GLOBAL EDUCATION MONITORING REPORT

2022
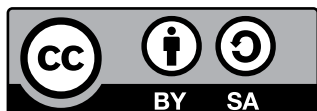
GENDER REPORT

Deepening the debate on those still left behind

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Sustainable Development Goals

Global Education Monitoring Report

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Caption: Girls play at Save the Children's Child Friendly Space in a displacement camp in Balkh province, Afghanistan.

This report and all related materials are available for download here: Bit.ly/2022genderreport.

Gender Reports of the *Global Education Monitoring Report* series

2022   *Deepening the debate on those still left behind*

2020   *A new generation: 25 years of efforts for gender equality in education*

2019   *Building bridges for gender equality*

2018   *Meeting our commitments to gender equality in education*

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The Education 2030 Incheon Declaration and Framework for Action specifies that the mandate of the *Global Education Monitoring Report* is to be 'the mechanism for monitoring and reporting on SDG 4 and on education in the other SDGs' with the responsibility to 'report on the implementation of national and international strategies to help hold all relevant partners to account for their commitments as part of the overall SDG follow-up and review'. It is prepared by an independent team hosted by UNESCO.

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Deepening the debate on those still left behind

SHORT SUMMARY

The 2022 Gender Report presents fresh insights on progress towards gender parity in education with respect to access, attainment and learning. It showcases out-of-school rate trends and the results of a new model that provides coherent estimates, combining multiple sources of information, on completion rates. It also reviews the results of learning assessments released over the past 18 months, which present an almost global picture of the gender gap in reading, mathematics and science achievement in lower and upper primary and lower secondary grades. They provide a baseline against which to assess the impact of COVID-19 on inequality when post-pandemic data start being released next year.

A companion to the 2021/2 GEM Report, it emphasizes the role of non-state actors in influencing gender inequality in and through education. Non-state actors have filled in provision gaps left by the public education system. The 2022 Gender Report presents evidence on gender gaps in the share of students enrolled in private institutions by sex and what drives these gaps in the various regions. It also provides case studies on the privatization of childcare in high-income countries, the impact of non-state faith-based schools in Asia on gender norms and the role of women's universities around the world.

Some non-state actors have pushed the gender equality agenda forward, while others have undermined progress in order to maintain the status quo. Some have been at the front line for girls' education in emergencies. Some have lobbied against comprehensive sexuality education. Some champion inclusion of marginalized girls, while others maintain discriminatory gender norms. Depending on the context, it is important not to make assumptions but to look carefully at the data and work together to eliminate all forces that prevent anyone on the basis of gender from fulfilling their potential through education.

UNESCO is the United Nations Educational, Scientific and Cultural Organization. It seeks to build peace through international cooperation in education, the sciences and culture. UNESCO believes that political and economic arrangements are not enough to secure the lasting and sincere support of the peoples. Peace must be founded upon dialogue and mutual understanding, upon the intellectual and moral solidarity of humanity. In this spirit, UNESCO develops educational tools and cultural and scientific programmes to strengthen bonds among nations, help countries adopt international standards and foster the free flow of ideas and sharing of knowledge.

In 50 of
54 countries,
**girls are less likely
to get top marks**
in mathematics

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Since wars begin in the minds of men and
women, it is in the minds of men and women
that the defenses of peace must be constructed

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2022

Gender report

DEEPENING THE DEBATE ON THOSE STILL LEFT BEHIND

A student stands in an empty classroom in Panama City, Panama. Due to the COVID-19 pandemic, 97% of the region's students were deprived of their normal schooling.

CREDIT: UNICEF/Schverdfinger

Foreword

Over the past 20 years, giant strides have been made in girls' and women's education. Today, almost as many girls as boys can access learning and complete their studies – the gap between genders is now less than 1%.

However, as this report reminds us, gender inequalities continue to be a major issue. This was the case even before the COVID-19 pandemic, the impacts of which have yet to be measured accurately.

Some of these inequalities are geographical: in sub-Saharan Africa, for instance, more than one in four young women do not yet know how to read or write. In the most extreme case, in Afghanistan, girls of secondary school age have been deprived of learning outright. This is a real regression, which UNESCO has condemned, because it could send us back 20 years.

Other inequalities are visible in the subjects being taught: girls are less likely to earn top marks in mathematics in primary school and higher education, despite performing better than boys at school overall.

How can we explain this paradox? Perhaps by shedding light on the persistent structural inequalities and gender stereotypes that prevent women from realizing their full potential.

Indeed, for all learners to be equal, education actors must make gender equality central to their actions.

In this respect, the report underlines the important but sometimes contested role played by non-State actors – in addition to the family, these include non-governmental organizations, and private and faith-based schools.
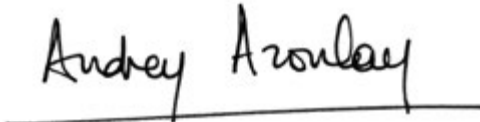
It shows how they can provide essential support in facilitating access to education, acknowledging the actions of the NGOs that worked around the world to maintain girls' access to education during the pandemic.

But our report also highlights the fact that, in many situations, non-State actors can contribute to perpetuating gender inequalities. For example, in South Asia, the overrepresentation of boys in private school may reveal biased gender preferences. In Central and Western Africa, the greater number of girls enrolled reflects the presence of more single-sex schools.

In addition, this report sheds light on the role of non-State faith-based schools. They are essential in ensuring access to education, particularly in Asia, but rely on textbooks and teaching methods that sometimes incorporate gender biases.

Ultimately, this report invites us to question the place we collectively give to education within the structure of our societies. It urges us to continue to transform mentalities, because the best defences of gender equality are first and foremost built in the minds of women and men.

Audrey Azoulay
Director-General of UNESCO

KEY MESSAGES

It is too early to assess the full impact of COVID-19 on gender equality in education.
Time use, early pregnancy risk and access to devices affected boys and girls differently in some countries, but evidence of a differential gender impact has not yet emerged. In four out of the five low- and lower-middle-income countries most affected by school closures, more boys than girls were out of upper secondary school prior to the pandemic.

Girls have closed or reversed gaps in education access and completion.
Gender gaps in enrolment and attendance have been declining over the past 20 years, with a gender gap of less than one percentage point remaining at all three levels of education. Sub-Saharan Africa is the region furthest from parity at the expense of girls, with no progress since 2011 at the lower secondary level and since 2014 in upper secondary.

Globally, at each education level, females enjoy an advantage of two percentage points among those completing on time, while there is near parity among learners completing later. But in sub-Saharan Africa, gender gaps increase when timely and ultimate completion rates are compared. For instance, boys' advantage over girls in the lower secondary completion rate increases from just one percentage point in timely completion to eight percentage points in ultimate completion.

Extreme exclusion still characterizes some countries, and pockets of exclusion remain in others.
In Afghanistan, where girls have been banned again from secondary schools, there had been rapid progress in completion rates. For example, girls' primary completion increased from 8% in 2000 to 56% in 2020, although the gender gap remained at 20 percentage points. In some provinces, such as Uruzgan, just 1% of girls completed primary in 2015. A 20 percentage point gender gap in access to upper secondary education is also observed in sub-Saharan African countries, including Chad and Guinea.

Girls outperform boys in learning in general but are not among top performers in mathematics.
Girls' advantage over boys in reading in early primary grades increases by the end of primary and lower secondary education. Girls also outperform boys in science in secondary school in middle- and high-income countries. Boys perform better than girls in mathematics in early grades, but do not have an advantage later, on average.

Yet boys are far more likely to be over-represented among the highest performers in mathematics. Girls perform better in mathematics in more gender-equal societies. When girls perform well in mathematics and science, they perform even better in reading. While this may be one reason girls are less likely to opt for scientific careers, it is important to unpack the stereotypes that play a critical role in affecting such choices.

Women are increasingly attracted to tertiary education.
In tertiary education, men are furthest behind in all regions except sub-Saharan Africa, where 76 women are enrolled for every 100 men. Only 47 women in Benin, 55 in Burkina Faso and 60 in Ethiopia are enrolled for every 100 men. Meanwhile only 40 men in Tonga and 14 men in Qatar are enrolled for every 100 women.

Among adults, women are still more likely to be illiterate than men.
The gender gap in adult literacy is seven percentage points, compared with two percentage points among youth. In rural areas, women are even further behind. In sub-Saharan Africa, more than one in four young women are illiterate.

Teaching is increasingly a female-dominated profession.
The share of women in the teaching force increased from 92% to 94% between 2000 and 2020 in pre-primary education and from 59% to 67% in primary education. But in sub-Saharan Africa, women make up only 32% of teachers in secondary education.

The role of non-state actors has expanded in education, but their gender impact is context-specific.
Where government commitment to gender equality is lacking, some non-state actors are at the forefront in fighting discrimination. By contrast, in countries where governments actively promote gender equality, non-state actors may support social forces that prefer the status quo.

Women often pay the price for weak public provision of early childhood care and education.
Private institutions in 33 high-income countries accounted for 57% of total enrolment for children under 3 in 2018. Early childhood services are often provided at home: Unequal gender norms mean women perform more than three times as much unpaid care work as men. Among the countries that took part in the World Values Survey between 2017 and 2020, 43% of adults agreed or strongly agreed that children suffered if their mother was working, rising to more than 80% in Bangladesh, Bolivia and Jordan.

Non-state actors often preserve gender barriers in primary and secondary education.
Globally, there are slightly more boys than girls in private institutions in primary (a gap of 1.5 percentage points) and secondary education (a gap of 1.9 percentage points), especially in South Asia (e.g. India, Nepal and Pakistan) and Western Asia (Gulf States, Israel, Jordan and Palestine). But there are more girls than boys in private schools in Central and Western Africa (e.g. Burkina Faso, Cameroon and Togo), Europe (e.g. Austria, the Czech Republic and Germany) and the Caribbean (e.g. Antigua and Barbuda, Grenada, and Saint Vincent and the Grenadines).

Non-state faith-based schools have been vital for girls' education but teaching has been found to reinforce gender-unequal norms and attitudes.
Curricula and textbooks as well as teaching and learning practices can reinforce discrimination. A study of female secondary school and *madrasa* graduates found that the latter held less favourable attitudes towards higher education for girls and working mothers. There is a lack of regulation over gender-based violence in many faith-based schools affecting both girls and boys.

Women-only universities have increased women's access and opportunities, although they remain a gender-isolated option.
Women's universities have educated an outstanding number of women in STEM fields, notably in the United States. Some have evolved into teacher-training institutes, and continue to educate large numbers of future teachers. Yet in some countries they have been targeted by those opposed to women's education.

Non-state actors, and especially non-governmental organizations, provide services and advocate for gender equality in education.
Examples abound around the world, whether schools for young mothers in Kenya, community-based education in Afghanistan or vocational skills training in Egypt.

The role of non-state actors in promoting sexual and reproductive health rights through education is mixed.
Advocacy can influence multiple areas critical to girls' access to school, including menstrual hygiene management and support for comprehensive sexuality education. But parents, often supported by faith-based organizations, can also prevent change, for instance calling for abstinence-only programmes.

Teacher unions are critical advocates for teachers' well-being.
They support initiatives to prevent gender-based violence, advocate for codes of conduct and can promote women's representation in trade union leadership. Latin American unions are campaigning to promote the ratification of ILO Convention 190 on eliminating violence and harassment at work.

A young girl and her mother pose for a photo outside their home in Ushafa, Abuja, Nigeria.

CREDIT: GEM Report/Arete Photos

The gender impact of COVID-19 will not be known for some time

Globally, in the period between March 2020 and October 2021, schools remained closed or partly closed as a result of COVID-19 for 55% of instruction days, on average, with differences ranging all the way from countries that kept schools closed throughout the period to those that did not close them at all. Learning outcomes have undeniably been negatively affected, although the variety of experiences in school closure duration and in learning continuity opportunities means the impact will be unequally distributed among countries and among learners. There is little to suggest that governments have invested in remedial classes, especially to help those at a disadvantage, and there is uncertainty over learners' ability to make up the losses. Data on enrolment are insufficient, but isolated examples do not suggest enrolment losses in primary and secondary education.

In the case of the gender impact of COVID-19, various factors suggested potential differentiation. Boys and girls did not face the same consequences in all countries in terms of access to devices, time use and early pregnancy risks. Some parents in Bangladesh, Jordan and Pakistan were reluctant to give girls access to smartphones (UNESCO, 2021c), which, on the other hand, have proved to be a less common aid in learning continuity than expected. Phone surveys of 19-year-olds during the pandemic showed that 70% of young women in Ethiopia but 35% of young men spent more time than before the pandemic doing household chores, while 42% of young women in Peru but 26% of young men spent more time looking after children (Ford, 2021).

Few studies have compared early pregnancies before and during the pandemic. The use of antenatal visit records from clinics is hampered by the estimated 39% decline in such visits due to lockdowns and related restrictions (Townsend et al., 2021). In a Kenyan study, teenage girls' antenatal visits fell by 16% between the period from March 2020 to February 2021 and the same period before the pandemic (UNESCO, 2021c). A related concern is the increase in gender-related domestic violence reported by hotlines worldwide (Viero et al., 2021). In all, it will take years to assess whether the largest disruption of global education to date has a clear gender dimension implying a setback in the progress achieved towards gender equality in the past two decades.

## GIRLS HAVE CLOSED OR REVERSED GAPS IN ACCESS AND COMPLETION

Over the past 20 years, gender gaps in enrolment and attendance have been declining. Globally, the male-female gender gap in out-of-school rates is close to zero in all three levels of education, although regions have progressed at different rates. There was rapid progress towards parity in primary and lower secondary education in Central and Southern Asia during the 2000s, while progress continued among youth of upper secondary school age in the past decade. Northern Africa and Western Asia is yet to achieve parity, as progress stagnated after 2012 in both primary and secondary education. Sub-Saharan Africa is the region furthest from parity. It also has experienced stagnation in the last 10 years. By contrast, in Eastern and South-eastern Asia there is a growing level of disparity that reached eight percentage points at the expense of young men in 2020, with disparity increasing also among adolescents towards the end of the decade (**Figure 1**).

As mentioned above, these estimates are based on data up until the onset of COVID-19 and do not reflect its potential impact on education systems. There are significant concerns for low- and lower-middle-income countries that fully closed schools for more than two thirds of the time, notably Bangladesh (86%), Honduras (73%), Myanmar (80%), the Philippines (93%) and Uganda (68%). While it is difficult to predict the medium- to long-term impact of school closures, such crises tend to more strongly affect those already behind. In four of the five countries, there is a gender gap at the expense of boys, while in Uganda girls are at a disadvantage (**Figure 2**).

FIGURE 1:

Gender gaps in enrolment have shrunk in the past 20 years
Male-female gap in out-of-school rates in percentage points, by region and level, 2000–20
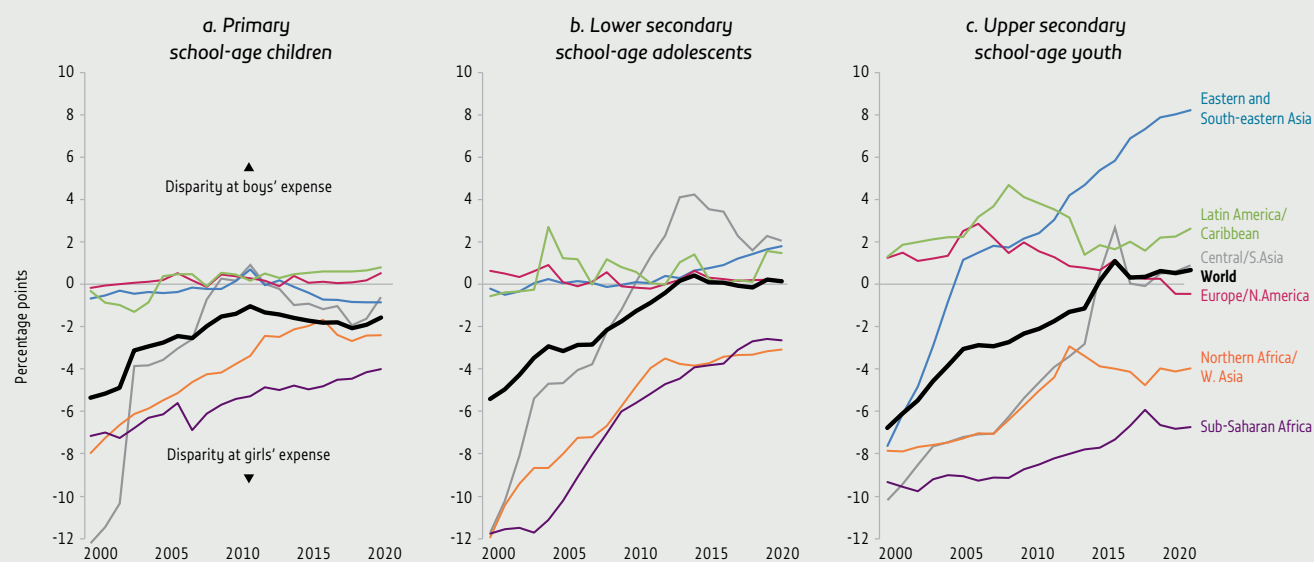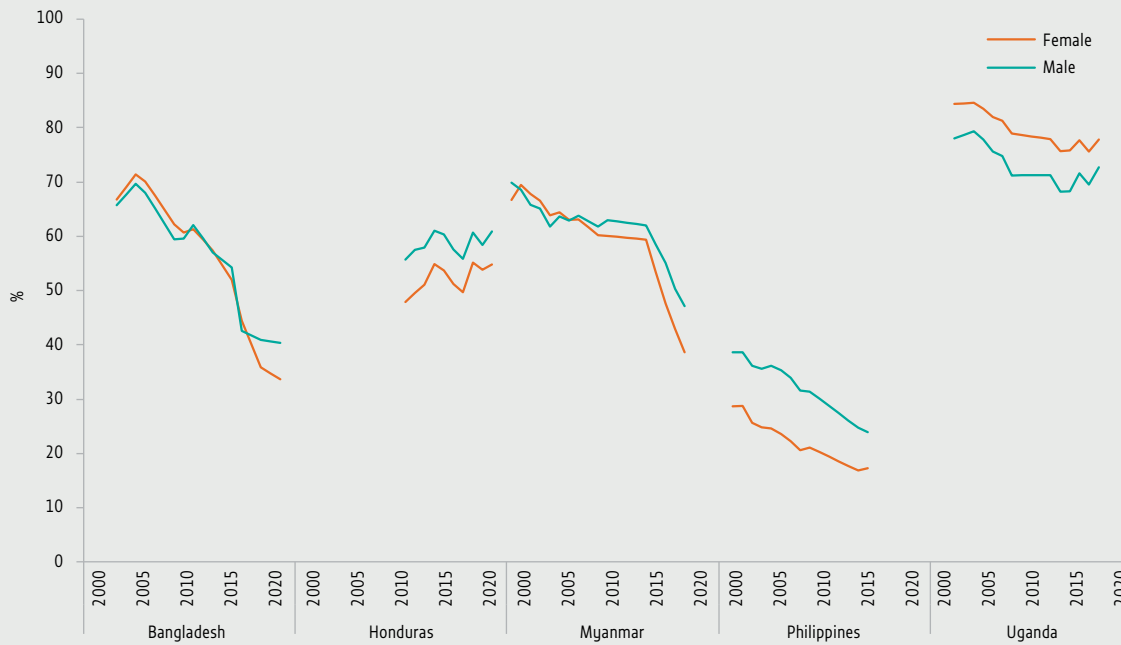

Source: UIS database.

Behind the global numbers, pockets of exclusion remain. In sub-Saharan Africa, the countries with the largest gender gaps at the expense of young women of upper secondary school age, where out-of-school rates for females are 20 percentage points higher than for males, include Guinea and Togo. A gap of about 15 percentage points is observed in Cameroon, Chad, Uganda and Zambia (**Figure 3**).

The gender gap at the expense of young women in sub-Saharan Africa tends to be higher when overall out-of-school rates are high; it is likely to close or even reverse when out-of-school rates decline. Even so, at similar levels of educational development, countries have followed different trajectories, even within Africa's subregions. For instance, the Central African Republic, Côte d'Ivoire and Guinea have seen almost no change in the gap, while neighbouring West African countries, such as Burkina Faso, the Gambia and Mauritania, have closed or even reversed it. Still, closing the gender gap may not be accompanied by an overall improvement in school attendance (**Figure 4**). In Burkina Faso, the effects of conflict and displacement, which have halted progress, have been significant since 2017. Governments need to examine the reasons and barriers that keep children, adolescents and young people out of school to understand the potential impact of policies, including those that may affect boys and girls differently (**Box 1**).

FIGURE 2:

In low- and lower-middle-income countries most affected by school closures, more boys than girls were out of upper secondary school
Out-of-school rate of youth of upper secondary school age, by sex, low- and lower-middle-income countries with the longest COVID-related school closures, 2000–20
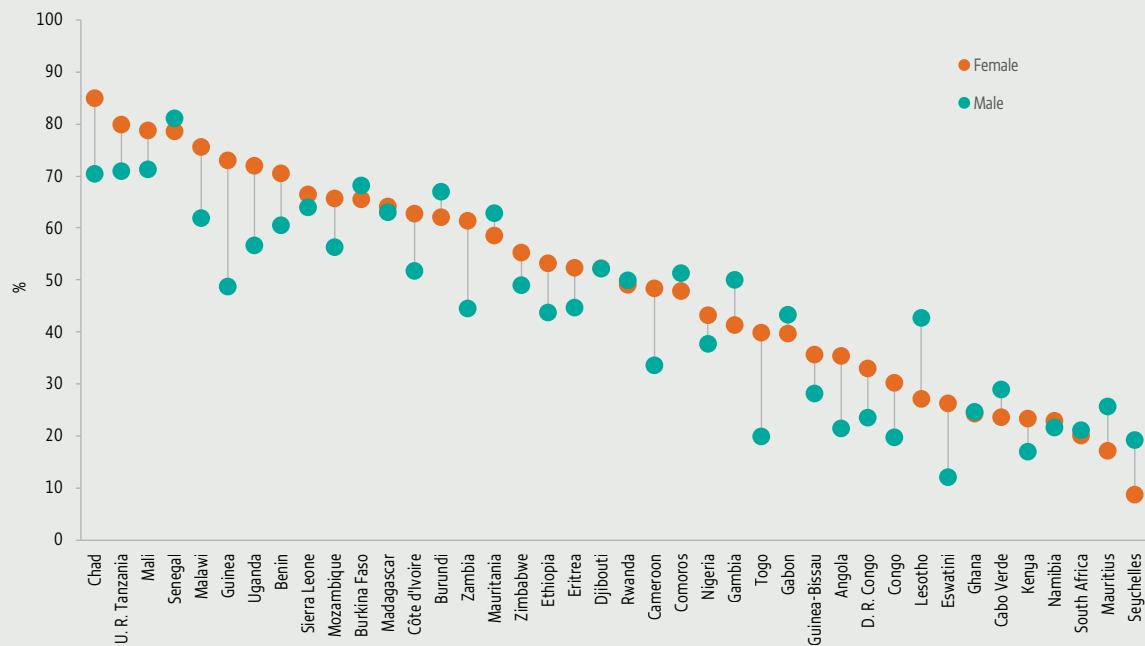

Source: UIS database

FIGURE 3:

Large gender gaps remain in youth out-of-school rates in much of sub-Saharan Africa

Out-of-school rate of youth of upper secondary school age, by sex, sub-Saharan Africa, 2020 or latest available year

*Sources:* UIS database and World Inequality Database on Education.

FIGURE 4:

The evolution of gender gaps in secondary school enrolment and attendance has varied between sub-Saharan African countries
Out-of-school rates of youth of upper secondary school age, by sex, selected sub-Saharan African countries, 2000–20

a. Countries with high and persistent gender gap

b. Countries which have closed or reversed the gender gap
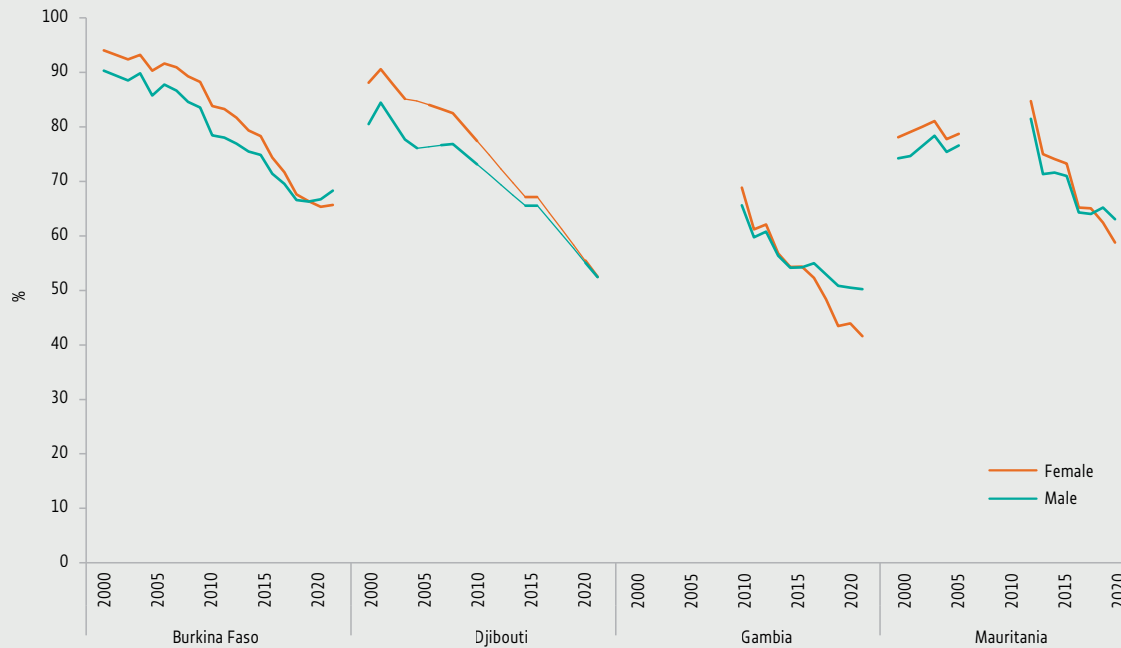
Source: UIS database.

BOX 1:

Gender-related reasons explain much of early school leaving

Barriers to schooling can be classed into three types: situational (life circumstances), dispositional (personal attitudes) and institutional (structural conditions) (UNESCO, 2020b). An analysis for the 2021/2 GEM Report of reasons given by secondary school-age adolescents (or their parents) in Malawi, Nigeria and Sierra Leone sheds light on why they were not in school. Among those who have never attended school, half cite dispositional barriers related to an ostensible lack of value or interest in education as their main reason for being out of school. Only in Nigeria do institutional barriers, such as lack of schools nearby, play a role in keeping youth from ever going to school. Situational barriers, notably lack of resources, keep at least 40% of adolescents from going back to school in Nigeria and Sierra Leone. Marriage and pregnancy keep 21% of adolescents, mostly girls, away from education in Nigeria, and about 10% in Sierra Leone (**Figure 5**).

Different types of barriers require different policy responses. As countries moved towards making education compulsory, as is the case in at least 159 countries (UNESCO, 2019), they increased the number of schools available. After Malawi made education compulsory in 2013, the government rolled out school construction programmes to increase the school supply (Malawi Government, 2013). Countries have also introduced automatic promotion, overturning another institutional barrier that leads to repetition and eventual early school leaving. In Sierra Leone, 5% of those who left school did so because they failed exams and 2% were dismissed.

Many countries have tried to address the largest situational barrier by reducing the cost of schooling, although only 46 globally and just 2 in sub-Saharan Africa (Congo and Uganda) guarantee 12 years of free education (UNESCO, 2019). In practice, a guarantee of free education may be symbolic and not mean much. Household costs unrelated to fees remain a major burden in many countries. In Congo, households account for 20% of total education expenditure, well below the regional average of 39%, but in Uganda they account for 59%.

Since 2019, at least five sub-Saharan African countries – Mozambique, Sao Tome and Principe, Sierra Leone, Uganda and Zimbabwe – have either revoked policies restricting pregnant girls' access to school or implemented policies allowing them to stay in school. In addition to ensuring that all schools prioritize admission of young mothers or girls after pregnancy, Uganda's 2020 revised policy on teenage pregnancy includes guidance to schools on how to combat discrimination and stigma affecting students who are pregnant or new parents (Human Rights Watch, 2021). This challenge is likely to increase in Uganda in the aftermath of the pandemic. In January to September 2021, teenage pregnancies were up by 9% on an annual basis compared with the average observed in 2017 to 2020 (UNFPA, 2021b).

FIGURE 5:

In Nigeria, one in five adolescents is not in school due to marriage and pregnancy

Share of respondents (out-of-school 12- to 17-year-olds or their parents) by main reason cited for not attending school, 2016–19
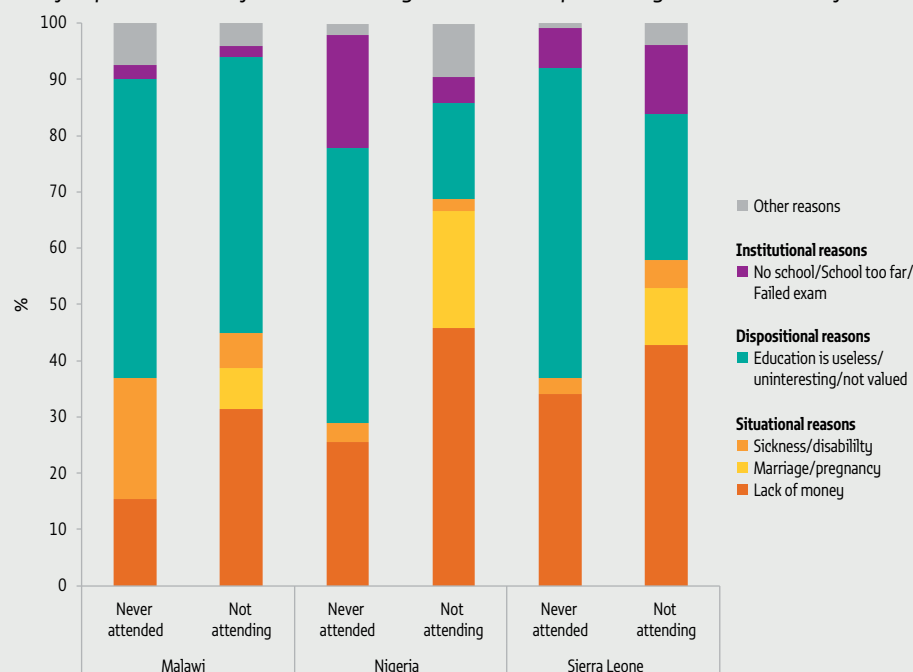
Source: GEM Report team analysis based on data from the 2016–17 Malawi Fourth Integrated Household Survey, the 2018–19 Nigeria Living Standards Survey and the 2018 Sierra Leone Integrated Household Survey.

New analysis for this report highlights the fact that progress towards parity in out-of-school rates does not necessarily mean parity in completion rates is achieved. The official definition of the completion rate is the percentage of those aged three to five years above the official graduation age from a particular education level who reach the last grade of that level. This is considered 'timely' completion since, in many countries, children start school late and repeat grades. Globally, at each education level, females enjoy an advantage of two percentage points in 'timely' completion rates at each of the three levels.

However, in many parts of the world, children, adolescents and youth complete each level of education even later. While globally there is near parity in 'ultimate' completion at each level, substantial regional differences are observed, especially for sub-Saharan Africa. At the lower secondary level, the gender gap is just one percentage point in 'timely' completion but eight percentage points in 'ultimate' completion. At the upper secondary level, the corresponding gender gaps increase from three to seven percentage points (**Figure 6**). This finding reflects the fact that boys can afford to complete secondary school later than girls, who are forced by gender norms to marry and have children early.

The analysis also shows that progress towards parity over the past 20 years has been much slower in sub-Saharan Africa than in other regions where females were at a major disadvantage in 2000. For instance, the gender gap in timely lower secondary completion fell by 13 percentage points in Central and Southern Asia and by 10 percentage points in Northern Africa and Western Asia between 2000 and 2020 but by less than 4 percentage points in sub-Saharan Africa. The gender gap in timely upper secondary completion fell by 6 percentage points in Central and Southern Asia and by 9 percentage points in Northern Africa and Western Asia but by 2 percentage points in sub-Saharan Africa.

GIRLS OUTPERFORM BOYS IN LEARNING IN GENERAL BUT NOT AMONG TOP PERFORMERS IN MATHEMATICS

Recent years have seen an increase in evidence on learning outcomes in primary and secondary education from long-established international and regional assessments (**Table 1**). These assessments' proficiency levels in reading and mathematics correspond to the minimum proficiency levels used in SDG global indicator 4.1.1 in early grades, at the end of primary and at the end of lower secondary education. The gender gap in the percentage of students achieving minimum proficiency varies by subject and level.

TABLE 1:
Cross-national learning assessments

Acronym		Coverage	Subject	Grades	Last round
ERCE (LLECE)	Latin American Laboratory for the Assessment of the Quality of Education	Regional	Reading, mathematics, science	3 and 6	2019
PASEC	Programme for the Analysis of Education Systems of the CONFEMEN	Regional (francophone Africa)	Reading, mathematics	2 and 6	2019
PILNA	Pacific Islands Literacy and Numeracy Assessment	Regional	Reading, mathematics	4 and 6	2018
PIRLS	Progress in International Reading Literacy Study	International	Reading	4	2016
PISA	Programme for International Student Assessment	International	Reading, mathematics, science	10 (15-year-olds)	2018
SEA-PLM	Southeast Asia Primary Learning Metrics	Regional	Reading, mathematics, citizenship	5	2019
TIMSS	Trends in International Mathematics and Science Study	International	Mathematics, science	4 and 8	2019

In primary education, more girls achieve minimum proficiency in reading than boys. There are only five countries where the gap is at the expense of girls in the early grades, all of them in sub-Saharan Africa, two of them low-income (Chad and the Democratic Republic of the Congo), two lower-middle-income (Benin and Côte d'Ivoire) and one upper-middle-income (Gabon). Of those only the two low-income countries have a small gap at the expense of girls at the end of primary (**Figure 7**).

FIGURE 6:

In sub-Saharan Africa, the gender gaps in completion rates are smaller in timely than in ultimate completion
Female–male gap in completion rates in percentage points, by level, region and timeliness, 2000–20
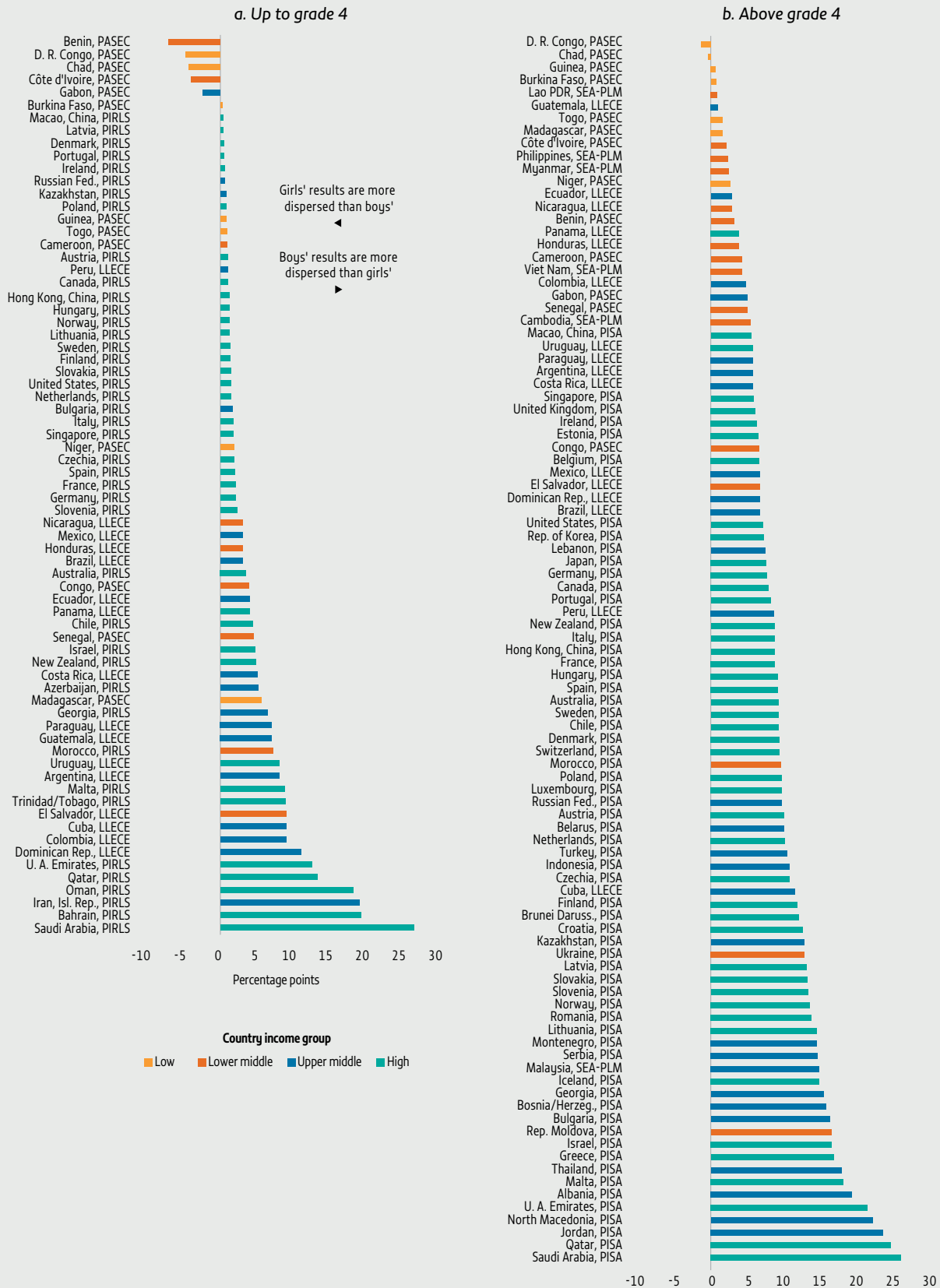
Timely completion

Ultimate completion
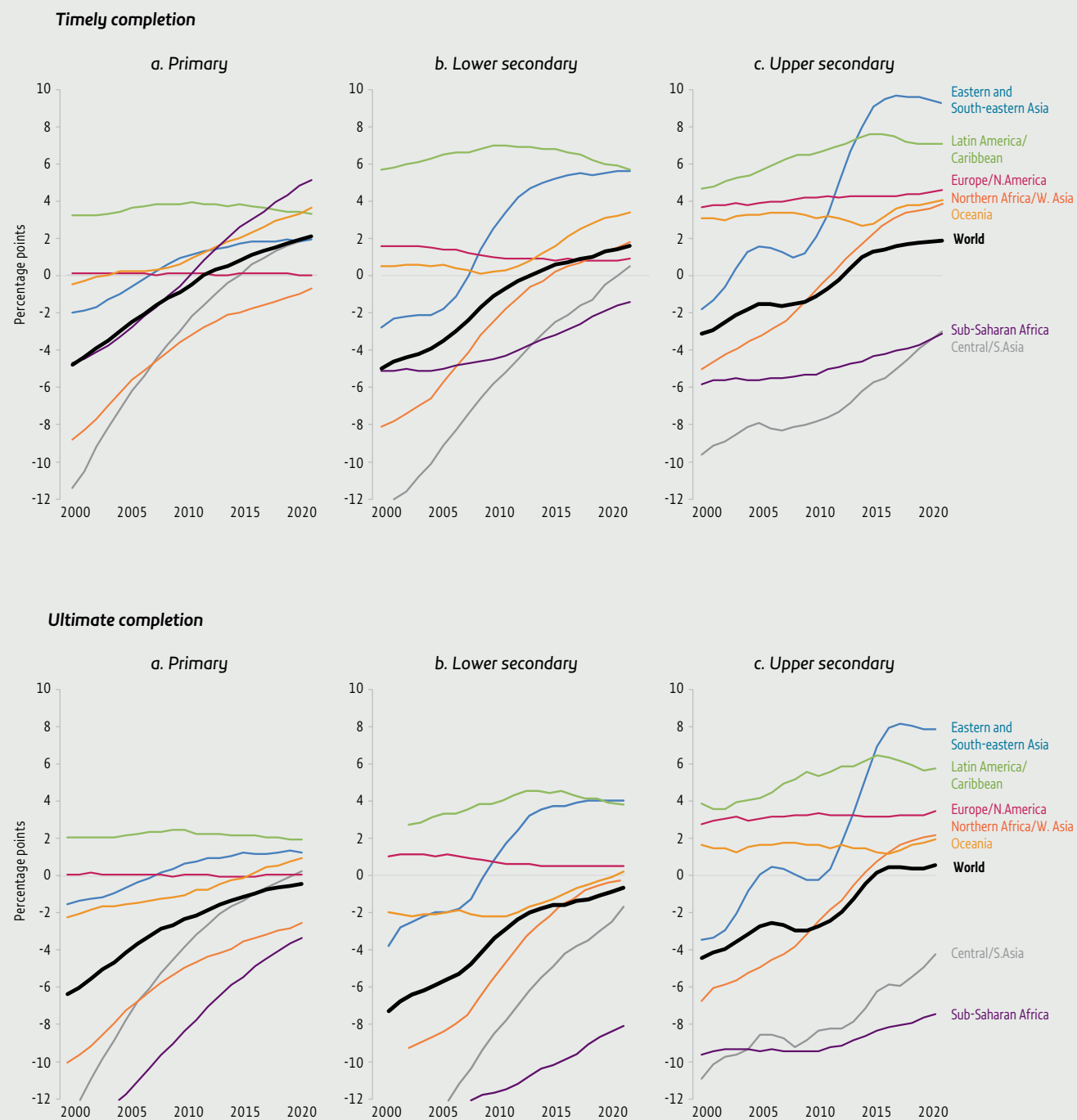
Source: GEM Report and UIS estimates available at the VIEW website www.education-estimates.org.

FIGURE 7:

More girls than boys achieve minimum proficiency in reading and the gap increases with age

Female–male gap in share of students achieving minimum proficiency level in reading, 2016–19

a. Up to grade 4

Girls' results are more dispersed than boys'
◄

Boys' results are more dispersed than girls'
►

Percentage points

Country income group
Low   Lower middle   Upper middle   High

b. Above grade 4

Source: GEM Report team estimates based on the 2019 rounds of the LLECE, PASEC and SEA-PLM surveys, the 2016 PIRLS and the 2018 PISA.

In the other 95 countries with data, the gap is at the expense of boys at the end of primary or the end of lower secondary education. The largest gap is observed in Saudi Arabia, where 77% of girls but 51% of boys in grade 4 achieve minimum proficiency in reading, according to PIRLS results. The gap in favour of girls is 19 percentage points in Bahrain, the Islamic Republic of Iran and Oman, also in PIRLS; 14 points among grade 6 students in Pacific countries taking part in PILNA (PILNA, 2019); 15 points in Malaysia according to grade 5 data from SEA-PLM; and 11 points in the Dominican Republic, according to grade 3 data from LLECE. The gender gap in reading tends to increase towards the end of primary and into lower secondary education. Even in countries where no gap is observed in early grades, including Lithuania and Norway, the gap in favour of girls rises to roughly 15 percentage points by age 15, according to PISA.

Boys tend to perform better than girls in mathematics, particularly in early grades (**Figure 8**). For instance, the gender gap favouring boys in grade 2 was 13 percentage points in Chad, 10 points in Benin and 8 points in the Democratic Republic of the Congo, according to PASEC results, and 8 points in Canada among grade 4 students taking TIMSS. This gender gap is reduced later in students' trajectories. It is reversed to favour girls, among grade 8 students in TIMSS, in Bahrain (8 points), Jordan (7 points), Oman (13 points), Romania (8 points) and Turkey (5 points). The gap favouring girls is 6 percentage points among grade 6 students in Pacific countries taking part in PILNA (PILNA, 2019). Overall, the gender gap in mathematics has shrunk over time, further strengthening the evidence that gender gaps are social constructions and unrelated to gender-specific disposition factors (Borgonovi, 2021; Meinck and Brese, 2019).

There are no science assessment data in low-income countries, but results in middle- and high-income countries suggest girls have an advantage (**Figure 9**). Large gaps are observed in the Arab States, with the percentage of girls achieving minimum proficiency exceeding that of boys by 15 percentage points in Bahrain and Saudi Arabia and by 8 points in Kuwait among grade 4 students, and by 21 points in Bahrain, Jordan and Oman and 12 points in Kuwait among grade 8 students, according to TIMSS results. This region-specific gap, it has been argued, is consistent with the idea that girls have more interest and confidence in learning, and value it more, than boys do. It is posited that boys in the region are less motivated than girls because they are more likely to eventually attain a higher social status independently of their efforts, whereas girls face greater barriers and fewer choices (Ghasemi and Burley, 2019).

Looking beyond average levels of learning achievement for boys and girls highlights three significant patterns. First, the distribution of learning scores is more variable among boys than among girls (**Figure 10**). For example, in grade 4 the variability in reading scores is 23% higher for boys than for girls in Bahrain and 17% higher in the Islamic Republic of Iran, PIRLS results show. In the same grade, variability in mathematics scores is 19% higher for boys than for girls in Saudi Arabia and 12% higher in Australia and the Republic of Korea, according to TIMSS results. The excess variability of boys' scores relative to girls' increases slightly in secondary education. For instance, among grade 8 TIMSS participants in science, it is 22% higher in Kuwait and 16% higher in Malta. Among 15-year-olds in the PISA reading test, it is 20% higher in Israel and 16% higher in Finland.
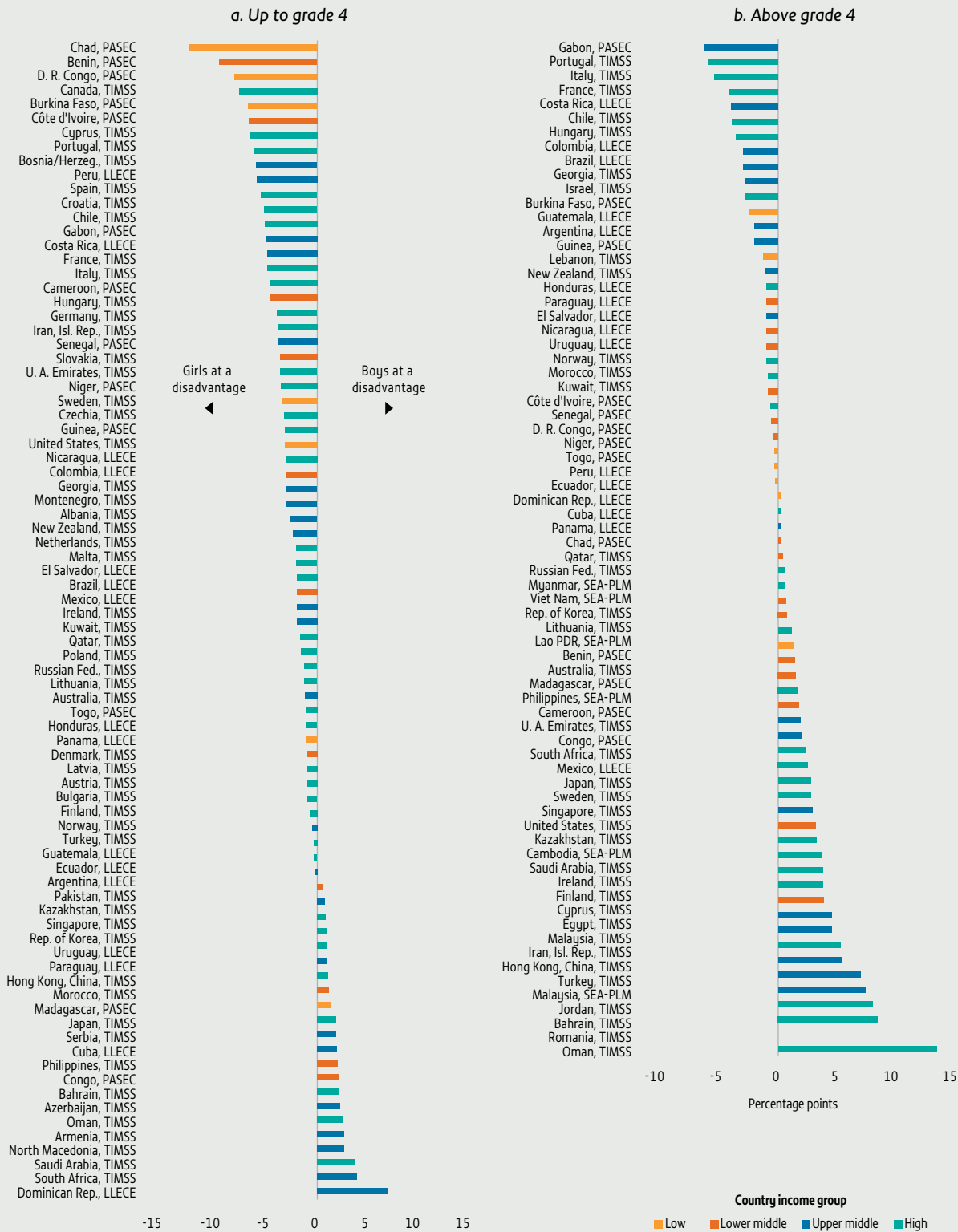
Second, in mathematics the higher variability of boys' scores is usually the result of more boys achieving high scores. Girls are under-represented at the top of the mathematics skills distribution, even though they perform better than boys on average (Baye and Monseur, 2016). For instance, in TIMSS the share of boys above the advanced benchmark in mathematics exceeds the share of girls for almost all countries, at both grade 4 and 8 levels. The difference is much more pronounced if expressed in relative terms (the ratio) than in absolute terms. For instance, among grade 4 students in Australia there is near parity, with 69% of girls and 70% of boys achieving minimum proficiency in 2019. But there is a large gender gap in that 37% more boys achieved advanced proficiency (12.3% vs 8%) (**Figure 11**).

In some cases, the relative gap may be misleading: In Pakistan, only one girl achieves the top proficiency level for every three boys but the absolute gap between them is only 0.1 percentage points because overall performance levels are low. But in France and Spain, where fewer than one girl achieves the top proficiency level for every two boys, the absolute gap between them is more sizeable, at two and three percentage points, respectively.

FIGURE 8:

In mathematics, a small gender gap favouring boys in early grades gradually disappears

Female–male gap in share of students achieving minimum proficiency level in mathematics, 2019

a. Up to grade 4

b. Above grade 4

Girls at a disadvantage ◄   Boys at a disadvantage ►

Percentage points

Country income group
■ Low ■ Lower middle ■ Upper middle ■ High

Source: GEM Report team estimates based on the 2019 rounds of the LLECE, PASEC, SEA-PLM and TIMSS surveys.

FIGURE 9:

Girls enjoy a significant advantage over boys in science in secondary school

Female–male gap in percentage of students achieving minimum proficiency level in science, up to grade 4 and above grade 4, 2019
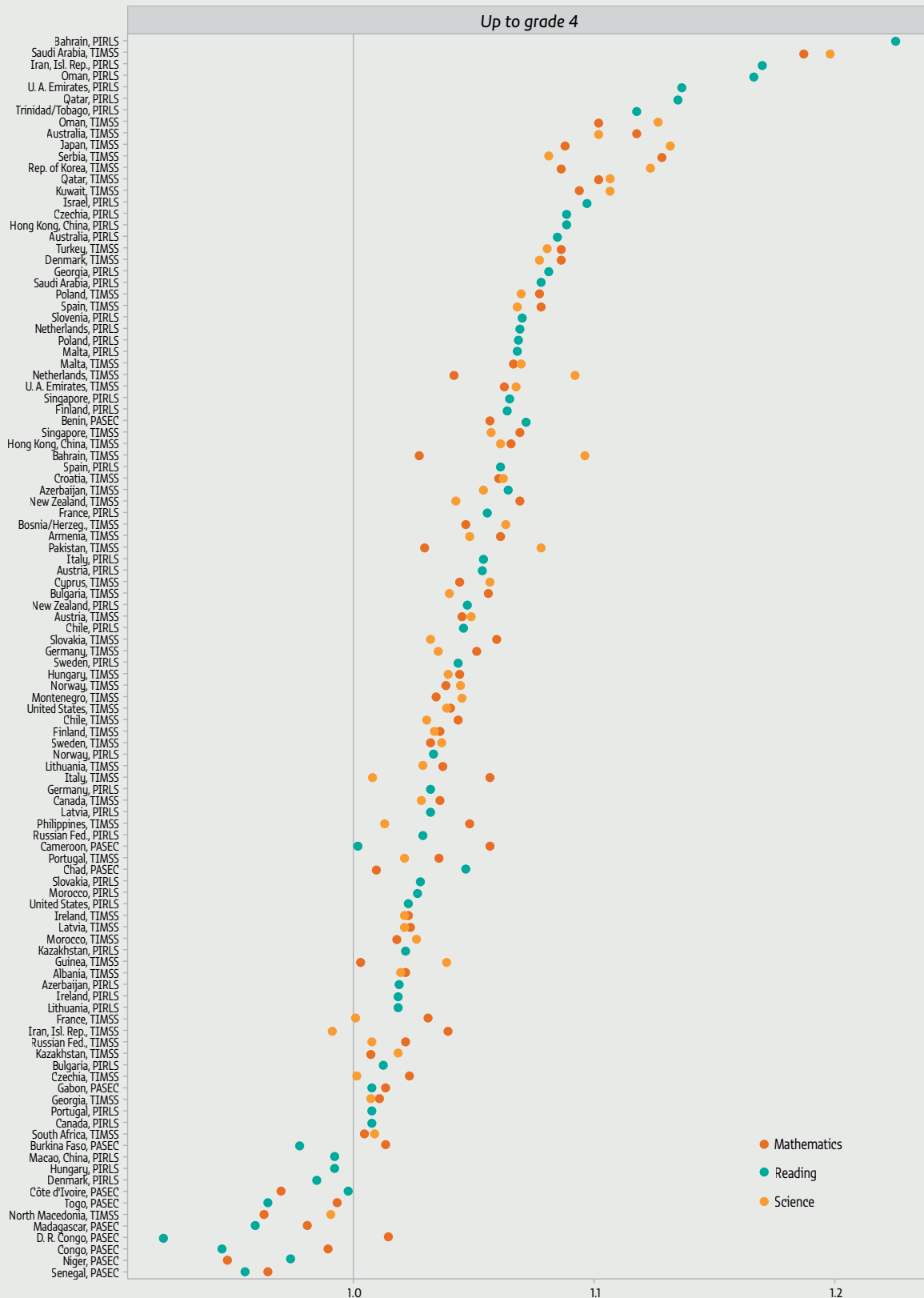

a. Up to grade 4

b. Above grade 4

Source: GEM Report team estimates based on the 2019 rounds of the LLECE and TIMSS surveys.

FIGURE 10:

Boys' learning outcomes are more variable than girls' in reading, mathematics and science

Male–female ratio of standard deviation of learning achievement scores, by subject and country income group, 2016–19

Note: A ratio value of 1 indicates equal distribution of scores for boys and girls. Values above 1 point to higher variability among boys and lower variability among girls. Richer countries are indicated with smaller data points.
Source: GEM Report team estimates based on the 2019 PASEC, 2016 PIRLS, 2018 PISA, 2019 SEA-PLM and 2019 TIMSS.

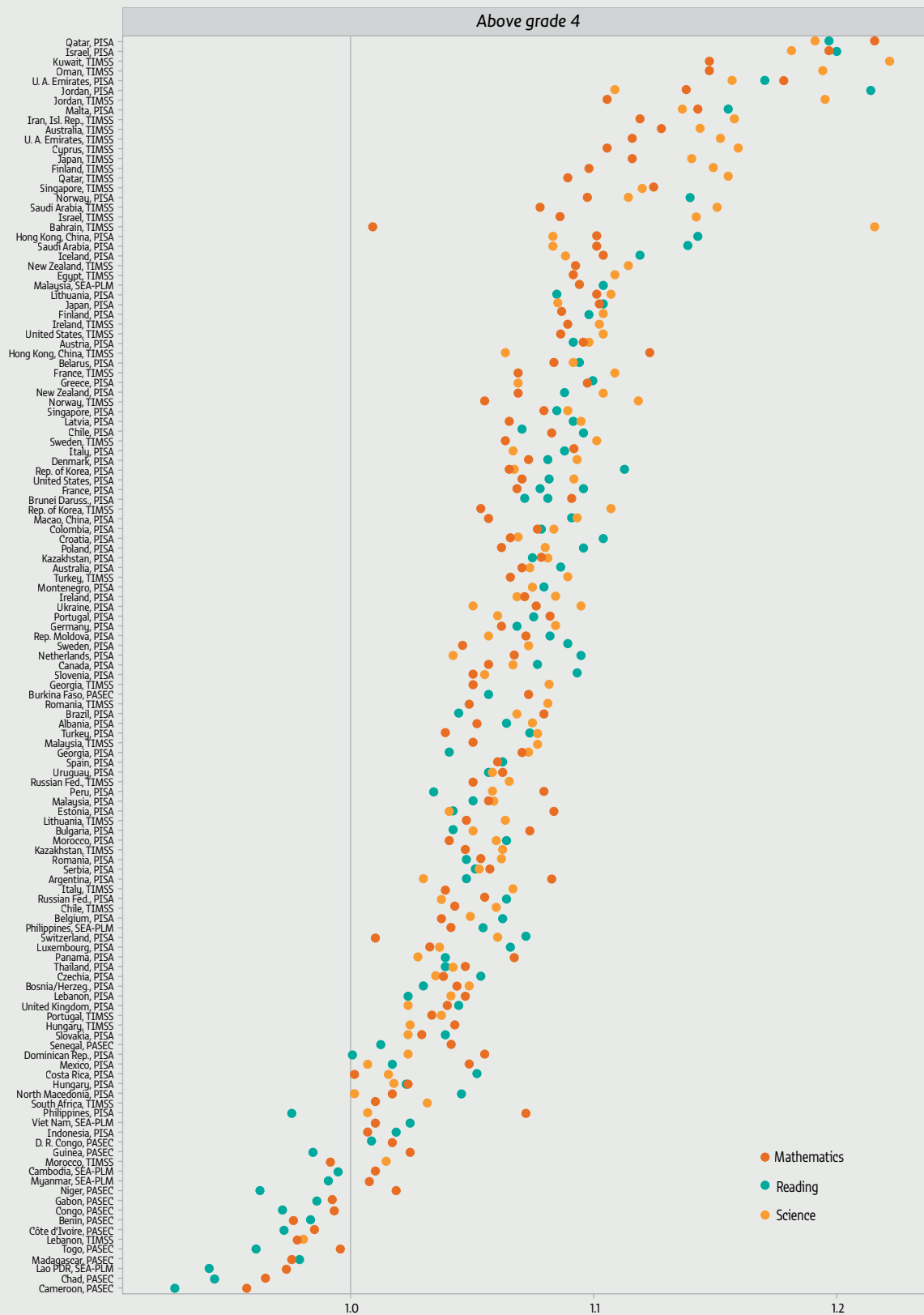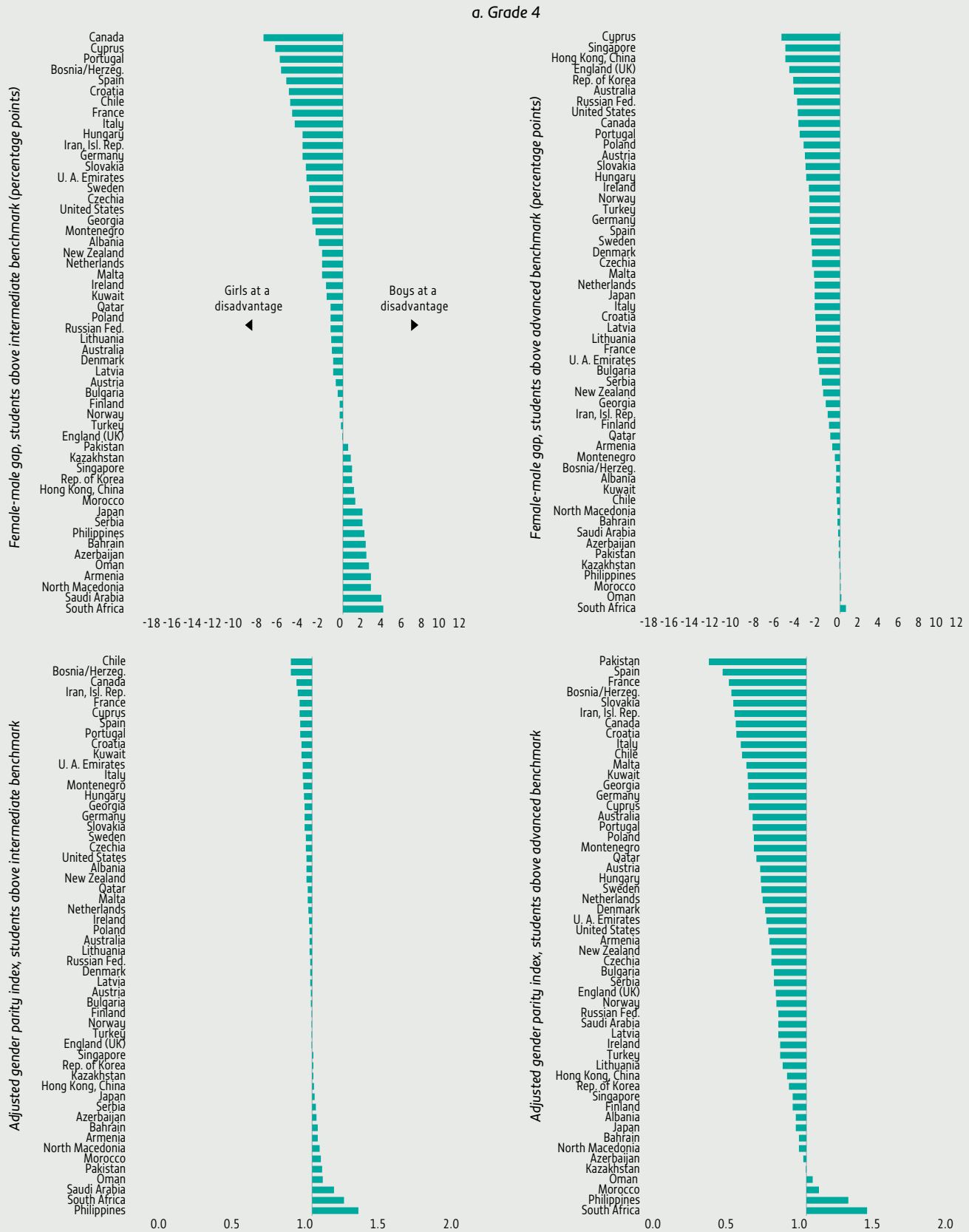**FIGURE 10 CONTINUED:**
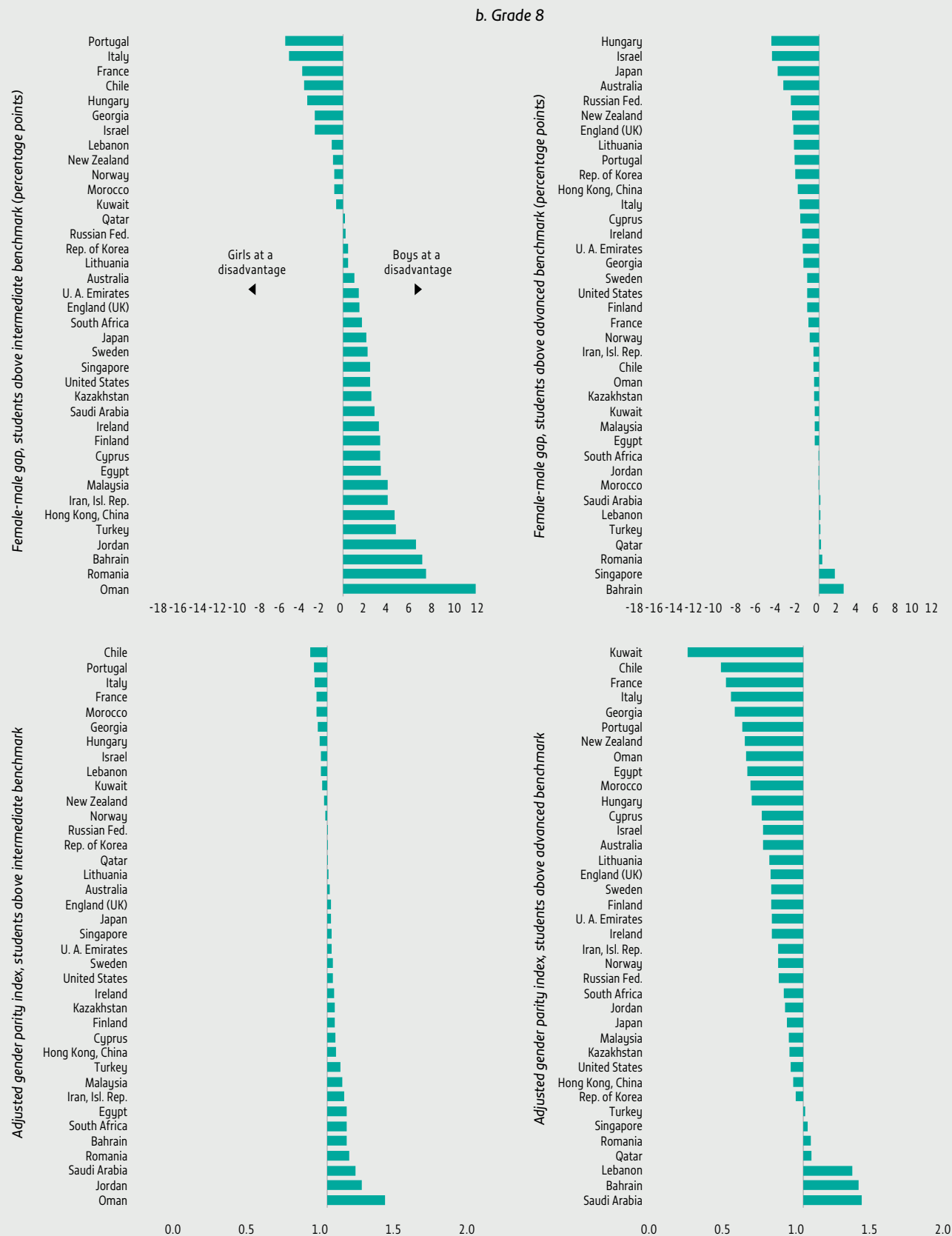

Above grade 4

FIGURE 11:

In mathematics, boys are over-represented at high levels of proficiency

Gender differences in share of students at or above selected TIMSS international benchmarks in mathematics, 2019

a. Grade 4

Source: GEM Report team estimates based on the 2019 round of the TIMSS survey.

FIGURE 11 CONTINUED:

b. Grade 8

Third, when girls perform better than boys in mathematics and science, they perform even better than boys in reading; in other words, gender gaps in reading are positively correlated with those in mathematics and science. For instance, in countries including Malaysia and Thailand, where girls perform better in mathematics, their advantage in reading is also higher. Similarly, in countries where girls perform better than boys in science, including Albania and North Macedonia, the gap in reading favouring girls is even larger. The correlation of gender gaps in reading and science (0.86) (**Figure 12b**) is higher than the correlation of gaps in reading and mathematics (0.61) (**Figure 12a**).

This finding probably underlies the lower probability of girls opting for science, technology, engineering and mathematics (STEM) careers despite their advantage over boys in mathematics and science in many countries. As they enjoy a comparative achievement advantage and higher self-concept in reading in relation to mathematics and science (Breda and Napp, 2019), this may be a more important factor in choosing employment. Conversely, in countries including Argentina and Colombia, where the gender gap in reading is smaller or non-existent, boys outperform girls in mathematics.

What these data do not tell, however, is that these relative gaps, which eventually transform into career expectation gaps, are ultimately inextricably linked to stereotypical norms about the types of careers that best 'suit' men and women.

Girls perform better in mathematics in more gender-equal societies, as PISA data have shown (Guiso et al., 2008). This correlation has been demonstrated at primary school level in low- and middle-income countries, where gender gaps in learning are lower when economic, political, educational and health opportunities are more equally distributed between women and men, as summarized by the World Economic Forum's Gender Gap Index.

Likewise, girls perform better in mathematics in countries with higher participation rates in STEM subjects in tertiary education (van Langen et al., 2006). In lower secondary education, the presence of girls at the top of the mathematics skill distribution is positively associated with the proportion of female graduates in STEM careers.

## WOMEN ARE ATTRACTED TO TERTIARY EDUCATION IN EVER-INCREASING NUMBERS

The number of students enrolled in tertiary institutions increased from 100 million in 2000 to 235 million in 2020. The share of women in the student population rose from 48.8% to 51.9% in this period. There was already gender parity in the global gross enrolment ratio in 2000. Since then, the gender parity ratio has increased nearly every year, reaching 113 women for every 100 men enrolled in 2020. There is now disparity at the expense of men in all world regions except sub-Saharan Africa, where the 2000s were a lost decade, with the gender parity index remaining constant at 67 women enrolled for every 100 men until 2011. Since then, it has steadily increased, reaching 76 women enrolled for every 100 men in 2019 (**Figure 13**).

Of the 94 countries with data for both 2000 and 2020, there was disparity at the expense of women in just 15. In some countries, including Cambodia and Nepal, where 40 to 50 women were enrolled for every 100 men in 2000, parity was almost achieved by 2020. In the United Republic of Tanzania, the number of women enrolled for every 100 men increased from 31 in 2000 to 84 in 2020. Yet despite progress, in some countries the gender gap in tertiary education remains wide, with only 47 women in Benin, 55 in Burkina Faso and 60 in Ethiopia for every 100 men enrolled. At the opposite extreme, there are about 50 men for every 100 women enrolled in the British Virgin Islands, Iceland and Namibia – and as few as 40 in Tonga and 14 in Qatar (**Figure 14**).

FIGURE 12:

In mathematics, a small gender gap favouring boys in early grades gradually disappears

Female–male gap in share of students achieving minimum proficiency level in mathematics, 2019

*a. Reading and mathematics*

b. Reading and science
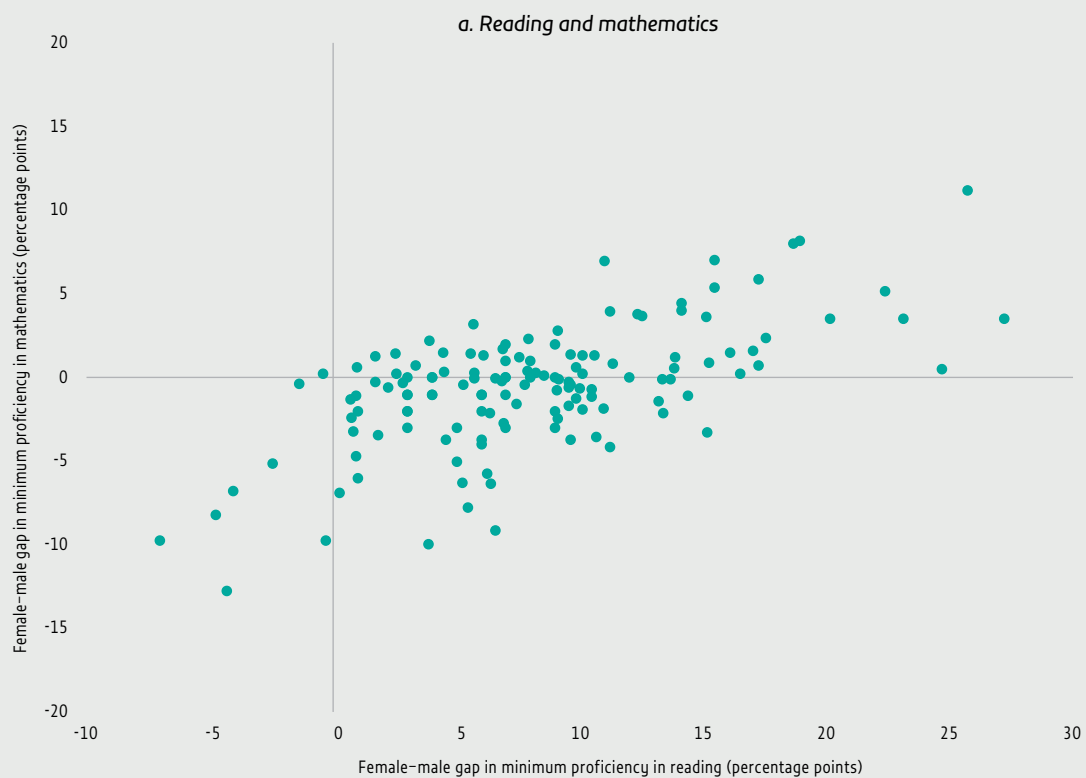
Source: GEM Report team estimates based on the 2019 rounds of the LLECE, PASEC, SEA-PLM and TIMSS surveys.

THE ELIMINATION OF GENDER GAPS IN SCHOOLING IS YET TO LEAD TO PARITY IN ADULT LITERACY

Globally, it is estimated that 771 million adults lacked basic literacy skills in 2020, among which 98 million were aged 15 to 24. Females accounted for 63% of all adult illiterates and 55% of youth illiterates. Among adults, 83% of women and 90% of men were literate, a gap of seven percentage points, whereas the gender gap was only two percentage points among youth (**Table 2**). The gender gap in adult literacy was largest in Central and Southern Asia (15 points) and sub-Saharan Africa (13 points). In Benin, Central African Republic, Guinea, Liberia and Mali, there were 60 literate women for every 100 men. Women living in rural areas were left even further behind. In rural Guinea, about 14% of women were literate in 2018 compared with 39% of men, while in urban areas about 52% of women were literate compared with 77% of men, which means the gender parity index was almost twice as high in urban areas (0.68 vs 0.35).

Progress over time has remained slow. In sub-Saharan Africa, female youth literacy increased by less than one percentage point a year between 2015 and 2020. More than one in four young women in sub-Saharan Africa are still illiterate. Slow progress in raising literacy rates means that, in absolute terms, the number of illiterate people has hardly changed. Globally, the substantial decline in Eastern and South-eastern Asia to 52 million illiterate women was offset by an increase in sub-Saharan Africa to over 127 million.

FIGURE 13:

There is disparity at the expense of men in tertiary enrolment in all regions except sub-Saharan Africa
Tertiary gross enrolment ratio adjusted gender parity index, by region, 2000–20
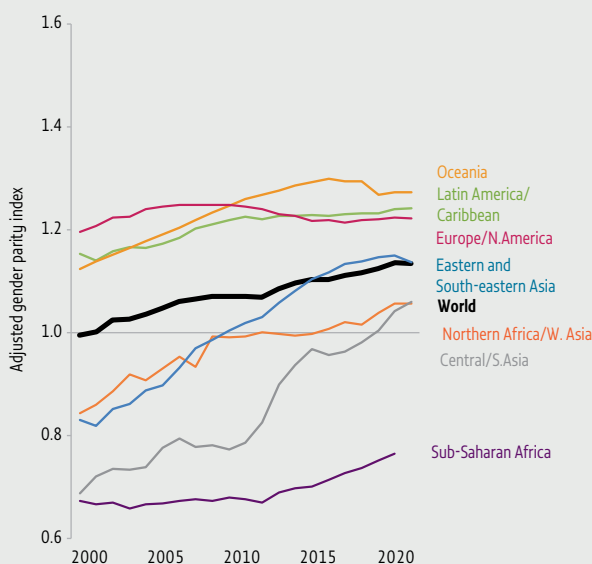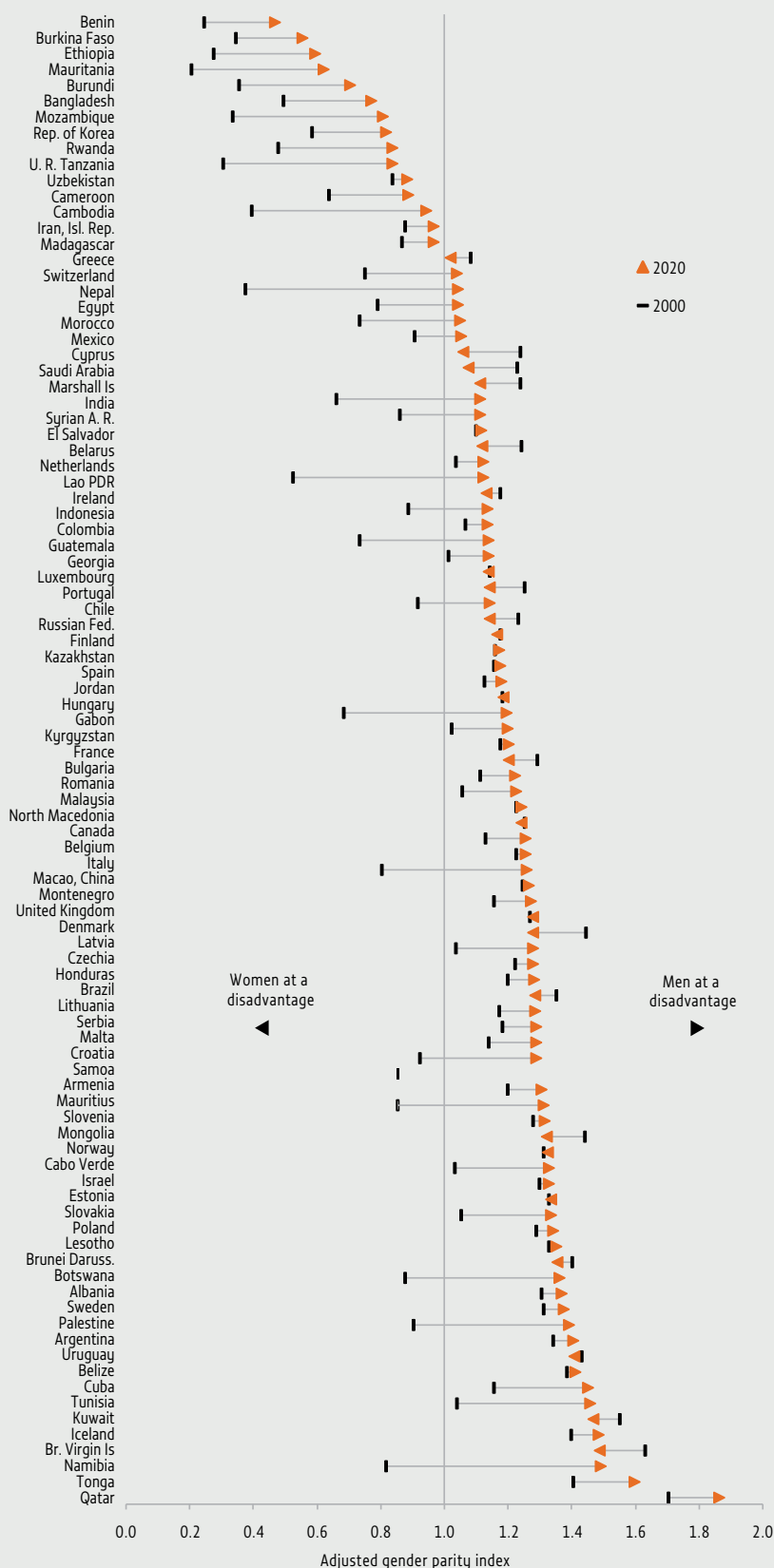

Source: UIS database.

TABLE 2:
Youth and adult literacy rates, 2015 and 2020

	Youth literacy rate						Adult literacy rate					
	Female (%)		Male (%)		Gender parity index		Female (%)		Male (%)		Gender parity index	
	2015	2020	2015	2020	2015	2020	2015	2020	2015	2020	2015	2020
World	89.4	90.8	92.5	92.9	0.97	0.98	81.8	83.3	89.3	90.1	0.92	0.93
Sub-Saharan Africa	70.6	74.2	78.6	79.5	0.90	0.93	56.3	59.6	71.5	72.8	0.79	0.82
Northern Africa and Western Asia	87.4	87.5	91.5	90.9	0.96	0.96	74.1	74.9	86.4	85.8	0.86	0.87
Central and Southern Asia	85.2	89.6	90.2	92.4	0.95	0.97	63.0	67.7	79.5	82.4	0.79	0.82
Eastern and South-eastern Asia	98.8	99.0	98.8	99.0	1.00	1.00	93.4	94.6	97.2	97.6	0.96	0.97
Latin America and the Caribbean	98.5	98.8	98.1	98.5	1.00	1.00	92.7	94.1	93.6	94.9	0.99	0.99
Oceania	...	...	...	...	...	...	...	...	...	...	...	...
Europe and Northern America	...	...	...	...	...	...	...	...	...	...	...	...
Low income	66.1	70.7	75.4	76.3	0.88	0.93	50.2	54.1	67.3	68.9	0.75	0.79
Lower middle income	85.0	88.2	89.8	91.3	0.95	0.97	66.3	70.0	80.8	82.9	0.82	0.84
Upper middle income	98.5	98.5	98.6	98.6	1.00	1.00	93.5	94.5	96.7	97.1	0.97	0.97
High income	...	...	...	...	...	...	...	...	...	...	...	...

Source: UIS database.

FIGURE 14:

In some countries, the composition of the tertiary student population by gender has changed dramatically in 20 years

Tertiary gross enrolment ratio adjusted gender parity index, by country, 2000 and 2020

Source: UIS database.

Acquisition of literacy skills is crucial for effective functioning in society, including for developing health literacy skills, which became critical during the COVID-19 pandemic. A study in India found that women who had participated in an adult literacy programme – conducted before COVID-19 spread and containing no specific material on the pandemic – had considerably higher COVID-19 knowledge than their illiterate counterparts. Over 80% of the newly literate women were aware of the symptoms, compared with 16% among the illiterate control group (Das et al., 2021). Adult literacy and numeracy programmes were hit hard by COVID-19, however. A rapid assessment by UNESCO in mid-2020 suggested that 90% of adult literacy programmes were partly or fully suspended (UNESCO, 2020d). Moreover, such programmes were mostly absent from countries' initial education response plans (UNESCO, 2020a). Exceptions included Chad, which incorporated adult and non-formal education in its COVID-19 response plan, and Senegal, which, after developing a distance learning plan for children and youth, established a working group to focus on basic education for youth and adults (UNESCO, 2020d).

THE FEMINIZATION OF THE TEACHING PROFESSION HAS CONTINUED ALMOST UNABATED

Globally, there were 83 million teachers in pre-primary, primary and secondary education in 2020, 27 million more than in 2000. Overall, women are over-represented in the teaching force. In pre-primary education, their share increased from 92% to 94% in this period while in primary education it rose from 59% to 67%, with the largest increases, of about 17 percentage points, observed in Central and Southern Asia and in Eastern and South-eastern Asia. Sub-Saharan Africa was the only region where women made up less than half the primary school teaching force. The imbalance was even greater in secondary education, where women's share was 32% and had increased by only one percentage point in 20 years (**Table 3**).

TABLE 3:
Number of teachers and share of female teachers, by education level, 2000 and 2020

	Pre-primary				Primary				Secondary			
	Number of teachers (million)		Female (%)		Number of teachers (million)		Female (%)		Number of teachers (million)		Female (%)	
	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020
World	5.5	11.6	92	94	25.0	33.3	59	67	25.5	38.0	52	54
Sub-Saharan Africa	0.2	0.6	75	82	2.0	4.9	42	46	0.9	3.2	31	32
Northern Africa and Western Asia	0.2	0.4	85	94	2.0	2.9	54	66	2.0	3.3	47	52
Central and Southern Asia	0.9	2.4	79	90	4.3	6.7	41	58	3.9	9.3	41	49
Eastern and South-eastern Asia	1.4	4.2	95	97	9.2	10.9	55	71	7.6	10.6	43	57
Latin America and the Caribbean	0.8	1.1	96	95	2.8	3.0	78	76	3.2	3.9	64	58
Oceania	0.5	...	85	...	1.9	...	71	...	...	...	...	...
Europe and Northern America	1.9	2.8	96	96	4.5	4.7	85	87	7.8	7.4	64	68

Source: UIS database.

As teaching is widely seen as a woman's profession, gender segregation in the teaching force tends to take place in both state and non-state institutions, although some variations are observed. In Brazil, Japan and the Republic of Korea, there are more male teachers in private schools, while in France, Kazakhstan and Turkey such schools have more female teachers (Cherng and Barch, 2021). In Burkina Faso, 48% of public and 40% of private school teachers are women, but the gap is 30 percentage points or more in some regions, such as Plateau Central and Nord (Lange et al., 2021). In India, women account for 62% of teachers in unaided private schools and up to 73% in urban unaided private schools. The overall feminization of teaching in the private unaided school sector should be seen in relation to the fact that their teachers are paid much less (UNESCO, 2021b).

Around the world, teachers have been directly affected by the COVID-19 pandemic. In the United States, well over 1,000 educators had died as of September 2021 (Maxwell, 2021). In India's Uttar Pradesh state, more than 1,600 teachers died, and South Africa had a similar toll (Ndaba, 2021; Rashid, 2021). The pandemic also posed challenges to teachers' professional lives, partly because of the digital divide. School closures found many teachers unprepared for the move to remote learning, uncertain about their role and unfamiliar with the technology. This caused stress particularly among female teachers. In Slovenia, female primary school teachers reported high levels of stress when delivering online lessons, associated with the preparation of teaching materials (Loziak et al., 2020).

In India, jobs losses were a concern for teachers, especially those in private schools, most of which run on tight budgets and depend on fee collection. The feminized nature of the private school teaching force and the impact of the pandemic on private schools greatly increased the likelihood of women teachers having lost their jobs during the COVID-19 crisis (UNESCO, 2021b).

Philippine International School-Qatar, 2019.

CREDIT: GEM Report/Al Rawi Productions

Are there gender dimensions of non-state activity in education?

The Education 2030 Framework for Action, which is the roadmap for achievement of Sustainable Development Goal (SDG) 4, highlights the crucial role of non-state actors in education (**Box 2**): 'Country-led action will drive change; however, the ambitious education goal cannot be achieved by governments alone. They will need the support of all stakeholders, including non-state actors' (UNESCO, 2015, §86).

Despite the understanding that fulfilling the right to education requires multiple stakeholders and that the role of non-state actors has increased over the past 30 years, non-state involvement in education generates passionate debate, particularly over two key concepts: the extent to which education is a public or private good, a form of investment or consumption; and how to interpret the right to education with respect to its implications for state and non-state actors' responsibilities.

Governments take on the high cost of delivering education because of its public good qualities – in other words, the wider benefits to societies and economies. An educated workforce helps develop the economy, while public schools develop and strengthen a sense of national identity, superseding and absorbing traditional education structures managed by local communities and religious institutions. Without state provision, individuals might not invest as much in education, reducing societies' potential.

BOX 2:

This report's definition of non-state actors in education is broad

In this report, 'non-state' is a broad, catch-all term describing individuals and organizations involved not only in education provision, but also in education financing and influencing the state's direction in its obligation to fulfil the right to education.

As such, the term is used in reference to:

- Individuals who benefit from and/or pay for education (e.g. users or purchasers of goods and services, taxpayers), provide education (e.g. single school proprietors, homeschooling providers) and express views on its content, modality and delivery (e.g. through participation in school management, through the political process).

- Private corporations, which provide education-related goods and services (as owners or managers) and which finance (directly and indirectly) and influence education.

- Philanthropic foundations, independent of private entities under their direction, which mainly influence education policy, but also play limited roles in provision and financing.

- Non-governmental, civil society, trade union and faith-based organizations, which may provide, finance and influence education.

- Academics, researchers and think tanks, even if financed by government, who generate evidence and knowledge on education.

- The media, which exert influence in the debate on the role of non-state actors in education.

This description makes it clear that the terms 'non-state' and 'private' are not interchangeable. Rather, private actors are a subset of non-state actors.

But education also has strong private good qualities. Consuming more education improves an individual's opportunities. Education is a vehicle for differentiation and advancement. Those who manage to climb the education ladder are better placed to improve their standard of living. As education systems cannot accommodate everybody on the higher rungs, families do everything they can to ensure that their offspring make it to the top.

Such competition generates demand, which in turn leads to supply of education goods and services. Depending on national context and disposition, markets may emerge in direct provision of education or in other services that confer advantage, such as supplementary tuition. Governments differ in the extent to which they provide sufficient financing for education – or, alternatively, facilitate provision of education goods and services by non-state actors – as a means of respecting, protecting and fulfilling the right to education.

This right encompasses both entitlements and freedoms. Individuals have a right to free and compulsory education, whose duration varies by country. But also recognized are individuals' rights to establish schools and to choose the type of school they prefer for their children, in line with their religious and moral convictions, as long as these schools meet minimum government standards. Four principles have been associated with fulfilment of the right to education. There have to be enough schools with *appropriate* infrastructure, trained teachers, and teaching and learning materials; the schools have to be *accessible* to all, without discrimination or physical, technological or financial obstacles; curricula and teaching methods have to be *acceptable*, relevant, culturally appropriate and of good quality; and education has to be flexible and *adaptable* to changing societal and community needs (OHCHR, 1999).

Yet if countries are responsible for meeting these principles, questions arise on how they should intervene. Should they provide, finance or regulate education? All of these? In what mix? At what point might such activities violate the right to education? While governments have a duty to respect, protect and fulfil their citizens' right to education, a wide range of non-state actors with a variety of forms, arrangements and motivation, from charity to profit, play a significant role in many education systems. Their activities may or may not involve collaboration with the government. Should non-state actors' participation in education be encouraged, contained or prevented? The answers, which may be specific to country context, education level and type of activity, were explored in depth in the 2021/2 GEM Report.

Whether, in addition, non-state activity accelerates or slows down progress towards gender equality in education is also context-specific. Where government commitment to gender equality is lacking, some non-state actors are at the forefront of fighting discrimination in education on the basis of gender, sexual orientation, gender identity and gender expression. By contrast, in countries where governments actively promote gender equality, non-state actors may support social forces that instead try to preserve the status quo. For instance, governments may allow cultural, ethnic or religious communities to run schools, although some of these schools may controversially seek exceptions from the national curriculum, for instance in science or civic education. Market forces have been associated with both progressive and regressive social norms.

Such inconsistency in the effects of non-state activity often stems from dilemmas inherent in the right to education. Some groups would prefer education to be adapted to their beliefs and principles. Parents may make a case for separate and non-state provision due to concern that the local public school threatens the values of the cultural, ethnic or religious community in which they want to raise their child. Governments may argue that this conflicts with their commitment to ensure equitable and inclusive education and interferes with their ability to apply uniform standards in an effort to provide the same quality of education to all children, without exception.

The remainder of this report describes a range of contexts in which non-state actors strengthen or undermine efforts to achieve gender equality in and through education. The following three sections are organized by education level. First, the gender aspects of the large role non-state actors play in early childhood care and education are examined, including employer-supported and community-based childcare programmes. Second, issues related to primary and secondary education are reviewed, with special reference to private enrolment disaggregated by sex, parental choice and the impact of non-state faith-based schools on gender equality in Asia. Third, at the post-secondary level, the role of private women's universities is discussed, including aspects related to curriculum and pedagogy. Finally, the role of non-state actors, such as non-governmental organizations, parents and teacher unions, in promoting – and sometimes obstructing – gender equality in education is reviewed.

Children with their teacher at the Day Care Center for Low Income Working Moms at Baonia Badh / Barrage, Dhaka on 29 January 2017.

CREDIT: UNICEF/Mawa

Non-state provision of early childhood care risks perpetuating unequal gender norms

Care and education of young children have traditionally been seen as the responsibility of the family and especially women, under the strong influence of unequal norms, standards and expectations about gender roles. For instance, among the countries that took part in the World Values Survey between 2017 and 2020, 43% of adults agreed or strongly agreed that children suffered if their mother was working, and the share was more than 80% in Bangladesh, the Plurinational State of Bolivia and Jordan. In Pakistan, 56% of adults strongly agreed, while 54% of adults in Norway strongly disagreed (**Figure 15**). About 40% of adults in Ethiopia and Kenya and 72% in Zimbabwe agreed or strongly agreed with the statement that it is a man's job to earn money and a woman's job to take care of home and family.

As a result of such norms, gender factors strongly determine the division of tasks related to home, family and childcare. In Europe, 68% of men but 92% of women aged 25 to 49 take care of their children every day. Globally, women perform 76% of unpaid care work hours, over three times more than men. In some countries, men's contribution to unpaid care work has increased over the past 20 years. In the 23 countries providing such data, the gender gap in time spent on unpaid care responsibilities has decreased by 7 minutes per day over the past two decades (ILO, 2018a).

Gender norms affect the gender composition of the childcare workforce. In the European Union, 7% of the childcare workforce is male, but that includes after-school workers and teaching assistants (Eurostat, 2021). The feminization of the childcare workforce is partly due to established gender stereotypes, which translate into the common belief that looking after young children is a natural job for women, especially young women who perform poorly at school. In some surveys, childcare workers see themselves as manual or low-skilled workers (Penn, 2022). Meanwhile, men working in childcare express considerable ambiguity about their role, tending to see themselves and be seen by female colleagues as unusual (Thorpe et al., 2018).

The view of mothers as carers has even permeated psychology, through attachment theory, and sociology, where the phenomenon of working mothers was once researched as abnormal behaviour. While women have won the right to work, the consequences of their entry in the labour market, in particular the need for state financing and provision of childcare, are yet to be fully accepted by most governments. Childcare is too often seen as a private matter, where formal or informal markets are expected to provide solutions (Penn, 2022). This is despite the evidence that services of good quality can provide children, especially disadvantaged children, with additional developmental benefits, such as socioemotional and cognitive stimulation. Early childhood care and education (ECCE) services can also free mothers' time for formal work, making such services' development even more urgent, given the potential economic gains for families and economies.

In the absence of public provision, many families are willing to pay for access to services offered by private providers, non-governmental organizations (NGOs), faith-based organizations and community groups. But a strong non-state role in ECCE provision can entrench unequal access at disadvantaged groups' expense, and also perpetuate unequal gender norms, in particular the stereotype of a mother who must either look after her children herself or seek alternative care, rather than being an active and responsible participant in the collective enterprise of looking after young children.

FIGURE 15:

Unequal gender norms about women's home and family responsibilities are still rife

Percentage of adults who agree that children suffer when the mother is working, selected countries, 2017–20

Legend:
- No answer
- Don't know
- Strongly disagree
- Disagree
- Agree
- Strongly agree

%
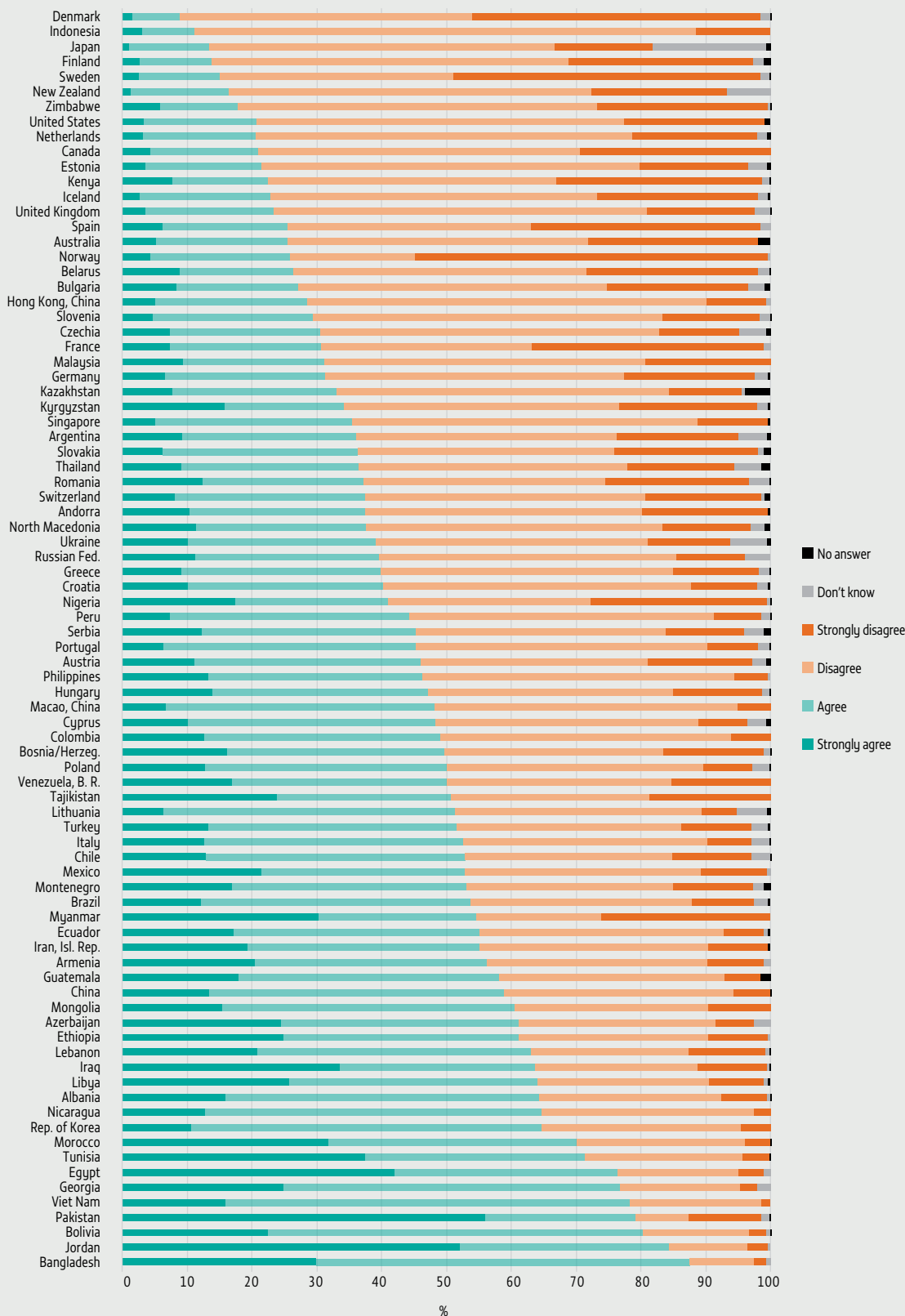
Source: World Values Survey, Wave 7.

Conversely, the logic of the marketplace assumes that mothers are consumers, exercising choice over the goods they purchase, which in turn affects providers' responsiveness. But research has shown that mothers are captive consumers, since they are less likely to be mobile and less able to make free choices, having a strong preference for local services. They also tend to be unwilling to change ECCE providers, partly because they may dislike admitting that the care they chose for their child is unsatisfactory and partly because changing providers is an upheaval, requiring time off work to find a new provider and to settle a young child into a new regime (Plantenga, 2013). As captive consumers, mothers cannot, in reality, exercise much choice or influence providers regarding service quality (Penn, 2022).

Childcare is more likely than early childhood education to be viewed as a marketable commodity, but this has consequences. In low- and middle-income countries, where there is little tradition of state childcare provision, childcare services tend to be provided by unlicensed entrepreneurs and are often unrecorded and overlooked. By contrast, in several high-income countries, childcare markets are increasingly formalizing, consolidating and even globalizing. But the private for-profit sector's claimed flexibility to respond to demand comes at the potential cost of lower quality and, as shown during the COVID-19 pandemic, increased volatility (Stephens, 2020).

NON-STATE ACTORS LEAD CARE AND EDUCATION SERVICES FOR CHILDREN UNDER 3

Standardized, comparable data on care and education services for the youngest children are scarce because of the variety and, often, the informality of some types of provision. Such services are formally defined as having an adequate education component, i.e. services provided by trained or accredited staff with pedagogical qualifications, for at least 2 hours a day and 100 days a year. Whether available in school-, centre- or home-based settings, they should be governed by a regulatory framework recognized by national authorities. However, some countries recognize programmes that are integral to ECCE systems but whose education component is inadequate. Other countries have informal settings or unregistered ECCE services, which are not included in data but are vital to some families in terms of the education they provide.

In high-income countries, non-state actors have dominated care and education services for the youngest. Private institutions in 33 high-income countries accounted for 57% of enrolment of children under 3 in 2018. The phenomenon has historical roots. In France and Italy, private charities and churches introduced ECCE services before the state gradually enacted legislation introducing and expanding state services (Kamerman, 2006).

In Australia, Ireland, the Netherlands, New Zealand and the United Kingdom, the for-profit private sector is mainly responsible for non-state ECCE provision. In New Zealand, private institutions account for 99% of enrolment of children under 3. Among them, the share of for-profit services increased from 23% in 2002 to 41% in 2019, at the expense of community-owned services (Gallagher, 2017; Neuwelt-Kearns and Ritchie, 2020). In the United Kingdom, 82% of young children are enrolled in private institutions. In England, private companies accounted for 755,000 childcare places, or 46% of the total, in 2019. The value of the childcare market that year was estimated at GBP 6.7 billion, with private for-profit providers accounting for 82% of the sum (Department of Education, 2019; LaingBuisson, 2020). Expansion of private sector involvement in the past several years entails risks for service quality (**Box 3**).

In many countries, faith-based organizations and NGOs are the main providers of care and education for children under 3. In Germany, of the 73% enrolment in private institutions in 2017, about one third of providers were Catholic or Protestant church programmes (Blome, 2018; Strehmel, 2019); another third were NGOs; and only 3% of providers were in the for-profit sector (European Commission/EACEA/Eurydice, 2019).

BOX 3:

Growth in for-profit childcare provision in the United Kingdom could undermine equity and quality objectives

In the United Kingdom, as in much of the English-speaking world, delivery of childcare services has relied on the private for-profit sector. Companies have been growing through mergers and acquisitions financed through debt (Simon et al., 2022). *Nursery Chains*, a trade magazine ranking the top 25 childcare companies with the most settings and places, covered 70 companies in 1998 but 179 in 2018. In 1998, those 70 companies offered 33,500 total places; in 2018; the largest company alone, Busy Bees, offered 31,500 places. As the sector is seen as profitable, there is a strong international presence. A British company, Just Childcare, has been bought by Partou, the largest Dutch childcare provider, and La Maison Bleue, one of the three largest French childcare companies, is aiming to acquire 50 settings in the United Kingdom (Penn, 2022). A market research firm found that 59% of nursery owners felt 'positive' or 'fairly positive' about the market's future and 52% were interested in buying a nursery business in 2021, while only 22% were interested in selling (Business Money, 2021).

A preoccupation with cost-effectiveness means private providers have no incentive to serve equity objectives and may be prompted to cut corners on service quality. A review of 80 nurseries' websites, market research reports and interviews with senior executives showed that not-for-profit providers were more concerned than for-profit companies with serving vulnerable and disadvantaged children, and had more parents and staff on their boards (Simon et al., 2022).

The quest for cost-effectiveness and a larger market share also has negative effects on quality. For instance, low-paid and unqualified apprentices are commonly used in the privatized childcare industry to fill staff gaps. Low pay is common: 43% of childcare workers received less than the national minimum wage in 2018. This share, the highest among all occupations, had risen by eight percentage points in just two years (Low Pay Commission, 2021). For-profit nurseries had up to 14% lower staff costs than not-for-profit ones (Simon et al., 2022). Lack of unionization makes collective bargaining extremely difficult. At the opposite end, childcare companies generally assign senior management roles to men with financial expertise but no understanding of the services, rather than to childcare staff who have worked their way up in the organization (Penn, 2022).

Home-based services are a major part of ECCE provision in several countries (Kaneko et al., 2020). In 2012, 30% of children under 3 in the United States were in home-based services: 15% with an unpaid provider with whom the child had a prior relationship, 7% with a paid provider with a prior relationship and 7% with a paid provider with no prior relationship (Paschall, 2019). In 2019, 26% of children under age 3 in the European Union received childcare provided by a professional childminder at the child's home or at the childminder's home, as well as care provided by relatives, friends or neighbours: 19% for less than 30 hours a week and 7% for 30 hours or more (Eurostat, 2021). In France, childminders are the main care providers for children under 3. Families pay them directly but can receive a subsidy through a supplement to the childcare allowance, whose size is based on family income (European Commission/EACEA/Eurydice, 2021).

Although state provision dominates in Finland, enrolment with private providers increased from 13% in 2013 to 24% in 2019. While private provision includes local businesses and non-profit providers, the introduction of chains has fuelled its growth. The combined revenue of the three biggest for-profit chains increased from EUR 46 million in 2015 to EUR 146 million in 2019 (Ruutiainen et al., 2021). This rise is linked to a parental allowance for private services and increased outsourcing of ECCE services by municipalities seeking to reduce costs and promote parental choice based on interest areas (e.g. language and music), alternative pedagogies (e.g. Montessori) and location convenience (Kumpulainen, 2018). Israel's early childhood educational development gross enrolment ratio almost doubled from 33% in 2013 to 62% in 2018. But only 25% of infants and toddlers were in certified day-care centres, which are the responsibility of the Ministry of Labour, Social Affairs and Social Services and must meet specific criteria (Vaknin, 2020).

While the share of non-state provision has remained stable or slowly increased in many high-income countries, it has decreased in Chile and Denmark. In Chile, the share of private enrolment decreased from 30% in 2013 to 10% in 2018, while the gross enrolment ratio increased from 19% to 25%. About 23% of all ECCE centres are managed by the private, non-profit Integra Foundation, which receives state funding directly and through an administrative agreement (Chile Undersecretary of Early Childhood Education, 2019). The Chile Crece Contigo

(Chile Grows with You) programme, which the government introduced in 2009, extended access to ECCE provision to vulnerable children under 4 (Chile Government, 2021).

Informal arrangements with relatives, such as grandparents and siblings, or with friends, neighbours, babysitters or nannies remain common, especially in countries with little ECCE provision. In OECD countries, 26% of children under 3 are in informal childcare arrangements (OECD, 2019). In the United Kingdom, where 35% of children were in informal childcare as of 2014, grandparents were the most common carers, sometimes in combination with formal provision, which could suggest after-school care (Simon et al., 2015). However, such informal arrangements are not included in the definition of ECCE. Care by untrained nannies and domestic workers is problematic, as they may not be able to provide developmentally appropriate care. About 10% of domestic workers in the United States are nannies. Their median age is 26, they are likely to be women, and they receive the lowest pay among all domestic workers (Wolfe et al., 2020).

In 33 middle-income countries, 19% of children under 3 are enrolled in early childhood educational development programmes; non-state actors account for 46% of enrolment, with national shares ranging from less than 2% in Azerbaijan, the Russian Federation and Ukraine to 100% in Dominica and Turkey, albeit at low enrolment levels. In Jamaica, all ECCE services are run by for-profit, religious and not-for-profit private providers (World Bank, 2019). In South Africa, where 38% of children under 4 are in formal childcare, according to the 2018 General Household Survey, anecdotal evidence suggests most provision is private and often not registered, especially for disadvantaged populations (Alfers, 2016; Statistics South Africa, 2019).

Small-scale, community-based childcare programmes also provide ECCE. In Uganda, 7% of ECCE centres are community-based (Uganda Ministry of Education and Sports, 2017). Governments have embraced and developed such programmes to leverage the potential of an approach that integrates care, education, health and nutrition (Hayden and Wai, 2013). For example, in Latin America, such programmes became popular in the 1980s in Colombia (Hogares Comunitarios de Bienestar), Guatemala (Programas Hogares Comunitarios) and Nicaragua (PAININ) (Diker, 2001). In Peru, where 17% of enrolment was in private institutions in 2019, government and communities jointly run the Cuna Más home visiting programme, offering childcare, education playgroups and comprehensive care, including nutrition, safety, protection and health (Josephson et al., 2017).

In the poorest countries, many children receive little to no care. In Chad and the Democratic Republic of the Congo, half of children under 5 had been left alone or with a sibling in the past week. The use of siblings as caregivers can hamper the older sibling's schooling and right to play, and siblings' inexperience can have negative implications for the young child's learning and well-being (Gromada et al., 2020).

EMPLOYER-SUPPORTED CHILDCARE SERVICES ARE RARELY MANDATED OR AVAILABLE

Employers may support childcare by providing time (e.g. leave, flexible working arrangements), cash (e.g. vouchers, discounts) or services run or sponsored by the company on- or off-site. Such services can benefit from tax incentives through deductions or credits and from subsidies, in-kind support and a positive public image (IFC, 2019; UNESCO, 2020c). They may make up for weak public provision, especially in middle-income countries, while helping companies reduce absenteeism and increase employee retention and productivity. In Jordan, a company recorded reduced absenteeism and turnover within the first months of establishing an on-site day-care centre (IFC, 2019).

Yet laws require at least some employers to support or provide childcare for employees in just 26 of 189 countries, of which 8 are in Northern Africa and Western Asia. In some countries, employers must provide ECCE services for children until a certain age, e.g. age 2 in Chile and Paraguay (IFC, 2019).

In Asia, the situation varies. Work-based childcare centres in Bhutan involve a partnership between companies, UNICEF and the Ministry of Education (Tshomo, 2017). Operational guidelines state that the centres may not charge fees other than those approved by the ministry (Rao et al., 2020). India's Maternity Benefit Act (1961, 2017 amendment) requires all employers with 50 or more employees to

provide childcare services for children under 5 on company premises or in the employees' community. The government provides tax incentives, implementation guidelines and sanctions for non-compliance, but employers say they lack guidance on quality issues, such as curriculum, standards and selection of third-party providers (IFC and Bright Horizons, 2019). Sri Lanka's 1939 Maternity Benefits Ordinance obliges employers 'with a prescribed number of women workers' to establish and maintain a crèche (IFC et al., 2018). In practice, employers tend to outsource ECCE services to private preschool providers. Some employers have developed a 'workplace consortium model' to share operational costs (Warnasuriya et al., 2020).

Mandates for such services are often not enforced. In Cambodia, employers with at least 100 female employees are supposed to establish a day-care centre or cover employees' day-care costs. However, an assessment of factory compliance found that 43% had no functioning nursing room or day-care facility and paid no childcare allowance. Another 38% had no functioning nursing room but paid a childcare allowance, although in more than 40% of those cases, payments were lower than stipulated (ILO and IFC, 2018). Another survey found that just 22% of firms with more than 100 female employees had on-site or nearby childcare, and that among the 47% of companies that reported paying a childcare allowance, the amount ranged from US$3 to US$25 per child per month (IFC, 2020).

International programmes try to encourage governments to adopt employer-supported childcare policies or to sensitize companies. Better Work is an initiative of the International Labour Organization and the International Finance Corporation aimed at garment workers, who are mostly female, in 12 countries. In Jordan, where women make up 73% of the industry's workforce, partners supported the establishment of day-care facilities in garment factories (Better Work, 2020). The Gender Equality Seal for Public and Private Enterprises, launched in 2009, is a partnership among governments, employers and UN agencies that seeks to promote gender equality and women's empowerment in business. To get the seal, companies need to have a policy and plan of action for gender equality and undertake an internal organizational assessment of their practices. More than 600 companies in Latin America have taken part in the programme, along with 11 countries from other regions (UNDP, 2021). Empresas que cuidan (Companies that Care), a UNICEF initiative, brings together companies in Argentina to promote innovative practices for staff who are caregivers. Its online platform provides employers with a diagnosis of their care policies and, based on the results, creates a plan with recommendations and offers materials and resources (UNICEF, 2021).

A key challenge is that work-based ECCE services are linked to formal employment, but the formal sector accounts for 39% of the world's employed population and 30% in low- and middle-income countries (Devercelli and Beaton-Day, 2020; ILO, 2018b). Thus those in informal employment, as well as many of the formally self-employed, are left behind. In 42 markets in Accra, Ghana, women working as porters, street vendors and traders have limited childcare options, with just 7 centres, of which 3 are for-profit (private institutions account for 98% of Ghana's gross enrolment ratio in ECCE services for young children). The cost can be high, especially without support from the municipality or the Market Traders Association (ILO and WIEGO, 2019). The need for childcare provision in African cities' informal settlements, such as those in Nairobi, Kenya, is a major policy concern (Hughes et al., 2021). In Gisenyi, Rwanda, UNICEF and Action pour le Développement du Peuple, a national NGO, established six ECCE centres near markets where mothers working as traders across the border in the Democratic Republic of the Congo can leave their children under the supervision of trained caregivers (UNICEF et al., 2021).

Some governments partner with NGOs, unions, faith-based organizations and communities to run childcare centres. The Self-Employed Women's Association, a trade union in India, has created a cooperative in charge of 13 day-care centres. Although parents pay a monthly fee, funds also come from the association, donors and public subsidies. Mobile Creches, an NGO in India, offers care for children of construction workers, who are usually in the informal sector, in partnership with the government and companies. In Mexico, Programa Estancias Infantiles para Apoyar a Madres Trabajadoras y/o Padres Solos (Day-Care Centre Programme to Support Working

Schoolchildren smile in an Islamic school
in Nakhon Sri Thammarat, Thailand.

CREDIT: Tarik Abdel-Monem

Non-state actors often preserve gender barriers in primary and secondary education

The UNESCO Institute of Statistics (UIS) is the main source of data on enrolment in public and private institutions. It defines private education institutions as those that are 'not operated by a public authority but controlled and managed, whether for profit or not, by a private body (e.g. non-governmental organization, religious body, special interest group, foundation or business enterprise)'. The share of private institutions worldwide increased by 7 percentage points in about 10 years, from 10% in 2002 to 17% in 2013 in primary education and from 19% in 2004 to 26% in 2014 in secondary education, but has since remained roughly constant. As of 2020, the share stands at 19% in primary and 27% in secondary education.

There is significant regional variation. Central and Southern Asia is the region with by far the highest share of private enrolment: 36% in primary and 48% in secondary education in 2019. The share generally does not exceed 20% in other regions. Central and Southern Asia has also experienced the largest absolute increases since 2000. The fastest increases in primary education private enrolment, with shares doubling or more, were observed in Northern Africa and Western Asia and in Eastern and South-eastern Asia, though the shares in both regions

remained among the world's lowest at about 10%. Europe and Northern America had the lowest rate of increase in primary private enrolment (remaining constant at about 10%) but the highest rate of increase in secondary private enrolment (from 9% in 2006 to 15% in 2014). The share of private institutions grew more slowly than the global average in sub-Saharan Africa and in Latin America and the Caribbean.

Interesting gender patterns in enrolment in private institutions can be observed. Globally, slightly more boys than girls are enrolled in private institutions at both the primary level (a gap of 1.5 percentage points) and the secondary level (a gap of 1.9 percentage points). But there is variation among countries, with strong regional characteristics. For instance, more girls than boys go to private schools, reflecting the presence of girls' private schools, especially at the secondary level, in Central and Western Africa (including in Burkina Faso, Cameroon and Togo), in Europe (including in Austria, the Czech Republic and Germany) and, especially, in the Caribbean. In Grenada, 75% of girls but 51% of boys are in private secondary schools, whereas in Saint Vincent and the Grenadines the gap in favour of girls is six percentage points.

By contrast, in South Asia, there are more boys than girls in private schools in secondary and, especially, primary education. India has the region's biggest gaps, of around six percentage points at both levels (47% vs 41% in primary and 55% vs 49% in secondary education). The same is observed in Western Asia, notably in the Gulf States, but also in Israel, Palestine and especially Jordan, where the gap is 10 percentage points in primary (39% vs 29%) and 8 percentage points in secondary (25% vs 18%) (**Figure 16**).

In some regions and countries, including India, the gap may reveal biased gender preferences, the result of some families prioritizing boys in education spending decisions (**Box 4**). In other regions and countries, the gap stems from a prevalence of non-state faith-based schools along with families' preference for enrolling either boys or girls.

NON-STATE FAITH-BASED SCHOOLS IN ASIA HAVE INCREASED GIRLS' ACCESS, BUT AT WHAT COST?

Several decades ago, gender disparity in education was high in many Muslim-majority countries in Asia, including Bangladesh, Indonesia and Malaysia. Significant progress to increase access and close gender gaps has since been achieved, in partnership with non-state faith-based providers.[1]

Rising enrolment of girls in *madrasas* helped relax social constraints on women's mobility in conservative rural areas (Asadullah and Wahhaj, 2012). In such areas, *madrasas* have been low-cost platforms to achieve universal education. In Indonesia, *madrasas* have been open to girls for a hundred years. They provide education from preschool to university, combining religious studies and women's rights programmes, preparing graduates to be spiritual leaders. There are now nationwide networks of institutions led by female religious leaders with influential power (Asadullah and Maliki, 2018).

Yet *madrasas* can also cancel out some of the positive impact on gender equality from increased education access. First, their curricula and textbooks may not be gender-inclusive, instead reinforcing traditional narratives on gender roles, as studies have shown in Bangladesh, Indonesia, Malaysia, Pakistan and Saudi Arabia (Asadullah et al., 2018; Ghalib, 2017; Suwardi et al., 2017). Second, their teaching and learning practices, such as gender segregation and gender-specific restrictions on social interactions, may leave the impression that such gender-unequal practices are socially acceptable more broadly. Third, their teachers may lack training to address gender issues and may act as negative models, for instance affecting students' attitudes to fertility. Fourth, the more traditional institutions may have restricted environments with limited exposure to progressive role models and media. Reproducing traditional gender norms discourages participation in further education and employment. What happens inside faith-based institutions has implications for the persistence of patriarchal norms and attitudes in society.

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1   This section is based on Asadullah (2022).

FIGURE 16:

More boys than girls go to private schools in South and Western Asia, but vice versa in the Caribbean
Percentage of enrolment in private institutions, by sex, 2016–19

a. Primary education

b. Secondary education
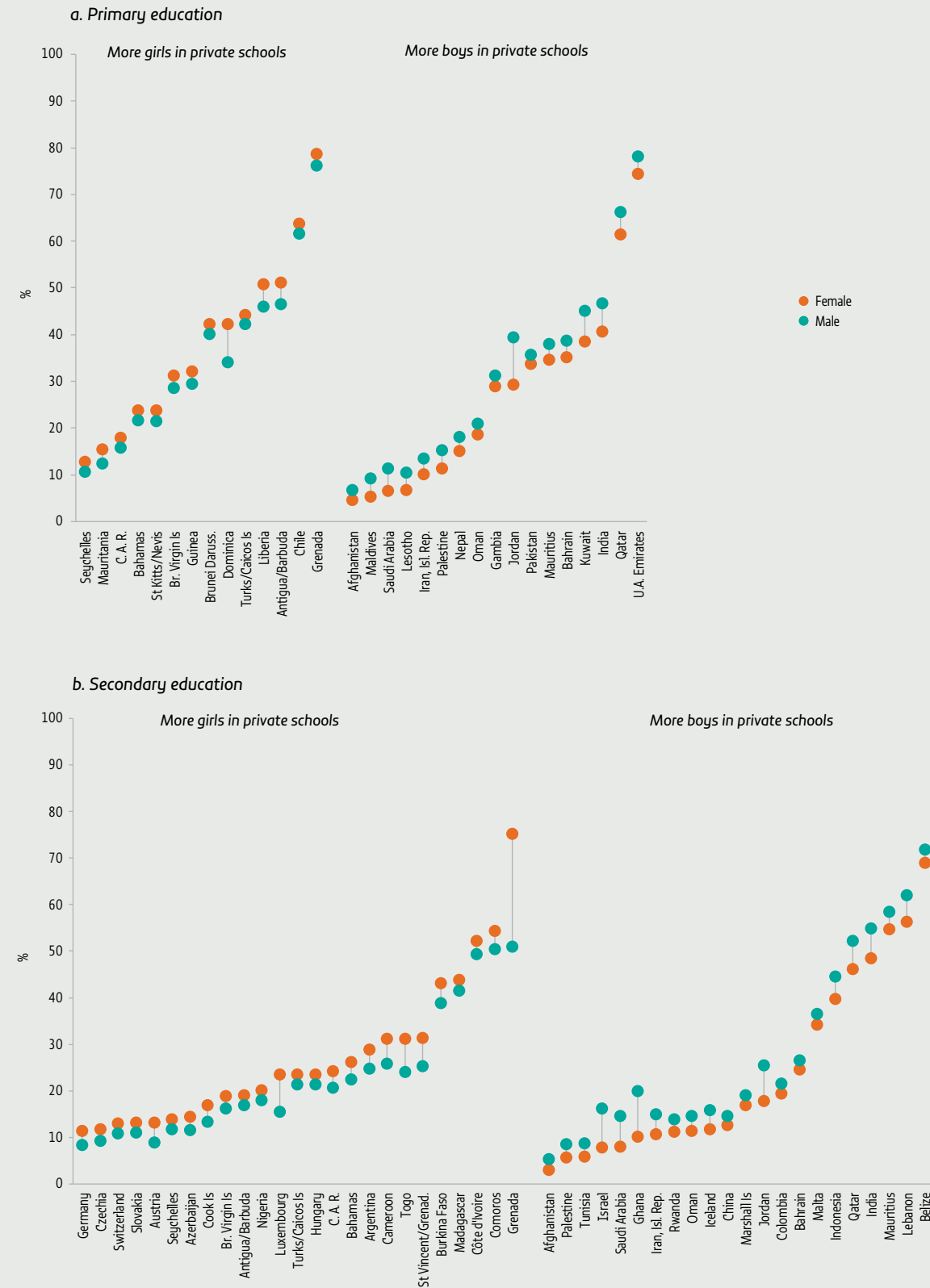
Note: The selected countries had at least a two percentage point gender gap in the share of enrolment in private institutions.
Source: UIS database.

BOX 4:

Intra-household school choice decisions may not be gender-neutral

In some countries, households discriminate between sons and daughters in their education choices.

In South Asia, gender biases favour boys in education. Higher household education expenditure for sons in India and Pakistan tends to reflect decisions to send boys to private schools; spending for children attending public school is equally allocated between boys and girls (**Figure 17**). In India, this pro-male bias is seen regardless of community, caste, income and parental education (Maitra et al., 2016).

Boys may also be more likely to benefit from private supplementary tutoring, including in southern Assam, India (Laskar, 2016), and in Bangladesh. This is implicitly observed in household spending patterns in China, with higher spending for boys, particularly among those attending public school, most likely reflecting a higher propensity to spend on private supplementary tuition for boys to increase their chance of entering university. By contrast, evidence from Macao, China and Hong Kong, China, showed that female students were more likely to receive tutoring (Bray et al., 2014).

Households in Latin America also tend to spend more on girls' secondary education (Acerenza and Gandelman, 2019). In El Salvador, spending is relatively similar for girls and boys at the primary level but much higher for girls at the secondary level, reflecting boys' early school leaving.

FIGURE 17:

In some countries, there are gender gaps in household education expenditure
Household primary and secondary education expenditure as share of GDP, by sex, education level and school type attended, selected countries, 2010s
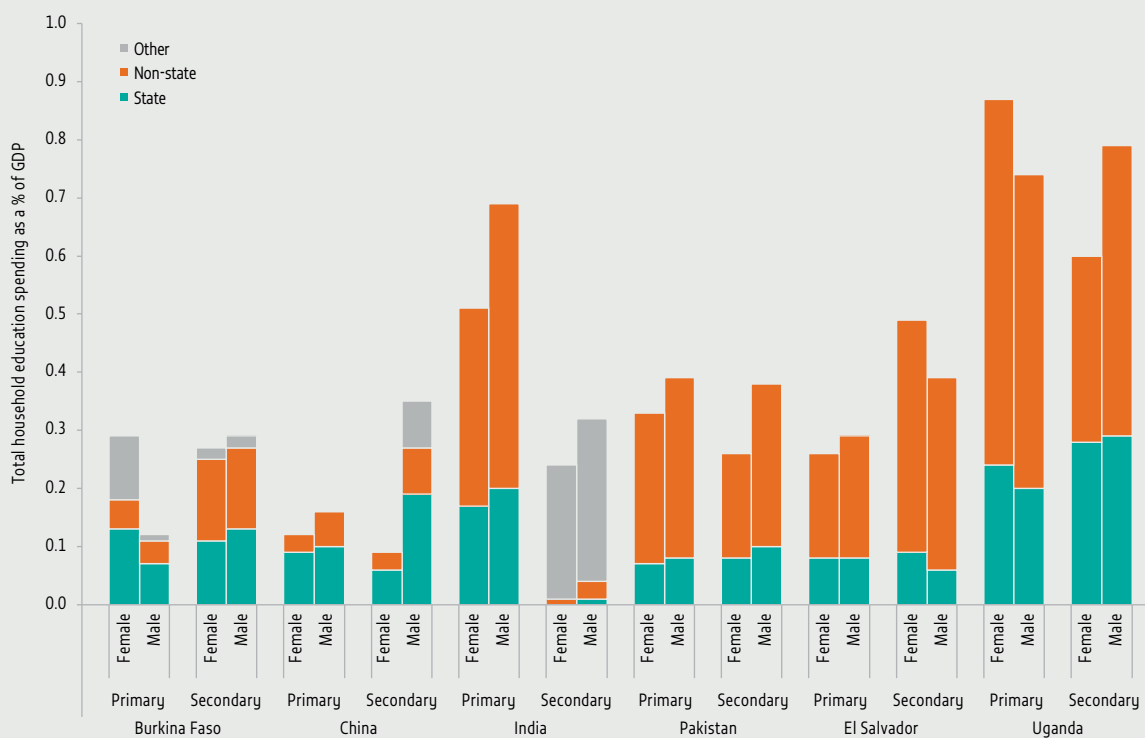
Source: GEM Report team analysis based on Institute for Health Metrics and Evaluation (2021).

At the same time, such potential negative effects should not be exaggerated. It is very difficult to separate the impact of religious belief and socioeconomic background from the impact of non-state faith-based schools on progress towards gender equality. *Madrasa* enrolment has been found to be positively correlated with degree of household religious belief and physical distance from a non-faith-based school. It has also been found to be negatively correlated with household income, reflecting the fact that *madrasas* tend to be situated in rural areas, often the only schools in underserved localities, making it difficult to disentangle their influence from that of the socioeconomic context in which they exist (Asadullah et al., 2015). Their unique cultural and institutional histories, which often blur boundaries between state and non-state institutions, further complicate analysis. Differences between them may entail the school of thought followed, emphasis on scriptures and Islamic sciences, presence of daily rituals, boarding arrangements and attachment to local mosques. These important differences mean experiences are country- and even school-specific.

The non-state faith-based school landscape is complex in Asia

Non-state faith-based schools in Asia often operate in a complex institutional environment. There is not a single type but a variety of institutions, which differ significantly in the education they offer and the financial support they receive. While *madrasas* generally follow a curriculum that promotes a religious way of life, the situation is far from uniform both within and between countries. Some countries integrate *madrasas* with the government curriculum while others stick to traditional models.

In **Bangladesh**, *madrasas* belong to the non-state sector and are split into two types. Registered, formal *alia madrasas* operate at different levels (primary/*ebtedayee*, secondary/*dakhil*, higher secondary/*alim*, and post-secondary) and many operate across levels. They are managed by the Ministry of Education. In 2018, there were 4,300 primary and 9,300 post-primary *madrasas* in the *alia* system. They accounted for 4% of primary and 20% of secondary enrolment, down from almost one third in 2009. While 86% of *alia madrasas* are in rural areas (BANBEIS, 2018), so-called 'cadet' English-medium *madrasas* have recently emerged in urban areas (Badrunnesha and Kwauk, 2015).

Alia madrasas follow Madrasa Education Board regulations on teacher appointment, curriculum, textbooks and assessment. As there is a significant overlap with school curriculum, students can freely transfer from *madrasas* to schools without difficulty. Students are eligible for a stipend upon successful completion of a competitive examination at the end of primary and lower secondary school. Non-state *alia madrasas* are state-funded to some extent. The government pays teacher and administrator salaries of 35% of primary and 82% of post-primary *madrasas*. Primary *madrasas* also receive smaller amounts for teacher salaries. Only 25% receive block grants for infrastructure and operations, while far fewer of their students receive stipends.

Unrecognized, non-formal and usually mosque-based *qawmi madrasas* are managed by the Ministry of Religious Affairs. Estimates of their number vary, but a recent survey reported some 14,000 (BANBEIS, 2018). Such estimates may exaggerate the number of students, especially as some children are enrolled in both *qawmi madrasas* and other schools. A study of rural Bangladesh estimated the share of *qawmi* students in total *madrasa* primary and secondary enrolment at 4% or less. But *qawmi madrasas* are prevalent in pre-primary education (Asadullah and Chaudhury, 2016).

Qawmi madrasas follow non-formal curricula, which is not grade-based and has no clear time sequence. While some lessons are offered on non-religious subjects up to grade 8, they are irregular. Most textbooks are approved by the Bangladesh Qawmi Madrasah Education Board (Befaqul Madaris Arabia), established with the intention, but without the capacity, to regulate quality. It and six other boards were placed under the umbrella of Al-Haiyatul Ulia Lil-Jamiatil Qawmia Bangladesh in 2017. *Qawmi madrasas* are financially independent, relying on non-state donations and charity from undisclosed sources; remittances from migrants in Arab countries are a key source.

In **Indonesia**, there are broadly three types of Islamic faith-based education institutions. First, private Islamic schools (Sekolah Islam), supervised by the Ministry of Education, Culture, Research and Technology, offer education of a comparatively high standard at high fees, focusing on general subjects, allocating four to five hours a week to religious subjects (compared with two in public schools) and aiming to offer an Islamic ethos.

Second, public and private *madrasas* supervised by the Ministry of Religious Affairs follow a nationally approved curriculum, of which 70% is general and 30% religious. They are available at the primary *(ibtidaiyah)*, junior secondary *(tsanawiyah)* and senior secondary *(aliyah)* levels. Public *madrasas*, which are the minority, benefit from unit cost support, which covers investment costs, including land, along with salary and other recurrent operational costs and scholarships. Only selected private *madrasas* committed to some transformation plan are eligible for such funds. But both public and private *madrasas*, as well as private Islamic schools, are eligible for operational assistance funds granted by the central government, which follow a capitation formula, and operational assistance funds granted by local governments, which follow no guidelines.

Third, non-formal *pesantren* focus on religious subjects, although some offer general and vocational subjects. Many have boarding facilities *(pondok)*. Their curriculum remains outside the influence of the Ministry of Religious Affairs. Some are unregistered. *Pesantren* are eligible for local government grants and for grants from the Ministry of Religious Affairs. The 52,000 registered *madrasas* and 116,000 registered *pesantren* account for 40% of all primary and secondary education institutions.

Faith-based institutions also differ by their attachment to specific organizations: Those affiliated with Nahdlatul Ulama are more traditional while those linked to Muhammadiyah are considered relatively modernist and those affiliated with Jaringan Sekolah Islam Terpadu offer an integrated secular curriculum within an Islamic moral framework (Muttaqin et al., 2020; Tan, 2014).

In **Malaysia**, demand for *madrasa* education is relatively moderate. As of 2020, 6% of all institutions are Islamic faith-based primary and secondary schools. They are mostly concentrated in Kelantan and Terengganu states. Government Islamic faith-based schools are known as Sekolah Agama. Other types of Islamic faith-based schools include State Religious Primary or Secondary Schools, People Religious Primary or Secondary Schools, Maahad Tahfiz schools, government-aided religious schools, private religious schools and *pondoks*. Financial assistance is allocated to public schools in the form of capital grants, grants in aid and capitation grants. Private faith-based schools do not receive any government support, except inasmuch as low-income students may be eligible to apply for allowances.

Non-state faith-based schools are linked to gender-unequal outcomes
New analysis for this report looked at evidence linking faith-based schools, especially the non-state variety, with progress towards or stagnation in gender equality in their societies.

A study comparing female secondary school and *madrasa* graduates found that the latter held less favourable attitudes towards higher education for girls and working mothers, considered raising children to be wives' main responsibility, believed the optimal number of children was up to God and indicated a preference for large families (Asadullah and Chaudhury, 2010). Further analysis suggested that *madrasa* students, especially from unrecognized institutions, held less favourable attitudes about women and their abilities than did their peers in secular schools. Teachers in traditional *madrasas* were found to have a significantly larger families (Asadullah et al., 2019).

In **Bangladesh**, there was a six percentage point gap in lower secondary and a nine percentage point gap in upper secondary education completion in 2000, at the expense of girls. By 2020, they were exceeding boys' completion rates by 15 percentage points in lower secondary and had closed the gap in upper secondary. Much of that change is attributed to secondary school stipend programmes for girls, including *madrasa* students, that were introduced in the mid-1990s.

However, traditional gender attitudes were more common in *madrasas*. For instance, 55% of community religious leaders and 63% of *madrasa* teachers, but 69% of schoolteachers, agreed in a survey in the mid-2000s that women should have equal or better education chances than their husbands. Still, students may not be affected by such attitudes. A 2014 survey of women in their 20s and 30s found *madrasa* graduates' norms were no different and had even become slightly more progressive than those of school graduates on issues such as employment, education, adolescent development and marriage. For instance, 21% of *madrasa* graduates and 26% of school graduates believed boys required more nutrition than girls to be strong and healthy (**Figure 18**).

The nature of the data does not help establish causality. It is also likely that, over time, *madrasa* graduates' socioeconomic characteristics converged with those of school graduates. For instance, the two groups hardly differed in age at first marriage, desired marriage age and dowry exposure. And *madrasa* graduates spent more time in education. The lack of significant differences at least suggests that *madrasa* education has had little effect on women's attitudes on gender issues.

In **Indonesia**, using the 2014 wave of a longitudinal household survey, analysis of civic and social attitudes of Muslim respondents aged 18 to 60 who had been schooled up to secondary level showed that *madrasa*-educated individuals, especially men, were more religious and likely to follow a specific religious ideology. The school–*madrasa* gap in civic and social attitudes is larger for men than women. In addition, regarding general trust attitudes in the community, there was a relatively large difference in the percentage of school (69%) and *madrasa* (77%) graduates who agreed that they trusted people of their ethnicity more. In terms of voting behaviour, *madrasa*-educated adults expressed preference for candidates who either were from the same religion or were religious, with a gap of five percentage points for men and seven for women. Among women, the gap was larger in urban areas (seven points) than in rural areas (three points). But as noted above, it is not possible to determine whether such differences in attitudes capture the influence of *madrasa* education or religious belief; for example, *madrasa*-educated women also tend to be more religious, which in turn could explain the observed difference in social attitudes.

In **Malaysia**, a survey of secondary schools and *madrasas* in Kelantan state and the Klang Valley documented differences in female students' and teachers' attitudes on gender, with those in *madrasas* expressing preference for more traditional and gender-unequal norms. For instance, 89% of *madrasa* but 67% of school students agreed that 'a husband should have the final say in important family matters', and 90% in *madrasas* compared with 79% in schools agreed that 'a woman's most important role is being a good homemaker'. Some significant differences were also observed among teachers. About 21% of *madrasa* teachers agreed that 'a woman should tolerate violence to preserve her family', compared with 6% of schoolteachers, while 17% of *madrasa* teachers agreed that boys were more intelligent than girls and 19% that boys were better behaved than girls, compared with 7% of schoolteachers (**Figure 19**).

FIGURE 18:

In Bangladesh, female *madrasa* graduates' gender attitudes did not differ from those of school graduates

Percentage of women who agreed with gender discriminatory statements, by type of education completed, 2014
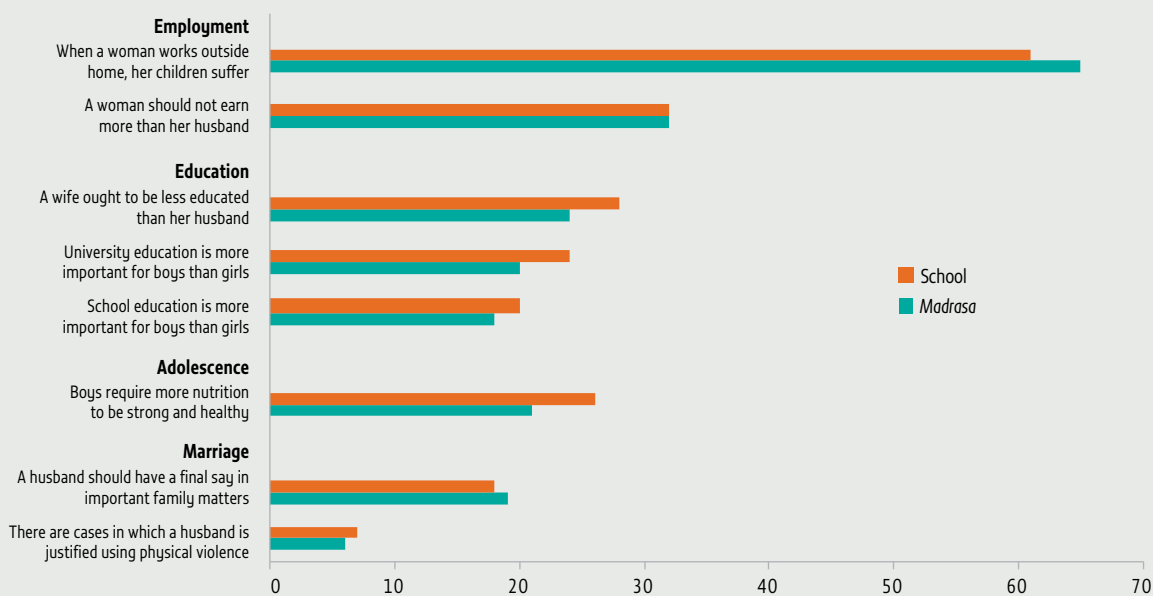
Source: Asadullah (2022).

Evidence, therefore, indicates that *madrasas*, especially those that are in the non-state sector and, in particular, are unregistered, constitute a traditional force with a negative influence on gender equality, a contrast to their positive influence on education access for girls. Governments have tools at their disposal to minimize this potentially negative impact: They can ensure that *madrasas* are all registered and licensed under the same process as schools, that they follow the same curriculum and standards, and that teachers undergo the same training, including training to address gender bias.

Violence in non-state faith-based schools is a concern in South Asia. In India, a 2007 Ministry of Women and Child Development survey of children in 11 states found that at least half the girls had experienced some form of violence, including in private and religious schools (UNICEF, 2016). In Pakistan, sexual abuse in schools and *madrasas* has been a long-standing and pervasive issue (Zafar, 2020), with reports of police being bribed to not pursue justice against clerics (Gannon, 2017).

In other regions, too, non-state faith-based schools, while a core part of education in many countries, can be controversial if they are less open to scrutiny than other schools. Concerns include child neglect, religious teachings with negative social effects, and conflict between cultural groups. For instance, the strong cultural tradition of Koranic schools in western Africa is under scrutiny for failing to protect boys' welfare (**Box 5**). In another example, in England (United Kingdom), the Department for Education has published warning notices to an Islamic school that had separate entrances for boys and girls and segregated children by sex for all classes and activities (Lowrie, 2017) and to a Jewish nursery school that also separated children by sex, reinforcing gender stereotypes (National Secular Society, 2019).

BOX 5:

Boys attending Koranic schools in Senegal are often not protected

Thousands of boys are regularly sent to live as *talibés* in traditional Koranic boarding schools, or *daaras*, in Senegal's main cities, away from family and home. Most *talibés* living and studying at residential daaras are boys between 5 and 15 (Human Rights Watch, 2019b). Girls usually attend non-boarding *daaras (externats)*, although to a lesser extent (Human Rights Watch, 2017).

The *daara* system has become embedded in Senegal due to poverty, a cultural tradition of entrusting children to another adult to raise and the social requirement for children to learn the Koran. *Daaras* remain outside the national education system despite attempts at integration (RFI, 2019). Quality is therefore not scrutinized and, consequently, few *talibés* receive any formal education beyond memorizing the Koran (Human Rights Watch, 2017).

Living conditions in some *daaras* are deplorable, with no food or medical care. Many Koranic teachers exploit their *talibés*, forcing them to beg for daily quotas of money, rice or sugar. In 2018, it was estimated that teachers were exploiting more than 100,000 boys. Having to beg interferes with their ability to study and puts them at risk of street violence. Those who fail to bring back money may be chained, bound and subjected to physical or psychological abuse. An estimated 17 students died from 'violence, acts of neglect or endangerment' in 2017–20, leading to calls for teachers to break silence on the issue (Senghor, 2020).

Local NGOs, with international support, are working to improve *talibés'* lives. Maison de la Gare has provided *talibés* with shelter, food and medicine since 2007. The organization offers programmes to help children integrate into Senegalese society through education, professional training, sports and art activities (Maison de la Gare, 2021). It also investigates where boys came from to try to reunite them with their families (Cohen, 2019).

FIGURE 19:

In Malaysia, female *madrasa* student and teacher gender attitudes were more traditional than those of their school peers
Percentage of females who agreed with gender discriminatory statements, by type of education, 2014

a. Students

b. Teachers
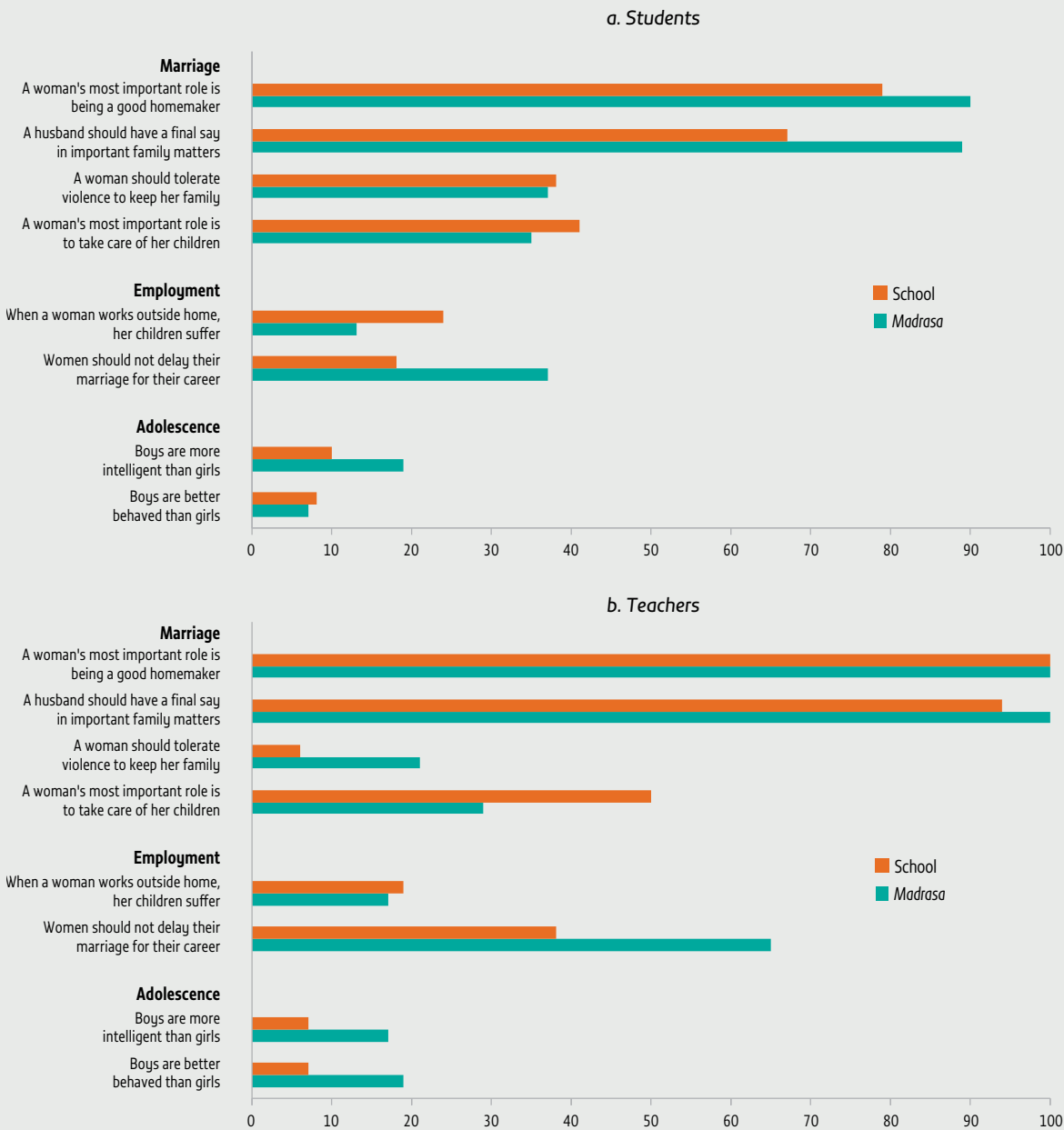
Source: Asadullah (2022).

Syrian refugee students studying nursing at Luminus
Technical University College, Jordan. They say the lab will
help them replicate the environment of a hospital where
they will work in the future.

CREDIT: UNHCR/Lilly Carlisle

Private single-sex universities play an ambiguous role in achieving gender equality

All countries legally permit women to undertake some form of tertiary education. Women are the majority of tertiary students worldwide, although cultural, religious and political factors limit their education opportunities in some regions. Historically, women's colleges and universities were founded to address such barriers to access. Post-secondary education institutions that admit only female students continue this mission today. Depending on national context, they play a range of roles, including providing access to female students who otherwise would not be able to continue their education after secondary school, offering courses of study that are not available at mixed-gender schools, promoting leadership and personal development among students, and establishing campuses with less sexism and gender-based harassment than co-educational institutions. In addition, they have historically been symbols of the value of girls' and women's education.[2]

Single-sex colleges and universities may be entirely private, receiving no financial support from the state; funded by a mix of private and state sources; or entirely state supported. They are distributed unevenly around the world, with many countries having none (Purcell, 2005; Renn, 2014).

Women's higher education in India grew out of the establishment of girls' schools in the late 1800s and efforts to educate women as teachers in academies that were sometimes similar to secondary schools and sometimes more advanced. The founding of Indian Women's University, now SNDT Women's University, in 1916 was a watershed event that began a slow movement to opening stand-alone women's colleges, women's colleges affiliated with co-educational universities (e.g. Lady Shri Ram College for Women and the University of Delhi) and independent women's universities. Government and private institutions in India now make up the world's largest single-sex education sector: There are over 4,500, of which nearly a third are vocational colleges (India Today, 2016). In general, there is no resistance to co-education but religious and cultural forces limit individual women's choices (Renn, 2014, 2017). Recognizing the importance of women's universities, the University Grants Commission at one time had a plan to open 700 additional ones (Times of India, 2012). Public and private women's universities also make important contributions to women's education in Pakistan. Unfortunately, they provide easy targets for violent opposition to women's education, as evidenced by terrorist attacks against students in 2009 and 2013 (Khan, 2014).

The establishment of single-sex institutions in Eastern and South-eastern Asia aimed to provide women with access to higher education, previously all male. A few independent women's colleges were founded by pioneering educators, some of whom had attended single-sex colleges and universities in Europe or the United States. For example, Tsuda University in Tokyo was started by a former student of Bryn Mawr College and promoted a new style of education for Japanese women (Pamonag, 2012). Japan has two public women's universities. Christian missionaries from North America and Europe worked in several Asian countries, and single-sex institutions still operating in Japan and the Republic of Korea stemmed from their efforts. Catholic orders active in the Philippines founded five of the six current women's universities. Some private women's universities in these three countries have sufficient resources and student demand to support their continued existence as women's institutions within largely co-educational post-secondary sectors.

In China, a small number of women's universities augment an overwhelmingly co-educational higher education system. A survey showed that 47% of students at women's colleges and universities came from rural areas, compared with 22% at other colleges and universities (Lingyu et al., 2021). Student preferences for single-sex or co-educational institutions may be outweighed by their desire to attain a seat in post-secondary education (Renn, 2017).

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2   This section is based on Renn (2022)

Single-sex higher education has been the norm in the Gulf States. A model of gender-segregated education within nominally co-educational institutions may occur, with men and women using different parts of a physical campus, taking different sections of online courses and engaging in parallel streams of campus activities (Lipka, 2012; Naidoo and Moussly, 2009). In 2009, Saudi Arabia became the last country to officially permit co-education in public higher education (Naidoo and Moussly, 2009). Princess Nourah bint Abdulrahman University, founded in 1970 in Riyadh as a College of Education for women, expanded to full women's university status in 2004 and is today one of the world's largest women's universities (Butt, 2018).

Most public post-secondary institutions in the United Arab Emirates are single-sex, with women's universities offering parallel institutions within systems. The Higher Colleges of Technology, for example, have men's and women's campuses in each emirate (Higher Colleges of Technology, 2021). The government founded Zayed University in Abu Dhabi and Dubai in 1998, recognizing the need to provide higher education access to women while maintaining national laws that then prohibited co-education. Non-state-sponsored institutions may be fully co-educational.

Co-education is the predominant mode of post-secondary education in Africa. Where women's universities exist, they are the result of local efforts to provide access to girls and women. Ahfad University for Women was established in 1966 in Sudan, growing out of a girls' school founded in 1907 (Badri, 2001); the National Council for Higher Education gave it full university status in 1995. More recently, women's universities have been founded to create higher education opportunities in fields in which women have been under-represented. For example, Kenya's Kiriri Women's University of Science and Technology was founded in 2002 'to bridge the gap in gender representation in higher education as well as contributing to the social and economic development of the country' (KWUST, 2021). Women's University in Africa was also established in 2002, in Zimbabwe, with a focus on agriculture, management, entrepreneurship and information technology (Women's University in Africa, 2021).

In the United States, Mount Holyoke Female Seminary (now Mount Holyoke College) opened in 1837 as an all-women institution focusing on high-quality curricula and preparing Christian missionaries. Opportunities for women expanded slowly with the founding of additional private women's colleges and a small number of private co-educational institutions. As state-supported higher education spread in the 19th century, women gained access to some public universities, agricultural colleges and normal schools or teachers' colleges (Solomon, 1985). There was substantial resistance to women's higher education, rooted in pseudoscientific beliefs that women's bodies could not withstand the rigour of intellectual work or simply that women should not do the kinds of work for which college would prepare them (Palmieri, 2007). Many state-supported institutions barred women from admission at first, although few did so by the late 1800s. At their peak in the first half of the 20th century, there were over 300 single-sex institutions (Langdon, 2001), mostly private, with a substantial representation of Catholic institutions. The small number of state-supported women's universities (e.g. Florida State University, Mississippi University for Women, Texas Woman's University) had some counterparts in women's divisions or colleges within larger state universities (e.g. Douglass College at Rutgers University).

As women gained access to nearly all of the country's colleges and universities in the later 20th century, single-sex institutions merged, closed or admitted men. Fewer than 40 remain (Women's College Coalition, 2021). Only 0.5% of all female students attended these institutions in 2018 (US Department of Education, 2019). But as several of them have endowments of over US$1 billion and highly selective admissions, they may continue as women's institutions. Only 2% of female secondary students are willing to consider a women's college or university (Jaschik, 2017), leaving these institutions with a more limited pool from which to recruit qualified applicants. They are at an advantage, however, in recruiting international students whose families would prefer them to attend a single-sex institution (Lewin, 2008).

In Australia, Canada and some European countries, patterns observed were similar to those in the United States. Substantial resistance to women's education slowly gave way to increasing numbers of co-educational institutions, to men's universities admitting women and to single-sex institutions for women, often affiliated with a larger university (e.g. Oxford University, University of Sydney, University of Western Ontario). After reaching a peak in the mid-1900s, most women's colleges in these countries became co-educational, closed or merged, leaving just a few today (Purcell, 2005): Australia has four, Canada one, Italy one, the United Kingdom three. Those in Canada and the United Kingdom are affiliated with publicly funded universities. Women's colleges

in the United Kingdom enrolled 0.1% of the total female undergraduate population (Higher Education Statistics Agency, 2021; University of Cambridge, 2021). Women's universities are not a feature of contemporary Latin American or Caribbean higher education systems.

WOMEN'S UNIVERSITIES ARE ESTABLISHED FOR A VARIETY OF REASONS

Contemporary global growth in women's universities is driven in part by non-state actors, including educators, social entrepreneurs, religious leaders and businesspeople. Some recent examples have been rather isolated efforts in countries with few or no single-sex post-secondary options, such as Zimbabwe, where two feminist educators started Women's University in Africa in 2002 (Nondo and Mbereko, 2020); Kenya, where architect and businessman Paul Ndarua established Kiriri Women's University of Science and Technology in 2002; and Bangladesh, where Asian University for Women (AUW) opened in 2006 after efforts spearheaded by Kamal Ahmad. The AUW project attracted substantial philanthropic support from foundations (e.g. the Bill & Melinda Gates, Goldman Sachs and John D. and Catherine T. MacArthur foundations), individuals and US agencies including the Department of State (Asian University for Women, 2021). It is a rare, stand-alone liberal arts institution in the region, is international and supports women who are the first in their families to attend higher education.

Although the days of Christian missionaries and Catholic orders establishing universities for women have passed, Muslim religious leaders continue to expand access to post-secondary education for women. Shi'ite clerics have opened over 300 women's seminaries in the Islamic Republic of Iran, where women can earn bachelor's or master's degrees and become religious teachers (Sakurai, 2012). Some *madrasas* for women in Pakistan offer post-secondary degrees alongside elementary and secondary curriculum (Bano, 2010). Israel has women's seminaries that do not grant degrees, including one founded in 2016 that is fully online, providing women who work and/or care for families an opportunity to engage in religious learning (Headapohl, 2016).

Some businesspeople have seen profit-making opportunities in marketing diplomas, certificates and degrees to women in a single-sex setting. In cultures where some students and families strongly prefer single-sex education for girls and women, commercial women's universities may be an attractive option. For example, the Educational Projects Company, a corporate entity, established the Royal University for Women in Bahrain as a UK-style bachelor's degree–granting university in a region where women's universities thrive (Royal University for Women., 2021). In Uganda, the for-profit Women's Institute of Technology and Innovation was founded to 'Achieve gender equality and empower all women and girls' (WITI, 2021).

Women's universities' governance and regulation are integrated in national systems

The establishment and continued existence of women's universities may be a matter of national policy. In the United States, public institutions must admit students without discriminating on the basis of sex, and the few public universities still bearing the name 'women's university' enrol men. All other women's universities are private. Conversely, all public colleges and universities in the United Arab Emirates and, until recently, Saudi Arabia are gender-segregated or single-sex. National policy is silent on this matter in most other countries, where state-funded post-secondary education is co-educational by law or policy.

In many countries, private women's universities may receive substantial subsidies. Private non-profit universities may be exempt from taxes, apply for state-funded research grants and receive student fees. For-profit universities may not get all these benefits but still gain through government payments or bursaries to students.

The distinction between public and private or state and non-state women's universities may be less in how funds flow to them and more in their institutional governance. Like co-educational, private non-profit institutions, women's colleges and universities in some countries have boards of trustees or directors who are responsible for the institution's well-being. Someone with a title such as resident, chancellor, vice chancellor, principal, rector or head of school leads the institution and oversees academic, economic and other areas. Depending on the region, such institutions are more likely than co-educational institutions to have women as leaders. Their for-profit counterparts may have a variety of leadership and governance structures, compliant with local laws regarding corporations and, where applicable, educational corporations. They are chartered and regulated by national or subnational bodies.

Accreditation plays an important role in their functioning. Accreditation systems vary but the process of seeking accreditation from a nationally approved body and undergoing a regular review of curriculum, facilities, policies and resources is generally the same across countries. Women's universities that offer degrees in professional areas, such as education, business, nursing, medicine and engineering, may seek accreditation from bodies in those fields. Accreditation is particularly valuable in verifying that students at all-female schools receive the same level of education as those at co-educational institutions. In countries with clear quality assurance practices, quality standards have the same purpose. Some women's colleges and universities take great pride in their national or international rankings, though these are not the same as governance, accreditation or quality assurance,. Miranda House and Lady Shri Ram College, both affiliated with the University of Delhi, are the top two colleges in the National Institutional Ranking Framework in India, for example, and Wellesley College routinely ranks among the top five elite liberal arts colleges in the United States.

Women's universities have distinctive curriculum and pedagogy characteristics

Women's post-secondary education institutions began by helping expand who was educated and what opportunities they had. Today, they offer classical liberal arts curricula (e.g. humanities, languages, social sciences); traditionally feminized fields such as education and social work; science, technology, engineering and mathematics (STEM) programmes; professional degrees (e.g. journalism, business, law); vocational training (e.g. emergency paramedical services, clerical work, bookkeeping); and religious education.

Some universities evolved from teacher training institutes, and many continue to educate large numbers of future teachers. Until recently in India, men could not enrol in bachelor's degree programmes in elementary education because all such programmes were offered at women's colleges, as were undergraduate degrees in psychology, mass media and mass communication (digitalLEARNINGNetwork, 2009). As recently as 2018, Delhi University offered admission to the bachelor's elementary education programme only to women (India Today, 2018).

Women's universities have educated disproportionate numbers of women in STEM fields, notably in the United States (Calkins et al., 2020; Dinin et al., 2017; Enke, 2020; Ridgwell and Creamer, 2003; Stage and Hubbard, 2009) but also in other countries (Hasan, 2007; Kodate et al., 2010). Educators have looked to them for ideas about how to improve women's participation and experience in STEM fields at co-educational universities. In the last three decades, some women's colleges and universities have been started specifically to educate women in STEM, including Kiriri Women's University of Science and Technology (Kenya), Women's University in Africa (Zimbabwe), Dr. APJ Abdul Kalam Women's Institute of Technology (Darbhanga, India), Women Institute of Technology (Dehradun, India) and Indira Gandhi Delhi Technical University for Women (Delhi, India). Ahfad University in Omdurman, Sudan, opened a medical school for women in 1990.

Women's universities gave a boost to the field of women's studies (Wotipka and Ramirez, 2008). In the early 2010s, China Women's University offered the country's only women's studies undergraduate degree, attracting many students (Renn, 2014). It has been argued that women's studies is 'vital to the mission and key to the survival' of women's universities in the United States, as the field reinforces an original aim of focusing on women and gender as central (Sahlin, 2005).

In some regions, women's higher education institutions offer religious education. Students and families may choose women's *madrasas* in Pakistan partly to signal their values and orientation towards religion, as well as to gain knowledge and deepen their faith (Bano, 2010). Although Christian missionaries and Catholic orders were instrumental in spreading women's education to colonized regions in the 1800s and early 1900s, religious education is not a primary focus of the remaining colleges and universities thus founded.

Single-sex, two-year community colleges and polytechnics provide access to vocational training through degree, certificate or diploma programmes. Their mission is typically to train women for the workforce and promote gender equality through women's employment. The women's colleges of the Higher Colleges of Technology in the United Arab Emirates train students in emergency paramedical services, medical imaging, video production and tourism management (Higher Colleges of Technology, 2021). In India, 30% of women's post-secondary institutions are vocational training schools (India Today, 2016) and some women's universities continue their traditional role in adult education. Women's University in Africa provides adult education and diploma

programmes in career-related areas, such as agriculture and education (Nondo and Mbereko, 2020). The Philippine Women's University has a robust technical and vocational mission (The Philippine Women's University, 2021); it is one of several accredited single-sex options for technical education (TESDA, 2015).

Some women's universities offer activities to prepare graduates for careers, with experiential education a key component. For example, Dubai Women's College supports internships that give students real-world experience in mixed-gender workplaces. Students at women's universities in the United States are more likely than their peers at co-educational institutions to engage in community service and service learning, which enriches their development and learning (Kinzie et al., 2007a; Kinzie et al., 2007b). Some degree programmes are structured to be especially accessible to female students through distance learning and online and hybrid modes. Women's University in Africa offers programmes through a dual-mode approach (Nyaruwata, 2018). A hybrid problem-based learning curriculum, designed to increase women's enrolment in information and communication technology, yielded positive outcomes for women's career decision making in the Republic of Korea (Kim and Cho, 2018). SNDT Women's University in India was founded to serve adult women learners and continues this work through a distance education centre (Renn, 2014).

Not every women's university engages in feminist pedagogy, and not all feminist pedagogy occurs at all-female institutions. Still, there is a particular role for feminist pedagogy where all students are women. Feminist pedagogy is characterized by sharing power with students, engaging in collaborative learning activities, acknowledging affective as well as cognitive processes of learning, including experiential learning, and focusing on intersecting identities, e.g. based on gender and race (Langdon, 2001). These practices, found at many women's colleges (Langdon, 2001; Renn, 2014), have been identified as good educational practice that should be adopted by co-educational institutions (Smith et al., 1995; Wolf, 2000).

WHETHER WOMEN'S UNIVERSITIES HAVE A DISTINCT IMPACT ON STUDENT OUTCOMES IS DEBATED

Potential benefits of attending women's universities include student engagement and leadership development, an inclusive campus environment, academic success and postgraduate career success. But critics believe the institutions may reinforce gender stereotypes and cultivate a gendered status quo.

Female university students in the United States were found to be more engaged in campus life and learning activities than female students at co-educational colleges and universities (Kinzie et al., 2007a; Kinzie et al., 2007b). A study of female students in STEM fields showed that women's college students in the United States were more engaged in campus activities related to their academic major (e.g. conducting out-of-class research, joining STEM-related clubs) than female or male students at similar co-educational institutions (Mazur, 2019). But a study of engagement with faculty at institutions with varied histories of admitting women (i.e. always co-educational, formerly all-male, always all-female, formerly all-female) showed that women university students reported fewer experiences of being challenged academically in the classroom (Trolian et al., 2018).

Around the world, students at women's universities reported believing they were more likely to have gotten involved in campus activities and leadership than they would at a co-educational institution (Hasan, 2007; Renn and Lytle, 2010). They attributed this engagement to opportunities to take up activities not typical for their gender as well as a sense that if a woman did not do it, no one would (Renn, 2014). Many women's universities also build students' leadership skills for after graduation (Iwaski et al., 2021; Ladika, 2017).

Studies have repeatedly shown that the climate is more female-inclusive at women's universities and colleges than at co-educational institutions (Dinin et al., 2017). They experience greater support for their academic goals and more encouragement to participate in campus governance and student activities. They are exposed to less overt sexism from classmates and instructors (Kinzie et al., 2007b; Purcell, 2005). At many, the share of female faculty and academic leadership is higher than that of comparable co-educational institutions, so students have more female role models (Kodate et al., 2010). Some women's universities, including SNDT Women's University in India and Women's University in Africa in Zimbabwe, shape curriculum and pedagogy around the needs of students who may be working and caring for families (Nondo and Mbereko, 2020). Research confirms women's

colleges and universities contribute disproportionately to production of STEM graduates and students who go on to postgraduate studies, even when competing for female student enrolment with elite co-educational institutions (Calkins et al., 2020; Enke, 2020).

Additional evidence of the impact of women's colleges and universities on graduates' careers and economic outcomes is mixed. Earnings data from the United States showed that such institutions were more likely than similar co-educational institutions to promote social mobility, defined as graduates moving from lower to higher income quintiles 10 years after graduation (Enke, 2020). Conversely, a study showed that graduates of elite women's colleges earned less than women who graduated from elite co-educational institutions, linking this to social networks with fewer men (Belliveau, 2005). Another explanation may be that women's college graduates had a stronger desire to work for social change than women from co-educational institutions and the related careers tend to pay less than corporate careers.

Some studies point out ways that women's colleges and universities reinforce gender stereotypes. The ideology of 'good wife, wise mother' (*ryōsai kenbo* in Japanese) (Koyama, 2012) in some Asian nations permeated early curriculum and pedagogy to reinforce the idea that even educated women should take the lead from their husbands (Kodate et al., 2010; Renn, 2014). Among more recent examples, one study found that a private, for-profit women's university in India reinforced patriarchal ideas by, for example, denying law students the opportunity to participate in moot court with men from other campuses (Shankar and Ram, 2021). While most women's colleges in the United States cultivated progressive ideas about gender roles and careers, some promoted more traditional gender roles (Ridgwell and Creamer, 2003). However, such arguments against educating women in single-sex institutions contrasts with overwhelmingly positive research findings about women's universities' student outcomes.

Girls play at Save the Children's Child Friendly Space in a displacement camp in Balkh province, Afghanistan.

CREDIT: Jim Huylebroek / Save the Children

Non-governmental organizations provide services and advocate for gender equality

NGOs are a major lever for drawing attention to the challenges of gender inequality in education, through either advocacy or activities that serve marginalized groups. The perennial challenge is the sustainability of their interventions, whose unit costs are well above what governments can afford and whose supervision capacity cannot be replicated.

MANY NGOS DEVOTE EFFORTS TO VULNERABLE GIRLS' EDUCATION

In some countries, girls face barriers to continuing their secondary education due to marriage traditions or stereotyped gender expectations. To counter these, many projects rely on NGOs for implementation and locally tailored solutions.

Since 2003, a community-based organization in Marsabit county, Kenya, has provided mentorships and scholarships to cover school fees, uniforms, education materials and transport costs for girls from the Gabra nomadic group. In the United Republic of Tanzania, the Girls Foundation provides training on financial literacy

and leadership during school breaks (Oulo et al., 2021). In Pakistan's Balochistan province, the Urban Girls' Fellowship provided subsidies to private schools to increase girls' enrolment from the province's districts (Fennell, 2014).

Some projects target girls living in remote and rural areas. In Rwanda, Esther's Initiative is a community-based organization that runs a sponsorship programme to keep rural adolescent girls in extreme poverty in school. Parental and community involvement is stimulated to challenge gender norms and raise awareness of the importance of girls' education (Oulo et al., 2021). Educating Girls of Rural China, a Canadian NGO, has financially supported 700 girls since 2012 with about US$80 a month to complete secondary school and pursue tertiary education in rural western China. It also offers training on confidence building, mental health, career planning and personal development (EGRC, 2021).

NGOs also provide flexible learning programmes to aid pregnant girls and young mothers in completing their education. In 2021, the first private school for young mothers opened in Nairobi, Kenya, to provide them with a stigma-free space. Providing childcare services in the classroom, the school gives them a chance to continue and finish their education (Mulinya, 2021). In the United Republic of Tanzania, the Independent Study Programme consists of accelerated training to help students complete the secondary school curriculum in half the usual time. The programme offers classes with private teachers and quiet library space. Although it is aimed at all students, two thirds of the participants are girls and young women without access to formal school due to pregnancy and other factors (Oulo et al., 2021).

Groups left behind in education include transgender (**Box 6**) and indigenous students. The MAIA Impact School in Guatemala, created in 2017, is an indigenous-led secondary school for girls. It responds to the low quality of most education available to indigenous girls. The curriculum covers academic subjects, culture and identity, socioemotional development and family engagement, preparing girls to enter university. In partnership with donors, it also helps graduates continue their studies in higher education (MAIA Impact, 2021).

NGOs also support remedial learning interventions to help girls at risk of repeating or dropping out. Between 2015 and 2019, the Sang Sangai-Learning Together Project reached 23,000 girls and 7,000 of their mothers in Nepal through non-formal education to enhance their transition back to school and reduce dropout. Courses were provided for girls needing to catch up, covering basic literacy and numeracy, delivered in the students' home language along with life and social skills. Mothers also participated in non-formal learning programmes focusing on literacy, art and financial literacy. The project included intergenerational activities where mothers and daughters shared what they learned together. The Equity in Education in Disadvantaged Districts project provided technical assistance to the government to replicate the model to reach an additional 25,000 out-of-school girls. Sang Sangai partner NGOs worked with parents, communities, local government and line agencies of the Ministry of Education to implement the project (World Education, 2021b).

Non-state actors took various approaches to support girls in continuing their education during the COVID-19 pandemic. In India, Room to Read, an international NGO, delivered worksheets and learning packets, remote individual mentoring sessions in emotional support, text messages and calls, support for educators and digital content for adolescent girls. Mercy Corps and Good Neighbors International used community radio to teach life skills in Nepal. In Ghana, community learning kiosks were set up to benefit children learning from home with few resources. The Somalia Girls' Education Promotion Programme – Transition, implemented by CARE, an international NGO, worked with community members and teachers to follow up with families. It organized empowerment forums and girl-led activities to mitigate the negative impact of the pandemic on girls' well-being (CARE, 2020).

Remedial interventions can be combined with sports or creative activities to make them more attractive for students. For example, Skateistan aims to provide safe places to build student resilience by combining skateboarding with creative education. The programme operates in the Plurinational State of Bolivia, Cambodia, Jordan, Kenya and South Africa and operated in Afghanistan until 2021, addressing vulnerable children and young people aged 5 to 17 from poor households affected by displacement or disability or otherwise marginalized. It runs five afternoons a week after public school hours, with girls-only sessions to bridge the gender divide. Skateboarding helps teach learners to identify risk, assess it and respond accordingly (Skateistan, 2021).

BOX 6:

Non-state actors have stepped in to support the education of transgender students in Latin America and South Asia

Transgender students face discrimination in schools. Civil society organizations and parents have launched innovative initiatives to foster a school climate where students, regardless of their gender identity, feel safe, free and respected.

In Chile, the Amaranta Gómez school was established in 2018 in the Ñuñoa commune of Santiago by two mothers whose children identify as transgender. Transgender students suffer high dropout rates due to the violence they commonly experience in school. The Ñuñoa school does not receive government funding and draws its revenue from fees. Its curriculum is not officially recognized. Students prepare for and sit official exams to accredit their education level. Learning materials are gender-sensitive, showing different sexual orientations, identities and expressions (UNESCO, 2021a). The school toilets are gender-neutral and students can wear the uniform they choose. In 2019, the school had 44 students, most of whom identify as transgender. The students are divided into two age groups: 6 to 11 and 12 to 18. Teachers work unpaid, and the location was provided by a community centre (Mele, 2019).

In 2011, a secondary school for transgender people was established in Buenos Aires, Argentina, to promote inclusion. Mocha Celis School is a free school with more than 100 students a year, aged between 16 and 60. Although most students are transgender, the school also welcomes non-trans students, Afro-descendants, migrants and single mothers. The institution provides workshops to prepare students to enter the labour market. Over a three-year study plan, the students follow the official curriculum from a gender perspective. In 2012, after enacting a gender identity law, the national government officially recognized the school and graduates received official diplomas. Mocha Celis now operates as a free public school and receives state support to cover teachers' salaries (Mocha Celis, 2021).

Non-state actors also provide psychosocial support, counselling and mentoring, which can benefit transgender students who are frequent victims of violence and discrimination. In Mexico, the Asociación por las Infancias Transgénero created a protocol for schools to guide authorities, teachers, parents and classmates of transgender students in promoting a respectful and inclusive school climate. The association supports families that request adoption of the protocol in their school and, if necessary, files complaints with the Council to Prevent Discrimination and the relevant Human Rights Commissions (AIT, 2021).

On a smaller scale, interventions in Bangladesh and Pakistan have tried to offer education and safe spaces for transgender students. In these countries, transgender and nonbinary individuals known as hijras face discrimination and ostracism, even from their families, which condemns them to poverty. Due to the lack of education opportunities, they usually turn to begging or sex work. In Bangladesh, the first school for hijras was established by a religious charity. Students learn the Koran and the basic principles of Islam, and are taught Bengali, English and mathematics while they receive vocational training (Paul, 2020). In Pakistan, the first transgender-only madrasa was founded by a private actor. Besides learning the Koran, students receive vocational training (Aljazeera, 2021).

In Mozambique, an intervention implemented by World Education, an international NGO, consists of a life skills curriculum aligned with girls' experiences, based on financial literacy, child rights, life planning, communication skills and career counselling. The programme also provides girls with scholarships for secondary school (World Education, 2021a).

Some programmes combine technical and vocational training with services that foster inclusion. In Nigeria, the ENGINE programme, run in partnership between communities, private actors and the government, supports 16,000 marginalized girls and women aged 17 to 23. In addition to providing literacy and numeracy skills, it offers technical and professional training, including how to set up a business through support to obtain government identity card registration and bank accounts, enabling access to capital (Oxford Policy Management, 2020). In Sierra Leone, Every Adolescent Girl Empowered and Resilient, a project run by the International Rescue Committee, targets 32,500 out-of-school and marginalized adolescent girls, focusing on those with disabilities. It aims to support transition into vocational and professional training through guidance in creating business plans and income-generating activities (Giuliano Sarr et al., 2020).

Egypt's Neqdar Nesharek (We Can Participate) project, run by the Population Council, supported economically vulnerable women in 30 villages in seeking employment or starting a business. Its training activities cover life skills and business education, vocational skills, problem solving and civic engagement. The interventions reached 4,500 young women and resulted in positive and significant effects on business knowledge and labour market outcomes (ILO, 2017). In Ethiopia, the Supporting Transition of Adolescent Girls through Enhanced Systems project has assisted 61,000 marginalized girls in 127 primary schools and 17 secondary schools in rural areas to continue their education, including technical and vocational. The programme works jointly with government and local actors to develop teachers' gender-responsive pedagogy capacity, directly support vulnerable girls with bursaries and school uniforms, and establish clubs which challenge traditional gender norms (Link Education International, 2019).

NGOS SUPPORT GIRLS' EDUCATION IN EMERGENCIES

Non-state interventions in humanitarian crises focus on non-formal education, including alternative learning centres, accelerated teaching, temporary schools, mobile learning and distance learning intended to integrate students, especially girls, into the public education system (INEE and ACPHA, 2021). NGOs have the flexibility, responsiveness, adaptability, capacity and expertise required to work in challenging conditions.

Plan International, an international NGO, runs an accelerated learning programme, known as Primary School Access through Speed Schools, in Burkina Faso, Mali and Niger. The accelerated nine-month programme helps girls and boys catch up on years of missed education before their integration back into the formal school system (Sadek, 2019). Geneva Global has run an accelerated programme in the Southern Nations, Nationalities and People's Region of Ethiopia (Akyeampong et al., 2018), and Oxfam has run one in South Sudan (Nicholson, 2018) with UNICEF support. Among several examples in Afghanistan (**Box 7**), the international NGO Children in Crisis ran accelerated learning programmes in informal settlements in Kabul, targeting early school leavers. It offered remedial classes for disadvantaged children enrolled in traditional schools but at risk of failure or dropout, along with literacy and tailoring classes for learners' mothers and other women in the community, provision of community awareness sessions and self-help groups on saving money and obtaining loans for income-generating activities (Shah, 2019).

Innovation in interventions is needed to overcome local constraints. In Cox's Bazar, Bangladesh, UNICEF and CODEC, a local NGO, provided girls-only spaces to Rohingya refugees prevented from attending learning centres due to sociocultural norms restricting adolescent girls' freedom and mobility. In these spaces, girls receive emotional support, mentorship, and critical literacy and problem-solving skills, and are encouraged to build social networks (INEE, 2021). Plan International uses Mobile Education Units, non-fixed spaces delivering education to internally displaced children in hard-to-reach areas or places lacking formal schools. Plan and Dubai Cares have provided emergency education to refugee and host community girls and boys in Uganda's Adjumani and Yumbe districts. They also built single-sex latrines, provided gender-responsive teacher training and engaged boys as advocates for gender equality (Guglielmi et al., 2021).

The Kenya Equity in Education Project provided remedial education to girls living in the Dadaab and Kakuma camps at high risk of dropping out of grades 7 and 8 (WUSC, 2017). An evaluation found that remedial education was an adequate substitute for primary school in Kakuma and increased primary school attendance in Dadaab. However, as the effect on learning was positive only in food-secure households (C.A.C. International, 2020), World University Service of Canada adjusted the programme with complementary interventions to increase household food security.

BOX 7:

Non-state providers prioritized girls' education in Afghanistan

Even before the Taliban takeover in 2021, women and girls in Afghanistan faced barriers to education including poverty, early marriage, insecurity, discriminatory gender norms and a lack of trained female teachers (AWRO, 2020). There had been major progress in the past 20 years, with completion rates increasing rapidly at all levels, albeit from very low starting points. Between 2000 and 2020, completion rates increased from 8% to 56% in primary, 5% to 38% in lower secondary and 4% to 22% in upper secondary education. At the same time, while gender gaps improved in relative terms, they hardly changed in absolute terms, with boys enjoying an advantage of about 25 percentage points at all levels (**Figure 20**).

Moreover, progress in completion rates varied by province. In 2015, in Panjshir province, 78% of children and as many as 89% of boys completed primary school, while just 10% of children and as few as 1% of girls completed primary school in Uruzgan province. Gender gaps varied, too. In Paktia province of eastern Afghanistan, which equalled the national primary completion rate of 54%, about 79% of boys but just 12% of girls completed primary school. Yet within the province, completion rates among rich girls were much closer to the male average, while hardly any poor girls were completing primary school (**Figure 21**).

FIGURE 20:

In Afghanistan, while girls' completion rates increased rapidly, gender gaps remained large
Completion rate, by sex and level of education, 2000–20
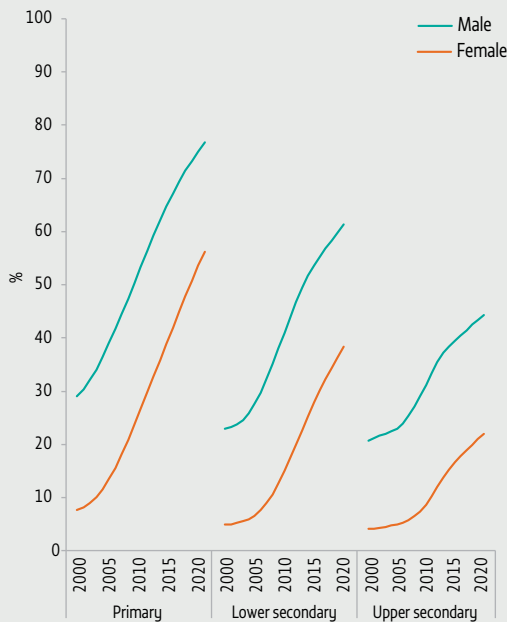
Source: GEM Report estimates available at the VIEW website, www.education-estimates.org.

FIGURE 21:

In Afghanistan, gender gaps in primary completion varied by province and, within province, by wealth
Primary completion rate, by province and sex, Afghanistan, 2015
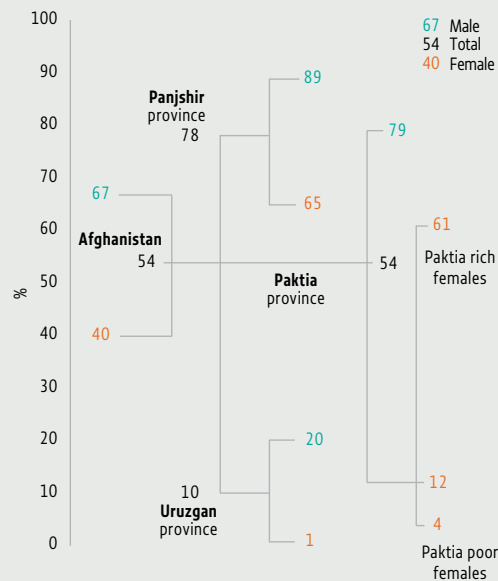
Source: GEM Report estimates based on the 2015 Demographic and Health Survey available at the WIDE website, www.education-inequalities.org.

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BOX 7 CONTINUED:

Where progress was achieved, major drivers were community-based education, curriculum development and teacher training, in partnership with multiple actors, including NGOs (Bakhshi, 2020).

Community-based education classes usually take place in community buildings, houses and mosques. In Afghanistan there were on average 25 to 30 students per class (UNICEF, 2020). This modality allows children, particularly girls, to gain access to education in remote communities, far from government schools (Human Rights Watch, 2019a). The classes were officially recognized as an extension of government schools, and the Ministry of Education set standards and curricula, recruiting and paying teachers and delivering training (UNICEF, 2020). Each community-based school was linked with a government school to support the transition to secondary education. The Swedish Committee for Afghanistan, working alongside the government since 2006, supported community-based education for marginalized children, including girls, those with disabilities and those from nomadic communities (SCA, 2021).

Accelerated learning centres, a form of community-based education supported by UNICEF, compressed the six-year primary curriculum into three years for out-of-school adolescents in seven provinces. They achieved better learning outcomes than government 'hub' schools. At the same time, there was a gap at girls' expense in learning outcomes such as reading comprehension (Kan et al., 2022).

Afghan Connection, an NGO, established single-sex schools with boundary walls that permitted privacy, giving parents confidence to send their adolescent daughters to school. It also trained female teachers, whose lack had been another factor in parents' reluctance to allow girls to have an education (EGER, 2021c). Non-state actors promoted girls' empowerment by training Afghan girls in STEM-related fields. For example, in 2016, the Womanity Foundation launched Girls Can Code, targeting secondary school students (EGER, 2021d). The Aga Khan Foundation provided science education opportunities and awareness for girls in grades 7 to 12 at 13 government schools with functional science labs in Baghlan province (EGER, 2021e).

Non-state actors developed literacy programmes to address the most marginalized girls. Examples include Literacy Boost (Save the Children) and LitClub (LitWorld), which encouraged learning skills and creative expression, community building and developing socioemotional skills. Literacy Boost trained teachers to keep students engaged and involved the community in the learning process by providing books, libraries and workshops for parents (EGER, 2021a, 2021b).

Most of these programmes came to a halt after August 2021. The Taliban decided secondary schools would reopen only for boys (Latifi, 2021). By November, at least 25 of 34 provinces had barred girls from grades 7 to 12 (Human Rights Watch, 2022). The decision in March 2022 to ban girls from joining secondary schools throughout the country effectively eliminated the gains made in girls' education since 2000.

NON-STATE ACTORS MAKE BROADER INTERVENTIONS TO SUPPORT GENDER EQUALITY IN EDUCATION

The potential influence of non-state actors on gender equality is not limited to direct education service provision. For instance, they can influence other actors to place a stronger focus on STEM education for girls and can develop comprehensive sexuality education curricula or support governments in implementing them.

Promoting science and technology among girls is a common non-state activity

Non-state organizations often run initiatives and programmes on school and career counselling that help students make informed choices, free of gender bias, focusing on gender-sensitive learning materials and practices that reinforce the idea that women can join any profession. Mentoring activities and academic and career counselling help overcome norms and stereotypes about so-called male- and female-appropriate occupations.

Non-state actors can boost girls' interest in science through classroom interventions and extracurricular activities, such as museum visits and contests. An evaluation of a programme that organized camps on artificial intelligence, robotics, programming skills and leadership skills training in Malawi, Namibia and Rwanda showed that it increased self-confidence and empathy among girls and that 78% of participants went on to pursue STEM subjects in tertiary education (Girl UP, 2021; Technovation, 2021).

The Visiola Foundation holds STEM Camp, a week-long residential programme, in selected African countries to develop girls' interest in STEM fields from an early age. Through classroom coursework, practical team activities, games and group projects, students learn basic concepts in computer programming, science, math and engineering. The foundation also delivers a similar programme for out-of-school girls by combining formal and informal instruction, and coding boot camps offer girls tools to build careers as computer programmers and tech entrepreneurs (Visiola Foundation, 2021).

AkiraChix runs an intensive, all-female vocational training programme in technology and computer programming called CodeHive. It works with young women from underserved communities in Kenya, Rwanda and Uganda. The 10-month curriculum incorporates training on leadership, followed by internships (Oulo et al., 2021).

Some NGOs promote competitions in which girls find technological solutions to everyday problems, raising interest in entrepreneurship and STEM fields. For example, Technovation Girls is a contest for students aged 10 to 18 to develop mobile apps addressing problems in their communities. Since 2010, the programme has reached more than 50,000 girls in more than 100 countries, focusing on vulnerable groups. A recent survey showed that 58% of participants reported that the programme had exposed them to and increased interest and confidence in the pursuit of computer science, related academic disciplines and real-world technology applications (Technovation, 2021).

In 2015, Johnson & Johnson launched Women in Science, Technology, Engineering, Math, Manufacturing and Design, an employee volunteer programme to mentor girls through creative, inquiry-driven learning and play in Brazil, Ireland, Japan and the United States. The programme sought to inspire and motivate students while providing them with networking opportunities to develop their careers. The company partners with schools and higher education institutions, non-profit partners and government agencies, focusing on girls, female university students and early-career female professionals (FHI360, 2020).

The US-based Cheryl Saban Self-Worth Foundation grants secondary school and college scholarships and develops STEM, computer science and teacher training programmes to close the gender gap in these study areas (EGER, 2021b). Zonta International offers scholarships to female students of any nationality pursuing careers in business and information technology. It awards the Amelia Earhart Fellowship to women pursuing doctorates in aerospace engineering and space sciences (Zonta International, 2021).

Non-state actors can support or undermine comprehensive sexuality education efforts
Comprehensive sexuality education promotes knowledge about various aspects of sexuality, sexual behaviour, pregnancy, HIV and other sexually transmitted infections; it also fosters questioning of established gender norms and creation of safe learning spaces. Across 155 countries, 85% have policies or legal frameworks on sexuality education (UNESCO et al., 2021). But implementing comprehensive sexuality education programmes requires support from school staff, students, parents, community leaders and NGOs. In Ghana, Guatemala, Kenya and Peru, comprehensive sexuality education curricula are mainly delivered by NGOs (Keogh et al., 2018; Wangamati, 2020).

In China, Marie Stopes, an international NGO, developed an internet-based and teacher-facilitated platform giving adolescent students access to free, standardized comprehensive sexuality education in rural areas (Jin et al., 2021). In India, Iesha Learning has promoted tailored sexuality education courses in schools, with a particular focus on preventing sexual violence by boys and developing a positive masculine identity (Coley et al., 2021). In Jharkhand, the government partnered with NGOs to include comprehensive sexuality education in school textbooks and teacher education (UNESCO, 2021c). In Kenya, Dandelion Africa works with schools to teach rural family planning and promote HIV testing (Oulo et al., 2021).

Despite challenges related to conceptions of morality, faith-based organizations can be powerful actors in some countries to frame sexuality education, as they run health and education facilities and, more importantly, enjoy the trust of their communities. In the eastern Democratic Republic of the Congo, the Baptist Community of the Congo has organized a five-day training workshop for education officers, teachers, pastors, health workers, youth workers and women's association members about sexual violence in the church's schools. The programme was based in the North Kivu region, where churches run 75% of the schools. Discussions using scriptures and exploring power dynamics and justice led to interventions addressing sexual violence in the schools (Beasley et al., 2010).

Parents, religious leaders and teachers can also challenge provision of comprehensive sexuality education

Many non-state actors can block progress where social and cultural norms and values do not support sexuality education. Parental opposition to such curricula is present in many countries for diverse reasons. For instance, parents may consider sexuality issues private and believe only family members should teach children about them (Wangamati, 2020). In some cases, household attitudes are strongly shaped by misconceptions about the content of sexuality education, fearing that it promotes promiscuity or sexual activity (Keogh et al., 2018). Demonstrating and promoting condom use and talking about homosexuality and abortion are sensitive or taboo and often opposed by parents, who in most cases support abstinence (Wekesah et al., 2019).

Parental concerns, which are higher among those who have no education or live in rural areas, are also related to the age at which children receive comprehensive sexuality education. Parents in Ghana and Zambia do not favour providing sexuality education in lower primary grades, considering students to be too young to be exposed to such content. In Ethiopia, parents suggested an age-structured curriculum with abstinence-only programmes for younger students and contraception discussion for secondary students (Wekesah et al., 2019). A prevalent culture of silence surrounding sexuality in Nigeria has led to an approach to sexuality education that avoids controversy and respects cultural norms on topics such as abortion (Mukoro, 2017).

Community backlash impedes effective programme implementation. In Uganda, where religious leaders expressed concerns about the content of sexuality education proposed by the government, the revised curriculum ended up including moralistic language. In Zambia, after religious leaders noted that some sexuality education topics were in opposition to Christian teachings and national values, a participative consultation process was developed, bringing on board religious leaders to raise awareness of the importance of sexuality education and disseminate information among their followers. The engagement of parents' and teachers' associations was also vital in understanding their viewpoints and adapting the programme to their expectations (Wekesah et al., 2019).

In the Netherlands, where Catholic schools are state-owned and funded, citizenship education, including sexuality education, has been mandatory since 2006. However, schools have the ultimate say on how they deliver it within the curriculum. *Reformatorische scholen*, faith-based schools located in a conservative part of the country, reportedly applied admission policies explicitly discriminating against same-sex relationships and highlighting the Biblical distinction between men and women. Some of the schools required parents to sign a declaration that a non-heterosexual way of life was contrary to God's word and hence to be rejected. If the document was not signed before admission, their children's admittance was denied (de Nies and van Bree, 2020). Advocacy organizations took this case to the House of Representatives, as such school measures prevent a safe school climate for students. In March 2021, eight political parties and COC Netherlands, a national NGO promoting the rights of lesbian, gay, bisexual and transgender people, signed the Rainbow Ballot Agreement, which included provisions on a safer school climate for teachers and students (NOS, 2021).

In England (United Kingdom), tensions often emerge between national curriculum requirements and faith-based schools, including on sexuality education. A report on over 600 faith-based state secondary schools (Catholic, Church of England, Muslim and Jewish) found that in two thirds, sex and relationship education was taught according to religious principles, including that sex outside a religious marriage was wrong, that divorce was not recognized and that homosexuality was wrong (National Secular Society, 2018). In Birmingham, a textbook from an unregistered Islamic school advocated killing homosexuals (Titheradge, 2018). In Texas (United States), a Catholic school student handbook threatened to expel transgender students. The manual reproved any students expressing and celebrating homosexuality (Sauers and Mendoza, 2021).

During the long debate on Argentina's abortion law, some Catholic schools required parents to sign a statement opposing the law and accepting that sexuality education would be based on Catholic principles. Parents also reported schools using education material that justified gender-based violence and undermined women. The texts promoted the concept of men as breadwinners, their role as household heads and the need for spouses to be submissive. These education materials also highlighted the belief that men were more intelligent than women and portrayed women as emotional and less capable (Giubergia, 2018).

Non-state actors support menstrual hygiene management in vulnerable contexts

In countries with stigma around menstruation, girls miss school several days a month. NGOs help adolescent girls feel safe at school during menstrual days. In Uganda, the Smart Girls Foundation delivers a kit consisting of a backpack, reusable sanitary towels, a menstrual pad sewing kit and an information booklet on menstrual health management to rural girls aged 12 to 17. The foundation partners with local governments and involves parents and the community (UNFPA, 2021a). In Malawi and the United Republic of Tanzania, the governments have distributed a menstrual hygiene booklet with the support of UN agencies and NGOs. Finn Church Aid, in partnership with UNICEF, distributes sanitary pads at schools and delivers education about menstruation (EGER, 2021f).

Some countries regulate the provision of menstrual hygiene products in public and private schools. In Zimbabwe, the Education Amendment Act 2020 requires all schools to meet minimum requirements on water, sanitation and hygiene, including sanitary wear and menstrual health aids. The amendment also provides sexual and reproductive health personnel at all schools. Non-state actors, such as WASH United, advocate for making menstrual products affordable by eliminating taxes on tampons, pads, menstrual cups and period panties. The Reproductive Health Supplies Coalition is a global partnership of public, private and non-governmental organizations aiming to ensure that all women in low- and middle-income countries have access to and can use affordable, high-quality supplies to ensure better reproductive health. However, only 25 countries zero-rate or exempt menstrual products from tax, 18 countries tax with a reduced rate, and 142 tax these products at standard rates (PeriodTax, 2021).

Beyond the provision of supplies, feeling safe at school during menstrual days also means counting on girls-only spaces where female students can learn about menstruation-related topics and resolve their doubts. NGOs have established support groups in Kenya and Malawi where girls can discuss these issues so as to prevent school dropout, early pregnancy and child marriage (Tellier and Hyttel, 2017).

NGOS CHAMPION GENDER EQUALITY IN EDUCATION IN THEIR ADVOCACY ACTIVITIES

Non-state actors bring gender equality issues to national agendas. Feminist movements have generated meaningful change in education systems. Student organizations and feminist groups in Latin America have advocated for non-sexist education in universities and the end of gender-based violence in education institutions. Protests to end discriminatory practices have taken place in Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Paraguay, Peru and Uruguay. In addition to petitioning, students have publicly denounced sexual harassment, abuse and discrimination from professors, staff and classmates (Suárez-Cao and Arellano, 2019).

Such social movements have led to gender issues being prioritized, and many universities have started developing protocols against sexual violence on campuses (Dinamarca-Noack and Trujillo-Cristoffanini, 2021; Education International, 2018). Some institutions have established diversity offices and endorsed non-sexist education (Suárez-Cao and Arellano, 2019). Others have set up mechanisms to handle complaints related to sexual violence. For example, the Pontificia Universidad Catolica de Valparaíso in Chile has formed an interdisciplinary committee to prevent, follow up on and punish harassment, violence and discrimination (Linhares et al., 2021).

Non-state actors promote gender equality by generating evidence. When data at national level are scarce, NGOs can make a difference by providing qualitative and quantitative information that allows decision makers to reach informed decisions. Resources range from surveys on school climate, violence and discrimination to programme evaluation and documentation of good practices. Feminae Carta, a digital advocacy tool created by NGOs, provides activists with the research they need to speak out for girls' and women's rights and convince leaders about the importance of investing in gender equality (The World With MNR, 2021).

Academic centres and foundations also collaborate on evidence generation to tackle harmful gender norms in education programmes. Advancing Learning and Innovation on Gender Norms, a digital platform, is led by the Overseas Development Institute and the Bill & Melinda Gates Foundation to collect evidence on good practices for combating barriers to girls' education (Yotebieng, 2021).

The International Lesbian, Gay, Bisexual, Transgender, Queer & Intersex Youth and Student Organisation (IGLYO) carried out the LGBTQI Inclusive Education Study to examine the experiences of LGBTQI youth and explore the situation in European schools. In Scotland (United Kingdom), an LGBTI Inclusive Education Working Group was established in 2017 to improve young people's learning experience. The group made recommendations to the government, after which Scotland's education system became the first to include LGBTI-inclusive education across the school curriculum (UNESCO and IGLYO, 2021). In Chile, a 2017 circular on inclusion of transgender students in schools responded to demands from transgender students' parents and NGOs that sought support from the Ministry of Education. The circular stated that schools must support students' self-perceived gender identity, provide safe access to bathrooms and respect whatever uniform a student considers appropriate to their gender identity (Barrientos and Lovera, 2020).

Unions advocate for teachers' well-being in the workplace

Teacher unions' efforts to make education workplaces more gender-friendly include promoting action on gender-based violence against women teachers and staff, developing and implementing codes of conduct and promoting representation of female leaders in trade union structures.

To build a culture of equality, women in the Ethiopia Teachers Association and the Uganda National Teachers' Union received training on confidence and leadership to encourage them to run for leadership positions. In Ethiopia, the campaign increased the number of women elected (UNGEI et al., 2018). Unions in Croatia and Serbia also delivered training programmes to encourage women to apply for leadership positions (Pavlovaite and Weber, 2019).

Some unions partner with government to generate policy reforms. The Bulgarian Union of Teachers worked with the government towards criminalization of teacher harassment, resulting in a reduction of violence at work (Pavlovaite and Weber, 2019). Latin American unions are campaigning to promote ratification of ILO Convention 190 on eliminating violence and harassment at work (Education International, 2021). The Zambian National Teachers Union joined the government in designing a new code of ethics for the teaching profession, adopted in 2018 (UNGEI et al., 2018).

Teacher unions in the United Kingdom have developed projects to challenge gender stereotypes in learning materials. For example, the National Education Union (NEU) worked with primary schools to identify discriminatory gender norms in nursery and primary school classrooms. The union provided schools with children's books that helped challenge gender stereotypes. The textbooks, available online, address various gender-related issues and provide guidelines for teachers on using the contents.

Christelijk Onderwijzersverbond (Christian Teacher Union) in Belgium raises awareness of the use of gender stereotypes by colleagues and members. The Education and Science Trade Union of Slovenia organizes workshops on challenges and problems LGBTI students and staff face to improve knowledge among kindergarten and school employees. Spain's Confederación de Sindicatos de Trabajadoras y Trabajadores de la Enseñanza Intersindical (Confederation of Education Workers' Unions) provides gender-sensitive material to help teachers work on such issues in the classroom. It proposes activities for all educational levels to raise awareness and educate students on gender-based violence (ETUCE, 2021a).

The Irish National Teachers' Organisation has an LGBT+ Teachers' Group campaigning on equality legislation. The union also encourages classes and teachers to explore LGBT+ and other family diversity in the classroom. It surveys members about experiences of LGBTI teachers in schools and awareness of LGBTI teacher issues. It has designed an online professional development course for members, Creating an LGBT+ Inclusive School, comprising five modules on identities and visibility, gender non-conformity and gender transition, preventing and dealing with bullying and creating inclusive classrooms and schools (ETUCE, 2021b).

In the United Kingdom, the NASUWT union promotes inclusion of LGBTI teaching staff through consultative conference events for LGBTI members, allowing them to participate and contribute to the union's work to ensure that its policies, practices and campaigns consider gender identity and expression issues. The NEU provides support and guidance to transgender educators. The Trans Equality Toolkit offers comprehensive information for education staff on gender transitioning in school, including detailed explanation of processes, rights of trans teachers in all schools and support through union representatives. The union also offers guidelines for teachers on how to create an inclusive school climate for transgender students (NEU, 2021).

17-year-old Jenifer Tete is a breadwinner in her family. Away from home, she is the head girl at Maaji II Seed Secondary School. UNICEF and the Danish Refugee Council are working with the community and teachers to change the mindset towards girls' education, working towards increased retention of girls in school and more access to quality learning.

CREDIT: UNICEF/Zahara Abdul

Conclusion

Over the past 20 years, gender disparities in education have changed rapidly, with girls closing or even reversing the gaps that separated them from boys in access, completion and learning at the various education levels. While these are successes to celebrate at the global level, challenges to gender equality in and through education have not ceased. Behind the global success, on average, lies the extreme exclusion of poor girls in rural areas of the world's poorer countries. Behind the progress of girls in mathematics, on average, lies the pervasive over-representation of boys among the top performers. Behind the steady shift in favour of females of indicators, such as teacher sex composition, minimum proficiency in reading and enrolment in higher education, lies the feminization of the teaching profession and the sorting of female students into particular fields, which strengthen gender stereotypes. Behind the prosperity of numbers lies the discriminatory gender norms that far too many people continue to hold about girls' and women's role in society and that curricula and teaching have not done enough to overturn.

A companion to the global 2021/2 GEM Report, this publication has also emphasized the role of non-state actors in influencing the gender inequality trajectory in and through education. Coming in to fill gaps in provision left by the public education system, non-state actors are on the front line for girls' education in emergencies, have grown to meet the needs of parents with young children who have no public early childhood education alternatives, and have catered for families who prefer to send their children to faith-based schools. Depending on the context, their role can be to push the gender equality agenda forward or to undermine progress and maintain the status quo.

The recommendation to take from the quantitative and qualitative analysis of multiple trends in gender equality in and through education is that policymakers and advocates need to #Deepenthedebate. Deepening the debate requires:

■ *Paying closer attention to data*: This report has relied upon a comprehensive set of data on gender gaps in out-of-school and completion rates from the UIS database and the VIEW website, www.education-estimates.org, and in learning outcomes at various proficiency levels from the WIDE website, www.education-inequalities.org. Drawing multiple data sources together, the report has shown trends over time and across age groups that allow for greater analysis of who is still left behind and how. These resources can enable a more informed discussion of where the barriers to gender equality in education now lie and where to focus efforts.

■ *Taking a closer look at where boys are now falling behind*: A conversation on gender equality can no longer ignore the increasing challenges to boys' education and what they mean. For all the countries where girls' education must be the top priority, there are others where boys' needs should be those on the agenda in policy debates.

■ *Looking beyond access, completion and learning to societal norms influencing progress*: Gender equality in education is influenced by gender-based expectations, by politicians as well as parents, communities as well as businesses and faith leaders. Any assessment of priorities must include a mapping of influential actors to engage with in a plan for reform. Reforming gender equality in education cannot be done by governments alone and requires all actors' attention.

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Gender Report

DEEPENING THE DEBATE ON THOSE STILL LEFT BEHIND

The 2022 Gender Report presents fresh insights on progress towards gender parity in education with respect to access, attainment and learning. It showcases out-of-school rate trends and the results of a new model that provides coherent estimates, combining multiple sources of information, on completion rates. It also reviews the results of learning assessments released over the past 18 months, which present an almost global picture of the gender gap in reading, mathematics and science achievement in lower and upper primary and lower secondary grades. They provide a baseline against which to assess the impact of COVID-19 on inequality when post-pandemic data start being released next year.

A companion to the 2021/2 GEM Report, it emphasizes the role of non-state actors in influencing gender inequality in and through education. Non-state actors have filled in provision gaps left by the public education system. The 2022 Gender Report presents evidence on gender gaps in the share of students enrolled in private institutions by sex and what drives these gaps in the various regions. It also provides case studies on the privatization of childcare in high-income countries, the impact of non-state faith-based schools in Asia on gender norms and the role of women's universities around the world.

Some non-state actors have pushed the gender equality agenda forward, while others have undermined progress in order to maintain the status quo. Some have been at the front line for girls' education in emergencies. Some have lobbied against comprehensive sexuality education. Some champion inclusion of marginalized girls, while others maintain discriminatory gender norms. Depending on the context, it is important not to make assumptions but to look carefully at the data and work together to eliminate all forces that prevent anyone on the basis of gender from fulfilling their potential through education.

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Global Education Monitoring Report

Sustainable Development Goals

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