Empowering Girls and Enhancing Learning in DRC
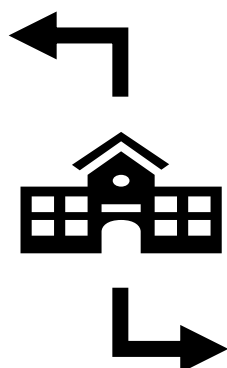
Determinants of the
Basic Education
Gender Gap in DRC

Supply and Demand Side Factors

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Executive Summary

Why does educating and empowering girls in DRC remain a challenge? The gender gap in access to and survival within the education system in DRC is most pronounced as girls become adolescents, and in particular when they transition from lower to upper secondary. In order to understand why, we look at both the supply and demand side barriers to girls' education following closely the framework presented in the 2018 World Development Report as well as other relevant literature on the topic (Behrman, de Hoyos, & Székely, 2015; Adelman, 2017; Cunningham, 2008). In this framework, girls can be pushed out of the education system, and/or pulled into household or paid work or early marriage before they complete their education. Most of these factors affect both girls and boys but are particularly exacerbated for adolescent girls.

Girls can be pushed out of school by barriers within the school system. Among these supply side determinants, access to school may be constrained by a limited number of nearby schools, creating a bottleneck as children advance through their education cycle, and worsening at the secondary level when schools become fewer and more distant. Even when a school exists, poor infrastructure, such as a lack of sanitation facilities, can hamper the learning environment and disproportionately affect girls. The shortage of qualified and trained female teachers can also push girls out of the learning system, and the lack of proper school governance and teacher management can have significant effects on girls' attendance, through the presence of gender-based violence and corporal punishment in school.

Girls also face barriers outside of the school system, that is, within their households and communities that pull them out of the education system. The direct costs and opportunity costs of sending girls to school when resources in the household are scarce can be very high. Gender norms also tend to reduce parents' willingness to invest in their daughters' education beyond primary school. Many girls, particularly once they reach adolescence, are removed from school to participate in the labor market, to do housework in the family home, or to marry early. Early marriage and teenage pregnancy can be both cause and consequence of dropout, as school enrollment helps protect girls from these risks, but once they occur girls are rarely able to continue their education. Finally, families may fear for the safety and security of their daughters, especially when secondary schools are farther from the household. All these barriers to girls' education are currently exacerbated by the COVID-19 pandemic, which threatens to widen the gender gaps in education even more, especially for the most disadvantaged children.

This note is part of a series that look at the barriers to girls' education in DRC. Its focus is primarily on secondary education and includes both quantitative and qualitative analysis. The note draws primarily on new analysis using different data sources (e.g., DHS, MICS) and findings from focus groups conducted in 2021 with secondary school female students, parents, and other community members (e.g. teachers, school directors, leaders).[1]

For out-of-school children of all ages across DRC, the main obstacle to basic education remains financial. Regardless of province, level of education, or gender, a lack of money is the most common reason cited by parents for children not being in school, mentioned by about 70 percent of households in surveys conducted over the past decade.[2] The country's free schooling policy, which began implementation

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[1] See Appendix VI for more detail on the qualitative approach used in this Note.
[2] Household and Budget Survey 2012; Out of School Children Survey 2012.

in September 2019, is relaxing this constraint for many families by reducing direct costs through the elimination of tuition fees. Recent phone surveys with households in Kinshasa and Eastern DRC provide suggestive evidence of the policy's impacts, with substantial increases in enrollment rates at both primary and secondary levels.[3] At the same time, for those children who are out of school in the 2020-21 school year, lack of money remains the top reason cited by households (32 percent in Kinshasa and 55 percent in Eastern DRC). Even with free schooling in place, families must still face direct costs such as materials, uniforms, and transport, as well as indirect costs such as children's foregone labor. With over 70 percent of the DRC's population living in extreme poverty, these costs can be very significant and impact households' choices about girls' and boys' education differently (discussed below).

At the secondary level, where large gender differences in enrollment and completion emerge, a range of supply and demand-side factors affect families' differential schooling decisions for adolescent girls and boys. Nationally, primary completion rates are effectively equal for girls and boys, but boys are significantly more likely to transition to and complete secondary.[4] While these patterns vary across provinces, both quantitative and qualitative data point to an important set of supply and demand factors that affect both boys and girls, but are particularly exacerbated for adolescent girls.

On the supply side, a lack of schools, inadequate infrastructure and materials, and low-quality teaching and school management create particular barriers for adolescent girls to pursue their secondary education. Distance to school and enrollment show a robust correlation in DRC and other developing countries, particularly for girls, and the limited information available suggests that roughly 17 percent of secondary school-age children across DRC live more than 5 kilometers (at least an hour's walk) from the nearest secondary school. When adolescents do access secondary schools, they must often cope with conditions that families view as unsafe, particularly for girls, as well as low-quality teaching. Focus group participants cited overcrowded schools, with students packed together on benches, unsanitary bathrooms, and lack of security. At the same time, only 10 percent of secondary teachers nationally are female, and focus groups raised the major challenge of unsupportive, ineffective, and at times predatory teachers. Ineffective school management often fails to prevent harassment and violence – whether perpetrated by teachers or students – when they are widespread in communities.

On the demand side, household economic status, social norms, and insecurity have a differential effect on girls' access to education which varies across provinces. Gender differences in school enrollment are larger for poorer households, particularly at the secondary level, as households generally choose to educate boys over girls if a choice must be made. Harmful social norms contribute to this calculus, as 40 to 80 percent of out-of-school girls ages 15-19 are already married or cohabitating in 19 of 26 provinces. In Kasai, focus group participants report that sending girls to secondary school is viewed as a luxury and an affront to the family, because resources could be better spent or the girl herself could be married for a dowry. We also find that while out-of-school girls are more likely to be involved in unpaid work or helping with the family business, out-of-school boys are significantly more likely than girls to participate in paid work. Finally, parents are more likely to report keeping boys out of school due to insecurity or violence in the area, but the disruptions caused by violent conflicts that have plagued central and eastern DRC can permanently disrupt both girls' and boys' schooling trajectories.

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[3] DRC Public Expenditure and Institutional Review 2021; "A Snapshot of schooling during COVID-19 in the Democratic Republic of Congo" – note written as part of this ASA.
[4] About 36 percent of young adult men have completed upper secondary compared to 27 percent of young adult women (ages 20-22). See Note 1 ("Snapshot of the Basic Education Gender Gap") for a detailed discussion.

Box 1: Empowering girls and enhancing learning outcomes note series

In recognition of the critical role human capital plays in a country's development, and seeing that the country ranks 164th out of 174 countries on the 2020 Human Capital Index, the Government of the Democratic Republic of Congo (DRC) has set education investment as an urgent priority for the country.[5] This takes the form of free public primary schooling, the current administration's signature policy which took effect in September 2019. Full implementation of the policy is expected to cost over US$1B per year, more than doubling recent levels of public spending on primary education.

While financial constraints greatly impede access to education in the DRC, the equity of access across genders is equally worrisome. The purpose of this note series, and the broader Advisory Services and Analytics (ASA) on Empowering Girls and Enhancing Learning in DRC, is to identify such barriers and offer solutions to lift them, guaranteeing equal opportunity of schooling across genders. This ASA will generate new data and analysis on girl's education and empowerment in the DRC through a series of three snapshot notes:

Note 1. *Snapshot of the Gender Gap*
Note 2. *Supply and Demand Side Determinants of the Gender Gap*
Note 3. *Policy Implications and Practical Solution to Addressing the Gender Gap*

Note 1 "***Snapshot of the Gender Gap***" provides a broad diagnostic of the basic education system in DRC, in terms of the gender gap in access and quality of education, before delving into its determinants and searching for remedial policies.

Note 2 "***Determinants of the Gender Gap***" identifies both the supply and demand side barriers to girl's education in DRC following closely the framework presented in the 2018 World Development Report. In particular, this note focuses on two critical factors that currently limit girl's education and empowerment:

(i)   quality of service delivery (supply side); and
(ii)   household financing and cultural norms (demand side).

Note 3 "***Policy Implications and Practical Solutions to Addressing the Gender Gap***" identifies several policy recommendations that hold promise for keeping girls in school and learning. This last note uses evidence from literature reviews and interventions that have proven effective in the past or in other contexts for tackling constraints to girls' education.

This note presents the findings of Note 2 ***"Supply and Demand Side Determinants of the Gender Gap"***.

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[5] The World Bank, 'The Human Capital Index 2020 Update'.

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List of Figures, Tables and Boxes

Section 1
Why are girls out of school in DRC?

Parents point to a range of push and pull factors as causes for their children being out of school, with important differences by age level and gender. This section uses information from the 2012 OOSC survey to provide an overview of the main reasons why children aged 6-17 years old do not attend school in the DRC. This database provides information on self-reported reasons for lack of school attendance, where out of school children's parents were asked why their child was not attending school during the period of observation.[6]

Financial obstacles and family constraints are the main reasons cited by households for the non-enrollment or dropping out of children, regardless of age or gender. Regardless of the province, level of education and gender, lack of money is the most commonly mentioned reason by parents: it is mentioned as a reason for non-enrollment and dropout in around 70 percent of the cases, followed by family constraints (e.g. parents do not allow children to attend school) which is mentioned in around 15 percent of the cases (**Figure 1**). These results provide some suggestive evidence that demand side constraints to children's education in DRC may be greater compared to supply side ones.

At the primary level, girls aged 6 to 11 years old are significantly more likely to be out of school (drop out or not attend at all) compared to boys due to the following main reasons: (i) household work, (ii) family constraint (parents do not allow them to attend) and (iii) family member ill (Figure 2). In particular, girls aged 6-11 are 5.1 percentage points more likely than boys to declare household work as an impediment to primary school enrollment, and they are 3.1 percentage points more likely to be out of school because parents do not allow them to attend. Having a family member ill also reduces the likelihood of attending primary level as girls are expected more than boys to take care of other family members (e.g. siblings). Girls also seem more likely to be out of school than boys due to abuse at school, but this difference is not statistically significant. On the other hand, boys are slightly more likely than girls to be out of school in order to participate in the labor market. When we break down the reasons for not attending school by out-of-school status (never attended vs. drop out), we find that the above-mentioned reasons have a greater impact on non-enrollment rather than dropout at the primary level.[7]

At the secondary level, reasons for not being in school for girls aged 12 to 17 years old shift to: (i) teenage pregnancy and (ii) early marriage for girls (Figure 2). Boys, on the other hand, are significantly more likely to drop out of secondary school compared to girls because of economic constraints (education is too expensive) and due to a job or paid work. When we break down the reasons for not attending school by out-of-school status, we find that girls are more likely to never enroll in secondary school due to lack of schools and teachers, followed by early marriage and teenage pregnancy, while boys are more likely to never enroll due to school proximity and discipline. In addition, secondary school dropouts are driven by teenage pregnancies and child marriage for girls, while economic constraints become a significant driver for boys dropping out.[8]

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[6] Results from the 2012 OOSC survey are also confirmed by the 2012 PER survey (See Appendix IV)
[7] See Figure 27 in the Appendix for more detail
[8] See Figure 28 in the Appendix for more detail

The following sections dive more deeply into these factors, looking first at supply-side barriers that push children out of the education system and then at demand-side barriers including household socioeconomic status, social norms, and conflict and violence. The focus is particularly on secondary school-age adolescents, as the age group where significant gender gaps in schooling emerge.

Figure 1: Survey reasons for being out-of-school, by age group, 2012
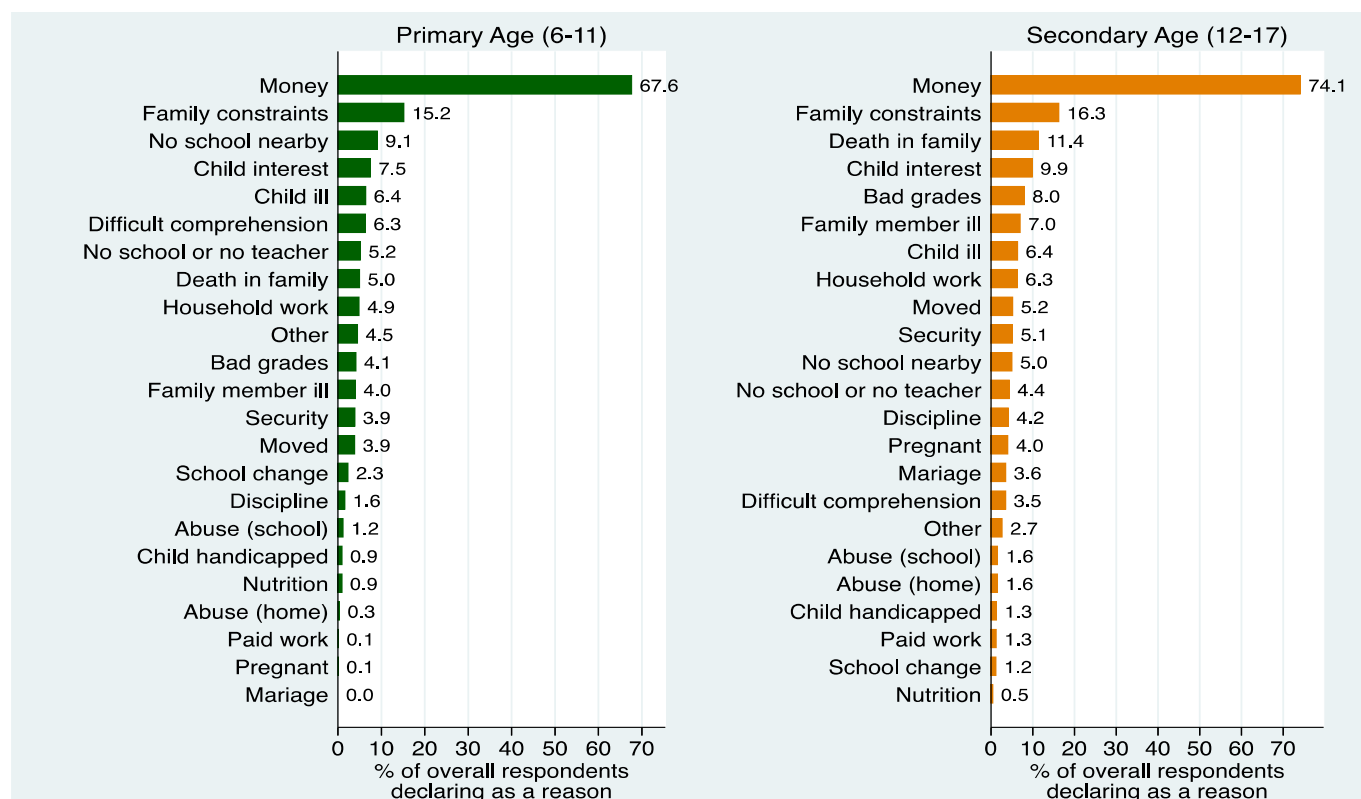
Note. Numbers represent percentage of households (represented by parents or legal guardians) citing each reason as a determinant for their child being out of school. Households were allowed to cite as many reasons as they saw necessary. Source: OOSC 2012.

Figure 2: Gender Gap in self-reported out-of-school determinants, ages 6-17, by school level, 2012
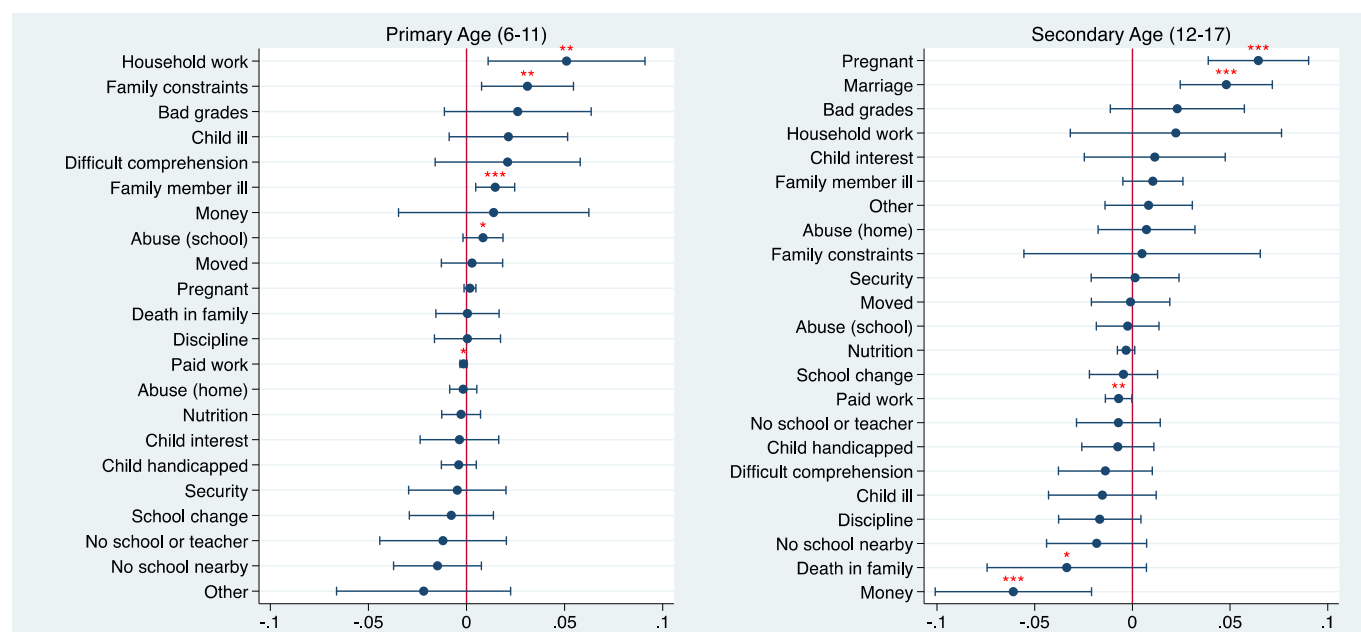
Note. Children aged 6-17 are used for this analysis. Stars indicate significance levels of the difference across genders (p<0.01: ***; p<0.05: **; p<0.10: *). Source: OOSC 2012

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Section 2
Supply Side Determinants

1. Lack of infrastructure and school material

For decades the Government of DRC did not adequately invest in the education sector while the population expanded quickly, and recent policy initiatives will take time and continued effort to make up for investment deficits. Despite recent efforts to improve budget allocation, the public education sector in DRC was still underfunded compared to most other countries in the region through the late 2010s – with only 14 percent of the public budget being allocated to education in 2017 (UNESCO, 2017). As a proportion of GDP, the DRC education budget stood at only 1.5 percent in 2017, against 3.9 percent in SSA. In addition, DRC's public spending per primary student has been only 4.5 percent of GDP per capita in recent years, among the lowest in SSA (**Figure 3**). With the 2019 introduction of a free primary schooling policy, the Government increased education's share of the executed public budget from approximately 16 percent in 2017 to 28 percent in 2020. However, spending for secondary will remain limited in the near future, and low revenue mobilization will persist as a binding constraint to expanding needed education and other social spending.

Figure 3: DRC public education expenditure, 2016-2020
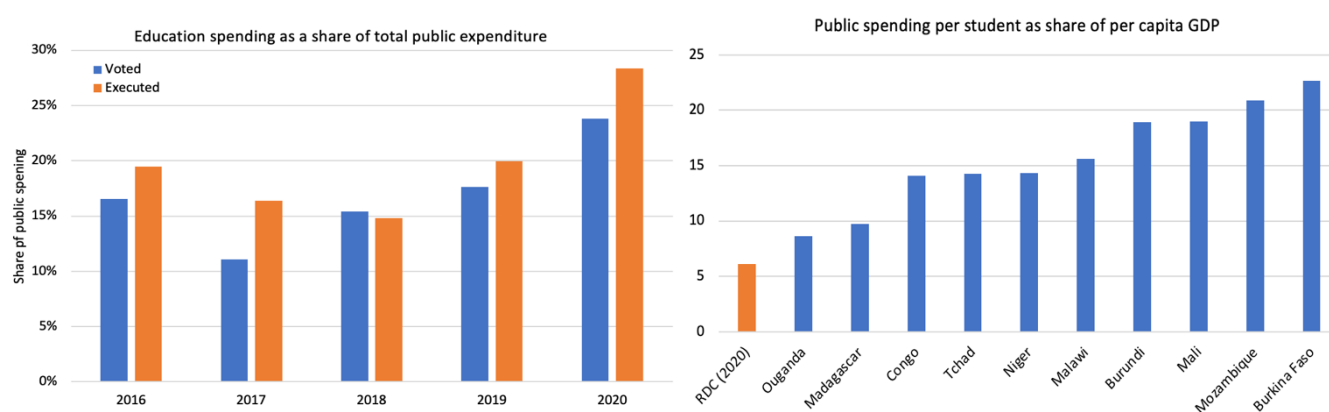
Source: Calculations from BOOST and budget data, UNESCO and UN population data

Lack of adequate public funding for the DRC's education sector has contributed to an inadequate supply of schools per capita, especially at the secondary level. The secondary school network is limited as the number of school establishments drops significantly after primary level, leaving many children out of school.[9] **Figure 4** shows that at the primary level, supply remains a constraint in many areas, with eight provinces (including Kinshasa) having 3 or fewer primary schools per 1,000 primary school-age children. At the secondary level, the school network is even more limited, with 10 provinces (including Kinshasa) having 1-2 secondary schools per 1,000 secondary school-age children and youth. Even if schools are

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[9] The number of schools also drops dramatically after the primary level, from 53,451 primary schools to only 28,240 secondary schools (Ministry of Education, 2018).

relatively large in terms of enrollment, dispersed populations and lack of safe transportation networks mean that these levels of school supply are likely very inadequate.

Figure 4: Number of schools per 1000 children of school age, by level and province, 2018
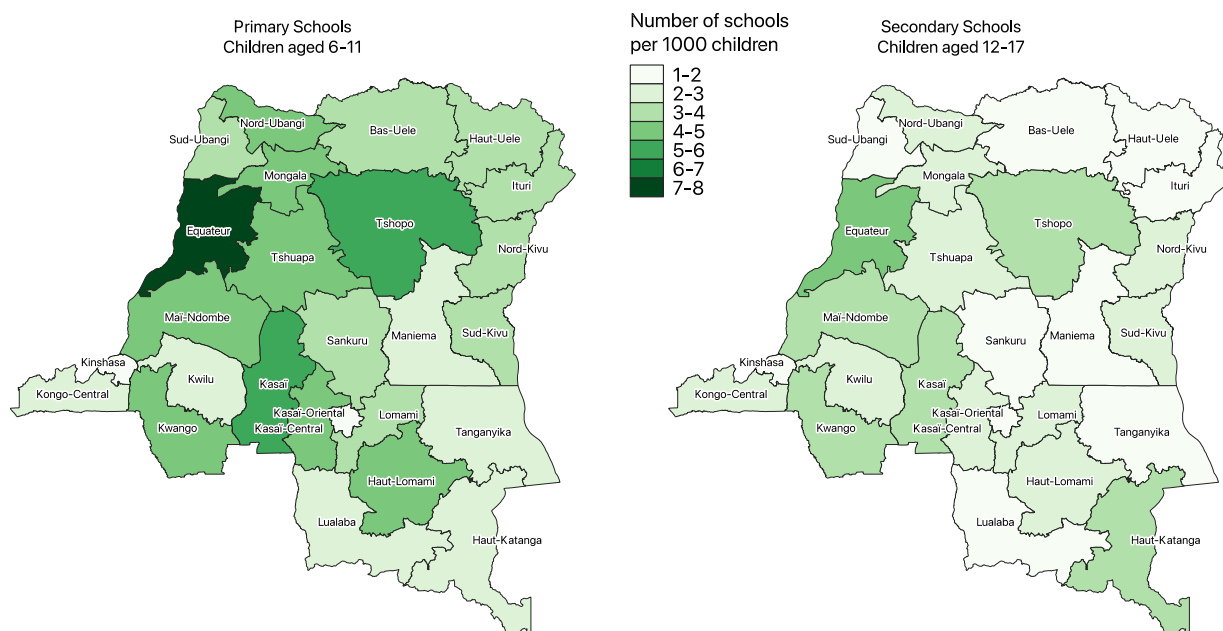
Source: Annuaire Statistique 2017-2018

For many secondary school students, distance to school is very long. The low number of secondary schools relative to primary ones mechanically increases the average distance to the nearest school for children. In 2012, approximately 13 percent of children enrolled in primary school had to travel at least 3 kilometers to their closest primary school. At the secondary level, this share increases to almost a third of children (29.5 percent), and the proportion of children reporting the nearest school being over 10 kilometers from their house more than triples, from 2 percent for primary school to 6.5 percent for secondary school (**Figure 5**).

Figure 5: Distance to nearest school, by age level, 2012
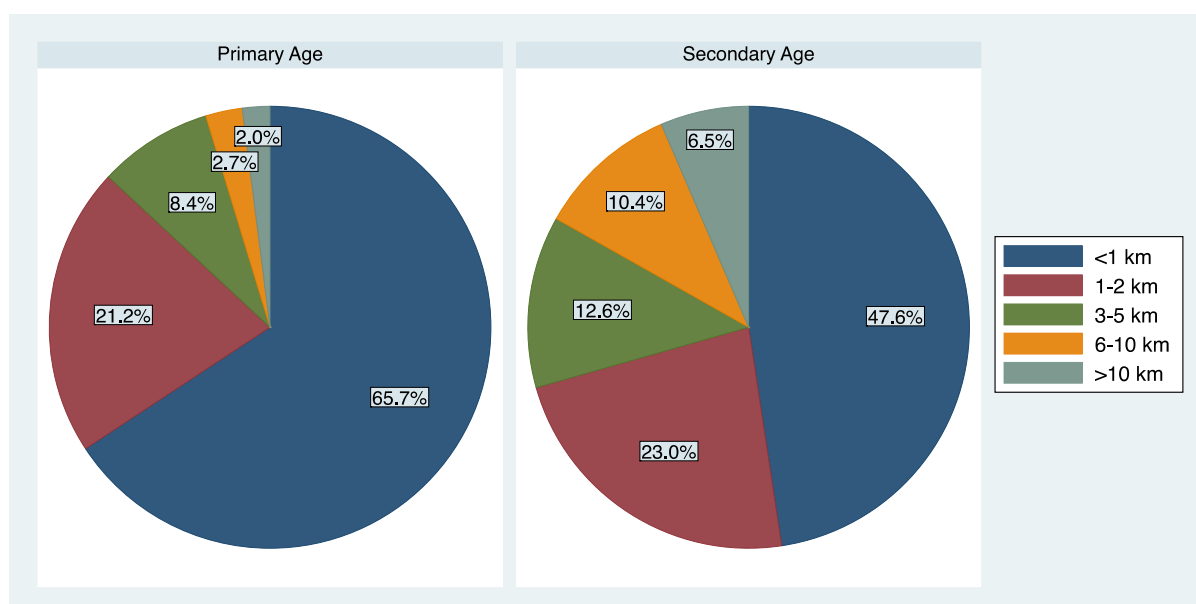
Note: Primary children are aged 6-11; secondary children are aged 12-17. Distance to nearest primary (secondary) school for primary (secondary)-aged children. Source: OOSC 2012

Girls are more likely to experience the adverse effects of distance to school at the secondary level. For a given distance to school, girls are less likely than boys to be enrolled. **Figure 6** shows that while the gender gap in out-of-school children is minimal when the school is close to the child's home, it increases with the distance to the nearest school. For instance, for children living within a kilometer of a school, the gender gap in out-of-school rates is 3.9 percentage points; however, girls living more than 10 km away from school are 16 percentage points more likely than boys to be out of school. Moreover, while in primary school both genders face similar out-of-school rates for a given distance to school, in secondary school, the gap is noticeably larger: over half of girls of secondary age who live further than 10 kilometers away from the nearest secondary school are not enrolled, against less than a third of boys.

Figure 6: Portion of children out of school, by distance to school and gender, 2012
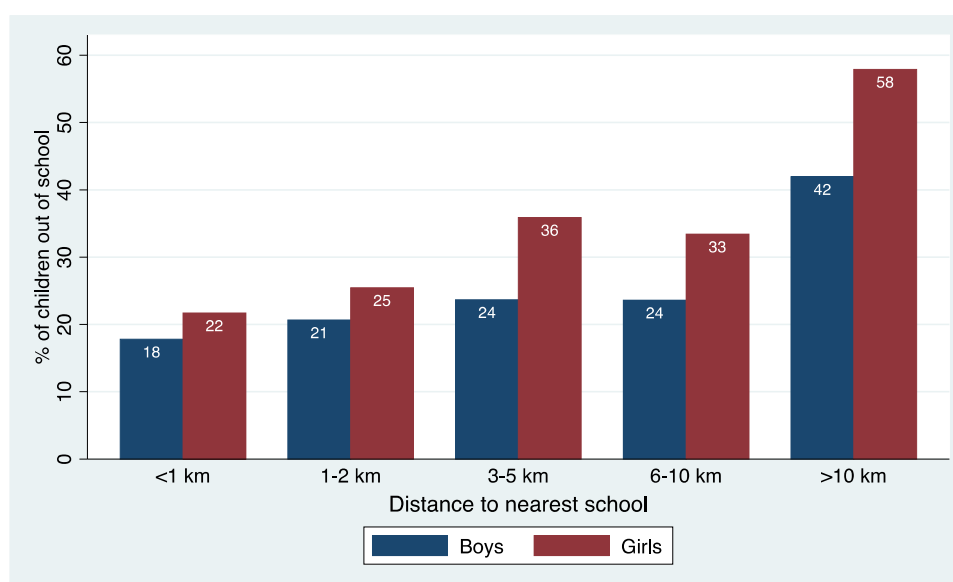
Note: Distance to nearest primary (secondary) school for primary (secondary)-aged children. Source: OOSC 2012

Long distances to school have been shown to have a negative impact on enrollment and regular attendance particularly for girls (Filmer 2000, Andrabi et al 2007, Theunynck & Rabakoson, 2017, Burden and Linden, 2013).[10] One potential explanation is that safety concerns grow with distance to school, and that girls (and their parents) are more sensitive to such concerns than boys (Sterling and Winthrop, Kwauk, 2016). Another explanation is the income effect. The cost of transport to cover these large distances can be prohibitive and long walks to school can expose girls to physical dangers along the way. In Kenya, transport cost negatively correlates with access to secondary education, suggesting that transport cost may be a barrier to education particularly where education costs are primarily borne by households (Mutegi, 2017). These costs are higher for girls thus making it harder for them to access school than boys.

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[10] The link between distance to school and education outcomes as well as the disproportional effects of distance to school across genders has been widely documented in the literature. For instance, a World Bank cross-country study finds that school-age children are 10 to 20 percentage points more likely to attend school if they live in a village with a primary school (Filmer, 2000). Similarly, the 2007 LEAPS report about a program in Pakistan finds that the presence of a school in the settlement is strongly correlated with enrollment (Andrabi, et al., 2007). In particular, the enrollment rate in settlements with both a public and private school is 27 percentage points higher than in settlements with no school – 76 versus 49 percent. Burde & Linden (2013) show that placing a school in the village of the child dramatically improved girl's enrollment and average test scores in Afghanistan compared to boys. In addition, Camfed (2012) finds that reducing the school distance for girls to under 1 mile can have similar effects on test scores than many successful classroom-based interventions.

Figure 7: Most primary schools lack basic infrastructure and teaching and learning materials
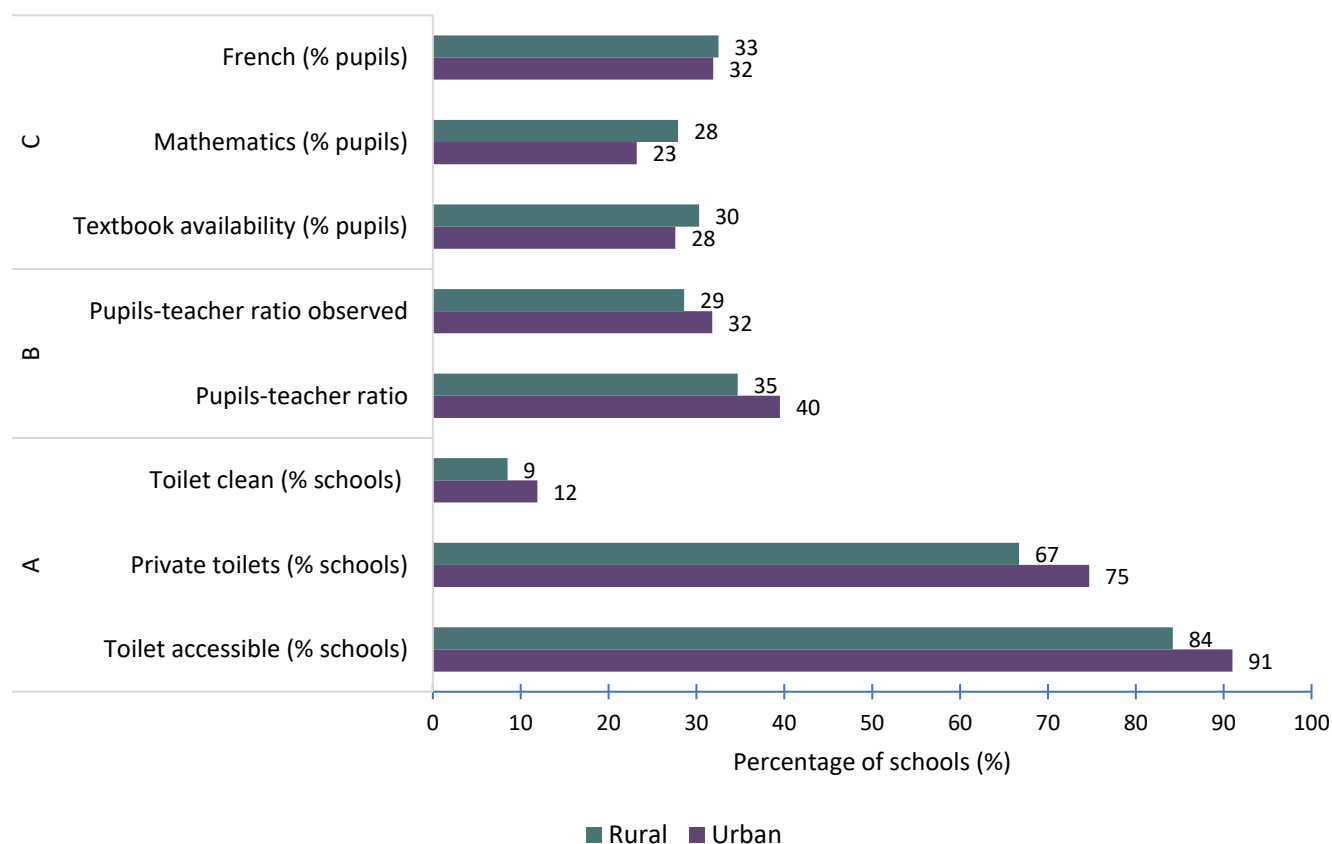
Source: DRC Service Delivery Indicators (SDI) 2019

The existing infrastructure in many government schools is inadequate, and the fee-free education policy is placing further pressure on these facilities. Recent data from the 2019 DRC SDI survey also shows that existing primary schools have shortfalls in classrooms and textbook availability. In particular**, Figure 7** indicates that even when children can access public schools, they often find that the classrooms are overcrowded, with almost 40 students per classroom especially in urban areas. In addition, only 1 in 3 students have access to a French or mathematics textbook in a primary school classroom. Overall, less than 45 percent of classrooms are deemed to be adequately equipped for learning, one of the lowest levels observed among PASEC countries (PASEC 2019). Even though these data come from primary level establishments, it is likely that similar situations exist for school establishments at the secondary level. The free-education policy therefore requires considerable investment to address these quality shortfalls and to build new schools in underserved areas, in order to provide all students with a basic level of quality education services.

The scarcity and poor quality of menstrual hygiene management conditions, particularly lack of toilet facilities and water availability, and lack of health services can impact girl's performance (Sperling and Winthrop 2015). In DRC, the availability of water and sanitation facilities tends to vary widely across primary schools. According to the 2019 SDI survey, very few primary schools have adequate and functioning toilets (defined as accessible, private and clean). Poor toilet facilities significantly affect young girls who have started to menstruate. The lack of private, gender-segregated toilets with running water creates difficulties for girls managing menstrual hygiene at school and makes it more likely that they

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stay home during menstruation. This lack of adequate facilities leads to gaps in their attendance, undermines their academic achievement, and increases the risk of them dropping out of school entirely.[11]

Box 2: Focus group findings on secondary school infrastructure quality

In both Kananga and Kinshasa, school directors and teachers mentioned the limited and poor infrastructure, as well as lack of maintenance as having major effects on adolescent girl enrolment and retention in school. In Kananga, the main reasons evoked were deteriorating school facilities and the lack of sufficient seating to accommodate students in classrooms. In Kinshasa, insufficient seating was also cited as a main contributor to limited female attendance, but emphasis was also put on the lack of gender-segregated sanitation facilities.

> "*The number of public schools are limited, for instance, we had to decline a good number of girls because we're over our maximum capacity. Insufficient chairs, leaking rooftops and an overall deteriorating state of a school's infrastructure is prompting certain parents not to send their daughters to school.*" School Director, March 2021

> "*Schools lack gender-sensitive infrastructure, such as clean, gender-segregated restrooms. Restrooms are sometimes located in unsafe, remote and/or obscure areas. Classrooms are overcrowded, where three or four children are forced to share a two-persons' seat.*" Teacher, March 2021

For parents and children currently attending secondary school, inadequate infrastructure was also cited as a main barrier to school attendance and learning. In particular, crowded classrooms and noisy metal roofs during rainfall create challenging learning environments.

> "*Sanitation facilities are a major problem because they are usually not clean, which results in our girls contracting infections. In addition, in most cases, girls are forced to share bathrooms with boys, which exposes them to problems of gender-based violence. There is also a problem with many schools not having fences, which opens access to anyone (insecure), including men that prey on our girls.*" Parent, March 2021

> "*The classroom settings are very noisy because of the noise coming from adjacent classrooms, the exceeding number of students and the rain because of the metallic rooftop, so most of the time it is difficult to hear the teacher well.*" Student, March 2021

These testimonies confirm the findings from the quantitative analysis and suggest that proper infrastructure, and in particular gender-segregated sanitation facilities, can play an important role in addressing the gender gap in schooling.

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[11] WaterAid reports that 7% of school-age girls in Malawi miss school on days of heavy bleeding during their menstrual period (House, Mahon, and Cavill, 2012). Other findings suggest that a girl can miss between 10% and 20% of the school year due to menstrual hygiene management-related issues (World Bank, 2005).

2. Poor-quality teaching and shortage of female teachers

Average student-to-teacher ratios vary widely across provinces at both the primary and secondary levels, and mask underlying inefficiencies that cause class sizes to sometimes still be excessively large. Data from the Ministry of Education shows that at the primary level, only five provinces have student-teacher ratios exceeding 40, while at the secondary level ratios are low across the country, ranging from 5 to 25 (**Figure 8**). [12] However, these ratios do not fully reflect student experiences, as class sizes are very large in many areas due to inefficient teacher deployment at the primary and secondary levels, and to over-complexity in the secondary curriculum creating the need for an excessive number of specialized teachers (World Bank 2015).

Figure 8: Student-teacher ratio, by level and province, 2018
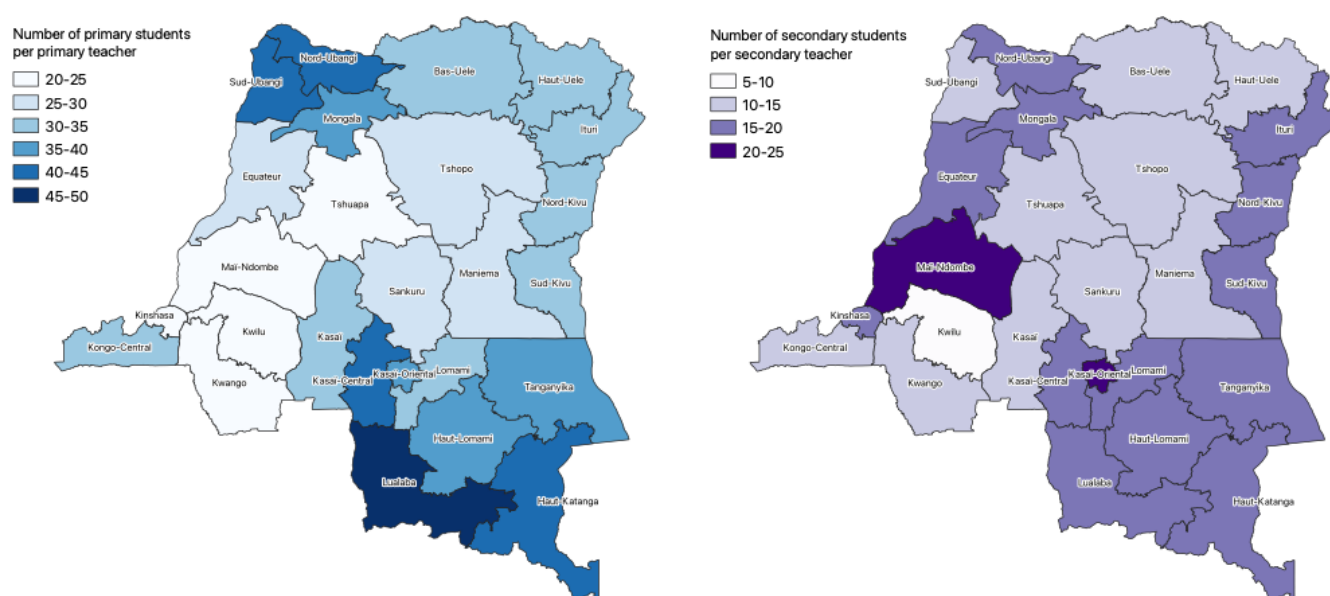
Source: Annuaire Statistique 2017-2018

Teachers at both the primary and secondary levels are inadequately skilled. Effective teachers are the most important school input to engage children in the learning process, and through it, in retaining them in school (Hanushek, 1992; Rockoff, 2004; Bau & Das, 2017). Across the country, there are not enough well-prepared teachers and even fewer teachers of Science, Technology, Engineering and Mathematics (STEM). Data show that less than 3 percent of secondary school teachers have university degrees (**Figure 9**). In terms of demonstrated competencies, at the primary level a 2019 early grade reading assessment (EGRA) shows that that only half of surveyed primary school teachers passed the reading-comprehension test, and only one-third (36 percent) passed the written test. Similarly, the 2019 SDI survey indicates a very small share of primary school teachers masters the curriculum they are meant to be teaching, and effective professional development is limited.[13]

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[12] The five provinces are Lualaba, Nord-Ubangi and Sud-Ubangi, Kasai-Central, and Haut Katanga.

[13] Teacher minimum competency over the curriculum is defined as scoring at least 80 percent on an indirect assessment. The DRC SDI results show that that only 1.8 percent of the 2nd and 4th grade math teachers passed the threshold for minimum competency, while none of the French teachers passed the threshold for this subject.

Figure 9: Teacher qualifications in secondary level, 2018
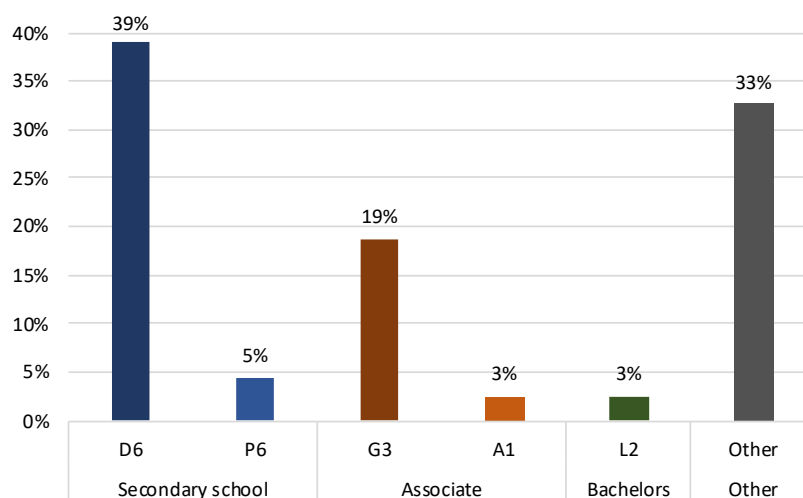
Note: D6: Diplôme de 6 ans pédagogique (Secondary-school diploma); P6: Diplôme d'Etat de 6 ans d'autres sections (Secondary school diploma in other fields); G3: Diplôme de graduat pédagogique (Associate degree); A1: Diplôme de graduat technique (Technical associate degree); L2: Diplome de licence facultaire (Bachelor's degree) Source: Annuaire Statistique 2017/18

Existing teacher training programs produce poorly prepared teachers and fall short of bridging skills gaps for teachers. In terms of pre-service training programs, secondary level pedagogical training programs (the most common training for teachers who have any) are widely considered low-quality, outdated, and ineffective (World Bank, 2017). In terms of in-service training, most teachers in the DRC receive no continuous professional development or coaching support. When they do, efforts are fragmented between pre-service and in-service training. According to PASEC (2019), 26.1 percent of primary school teachers had received no initial (or pre-service) training prior to entering their job (against 16.5 percent PASEC average), and 31.5 percent of primary school teachers had not received any kind of in-service training (against 30 percent PASEC average).

Teaching conditions are not adequate to attract more skilled teachers to where they are most needed. Inadequate incentives often lead the least effective teachers to end up serving the neediest populations, thus increasing existing inequalities in educational opportunities in hard-to-staff schools (e.g. schools in rural or remote areas). One potential explanation behind the shortage of female teachers is the fact that teachers in DRC have low salaries, irregular pay and face an unclear promotion path (Monkozi & Kadongo, 2010). Among African teacher working conditions, the DRC is ranked as the country where teachers are paid the lowest amount on the continent (UNESCO, 2012).[14] In addition, teachers report that the teaching profession in the DRC has been losing its prestige and value, and a professional sense of pride is disappearing, further hindering the position's attractiveness (Monkozi & Kadongo, 2010).

Underqualified and under-trained teachers further gender stereotypes which can impede girls' education. In many classrooms, gender stereotypes are furthered by teachers assigning domestic roles to girls, such as cleaning and water collection, and not calling upon girls equally to participate actively in the classroom. Boys, on the other hand, are given more responsibilities and many educators still believe them to have greater learning abilities, in particular in the STEM fields (Frei & Leowinata, 2014).

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[14] In the DRC, the average age of teachers was previously estimated at 44 years old, with around 30 percent of teachers over the age of 50. The high proportion of old teachers is due to the fact that teachers do not retire since the state is unable to pay either the pension or the gratuity payment (World Bank, 2015)

Few teachers in DRC are provided training to challenge these biases and support adolescent girls through guidance and counseling. While many partner-led initiatives have addressed sexual harassment and gender-based violence in schools, the majority of teachers have not received training on these or broader gender issues.[15] Many other countries in Sub-Saharan Africa have implemented Gender Responsive Pedagogy (GRP), a training toolkit for teachers to "be more gender aware and equip them with the skills to understand and address the specific learning needs of both sexes". This methodology has led to anecdotal positive impacts as identified by teachers themselves, particularly in girls' participation in the classroom (Forum for African Women Educationalists, 2020; Wanjama & Njuguna, 2016).

Furthermore, there is a profound shortage of female teachers at the secondary level which might be contributing to girl's dropout rates. Figure 10 shows that female teachers represent only 10 percent of the workforce at the secondary level, on average. Global research has shown that teacher gender can have a positive impact on girl's educational performance, especially in socially conservative cultures, where girls and women are isolated or segregated into sex-specific spaces and have less mobility, or where concerns are strong about physical or sexual violence against girls by teachers or students (Muralidharan & Sheth, 2016; Rawal & Kingdon, 2010; Makwati, Audinos, & Lairez, 2003; Chan, 2004). Research also suggests that hiring more female teachers is necessary in contexts where there is a great disparity in the ratio between male and female teachers and where social norms prevent girls from attending school with male teachers (Kirk, 2004; World Bank, 2005; Sperling & Winthrop, 2015).[16] Even though the evidence points to an improvement in girl's education, the gender of the teachers is only one dimension for reducing barriers to girl's education; in some cases, hiring more qualified, gender sensitive and engaged teachers is more important.

Figure 10: Proportion of female secondary school teachers, by province, 2018
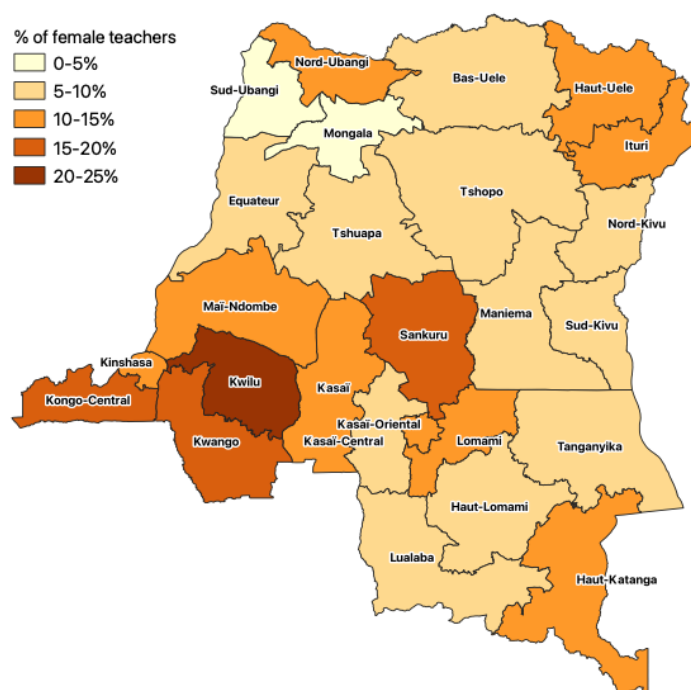
Source: Annuaire Statistique 2017-2018

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[15] See for example the following blog from Chemonics: Making schools safe across the Democratic Republic of Congo.
[16] Lee, Rhee, & Rudolf, (2019) analyzed over 31,000 sixth graders over 1,800 schools across 10 Francophone African countries and find that girls performed better than boys when taught by female teachers in both reading and math. Similarly, (Dickerson, McIntosh, & Valente, 2015) use earlier SACMEQ and the Programme d'Analyse des Systèmes Educatifs de la CONFEMEN (PASEC) rounds and find that regional characteristics (regional fertility rates, share of uneducated women, share of Muslims) can explain a large part of the variation in math scores across genders in 19 SSA countries.

Box 3: Focus group findings on teachers' attitudes and behaviors

The majority of teenage girls currently attending secondary school indicated that teachers tend to not provide a supportive learning environment. In particular, during the focus group discussions young girls mentioned that teachers tend to not facilitate the lesson, to check for understanding, or to provide feedback. Teacher frustration is also cited as a barrier to learning in the classrooms, which suggests that they do no set positive behavioral expectations for students.

"I do well in most of my classes as they are well taught, but I struggle with mathematics, as the teacher does not teach well. We need teachers to provide more in-depth explanation and ensure that all students understand. Usually teachers continue with the lesson even when some students did not understand." Student in school, March 2021

"The teachers are not supportive as they think that they've given us all of the means to do [the homework] alone. Sometimes they give a lot of challenging homework that was not explained well and expect us to work through it by ourselves. They have been especially frustrated, since the start of the free primary school policy." Student in school, March 2021

Discussion with parents also pointed to a shortage of female and qualified teachers as a barrier to their daughter's education.

"There are cases of teachers who condition girl's success in school on their willingness to sleep with them. The issue of teacher salaries is also another obstacle as some may condition a student's success on the bribes received. In both cases, school becomes an unsafe and dangerous environment for girls." Parent, March 2021

3. Weak leadership and school management practices

Corporal, psychological, and sexual violence are prevalent in DRC schools and represent a threat to both girls' and boys' educational achievement. Schools are supposed to provide an environment where children are safe to learn and succeed, however according to the 2013-14 DHS, at the national level, around 8 percent of teenage girls reported that they had been physically hurt by the teacher (**Figure 11**).[17] The scarcity of female teachers is believed to contribute to this situation. Moreover, according the 2019 PASEC report, harassment in schools is much higher in DRC compared to other countries in Francophone Africa. 4.1 percent of primary teachers in DRC acknowledge the presence of sexual harassment in schools—which is above the PASEC average of 2.4 percent – and around 1/3 of teachers confirm the presence of psychological/moral harassment in schools, which is the highest amongst participating PASEC countries.[18] In addition, qualitative research suggests that girls in schools are commonly exposed to physical and psychological harassment not only from teachers but also from their peers in school (Nkubonage Rudahindwa, 2020).

Figure 11: Percentage of teenage girls reported being physically hurt by teachers, by province 2013-14
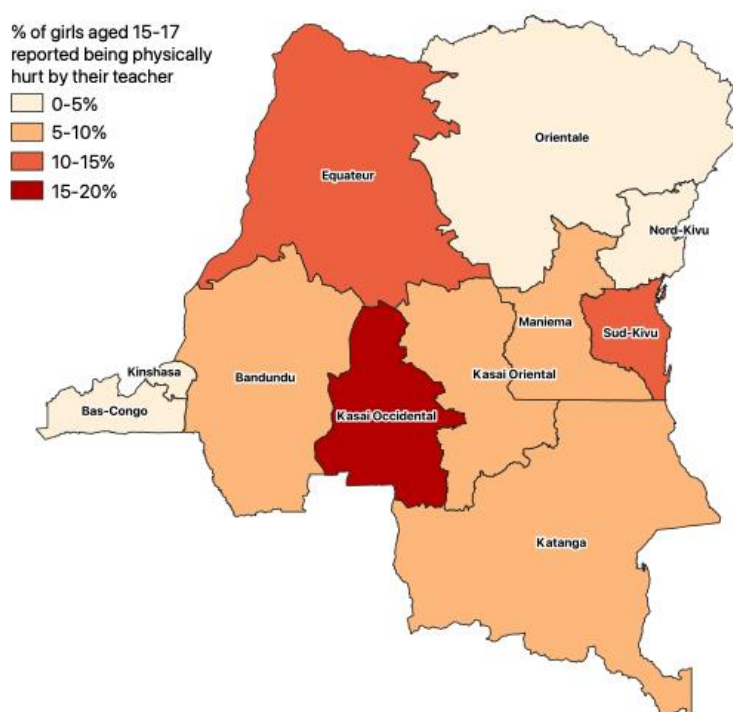
Note: Girls aged 15-17 years old are asked whether they had ever been physically hurt by teacher. Source: DRC DHS 2013/14

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[17] The 2013-14 Demographic and Health report shows that more than half of women (52 percent) aged 15-49 years have experienced physical violence at any point in time since the age of 15. Among the married women, 6 percent reported to have been physically hurt by a teacher, while 23 percent of the single women reported that the teacher was responsible for their physical abuse. The use of corporal punishment in school appears to be significantly more pervasive in rural areas compared to urban areas, where the shortage of female teachers is even more prevalent. In particular, in some provinces such as Kasai-Occidental, Equateur and South Kivu, more than 10 percent of teenage girls reported to have ever suffered some kind of physical aggression by the teachers. The DHS does not survey boys regarding corporal punishment, and therefore does not allow for comparison across genders.

[18] There is no definition of moral harassment in PASEC (2019), but in DHS surveys, psychological aggression towards children is defined as "yelling at the child or calling the child an idiot, lazy or any other similar insult".

Ineffective school management can fail to prevent harassment and violence in schools when they are widespread in communities. **Table 3.1** provides a comparison of inter-personal violence indicators for DRC and several neighboring countries using data from the 2017 Ending Violence in Childhood Global Report. Overall, DRC's violence indicators tend to be significantly higher than the neighboring countries, especially for physical and sexual violence against adolescent girls. In particular, the data shows that more than half of girls aged between 15 and 19 have experienced physical violence, and 21 percent sexual violence. The child homicide rate in DRC is also the highest among the neighboring countries. Given the pervasiveness of violence in communities, without a strong anti-violence focus, accompanied by effective supervision and support, school and local leaders (including school directors, inspectors, and administrators) are unlikely to be able to create safe environments within schools. Indeed, the report also indicates that approximately half of children in lower-secondary level suffer from peer violence in school in the form of bullying and physical fights. This high incidence of gender-based violence in and out of school suggests once again that school-level management capacity is very low. In particular, the school management practices do not seem to be fostering an approach to learning cognizant of the gender biases and violence that prevail in the schooling system.

Table 3.1: Key indicators of inter-personal violence in childhood, 2015

Country	Corporal punishment at home	Peer violence in schools		Violence against adolescent girls		
		Bullying	Physical fights	Physical violence	Sexual violence	Child homicide rate
	(% of 1-14 years)	(% 13-15 years)	(% 13-15 years)	(% 15-19 years)	(% 15-19 years)	(per 100,000)
DRC	**82**	**55**	**46**	**56**	**21**	**14**
Congo	82	48	45	32	12	5
Rwanda	88	58	35	16	12	13
Sudan	64	40	51	18	14	6
Burundi	97	70	48	35	12	5
Central African Rep.	92	51	47	42	16	5
Tanzania	77	28	40	24	13	6
Uganda	80	46	36	54	19	10
Zambia	80	65	53	33	16	6

Source: Know Violence in Childhood. 2017. Ending Violence in Childhood: Overview. Global Report 2017. Know Violence in Childhood. New Delhi, India.

The methods of punishment and discipline in school tend to be gendered and reinforce gender roles. In many countries, boys are more likely to be punished physically, and girls psychologically, as the former are perceived are stronger than the latter (Pinheiro, 2006). In the DRC, there is suggestive evidence that boys are slightly more often punished physically than girls in the household (**Figure 12**), and that corporal and/or psychological punishment is highly pervasive amongst both genders. Corporal punishment also tends to vary by teacher's gender: male teachers tend to use physical punishment to assert their authority, whereas female teachers are more likely to use verbal punishment (UNGEI, 2015).

Figure 12: Type of punishment used to discipline child, by child's gender, 2013
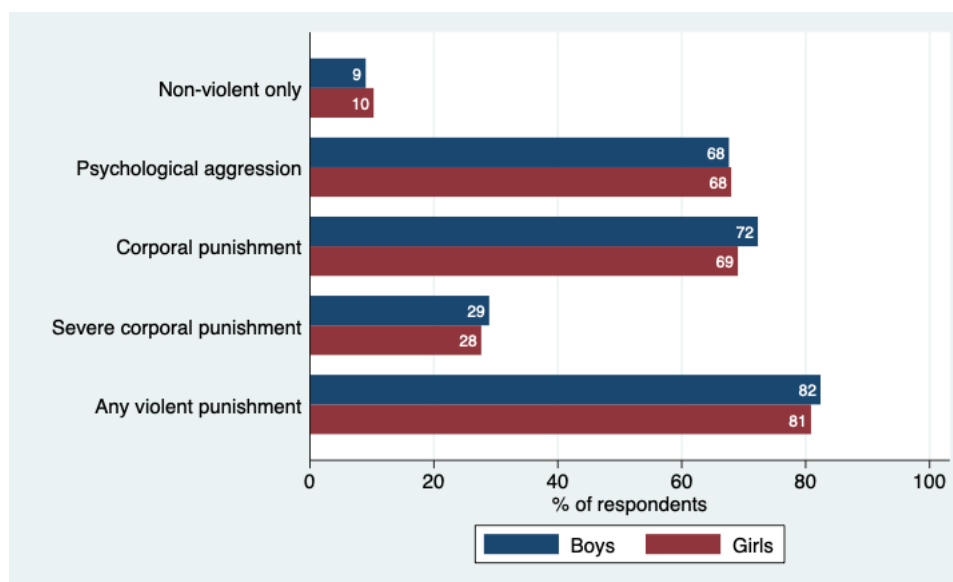
Note: Respondents are asked about the type of discipline used for one child chosen at random within their household. "Any violent punishment" is any form of psychological aggression or corporal punishment (severe or not). Children are aged 6-17. Source: DHS 2013/14

Corporal punishment and harsh treatment from teachers have been linked to dropout. Multiple studies have shown that teacher punishment methods lead to students dropping out of school prematurely (Pereznieto, Harper, Clench, & Coarasa, 2010). Moreover, mental health experts find that corporal punishment may produce a host of negative outcomes for children that can affect their schooling including depression, withdrawal, anxiety, substance abuse and precocious sexual behavior (Hyman, 1995). A quantitative survey in DRC found that higher levels of participation in formal education were associated with significantly lower reported rates of physical and sexual violence against girls aged 10 to 14 in South Kivu (Landis, et al., 2019). Other studies have shown that such violence affects school performance and can lead to unwanted pregnancies and early dropouts (Bisika, Ntata, & Konyani, 2009). To sum up, all this evidence suggests that the weak school management practices in DRC, particularly those related to gender-based violence, could be adversely affecting teenage girls' attachment to secondary school.

Box 4: Focus group findings on gender-based violence in school

In Kananga, adolescent girls who had dropped out of school did identify corporal punishment as being pervasive in schools, but this issue was rarely mentioned in Kinshasa. Most dropout adolescent girls declared the use of corporal punishment by teachers to be similar for both genders, but a few insisted that the punishment differed, with boys receiving more severe punishment than girls. In contrast, in Kinshasa, adolescent girls stated that chores were administrated in lieu of corporal punishment.

> *"For me, they punished us girls differently than boys, girls were asked to kneel while boys were beaten, and they received more punishment."* OOS student, Kananga, March 2021

> *"Corporal punishment is used rarely. Chores were handed in place of corporal punishment."* OOS student, Kinshasa, March 2021

Peer-violence in school or bullying in school was also cited as a concern among teenage girls dropping out of secondary school. During focus group discussions with adolescent girls having dropped out of school, a significant number identified bullying, related to their socioeconomic status, age and health conditions, as issues they faced while in school which fostered a general sense of not belonging.

> *"Some students made fun of me because of my age and especially when they kicked me out of school for not paying the tuition. This does not make you feel part of the school."* OOS student, March 2021

For parents and school directors, teacher harassment against girls is another cause of concern which tends to lead to the end of their education.

> *"Sometimes male teachers chase their girl students and if these don't agree, the male teachers threaten them with not passing their exams, which causes some of the girls to drop out."* Parent, March 2021

> "*Corporal punishment is still used in many of our schools, but we try to warn and sanction teachers who do so. The punishment is the same for both boys and girls.*" School Director, March 2021

Section 3
Demand Side Determinants

1. Household socioeconomic status

Household poverty is one of the major obstacles to school attendance in DRC and impacts girls more than boys. Research shows that children born to disadvantaged families are already lagging behind in their development, even before they start school for the first time (World Bank, 2018). **Figure 13** indicates how the proportion of out-of-school children in DRC decreases steadily as household wealth rises. At the national level, 36 percent of children aged 6 to 17 are out of school in the bottom wealth quintile, compared to only 8 percent of the top 20 percent of wealth distribution. The same trend is observed among both boys and girls, with a higher proportion of girls out-of-school than boys for both primary and secondary school age groups. This figures also shows that the gender gap in out-of-school children widens as household wealth decreases: in the bottom wealth quintile, girls are 8 percentage points overall more likely than boys to be out of school, but in the top wealth quintile, the gender gap is only one percentage point. The largest gender gap in out-of-school children – 13 percentage points – is observed for secondary-aged children in the poorest households.[19]

Figure 13: Proportion of out-of-school 6-17 years old, by household wealth quintiles and gender, 2017/18
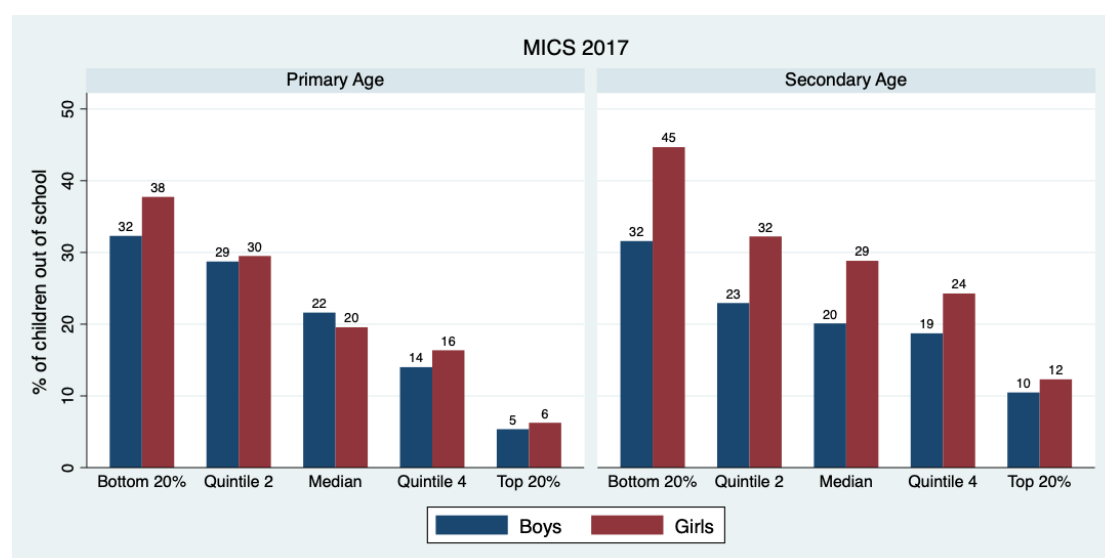
Note: Proportion of out-of-school children aged 6-17 years old by wealth quintile. Source: MICS 2017/18

Multivariate regression analysis confirms these correlations showing that children living in wealthier households are more likely to attend school and less likely to drop out of school (**Table 0.1** in the Appendix).[20] While there are not significant gender differences in the effect of household income/wealth on being out-of-school in primary level, the correlation between socioeconomic status and school

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[19] According to the 2012 OOSC report, lack of money if the most commonly cited reason for out-of-school children: at the national level, it is mentioned as a reason for non-enrollment in 69 percent of the cases, and as a reason for dropping out in 70 percent of the cases (See Section 4 for more information about self-reported reasons behind non-enrollment or dropout).

attendance is much stronger for girls than boys in secondary level. In particular, girls belonging to the richest households (e.g. monthly income higher than 500 USD) are 9 percentage points less likely to drop out of secondary school compared to those in the poorest households (e.g. monthly income less than 50 USD), while this result is not significant for boys (**Table 0.2** in the Appendix)

Wealthier households are in a better position to cover both the direct and the indirect costs of basic education. At the primary level, prior to the free schooling policy, the majority of public schools charged tuition. Even with the policy now in place, several direct costs remain, including school materials, uniforms, and transportation. At the secondary level, the majority of schools (public and private) continue to charge tuition, in addition to all other direct costs. For instance, self-reported data from household phone surveys conducted during 2020 show that fees are a significantly more important expense at the secondary level than at the primary level: in Kinshasa, 46 percent of households spend money on primary tuition fees, against 74 percent at the secondary level. In Eastern DRC, the gap is smaller (39 percent against 49 percent respectively), likely due to low secondary enrolment rates in rural settings.

Figure 14: Proportion of out-of-school children 6-13 involved in child labor by gender and rural/urban, 2012
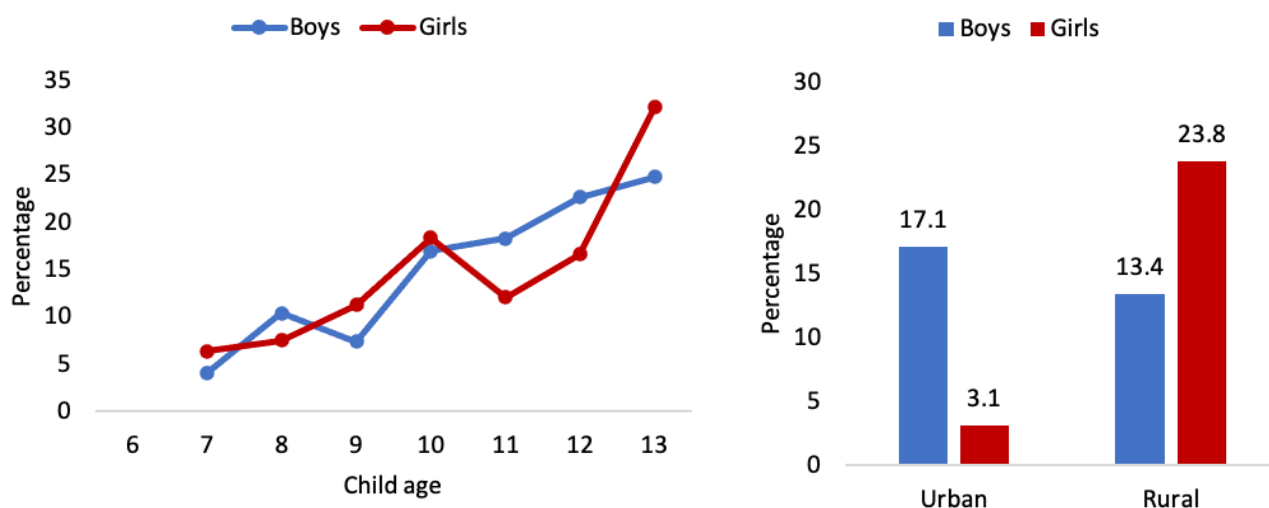
Note: Child labor is defined in terms of the number of hours of economic work carried out by the child aged 6 to 13 years old (ILO, Understanding Children's Work – UCW). Source: OOSC 2012

When resources in the household are scarce, child labor becomes a significant obstacle to education for young children aged 6 to 13 years old. Many young children are out of school because they are participating in household chores or in the labor market. Opportunity costs increase when children grow up and become more useful in the household's income-generating activities. It is also important to note that DRC is characterized for having some of the worst forms of child labor, including forced mining, sexual exploitation and armed conflict.[21] The pressure to take housework or work in the labor market means that children have less time to devote to their schooling, which may ultimately lead to dropout. According to data from the 2012 OOSC survey, in DRC around 14.4 percent of out-of-school children were involved in child labor, defined as the number of hours of economic works carried out by children aged 6 to 13 years

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[21] Many households in Eastern DRC rely on mining as one of the main sources of income. This income generating activity drive households in the regions to send their children to work to help their parents. Since the children are already unable to study under good conditions due to lack of financial means, they drop out of school (Association pour le Developpement des Iniciaties Paysannes (ASSODIP)

old (International Labour Office, 2017). In addition, out-of-school girls in rural areas are significantly more involved in child labor than girls in urban areas and boys in both urban and rural areas (**Figure 14**).

Figure 15: Proportion of out-of-school adolescents working and work hours, by gender and type of work, 2012
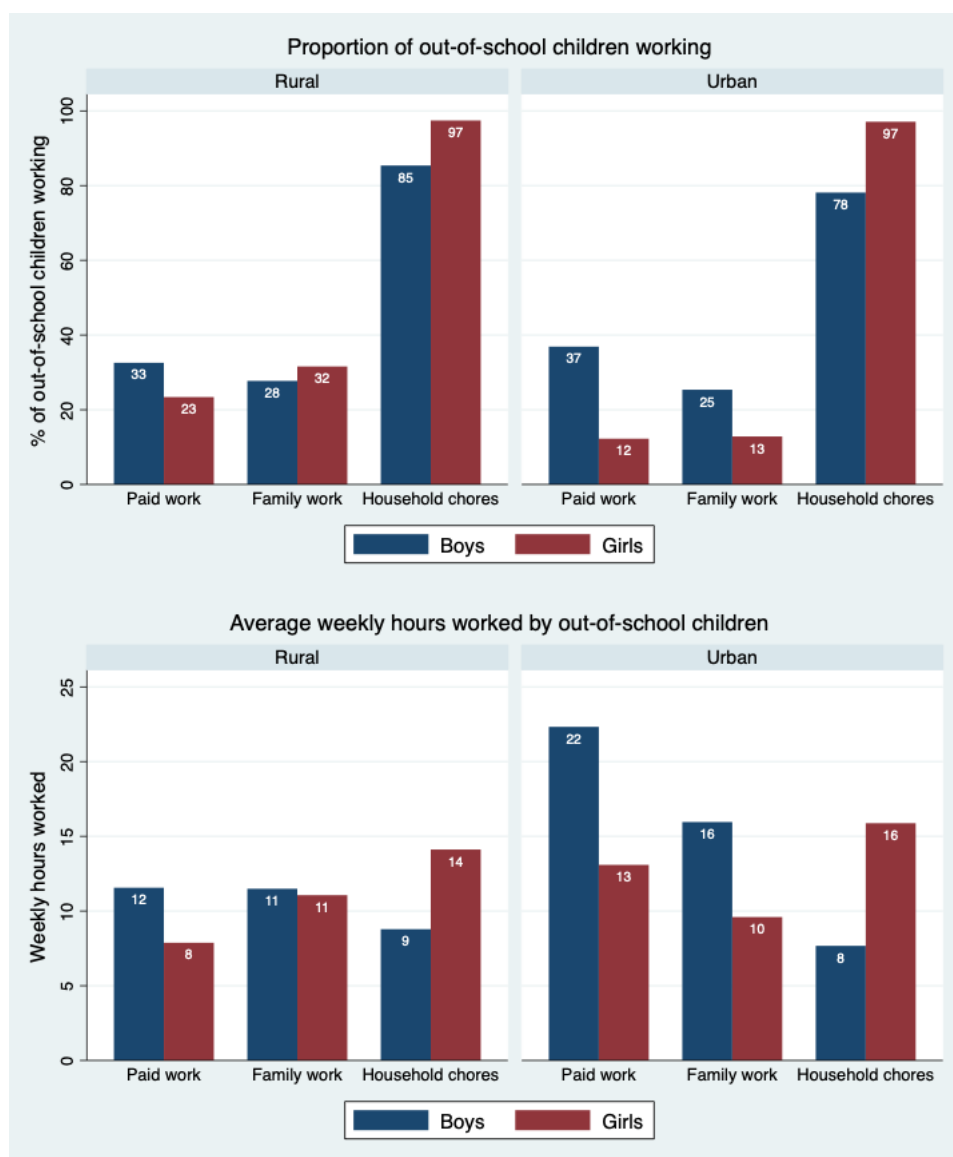
Note: Only out-of-school children aged 12-17 are used for this analysis. Source: OOSC 2012

The opportunity costs of sending children to secondary school can be very high and differs by gender. While out-of-school girls are more likely to be involved in unpaid work or helping with the family business, boys are significantly more likely than girls to participate in paid work. Data from the 2012 OOSC survey shows that 20 percent of out-of-school girls aged 12-17 and 34 percent of out-of-school boys in the same age group participate in the labor market either through paid work or family work (i.e. helping with the family business). Moreover, **Figure 15** shows that the gender gap in paid work is most pronounced in urban settings, where 37 percent of out-of-school boys participate in paid work sectors, compared to only 12 percent of out-of-school girls. A similar trend is also found for family work (25 vs. 13 percent). In both cases, out-of-school boys work more intensively than girls in paid work and family work. In rural areas both genders are equally likely to participate in the family business, but boys are still more likely than girls to participate in paid work. Lastly, almost all out-of-school girls (97 percent) and the majority of out-of-

school boys, both in rural and urban areas, are involved in household chores (e.g. cooking, cleaning, taking care of siblings).[22]

In terms of other household characteristics, having illiterate parents or a large family are both significantly correlated with being out of school, more so for girls than boys. The regression analysis shows that being out-of-school is negatively correlated with the education level of the household head. In particular, having more educated parents significantly reduces the likelihood of never attending secondary school, especially for girls, but it has less effect on the likelihood of dropping out of school. Compared to having parents with no formal education, having parents with secondary degree reduces the likelihood of never attending secondary school by 11 percentage points for girls, and 5 percentage point for boys (**Table 0.3**). Even jumping from parents with no education to some primary education has a substantial correlation: girls are 10 percentage points less likely to never attend secondary school, and boys 4 percentage points. The regression analysis also shows that household size (i.e. number of members in the household) is positively correlated with the likelihood of being out-of-school, which might indicate that larger households tend to struggle to send all their children to school. Interestingly, the analysis also shows that a child is more likely to be in school if she has a higher number of siblings already enrolled in school. This result is particularly relevant for girls. **Table 0.1** shows that a higher number of enrolled children in the household reduces the likelihood of being out of school by 13 percentage point for girls at the secondary level, which is 5 percentage points higher compared to boys. This result could potentially reflect the presence of economies of scale, since households with more enrolled children may have lower costs of enrolling an additional child.

The COVID-19 crisis has led to lower income for many Congolese families, causing difficulties in paying school fees for their children. In Eastern DRC, more than half of respondents reported decreases in income in the month preceding the interview. As a result, in November 2020, one in five children went to school less than 6 days a week. Of these children, 49 percent of primary-aged children and 59 percent of secondary-aged children failed to attend because they had not paid school fees.[23] In Kinshasa, income constraints also explain many children's absence from school: among families having not sent their children to school, income constraints are cited as the main barrier for close to a third of respondents.[24] As discussed above, since household poverty is more strongly correlated with being out of school for girls than boys, girls may be disproportionately affected.

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[22] We analyze girl's participation in household chores in more detail in Section 2 "Social norms that disadvantage girls"
[23] 5th Round High-Frequency Phone Survey of Households, March 31st 2021
[24] Conditions de vie à Kinshasa: Mesure de l'impact de la COVID-19-19 19, Bulletin n°6: Decembre 2020

Box 5: Focus group findings on household socioeconomic characteristics

Household socioeconomic status is by far the main driver of secondary school-age girls being out of school, as cited by teenagers, parents and teachers. Not only does secondary education of girls have direct costs linked to school fees, uniforms and transport costs; sending a girl to school in the face of financial hardship means the loss of an essential household helper (cooking, housekeeping, babysitting, etc.) or the deferral of a dowry. That is, the opportunity cost of sending a girl to school is very high for the household. All dropout adolescent girls interviewed, both in Kananga and Kinshasa, mentioned that sufficient financial means would have allowed them to complete their secondary schooling.

> *"Tuition fees is the main problem, especially for parents that do not have the financial means. Another issue is that, even if a parent is employed or has some sort of revenue, if the revenue is insignificant compared to the household spending, then you have to prioritize rent and food for the benefit of all instead of schooling your children."* Parent, March 2021

Even amongst girls in school, the threat of insufficient income looms. The majority of participants revealed that none had yet obtained a scholarship and that only sufficient financial means would allow them to remain and complete their secondary education. For many, insufficient income had led to their siblings or school friends dropping out, despite parents being highly motivated in sending their girls to secondary school.

> *"We would like the government to provide full secondary scholarships to girls, and in the long run, extend free education to girls only in the secondary."* Student in school, March 2021

Many parents consider their daughters as valuable members of the community as they provide considerable support to the household by working. In general, girls assist their families through household chores, family care and petty trading.

> *"It is generally when there is limited or no money that girls are forced to abandon school. For instance, my grandmother wants me to pursue petty trading (e.g., restaurant, hair braiding, sewing etc.) instead of getting an education."* Student in school, March 2021

Disruptions in the family structure significantly increased the likelihood of girl's dropping out of school. The death or absence of a parent, parent's divorce/separation, as well as poor health (of parents, siblings, or student), were often cited next to income as main determinants of secondary school abandonment. All these factors are very closely correlated with income, as parental illness or abandonment as well as poor health can cause the family to fall into a poverty trap, with dropping out of school being one of many difficult adjustments made by the family to cope with insufficient income.

> *"The main obstacle is the tuition that needs to be paid. Mom died when I was five and dad left us to get married to another woman. We now live with our grandmother who does not have the means to send us to school."* OOS student, March 2021

2. Social norms that disadvantage girls

A greater share of adolescent girls participates in household work than boys and spend significantly more hours on it, which may reduce the time they dedicate to schooling. Girls are significantly more likely than boys to participate in household chores regardless of their school attendance status, with 96 percent of in-school and out-of-school girls doing chores compared to 88 percent of in-school boys and 80 percent of out-of-school boys. Girls also work significantly more hours in such tasks compared to boys. For instance, in 2012 out-of-school girls spent 15 hours per week on household chores, compared to 11 for girls in school. For boys, hours worked averaged 7 and 9 per week, for those in school and out-of-school, respectively (**Figure 16**). This gender gap indicates that girls are disproportionately forced to participate in household chores, which has an adverse impact on their schooling outcomes.

Figure 16: Household work hours per week, by gender and school attendance status, 2012
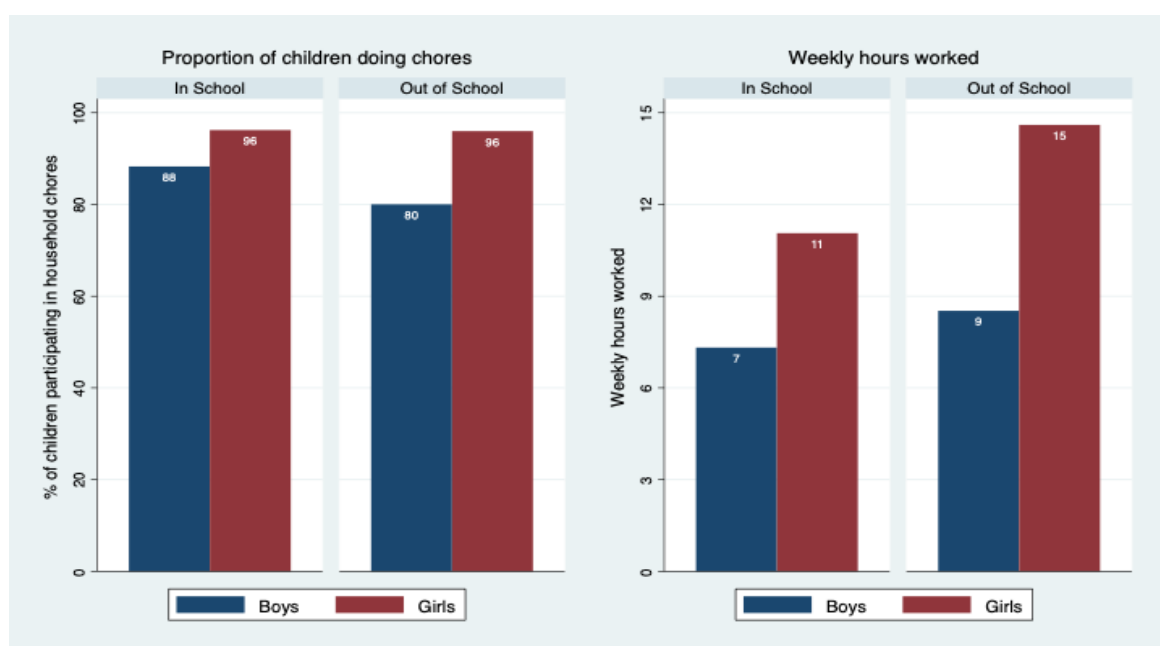
Note: Only children aged 12-17 are used for this analysis. Source: OOSC 2012

The prevalence of early marriage remains high in DRC and frequently leads to an end of girls' schooling. In DRC, the age at which women and girls enter into a formal union has decreased slightly over time, but it is still quite early**.** Despite a law prohibiting marriage before the age of 18, in 2017/18 almost one-fifth of teenage girls aged 15-19 were married or cohabiting, and 5 percent of them were married or cohabiting before the age of 15 (**Figure 17**).[25] While these rates are high, they are lower than for older cohorts (for example, over half of women aged 45-49 were in a formal union before age 18) and indicate progress in reducing child marriage over the last several decades. Child marriage is both a cause and consequence of girls not attending school. It may lead to dropout and lower educational attainment but keeping girls in school can also delay marriage.[26] The negative impact of child marriage for a girl's education and well-being is often larger when the girl marries very early. For instance, the earlier a girl

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[25] Data from the 2013/14 DHS report show that 41.5 percent of women aged 20-49 are married before the age of 18, and 13 percent are married before the age of 15.

[26] In Sub-Saharan Africa, two-thirds of women with no education became child brides, versus 13 percent of those with secondary or higher education – a rate over five times higher (UNFPA, 2012)

marries, the more likely it is that she will drop out early and thereby have a low level of educational attainment. Data from the 2017/18 MICS survey shows that, at the national level, 16 percent of out-of-school girls aged between 15 and 19 years are married compared to less than 1 percent of those that are in school. Previous literature also suggests that socio-cultural norms such as girls' lack of agency, the institution of bride price and religious preferences, polygamy, patriarchal values and ideologies, as well as poverty contribute to a propensity for girls to get married early and discontinue their education (Jain & Kurz, 2007; UNFPA, 2013).[27]

Figure 17: Proportion of women in formal union before the age of 15 and 18, 2014 - 2018
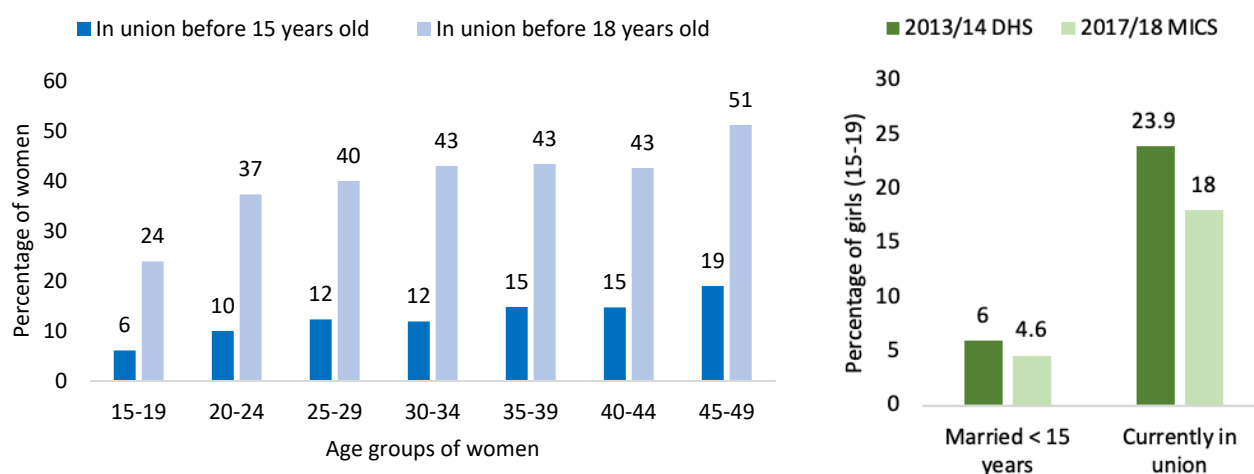
Note: Girls in formal union included: (i) married, (ii) living with partner, (iii) widowed, (iv) divorced, (v) no longer living together or separated.
Source: DHS 2013/14; MICS 2017/18

Early marriage varies significantly across the country, but in most of the provinces at least half of the out-of-school teenage girls are already married (Figure 18). Data from the 2017/18 MICS survey show that early marriage is more prevalent in the southern part of the country, where between 40 and 60 percent of out-of-school girls aged 15-19 are already married. This issue is even more worrisome in Sud-Ubangi, Mongala and Maniema, where 60 to 80 percent of the out-of-school girls are married. In contrast, Kinshasa presents one of the lowest rates of out-of-school teenage girls who are already married, with less than 20 percent. These variations in early marriage rates across provinces reflect different economic and social factors that could be related to school dropout for girls.

Teenage pregnancy, often a consequence of early marriage, also has negative implications for girls. Child marriage not only curtails girl's education but also puts girls at a higher risk of early pregnancy and complicated childbirth. Trends in teenage pregnancy in DRC show a slight decline over time but they still remain very high.[28] In 2017/18, almost one-fourth (23.4 percent) of teenage girls aged 15-19 has already had at least a child or is pregnant, with 2 percent being pregnant even before the age of 15. (**Figure 19**).[29] For most girls of school age, falling pregnant reduces significantly the chances of completing their basic education. For example, only 11 percent of teenage girls between 15 and 19 years old that have given birth

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[27] Girls involved in forced child marriages are also exposed to higher rates of domestic and sexual exploitation, unwanted pregnancies, and sexually transmitted infections (Mulumeoderhwa, 2016). In addition, early marriages limit girl's financial freedom. Once married, they become financially dependent on their husbands. They tend to not receive any education or encouragement to become financially independent (McCleary-Sills, Hanmer, Parsons, & and Klugman, 2015).

[28] The main causes of teenage pregnancy in Africa include sexual exploitation and abuse, poverty, lack of information about sexuality and reproduction, and lack of access to services such as family planning and modern contraception.

[29] Beyond the national averages, there are high burden "hotspots" at the sub-regional level where girls tend to marry younger, adolescent fertility is higher, and girls drop out of school earlier and at a higher rate. For instance, the provinces of Tanganyka, Maniema and Mongala have higher leves of adolescent pregnancies than the national average of 23.4 percent with 45, 42 and 40 percent of adolescent girls aged 15 to 19 having begun childbearing.

currently attend school compared to 72 percent of girls that have never been pregnant. In other words, around 86 percent of currently pregnant teenage girls are out-of-school (**Table 2.1**). Even though DRC has laws that protect young mothers' right to go back to school, these results highlight the importance of facilitating access to sexual and reproductive health services to young girls, providing a comprehensive sexual education in school, and supporting girls to come back to school after having a child.

Figure 18: Proportion of teenage girls married or cohabiting (aged 15-19), by school attendance, 2017/18
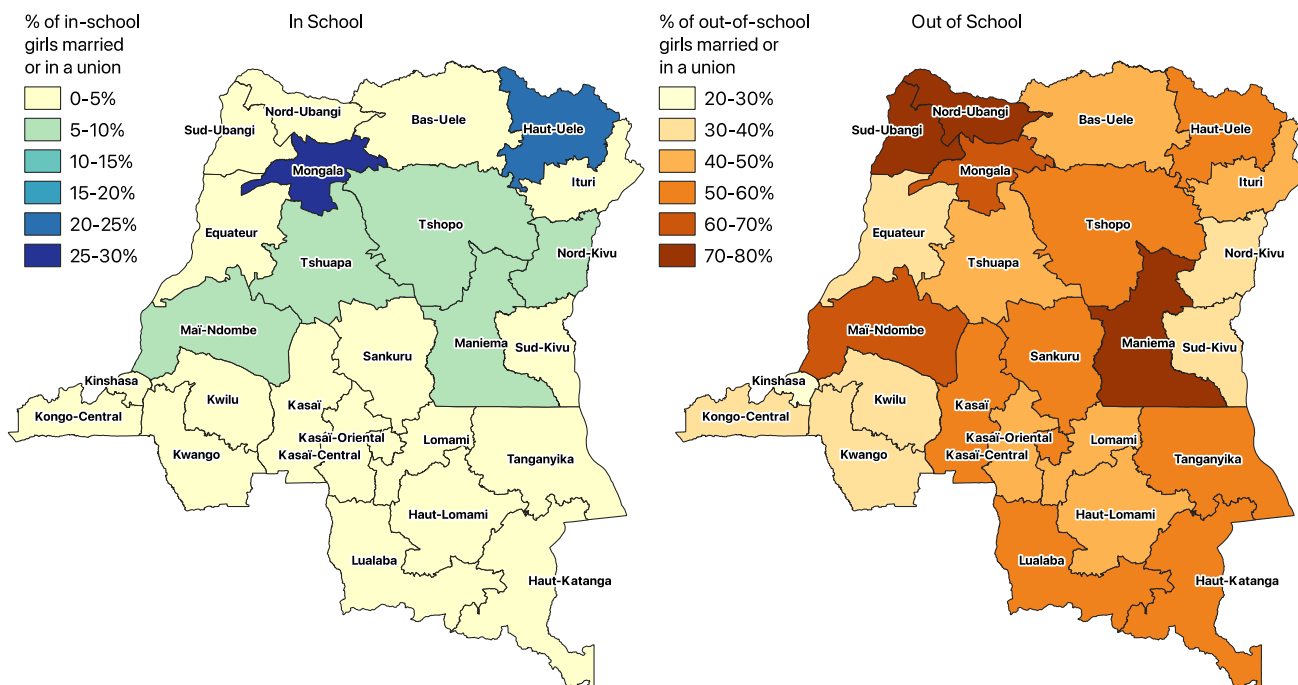
Note: Only girls aged 15-19 are used for this analysis. Source: MICS 2017/18

Figure 19: Proportion of teenage girls by their childbearing status, 2014-2018
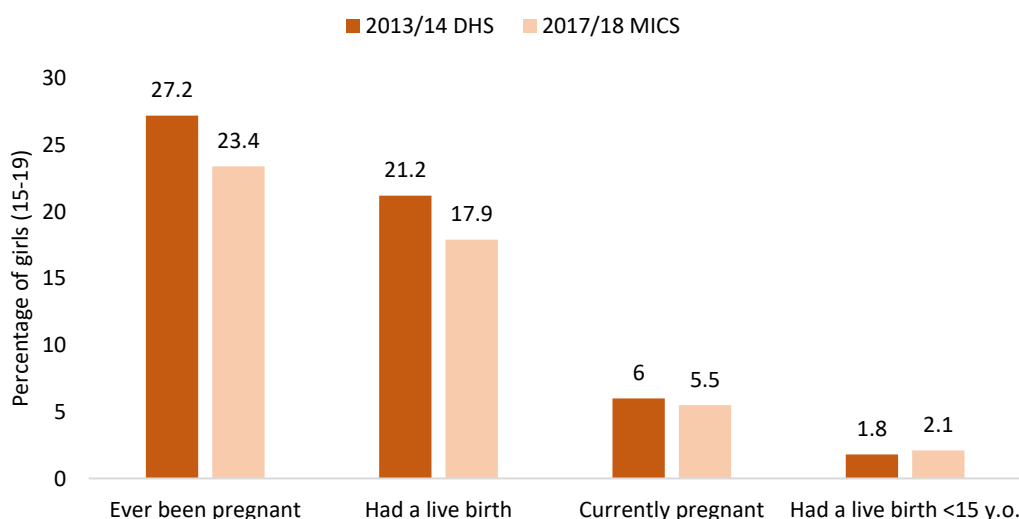
Source: DHS 2013/14, MICS 2017/18

Early pregnancy varies drastically from one province to another. Data from the 2017/18 MICS survey show that, at the national level, 7 percent of out-of-school girls aged 15 to 19 were pregnant, compared to 1 percent of girls attending school at the time of the survey. However, the prevalence of early pregnancy can vary substantially from one province to another. For instance, in the provinces of Maï-Ndombe, Kwango, Tshongo and Haut-Uele, at least 1 in 4 out-of-school teenage girls are pregnant, followed by Kwilu, Mongala, Nord-Ubangi, Sankuru, Maniema and Tanganyika, where at least 1 in 5 out-of-school teenage girls are pregnant. Surprisingly, the conflict-affected provinces of North and South Kivu present among the lowest rates of out-of-school teenage girls who are pregnant – between 5 and 15 percent. The capital of Kinshasa also has one of the lowest rates of early pregnancy among out-of-school teenage girls. These variations once again indicate that determinants to girls' school attendance are not uniform across provinces.

Table 2.1: Attendance rates and level of schooling for teenage girls by childbearing status, 2018

	Out-of-school (%)	Attending school (%)	Level of school attending (%)		
			Primary	Secondary	Tertiary
	(1)	(2)	(3)	(4)	(5)
All boys	28.7	71.3	13.7	83.6	2.8
All girls	37.7	62.3	12.6	84.1	3.3
Never pregnant	27.7	72.3	11.9	84.1	4.1
Had a live birth	89.1	10.9	3.2	95.7	1.2
Currently pregnant	85.8	14.2	3.2	92.6	4.2

Note: Only children aged 15-19 are used for this analysis. Source: MICS 2017/18

Figure 20: Proportion of pregnant girls, by school attendance status, 2017/18
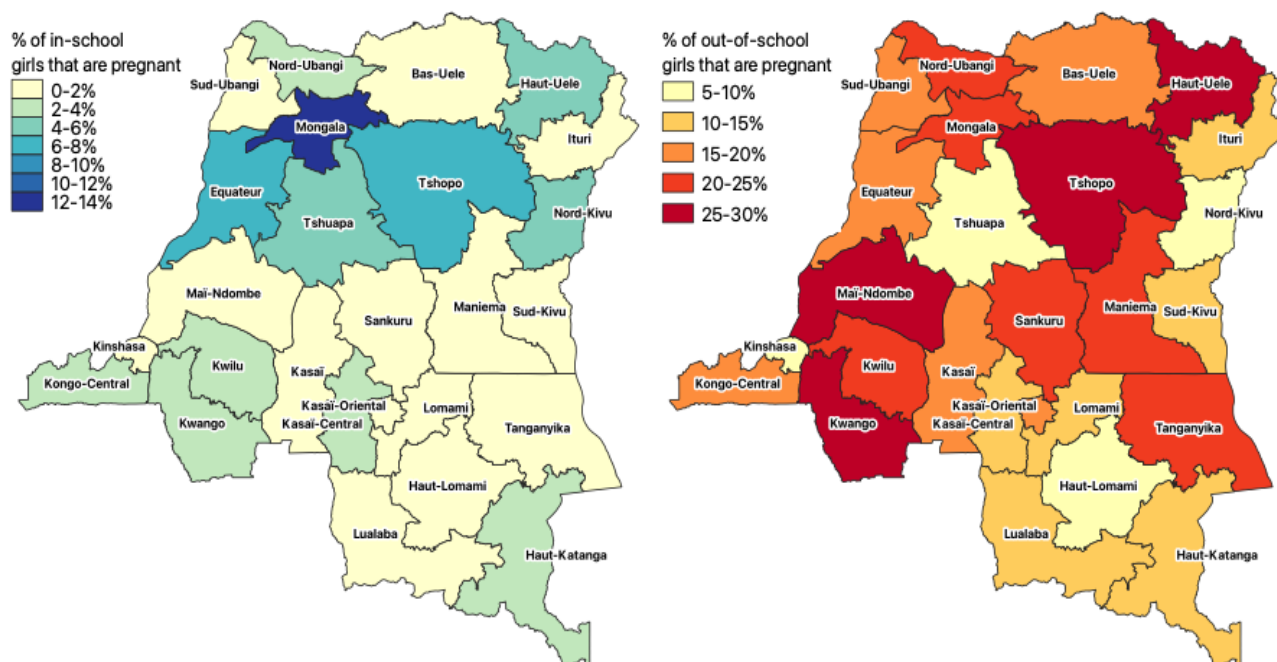
Note: Only girls aged 15-19 are used for this analysis. Source: MICS 2017/18

Box 6: Focus group findings on harmful gendered social norms

The role played by gender discrimination and differential expectations in gender roles is quite pervasive, but its influence varies across the country. The majority of out-of-school girls indicated that households experiencing financial hardship are more likely to prioritize boys' over girls' education. For instance, in Kananga, several out-of-school girls cited household chores and petty trading as gender roles that can hinder a girl's education, and the expectation for girls to marry and to help the family as the primary parental aspirations for girls other than school. In Kinshasa, in contrast, most participants did not find established gender roles to be an impediment to girls' education. However, they also indicated that marriage and supporting the family were the main parental aspirations for out-of-school girls.

> "*I used to do household chores first prior to going to school and whenever I noticed that is was past school start time, I would stay at home rather than go to school because I was tired.*" OOS student, Kananga, March 2021

> "*Here, in Kinshasa, parents send both genders to school and believe that a girl's education is equally as important as a boy's.*" Parent, Kinshasa, March 2021

> "*Parents favor boys more than girls in paying school fees. The gratuity has helped this situation, expect for the secondary school level. When parents do not have the financial means, they opt to educate boys.*" School Director, Kananga, March 2021

Outside of Kinshasa, societal norms can shape parents' decisions regarding their daughters' school attendance, even when these norms contradict the family's preferences. In Kananga, several parents revealed that unless one is strong-minded, a parent might bow to the community's preference of financially supporting disadvantaged family members instead of schooling their daughters. In Kinshasa, on the other hand, cultural expectations are less often reported as hindering girls' education: most parents say they are motivated to send their child to

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school regardless of their gender. Prioritizing the enrollment of boys over girls was found to be common in Kananga, especially when financial resources are limited; in contrast to Kinshasa, where respondents indicated that investment in education for both genders was favored.

> "*Girls are very important in our community because they support the family through petty trading, taking care of siblings and household chores. For some parents, in our region, girls are important because they can bring revenue through the dowry given for marriage.*" Community leader, Kananga, March 2021

> "*Our communities show in a superficial manner that girls need education just as much as boys but in reality, those in the community with the means to send their daughters to school become victims of jealousy and resentment from the community. To them, the money can instead be used to help family members in need.*" Parent, Kananga, March 2021

The issue of early pregnancy, early marriage and lack of parental monitoring were mentioned both in Kinshasa and Kananga. Early marriage is often tied to income constraints, especially in Kananga. Participants related the widespread use of the "*Byuma bia Mulambo*" tradition which stipulates that extended family members demand parents to marry their teenage girl so that these can get their part of the dowry, and if the parent does not comply, witchcraft is used to inflict sickness or even death to the teen girl. Parents in the region suggest that this tradition is so anchored in society that some parents send money to family members, pretending it is part of the dowry, in order to protect their girls from early marriage.

> "*If the parents are not steadfast, they may succumb to pressure from the community and not send or retain their daughters in school. For instance, my family insisted that my daughter gets married soon, afterward my neighbor paid me a visit to reiterate that if I don't comply with my family then my daughter may be prone to issues such as sickness, etc. and that, it was in my best interest to comply.*" Parent, Kananga, March 2021

> "*We don't think that our communities influence the perception of anyone with regards to educating girls, this is because most parents in Kinshasa know that it is equally as important to educate girls.*" Parent, Kinshasa, March 2021

> "*In the culture here, girls are prepared very early for marriage and so they are predisposed for marriage and everything is done with the end goal of getting married. Therefore, many girls are not motivated by going to school as they have internalized that attending school is not the end goal, marriage is.*" Teacher, Kananga, March 2021

> "*I know a girl who got pregnant and could not continue with her secondary school and because of this, her parents did not want to continue paying for her school.*" Student in school, Kananga, March 2021

3. Insecurity, conflict, and violence outside of school

The issue of armed conflict and sexual violence is of prime concern to families who want to send their children to school. The DRC has been considered as one of the most dangerous places in the world to be a woman. Years of civil conflict and extreme violence have meant that many households are displaced, separated or members of the family are killed.[30] In addition, sexual violence has been used as a tactic of war and the continuing presence of armed militias make women's and girls' mobility and personal safety very difficult in parts of the country (Maedl, 2011).[31] Countries affected by armed conflict, like DRC, typically have high pregnancy rates due, in part, to widespread sexual violence committed by members of national armed forces and armed groups, and high levels of poverty that facilitates sexual exploitation. Some survivors of sexual violence never return to school because of stigma and humiliation, and those who do return to school often lack support to continue their education (Peterman, Palermo, & Bredenkamp, 2011; Human Rights Watch, 2018).

Children in eastern DRC are disproportionally more likely to be out-of-school due to conflict and violence. According to the 2012 OOSC survey, fear of crime and conflict is the most commonly cited reasons for out-of-school children in the conflict-affected provinces of North and South Kivu: it is mentioned as a reason for non-enrollment in at least 10 percent of the cases in both provinces compared to only 5 percent nationally, and as a reason for dropping out in 16 percent of the cases in South Kivu and 8 percent in North Kivu, compared to 4 percent nationally (**Figure 22**). In these provinces, boys tend to drop out of school due to conflict concerns at higher rates than girls, while girls are more likely than boys to have never attended school due to safety concerns. On the one hand, boys are being abducted on the way to school by rebel groups to serve as child soldiers, while girls are often victims of rape on their way to school and for this reason parents prefer to keep them at home (Meger, 2010; Gilchrist, Fellow, & Sheppard, 2015).

Figure 21: Children out of school due to safety concerns, by former administrative provinces and gender, 2012
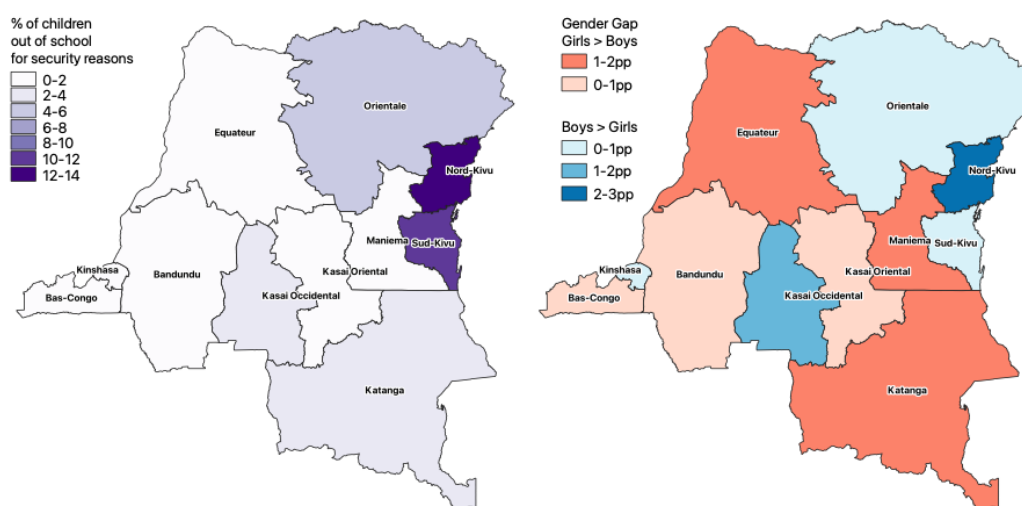
Note: Children aged 6-17 are used for this analysis. Source: OOSC 2012

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[30] DRC has the highest number of displaced people in Africa (5 million), of whom around 60 percent are under 18 (UNHCR, 2020)

[31] UNICEF ranks the DRC as the country with the highest number of children used as soldiers, sexual slaves and laborers, where schools are not necessarily a safe place for children. In 2019, the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO) documented 1,409 cases of conflict-related sexual violence, which represents an increase of 34 per cent since 2018.

Figure 22: Children out of school due to safety concerns, by attendance status and gender, 2012
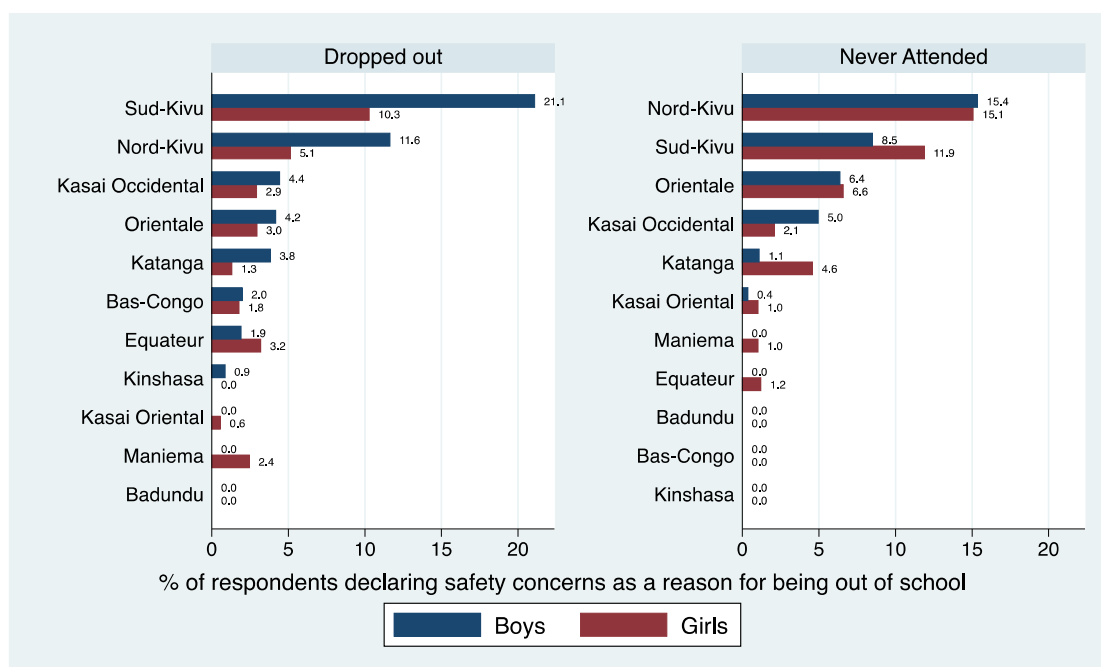
Note: Children aged 6-17 are used for this analysis. Source: OOSC 2012

Long distance to school, especially in rural areas, expose girls to sexual violence and other safety risks. Girl's lower secondary education enrollment rate compared to boys is likely linked to long and unprotected walks to secondary schools. The regression analysis shows that a greater distance to school is associated with a higher probability to be out of school for both sexes, but the magnitude of the coefficient is higher for girls. For instance, secondary-age girls who live more than 10 kilometers away from school are 15 percentage points more likely to be out of school to compared to those that live less than 1 kilometer away from school (**Table 0.1**). There is, however, no statistically significant effect of distance to school on dropping out at either level or for either gender. Instead, the effects are concentrated when looking at children who have never attended school, and in particular at large distances from the nearest school (above 3 kilometers, and especially above 10).

Targeted attacks on schools significantly affect children's education in DRC. Both the Congolese army (FARDC) and non-state armed groups have attacked and taken schools for military purposes that end up damaging and destroying the already insufficient and poor quality of the education infrastructure. Attacks on schools and school staff have been a prominent feature of the conflict in the Greater Kasai region (most notably the Kamuina Nsanpu militia). During these school attacks, girls are particularly harmed, through sexual violence and even forcibly married to the militia members.[32] In some of the worst cases, girls are not only forced to leave school, but they are used by the armed groups as human shields (Gilchrist, Fellow, & Sheppard, 2015; Global Coalition to Protect Education from Attack, 2019). After this type of targeted attack, many boys and girls are unable to return back to school due to the trauma related to their experience during the conflict, which leads to a higher proportion of out-of-school children.

Suffering from gender-based violence of any form is strongly correlated with poor education outcomes for girls. Even outside of areas of armed conflict, urban crime and household violence may be prevalent. Nationally, close to half of all 17-year-old girls have experienced physical violence since turning 15, and one in five declare having been victims of physical violence over the past year. 27 percent of women

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[32] Data from the 2013/14 DHS survey show that the incidence of child marriage, sexual violence and intimate partner violence in Kasai is already higher than the national average.

in DRC ages 15 to 49 reported having ever experienced sexual violence. Among these women, 14 percent reported that the attack occurred before the age of 15. This leads to differential school enrolment: girls aged 15-19 having been victim of physical violence are 4 percentage points more likely to be out of school than girls the same age having not been victim of such violence (**Figure 1**). For sexual violence, the gap is even larger: over half of girl victims of sexual violence are out of school, against 39 percent of those having not been victim of sexual violence.

Figure 23: Proportion of out-of-school teenage girls and gender-based violence, 2013
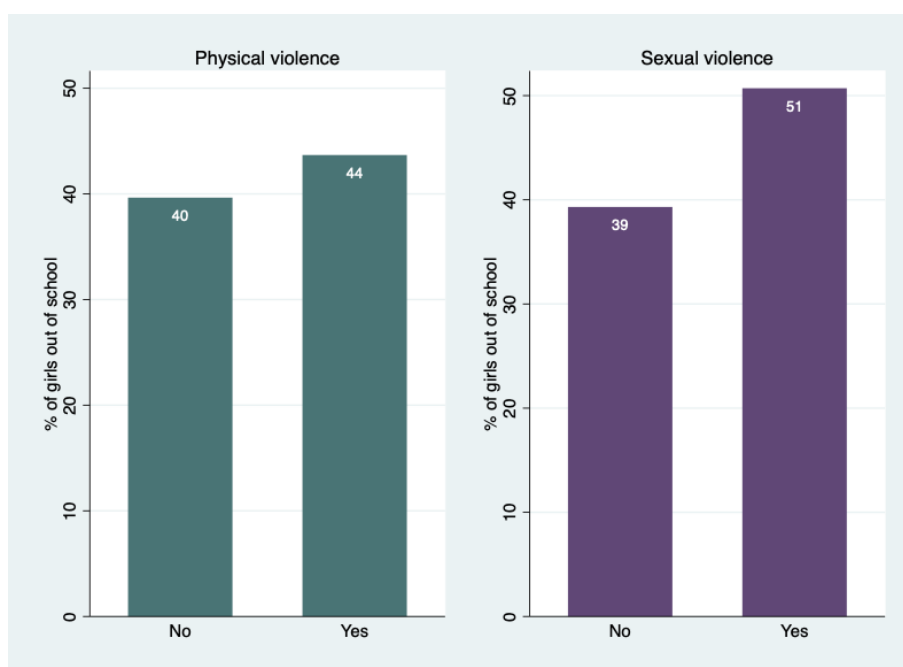
Note: Girls aged 15-19 are studied for this analysis. Source: DHS 2013/14

The COVID-19 crisis has also had an adverse impact on the security situation in Eastern DRC, preventing numerous households from pursuing income-generating activities in agriculture. 22 percent of respondents in North-Kivu found the security situation to have deteriorated in the past month. A rising trend in self-reported insecurity was also to be witnessed among residents of Rutshuru rural, compared to the previous month. These trends do not bode well for access to secondary schools for children, as insecurity can lead to displacement and subsequent poverty traps, causing children to be pulled out of school when facing dire income constraints.

Box 7: Focus group findings on insecurity, conflict and violence

Most of the girls and parents stated that insecurity and conflict concerns can drive both urban and rural girls out of secondary schools. In Kananga, displacement due to armed conflict-related issues can cause the family to enter a poverty trap which compromises the teenage girl's education. In Kinshasa, taxi kidnappings have led parents to withdraw their girls from school due to insecurity concerns on the way to school.

> *"My family had to relocate to Kananga due to attacks from Kamuina Nsanpu [non-state armed groups] and afterwards I didn't go to school."* OOS Student, Kananga, March 2021

> *"During the Kamuina Nsanpu insecurity issues, my husband, the kids and I ran from our village. We ran in a separate direction than my husband, till this day I do not know where my husband is. We lost everything, including my husband who provided financial support for the kids schooling and now I do not have sufficient financial means to send my girls to school, as the little I have is for food."* Parent, Kananga, March 2021

Among out-of-school adolescent girls and parents, distance to school was cited as a major issue of insecurity. Among Kinshasa respondents, traffic hazards were one the most cited dangers encountered by respondents on their way to school.

> *"Sometimes on the way to school a girl may be threatened or intimidated by a boy that can make her afraid and eventually lead her to abandoning school."* OOS Student, Kananga, March 2021

> *"In terms of the physical environment, the distance to school is the main issue that contributes to school abandonment by girls."* Parent, Kananga, March 2021

Bibliography

Adelman, M. (2017). An Overview of School Dropout in Central America: Unresolved Issues and New Challenges for Education Progress. *European Journal of Educational Research,, 6*(3), 235-259.

Bau, N., & Das, J. (2017). *The misallocation of pay and productivity in the public sector: Evidence from the labor market for teachers.* Washington DC: World Bank Policy Research Working Paper Series 8050.

Behrman, J., de Hoyos, R., & Székely, M. (2015). *Out of School and Out of Work: A Conceptual Framework for Investigating "Ninis" in Latin America and the Caribbean.* Washington D.C.: World Bank.

Bisika, T., Ntata, P., & Konyani, S. (2009). Gender-violence and education in Malawi: A study of violence against girls as an obstruction to universal primary school education. *Journal of Gender Studies*, 299-306.

Chan, K.-w. (2004). Preservice Teachers' Epistemological Beliefs and Conceptions about Teaching and Learning : Cultural Implications for Research in Teacher Education. *Australian Journal of Teacher Education.*

Children, G. I.-o.-S. (2013). *National Survey on the situation of out-of-school children and adolescents.*

Cunningham, W. (2008). *Youth at risk in Latin America and the Caribbean: Understanding the causes, realizing the potential.* Washington D.C.: World Bank Publications.

Dickerson, A., McIntosh, S., & Valente, C. (2015). Do the mats: An analysis of the gender gap in mathematics in Africa. *Economics of Education Review, 46*(C), 1-22.

Forum for African Women Educationalists. (2020). *Gender Responsive Pedagogy: A toolkit for teachers and schools, 2nd Edition.* UNICEF.

Frei, S., & Leowinata, S. (2014). *Gender Mainstreaming Toolkit for Teachers and Teacher Educators.* Commonwealth of Learning.

Gilchrist, T., Fellow, A., & Sheppard, B. (2015). *"Our School Became the Battlefield": Using Schools for Child Recruitment and Military Purposes in Eastern Democratic Republic of Congo.* New York, N.Y.: Human Rights Watch.

Global Coalition to Protect Education from Attack. (2019). *"All That I Have Lost": Impact of Attacks on Education for Women and Girls in Kasai Central Province, Democratic Republic of Congo.* GCPEA.

Hanushek, E. (1992). The trade-off between child quantity and quality. *Journal of Political Economy, 100*(1), 84-117.

Human Rights Watch. (2018). *Leave No Girl Behind in Africa. Discrimination in Education against Pregnant Girls and Adolescent Mothers*. Retrieved April 4, 2021, from https://www.hrw.org/report/2018/06/14/leave-no-girl-behind-africa/discrimination-education-against-pregnant-girls-and#_ftn61

Hyman, I. A. (1995). Corporal punishment, psychological maltreatment, violence, and punitiveness in America: Research, advocacy, and public policy. *Applied and Preventive Psychology*, 4(2): 113-130.

International Labour Office. (2017). *Global Estimates of Child Labour.* Geneva.

Jain, S., & Kurz, K. (2007). *New Insights into Preventing Child Marriage: A global analysis of factors and programs.* Washington DC:: International Center for Research on Women; www. atria-kennisinstituut. nl/epublications/2007/New_insights_preventing_child.

Kirk, J. (2004). Promoting a Gender-Just Peace: The Roles of Women Teachers in Peacebuilding and Reconstruction. *Gender and Development, 12*(3), pp. 50-59.

Landis, D., Yu, G., Tanner, S., Karungu, C., Mallinga, P., Falb, K., & Stark, L. (2019). The school participation effect: investigating violence and formal education among girls in the Democratic Republic of the Congo. *Compare: A Journal of Comparative and International Education*, 817-836.

Lee, J., Rhee, D.-e., & Rudolf, R. (2019). Teacher Gender, Student Gender, and Primary School Achievement: Evidence from Ten Francophone African Countries. *Journal of Development Studies*, 661-679.

Lusey, H., San Sebastian, M., Christianson, M., & Edin, K. (2018). Prevalence and correlates of gender inequitable norms among young, church-going women and men in Kinshasa, Democratic Republic of Congo. *BMC Public Health* , 18(1), pp.1-12.

Maedl, A. (2011). Rape as Weapon of War in the Eastern DRC? The Victims' Perspective. *Human Rights Quarterly, 33*(1), 128-147.

Makwati, G., Audinos, B., & Lairez, T. (2003). The Role of Statistics in Improving the Quality of Basic Education in Sub-Saharan Africa. *ADEA Biennial Meeting.* Association for the Development of Education in Africa.

McCleary-Sills, J., Hanmer, L., Parsons, J., & and Klugman, J. (2015). Child marriage: a critical barrier to girls' schooling and gender equality in education. *The Review of Faith & International Affairs, 13*(3), pp. 69-80.

Meger, S. (2010). Rape of the Congo: Understanding sexual violence in the conflict in the Democratic Republic of Congo. *Journal of Contemporary African Studies, 28*(2), pp.119-135.

Ministère de l'Enseignement Primaire, Secondaire et Professionnel (ESPS). (2015). *Rapport National de l'Evaluation de l'Education Pour Tous (EPT) en République Démocratique du Congo.*

Ministry of Education. (2018). *Annuaire Statistique de l'Enseignement Primaire, Secondaire et Professionnel: Annee Scolaire 2017-2018.* Kinshasa, DRC: Secretariat General. Direction de l'Information pour la Gestion de l'Education (DIGE).

Monkozi, G., & Kadongo, M. (2010). *Democratic Republic of Congo: effective delivery of public services in the education sector.* Johannesburg, South Africa: Open Society Initiative for Southern Africa.

Mulumeoderhwa, M. (2016). A girl who gets pregnant or spends the night with a man is no longer a girl': forced marriage in the eastern Democratic Republic of Congo. *Sexuality & Culture, 20*(4), pp.1042-1062.

Muralidharan, K., & Sheth, K. (2016). Bridging Education Gender Gaps in Developing Countries: The Role of Female Teachers. *Journale of Human Resources*, 269-297.

Nkubonage Rudahindwa, N. (2020). *Etude qualitative sur la violence à l'école et sur le chemin de l'école en République Démocratique du Congo.*

Pereznieto, P., Harper, C., Clench, B., & Coarasa, J. (2010). *The Economic Impact of School Violence.* London: Plan International & Overseas Development Institute.

Peterman, A., Palermo, T., & Bredenkamp, C. (2011). Estimates and determinants of sexual violence against women in the Democratic Republic of Congo. *American Journal of Public Health, 101*(6), 1060-1067.

Pinheiro, P. S. (2006). *World Report on Violence Against Children.* United Nations Secretary-General.

Projet d'Amélioration de la Qualité de l'Education (PAQUE). (2020). *Evaluation de Référence des Compétences Fondamentales en Lecture et en Mathématiquer des Elèves de 2ème et 4ème Année.*

Rawal, S., & Kingdon, G. (2010). Akin to my teacher: Does caste, religious or gender distance between student and teacher matter? Some evidence from India. *DoQSS Working Papers*, 10-18.

République Démocratique du Congo. (2015). *Stratégie Sectorielle de l'Education et de la Formation 2016-2025.*

Rockoff, J. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *American Economic Review, 94*(2), 247-252.

Sandilands, M., Jewkes, R., Baghuna Lele, U., & Scott, N. (2017). *Does faith matter? Faith engagement, gender norms and violence against women and girls in conflict-affected communities: Baseline research in Ituri Province, Democratic Republic of Congo.* UK: Tearfund.

Sperling, G., & Winthrop, R. (2015). *What Works in Girls' Education: Evidence for the World's Best Investment.* Brookings Institution Press.

UNESCO. (2012). *Universal Primary Education in Africa: the teacher challenge.* Dakar, Senegal: UNESCO.

UNFPA. (2012). *Marrying Too Young: End Child Marriage:.* New York: UNFPA.

UNFPA. (2013). *Adolescent Pregnancy: A Review of the Evidence.* New York: UNFPA.

UNGEI. (2015). *School-related gender-based violence is preventing the achievement of quality education for all.*

USAID. (2012). *Gender Assessment for the Democratic Republic of Congo.* USAID. Retrieved from https://pdf.usaid.gov/pdf_docs/PA00J27G.pdf

Wanjama, L. N., & Njuguna, F. W. (2016). *Documentation of Gender Responsive Pedagogy as a Best Practice by the Forum for African Women Educationalists (FAWE): A Case Study.* UNGEI.

World Bank. (2005). *Education in the Democratic Republic of Congo: priorities and options for regeneration.*

World Bank. (2015). *Public Expenditure Review of the Education Sector in the Democratic Republic of Congo: An Efficiency, Effectiveness, and Equity Analysis.* Washington D.C.: World Bank.

World Bank. (2017). *Democratic Republic of Congo - Education Quality Improvement Project (English).* Washington D.C.: The World Bank.

World Bank. (2018). *Democratic Republic of Congo Systematic Country Diagnostic: Policy Priorities for Poverty Reduction and Shared Prosperity in a Post-Conflict and Fragile State.* Washington D.C.: World Bank.

World Bank. (2018). *World Development Report 2018 : Learning to Realize Education's Promise.* Washington, DC: World Bank.

World Education Forum. (2015). *Sub-Saharan Africa Education for All: 2015 Regional Review (Full Synthesis Report).*

Appendix

Appendix I. Indicator definitions

Indicator	Definition
Out of School Rate	% of primary (secondary) school-age children who are not currently attending any school

Appendix II. Abbreviations

Abbreviation	Meaning
ASA	Advisory Services and Analytics
DHS	Demographic and Health Surveys
DRC	Democratic Republic of Congo
DSCRP	Document de Stratégie pour la Croissance et la Réduction de la Pauvreté
MICS	Multiple Indicator Cluster Surveys
OOSC	National Survey on Out-of-School Children and Adolescents
PAQUE	Projet d'Amélioration de la Qualité de l'Education
PER	Public Expenditure Review
SSA	Sub-Saharan Africa
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
IMF	International Monetary Fund

Appendix III. Data description

Data from this note are from the following sources:

i) Multiple Indicator Cluster Surveys (MICS) by UNICEF, available for 2000-01, 2009-10 and 2017-18;

ii) Demographic and Health Surveys (DHS) by USAID, available for 2007 and 2013-14;

iii) National Survey on Out-of-School Children and Adolescents (OOSC) by the Ministry of Primary, Secondary and Vocational Education, available for 2012;

iv) Public Expenditure Review (PER) by the World Bank, available for 2012[33]and

v) The 6th round of the COVID-19 Monitoring Household High Frequency Phone Survey, conducted by the National Institute of Statistics

For surveys conducted over multiple calendar years (but a single school year), such as MICS and DHS surveys, the data are qualified as coming from the first year of the survey: for example, DHS 2013 is data from the 2013-2014 round of DHS surveys.

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[33] Unless otherwise specified, 2012 data are from the OOSC. PER data are used for authors' calculations as robustness checks.

Appendix IV. Additional Figures

Figure 24: Proportion of out-of-school, by monthly household income, school level, and gender, 2012
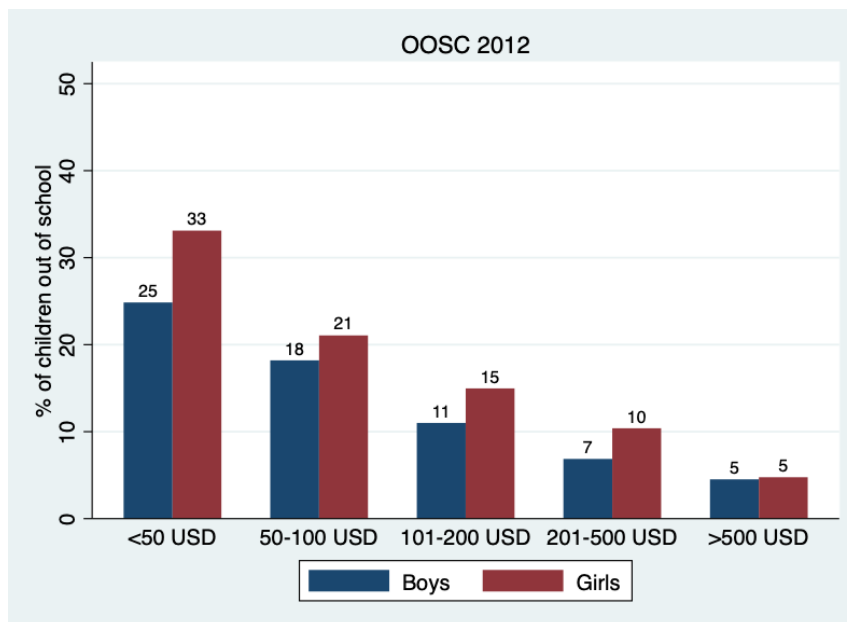
Note: Proportion of out-of-school children aged 6-17 years old by monthly household income. Source: OOSC 2012.

Figure 25: Proportion of children working, by gender and type of work, 2012
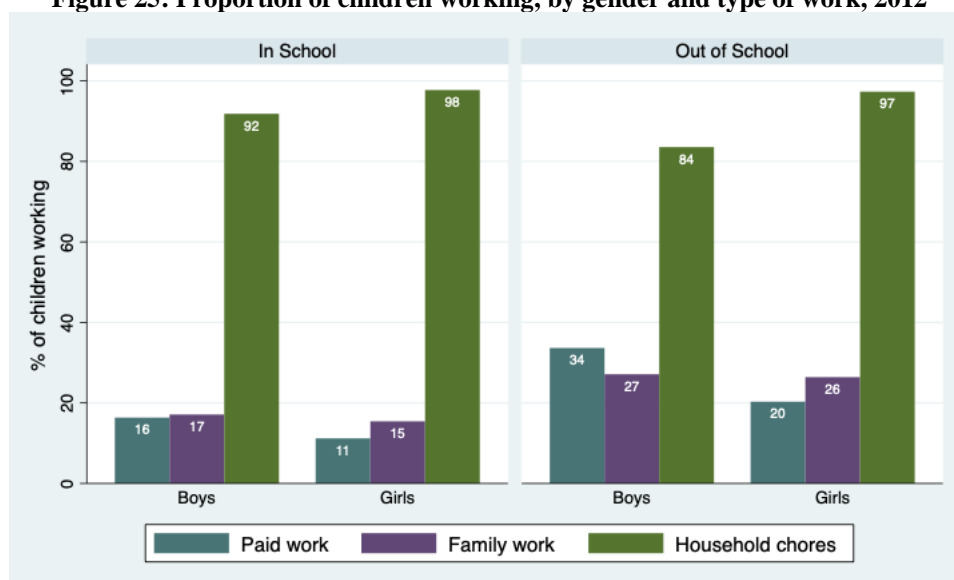
Note: Only out-of-school children aged 12-17 are used for this analysis. Source: OOSC 2012

Figure 26: Survey responses for out-of-school determinants, by attendance status, 2012 (PER Survey)
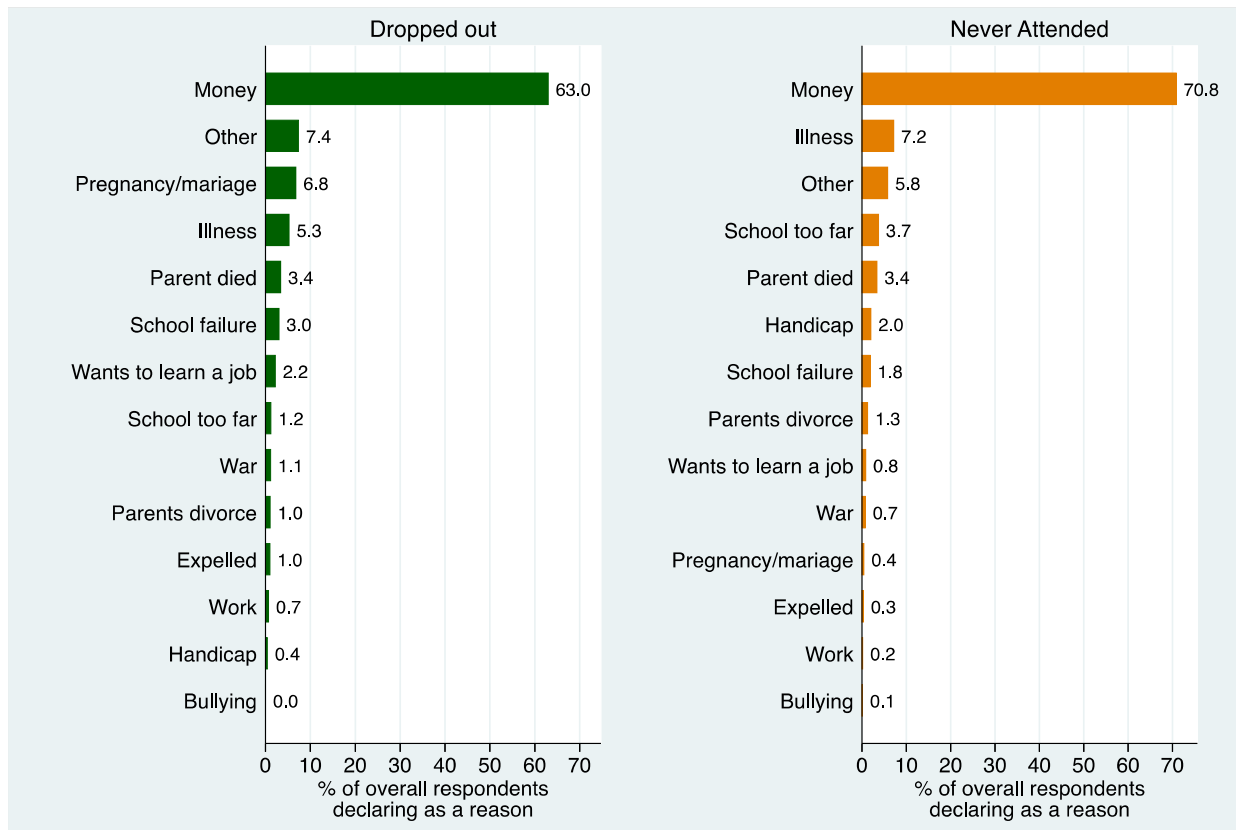
Note. Children aged 6-17 are used for this analysis. Source: PER 2012.

Figure 27: Gender Gap in Self-Reported Out-of-School Determinants, ages 6-11, by attendance status, 2012
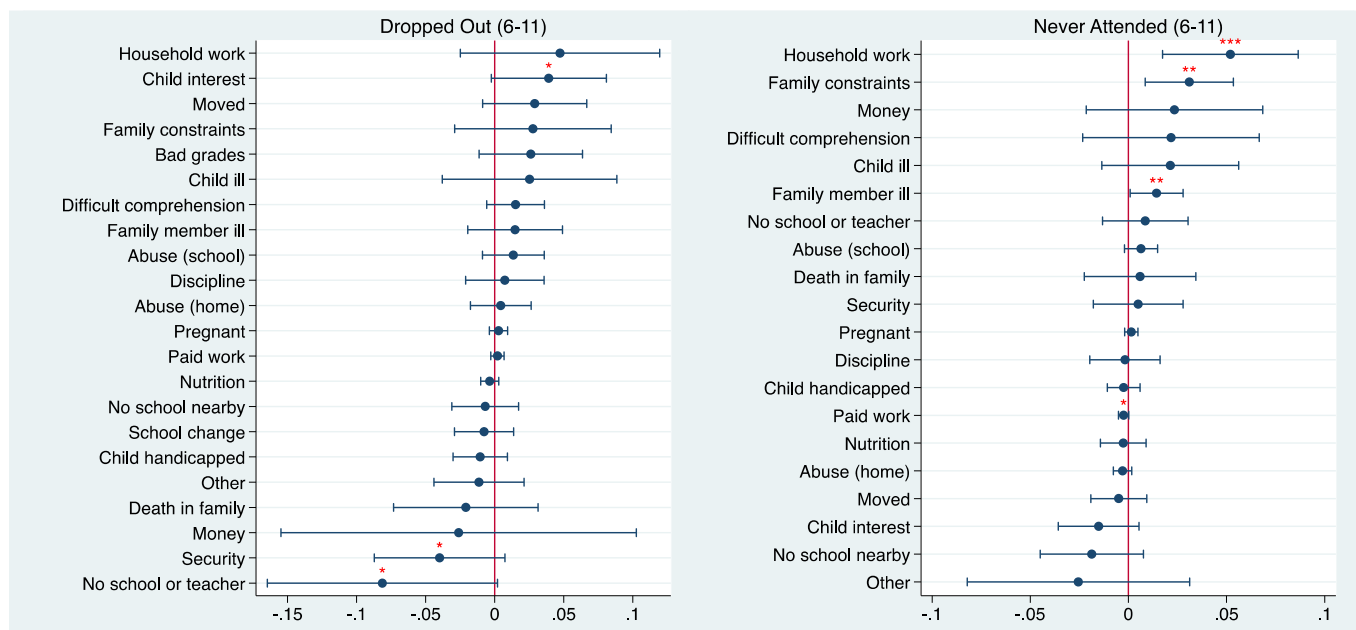
Note. Children aged 6-11 are used for this analysis. Stars indicate significance levels of the difference across genders (p<0.01: ***; p<0.05: **; p<0.10: *). Standard errors are clustered by province to account for province-specific fixed effects. Source: OOSC 2012

Figure 28: Gender Gap in Self-Reported Out-of-School Determinants, ages 12-17, by attendance status, 2012
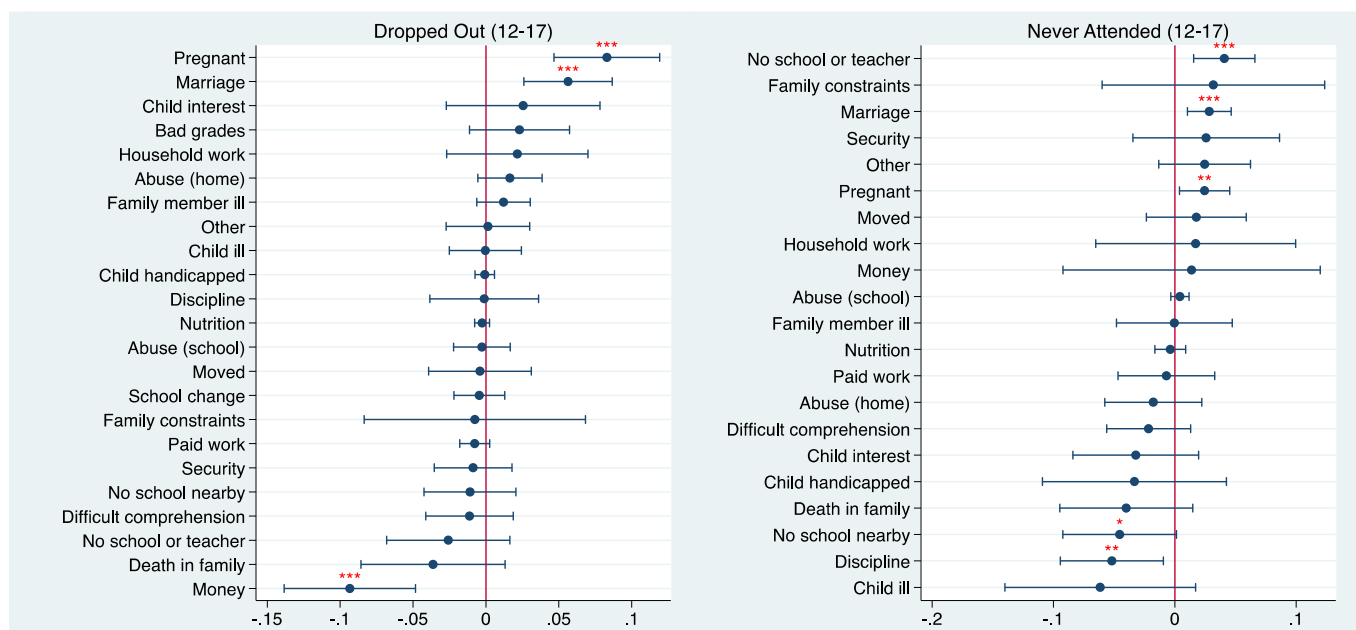
Note. Children aged 6-11 are used for this analysis. Stars indicate significance levels of the difference across genders (p<0.01: ***; p<0.05: **; p<0.10: *). Standard errors are clustered by province to account for province-specific fixed effects. Source: OOSC 2012

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Appendix V. Multivariate analysis

Using the data described in Appendix II, we present an analysis of the factors associated with the likelihood of being out-of-school in DRC.

Regression model (1). First, using the 2012 OOSC survey, we use a linear probability model with province-fixed effects to analyze the association between child and household characteristics on the probability that a child is out of school. The model is simply described by the following equation:

$$Y(Out\ of\ school)_i = \beta_i X_i + \alpha_p + \varepsilon_{it}$$

where for each child i, Y_i is binary variable indicating whether the child is out-of-school in 2012, and X_i represents a set of child, household and socio-economic characteristics. Educational level of the household is measured through a categorical variable where the base category is "No formal education". Monthly income level is also defined as a categorical variable where the case category is "Less than 50 USD". Similarly, distance to school is defined as a categorical variable where the base category is "Less than 1 kilometer".

Regression model (2). Exploiting the repeated cross section of the 2000/01 2009/10 2017/18 MICS surveys, we use a linear probability model together with province and year fixed effects to analyze the child, household and socio-economic characteristics that show a stronger association with the probability of being out-of-school at any point in time. The model is simply described by the following equation:

$$Y(Out\ of\ school)_{it} = \beta_{it} X_{it} + \alpha_p + \delta_t + \varepsilon_{it}$$

where for each child i, Y_{it} is binary variable indicating whether the child is out-of-school at some point in time, and X_{it} represents a set of child, household and socio-economic characteristics. Educational level of the household is measured though years of education of the household head. Wealth level is also defined as a categorical variable where the base category is "Bottom 20 percent of the wealth distribution".

The inclusion of province fixed effects α_p accounts for possible time-invariant unobserved characteristics at the provincial level, such as cultural differences or attitudes towards the role of girls/children. We also include year-fixed effects δ_t to account for all changes that are common to all children for a given year. Lastly, ε_{it} is the random error term. Standard errors are clustered at the province level.

It is important to note that even though these results cannot be interpreted as casual, they provide some insight on the factors that determine children's school attendance in DRC and shed some light on the barriers to girl's education.

Table 0.1: Determinants of being out-of-school by educational level (OOSC 2012)

	Dependent variable: Out-of-school child					
VARIABLES	Primary: All (1)	Primary: Boys (2)	Primary: Girls (3)	Secondary: All (4)	Secondary: Boys (5)	Secondary: Girls (6)
Child's characteristics						
Age	-0.0656***	-0.0648***	-0.0662***	0.0361***	0.0221***	0.0493***
	(0.00669)	(0.00808)	(0.00694)	(0.00322)	(0.00314)	(0.00486)
Female	0.0289**			0.0942***		
	(0.0121)			(0.0169)		
Household characteristics						
# of enrolled children	-0.121***	-0.115***	-0.125***	-0.110***	-0.0884***	-0.131***
	(0.00875)	(0.00843)	(0.0107)	(0.00689)	(0.00861)	(0.00972)
Female HH head	0.0298	0.0270	0.0294	0.0164*	0.0202	0.0149
	(0.0244)	(0.0240)	(0.0310)	(0.00825)	(0.0172)	(0.0206)
HH size	0.0485***	0.0477***	0.0493***	0.0377***	0.0338***	0.0408***
	(0.00572)	(0.00504)	(0.00689)	(0.00350)	(0.00334)	(0.00526)
Household head's education						
Primary	-0.0496*	-0.0743	-0.0252	-0.0402*	-0.0284	-0.0421*
	(0.0257)	(0.0428)	(0.0154)	(0.0201)	(0.0245)	(0.0220)
Secondary	-0.119***	-0.132**	-0.106***	-0.0651***	-0.0702***	-0.0519**
	(0.0306)	(0.0444)	(0.0204)	(0.0189)	(0.0218)	(0.0204)
Post-Secondary	-0.117***	-0.127***	-0.109***	-0.0650**	-0.0512*	-0.0680**
	(0.0258)	(0.0361)	(0.0328)	(0.0247)	(0.0278)	(0.0266)
Household monthly income						
50-100 USD	-0.0396***	-0.00909	-0.0714***	-0.0454**	-0.0383**	-0.0509**
	(0.00972)	(0.0122)	(0.0193)	(0.0151)	(0.0129)	(0.0222)
101-200 USD	-0.0460**	-0.0389*	-0.0530	-0.0177	-0.00839	-0.0263
	(0.0193)	(0.0200)	(0.0379)	(0.0172)	(0.0121)	(0.0276)
201-500 USD	-0.0860***	-0.0948***	-0.0755**	-0.0296	-0.0264	-0.0271
	(0.0164)	(0.0204)	(0.0240)	(0.0169)	(0.0220)	(0.0193)
501-1000 USD	-0.0841*	-0.0673	-0.0943**	-0.0251	-0.0165	-0.0423
	(0.0420)	(0.0672)	(0.0328)	(0.0270)	(0.0334)	(0.0317)
>1000 USD	-0.0797	-0.0703*	-0.0817	-0.0549	0.152	-0.102**
	(0.0549)	(0.0340)	(0.0830)	(0.0413)	(0.204)	(0.0457)
Location characteristics						
Rural setting	0.00842	0.0144	0.00770	-0.0131	-0.0129	-0.0109
	(0.0227)	(0.0129)	(0.0386)	(0.0206)	(0.0149)	(0.0412)
Distance to nearest school						
1-2 km	0.0249**	0.0234*	0.0245	0.00102	0.00696	-0.00386
	(0.00979)	(0.0114)	(0.0144)	(0.0126)	(0.0200)	(0.0144)
3-5 km	0.0723***	0.0755*	0.0666*	0.0236	-0.0110	0.0581**
	(0.0199)	(0.0368)	(0.0321)	(0.0200)	(0.0216)	(0.0219)
6-10 km	0.132***	0.193***	0.0625**	0.0301	-0.00690	0.0805***
	(0.0377)	(0.0600)	(0.0223)	(0.0173)	(0.0243)	(0.0210)
>10 km	0.276***	0.235**	0.314***	0.138***	0.122**	0.159***
	(0.0761)	(0.0934)	(0.0581)	(0.0395)	(0.0405)	(0.0471)
Constant	0.731***	0.722***	0.763***	-0.370***	-0.188***	-0.456***
	(0.0447)	(0.0445)	(0.0837)	(0.0665)	(0.0473)	(0.0988)
Observations	12,228	6,240	5,988	9,143	4,634	4,509
R-squared	0.292	0.294	0.297	0.268	0.204	0.316
Province Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Provinces	11	11	11	11	11	11

Note: Robust standard errors clustered at the province level in parentheses *** p<0.01, ** p<0.05, * p<0.1. The dependent variable is a dummy indicating whether the child is currently out-of-school. The sample of primary school includes children between the ages of 6 and 11, while the sample of secondary school includes children between the ages of 12 and 17. Covariates include child and household characteristics, socioeconomic characteristics, and province fixed-effects. The estimated coefficients show the change in the likelihood of being out-of-school for a one-unit increase in the explanatory variable. The base category is "less than USD 50" for household monthly income; "No formal education" for household's education level; "Less than 1km" for distance to nearest school.
Source: Author's calculations using OOSC 2012.

Table 0.2: Determinants of dropping out of school by educational level (OOSC 2012)

VARIABLES	Primary: All (1)	Primary: Boys (2)	Primary: Girls (3)	Secondary: All (4)	Secondary: Boys (5)	Secondary: Girls (6)
Child's characteristics						
Age	0.0122***	0.0119***	0.0126***	0.0335***	0.0220***	0.0447***
	(0.00165)	(0.00258)	(0.00173)	(0.00290)	(0.00320)	(0.00388)
Female	0.00239			0.0517***		
	(0.00505)			(0.0120)		
Household characteristics						
# of enrolled children	-0.0330***	-0.0307***	-0.0349***	-0.0738***	-0.0656***	-0.0809***
	(0.00400)	(0.00565)	(0.00354)	(0.00314)	(0.00527)	(0.00462)
Female HH head	0.0104	0.0104	0.00939	0.0336***	0.0337**	0.0334***
	(0.00619)	(0.0126)	(0.00694)	(0.00783)	(0.0107)	(0.0101)
HH size	0.0127***	0.0121***	0.0132***	0.0250***	0.0264***	0.0230***
	(0.00168)	(0.00317)	(0.00168)	(0.00205)	(0.00222)	(0.00283)
Household head's education						
Primary	0.00515	-0.00666	0.0183**	0.0310**	0.0132	0.0530***
	(0.00825)	(0.0140)	(0.00809)	(0.0139)	(0.0251)	(0.0112)
Secondary	0.0105	-0.00118	0.0239***	0.0200*	-0.0157	0.0558***
	(0.00645)	(0.0111)	(0.00561)	(0.00969)	(0.0179)	(0.0172)
Post-Secondary	-0.00376	-0.00815	0.000847	0.00696	-0.00484	0.0218
	(0.0170)	(0.0220)	(0.0147)	(0.00923)	(0.0240)	(0.0125)
Household monthly income						
50-100 USD	-0.00438	0.00202	-0.0115	-0.0237	-0.0228	-0.0220
	(0.00491)	(0.00807)	(0.00828)	(0.0191)	(0.0159)	(0.0252)
101-200 USD	-0.000584	-0.00771	0.00689	-0.0176	0.00272	-0.0339
	(0.0123)	(0.0217)	(0.0124)	(0.0188)	(0.0142)	(0.0264)
201-500 USD	-0.0246***	-0.0340**	-0.0140	-0.0383*	-0.0358	-0.0344
	(0.00500)	(0.0139)	(0.0143)	(0.0182)	(0.0294)	(0.0229)
501-1000 USD	-0.0363***	-0.0451*	-0.0289***	-0.0409	-0.0321	-0.0539*
	(0.00865)	(0.0230)	(0.00898)	(0.0242)	(0.0279)	(0.0271)
>1000 USD	-0.0322***	-0.0301**	-0.0269	-0.0400	0.161	-0.0905**
	(0.00933)	(0.00965)	(0.0174)	(0.0509)	(0.226)	(0.0387)
Location characteristics						
Rural setting	-0.0311**	-0.0328	-0.0278**	-0.0346*	-0.0323**	-0.0336
	(0.0131)	(0.0183)	(0.0101)	(0.0166)	(0.0134)	(0.0289)
Distance to nearest school						
1-2 km	0.00482	0.00578	0.00338	0.00348	0.0153	-0.0107
	(0.00583)	(0.00625)	(0.0102)	(0.0124)	(0.0129)	(0.0165)
3-5 km	0.000445	0.0102	-0.00946	0.00751	-0.000436	0.0131
	(0.00680)	(0.0118)	(0.0117)	(0.0189)	(0.0162)	(0.0265)
6-10 km	0.0688	0.111	0.0207	0.0118	0.00256	0.0267
	(0.0461)	(0.0814)	(0.0232)	(0.0152)	(0.0118)	(0.0253)
>10 km	-0.0224	-0.0202	-0.0256	0.0202	0.0549**	-0.0133
	(0.0128)	(0.0187)	(0.0231)	(0.0222)	(0.0179)	(0.0518)
Constant	-0.0829***	-0.0714**	-0.0953***	-0.408***	-0.258***	-0.506***
	(0.0165)	(0.0289)	(0.0214)	(0.0533)	(0.0483)	(0.0683)
Observations	12,243	6,248	5,995	9,196	4,652	4,544
R-squared	0.067	0.077	0.064	0.159	0.143	0.178
Province Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Provinces	11	11	11	11	11	11

Note: Robust standard errors clustered at the province level in parentheses *** p<0.01, ** p<0.05, * p<0.1. The dependent variable is a dummy indicating whether the child has dropped out of school. The sample of primary school includes children between the ages of 6 and 11, while the sample of secondary school includes children between the ages of 12 and 17. Covariates include child and household characteristics, socioeconomic characteristics, and province fixed-effects. The estimated coefficients show the change in the likelihood of being out-of-school for a one-unit increase in the explanatory variable. The base category is "less than USD 50" for household monthly income; "No formal education" for household's education level; "Less than 1km" for distance to nearest school.
Source: Author's calculations using OOSC 2012.

Table 0.3: Determinants of never attending school by educational level (OOSC 2012)

| | Dependent variable: Never attended | | | | | |
| | Primary: All | Primary: Boys | Primary: Girls | Secondary: All | Secondary: Boys | Secondary: Girls |
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Child's characteristics						
Age	-0.0779***	-0.0769***	-0.0789***	0.00211	-0.000432	0.00403
	(0.00619)	(0.00670)	(0.00775)	(0.00197)	(0.000833)	(0.00417)
Female	0.0266**			0.0409***		
	(0.0115)			(0.00747)		
Household characteristics						
# of enrolled children	-0.0871***	-0.0841***	-0.0899***	-0.0346***	-0.0217***	-0.0471***
	(0.00927)	(0.00755)	(0.0125)	(0.00585)	(0.00484)	(0.00803)
Female HH head	0.0194	0.0161	0.0204	-0.0171***	-0.0136	-0.0184
	(0.0213)	(0.0171)	(0.0316)	(0.00324)	(0.0123)	(0.0122)
HH size	0.0356***	0.0352***	0.0359***	0.0115***	0.00665***	0.0161***
	(0.00577)	(0.00398)	(0.00819)	(0.00301)	(0.00168)	(0.00494)
Household head's education						
Primary	-0.0540*	-0.0666	-0.0430*	-0.0719**	-0.0418**	-0.0967**
	(0.0276)	(0.0457)	(0.0212)	(0.0235)	(0.0167)	(0.0308)
Secondary	-0.129***	-0.130**	-0.130***	-0.0858***	-0.0544***	-0.110***
	(0.0332)	(0.0489)	(0.0227)	(0.0214)	(0.0143)	(0.0288)
Post-Secondary	-0.113***	-0.121**	-0.110***	-0.0740**	-0.0477*	-0.0933**
	(0.0351)	(0.0490)	(0.0330)	(0.0249)	(0.0228)	(0.0319)
Household monthly income						
50-100 USD	-0.0360**	-0.0116	-0.0609***	-0.0206	-0.0146	-0.0276
	(0.0120)	(0.0110)	(0.0190)	(0.0149)	(0.0141)	(0.0154)
101-200 USD	-0.0456***	-0.0295	-0.0619*	0.00204	-0.00813	0.00878
	(0.0118)	(0.0185)	(0.0280)	(0.0221)	(0.0137)	(0.0335)
201-500 USD	-0.0604***	-0.0581***	-0.0623**	0.0124	0.0123	0.0114
	(0.0140)	(0.0168)	(0.0224)	(0.0230)	(0.0297)	(0.0210)
501-1000 USD	-0.0466	-0.0187	-0.0665*	0.0211	0.0208	0.0167
	(0.0338)	(0.0436)	(0.0308)	(0.0271)	(0.0404)	(0.0223)
>1000 USD	-0.0460	-0.0355	-0.0556	-0.00973	-0.00456	-0.00622
	(0.0489)	(0.0365)	(0.0716)	(0.0255)	(0.0310)	(0.0305)
Location characteristics						
Rural setting	0.0393	0.0477**	0.0346	0.0219*	0.0203**	0.0224
	(0.0274)	(0.0154)	(0.0403)	(0.0110)	(0.00694)	(0.0220)
Distance to nearest school						
1-2 km	0.0196***	0.0178	0.0200*	-0.00245	-0.00777	0.00630
	(0.00605)	(0.0110)	(0.00964)	(0.00940)	(0.0121)	(0.0119)
3-5 km	0.0723***	0.0655*	0.0766*	0.0148*	-0.00908	0.0401**
	(0.0195)	(0.0340)	(0.0414)	(0.00744)	(0.00930)	(0.0129)
6-10 km	0.0639*	0.0829**	0.0421	0.0189	-0.00769	0.0522
	(0.0313)	(0.0350)	(0.0417)	(0.0156)	(0.0224)	(0.0320)
>10 km	0.299***	0.256**	0.341***	0.117***	0.0681	0.170***
	(0.0873)	(0.0991)	(0.0757)	(0.0256)	(0.0400)	(0.0406)
Constant	0.815***	0.795***	0.860***	0.0478	0.0765**	0.0629
	(0.0547)	(0.0604)	(0.0995)	(0.0368)	(0.0253)	(0.0674)
Observations	12,243	6,248	5,995	9,196	4,652	4,544
R-squared	0.282	0.275	0.294	0.124	0.076	0.161
Province Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Provinces	11	11	11	11	11	11

Note: Robust standard errors clustered at the province level in parentheses *** p<0.01, ** p<0.05, * p<0.1. The dependent variable is a dummy indicating whether the child has never attended school. The sample of primary school includes children between the ages of 6 and 11, while the sample of secondary school includes children between the ages of 12 and 17. Covariates include child and household characteristics, socioeconomic characteristics, and province fixed-effects. The estimated coefficients show the change in the likelihood of being out-of-school for a one-unit increase in the explanatory variable. The base category is "less than USD 50" for household monthly income; "No formal education" for household's education level; "Less than 1km" for distance to nearest school.
Source: Author's calculations using OOSC 2012.

Table 0.4: Determinants of being out-of-school by educational level (MICS 2001, 2010, 2018)

VARIABLES	Dependent variable: Out-of-school child					
	Primary: All (1)	Primary: Boys (2)	Primary: Girls (3)	Secondary: All (4)	Secondary: Boys (5)	Secondary: Girls (6)
Child's characteristics						
Child age	-0.0504***	-0.0514***	-0.0492***	0.0374***	0.0201***	0.0543***
	(0.00483)	(0.00605)	(0.00389)	(0.00267)	(0.00211)	(0.00378)
Female	0.0292**			0.0967***		
	(0.00994)			(0.0154)		
Household characteristics						
# of enrolled siblings	-0.233***	-0.236***	-0.230***	-0.221***	-0.204***	-0.238***
	(0.00721)	(0.00979)	(0.00891)	(0.00756)	(0.00988)	(0.00859)
Female HH head	-0.0149**	0.00227	-0.0320***	-0.0276**	-0.00532	-0.0513**
	(0.00486)	(0.00386)	(0.00969)	(0.00930)	(0.0106)	(0.0168)
HH size	0.171***	0.174***	0.168***	0.142***	0.140***	0.145***
	(0.00556)	(0.00617)	(0.00770)	(0.00984)	(0.0111)	(0.00968)
# of years of education of HH	-0.00835***	-0.00568***	-0.0109***	-0.00576***	-0.00556***	-0.00572**
	(0.000700)	(0.000817)	(0.000975)	(0.00101)	(0.000822)	(0.00189)
Household wealth quintile						
Quintile 2	-0.0124	0.00440	-0.0305**	-0.0214*	-0.0201	-0.0188
	(0.00694)	(0.00966)	(0.0132)	(0.0113)	(0.0186)	(0.0204)
Median quintile	-0.0386**	-0.0281	-0.0491***	-0.0240**	-0.0181	-0.0292
	(0.0132)	(0.0178)	(0.0155)	(0.0102)	(0.0168)	(0.0236)
Quintile 4	-0.0393**	-0.0360**	-0.0447**	-0.0275	-0.0167	-0.0417*
	(0.0135)	(0.0145)	(0.0190)	(0.0178)	(0.0235)	(0.0205)
Top 20%	-0.0511**	-0.0391*	-0.0643**	-0.0453*	-0.0269	-0.0583*
	(0.0181)	(0.0188)	(0.0225)	(0.0234)	(0.0235)	(0.0318)
Location characteristics						
Rural setting	0.0199***	0.00925	0.0300***	8.06e-05	-0.0162	0.0150
	(0.00563)	(0.00771)	(0.00820)	(0.0182)	(0.0239)	(0.0152)
Constant	0.563***	0.539***	0.615***	-0.366***	-0.145***	-0.492***
	(0.0450)	(0.0497)	(0.0467)	(0.0443)	(0.0450)	(0.0593)
Observations	33,435	16,851	16,584	25,509	12,738	12,771
R-squared	0.430	0.426	0.436	0.374	0.339	0.410
Year-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Province Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Provinces	11	11	11	11	11	11

Note: Robust standard errors clustered at the province level in parentheses *** p<0.01, ** p<0.05, * p<0.1. The dependent variable is a dummy indicating whether the child is currently out-of-school. The sample of primary school is a repeated cross-section of children between the ages of 6 and 11, while the sample of secondary school includes children between the ages of 12 and 17. Covariates include child and household characteristics, socioeconomic characteristics, year fixed-effects and province fixed-effects. The estimated coefficients show the change in the likelihood of being out-of-school for a one-unit increase in the explanatory variable. The base category is "Bottom 20%" for household wealth quintile.
Source: Author's calculations using MICS 2000/01; 2009/10; 2017/18.

Table 0.5: Determinants of dropping out of school by educational level (MICS 2001, 2010, 2018)

| | Dependent variable: Dropout | | | | | |
VARIABLES	Primary: All (1)	Primary: Boys (2)	Primary: Girls (3)	Secondary: All (4)	Secondary: Boys (5)	Secondary: Girls (6)
Child's characteristics						
Child age	0.0130***	0.0120***	0.0142***	0.0375***	0.0217***	0.0523***
	(0.00170)	(0.00188)	(0.00173)	(0.00309)	(0.00236)	(0.00423)
Female	-0.00536			0.0521***		
	(0.00328)			(0.00970)		
Household characteristics						
# of enrolled siblings	-0.0736***	-0.0819***	-0.0652***	-0.159***	-0.158***	-0.158***
	(0.00449)	(0.00630)	(0.00476)	(0.00728)	(0.00893)	(0.00699)
Female HH head	0.0110**	0.00641	0.0164	-0.00782	-0.00242	-0.0144
	(0.00463)	(0.00384)	(0.00976)	(0.00866)	(0.00932)	(0.0108)
HH size	0.0493***	0.0563***	0.0423***	0.102***	0.111***	0.0928***
	(0.00437)	(0.00514)	(0.00526)	(0.0103)	(0.0115)	(0.00951)
# of years of education of HH	-0.00154*	-0.000700	-0.00240**	-0.00287**	-0.00460***	-0.00126
	(0.000713)	(0.000777)	(0.000892)	(0.000963)	(0.000979)	(0.00125)
Household wealth quintile						
Quintile 2	0.0126	0.0117	0.0143	-0.0311*	-0.0231	-0.0353*
	(0.00969)	(0.0113)	(0.0117)	(0.0145)	(0.0196)	(0.0176)
Median quintile	0.00625	0.00289	0.0108	-0.0226	-0.0280	-0.0134
	(0.00706)	(0.00894)	(0.00917)	(0.0130)	(0.0164)	(0.0215)
Quintile 4	0.000668	-0.00161	0.00300	-0.0156	-0.0248	-0.00789
	(0.00890)	(0.0108)	(0.0105)	(0.0166)	(0.0249)	(0.0250)
Top 20%	0.0109	0.00665	0.0153	-0.0428*	-0.0415	-0.0404
	(0.00791)	(0.00925)	(0.0108)	(0.0208)	(0.0255)	(0.0244)
Location characteristics						
Rural setting	-0.0306***	-0.0315**	-0.0292***	-0.0218	-0.0353	-0.00740
	(0.00907)	(0.0121)	(0.00865)	(0.0139)	(0.0196)	(0.0135)
Constant	-0.0661***	-0.0706***	-0.0683***	-0.396***	-0.181***	-0.551***
	(0.0166)	(0.0198)	(0.0174)	(0.0433)	(0.0460)	(0.0554)
Observations	33,443	16,855	16,588	25,585	12,772	12,813
R-squared	0.104	0.119	0.091	0.240	0.253	0.238
Year-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Province Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Provinces	11	11	11	11	11	11

Note: Robust standard errors clustered at the province level in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$. The dependent variable is a dummy indicating whether the child has dropped out of school. The sample of primary school is a repeated cross-section of children between the ages of 6 and 11, while the sample of secondary school includes children between the ages of 12 and 17. Covariates include child and household characteristics, socioeconomic characteristics, year fixed-effects and province fixed-effects. The estimated coefficients show the change in the likelihood of being out-of-school for a one-unit increase in the explanatory variable. The base category is "Bottom 20%" for household wealth quintile.

Source: Author's calculations using MICS 2000/01; 2009/10; 2017/18.

Table 0.6: Determinants of never attending school by educational level (MICS 2001, 2010, 2018)

VARIABLES	Dependent variable: Never attended					
	Primary: All (1)	Primary: Boys (2)	Primary: Girls (3)	Secondary: All (4)	Secondary: Boys (5)	Secondary: Girls (6)
Child's characteristics						
Child age	-0.0633***	-0.0635***	-0.0630***	-0.00102	-0.00274**	0.00120
	(0.00524)	(0.00641)	(0.00434)	(0.000795)	(0.00110)	(0.00154)
Female	0.0352***			0.0434***		
	(0.0105)			(0.00806)		
Household characteristics						
# of enrolled siblings	-0.157***	-0.150***	-0.165***	-0.0568***	-0.0406***	-0.0749***
	(0.00856)	(0.00836)	(0.00972)	(0.00494)	(0.00414)	(0.00654)
Female HH head	-0.0272***	-0.00612**	-0.0492***	-0.0197***	-0.00125	-0.0382**
	(0.00568)	(0.00258)	(0.0122)	(0.00560)	(0.00550)	(0.0132)
HH size	0.121***	0.115***	0.126***	0.0356***	0.0247***	0.0481***
	(0.00598)	(0.00627)	(0.00660)	(0.00337)	(0.00310)	(0.00444)
# of years of education of HH	-0.00679***	-0.00516***	-0.00836***	-0.00337***	-0.00157	-0.00482***
	(0.000525)	(0.000890)	(0.000829)	(0.000861)	(0.000890)	(0.00135)
Household wealth quintile						
Quintile 2	-0.0264***	-0.00785	-0.0474***	0.00998	0.00416	0.0160
	(0.00802)	(0.0122)	(0.00678)	(0.00716)	(0.0114)	(0.0119)
Median quintile	-0.0464***	-0.0327**	-0.0612***	-0.00131	0.00998	-0.0154
	(0.0108)	(0.0130)	(0.0122)	(0.00596)	(0.0101)	(0.0155)
Quintile 4	-0.0413***	-0.0353***	-0.0494***	-0.0128*	0.00803	-0.0357*
	(0.00820)	(0.00822)	(0.0138)	(0.00638)	(0.00835)	(0.0192)
Top 20%	-0.0644***	-0.0496**	-0.0803***	-0.00387	0.0153	-0.0208
	(0.0163)	(0.0158)	(0.0246)	(0.0100)	(0.0101)	(0.0250)
Location characteristics						
Rural setting	0.0506***	0.0401***	0.0599***	0.0219**	0.0197*	0.0217*
	(0.00918)	(0.00959)	(0.0117)	(0.00941)	(0.00993)	(0.0105)
Constant	0.631***	0.618***	0.681***	0.0538***	0.0616**	0.0785**
	(0.0475)	(0.0526)	(0.0477)	(0.0141)	(0.0244)	(0.0307)
Observations	33,443	16,855	16,588	25,585	12,772	12,813
R-squared	0.338	0.326	0.351	0.104	0.057	0.145
Year-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Province Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Provinces	11	11	11	11	11	11

Note: Robust standard errors clustered at the province level in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$. The dependent variable is a dummy indicating whether the child has never attended school. The sample of primary school is a repeated cross-section of children between the ages of 6 and 11, while the sample of secondary school includes children between the ages of 12 and 17. Covariates include child and household characteristics, socioeconomic characteristics, year fixed-effects and province fixed-effects. The estimated coefficients show the change in the likelihood of being out-of-school for a one-unit increase in the explanatory variable. The base category is "Bottom 20%" for household wealth quintile.
Source: Author's calculations using MICS 2000/01; 2009/10; 2017/18.

Appendix VI: Qualitative approach

In March 2021, we conducted a qualitative survey to community members, parents and adolescent girls to explore how they identify and rank the reasons for low schooling, particularly of girls, and what they think are the best ways to address the most important reasons. We asked about (a) children, particularly girls, not sent to school; and (b) girls who drop out of school. The study was conducted in Kinshasa and in Kananga.

Focus group discussions and key informant interviews provided a more in-depth analysis of the barriers to girl's education, which are difficult to measure through the quantitative analysis. Focus group discussions (FGDs) were held with adolescent girls, their mothers, and their fathers. Key informant interviews (KII) were held with influential community elders, leaders, principals, and teachers. Participatory methods such as pile sort and ranking were used for participants to rank their reasons and potential solutions for schooling beyond primary, particularly for girls.

In each location, FGDs were carried with a group each of adolescent girls, mothers, and fathers. Each group comprised of 6 to 8 respondents. Participants were selected through word of mouth but avoiding recruiting groups of friends or relatives. Participants were recruited as:

- Girls between ages 14 and 17, and who are not from the same family as participating women and men.
- Women who have at least one daughter currently between the ages of 14 and 17, and who are not from the same family as participating girls or men.
- Men who have at least one daughter currently between the ages of 14 and 17, and who are not from the same family as participating girls or women.