

Low-Cost Private Schools in Tanzania: A Descriptive Analysis

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Abstract

This paper discusses the potential role of low-cost private secondary schools in Tanzania. The share of private enrollment has been negatively correlated with the availability of public schools. With the 2016 Fee-Free Basic Education Policy, the public secondary education system is experiencing significant demand pressures. The government has limited resources to address these pressures. Using micro-data from the Morogoro region, the paper finds that private schools have excess capacity that can allow for absorption of additional students at relatively low cost through potential public-private partnerships. The paper finds no evidence that service delivery or student performance is worse in private schools relative to their public counterparts. These findings provide empirical evidence on some key enabling conditions for potential public-private partnerships for secondary education in Tanzania.

JEL Classifications: I22, I28, J20, J24

Keywords: Private schools; Public-Private Partnership; Universal Access; Education Systems; Tanzania.

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1. Introduction

Relative to other countries in Sub-Saharan Africa, Tanzania performs poorly on access to upper secondary education. In 2015, gross enrollment in upper secondary averaged 34 percent in Sub-Saharan Africa, but only 7 percent in Tanzania (World Development Indicators (WDI 2019)). The system produced fewer than 13,000 math and science graduates, equivalent to only 1 percent of the relevant age cohort (World Bank 2018b).

A government policy is trying to change this. The 2016 Fee-Free Basic Education Program (FBEP) is designed to expand equitable access to basic education. It is already causing sharp increases in both primary and secondary enrollment, putting pressure on the country's public education system. Government projections suggest that enrollment in government secondary schools will double between 2018 and 2025 (World Bank 2019).

However, between 2016/17 and 2018/19, the overall education budget declined by 17 percent in real terms. The share of education in the total budget fell from 19 to 16 percent; and education spending as a share of GDP fell from 4.4 to 3.6 percent, over the same period. Between 2016/17 and 2018/19, primary spending per student fell from TZS 336,891 (US\$155) to TZS 220,566 (US\$97) (World Bank 2019).

What options does the government of Tanzania have to accommodate increasing enrollment in secondary grades and limited fiscal space? Could the private sector provide part of the answer? This paper takes a systems-approach to address this question. It analyzes the relationship between Tanzania's public and private school systems. In doing so it explores supply shortfalls, government capacity, and the potential role of private schools in increasing secondary education access, with a focus on the Morogoro region.

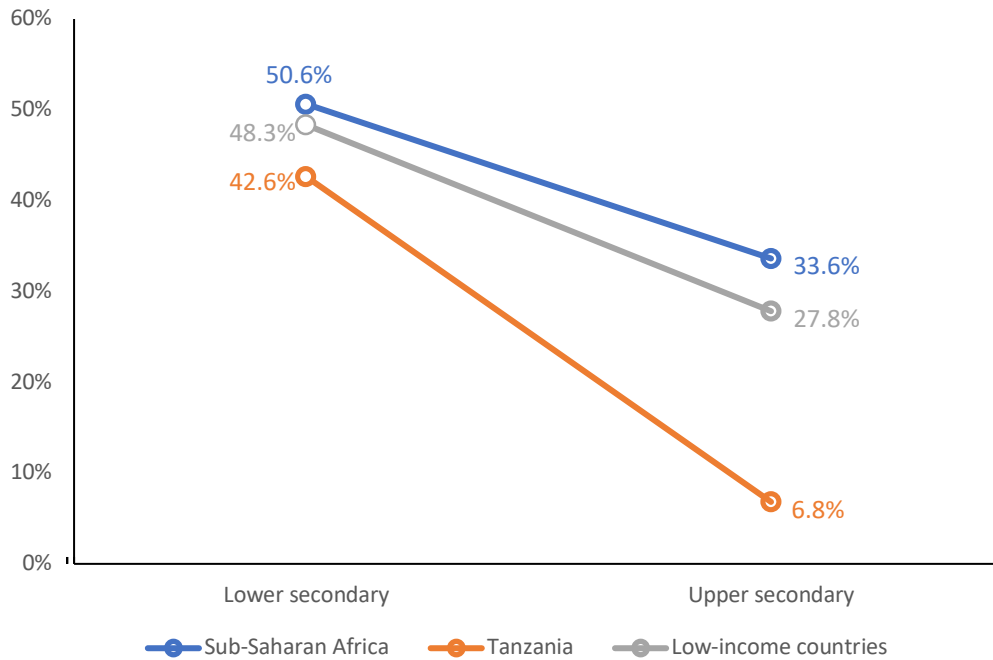
We have three main findings. First, there are supply shortfalls in public lower secondary education. Second, there is excess capacity within private schools to absorb more students. Private schools are at 70 percent of their student capacity while public schools are currently at 130 percent of their intended capacity. Third, we do not find evidence that student performance or service delivery is systematically worse in private schools than in their public counterparts. Fourth, private school entrepreneurs are amenable to public-private partnerships.

The question of public-private partnerships (PPPs) in education is technically complex and politically contentious. While we do not provide direct recommendations on whether and how to structure such partnerships; we provide empirical evidence on specific enabling conditions for such partnerships – capacity, service delivery, willingness, and parental demand. The remainder of this paper is organized as follows. In Section 2 we discuss the motivation of the paper; Section 3 provides an overview of the data used; in Section 4 we discuss possible supply shortfalls in basic education, followed by an overview of private schooling in Tanzania in Section 5. Section 6 examines the capacity of private schools to absorb students from public schools, Section 7 discusses parental attitudes towards basic education and section 8 concludes.

2. Motivation

In Tanzania, of every 100 students who enter primary school, only 6 will complete upper secondary (WDI 2019).

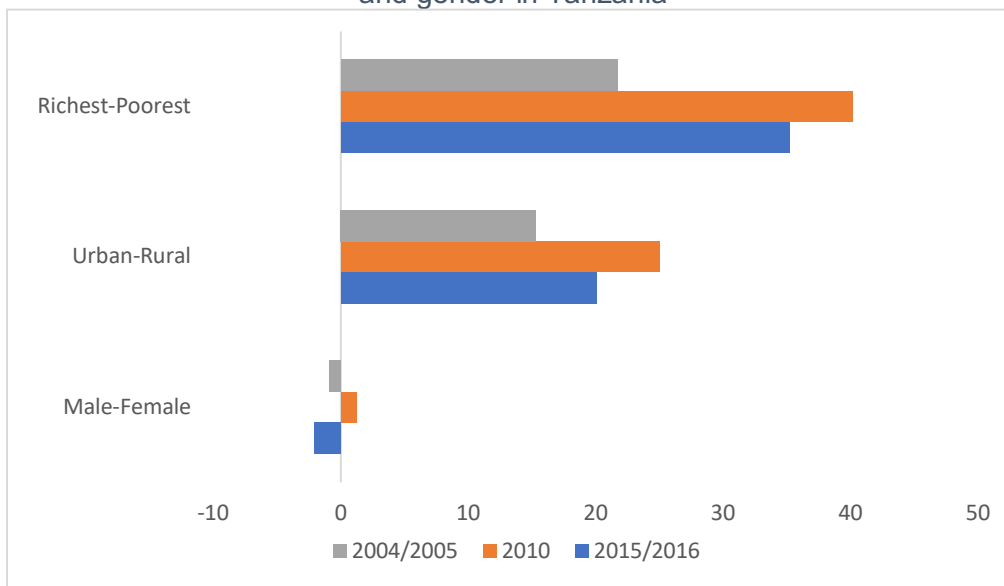
Figure 1: Gross enrollment for Lower and Upper secondary grades, in 2015



Source: World Development Indicators (accessed on Oct 3, 2019)

This low number hides further disparities. Only 6 percent of children from the poorest quintile were attending secondary school (DHS 2016). Further, approximately 29 percent of girls and 34 percent of boys are estimated to drop out of lower secondary school before they complete. Over the last four years, approximately 21 percent of boys and only 16 percent of girls that completed lower secondary schooling went on to upper secondary (Samarrai and Tamagnan 2019).

Figure 2: Percentage gaps in net secondary school enrollment, by wealth quintile, residence, and gender in Tanzania



Source: 2004/2005, 2010 and 2015/2016 Tanzania Demographic and Health Surveys.

However, these enrollment rates have spiked with the FBEP policy (MoEVT 2016 – 17). Between 2015 and 2018, the introduction of FBEP increased primary and secondary school enrollment rates by 20 and 24 percent, respectively and secondary transition rates rose from 67 to 71 percent in 2018 (World Bank 2019b). At the same time there is evidence that primary and secondary education systems are already under considerable pressure in terms of input availability (see Section 3). Given these trends, how should Tanzania plan education service delivery in preparation for current and projected sharp enrollment increases?

One possibility for accommodating the rapidly increasing secondary enrollment is for private schools to play a role. Globally, private schools are increasingly important in education service delivery, even for poor families. Roughly one in eight primary school students around the world attends a private school. In middle-income countries, one in four secondary students attend a private school (World Bank 2018a). In fact, in some contexts, parents seem willing to bypass lower-quality public schools in favor of better-quality private ones with higher fees (Andrabi et al 2008).

Why are private schools increasingly important in conversations about public education service delivery? This can be for several reasons. First, of particular relevance to this paper, private schools can fill a supply gap when the nearest public schools are far away, or when there is demand to expand faster than public infrastructure can be built (Oketch et al 2010, Tooley 2005). Private schools may also be more innovative than public schools because they have more autonomy (Patrinos et al 2009). Private schools may have lower rates of teacher absence (Bold et al 2017). Also, competition from private schools may improve the performance of nearby public schools (Kosec 2014, Sandström and Bergström 2005).

However, despite growing global relevance, private school involvement as a part of any government's official education strategy tends to be highly controversial. This is partially because private schools may exacerbate existing inequalities in education access - a particular concern if these schools skim off the higher-income or higher-performing students, leaving only the more disadvantaged students in the public system. Some have argued that even if private schools bring short-term benefits, they may undermine effective public schooling in the longer term. Also, cross-country data analysis finds no private school advantage in terms of student performance in a majority of countries, when controlling for other factors (Sakellariou 2017).

One possible solution that may minimize risks but maximize potential benefits of private schools is well-designed public-private partnerships. These are contracts between the government and a private sector provider, where the government acquires a service for a specified time period, for instance, with the aim to increase enrollment and minimize inequality (Taylor 2003). PPPs in education may be able to ensure increased access by harnessing the excess capacity, management efficiency, and creative potential of the private sector without sacrificing the equity goals typically associated with the public sector. PPP designs can address both supply- and demand-side constraints. The most prevalent demand-side mechanisms include vouchers and subsidies and supply-side mechanisms include private finance initiatives where the private sector is contracted to operate/maintain/manage schools or even to provide services like teacher training, curriculum design and textbook provision (Patrinos 2009).

Would PPPs in basic education be a viable strategy for Tanzania? This paper provides a first-stage empirical exploration of this question. It examines some important enabling conditions for potential PPPs in secondary education in Tanzania through different information sources and perspectives. We rely largely on in-depth data on public and private schools in the Morogoro region of Tanzania, buttressed by national statistics and a nationally representative parental SMS survey.

3. Data

For national statistics, the paper relies on data from the Ministry of Education, Science, and Training (MoEST) Basic Education Statistics (BEST) and the World Bank's World Development Indicators (WDI). Other data come from three sources.

1. 2013 school survey undertaken as the baseline of an impact evaluation (IE) by the World Bank. This is referred to henceforth as the *2013 IE data*. The study sample includes 396 lower secondary schools from five regions of Tanzania: Simiyu, Shinyanga, Morogoro, Lindi and Geita.¹ Around 16 percent of the interviewed schools are private and the remaining are public. The survey includes information from head-teacher and teacher surveys, along with tests for Form III (Grade 9) students. As a part of data collection, students were tested in independently-created curriculum-based tests on English, Mathematics and Kiswahili. For the purposes of this analysis, we include only schools from the Morogoro region (166 schools), as we can merge it with other data sources, including administrative data on student performance.

2. 2015 school survey in Morogoro undertaken by the World Bank. This is referred to henceforth as the *2015 Morogoro data*. This survey collected information from 142 schools in the Morogoro region of Tanzania, 53 of which were public schools and 89 of which were private schools. Roughly, 62 percent of the schools were at pre-primary/primary level and the remaining (38 percent) were at the secondary level (lower secondary, upper secondary or both). It included interviews with head-teachers on school demographics, operational costs, management and student outcomes. The survey was not designed to be nationally representative.

For private schools, an additional module on possible partnership with the government was included. Private schools were randomly selected to be administered one of two versions of this module. The first version phrases questions in a personalized manner, asking respondents directly their opinions on partnering with the government. The second version phrases questions in a generalized manner, asking respondents their opinions on partnerships of the average private entrepreneur.

Average PSLE marks and CSEE grade point averages (GPA) from 2013 to 2016 were merged with the 2015 Morogoro data to assess differences between public and private schools over time. PSLE marks and CSEE GPAs were provided by the National Examination Council of Tanzania (NECTA).

3. 2017 SMS survey of parents undertaken by TWaweza, a prominent civil society organization focused on improving education service delivery in Tanzania. This is referred to henceforth as the *2017 SMS data*. Every year TWaweza conducts a Sauti za Wananchi (Voices of Citizens) survey using mobile phones to regularly collect information from a nationally representative panel of mainland Tanzanian citizens. To help avoid bias toward the wealthiest households (who are more likely to own mobile phones) and those in urban areas (who are more reliably able to charge them), all respondents recruited for the survey were offered a simple mobile phone and solar charger.

The 2017 survey, used in this paper, collected information from 1,396 households across Tanzania who had a child in primary school and/or a child in secondary school. The respondent for the questionnaire was the head of the household. Of the households surveyed, 1,251 had at least one child in public school, 77 had at least one child in private school, and 68 households

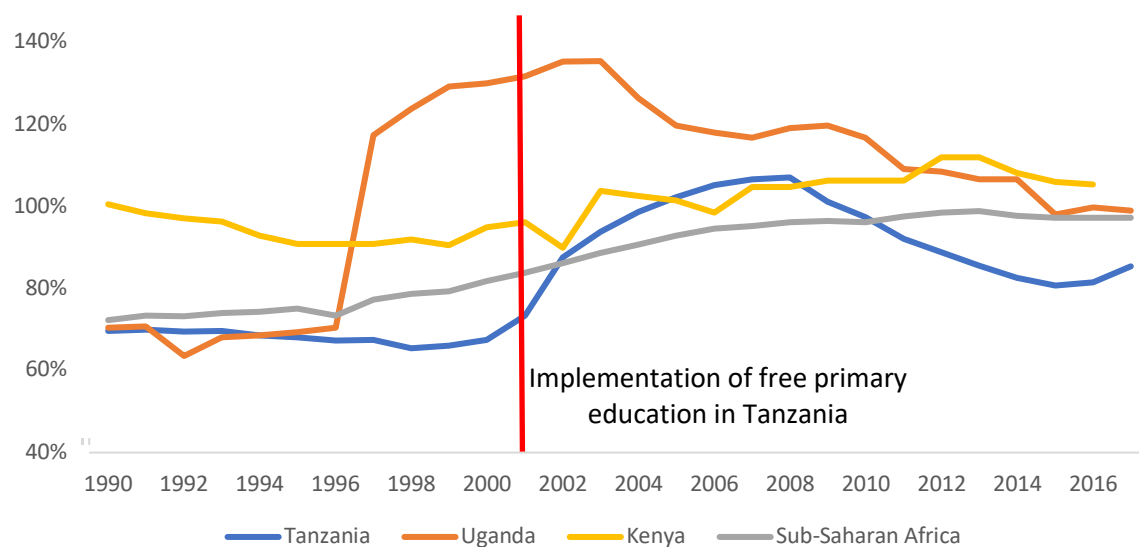
¹ At the time of sampling (2012), old regional demarcations applied, due to which the schools sampled from Simiyu and Geita belong originally to Shinyanga. This means that data from Simiyu and Geita are not regionally representative.

had children in both public and private schools. This was the 23rd round of calls made to the panel of households.

4. Supply shortfalls in secondary education

In 2001, Tanzania eliminated school fees at the primary level, which increased primary enrollment rates from 58.8 percent in 2000 to 80.7 percent by 2002² (Government of Tanzania 2011, MoEST 2005). There is evidence that the significant increases in enrollment, particularly among girls and children from households in the lowest wealth quintile, can be attributed to the fee-free primary school policy (Hoogeveen and Rossi 2013). Uganda went through a similar spike in 1997, when it abolished primary school fees (Figure 3).

Figure 3: Gross Primary School Enrollment Rates, 1990-2017

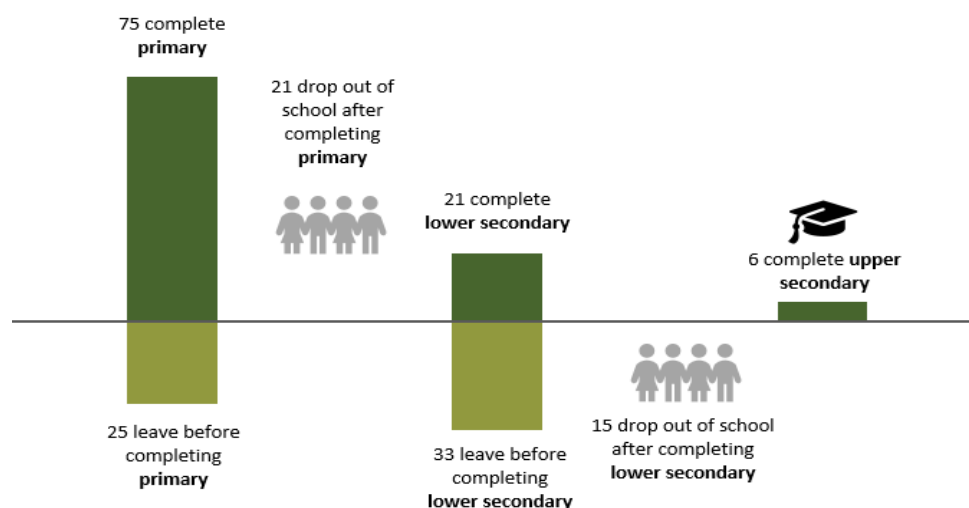


Source: World Development Indicators (WDI), 1990-2017

However, the increase in the lower secondary enrollment rate has not been as steep. The secondary gross enrollment rate increased from 7 to 22 percent from 2000 to 2007 (SEDP 2010) while the primary GER during the same time went from 67 to 111 percent (WDI). At only 23 percent, low rates of secondary enrollment persist today (MoEST 2016). A key reason for these low rates has been the high cost of secondary schooling.

² The graph below shows that the increase in primary school enrollment in Tanzania began in 2000. This increase in 2000-2001 could have been in anticipation of the policy eliminating primary school fees.

Figure 4: For every 100 students that enter primary school



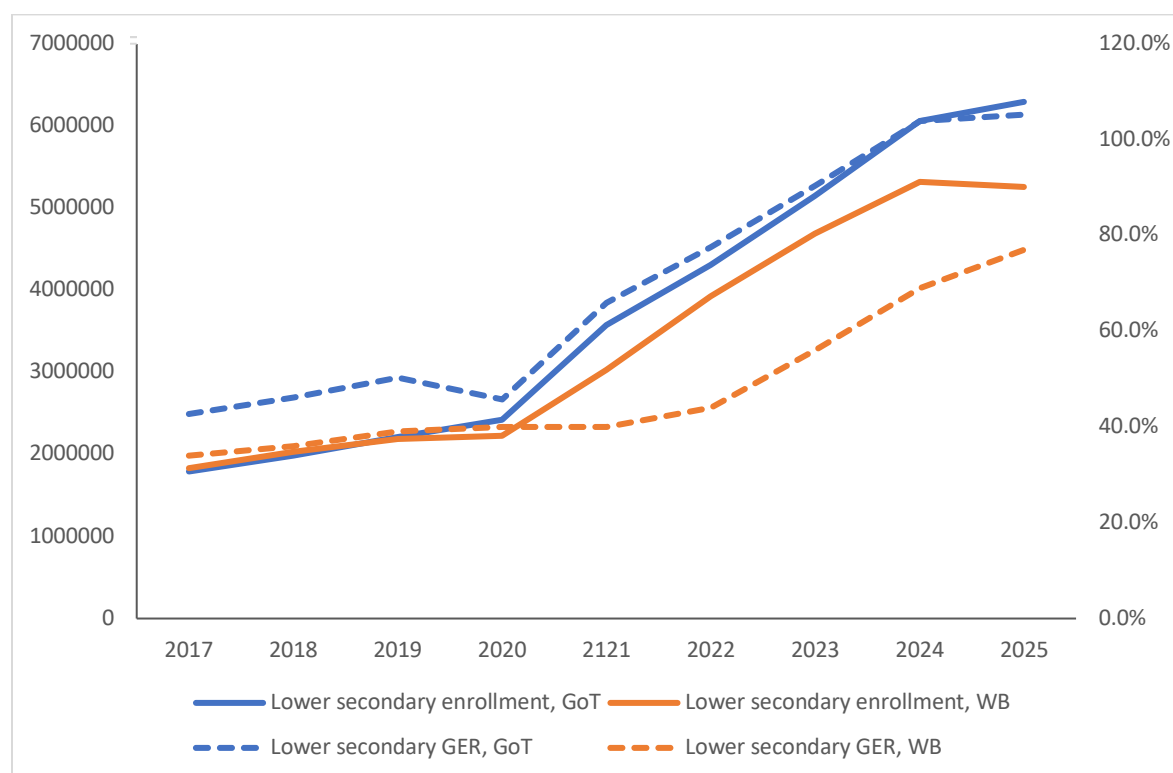
Source: Author's calculations using 2016 Best Education Statistics in Tanzania (BEST).

The 2016 FBEP policy directly addresses the high cost of accessing secondary education by eliminating both informal fees for primary education and formal fees for lower secondary education. It is already showing significant impact. In 2017, the number of students entering Standard 1 (Grade 7, the first year of lower secondary) increased by 41 percent compared with 2016. Transition to lower secondary increased from an average of 55 percent in the preceding years to 71 percent in 2016/17 (MoEST 2017).

Lower secondary enrollment was at 1.8 million in 2016 (MoEST 2017). Based on the successful rollout of FBEP and related reforms including automatic promotion to secondary, the government projects that lower secondary enrollment will increase to 6.3 million in 2025 (World Bank estimates this to be 5.5 million).³ Upper secondary enrollment is projected to triple between 2018/19 and 2029/30.

³ This equates to a Gross Enrollment Ratio (GER) of 105 percent, up from the current rate of 41 percent, based on National Bureau of Statistics population estimates.

Figure 5: Projections of Secondary Enrollment



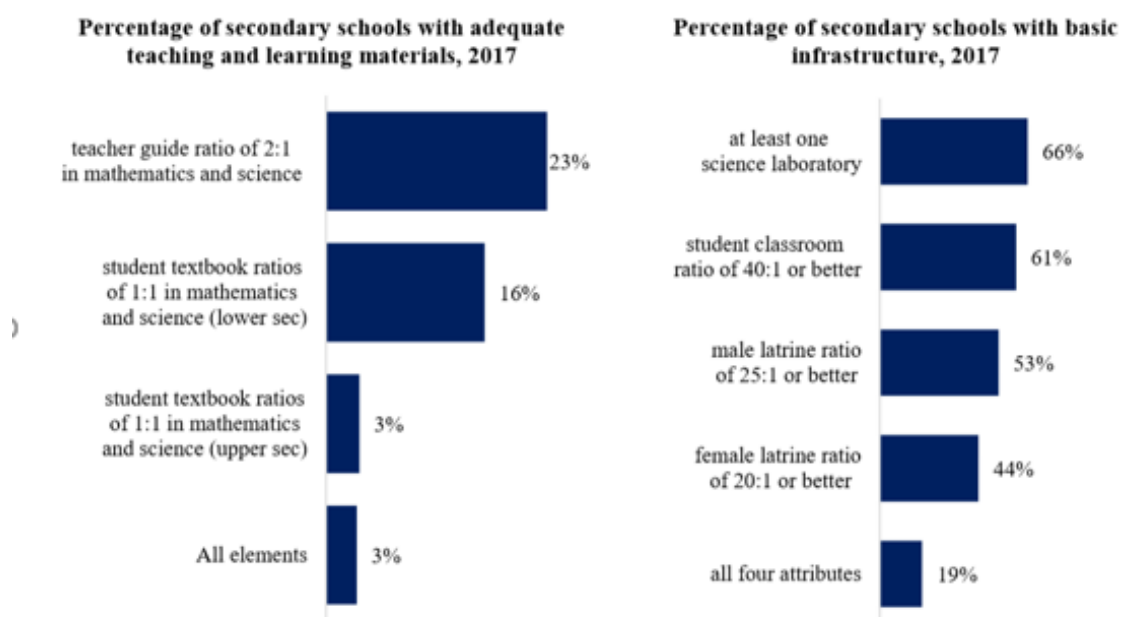
Source: 2017 Government of Tanzania and World Bank secondary enrollment projections.

These increases in enrollment have exceeded the rate at which the government is hiring teachers and building classrooms, leading to larger class sizes. In 2018, a primary school classroom was used by an average of 81 students - double the standard of 40 students per classroom (World Bank 2019b). In 2016/17, this was met with a non-commensurate 9 percent increase in the number of primary classrooms. This led to a higher primary stream/classroom ratio, which rose from 1.8 streams per classroom to 1.9.

Data from the 2016 Sauti za Wananchi survey corroborate these shortfalls - households with children that participated in this survey reported shortages of teachers (34 percent), lack of desks (30 percent) and lack of classrooms (13 percent) as the main challenges facing public schools in Tanzania (Sauti za Wananchi 2016). Across the system, estimates of teacher requirements show that there are only half of the needed secondary school mathematics teachers and only 75 percent of the required physics teachers (Figure 8, World Bank 2018b).

To maintain an average of 602 students per school, World Bank projections estimate that the system needs 7,000 new schools - an increase of 40 percent. In addition to infrastructure, the rapid expansion of the system calls for increased provision of teaching and learning materials and significant increases in teacher numbers. If current input levels are maintained, the annual cost for lower secondary education is projected to rise threefold and the cost of upper secondary is projected to rise fivefold from 2018/19 to 2025/26 (Tanzania Public Expenditure Review, 2019).

Figure 6: Supply shortfalls in Secondary education



Source: World Bank 2018b

It is unlikely that expansion of public schools alone can accommodate this increased pressure, especially given the existing shortages within the system. Can private schools be part of the answer?

5. Private schools in Tanzania – Policy and Provision

Given the predicted supply shortfalls in public secondary education, this section explores the landscape around a potential solution - private schools. Tanzania has a history of being restrictive towards private schools. The Education Act of 1978 allowed private schools only for technical education. However, supply shortfalls in the face of strong demand led to substantial private provision for general secondary education.

In Tanzania private provision is pronounced at the secondary level, but negligible at the primary level. Private schools account for 18 percent of the total enrollment in secondary education, which is slightly lower than the Sub-Saharan Africa average of 20 percent. In contrast, private schools account for only 4 percent of enrollment in primary education, as opposed to the Sub-Saharan Africa average of 14 percent (WDI 2017).

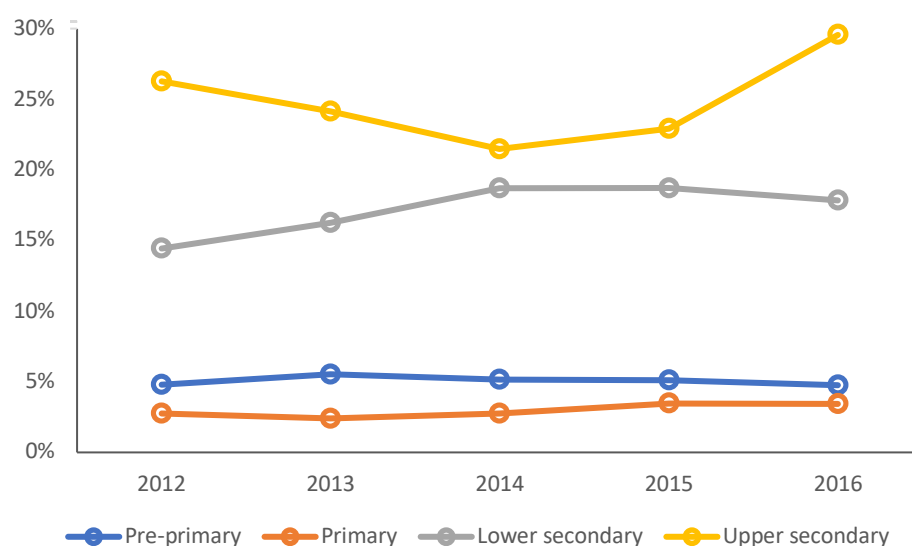
Recently, private schools have also entered pre-primary education. According to official administrative data, roughly 4.8 percent of students countrywide at the pre-primary level were enrolled in private schools in 2012. This appears to be an under-estimate. Based on nationally representative household surveys, this figure was at 25 percent (Living Standards Measurement Study 2012). This implies significant informal private provision at this level (Baum et al 2018). It also suggests that official statistics on private provision at other levels might reflect lower-bounds. As in other contexts, the unofficial education market is likely to be considerably larger than official statistics might suggest.

The policy framework governing private schools shows a mixed report card when benchmarked against best practices. Individuals, private organizations, and non-governmental organizations are legally permitted to own and operate private schools in Tanzania. However, according to the

Education Act of 1978 (which has not been amended, to the best of the authors' knowledge), there are 14 criteria upon which a school can be denied registration. The challenge here is that some of these criteria and minimum requirements are opaque and are open to distortion (World Bank 2014, 2015). For instance, a school can be refused registration if “the premises of the proposed school or the equipment will not allow of effective tuition in the subjects to be taught in the school.” On the other hand, policies governing private schools' autonomy and quality assurance are well-formulated and enforced through inspections. Also, policy affords private schools moderate levels of autonomy. They can set teacher salaries, deploy and dismiss teachers (subject only to labor laws) but they have to adhere to centralized requirements on teacher qualifications, class sizes, and pedagogy.

Adding to the complexities around private school provision, Tanzania currently offers no tax subsidies or cash transfers for families and children attending independent private schools. Schools set their own tuition fees, but they are subject to review from the government. In order to operate, independent private schools are required to pay an inspection fee of 5,000 Tanzanian shillings (US\$3) per student per year, as well as an examination fee of 15,000 Tanzanian shillings (US\$9) for each student in a grade where standardized examinations are administered. As a result, private secondary enrollment varies from 47 and 44 percent of total enrollment in Dar es Salaam and Manyara to 6 percent in Lindi and Mbeya as their availability is more pronounced in wealthier regions (Baum and Cilliers 2018).

Figure 7: Share of total enrollment in private schools, by level



Source: 2012-2014, 2016, Best Education Statistics in Tanzania (BEST); 2015, UNESCO Institute for Statistics.

So what kind of an education market have these policies created in Tanzania? A deep dive into the education market of one region, Morogoro, is presented in the next section.

6. What do private schools look like?

In order to understand private schools' ability to fill the gap in secondary education, a survey of 53 public and 89 private schools, at different levels (pre-primary, primary, and secondary) was undertaken in Morogoro, Tanzania in March 2015. This survey covered all the schools in urban Morogoro. In this section we summarize some key features of private schools in Morogoro and

contrast them with those of public schools. Therefore, unless explicitly mentioned, data for this section come from the 2015 Morogoro data. In some places, these data are supplemented with 2013 IE data (details in Section 2).

Roughly half of the private schools in our sample are owned and managed by a faith-based organization, a third are owned and managed by a private business and the rest fall under the category of community/NGO/Trade Union schools.

Figure 8: Types of private schools in Urban Morogoro

Type of private schools	Percentage
Faith based/religious organization	54%
Private business	38%
Community	3%
Charity/NGO	3%
Trade Union	1%

Source: Authors' calculations using 2015 Morogoro data.

Private schools are newer than public schools by an average of 6 years. Nearly 45 percent of public and approximately 61 percent of private schools in the sample were established between 2005-2014.

6.1 Size and Capacity

In the 2015 Morogoro data we find that private schools have significantly higher capacity for additional enrollment at the preprimary/primary level and slightly higher capacity for additional enrollment at the secondary level. Nearly 86 percent of private pre-primary/ primary schools have capacity for additional enrollment, compared to only 27 percent in public schools. At the secondary level, 83 percent of private schools have capacity for additional enrollment, compared to 65 percent in public schools. Around 86 percent of private schools admit every student who wishes to attend their school but only 42 percent of public schools admit every student who applies.

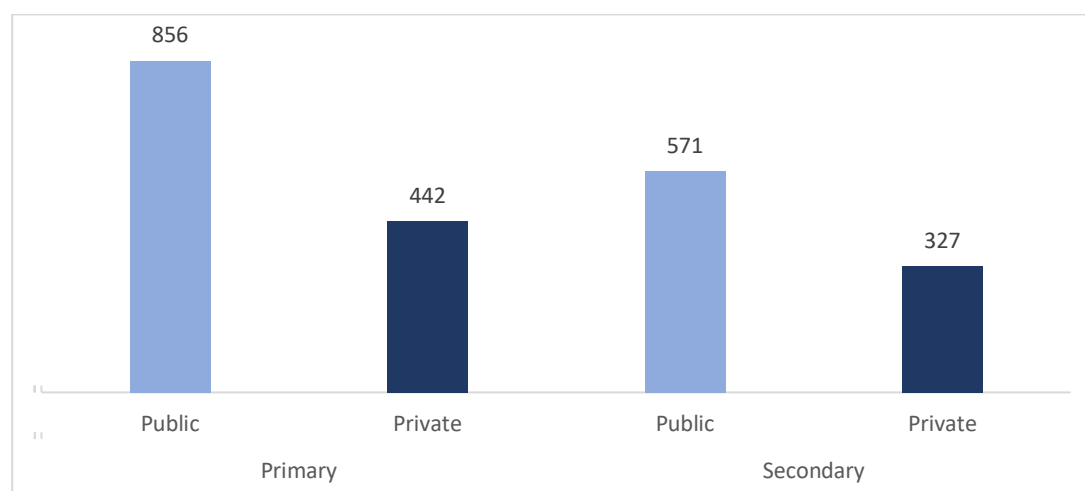
Figure 9: Filled capacity in public and private schools, by level

Primary	Private	85%
	Public	175%
Secondary	Private	65%
	Public	107%

Source: Authors' calculations using 2015 Morogoro data.

Private schools are smaller—the average number of students in public schools is 661 compared with 247 in private schools. Size comparison by education level is provided in Figure 10. On average, private schools have half as many students in these levels as public schools, though the number of students for both public and private schools is widely distributed around the respective means.

Figure 10: Average number of students, by level



Source: Authors' calculations using 2015 Morogoro data.

Consequently, average primary and secondary class sizes are significantly smaller in private schools than public schools. Note that both public and private schools are gender-balanced.

Based on national data, in primary grades, private schools are at 70 percent of their student capacity while public schools are currently at 130 percent of capacity (MoEST, 2016). In lower secondary schools, private schools have even greater excess capacity; private schools are only 57 percent filled while public schools are at 107 percent of capacity.

6.2 Teachers

Public school teachers in our 2015 Morogoro data sample have higher levels of education. Among the total teachers in the 142 schools surveyed, 62 percent are public school teachers and 38 percent are private school teachers. Nearly 42 percent of public school teachers have a bachelor's degree compared to 22 percent of teachers in private schools. This is driven largely by the high number of private pre-primary teachers and high number of public lower secondary teachers in the sample. Looking exclusively at lower secondary schools, the percentage of teachers with a bachelor's degree is not statistically significant between public and private schools, at 67 and 71 percent, respectively. Also, private schools are significantly more likely to have uncertified teachers. Nearly, 21 percent of the private schools have full time teachers without certification whereas the number is 13 percent for public schools. Accordingly, teacher salaries in private schools are significantly lower, possibly driven by the lower qualifications required for pre-primary teachers.

Based on the 2013 IE data, we find that compared to public schools, teachers are less likely to be absent and more likely to be in class and teaching in private schools. As a part of data collection, schools were visited in February-March 2013 for headteacher and teacher surveys and again in October 2013 for unannounced visits to measure teacher attendance. During unannounced visits, nearly 20 percent of public-school teachers were absent, as compared to only 7 percent of private school teachers. The likelihood of a teacher being in school but out of class was higher in public schools than private schools (41 and 30 percent, respectively). Similarly, the likelihood of a teacher being in class but not teaching was higher in public schools relative to private schools (13 and 6 percent, respectively). All these differences are statistically significant. In addition, when data are disaggregated by level, a public preprimary/primary school is likely to have 30 more students per teacher than a private preprimary/primary school. However,

there is no discernable difference between public schools and private schools at the secondary level (Table 2).

On the other hand, teacher turnover rates were significantly higher in private schools. Between February and October, around 17 percent of public school teachers had left the school, while nearly 39 percent of private school teachers had left the school. It is possible that control over teacher dismissals allows private schools to enforce higher effort among teachers than public schools. However, due to this and lower salaries, private schools may suffer from unstable teacher tenures which may influence attrition rates and quality of service delivery.

6.3 Financing

The information presented in this section, which comes from 2015, is likely to be somewhat outdated, as FBEP – which eliminates all school fees for lower secondary public schools – was introduced in 2016. However, it is instructive because it helps contextualize the education market for secondary schools in Tanzania.

Over half (57 percent) of public schools and nearly all private schools in our 2015 Morogoro data charge tuition. Also, private schools charge higher non-tuition fees than their public school counterparts. These fees cover registration/admission, food, transportation, textbooks, and extracurricular activities. Families of students in private schools pay close to 9.5 times more in non-tuition fees at the pre-primary/primary level and 2.1 times more at the secondary level (**Table 3**). However, based on self-reported data, nearly 65 percent of private schools claim to provide scholarships to marginalized students, compared to 17 percent of public schools. This number stands at 53 percent at the pre-primary/ primary level and 74 percent at the secondary level for private schools.

While private schools do not receive government funding, they appear to be financially sustainable. Nearly, 69 percent of private schools own the land on which the school resides and 71 percent own the school building. Of those which do not own the school building, only 56 percent pay a rent. Only 11 schools reported currently having outstanding debt, credit or loans, and an equal number of private schools reported plans to borrow money in the next year. Based on the 2015 Morogoro data, on average, in both types of schools, outgoing expenses (including registration and approval fees, taxes, recurring expenses) are less than the tuition and non-tuition fees collected.⁴

FBEP may change the financial sustainability of public school systems and sharpen the divide between public and private schools, as families of students in private schools pay significantly higher tuition and non-tuition fees.

6.4 Student Performance

According to 2015 Morogoro data, there is some evidence that private schools fared better on some national examinations. While schools' self-reported percentages of students sitting the 2014 PSLE and CSEE exams were higher among public schools, the difference was not statistically significant (**Table 4**). Passing rates of the PSLE and CSEE exams, however, were higher among private schools and significantly higher for the PSLE.

Administrative data provided by the National Examination Council of Tanzania (NECTA) on average PSLE marks and CSEE grade point averages (GPA) from 2013 to 2016 were merged with our 2015 Morogoro data. This merge shows that the average PSLE marks were significantly higher among private schools over all four years. One anomaly is that while overall secondary pass rates are higher for private schools compared to public schools, CSEE GPAs, a measure of

⁴ More details on schooling costs in private and public schools can be found in Baum and Cilliers (2018).

secondary school success, were lower among private schools in all years except 2014 (see **Table 3** and **Figure 11**).

More evidence on lower secondary student performance was derived from the 2013 IE data. A total of 12,500 Form III (Grade 9) students were tested in interdependently-created curriculum-based tests on English, Mathematics and Kiswahili (more details in Filmer et. al 2020). On average, student performance was slightly higher in private schools than public schools (most pronounced in English), but the gaps are not statistically significant and were not controlled for student characteristics due to limited data.

Figure 11: Average performance of Public and Private schools in Public Examinations

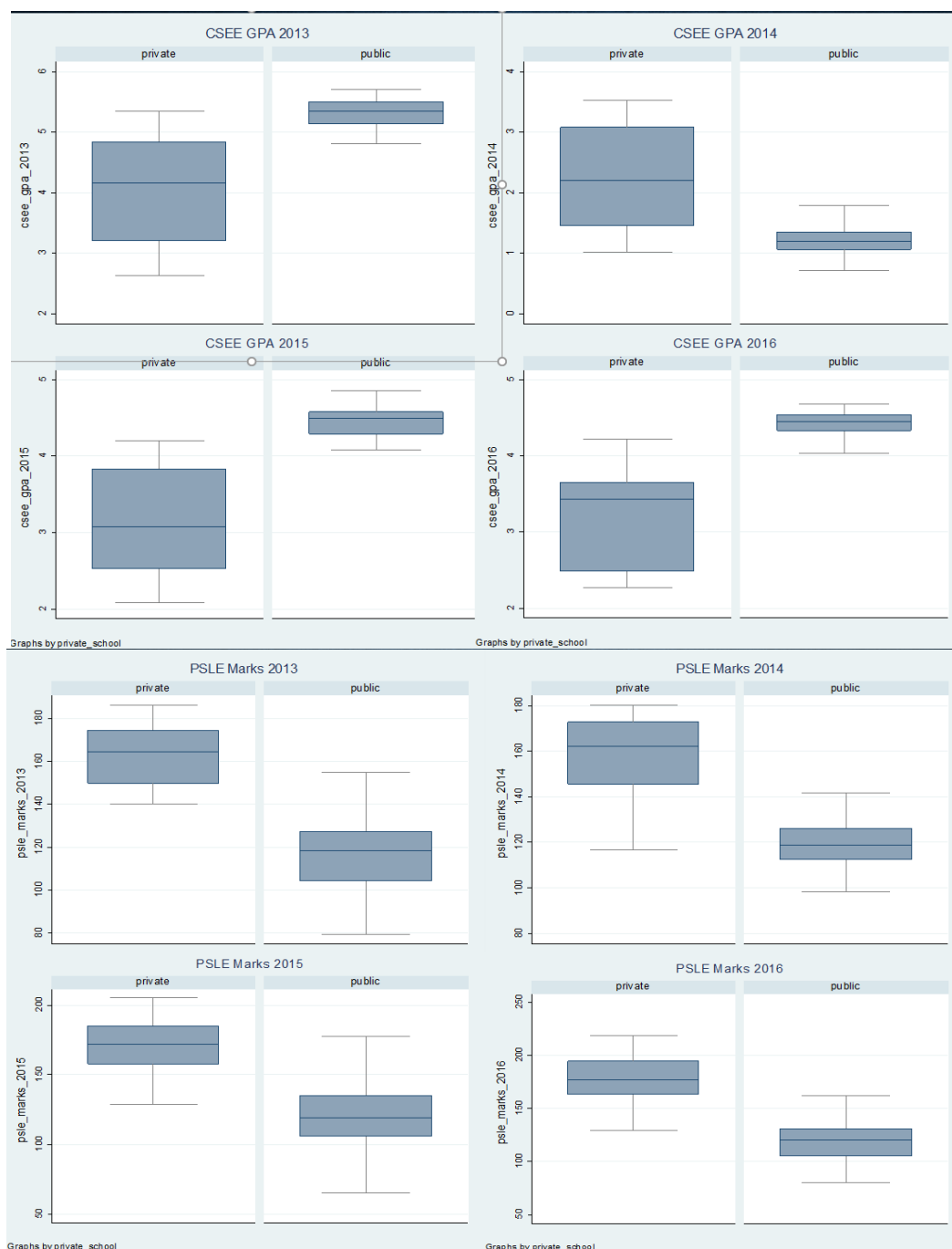
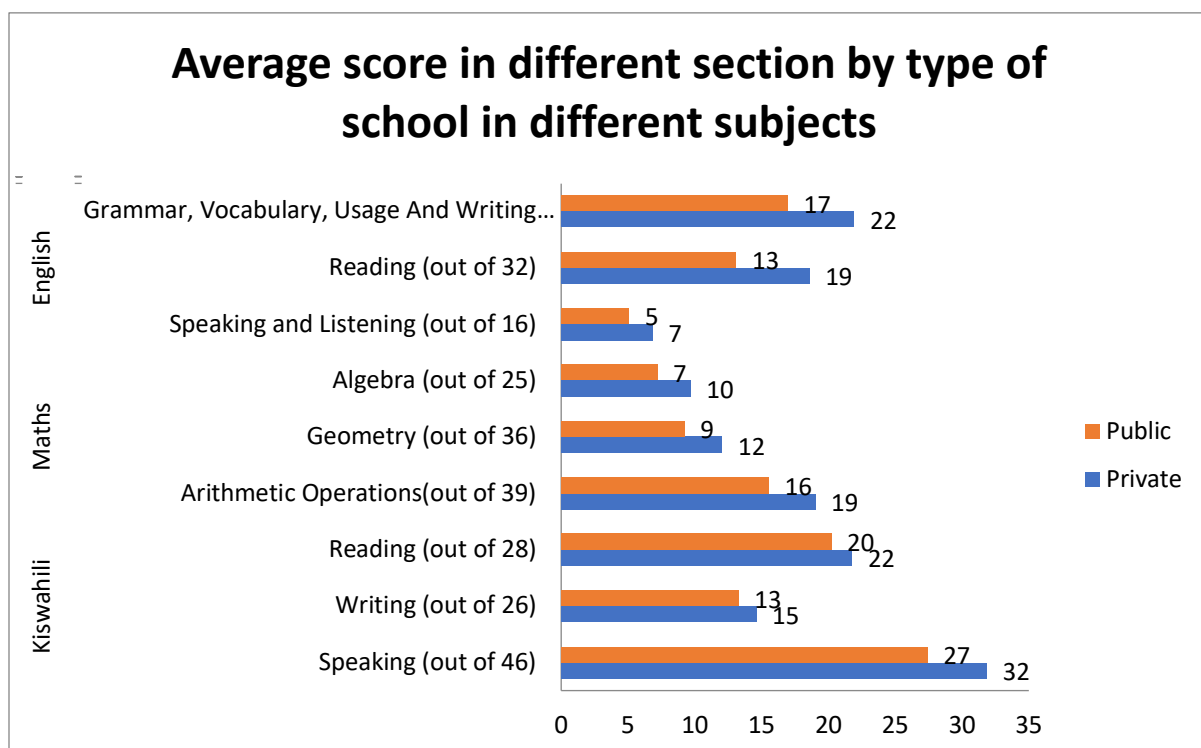
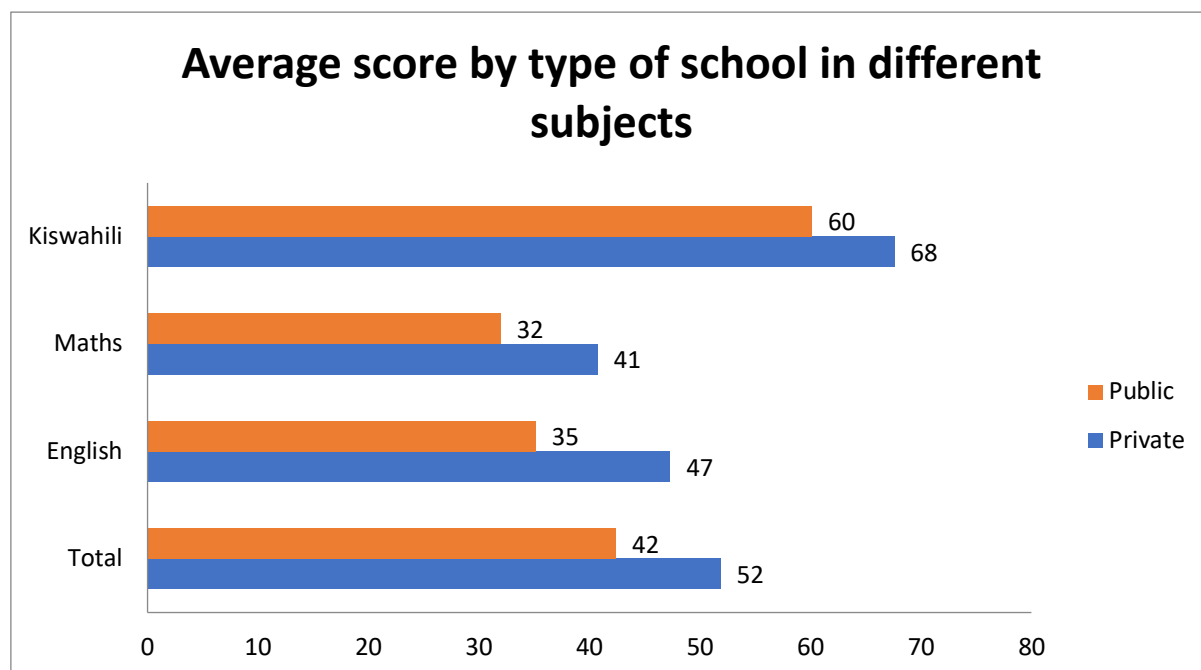


Figure 12: Average performance of Public and Private schools in independently administered tests for Grade 9



Given the negligible differences in student performance between public and private schools and the slightly higher average scores in private schools in independently administered tests, there is a case for private schools to cater to the excess demand created by FBEP. There is potential for

a well-designed PPP to absorb the additional students without compromising on their learning outcomes.

6.5 Do private schools want to partner with the government?

Within existing literature on education PPPs, the private sector's motivation and reservations for partnering with the government have not received much attention. However, this aspect is critical to the success of these partnerships.

For the 2015 Morogoro school survey, private school providers were asked about potential partnership with the government. We randomized the delivery of these questions to better elicit underlying beliefs. Private schools were randomly selected to be asked in one of two ways: in a direct and personalized way (e.g. what are *your* views?) or in a generalized way (e.g. what are the *average private school owner's* views?). Of the 87 private schools, 46 schools (53 percent) were given personalized questions and 41 schools (47 percent) were given generalized questions.

The personalized group expressed a higher likelihood of partnering with the government over the generalized group by 14 percentage points (53 percent in personalized vs. 39 percent in generalized). On the whole, slightly less than half (47 percent) of the private school owners who were interviewed were willing to partner with the government. Corruption was the most cited issue that would threaten the likelihood of a partnership, with 51 percent of all respondents reporting it as a major concern. Among the issues of most importance for a partnership, private school owners rated clear communication channels and clarity of accountability as the most important criteria for partnership.

7. Parental Demand

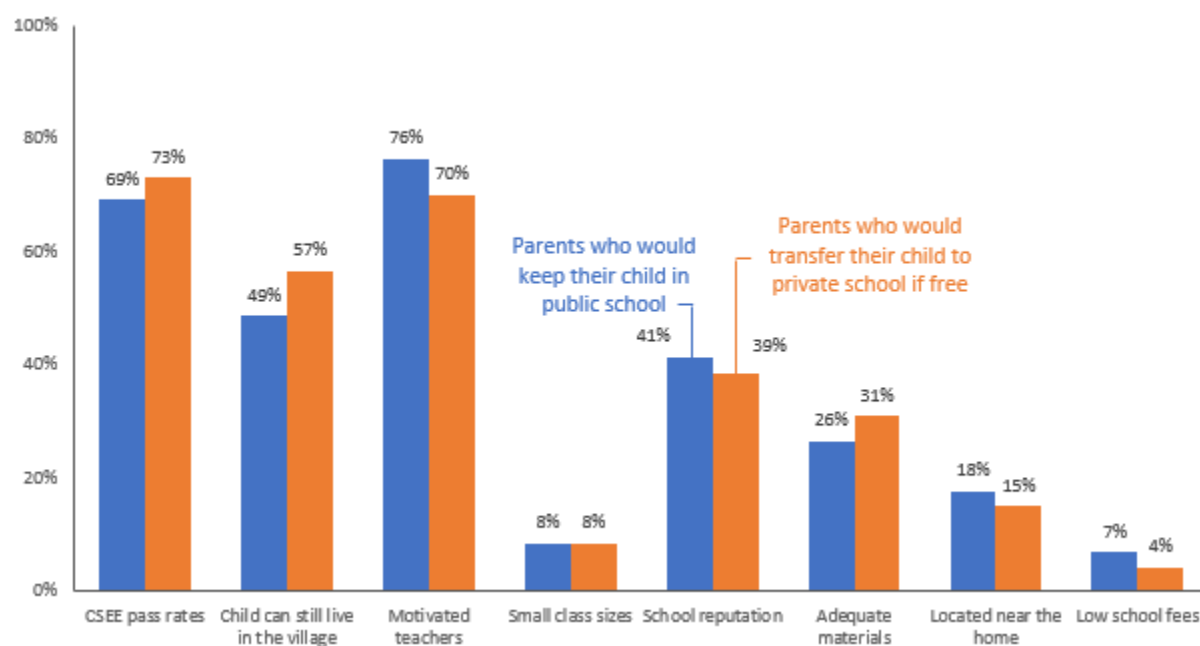
In 2017, as part of its annual Sauti za Wananchi survey, TWaweza collected information on households' beliefs and attitudes towards the schooling of their children from a broad cross-section of Tanzanian households through mobile phone surveys. Of the 1,396 households surveyed which had at least one child in school, the vast majority (95 percent) had at least one child in a public school and 87 percent of households had at least one child in primary school. With a majority of households sending their children to public primary schools, these data provide limited evidence on the broad question of private schools for basic education and are not disaggregated by public and private school children. However, even limited insights on parental views are likely to build our understanding, regardless of school type. This section dissects these data to better understand parents' beliefs and decision-making processes.

We find that households place a high priority on teacher readiness and raising educational standards, above potential financial benefits to the household. For example, when asked which government program would be preferred if implemented at the same cost, households preferred a teacher support and training program over a free school uniform program by nearly seven to one. By a similar ratio, households agreed or strongly agreed with the phrase, "It is better to raise educational standards, even if we have to pay school fees" over "It is better to have a free schooling for our children, even if the quality of education is low." Responses were similar irrespective of whether the household had a child in public or private school, or children in both.

For households which had at least one child in primary school, parents were asked various questions regarding their involvement in their child's schooling and attributes of schools that most influence their choice of secondary school. Roughly half of households with a child in primary school visit the child's school or meet with the child's teacher once or twice a year, while it is much rarer for a household to meet with the school's management this frequently. Households believe that parents are more responsible than teachers for student performance, by 8.6 percentage

points. When asked to name the two most important attributes of schools that influence their choice of secondary school, households chose motivated teachers and CSEE pass rates, highlighting the prioritization of teacher quality and academic success among households. The third most prioritized attribute was the ability for the child to still live in the village while attending school. Somewhat surprisingly, low school fees was the least important attribute chosen by households.

Figure 13: Most important attributes for choice of secondary school among parents



Source: Authors' calculations using 2017 SMS data from the Sauti za Wananchi survey.

Using the SMS survey, the sample was disaggregated into two groups - households who would keep their child in a public school (41 percent) and those who would switch to a private school (39 percent), if both types of schools were free.

8. Conclusion

Using information from different data sources, we conducted a systems-level analysis to understand the impact of the FBEP on the secondary public school system and the capacity of private schools to absorb increases in enrollments.

We find that the implementation of free basic education will likely result in dramatic increases in enrollments in secondary education (both lower and upper). This will put the already over-stretched public education system under greater pressure. The Government of Tanzania estimates that lower secondary enrollment alone would grow by 250 percent over the next eight years. The school system is unlikely to be in a position to absorb these enrollment increases, at least in the short term, without significantly compromising on quality.

How can Tanzania best ensure that secondary education is available to all? Can private schools contribute to this goal? While Tanzania has a significant supply gap in secondary schooling, which is likely to worsen, we find some enabling conditions for potential public-private

partnerships. Based on data from the Morogoro region, we find that private schools have significant excess capacity at the primary and secondary levels. Private schools are at 70 percent of their student capacity while public schools are currently at 130 percent of their intended capacity. Private schools are, on average, newer, have smaller class sizes and better teacher attendance than public schools. On average, student performance in public and private schools tends to be comparable. In Morogoro, most private schools are financially stable but nearly half express willingness to partner with the government. As such, in the short term, there is space to expand enrollment through partnerships with these schools at relatively little cost. At the national level, estimates suggest that increasing the share of lower secondary enrollment that is under public-private partnerships would reduce the annual cost of lower secondary significantly (World Bank 2019b).

In 2015, families of students in private schools paid close to 9.5 times more in non-tuition fees at the pre-primary/primary level and 2.1 times more at the secondary level. These differences are likely to be exacerbated with the introduction of FBEP. However, parents are willing to pay for basic education if they are guaranteed better quality. Consequently, unless PPPs are explicitly designed to ensure access to quality basic education for disadvantaged students, existing inequalities may widen.

On the whole, Tanzania is likely to face significant supply shortfalls in basic education. At the same time, detailed micro-data from one region (Morogoro) show that private schools have the capacity, service delivery, parental demand, and willingness to partner with the government on basic education service delivery. This suggests several entry points to explore welfare-enhancing public-private partnerships in Tanzania's secondary education.

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Table 1. Public and private school characteristics

	Full Sample		Public		Private		p-value
	N	Mean \pm SD or %	N	Mean \pm SD or %	N	Mean \pm SD or %	
Age of school	139	13.6 \pm 13.7	53	17.4 \pm 17.5	86	11.3 \pm 10.2	0.011
School levels taught							
Pre-primary only	39	27.9	1	1.9	38	43.2	
Primary only	6	4.3	4	7.7	2	2.3	
Lower secondary only	46	32.9	29	55.8	17	19.3	
Upper secondary only	1	0.7	0	0.0	1	1.1	
Pre-primary and primary	41	29.3	16	30.8	25	28.4	
Lower and upper secondary	7	5.0	2	3.9	5	5.7	0.000
Students							
Number of students	141	402.5 \pm 387.7	53	661.0 \pm 433.0	88	246.7 \pm 253.9	0.000
Maximum capacity of students	136	413.4 \pm 313.5	51	542.8 \pm 294.6	85	335.8 \pm 300.0	0.000
% of capacity filled	136	92.69 \pm 61.76	51	130.20 \pm 80.73	85	70.18 \pm 29.73	0.000
% female students	139	50.64 \pm 15.40	53	51.71 \pm 9.36	86	49.98 \pm 18.17	0.524
Number of teachers							
Full-time teachers w/ certification	142	21.3 \pm 21.3	53	37.6 \pm 24.1	89	11.6 \pm 11.4	0.000
Full-time teachers	142	21.7 \pm 21.2	53	37.8 \pm 24.1	89	12.2 \pm 11.5	0.000
Classes							
Avg. primary student class size	47	539.3 \pm 396.0	20	812.8 \pm 441.7	27	336.7 \pm 186.3	0.000
Avg. secondary student class size	53	436.1 \pm 315.8	31	539.1 \pm 353.0	22	290.9 \pm 176.6	0.004
Pupil-teacher ratio	137	20.1 \pm 11.2	50	18.7 \pm 10.9	87	20.9 \pm 11.3	0.258
No	42	30.2	30	57.7	12	13.8	
Yes	97	69.8	22	42.3	75	86.2	0.000
Student entrance exam required							
No	77	55.4	38	73.1	39	44.8	
Yes	62	44.6	14	26.9	48	55.2	0.001
Student/parent interviews required							
No	69	49.6	32	61.5	37	42.5	
Yes	70	50.4	20	38.5	50	57.5	0.030
Lacking textbooks							
No	61	43.88	11	21.15	50	57.47	
Yes	78	56.12	41	78.85	37	42.53	0.000

Note: Significant differences between public and private schools tested by a two-sided t-test for continuous variables and χ^2 for categorical variables.

Table 2: Pupil-teacher ratios

	Public		Private		p-value
	N	Mean \pm SD or %	N	Mean \pm SD or %	
Pre-primary	17	40.58 \pm 6.59	63	18.11 \pm 1.29	0
Primary	20	69.34 \pm 40.57	27	22.06 \pm 1.67	0.1815
Lower secondary	30	11.35 \pm 0.8	22	18.8 \pm 3.84	0.034
Upper secondary	2	6.74 \pm 3.66	5	9.68 \pm 3.09	0.6169

Table 3. School fees paid and collected

Full Sample	Public	Private
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	N	Mean ± SD or %	N	Mean ± SD or %	N	Mean ± SD or %	p-value
Tuition fees required							
No	24	17.14	23	43.40	1	1.15	0.000
Yes	116	82.86	30	56.60	86	98.85	
Scholarships offered							
No	55	47.41	25	83.33	30	34.88	0.000
Yes	61	52.59	5	16.67	56	65.12	
Receives non-government funding							
No	120	86.33	45	86.54	75	86.21	0.956
Yes	19	13.67	7	13.46	12	13.79	
Yearly school fees paid (TSh)¹							
Registration/approval fees	81	6.32 ± 13.95	0		81	6.32 ± 13.95	0.415
Taxes	81	18.32 ± 60.99	0		81	18.32 ± 60.99	
		10,640.03 ±				17,261.28 ±	
Recurring expenses	135	118,744.06	52	71.50 ± 99.58	83	151,414.99	
Scholarships	110	1,063.80 ± 10,307.24	30	0.04 ± 0.16	80	1,462.71 ± 12,082.73	0.510
Yearly school fees collected (TSh)¹							
		27,104.87 ±				43,753.83 ±	0.403
Tuition	139	297,634.90	53	89.57 ± 165.03	86	378,268.83	
						14,475.83 ±	
Non-tuition	137	9,076.69 ± 98,605.41	52	251.19 ± 544.23	85	125,156.50	0.415

Note: Significant differences between public and private schools tested by a two-sided t-test for continuous variables and χ^2 for categorical variables.

¹ In 100,000 TSh.

Table 4. PSLE and CSEE exam participation and passing rates

	Full Sample		Public		Private		p-value
	N	Mean \pm SD or %	N	Mean \pm SD or %	N	Mean \pm SD or %	
Primary School Leaving Exam (PSLE)							
% of students sitting the exam last year ¹	39	86.46 \pm 28.49	19	91.05 \pm 20.69	20	82.10 \pm 34.31	0.333
% of students passing the exam last year ¹	39	78.14 \pm 28.40	19	72.39 \pm 23.56	20	83.60 \pm 31.97	0.222
Average PSLE marks (out of 250) ²							
2013	30	138.45 \pm 29.29	16	116.73 \pm 19.48	14	163.28 \pm 15.20	0.000
2014	35	137.30 \pm 26.62	17	116.41 \pm 14.65	18	157.03 \pm 19.16	0.000
2015	39	147.51 \pm 33.18	18	121.01 \pm 24.42	21	170.22 \pm 20.29	0.000
2016	42	152.81 \pm 35.40	18	119.98 \pm 18.76	24	177.44 \pm 22.30	0.000
Certificate of Secondary Education Examination (CSEE)							
% of students sitting the CSEE last year ¹	51	91.10 \pm 23.36	30	92.27 \pm 22.05	21	89.43 \pm 25.58	0.674
% of students passing the CSEE last year ¹	51	69.18 \pm 24.02	30	61.63 \pm 20.70	21	79.95 \pm 24.78	0.006
Average CSEE GPA ²							
2013	41	4.88 \pm 0.86	28	5.31 \pm 0.24	13	3.94 \pm 0.97	0.000
2014	43	1.56 \pm 0.75	28	1.19 \pm 0.23	15	2.27 \pm 0.88	0.000
2015	43	4.00 \pm 0.76	28	4.45 \pm 0.20	15	3.16 \pm 0.71	0.000
2016	44	3.98 \pm 0.71	28	4.41 \pm 0.18	16	3.24 \pm 0.67	0.000

Note: Significant differences between public and private schools tested by a two-sided t-test for continuous variables and χ^2 for categorical variables.

¹ As reported by respondents in the 2015 Morogoro school census.

² Administrative data provided by the National Examination Council of Tanzania (NECTA).

Table 5. Measures of government trust among private schools in the “Personalized” and “Generalized” treatment groups

	Full Sample		Personalized		Generalized		p-value
	N	Mean \pm SD or %	N	Mean \pm SD or %	N	Mean \pm SD or %	
Over the last 5 years, [your/the average person's] level of trust in the government has							
Decreased	52	60.47	39	86.67	13	31.71	0.000
Stayed the same	26	30.23	5	11.11	21	51.22	
Increased	8	9.30	1	2.22	7	17.07	
High or very high likelihood of partnering with government¹							
No	46	53.49	21	46.67	25	60.98	0.184
Yes	40	46.51	24	53.33	16	39.02	
% of time [you/a private entrepreneur] can trust government to do what is best for							
[your or his/her] school	86	47.33 \pm 25.20	45	40.89 \pm 23.09	41	54.39 \pm 25.79	0.010
[you or him/her] private provider of education	86	49.37 \pm 26.76	45	42.42 \pm 26.65	41	57.00 \pm 25.03	0.010
[your or his/her] community	86	50.44 \pm 24.93	45	44.29 \pm 22.43	41	57.20 \pm 26.03	0.020
[your or his/her] country	86	52.88 \pm 24.62	45	46.96 \pm 21.68	41	59.39 \pm 26.22	0.020
High or very high reservations in partnering with government regarding²							
Availability of funds							
No	54	62.79	29	64.44	25	60.98	0.740
Yes	32	37.21	16	35.56	16	39.02	
Timely delivery of funds							
No	51	59.30	26	57.78	25	60.98	0.763
Yes	35	40.70	19	42.22	16	39.02	
Political pressure in school/governance management							
No	58	67.44	29	64.44	29	70.73	0.534
Yes	28	32.56	16	35.56	12	29.27	
Corruption							
No	42	48.84	21	46.67	21	51.22	0.673
Yes	44	51.16	24	53.33	20	48.78	
High or very high importance for partnering with the government regarding³							
Agreement on the objectives of the school							
No	23	26.74	16	35.56	7	17.07	0.053
Yes	63	73.26	29	64.44	34	82.93	
Government clearly outlines the benefits of the partnership							
No	22	25.58	14	31.11	8	19.51	0.218
Yes	64	74.42	31	68.89	33	80.49	
Clear communication channels							

	Full Sample		Personalized		Generalized		
	Mean \pm SD or		Mean \pm SD or		Mean \pm SD or		p-value
	N	%	N	%	N	%	
No	17	19.77	9	20.00	8	19.51	0.955
Yes	69	80.23	36	80.00	33	80.49	
Clarity of accountability criteria							
No	13	15.12	8	17.78	5	12.20	0.470
Yes	73	84.88	37	82.22	36	87.80	
Informed of the delivery of funds							
No	21	24.42	15	33.33	6	14.63	0.044
Yes	65	75.58	30	66.67	35	85.37	
Agree or strongly agree to the following:							
[I/education entrepreneurs] Better off running private school than PPP school							
No	78	90.70	42	93.33	36	87.80	0.378
Yes	8	9.30	3	6.67	5	12.20	
[I/education entrepreneurs] Not aware of PPP opportunities							
No	66	76.74	32	71.11	34	82.93	0.195
Yes	20	23.26	13	28.89	7	17.07	
[I/education entrepreneurs] Eager to build PPP to expand school							
No	65	75.58	31	68.89	34	82.93	0.130
Yes	21	24.42	14	31.11	7	17.07	
Public financing for [my/private] schools will have a large impact on student learning							
No	76	88.37	39	86.67	37	90.24	0.605
Yes	10	11.63	6	13.33	4	9.76	
[My/private] schools are better than the average public school in [my/the same] community							
No	79	91.86	41	91.11	38	92.68	0.790
Yes	7	8.14	4	8.89	3	7.32	
In PPPs, [my/the] public sector is likely to have a political agenda							
No	66	76.74	39	86.67	27	65.85	0.022
Yes	20	23.26	6	13.33	14	34.15	

Note: Significant differences between the "Personalized" and "Generalized" treatment groups tested by a two-sided t-test for continuous variables and χ^2 for categorical variables.

¹ Personalized questionnaire asks respondents "your" likelihood while the generalized questionnaire asks "a private entrepreneur's" likelihood.

² Personalized questionnaire asks respondents to rate their own reservations "as an education entrepreneur" while the generalized questionnaire asks reservations "for an average education entrepreneur."

³ Personalized questionnaire asks respondents to rate their own importance "as an education entrepreneur" while the generalized questionnaire asks importance "for an education entrepreneur."