globally to the education sector, the share disbursed by GPE has grown from 2.4% in 2004 to 17.3% in 2016. Its share of aid spending to sub-Saharan Africa has increased from 0.3% in 2004 to 10.3% in 2016. GPE disbursements to sub-Saharan African countries for education have grown significantly, from US$3.5 to US$360.7 million between 2004 and 2017. The largest recipients in volume terms in 2017 were Tanzania, Nigeria, Kenya, Niger and Ethiopia. Sub-Saharan Africa received 75% the total amount GPE disbursed in 2017.

Aside from the United Kingdom and World Bank, EU Institutions, France and Germany are also among the largest donors to secondary education in the sub-Saharan African region **(Table 3).**

Table 3: Top five donors to secondary education in sub-Saharan Africa, 2016

	Ranking for total education ODA	Secondary education ODA (US$ millions)	Secondary education ODA as a % of Education ODA	Share of total secondary education ODA (%)	Top three recipients
United Kingdom	3	150.4	39.5%	55.9%	Tanzania, Ethiopia, Sierra Leone
World Bank	2	133.8	32.6%	31.1%	Ghana, Nigeria, Mozambique
EU Institutions	6	59.7	29.1%	24.5%	Niger, South Africa, Mali
France	4	59.3	18.1%	27.4%	Senegal, Madagascar, Benin
Germany	5	57.0	21.6%	17.7%	Ethiopia, Rwanda, South Africa

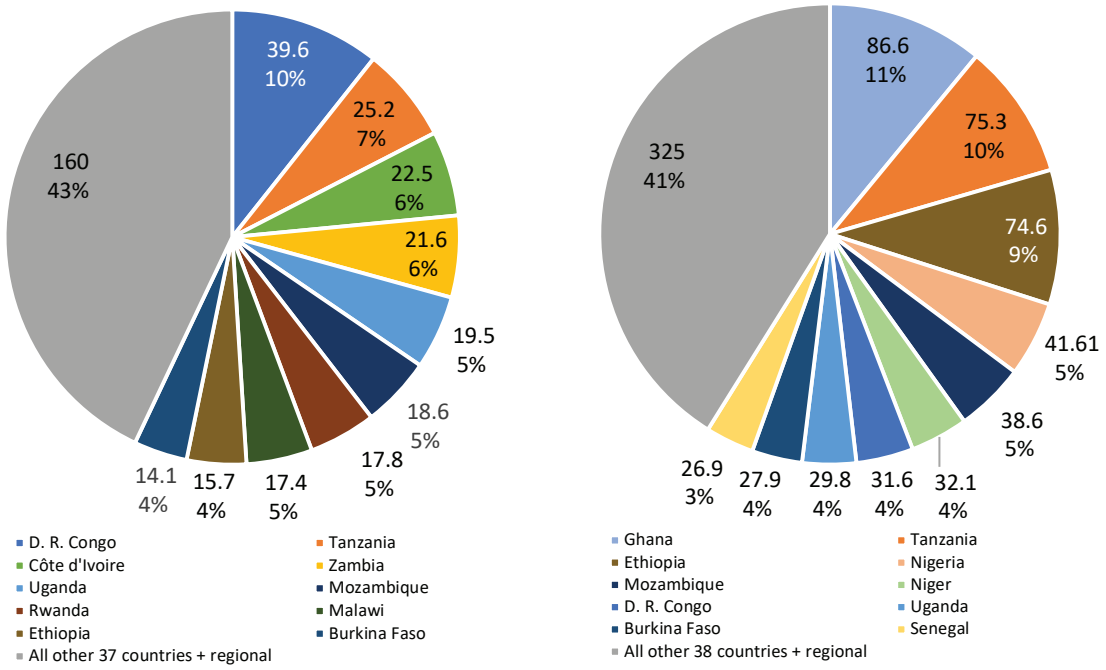
Source: OECD (2017). *Accessed December 2017.*
Note: [1] Secondary education ODA in volume and share terms is inclusive of "general budget support" and "education unspecified". USAID is the largest donor overall, but is not in the top five donors to secondary education.

Largest recipients of secondary education ODA: Secondary education aid spending is concentrated amongst a few countries. In 2002 the top 10 recipients received 57% of total secondary education ODA. The equivalent for 2016 was 59%. The top sub-Saharan African recipients of secondary education aid in 2016 (in order) were Ghana, Tanzania, Ethiopia, Nigeria and Mozambique. Together these five countries accounted for 40% of all secondary education ODA disbursed to the region. The largest recipients over both these time periods are largely Anglophone countries in East and Southern Africa. Burkina Faso, D. R. Congo, Ethiopia, Mozambique, Tanzania and Uganda are the largest recipients of secondary education ODA over both these time periods **(Figure 19A and 19B).**

Figure 19: Secondary education ODA continues to be concentrated among a small number of recipients in the sub-Saharan African region

Top 10 sub-Saharan African recipients of secondary education ODA over 2002 versus 2016

A. 2002 *B. 2016*

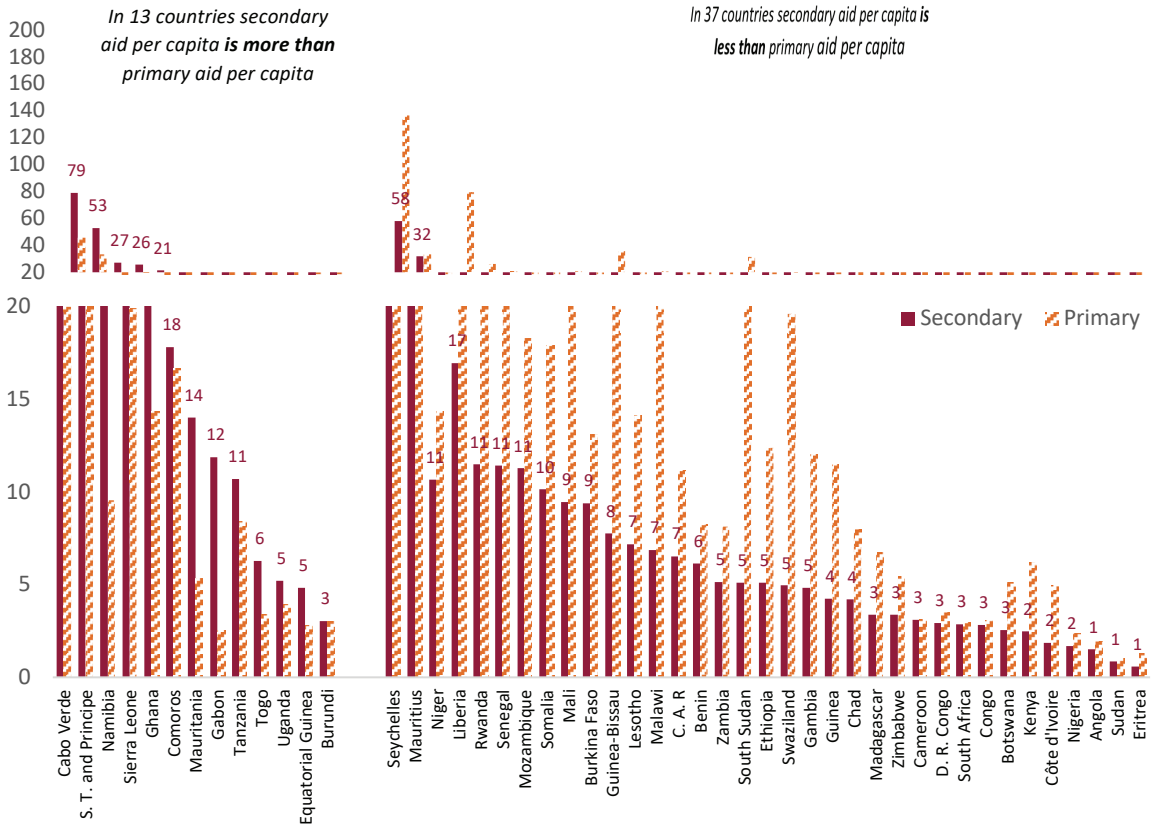


Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*
Note: [1] Secondary education ODA is inclusive of "general budget support" and "education unspecified"

In 2016, on average a secondary-aged student in the sub-Saharan African region received US$5.5 in donor aid, compared with US$8.4 per primary school-aged child. Despite aid per primary aged child being slightly higher on average, in 13 out of 50 sub-Saharan African countries per student aid disbursements were higher for secondary education compared to primary education. Of these countries, Mauritania and Togo who are receiving large volumes in per capita aid to secondary compared to much smaller per capita aid disbursements to primary school children **(Figure 20).** The higher allocation to primary education is perhaps not surprising given that many children and young people are still not completing this level, particularly amongst the most disadvantaged. Given there are significantly fewer children enrolled in secondary school compared with primary school, it is likely that the amount spent per child in school is higher in many countries for secondary compared with primary.

Figure 20: In the majority of countries, aid per capita is more per primary school child than secondary school child

Aid per capita for primary and secondary aged children in 2016

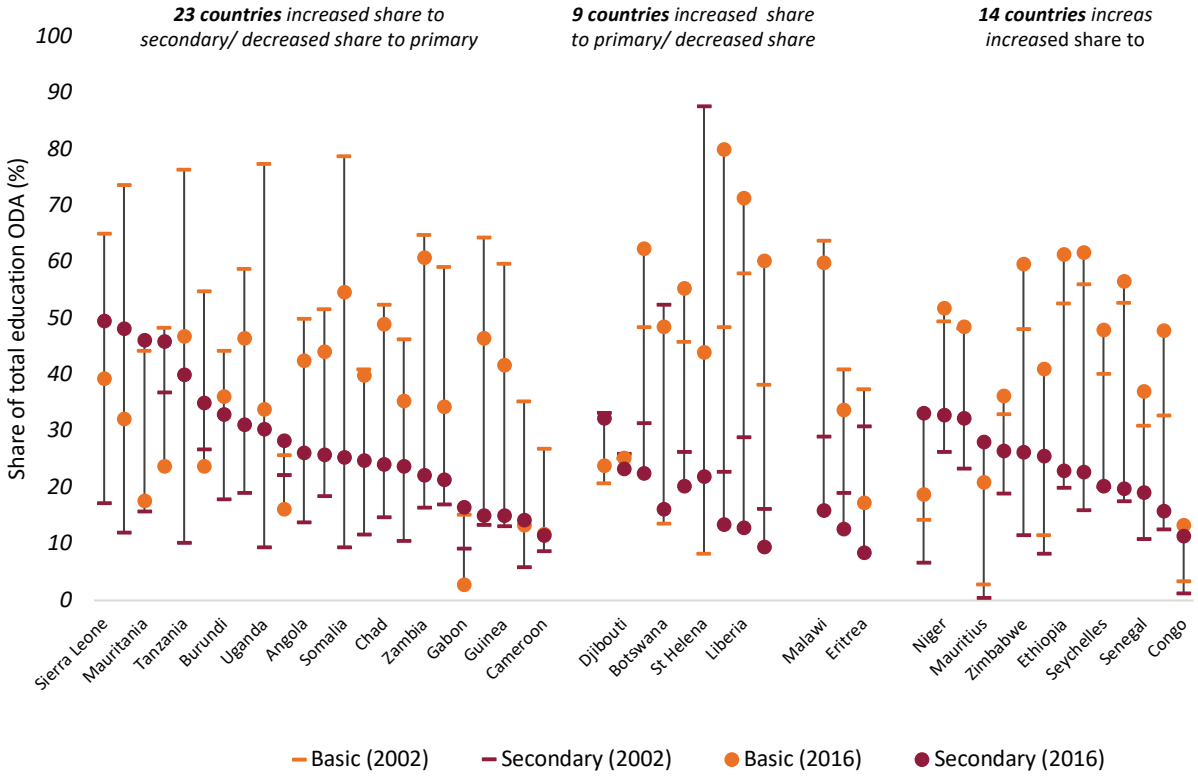


Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*

Like many sub-Saharan African governments, donors have also moved towards prioritising the secondary education sector within their aid budgets. Of the 49 sub-Saharan African aid recipients with data, 26 saw a fall in the share of education ODA going to basic education between 2002 and 2016 **(Figure 21)**. In 23 of these 26 countries, donors reoriented their aid towards secondary education. In the case of Uganda and Ghana, for instance, the share of education ODA going to basic education at the beginning of the millennium was well over 70%. In 2016, the proportion spent on basic education was more than half that amount. By contrast, the proportion to secondary increased from 12% to 48% in Ghana, and from 9% to 30% in Uganda.

Figure 21: Over the last decade the share of aid to secondary education has increased for most sub-Saharan African countries, while the share to basic education has declined

Share of education ODA to basic and secondary education (2002 and 2016)



Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*
Note: [1] Basic and secondary education ODA is inclusive of "general budget support" and "education unspecified."

In 2016, in 32 of the 48 countries with data, the share of education ODA disbursed for post-secondary education exceeded the share disbursed for secondary education. Among these countries are Chad, the Central African Republic and Liberia. The most disadvantaged children in these countries are unlikely to even complete a cycle of primary education let alone access secondary or post-secondary systems. This raises the question about whether donors are following the principles of progressive universalism in their decisions about disbursing aid by sub-sector in recipient countries. Currently, the skew towards post-secondary education would appear to suggest that a large share of aid to education is not being targeted to reach those most at risk of falling behind but instead further subsidising expenditures of children coming from the richest households.

Aid as a share of total public spending on education in sub-Saharan African countries:

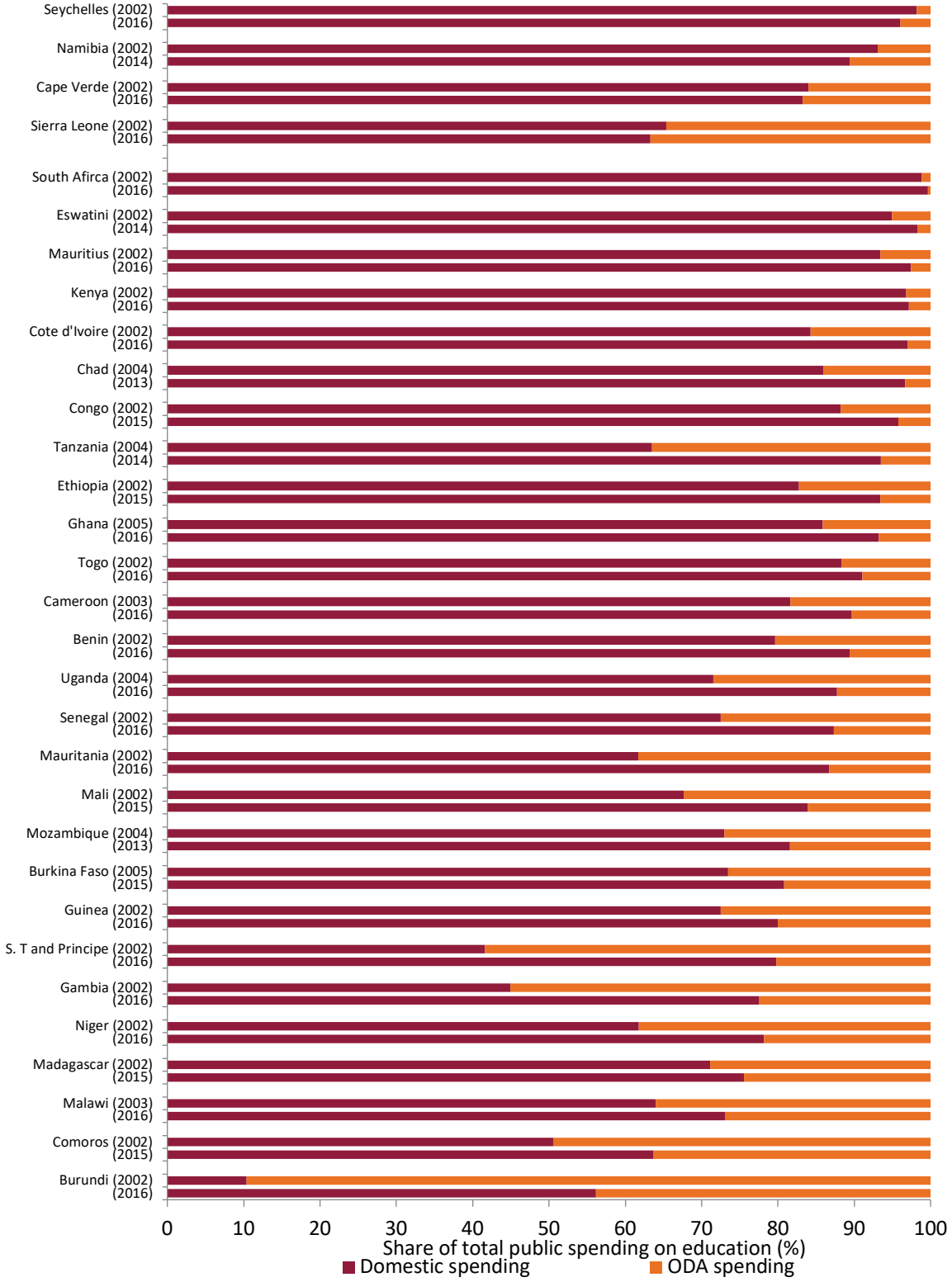
Comparing the source of public spending on education (domestic government spending and international aid) makes it clear that many countries fund the majority of their expenditure from domestic spending. At the beginning of the millennia, donors were funding at least a quarter of the education budget in 16 sub-Saharan African countries out of the 31 countries with data. More recent data indicates that this is the case for just four countries (Burundi, Comoros, Malawi and Sierra Leone). In addition, the share of aid in public spending on education has increased in just four countries (Cape Verde, Namibia, Seychelles and Sierra Leone) **(Figure 22).**

With respect to secondary education, at the turn of the millennia many countries remained heavily dependent on donor support. In seven out of the 23 countries with data, donors funded more than a quarter of the secondary education spending. At that time, in Burundi, Gambia and Tanzania funding from donors was more than the amount the government itself was contributing in volume terms.

The latest data show that, for some countries, aid is still a significant part of their expenditure on secondary education. In Benin, Burundi and Uganda, donor spending makes up more than one quarter of total public spending on secondary education. While the majority of countries have seen the share of aid for secondary education fall since the turn of the millennia, eight countries have seen an increase in this share (Cameroon, Congo, Mauritania, Mauritius, Namibia, Senegal, Seychelles, Uganda).

Figure 22: Aid has become a declining share of overall public spending on education in many sub-Saharan African countries

Share of total public expenditure on education by source of funding (%)



Source: Authors' calculations based on OECD (2017) and UNESCO-UIS (2018). *Accessed December 2017 and June 2018.*

Section 4: Conclusion and recommendations

This report considers key trends in secondary education in particular with respect to enrolment and domestic and aid financing from an equity perspective. While many national governments and international donors have shifted their spending from primary to secondary education since the early 2000s, it is evident that unfinished business remains with respect to primary education, with the poorest and most disadvantaged still unlikely to complete a full cycle of primary education. Even when they do, many are not learning the basics, and their chances of transitioning into secondary education is much lower than their more advantaged counterparts. In order for countries to achieve the Sustainable Development Goal 4 targets by 2030, the way in which governments and international donors disburse their resources will have a huge bearing on countries being on track to ensure no one is left behind. Overall, the report supports the Education Commission recommendation of progressive universalism. Based on the findings, the paper makes the following recommendations:

1. Many children and young people from disadvantaged backgrounds do not complete primary school, with the most disadvantaged continuing to drop out at a faster rate as they progress through the secondary system. In 17 out of 40 countries with data, only around one in three poor rural girls manage to complete a full primary cycle: **To ensure Sustainable Development Goal Target 4.1 is achieved, governments and donors need to invest resources to mitigate those factors which are causing children from disadvantaged backgrounds to drop out before completing primary school**. From a financing perspective, this includes reducing the out-of-pocket expenses poor households are still expected to contribute towards sending children to primary school.

2. Despite unfinished business remaining at primary level, governments and international donors continue to prioritise spending towards post-secondary education even though a negligible number of the poorest reach this state. In 2016, donors disbursed close to one third of their aid to education to post-secondary education. Nine sub-Saharan African countries spend more on post-secondary education than on secondary education: **Governments and donors must follow the principle of progressive universalism when allocating resources, targeting them in a way to ensure the most disadvantaged children are not left behind.**

3. Universal abolition of secondary school fees is likely to be regressive where large numbers of disadvantaged children and young people have not completed primary school. **Resources need to be targeted at the most disadvantaged students who make the transition to secondary school to enable them to meet costs such as uniform, transport and boarding, for example through bursaries. Greater use of formula funding is also needed to redistribute resources to geographical locations and schools that need them most.**

4. Government spending within secondary education is likely to be inequitable and is sometimes inefficient: **The current two-tier secondary school system in many African countries, where an elite tier of government schools consumes the majority of public secondary school resources, needs to be reversed.** Currently the high costs of these schools are a drain to finite resources and perpetuate inequities. In addition, cost per secondary school student could be reduced where pupil-teacher ratios are currently low. This might be achieved as the system expands.

5. Governments are allocating a very small proportion to capital expenditure, even though there is a lack of secondary school infrastructure particularly in rural areas. The latest data shows that capital spending make up more than 25% of total secondary education spending in just four countries. Aid donors are currently allocating a significant proportion of the spending to vocational education, even though very few are enrolled in this form of education. **More careful consideration is needed with respect to how government and donors spend their resources within secondary education.**

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Section 5: Annex: Country profiles

This annex focuses on financing of secondary education in three countries (Kenya, Malawi and Tanzania), in particular with respect to the implications of a policy of fee-free secondary education. The profiles assess how enrolment progresses through the primary and secondary education system and how this has changed over time, together with understanding how governments and donors have changed spending priorities within the sector. Countries were selected to provide examples of ones where secondary school fees had been abolished at different times. In Kenya, fee-free secondary policy was introduced over a decade ago allowing the paper to consider the implications on enrolment and education financing over time. In Tanzania, the policy has been more recently introduced in 2015, with some lessons emerging. The Government of Malawi is the most recent to announce the roll-out of the fee-free secondary education policy. The country profile of Malawi considers what some of the implications might be for equity going forward.

Annex 5.1: Country profile of Secondary Education – Kenya

Fee-free secondary education has been the detriment of the most disadvantaged

Kenyan Government secondary education fee policy

In 2008, the former president of Kenya, President Kibyaki, rolled out the free [day] secondary school plan, under which government pledged to meet the cost of tuition fees while parents remained responsible for other costs including that for boarding, food and uniforms. In addition, a cost-sharing arrangement between government and parents was in place for items such as school utility bills (Shindu, 2018). Prior to the 2008 policy of fee-free secondary education, data from Kenya's 2005 Integrated Household Budget suggested that households were spending an average of US$248[xii] per secondary school student. Of this US$99 was towards non-tuition expenditures (Glennerster et al., 2011). In spite of the fee-free policy, these non-tuition expenditures remained.

Under the 2008 fee abolition, the government intended to disburse a grant of US$128 per secondary school student to contribute towards the loss of fee income. In addition, policy dictated that fees should be capped so that parents pay no more than US$93 for students to attend day schools and US$531 for students to attend boarding schools (Shindu, 2018). Later, within the 2010 Constitution legislation, there was a pledge that by 2020 there would be a 100% transition rate from primary to secondary education to guarantee for the provision of full free primary and secondary education (Ayako, 2015).

In spite of fee-free secondary being introduced, school places are still contingent on the end-of-primary examination, known as the Kenyan Certificate for Primary Education (KCPE). The Education Sector Report from 2016 indicated that government secondary schools could only admit 80% of successful KCPE candidates as supply-side constraints relating to infrastructure meant there was a shortage of places. Based on findings from the report, to facilitate the 100% transition rates from primary to secondary as set out in the 2010 Constitution, 4,000 additional classrooms and other crucial school infrastructure would need to be built (Shindu, 2018).

More recently in tandem with the 2017 national elections, the election manifesto of the ruling party and opposition pledged to offer completely free secondary education by January 2018 and September 2017 respectively (Inoue et al., 2015). Data from January 2018 indicates that the government was disbursing a grant of US$220 per student – an increase from the previous US$127 – to support the anticipated increase as a consequence of completely free secondary school policy. In 2017/18, the budget for this was US$0.39 billion. However, factoring in the cost of what parents have either been fully paying or contributing through a cost-sharing arrangement with government,[xiii] it is estimated the total education budget would need to be US$0.66 billion in order for secondary to be truly free. Some estimates indicate the cost would be even higher as the more conservative estimates have excluded the additional costs needed for the extra classrooms and teachers needed to fully execute the objective of there being a 100% transition rate from primary to secondary (Shindu, 2018).

Enrolment trends over time for primary and secondary education

Kenya's education system is formed of eight years of primary education, and four years of secondary. The official starting age of primary is six years old and for secondary it is 14 years old. In 2016, total primary enrolment was 8.3 million. The equivalent enrolment numbers for the secondary enrolment in 2016 was 2.7 million – an increase of almost 100% from enrolment levels in 2007 of 1.2

million (Ministry of Education, various years). In relative terms the most recent net enrolment rate data indicates that 52 out of every 100 secondary school aged student is enrolled at school.[xiv]

Amongst sub-Saharan African countries with data, Kenya has one of the highest rates of completion at primary level, with 80 out of the 100 children enrolled at primary level completing school. It is almost universal among boys who come from rich urban households. The high rates of completion have been accompanied by widening inequalities. In 2008, just as the fee-free secondary policy was being introduced, 62 out of 100 poor rural girls who were enrolled at primary school were completing a full cycle. In 2014, this had fallen to just 50 out of the 100 girls. In contrast 83 out of 100 boys from rich urban households were completing a full cycle of primary schooling in 2008. By 2014 this had risen to 95. The gap has grown at the very early stages of the education system and continues to widen when children move into secondary school. In 2014, only 27 of 100 girls enrolled at primary managed to transition into secondary education, compared to 50 in 2008. In stark contrast 91 boys from rich urban households enrolled at primary managed to transition into secondary education in 2014, an increase from 88 in 2008 **(Figure A1.1).**

Along with these widening gaps, there has also been a shift in the type of school attended by children from different backgrounds. With public perception among parents being that the quality of government primary schools has deteriorated since the implementation of free primary education in 2003, more affluent parents are sending their children to elite private primary schools (Zuilkowski et al., 2017). These children are likely to out-perform children from poorer households attending comparatively poorer resourced government primary schools leading to further stratification between wealthy and poor households. It is not just rich households, however, who have turned to the option of private primary schooling. Since 2003 there has been an increase in the numbers of children from poorer households who are sending their children to low-fee private primary schools especially in urban areas where government schools tend to be in short supply and are deemed of poor quality. Within the disadvantaged settlement areas of Nairobi, for instance, one estimates is that 63% of children are attending low-fee private schools (Zuilkowski et al., 2017). However, private primary schools are not necessarily benefitting the poorest. According to UWEZO data, nationally, only 3% of the poorest quintile are enrolled in private schools compared to 17% of the richest. Private primary schooling appears to improve the chances of children learning relative to their peers in government schools, but the chances of the poorest children learning in private schools remains low and is at best equivalent to the richest learning in government schools (Alcott and Rose, 2016).

According to the latest data from UWEZO's citizen-led assessment, just three in 10 children in Standard 3 are able to complete work of a Standard 2 level in primary school. Disparities in learning outcomes are stark with respect to location and household wealth. For instance, just one-in-four rural children in Standard 3 are able to complete work of a Standard 2 level compared to four-in-ten urban children (Uwezo, 2016). Even so, comparing Kenya with other countries, the learning gaps between poorest and richest are less compared with Tanzania and Uganda (Rose et al., 2016).

Even when children are eligible to continue into secondary education – if they manage to complete primary school – the reality is that secondary education is still not "free". Continued parental contributions for secondary schooling serve to remain as a barrier. Demand-side constraints for vulnerable groups is one immediate explanation for the poor uptake of secondary education. While there was an increased availability of financial bursaries through the Secondary School Bursary Scheme, for instance, they do not appear to have completely removed the financial constraints that the most disadvantaged face (Glennerster et al., 2011). Parental contributions often exceed the capped ceilings recommended by government due to high school costs. Despite fee-free secondary education being introduced, government schools are still able to levy fees for lunch, school buildings

and boarding equipment. Households are also expected to provide for items such as uniforms and books.

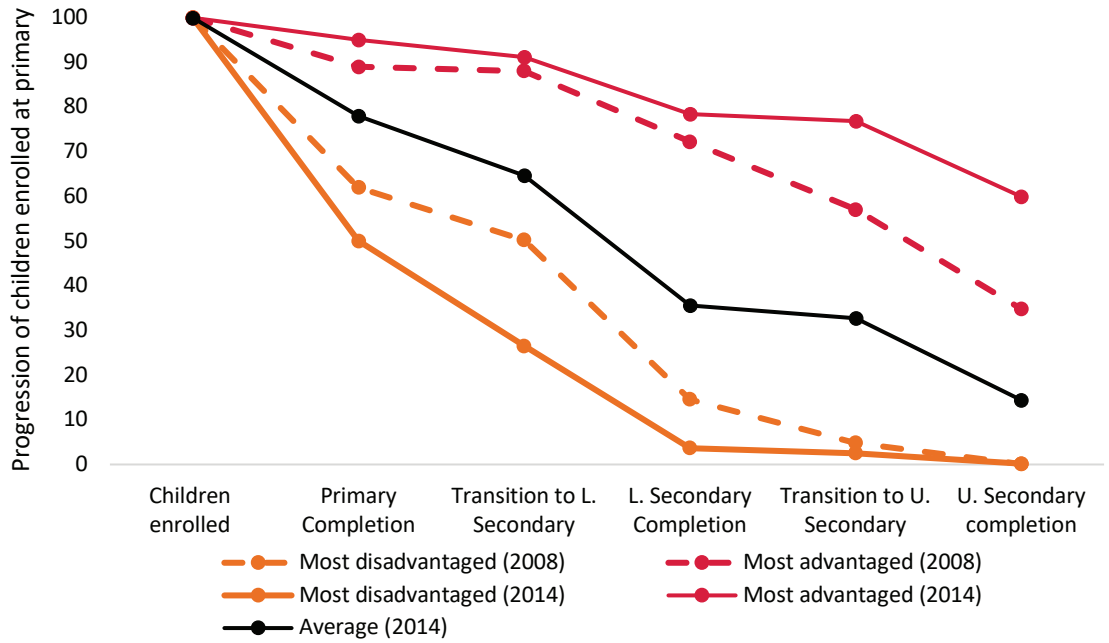
This has often been to the detriment of children from the poorest households who continue to be excluded. Ohba (2009) found that costs of the first-year preparation for day secondary school was about eight times the monthly income for employed parents, 12 to 17 times for self-employed parents and 19 to 20 times for parents engaged in casual work. In the case of boarding schools, the costs of the first-year preparation for boarding school was 15 times the monthly income for employed parents, 23 to 33 times for self-employed parents and 38 to 40 times for peasant parents engaged in casual work. Government bursaries for secondary education are only awarded to those children attending boarding schools. However, given the high out-of-pocket costs incurred by the poorest households to even send their children to day schools, this seems misdirected and unlikely to be targeting those children most in need (Ohba, 2009).

Supply-side constraints also continue to affect transition with this being geographically skewed. In the poorer North-East province, for instance, just 40% of residents are within walking distance of a secondary school. In comparison, the equivalent for the Central province was around 80% (Glennerster et al., 2011). Additionally in spite of the 2010 Constitution advocating for 100% transition rates by 2020, the current secondary school system is unable to absorb all those eligible for places at secondary schools due to infrastructure not being equipped to deal with the increase in demand. Data on private schooling at the secondary education is sparse: estimates from the UNESCO Institute for Statistics for 2009 indicate that around 13% were enrolled in private schools.

The current admission policy to a public secondary school being contingent on passing the end of primary KPCE examination is adversely affecting children from the most disadvantaged backgrounds in two ways. First, children attending elite private primary schools out-perform children from poorer households attending government primary schools in the KPCE examination. One study found that 77% of private school candidates were eligible for places in government secondary schools, compared to 45% of students in public primary schools (Glennerster et al., 2011). The increase in numbers of children attending private primary schools leads to a second problem. A quota system has been in place meaning that the government reserves just one in four places available at public secondary schools for those children coming from private primary schools (Ohba, 2013; Ngware, 2015). Children from disadvantaged backgrounds who attended low-fee private primary schools are adversely penalised by this policy as the quota system means they are competing for the same secondary school places, which are limited, with their richer counterparts who have attended better quality private primary schooling (Oketch et al., 2010; Mutisya et al., 2013). The only other option for these children is private secondary schools, whose quality is considered sub-standard to that of government secondary schools (Ngware, 2015).

Figure A1.1: In Kenya, the introduction of fee-free secondary education in 2008 has widened inequalities

Progression of a cohort through the education system in 2008 and 2014[xv]



Source: Authors' calculations based on UNESCO-WIDE (2017). *Accessed November 2017.*

Public financing for education in Kenya

Domestic public expenditure on education

In 2000, the Kenyan government spent 5.2% of its GDP on education. The share increased significantly between 2000 and 2006 to around 7%. As of 2015, the share of GDP spent on education equalled 5.3%. Compared with other sub-Saharan African countries, this was the 10th largest share.[xvi] In addition, national wealth has increased in real terms by 98% between 2000 and 2015. Translated into US$ dollars, public expenditure on education has kept in-line with this growth. This has mainly translated into increased public resources for secondary and post-secondary education while, in volume terms, resources for basic education have stayed relatively stagnant.

Over the last 15 years, the share of total education expenditure going to basic education[xvii] has declined considerably, falling from 69% in 2000 to 38% in 2015. Government expenditure reflects the greater prioritisation to secondary education, which, according to the latest statistics, receives the largest share of the budget. In 2015, 42% of the budget was allocated to secondary education compared to 17% in 2000. The share going to post-secondary has increased slightly from 12% in 2000 to 18% in 2015.

In volume terms, government resources for basic education increased between 2000 and 2006 following the introduction of fee-free primary education in education. Total resources increased from US$1.2 billion to US$1.5 billion. However, by 2015 levels had dropped to US$1.2 billion. Overall, government resources disbursed to basic education grew by just 1% per annum in real terms between 2000 and 2015. Amounts allocated to secondary education, on the other hand, increased from US$291 million in 2006 to US$1.4 billion by 2015, which represents a five-fold increase. In real terms this was an equivalent to an annual 12% growth in volume between 2000 and 2015 **(Figure A1.2).** Boarding secondary schools, generally the most elite type of school, consume a large share of government expenditure on secondary education. The justification for this is questionable both because they are more likely to be accessed by wealthier children and also

because the performance of students in day versus boarding schools is not necessarily significantly better – to the extent students achieve better results, this is mainly related to the selection of students into the schools (Lucas and Mbiti, 2014).

The widening gaps between the most disadvantaged and advantaged groups with respect to their progression through the education system has implications for how progressive government spending is. The shift in spending away from primary education towards secondary is likely to result in public expenditure on richer households at the expense of poorer households. Ille and Rose (2018) show that public spending on secondary education is over six times more for children coming from the richest households compared to the poorest.

Figure A1.2: Secondary education has become a greater priority for the Kenyan government since the fee abolition

Share and volumes of public education expenditure to education sub-sector, various years

Source: Authors' calculations UNESCO-UIS (2018). *Accessed November 2017.*

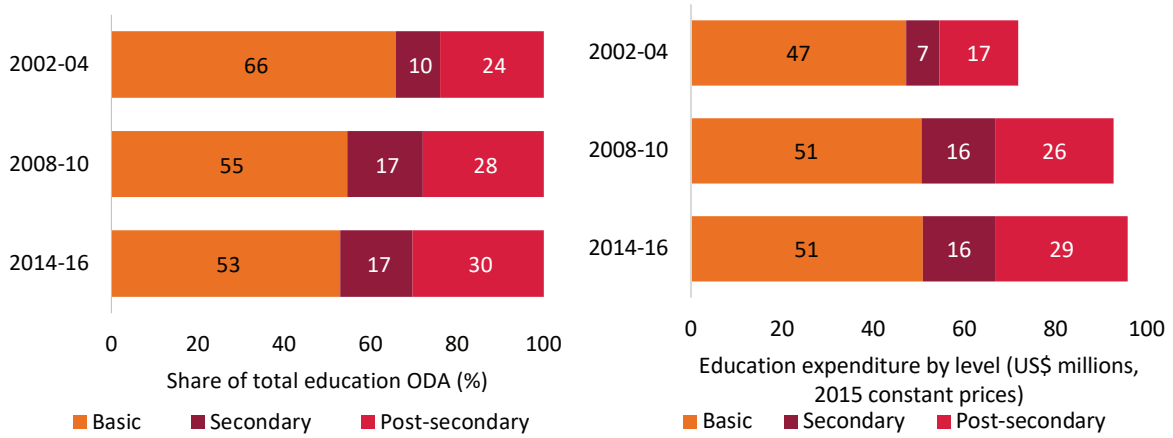
Aid spending on education

On average between 2014 and 2016, ODA to Kenya's education sector amounted to US$95.9 million. Between 2002 and 2016, ODA to education has increased by an average of 9% per annum in the country. The large increases in aid occurred mainly in the earlier period. Between 2002 and 2009, aid to education increased by an average of 14% per annum. Between 2009 and 2016, however, it declined on average by 5% per annum. As a share of total ODA disbursed to Kenya, the proportion to education has declined markedly. Between 2002-04 and 2014-16 the share of total ODA to the education sector declined from 11% to 4%.

Of total ODA disbursed to education, the majority continues to be allocated to basic education. The share, however, has declined from earlier levels when it amounted to 66% of total education aid to 53% more recently over 2014-16. Secondary and post-secondary education have both increased their share by a similar proportion over this period. Between 2002-04 and 2014-2016, donors increased the share of education aid going to secondary education from 10% to 17% **(Figure A1.3)**.

For secondary education, spending by the World Bank and the United Kingdom – the two largest donors to secondary education over 2008-2010 – had declined by 2014-16. The World Bank, in fact, did not disburse anything to secondary education over this period. The African Development Bank is one of the few donors that has increased disbursements to the secondary education sector in Kenya and was the largest donor to the sub-sector in 2014-16, .

Figure A1.3: In Kenya, secondary education has become a greater priority for aid donors
Share and volumes of ODA to education sub-sector, various years



Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*
Note: Given the volatility of aid disbursements from year to year the paper has taken average periods spanning three years. In the case of Kenya, for instance, there were extreme fluctuations in education aid during the period just prior to and post 2008 elections. As an example, in 2008 total levels of aid disbursed to the sector were US$98 million. The following year levels rose to US$136 million, before falling to US$45 million in 2010.

The composition of public spending on education by government and donors indicates that of the 31 sub-Saharan African countries with data, Kenya receives one of the smallest shares of aid relative to its own spending: 97% came of its education public spending was from domestic resources in 2016. Only South Africa, Eswatini and Mauritius had a higher share of domestic spending. The same share was apparent in 2002. With respect to secondary education, domestic spending was 99% of total public spending in 2016. This is a slight increase from 2003 when it was 95%.

Concluding remarks

While the secondary school fee abolition has helped to shift some of the burden from households to government, real challenges still remain. The first is that government and donors have shifted their focus away from primary education, raising a concern over a deterioration in access and learning at primary level for those from the most disadvantaged backgrounds. With the recent pledge to abolish remaining fees at secondary level, allocations to secondary education must be monitored closely to safeguard primary funding from falling further.

At the same time, it remains clear that secondary education is far from free in spite of the abolition of fees in 2008. Households are still having to contribute significantly to secondary school costs which are likely to be significant in relation to household income for the poorest households. From

the supply-side, the current system cannot adequately accommodate all those eligible to transition into secondary school. Eligibility is limited by performance in the KCPE examination. This is to the detriment of children from the poorest households who are not entering a level playing field when competing for the limited places.

The government and donors have both shifted the share of education budgets away from primary and to secondary and post-secondary. In volume terms, also, the amount being spent on primary education has stagnated compared to levels to the early 2000s. In this context, shifting spending away from primary to secondary and post-secondary levels makes spending more regressive given the relatively low numbers of children from the most disadvantaged backgrounds progressing into post-primary levels.

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Annex 5.2: Country profile of Secondary Education – Malawi

Two-tiered secondary schooling perpetuates inequalities

Malawian Government secondary education policy

In September 2018, the Government of Malawi announced that secondary school tuition fees would be abolished with immediate effect.[xviii] Additional secondary school fees contributing to schools' General Purpose Fund and Textbooks would be abolished starting from January 2019. The suspension of secondary school fees was announced during a period of intense political campaigning for the next election for a new President. With Malawi expecting to go to the polls in May 2019, education has taken centre stage on the political platform. The education SDG has been referred to as part of the announcement.[xix]

Prior to the abolishment of school fees, most secondary schools collected resources from students from four main revenue streams, the first three of which have been abolished under the new policy announced by government. The first was through *General Tuition Fees,* which charged each student US$2.07[xx] per year. The second was the *General Purpose Fund* revenue stream, which charged US$2.07 per student per school year. The third revenue stream, the *Textbook Revolving Fund,* required students to contribute a sum of US$0.34 per school year. The fourth revenue stream for which fees have not been abolished is the *School Development Fund.* The amount collected is contingent on development projects that the school undertakes. In addition, depending on type of school, boarding fees – which have not been abolished – also draw in a large part of schools' revenue (GoM, 2016).[xxi]

As with many countries, progressing into public secondary education in Malawi is contingent on results that primary school leavers achieve in the end of primary examination, known as the Primary School Leavers Certificate Examination (PSLCE). Until 2016, students were required to take an examination at the end of lower secondary called the Junior Certificate Examination (JCE) in order to progress into upper secondary. This has since been abolished with students now only taking the Malawi School Certificate of Education (MSCE) at the end of upper secondary, which determines access to further studies beyond secondary.

Under the current secondary education system in Malawi there are three main types of government-supported secondary schools. Firstly, government Conventional Secondary Schools, which can be either day or boarding, are funded by government through subsidies. Second, grant-aided secondary schools are operated by religious organisations who received government grants. Third, there are Community Day Secondary Schools (CDSS) which previously operated as Distance Education Centres. A separate category not supported by government are private secondary schools which run entirely on fees collected from students (Chimombo et al., 2014).

In coping with the knock-on effect on the secondary schooling system of the decision to introduce Free Primary Education (FPE) in 1994, one government strategy was to convert all Distance Education Centres into CDSSs. Currently the majority of students who transition to secondary education are enrolled at CDSSs. Enrolment figures from the EMIS 2016 show that 44% of students enrolled at secondary level, including those enrolled at private schools, attend CDSSs. In comparison, only 16% attend Conventional Secondary Schools. A number of studies indicate that CDSSs are inadequately resourced with regards to teachers and infrastructure. They fail to achieve the minimum quality standards as identified in policy documents including the current National Education Sector Plan (NESP) (De Hoop, 2010; Chimombo, 2010; Chimombo et al., 2014). The NESP, which spanned over the period 2008-2017, spoke of the need to target resources to CDSSs in

particular. The plan acknowledged the *"low funding to the secondary sub-sector, especially CDSS receiving less resources than government and grant secondary schools"* (MoEST, 2009).

Enrolment trends over time for primary and secondary education

Malawi's education system is formed of eight years of primary education, and four years of secondary. The official starting age of primary is six years old and for secondary it is 14 years old. Total enrolment at primary level based on the latest figures was 4.4 million in 2017. The equivalent for the secondary level was 1 million in the same year. While the numbers of students enrolled at secondary has doubled since 2000, in relative terms just under one-in-three secondary school-aged students were enrolled at secondary schools in 2016 – a figure which has changed little since the beginning of the millennia. The gender gap has narrowed, as one-in-four secondary school aged females were enrolled at secondary schools in 2000, improving to just under one-in-three being enrolled in 2016.

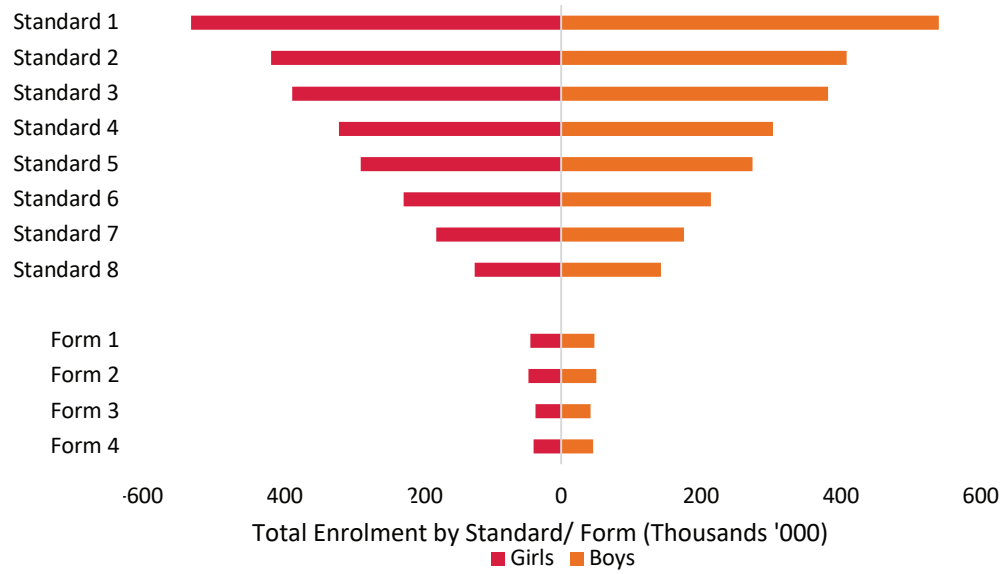
The low enrolment at secondary is partly due to the characteristics of the Malawi education system where large numbers of children are dropping out before having completed primary schooling. Amongst sub-Saharan African countries with data, Malawi has one of the lowest rates of primary completion with just 43 in 100 children enrolled at primary level managing to complete the full eight standards. This has hardly changed since 2000, when 41 out of every 100 children enrolled at primary school were completing a full cycle of primary. The averages mask the inequities between groups. In 2015, for instance, just 26 out of every 100 rural, poor girls were completing primary education. In contrast, 73 out of every 100 urban boys from rich households were completing primary education.

In a functioning, efficient education system one would expect that there would be, more or less, equally distributed numbers of children in each of the eight standards at primary level as they progress through the system at the age-appropriate age. And yet more than 20 years after the roll-out of fee free primary education in Malawi, 67% of those enrolled at primary school are concentrated in the first four standards **(Figure A2.1).** This is due to low rates of progression at the lower levels of primary education.

There has been a growing recognition by the government and international development partners of this crisis at the lower grades. In 2016/17, for instance, the National Reading Programme (NRP) was rolled out by government, with heavy support from USAID and DFID. Its focus, which is on mastery of English and Chichewa, is on Standards 1 to 4 and it involves training primary school teachers in NRP techniques together with provision of English and Chichewa textbooks. However, there are still persistent inequities between the infant and junior and senior Standards with respect to human and infrastructure resources. For example, in the lowest grades the pupil-teacher ratio (PTR) averages 100 to 1, while in Standards 7 and 8 the average PTR is 50 to 1 (Ravishankar et al., 2016).

Figure A2.1: In Malawi, pupils enrolled in the primary and secondary education system are concentrated in the early grades

Numbers enrolled by grade at primary and secondary level, 2015



Source: Authors' calculations based on EMIS (2016). *Accessed November 2017.*

Due to the poor progression of students through the primary system, Malawi's participation at secondary level is one of the lowest in sub-Saharan Africa. The NESP ambitiously sets a target of increasing the absolute numbers enrolled at secondary level by 130% by 2017 (MoEST, 2009). According to the UNESCO Institute for Statistics data, however, the actual increase was the equivalent to 66% between 2007 and 2016. In 2015, for every 100 children enrolled at primary school just 33 transitioned to secondary. The equivalent in 2000 was 32 for every 100 children, indicating that little has changed. Among certain groups, moreover, the probability of attending secondary school is much more remote. The latest household data indicates that just 15 out of every 100 poor rural girls who were enrolled at primary transitioned into secondary school in 2015. This actually represents a decline from 2000 when the equivalent number was 21 out of every 100 girls enrolled. Amongst rich urban boys the equivalent is 68 for every 100 enrolled at primary school – a proportion little changed since 2000 **(Figure A2.2).**

The poor uptake of secondary education amongst the most disadvantaged is both a supply-led and demand-driven problem. Supply-side constraints mean that many remote communities may not be within a walkable distance to any secondary school, including a CDSS. This is compounded by the fact that many government secondary schools – notably CDSSs – do not provide boarding facilities which would allow girls from rural locations to attend secondary schools even if they are at distance.

To reach the ambitious increase in enrolment levels, the NESP set a target that by 2017 private secondary schools should absorb 10% of all enrolments (MoEST, 2009). There has been concern, however, relating to the quality of these schools especially for those that are low-cost (Chimombo, 2009). Moreover, a number of studies indicate that this is not a sustainable solution in the long-term given that currently private secondary schooling remain unaffordable to all except those students coming from the richest households, together with the fact that they remain unevenly distributed (Chimombo et al., 2014; Zeitlyn et al., 2015).

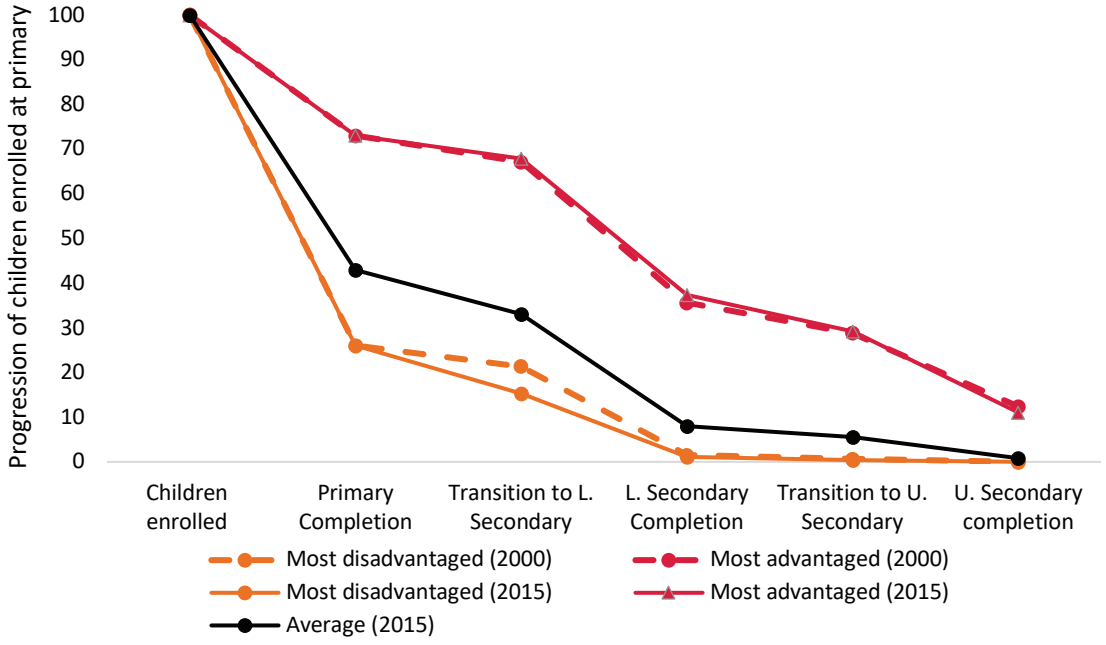
There are many demand-side constraints relating to access to secondary education. These include the fees pupils need to pay to attend secondary level. Moreover, other costs of schooling, which are

likely to be significant, will remain after the fee abolition. Other demand-side constraints specific to girls relate to child marriage, pregnancy and other family responsibilities. One estimate is that by age 18, one in two girls in Malawi are married. Similarly, by age 18, one in three girls will have had at least one child (UNICEF, 2018). The poor progression through primary education further exacerbates these challenges given that many girls who reach the end of primary education will be over-age when starting secondary.

With respect to progressing through the secondary schooling system, the data reveal that even amongst rich, urban boys, the majority will fail to complete lower or upper levels and many drop out of the formal education system altogether. Of the 100 rich urban boys who will have enrolled at primary level, just 11 will have completed upper secondary education. The equivalent for girls coming from poor, rural households is negligible. Patterns have changed little over the last 15 years and the transition to lower secondary levels appears to have worsened for the most disadvantaged group **(Figure A2.2)**. The Ministry of Education finds that of those who manage to progress into secondary education, approximately one in three students will drop out in the first year of secondary education due to an inability to pay for their school fees (Commonwealth Education Hub, 2016).

Figure A2.2: In Malawi, progression through primary and secondary education has changed little over the last 15 years

Progression of a cohort through the education system in 2000 and 2015



Source: Authors' calculations based on UNESCO-WIDE (2017). *Accessed November 2017.*

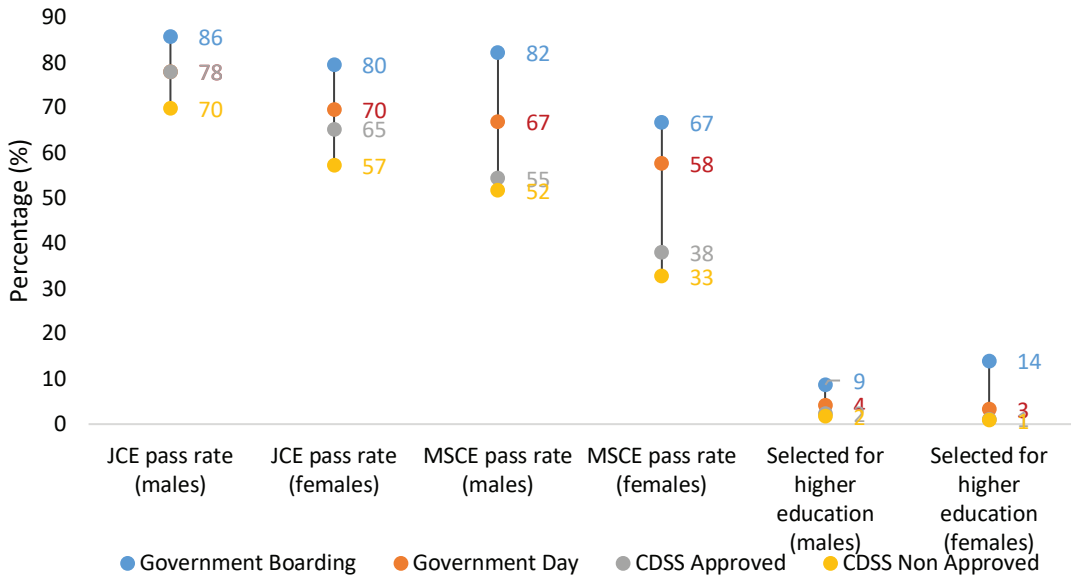
Of students who are able to make it to the end of primary school and take the PSCLE, 79% passed in 2018.[xxii] Of the students who manage to progress into secondary school, the type of school they attend is determined by how well they perform in the exam. Top PSLCE performers are selected into Conventional Secondary Schools, while students who have passed but performed relatively poorly to their counterparts will attend CDSSs. Those who fail to meet the minimum grade set by government will either fail to transition into secondary school, or else enter private secondary schools which, by and large, tend to be poorly resourced (De Hoop, 2010). Like many other secondary schooling structures in Africa today, Malawi's secondary school system is defined by the huge disparity between Conventional Secondary Schools – which tend to be better resourced in terms of human, financial and physical resources – and CDSSs.

A huge gap exists between the progression of students through the secondary school system depending on the type of secondary school they attend. Data on the JCE which was administered at the end of lower secondary until 2015, illustrates that the gap significantly widens by the time students come to sit the MSCE. Girls fare worse than their male counterparts in all respects of secondary examinations, apart from those girls who attend government boarding schools. Girls attending such schools surpass their male counterparts attending other types of secondary schools. There is also a significant difference in pass rates between girls attending government boarding schools and those attending other types of secondary schools. Of ten girls attending a government boarding school who sit for the MSCE seven will pass. This compares to just three in ten girls who attend a non-approved CDSS. It is important to note that, while girls attending government boarding schools appear to do much better than their counterparts attending other schools, including access to higher education, just 11% of total girls enrolled at secondary attend these types of schools.[xxiii]

Selection for higher education also appears to be contingent on the type of secondary school attended. While the overall numbers are low, a student is more likely to progress into higher education if they attend a Conventional Secondary School compared to a CDSS, particularly if s/he attends a Conventional Secondary School with boarding facilities **(Figure A2.3)**. This corroborates with findings from De Hoop's (2010) study which illustrates that Conventional Secondary Schools are more likely to raise the school outcomes of pupils selected to entry through greater retention and learning outcomes compared to pupils who might have just missed out getting into these schools due to their end of primary examination scores, and so attended CDSSs instead.

Figure A2.3: Students attending government boarding schools are much more likely to pass secondary school examinations and be selected for further study compared to their CDSS counterparts

Share of pupils who sat the JCE and MSCE examination who passed and the share of those who passed the MSCE who were selected for higher education, 2015



Source: Authors' calculations based on EMIS database (2016).

Public financing for education in Malawi

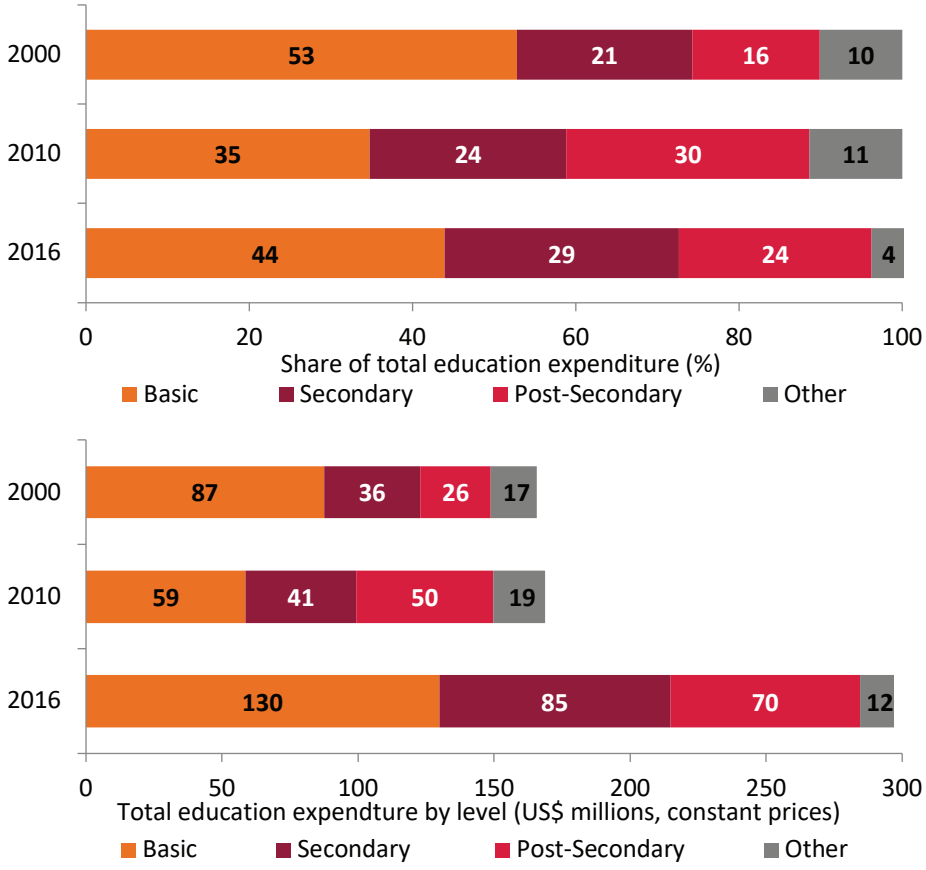
Domestic public expenditure on education

In 2016, domestic expenditure on education in Malawi was 4.7% of GDP – a decrease from 2000 levels when the equivalent was 5.2%. As a share of the total budget, the share going to education was 17.2% in 2016. Education received the largest share of the government budget in 2017/18, followed by agriculture, debt repayment costs and health (UNICEF, 2018).

As outlined in the previous section, a characteristic of Malawi's education system is the poor rate of progression throughout the education system, particularly for the most disadvantaged groups in the lower grades of primary school. With this is mind evaluating how Malawi distributes its spending on education between the different sub-sectors has important implications for equity. The distribution of education spending by level shows that, until relatively recently, the government was increasing its commitment to post-secondary education at the expense of basic education. The share of the education budget to post-secondary education in 2010, for instance, was almost the same as that spent on basic education. While the most recent data from 2016 indicates a shift towards basic education, the share to basic education is still far below that of 2000 levels. The share spent on secondary education has been increasing slowly since the turn of the millennium, from 21% in 2000 to 29% in 2016. As public expenditure has increased considerably in real terms over the same period, the amount spent on secondary education has more than doubled between 2000 and 2016 **(Figure A2.4).**

Figure A2.4: In Malawi, the share of the budget to secondary education has been increasing over the last fifteen years

Share and volumes of public education expenditure to education sub-sector, various years

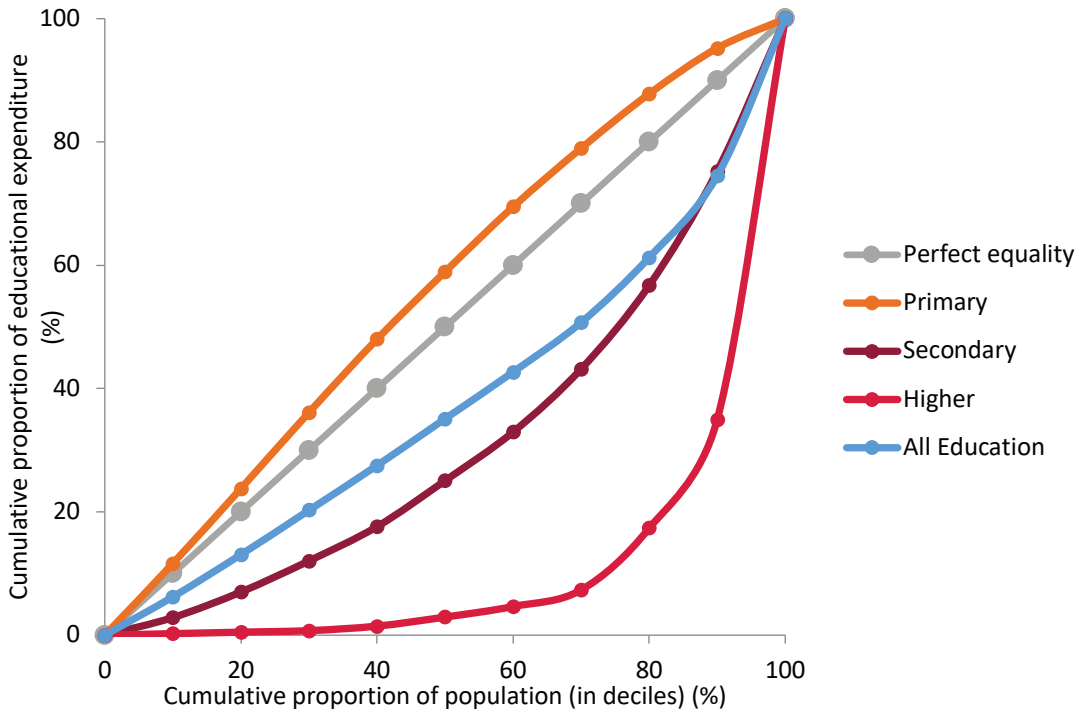


Source: Authors' calculations based on UNESCO-UIS (2018). *Accessed June 2018.*

Using a benefit incidence analysis approach, using the most recent household and spending data from 2016, **Figure A2.5** illustrates the share of Malawi public spending that benefits different income groups by level of education. It indicates that, while primary spending is pro-poor, secondary spending is regressive. The poorest 20% of households, benefit from just 7% of public spending on secondary education. The richest 20%, in contrast, benefit from 43.3%. Taking account of gender, girls from the poorest 20% of households benefit from just 3.2% of government spending on secondary education.

Figure A2.5: Malawi's richest households receive a larger share of domestic public spending on public education

Cumulative distribution of educational expenditure by wealth decile, 2016



Source: Authors' calculations based on data from UNESCO-UIS (2018) and NSO (2017). *Accessed June 2018.*

The discussion around the equity of Malawi's domestic expenditure on education above has assumed a uniform unit expenditure per level, including that for secondary schools. However, in the context of Malawi's secondary school system, different types of government schools receive different amounts of resources, with these skewed towards the more elite conventional government schools. Teachers are one example. Secondary school teachers are expected to have at least a Diploma in Education with a preference being that they have a degree. However, using data from EMIS, this paper finds that just six in ten teachers teaching at CDSS schools have a diploma as a minimum qualification, with just two in ten teachers having a degree. By contrast, almost all teachers in Conventional Secondary Schools have at least a diploma, while nearly six in ten teachers have a degree. Moreover, CDSSs have a current shortfall of 3,750 teachers houses compared to Conventional Secondary Schools which have a shortfall of 576. Similarly, comparing infrastructure between CDSSs and Conventional Secondary Schools there is a marked difference. CDSSs nationally have a shortfall of 1,256 additional classrooms which is significantly more than the 170 additional classrooms needed by Conventional Secondary Schools (MoEST, 2017). These comparisons imply that greater resources are being spent on the more privileged who make it into Conventional

Secondary Schools, and so is likely to further reinforce inequities in quality of the education received by different population groups.

Schools also receive grants from government. Secondary schools, which are cost centres, receive this directly funding directly into their bank accounts from Ministry of Finance. Schools, which are not cost centres, on the other hand, will receive this from one of the six regional Education District Divisions. Budget documents provide information on what cost centre schools receive. However, information on non-cost centre schools is less transparent and so for the purposes of this paper we have made an assumption that – depending on the Division – each of these non-cost centre schools receives an equal amount of funding. Analysis using EMIS and budget data indicates that the distribution of public secondary funding within secondary education is highly inequitable, especially considering the low proportion of students at elite Conventional Secondary Schools. Of total public secondary school enrolment,[xxiv] 73% of students attend CDSSs (both approved and non-approved). These schools receive the equivalent of 52% of total secondary school grant assistance from government. By contrast, Conventional Secondary Schools with boarding facilities – which account for 12% of total public secondary school enrolment – receive the equivalent of 33% of government secondary school grant assistance. Conventional Secondary Schools without boarding facilities, which account for 15% of public secondary school enrolment, receive the remaining 15% of grant assistance. To put these numbers into context, in 2017/18, a student attending a boarding Conventional Secondary School received approximately US$96 in non-salary recurrent financial assistance.[xxv] This was six times more than the US$15 that a student attending a non-cost centre CDSS.

International development assistance spending on education

In 2013 Malawi was hit by a scandal referred to as *Cashgate,* which uncovered massive financial impropriety by government ministers and civil servants. Over the space of just six months, it was reported that the state was defrauded of US$32 million. Government systems were found to be vulnerable to large-scale theft and basic checks and balances were found to have largely been flouted (Economist, 2014). As a consequence of the *Cashgate* scandal, several donors withheld external assistance until it could be established that government systems were sufficiently fool-proof against a possible repeat of *Cashgate*. Between 2013 – when the scandal hit – and 2014, total development assistance to Malawi dropped by 13%. In education, the implementation of a pooled funding mechanism through the education sector wide approach saw many donors suspend their aid disbursements using this mechanism.

Over 2014-16, ODA to Malawi's education sector amounted to US$90.5 million, on average. Between 2002 and 2016, ODA to education has increased by an average of 5% per annum. However, the share disbursed to education has fallen from 12% over 2002-04 to 8% over 2014-16. Currently the overwhelming share of international development assistance to education is disbursed to basic education. In 2014-16, 61% of education development assistance to Malawi was for basic education. This represents a slight decline from 2008-10 when it made up 66% of the education aid budget. Moreover, the share of aid to secondary education has declined over the past 15 years, falling from 28% to 18%, resulting also in a reduction in volume terms. This shift has largely been due to a significant reorientation towards post-secondary education whose share of education aid has increased from 12% to 21%. While levels of aid disbursed to the education sector overall decreased between 2008-10 and 2014-16, volumes to post-secondary education increased **(Figure A2.6)**. This is despite Malawi having one of the lowest rates of participation at higher education levels in the sub-Saharan African region. Currently less than 2% of 18-22 year old attend higher education, with hardly

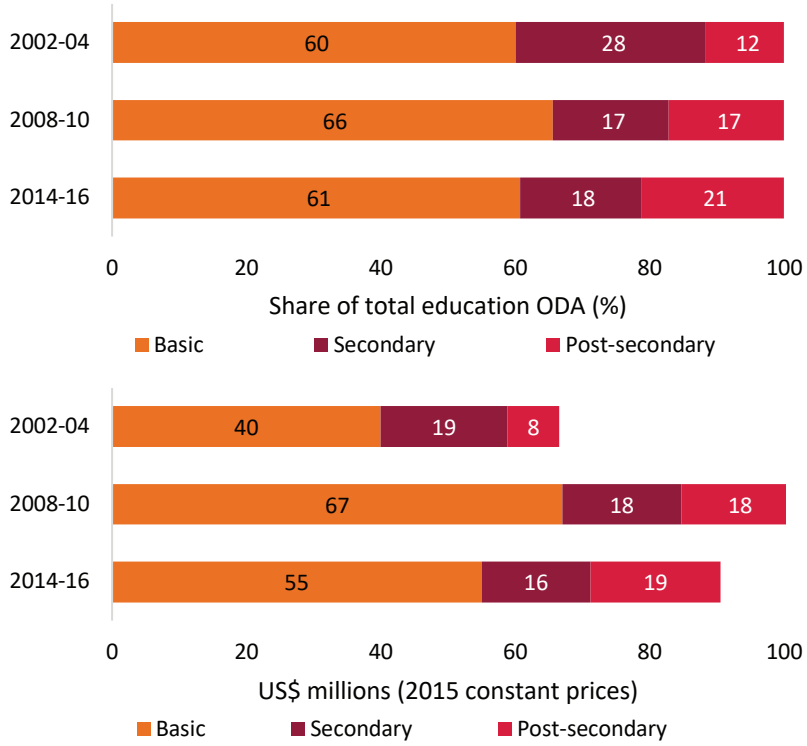
any of the poorest reaching this level (UNESCO-WIDE, 2018). This means that donors' increased prioritisation of this sector is highly regressive.

In 2016, amongst the donors disbursing to the secondary education sector in Malawi were Canada, Ireland, Japan, Korea, Luxembourg, Norway, the United Kingdom, EU and the World Bank. Although the number of donors has increased since the turn of the millennium (when it was only Germany, Norway and the World Bank), the largest donor – the World Bank – has decreased its aid disbursements to Malawi significantly over the period. Between 2002-04 and 2014-16, levels disbursed by the World Bank to secondary education declined by 91%. This has led to an overall decline in resources to the sector which no other donor has filled.

The composition of public spending on education by government and donors indicates that of the 31 sub-Saharan African countries with data, Malawi depends more heavily on aid for the education sector than many other countries. Aid as a share of total public education expenditure[xxvi] is highest in Malawi after Burundi, Comoros and Sierra Leone: the share of Malawi's public spending on education was 27% in 2016, a decline from 36% in 2003. With respect to secondary education, the share of government spending has increased significantly from 54% in 2003 to 83% in 2016. This is largely due to the absolute increases in government spending.

Figure A2.6: As both a share and in volume terms, donors have reduced their spending on secondary education in Malawi

Share and volumes of ODA to education sub-sector, various years



Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*

Note: Given the volatility of aid disbursements from year to year, we have taken average periods spanning three years. In the case of Malawi, for instance, the period post-2008 has seen extreme fluctuations in support to the sector. As an example, in 2009 aid disbursed to the sector was US$73 million. In the following year this doubled to US$142 million, before falling to US$65 million in 2011 and then rising to US$118 million in 2012.

Household spending on secondary education

The last Country Status Report indicated that, in 2007, 44% of total household spending on education was to the secondary education sub-sector.[xxvii] Comparing household spending to secondary education as a share of total household and government spending on secondary education, the report found that, in 2007, households contribute to 30% of the total recurrent cost (World Bank, 2010).

In spite of the abolition of some fees – which are the equivalent approximately of US$5 per student per year - students will still continue to pay significant fees to attend secondary schools. These include, for example, those related to boarding fees and contributions to the Parent-Teacher Associations.

Concluding remarks

There are three striking aspects which characterise Malawi's education system with implications for secondary education. First and foremost is the unfinished business which remains at primary level. More than two decades after FPE was introduced, two-thirds of learners are concentrated in the first four grades. As a consequence completing a full cycle of primary schooling still remains elusive for many children, particularly those from the most disadvantaged backgrounds.

Second, are the few places available at secondary level even if a pupil does manage to complete the full 8-year cycle of primary and pass the PSLCE examination. If all primary school entrants were to finish primary school, there would be supply constraints to their enrolment. CDSSs are still likely to account for the majority of enrolment for those from disadvantaged backgrounds.

This leads to the third point, which is the two-tiered system currently existing between CDSSs and Conventional Secondary Schools. This risks perpetuating further stratification at secondary level as the quality of secondary education in CDSSs is currently inadequate to achieve the desired outcomes stated in government policy documents. Inequities in human, infrastructural and financial resources available to CDSSs compared with Conventional Secondary Schools illustrate that there needs to be greater convergence in how these resources are being distributed.

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Annex 5.3: Country profile of Secondary Education –Tanzania

The implications of fee-free education for access to secondary education for the most disadvantaged children

Tanzanian Government secondary education policy

In the last few years, Tanzania's education system has witnessed a rapid expansion of enrolment at secondary level. In February 2015, Tanzania's Education and Training Policy (ETP) was officially launched declaring that from 2016 children enrolled in the first year of primary would receive ten years of free basic education. This is made up of six years for primary education and four years for lower secondary (HRW, 2017). The Circular implementing this policy instructs that *"pupils or students will not pay any fee or other contributions that were being provided by parents or guardians before the release of [the] new circular"* (HakiElimu, 2017). The abolition of school fees at lower secondary is in line with the implementation of the 2014 ETP. The ETP committed to the provision of Fee Free Basic Education and, thereby, replaced the former system where free primary education was introduced in 2001, but where parental contributions were necessary for school running costs. At secondary level prior to the implementation of the ETP, students were being charged a fee of US$17[xxviii] at secondary day schools (reduced to US$9 in 2004) and US$31 at secondary boarding (HakiElimu, 2017).

Policy dictated that fee free education should be provided to all children in public schools starting from pre-primary right through to Form 4 at secondary level. In practice this would mean that students attending government day and boarding schools would no longer be charged US$9 and US$31 respectively. Instead, secondary schools would receive a capitation grant of US$5 per student per year. In addition the government would provide the school US$9 per student to compensate the school for fee removal (HakiElimu, 2017).

Enrolment trends over time for primary and secondary education

Tanzania's education system is formed of seven years of primary education, four years of lower secondary and two years of upper secondary. The official starting age of primary is seven years old and for lower secondary it is 13 years old. The latest data available indicates that the implementation of fee-free education from pre-primary to secondary has already shown some gains in terms of the enrolment numbers, particularly at primary level. Between 2015 and 2016, enrolment at pre-primary level increased from 1.1 million to 1.6 million. Over the same period enrolments at Standard 1 increased by 38%, to 2.1 million (HakiElimu, 2017). By 2017, total enrolment at primary level equaled 9.3 million. At secondary level, the increases in the numbers enrolled are less dramatic than at pre-primary and primary, but significant nonetheless. Enrolment at Form 1 increased from 0.4 million to 0.5 million (HakiElimu, 2017). In 2017, enrolment at secondary level was 1.9 million. As a share of the eligible student population 52% are enrolled in lower secondary (HRW, 2017)

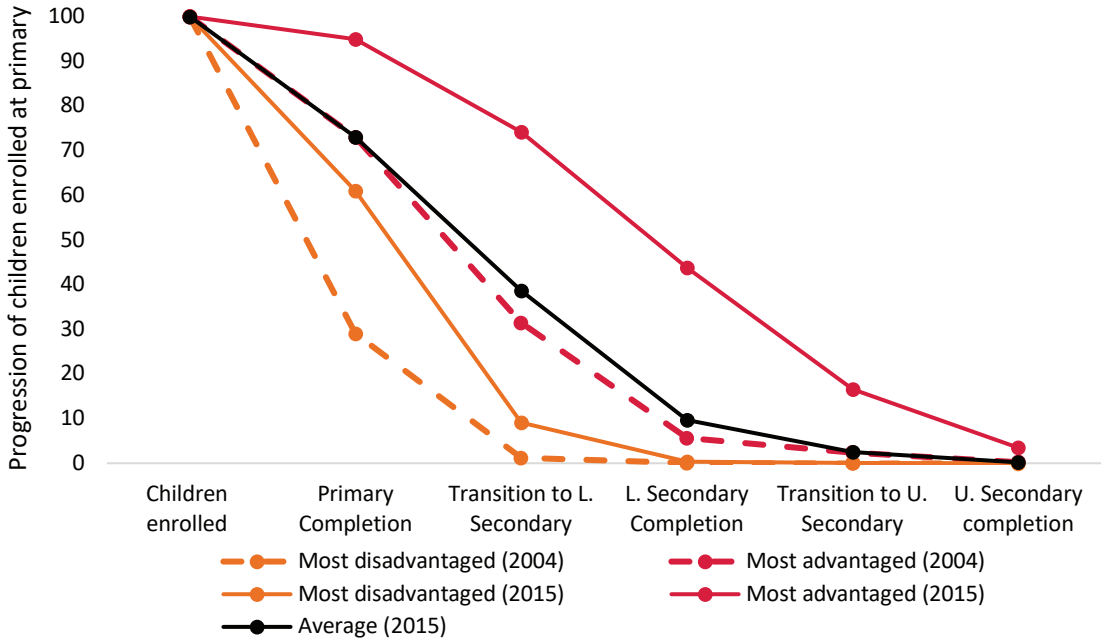
Figure A3.1 compares progression through the system in 2004 and 2015, before the introduction of fee free secondary education in 2016.[xxix] In 2004, for every 100 pupils enrolled at primary level, just 49 were completing. By 2015, this had risen to 73 out of every 100 pupils enrolled. The improvement in progression through primary school for the most disadvantaged is notable. In 2004, just 29 out of every 100 girls from poor rural households were completing primary education. By 2015 the equivalent was 61.

Despite this improvement, the gap between the most advantaged and disadvantaged has grown at the point of transition to lower secondary education. In 2004, just 11 out of 100 children enrolled at

primary school were able to make the transition to secondary school. By 2015, the equivalent number was 39 out of every 100 children enrolled. For rich, urban boys there has been a much larger increase than their more disadvantaged counterparts. In 2004, for instance, 31 out of every 100 rich urban boys enrolled at primary school were able to make the transition into secondary school. For poor rural girls the equivalent was just one in every 100. By 2015, this had grown to 74 in 100 rich urban boys. For poor rural girls, the progress was much slower with just nine out of 100 poor rural girls enrolled at primary school, managing to transition to secondary school. The gap between the two groups drops as they progress through the secondary system as the proportion of boys from rich urban families also diminishes. As such, a key feature of Tanzania's education system is the need to support the transition into primary school and retention for those who make it.

Figure A3.1: In Tanzania, progression through primary education has improved, but poor rural girls still lag behind in the transition to secondary school

Progression of a cohort through the education system in 2004 and 2015



Source: Authors' calculation based on UNESCO-WIDE database (2017). *Accessed November 2017.*

The data in **Figure A3.1** reflects the situation before the abolishment of secondary school fees. One estimate is that enrolments at secondary level increased by an additional 93,518 students between 2015 and 2016 following the abolishment of school fees (HakiElimu, 2017). Information is not available as to the background of these students. However, there are several reasons why the poorest students will still be unable to access secondary school even if school fees are no longer being levied. These relate to both demand and supply led barriers to accessing secondary education.

Firstly, securing a place at secondary is contingent upon Standard 7 students sitting and passing the Primary School Leaving Examination (PSLE). However, many children do not pass and since 2012 more than 1.6 million adolescents have been unable to progress into lower secondary because of their exam results. Current government policy means that those who fail the PSLE are unable to retake the examination, thereby ending any prospects for children who have failed to progress into formal secondary education. The policy appears to indicate that the PSLE will be scrapped in 2021 at which point pupils will automatically progress into lower secondary (HRW, 2017).

Secondly, other school-related costs need to be addressed to fully remove the demand-side constraints the most disadvantaged students still face. These include costs relating to transport to and from school, uniforms, additional school materials and the costs of private hostels if children live far away from the school. Key informant interviews with students from disadvantaged backgrounds substantiate that many children from the poorest backgrounds are unable to take up their secondary school places due to these additional costs (HRW, 2017). Experience of Camfed's programme which provides multi-dimensional support to adolescent girls who are at risk of dropping out of secondary school, including bursaries for the most disadvantaged girls, is instructive **(Box A3.1)**.

Thirdly, a deterioration in the quality of secondary schooling could occur. There is currently a concern about the ability of the education system to cope with the increase in enrolments. The increase in secondary school enrolments between 2015 and 2016 alone, for instance, would have required an additional 2,670 classrooms to accommodate them (HakiElimu, 2017). Even before the implementation of the fee-free secondary policy in 2016, the public education system was struggling to deliver an education of good quality at primary and secondary levels due to the surge in enrolments following the introduction of the 2001 fee-free policy at primary level. Secondary school head-teachers, moreover, have complained that the fee-free policy now means that schools have less autonomy over how they can use resources than compared to before. Guidelines accompanying the policy change instruct schools on how resources should be administered which, head-teachers say, may not be reflective of school needs.[xxx] In addition it appears that the government grants are not adequately replacing what schools were receiving in the past in the form of fees from parents. This, together with the reduction in autonomy, has led to complaints from head-teachers that they are unable to carry out activities they carried out in the past (HakiElimu, 2017).

Box A3.1: Results from Camfed programme supporting poor marginalised girls indicates positive impact on their learning attainment

Between 2013 and 2015, financial support was provided by Camfed to 25,938 marginalised girls in around 201 government secondary schools. Additional support was provided in four areas to reduce the barriers that the most marginalised girls face in accessing secondary schooling. These include (i) supplementary learning materials, (ii) life skills educational resources, (iii) life skills programme delivered by young women who were previous recipients of Camfed and (iv) psycho-social support through school community engagement. In total, 143,199 girls and boys benefitted from Camfed activities beyond the direct financial support.

The most marginalised girls received US$99.4 in direct financial support, together with additional non-financial support bringing the total per pupil spending up to US$114.50.

A recent study on the cost-effectiveness of the Camfed programme indicates that, while it would be expected that the costs to reach the most marginalised girls are higher, the impact is large. For instance, for every US$100 spent on a marginalised girl the gain is the equivalent of two additional years of learning (Sabates et al., 2018).

Camfed's approach, using targeted bursaries, while addressing wider quality reforms, provides important lessons for wider government reforms in the context of rolling out fee-free secondary education.

Public financing for education in Tanzania

Domestic public expenditure on education

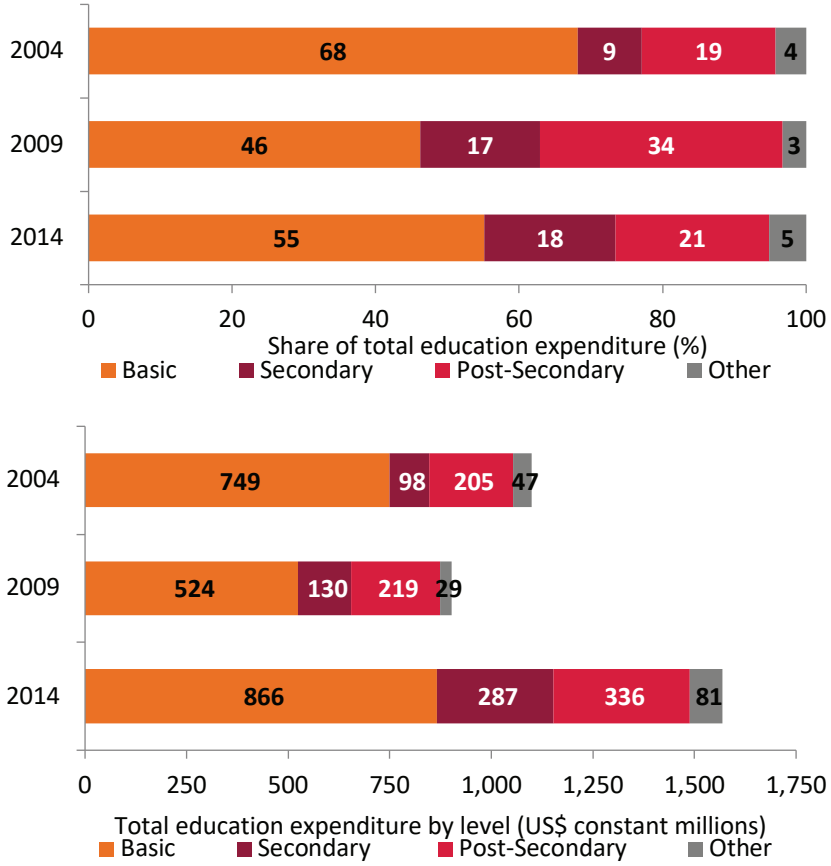
In 2014, public domestic expenditure on education was 3.5% of GDP – a decrease from 2004 levels of 4.7%. Amongst sub-Saharan African countries, Tanzania's commitment to education spending, if measuring it as a share of GDP, is one of the lowest. As a share of government spending, data from the UNESCO Institute for Statistics reports that Tanzania has also decreased its spending to education from 19.5% in 2004 to 17.3% in 2014. More recent budget data for the financial year 2017/18 indicates this has fallen further to 14.8% (UNICEF, 2018). Despite these measures suggesting an insufficient commitment by government in prioritising education, UNESCO data indicates that public domestic expenditure on education has increased steadily in real terms over this period. In 2004, the government committed US$1.1 billion to education; by 2014, this had increased to US$1.6 billion. More recent budget data for the 2017/18 year, however, indicates that the year after fee-free secondary education was introduced the education budget saw a 1.3% nominal decline in volumes it received (UNICEF, 2018).

Within the education budget, the government has increased prioritisation towards secondary education. Its share doubled from a low 9% in 2004 to 18% in 2014. While basic education saw its share fall dramatically from nearly 70% in 2004 to 46% in 2009, largely as a consequence of increased prioritisation to the post-secondary sub-sector, by 2014 the government was once again committing the majority of the education budget to basic education **(Figure A3.2).**

In real terms, the growth in government expenditure to secondary education has far out-stripped any other sub-sector in education. Between 2004 and 2014, the growth in government allocations to secondary education grew by 13% per annum in real terms. This compares to just 2% per annum for basic education and 6% for post-secondary education. While secondary education allocations have been growing, its volume is still lower than that for post-secondary education. Budget data from the 2017/18 financial year, for instance, indicates that the development part of the budget is overwhelming spent on Higher Education Students' Loans, which consumed 47% of the education development budget (UNICEF, 2018). The negligible numbers of students from poor disadvantaged backgrounds, and even the low share from richer more advantaged students, who progress on to higher education means that this high share of public spending on post-secondary education is highly inequitable (Ilie and Rose, 2018).

Figure A3.2: In Tanzania, the share of the education budget to secondary education doubled between 2004 and 2014, although its share of education spending remains low

Share and volumes of public education expenditure to education sub-sector, various years



Source: Authors' calculations based on UNESCO Institute for Statistics database. *Accessed November 2017.*

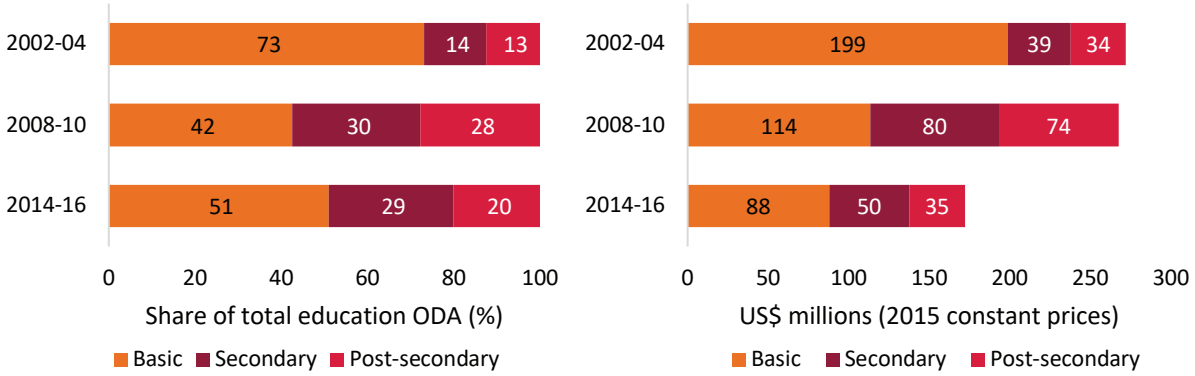
International development assistance spending on education

Tanzania is one of the largest recipients of aid to education in sub-Saharan Africa. During 2014-16, donors disbursed an annual average of US$172 million to Tanzania, which was the third largest after Ethiopia and Mozambique. However, aid to education have been declining since the turn of the millennia. The decline largely relates to the fall in aid to basic education which, between 2002 and 2016, saw an average decline of 6% per year in levels. In volume terms, aid to basic education more than halved between 2002-04 and 2014-16, falling from US$199 million to US$88 million **(Figure A3.3)**. Secondary education, on the other hand, saw an average annual increase of 9% per year between 2002 and 2016. The equivalent for post-secondary was a decline of 2% per year.

Despite the decline in aid to basic education, it continues to make up the majority of donors aid disbursements to the sector. However, donors have reduced their share to basic education from 73% to 51% over the period. In contrast the share to secondary education has more than doubled from 14% to 29% **(Figure A3.3)**. This is important to support the larger numbers of primary completers who make the transition into secondary school **(Figure A3.1)**. However, caution is still needed. It is premature to shift focus away from the basic education sub-sector when four in ten poor rural girls are not even managing to complete a full primary education cycle. Moreover, since the introduction of the ETP, enrolments at the primary level have significantly increased. Between 2015 and 2016, for instance, enrolments at Standard 1 increased by 0.6 million. For pre-primary the equivalent was a 0.5 million increase. The increase in enrolments has already created a shortage of

classrooms. If taking the 40 pupils per classroom benchmark used in Tanzania, then an additional 27,000 classrooms would need to be built (HakiElimu, 2017).

Figure A3.3: In Tanzania, donors have increased the share of aid to secondary education
Share and volumes of ODA to education sub-sector, various years



Source: Authors' calculations based on OECD (2017). *Accessed December 2017.*
Note: The volatility of aid disbursements from year to year has meant that for the purposes of a more reflective time-series analysis we have taken average periods spanning three years. In the case of Tanzania, for instance, the entire period for which there is data available (2002 to 2016) has seen extreme fluctuations in disbursements to the sector. As an example, in 2013 total levels of aid disbursed to the sector were US$235 million. The following year levels halved to US$122 million, before rising again to US$207 million in 2014 and then falling again to US$188 million in 2016.

Almost two-thirds of education aid to Tanzania is disbursed by bilateral donors, of which the United Kingdom is the largest. The United Kingdom, which is by far the largest donor to secondary education in Tanzania, increased its secondary education disbursements on average by 22% per annum between 2002 and 2016. The World Bank, the second largest donor to secondary education over 2014-16, has also increased its secondary education disbursements over the last 14 years. Between 2002 and 2016, the annual average growth rate of secondary education disbursements by the World Bank grew by 19% per annum.

The composition of public spending on education by government and donors indicates that, of the 31 sub-Saharan African countries with data, Tanzania receives one of the smallest proportions of aid to domestic spending. The share has dramatically declined over a 10-year period between 2004 and 2014. In 2004, 37% of total public expenditure for education came from international donors. By 2014, the share had fallen to 7%. The fall in the share of aid for secondary education expenditure is even more dramatic. In 2004, 62% of total public expenditure for secondary education came from international donors, with the remaining 38% coming from government. By 2014, the share from international donors had fallen to 7%. This has largely been as a consequence of government domestic spending to secondary education nearly tripling in real terms. This has been accompanied by stagnating levels disbursed by international donors.

Concluding remarks

Tanzania has made massive strides in closing the gap between children from disadvantaged backgrounds and those from more advantaged backgrounds who are able to complete a full cycle of primary education. However, while progress has been made at primary level, the most disadvantaged girls still lag behind their more advantaged counterparts with respect to accessing secondary education. Data prior to the introduction of the recent fee-free secondary policy indicates that the transition of disadvantaged girls into secondary education has been more static especially when compared to more advantaged boys.

While it is too early to evaluate the impact of the introduction of fee free education at secondary level, qualitative studies suggest there are a number of challenges which continue to affect transition to secondary. These barriers include being ineligible for a secondary school place due to not performing well in the PSLE examination. The continued financial costs related to attending secondary school which have not been abolished under the fee-free policy are also likely to be a barrier. Emerging evidence appears to suggest that the gap schools face in lost revenue from parents appears to not have been completely filled by government secondary expenditure. This has the potential to negatively affect the ambitious roll-out of fee-free secondary with further consequences for the quality of secondary education, with the disadvantaged at most risk of dropping out.

This links directly to the financing of education which has seen a declining priority in the government's national budget over the last few years and urgently needs to be rectified and reversed if the progress that has been made is to be maintained and further improved. Within the education budget, while the share of the education budget going to post-secondary education has been gradually declining in recent years, the government still spends more on post-secondary education than it does on secondary education. As a measure of equity, this is highly regressive given the negligible numbers of students from disadvantaged backgrounds who progress to higher education. Donors too have a role to play in the successful roll-out of the expansion of secondary education and the unfinished business which remains at primary and secondary level. And yet there has been a massive decline in resources at all levels of education from international donors. Clearly, therefore, an expansion in public sector funding on education is needed from government, with support from international partners.

It is not just about reprioritising government budgets to education, and within that to the lower levels of education. Lessons from the experience of Camfed's work in Tanzania is instructive with respect to a more targeted use of public funding. Given the evidence that cost barriers to secondary education are still present for the poorest students in spite of the abolition of secondary school fees, the government must reorient resources to these students to help reduce the remaining cost barriers which may prohibit them from continuing into secondary education.

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[i] The figures on enrolment at vocational education is likely to be an under-estimate as UNESCO-UIS is unlikely to comprehensively collect enrolment on students enrolled in private vocational centres.
[ii] The internal efficiency coefficient is defined as the optimal number of pupil-years, in the absence of repetition and drop-out, to produce a number of graduates were there no repetition or dropout in the system. The way to calculate this is by dividing the number of pupil years required to produce a number of graduates from a given school-cohort by the actual number of years that were spent to produce the same number of graduates and multiply the result by 100. See http://uis.unesco.org/node/334569 for more information.
[iiiiii] These data precede the policy of free lower secondary education introduced in 2016.
[iv] Southern and Eastern Africa Consortium for Monitoring Educational Quality
[v] Analysis Programme of the CONFEMEN Education Systems.
[vi] This has been calculated using the IMF's World Economic Outlook database and the OECD's Creditor Reporting system
[vii] These figures differ to those in Table 1 as they consider all countries who have data in the period 2012-2017. Analysis for Table 1 only took those countries, which had data for both the period 2000-05 and 2012-17.
[viii] These are in 2014 constant prices.
[ix] Girls are supported with school fees, uniforms, books, pens, boarding fees and disability aids.
[x] All ODA analysis is in USD millions and in 2015 constant prices. The OECD-DAC database was accessed in December 2017.
[xi] http://www.worldbank.org/en/topic/education/projects
[xii] This exchange rate at the time of research was approximately US$1 = Kenyan Shillings 101. This rate has been used for conversions in the text, which have been rounded to the nearest dollar.
[xiii] These include contributions to utilities, administration, classrooms, lunch and uniforms.
[xiv] http://theconversation.com/why-funding-alone-cant-shake-up-kenyas-school-transition-rate-95443
[xv] Data on primary completion, transition to lower secondary, lower secondary completion, transition to upper secondary and upper secondary completion are all taken from household surveys in a particular given year. They, therefore, do not correspond to the same cohort. The absence of cohort data which tracks different groups who enrol at primary education through the education system means that a proxy has been taken to calculate these figures.
[xvi] For countries which do not have data for 2015, this report has used the latest year over the period 2010 to 2015.
[xvii] Basic education here refers to pre-primary and primary education. Given the small volumes to pre-primary by both government and donors, this is overwhelmingly referring to primary education.
[xviii] One media report illustrates the contradictory messages coming from government regarding where the decision to abolish secondary school fees originated. While the Ministry of Education indicates that this was the decision of the sitting President, the Ministry of Finance has indicated that this policy was only introduced after pressure from USAID.
[xix] During the launch of the New Secondary Technical Programme Regional Dialogue, the Minister of Education, Mr. Bright Msaka, signalled a clear shift towards prioritising secondary education over primary education. He cites the Sustainable Development Goal 4.1 as a clear impetus for this (MoEST, 2018a).
[xx] This exchange rate at the time of research was approximately US$1 = Malawi Kwacha 725. This rate has been used for conversions in the text, which have been rounded to the nearest dollar.
[xxi] For the four National Boarding Conventional Secondary Schools (Mzuzu, Lilongwe Girls, Dedza and Blantyre) boarding fees are not retained by the school, but instead deposited into Government Account Number 1, which is a pooled account which collects revenue from all sectors in Malawi.
[xxii] https://malawi24.com/2018/08/11/79-percent-pass-pscle/
[xxiii] Excludes schools listed as "Unknown" or "Open" under the EMIS database.
[xxiv] This excludes enrolment at schools which are categorized as "Open" or "Private" schools.
[xxv] Exclusive of costs relating to salaries.
[xxvi] As a share of total domestic expenditure on education and total ODA on education.
[xxvii] Data on household expenditure is out of date. With the rise in tertiary fees in the period after the latest 2010 Country Status Report, from which this figure has been sourced, it is likely that the share households contribute to higher education will have increased.
[xxviii] This exchange rate at the time of research was approximately US$1 = Tanzanian Shillings 2,290. This rate has been used for conversions in the text, which have been rounded to the nearest dollar.
[xxix] The latest household survey data using the Demographic Household Survey was in 2015.
[xxx] Of the total capitation grant 35% is for office expenses, 30% is for academic purposes, 15% is for continuous assessment, 10% is for medicine and expenses related to female students and 10% is for minor school repairs.