

## Breaking Barriers, Improving Futures <br> Challenges and Solutions for Girls' Education in Pakistan

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Introduction

Despite substantial progress in educational opportunities, gender disparities remain.

## The five main challenges to girls' education in Pakistan. What can policymakers do?

## Additional

impacts to girls' education

## Conclusion



Educating girls has a myriad of benefits ranging from greater empowerment and economic opportunities to improved health outcomes and reduced poverty.

In Pakistan, school-age children, especially girls, lack quality educational access and attainment.


A child in Pakistan who starts school at age 4 can expect to complete only 4.8 years of actual learning over the course of their education. ${ }^{1}$


Pakistan also has some of the highest numbers of out-ofschool children (OOSC) in the world, especially among girls, who constitute 54 percent of OOSC. ${ }^{2}$


Girls, in comparison to boys, are less likely to be enrolled in school, less likely to stay in school, and less likely to achieve learning outcomes even if they attend school.
Girls from rural areas suffer the worst educational outcomes and are the most susceptible to factors such as poverty and sociocultural beliefs that prevent girls and women in Pakistan from completing their education.

One of the biggest challenges Pakistan faces is that the country's education spending fails to yield results regarding quality and access. In 2020, it spent 2.3 percent of GDP on education, notably below the South Asian regional average of 2.9 percent and the global average of 4.3 percent. ${ }^{3}$ In addition, human and financial resources are not directed where they are most needed to improve quality and access to education. Approximately 70 percent of the budget is allocated to salaries and only around 10 percent to development, which is often not fully utilized. ${ }^{4}$

The low amount of resource allocation coupled with poor learning outcomes decreases parents' desire to send their children to public school. For children, in particular girls, to succeed in school, Pakistan must increase efficiency of spending and total expenditure on education (see Spend Better, Spend More: How to Make Education Expenditures Impactful for Children in Pakistan for more information).


This report argues that while it is important to
continue to deliver quality education to all children in
Pakistan, more girl-specific interventions are needed
in Pakistan, especially for girls living in rural areas.
Research shows that general interventions targeted to improve access and learning for all students have comparable results to those that only target girls. However, policy makers need more evidence to better understand the unique benefits of girl-specific, rather than general, interventions. ${ }^{5}$ This report provides evidence to show how girls continue to face greater challenges and barriers than their boy counterparts with regard to educational opportunity. It provides recommendations that, in the Pakistani context, policy makers could use to target interventions for girls, especially since service delivery and policies are often gender-segregated, e.g., there are differences between resources provided to girls' schools in comparison to boys' schools. In addition, the report presents a framework that assesses recommendations based on their direct benefit to girls, cost effectiveness, impact, and sustainability. The framework is informed by the Global Education Evidence Advisory Panel's Cost-effective Approaches to Improve Global Learning and the World Bank's Learning Recovery to Acceleration: A Global Update on Country Efforts to Improve Learning and Reduce Inequalities.

This report aims to look at available national-level data, along with the existing province/location-focused research, to try to present a stronger overall picture of the state of girls' education in Pakistan than what is currently available. Much of the existing evidence on girls' education in Pakistan is qualitative and focuses on specific locales or provinces, such as rural areas, or on specific topics such as OOSC. Data sources on education statistics in Pakistan are varied and often incomplete; information about these data sources and additional analysis can be found as part of this report's supplementary material. This report explores the connections between topics that affect girls, which includes identifying areas where more data and research are needed. It should also be noted that this report will not fully examine either early childhood development or skills development and labor force participation; instead, it will focus on the primary drivers in basic education and the five main barriers to quality education for girls in Pakistan.

## SECTION NOTES

1 Ersado et al., 2023.
2 Pak Alliance for Maths and Science, n.d.
3 Barón et al, forthcoming.
4 Barón et al, forthcoming.
5 Evans and Yuan, 2019

Despite substantial progress in educational opportunities, gender disparities remain.

Pakistan faces significant challenges in education. Despite overall increases in enrollment rates, the gender gap in enrollment persists. Pakistan has among the highest number of out-of-school children (OOSC) in the world, as well as many children who have never been enrolled in school. Among students who enter school, the dropout rates remain high and learning progress is slow. While the data vary across provinces, the Pakistani education system continues to struggle to get children, especially girls, into school, keep them in school, and ensure that they achieve learning outcomes while in school.

## Enrollment for both boys and girls has significantly increased in Pakistan.

According to the Pakistan Social and Living Standards Measurement (PSLM) survey, the gross enrollment rates increased 8 percentage points, from 60 percent in 2004-05 to 68 percent in 2019-20. ${ }^{1}$ Net enrollment excludes children who are older than the target enrollment age (figure 1). In 2019-20, gross enrollment exceeded net enrollment by 35 percentage points in middle school. This shows that there are many over aged children enrolled in primary school, these children are between the ages of 11 and 13 , which is the typical age of students at the middle school level. Net enrollment decreases as education level rises, from 61 percent at the primary level, to 37 percent at the middle school level, and 32 percent at the secondary school level. Figure 1 also shows that despite an increase in enrollment for both genders, girls continue to lag behind boys in enrollment across grade levels.

Figure 1. Net and gross enrollment for boys and girls across grade levels, 2019-20


Figure 2. The gender gap in gross enrollment over timeBoys
G

Primary (ages 5-10)


Middle (ages 11-13)

| $78 \%$ | $77 \%$ | $76 \%$ | $79 \%$ | $77 \%$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| $62 \%$ | $59 \%$ | $60 \%$ | $64 \%$ |  |
|  |  |  |  |  |
| $2011-12$ | $2013-14$ | $2015-16$ | $2017-18$ | $2019-20$ |


| $\begin{array}{c}\text { Secondary (ages 14-16) } \\ \hline 60 \%\end{array}$ |  |  |  | $59 \%$ |
| :---: | :---: | :---: | :---: | :---: |$)$

Source: PSLM, 2011-12 through 2019-20
Though enrollment rates have improved, a gender gap persists across school levels. As of 2017, there were 63 million children in Pakistan between the ages of 5 and $16 .{ }^{2}$ Of these school-age children, 48 million boys ( 75 percent) were enrolled in school, compared to 41 million girls (64 percent). ${ }^{3}$ As shown in figure 2, the gap in gross enrollment

[^0]between boys and girls remained fairly constant between 2011-12 and 2019-20 for primary-school-age children and middle-school-age children. At the primary school age, the gross enrollment for boys was 76 percent in 2011-12 and 73 percent in 2019-20, while for girls of the same age, enrollment was 68 percent in 2011-12 and 66 percent in 2019-2020. Middle school enrollment also remained relatively consistent with boys enrolled at 78 percent in 2011-12 and 77 percent in 2019-2020, and girls enrolled at 62 percent and 65 percent, for the same years, respectively. The gap in enrollment at the secondary level decreased during that same time, with the share of girls enrolling in school increasing from 44 percent to 49 percent, and boys from 60 percent to 61 percent, respectively.

Girls are less likely to be enrolled in school than boys, especially after primary school. Across all ages, girls are less likely to be enrolled in school than boys of the same age (figure 3). However, enrollment rates for boys and girls drop after age 11. At age 11, 76 percent of girls and 85 percent of boys are enrolled in school. At 14 years of age, the enrollment rate falls to 56 percent for girls, but the enrollment rate for boys remains above 70 percent. Overall, an 11-year-old girl is 9 percentage points less likely to be enrolled in school than a boy, and 13 percentage points less likely to be enrolled in school by age 13.

Figure 3. Gross enrollment, by age and gender


Source: PSLM 2019-20.

At all levels of schooling, there are variations in enrollment over time and across provinces. Figure 4 shows enrollment rates over time and the four main provinces of Pakistan. Punjab and Sindh are the most populous provinces. Balochistan is the largest province in land area, but it is predominantly rural and sparsely populated. Khyber Pakhtunkhwa (KP) is the fourth most populous province. Overall, school enrollment is characterized by higher rates in Punjab and KP, and lower rates for Balochistan and Sindh. Over the last 10 years in Balochistan, girls' enrollment has been consistently lower than 50 percent. In KP and Sindh, the gap between the enrollment of girls and boys has remained largely unchanged over time, irrespective of age or grade level. While Sindh has some of the worst indicators in education, education improvements in this province would likely lead to national-level improvements.

Figure 4. Gross enrollment, over time and by province

B. Middle school (ages 11-13)


Source: PSLM 2011-12 to 2019-20

Figure 5. Gross enrollment, by age and province





Source: PSLM 2019-20.

A similar enrollment profile exists in every province of the country. Girls have a lower enrollment rate than boys across provinces, although the size of the gender gap differs from province to province, where Punjab has the smallest gap (see figure 5). In 2019-20, in Punjab, the difference in enrollment between 13 -year-old boys and girls was 5 percentage points; in KP and Balochistan, the enrollment gap between boys and girls was a staggering 32 percentage points and 25 percentage points, respectively. In relative terms, a 13 -year-old boy would be 36 percent more likely to be enrolled in school than a girl of the same age in KP, and 40 percent of boys were more likely than girls of the same age to be enrolled in Balochistan.


## SPOTLIGHT

## Out-of-School Children

Around 32 percent of Pakistan's school-age children are out of school, the second-highest rate in the world. ${ }^{4}$ Out-of-school children (OOSC) are those who have never enrolled in school or who attended school and dropped out later. Among children of primary-school-age and middle-school-age, 32 percent are not in school, and this proportion increases at higher levels of education, with 45 percent of secondary-school-age children who are not in school.

There are more girls out of school than boys. In primary to secondary (ages 5-16), 37 percent of girls are out of school, compared to 27 percent of boys. As shown in figure 6, the disparity increases with grade level. There are 27 percent of primary-school-age (ages 5-10) girls who are out of school, compared to 34 percent of boys of the same school age. By middle school (ages 11-14), 35 percent of girls are out of school, versus 23 percent of boys of the same age. By high school (ages 15-16), more than 50 percent of girls are out of school, compared to 39 percent of boys of the same age.

Figure 6. Share of children out of school, by gender and grade level


Source: PSLM 2019-20.

The majority of children who are currently out of school have never attended school. In 2019-20, of the total number of OOSC, more than 82 percent had never been enrolled in school. The remaining 18 percent represent those who were enrolled but dropped out. Though the numbers are decreasing, 20 percent of boys have never attended school compared to 33 percent of girls. The gender gap for children who have never attended school is much larger than for those who were in school but dropped out. This indicates that while dropout rates are a serious issue, enrollment continues to be a major challenge, especially for girls.

There are substantial differences across provinces in the share of children out of school, as well as the absolute number of children out of school (table 1). In absolute terms, Punjab has the largest population of OOSC (over 7 million) due to its large population of school-age children. However, Punjab also has the lowest percentage of children out of school ( 24 percent), compared to the provinces of Balochistan, KP, and Sindh. Balochistan and Sindh have the highest rates of OOSC at 47 percent and 44 percent, respectively. They also have the highest rates of OOSC for girls at 59 percent and 51 percent.

The Pakistan Education Statistics report for 2021-2022 estimates the population of OOSC to be 26.2 million.

In this report, we use our own estimations and rates
calculated from the Pakistan Social and Living Standards Measurement (PSLM) data, as this approach enables further analysis of the reasons why children are not attending school.

Once released, the Pakistan Population Census 2023 data will provide the most accurate count of OOSC in the country.

Table 1. Children out of school, by province

| Province | Population <br> ages 5-16 | Girls <br> out of school | Bops <br> out of school | Total <br> out of school | Percent <br> out of school |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Balochistan | $4,339,328$ | $1,076,684$ | 952,179 | $2,028,863$ | $47 \%$ |
| KP | $11,798,233$ | $2,683,768$ | $2,528,861$ | $5,212,629$ | $44 \%$ |
| Punjab | $31,991,082$ | $6,556,611$ | $3,750,460$ | $10,307,071$ | $32 \%$ |
| Sindh | $\mathbf{1 4 , 6 7 5 , 8 6 4}$ | $1,809,692$ | $1,718,326$ | $3,528,018$ | $24 \%$ |
| Total | $\mathbf{6 2 , 8 0 4 , 5 0 8}$ | $\mathbf{1 2 , 1 2 6 , 7 5 5}$ | $\mathbf{8 , 9 4 9 , 8 2 6}$ | $\mathbf{2 1 , 0 7 6 , 5 8 0}$ | $\mathbf{3 4 \%}$ |

Source: Authors' estimates, using PSLM 2019-20 and Population and Housing Census 2017.
Note: The Pakistan Education Statistics report for 2021-2022 estimates the population of OOSC to be 26.2 million.

Between the 2011-12 and 2019-20 administrations of the Pakistan Social and Living Standards Measure (PSLM) survey, the overall share of OOSC changed very little, hovering around 31 percent. However, there was variation in OOSC trends across provinces (figure 7). The total number of OOSC in Punjab has decreased, especially among girls. The share of OOSC has remained stable for girls and boys in KP and Sindh. Balochistan has shown an increasing trend in OOSC for both boys and girls; though the most recent PSLM data show a sharp decline between 2018-19 and 2019-20. In KP, Sindh, and Balochistan, the difference in the share of OOSC for boys versus girls has persisted over time.

Figure 7. Share of children out of school, over time and by gender
and province $\quad$ Kunjab


Balochistan


Source: PSLM 2011-12 to 2019-20.

Girls living in rural areas are less likely than boys and urban girls to attend school, especially after primary school. As shown in figure 8, rural girls are significantly more likely to be out of school than their male peers, and almost twice as likely to be out of school relative to urban girls. Of the total population of OOSC in Pakistan, girls living in rural areas are the most disadvantaged population, with 37 percent of rural school-age girls (ages 5-16) having never attended school. Overall, Pakistan has serious gender disparities in access to education, with a high percentage of both boys and girls that are out of school, which indicates that there is a need for greater attention to improve and encourage school enrollment and to deliver quality education in schools for children across the country.

Figure 8. Share of children out of school, by gender and location


Source: PSLM 2019-20.


More than one in three Grade 1 students either dropped out or repeated at least one year during their first five years of school.

Overall, dropout rates are high for both boys and girls during transitions between school levels. Figure 9 shows the boys and girls who dropped out of school, from those enrolled in primary school (beginning in grade 1) to grade 10. The graph does not include children who were never enrolled. Both boys and girls tend to drop out of school during transition years, from primary to middle school and from middle school to secondary school. For girls, 25 percent end their education at primary school. However, if a girl progresses to secondary school (grade 9), she is more likely than a boy to complete grade 10.

Figure 9. Share of boys and girls dropping out of school, by grade


Source: PSLM 2019-20.
Girls from rural areas are less likely to advance to secondary school than their urban counterparts. Rural girls are more than twice as likely to drop out than their urban counterparts. Rural girls are also significantly more likely to drop out after primary school, with 43 percent of rural girls dropping out of school after grade 5, compared to 20 percent of girls of the same grade in urban areas. ${ }^{5}$

While Pakistan is experiencing a gradual upward trend in learning outcomes, learning levels remain low. Annual Status of Education Report (ASER) 2018-19 scores for all children ages $5-16^{6}$ show an improvement in learning for the students who attend school.

However, in 2018, ASER reported that 50 percent of grade 5 students in Pakistan had not reached grade 2 levels of learning. Another indication that progress in learning levels remain low is that, while children in Pakistan are expected to attend nearly 9.0 years of schooling, they only achieve 4.8 years of actual learning. ${ }^{7}$

Gender gaps are apparent, especially between urban and rural children. According to ASER, the gender gap in literacy and numeracy is smaller (see figure 10) among urban boys and girls than between rural boys and girls. Boys outperform girls, especially girls in rural areas. For example, 33 percent of rural boys could read a story in Urdu or English compared to 27 percent of rural girls. The gender gap in literacy is less apparent in urban areas; 46 percent of urban boys and 45 percent of urban girls are able to read a study in Urdu or English (figure 10a). Thirty-three percent of rural girls had difficulty recognizing numbers $1-9$, whereas the gender gap among urban children was smaller, with 10 percent of urban girls and 8 percent of urban boys struggling to recognize numbers (figure 10b).


Figure 10. Literacy and numeracy skills


Rural


## Addressing the learning crisis in Pakistan requires urgent

 attention from policy makers. Investing in girls' education is critical, not only for gender equality, but also to empower girls and enable generational gains in learning and livelihoods. To enroll girls in school and to keep them in school, there needs to be strategic and varied approaches to improve enrollment, retention, and completion. This report identifies five main challenges facing girls' education in Pakistan and provides suggestions for overcoming these barriers.
## B. Numeracy



Rural


Source: ASER 2018-19, Urban and Rural.

## SECTION NOTES

1 PBS 2023b
2 Population and Housing Census, 2017.
3 Authors' calculations, using PSLM 2018-19 (PBS 2023a).
4 Pakistan Bureau of Statistics 2023b
5 Authors' calculations, using 18-year-olds who previously enrolled in primary school in the 2019-20 PSLM (PBS 2023b).
6 For the time period 2014-2019. ASER tests all children ages 5-16 on what they should have learned in grade 2 in Urdu, English and mathematics.
7 Ersado et al., 2023.

## The five main challenges to girls' education in Pakistan. What can policy makers do?

There is a large amount of evidence that illustrates how girls continue to face greater challenges and barriers than their boy counterparts with regard to educational opportunity.

This section outlines the primary challenges and a set of recommendations for each challenge to help policy makers prioritize interventions based on parameters of cost effectiveness, impact, and sustainability.


CHALLENGE 1

> Poverty prevents children, especially girls, from going to and staying enrolled in school

## Poverty remains a significant barrier to receiving an adequate education. ${ }^{1}$

Children from the lowest-income families are the least likely to enroll in school (see figure 11), and among the children who do enroll, only 25 percent complete primary school. ${ }^{2}$ In Pakistan, the effect of poverty on education begins at the primary school level. ${ }^{3}$ In fact, 13 percent of parents cite the cost of education as one of the main reasons why their children either drop out or do not attend school. ${ }^{4}$

Many children living in poverty, especially girls in rural areas, are an underrepresented population of students enrolled in schools. According to data from the 2018 Public Expenditure Review (PER) conducted in Pakistan, 19 percent of all students were from lowincome households. Further calculations show that 28 percent of children under the age of 18 were considered poor in 2018-19. This shows that poor children are significantly underrepresented in the student population and are much less likely to be enrolled in school. ${ }^{5}$ Moreover, girls from poor families are 52 percentage points less likely to attend school than girls from high-income households. Girls who live in rural areas, who are more likely to be from low-income households, are also less likely to be enrolled than any other group, including girls in urban areas and boys in both rural and urban areas.

Poverty is a contributing factor for students dropping out of school. Low-income families may keep their children, especially their daughters, at home to contribute to family income, help run the household chores, or take care of other children. Household survey responses indicate that girls in particular drop out at higher rates than boys at the middle school level because they are needed to work at home. In rural areas, this may include supporting the family through agricultural work along with domestic chores. ${ }^{6}$ Another reason for children of low-income families dropping out is the cost of schooling. Even if children go to tuition-free government schools, many of the lowest-income families may not be able to afford the associated costs of schooling, such as uniforms, textbooks, transportation, and other educational materials.

Figure 11. Enrollment, by household wealth quintile and gender


Source: Author's calculations with data from the PSLM, 2018-19.

One cost factor that is especially relevant in Pakistan is the high prevalence of private schooling, with 42 percent of all students enrolled in a private school. ${ }^{7}$ The share of private schools among total enrollments is higher in urban areas ( 55 percent), and the highest in Punjab where 63 percent of all current students go to private schools. ${ }^{8}$ Though low-income families are less likely to send their children to private school, it remains a major option for a large share of households even though it costs three times more than a public government school. ${ }^{9}$ In Punjab especially, public-private partnerships (PPPs) have shown to be an effective way to increase enrollment, especially girls' enrollment. Some examples will be further discussed on page 21.



PREVALENCE OF PRIVATE SCHOOLING

> The private sector plays a significant role in the Pakistani education landscape, accounting for 55 percent of enrollment in urban areas. These schools can cost three times more than a public school.

In Pakistan, households, on average, spend 5 percent of their total monthly spending on education, while low-income households allocate just 3 percent. ${ }^{10}$ Households in Punjab spend the most per student, and urban households spend more than twice as much as rural households. ${ }^{11}$ Some evidence suggests that rural households in which men have "permanently migrated", i.e., left the home for over six months to urban areas for employment reasons, are spending more on girls' education. A possible reason for this may be because decision-making responsibilities have been delegated to those remaining at home, who are mostly women. ${ }^{12}$

## Challenge 1: Possible solutions

Given the cost barriers associated with schooling in the Pakistani context, there are several policy options that could help increase the likelihood of children, especially rural girls, enrolling and staying in school. Policy makers could:

## Use targeted incentives to increase girls' enrollment

Since there is a huge challenge in getting out-of-school children into school, coupled with the fact that families are less likely to enroll girls than boys, with poorer families even less likely to enroll girls, incentives that target enrollment, with a premium on girls' enrollment, could lead to getting more girls in school on time. Specifically, conditional cash transfers (CCTs), which have been used for over 25 years, and they have largely been successful in increasing enrollment for both boys and girls in many countries. ${ }^{13}$ These direct cash transfers have been historically used to alleviate the cost of schooling, and they can be used to encourage families to prioritize enrolling their daughters.

For example, the Female School Stipend Program in Punjab was launched in 2003 and targeted girls in grades 6-10 who were living in districts with the lowest literacy rates. ${ }^{14}$ The government gave families PKR 600 (roughly \$2 USD) per quarter, and the money primarily covered the costs of schooling and transportation, which are two of the biggest barriers to families allowing their daughters to attend school. Families could only receive the stipend if their daughter attended at least 80 percent of the time. ${ }^{15}$ Four years after the intervention, an independent evaluation found that the stipend had increased girls' enrollment from 11 percent to 32 percent. ${ }^{16}$

Replicate successful public-private partnerships (PPPs) to increase school access for girls
The private sector plays a large role in Pakistan's education system, and there is heavy utilization of public-private partnerships (PPPs). These partnerships seek to enhance the provision of education and have been institutionalized throughout the country via Provincial Education Foundation (PEF). As of 2023, PPPs support the education of roughly 3.2 million children, but the number is likely higher as data are unavailable in Balochistan and KP. ${ }^{17}$ PPPs generally target all children, and they can be used to help focus more particularly on increasing girls' enrollment in school.

| CHALLENGE | POSSIbLE SOLUTIONS | BENEFIT <br> TO GIRLS | COST | IMPACT |
| :--- | :--- | :--- | :--- | :--- |$\quad$ SCALABILITY

[^1]Source: Authors' own table.

## SPOTLIGHT

## Examples of successful public-private partnerships benefitting girls

PPPs in Pakistan are quite widespread, and they have been successfully used in many provinces.

In Sindh, the Promoting Private Schooling in Rural Sindh PPP led to increased enrollment by 32 percentage points and improved learning by 0.63 standard deviations. ${ }^{18}$ Also in Sindh, a PPP program was implemented that aimed to increase enrollment in marginalized areas, reduce gender disparity in enrollment, and increase student learning. It offered qualified local entrepreneurs to set up and run tuition-free, co-ed primary schools in underserved villages. ${ }^{19}$ The program increased school enrollment by 30 percentage points, but its impact did not seem to have affected enrollment by gender. ${ }^{20}$ However, the village households targeted in the program did report that their aspirations for their daughters did change from wanting them to become housewives to wanting them to become teachers. ${ }^{21}$

In a previous PPP in Punjab, the PEF led the implementation of a program that included vouchers that were redeemable against private school tuition payments. The voucher mandated that both boys and girls in a family must be enrolled; if a family used the voucher to enroll only their son(s) and not their daughter(s), the voucher was rendered invalid. ${ }^{22}$ Also in Punjab, the Foundation Assisted Schools (FAS) had large positive impacts on indicators such as enrollment, number of teachers, and other inputs, though it remains unclear how much enrollment was truly boosted. ${ }^{23}$ As of 2023, a World Bank project in Punjab is funding expanded access to low-cost private schools for poor families with the goal of enrolling an additional 900,000 children. ${ }^{24}$ Similar PPPs could be replicated in other provinces where poverty remains a big constraint to educational access.

In Balochistan, there were PPPs that directly targeted girls through the Urban Fellowship Program (similar to FAS in Punjab). This program incentivized the opening of private schools for girls by offering subsidies directly to schools and guaranteed public support for three years; the program managed to increase girls' enrollment around 33 percentage points. ${ }^{25}$

PPPs can be a viable and complementary solution to increasing girls' access to education through direct public provision in the short term. A recent Public Expenditure Review (PER) in Pakistan found that PPPs could be further enhanced by:

- Increasing coordination between provinces and departments Given the breadth of PPPs in Pakistan, more could be done to share knowledge across provinces, improve data sharing, and eliminate program overlap and unnecessary competition between PPPs and public schools
- Continuing to prioritize underserved groups. PPPs could continue to target girls and extend their reach to children with disabilities and other student groups.
- Targeting supply-side issues, especially beyond primary school, by increasing the number of middle and secondary schools. Given the large presence of the private sector, these organizations could also expand schooling options beyond primary school.
- Strengthening governance and management. PPPs would benefit from greater transparency, accountability, and monitoring and evaluation efforts.
- Emphasizing learning outcomes. As PPPs have largely been focused on access and enrollment, their impact on education quality is more mixed. Some more mature PPPs could shift focus to learning outcomes

Finally, it is important to ensure that PPPs guarantee the fair treatment of teachers. Teachers should be compensated with at least the minimum wage set by each province, and they should be supported to increase their competency and effectiveness in the classrooms. Education departments and education foundations should be mindful not to leverage the cost advantages of PPPs against proper labor practices for teachers.

CHALLENGE 2
An insufficient number of schools for girls, especially at the middle school and secondary levels, has led to lengthy travel time to schools and safety concerns

The insufficient number of schools, especially at the secondary school level, has raised concerns about travel time and safety, and it presents a key challenge to school access and enrollment for girls. In a 2022 World Bank household survey, when asked for the top reason why families do not send their children to school, nearly a third (29 percent) of families who live in rural areas responded that school is too far away. ${ }^{26}$

For these families, there were too few local schools, especially middle schools and secondary schools, to meet their needs. In 2016-17, 64 percent of school establishments were primary schools (150,129 schools), 21 percent were middle schools (49,090 schools), and only 15 percent were secondary schools ( 35,684 schools). In 2020-21, 62 percent of school establishments were primary schools (144,586 schools), 20 percent were middle schools ( 47,182 schools), and only 17 percent were secondary schools ( 40,227 schools). Even after five years, the number of school buildings has stayed relatively the same, with the number of school establishments dropping dramatically after primary level, leaving many children with very limited choices for schooling beyond grade 5.

Table 2. Percentages of schools from all provinces of Pakistan

| Province | Region | Primary | Middle | Secondary | Total number <br> of schools |
| :--- | :--- | :---: | :---: | :---: | ---: |
| Balochistan | Rural | $83 \%$ | $10 \%$ | $7 \%$ | 10,073 |
| Balochistan | Urban | $71 \%$ | $13 \%$ | $16 \%$ | 5,955 |
| KP | Rural | $38 \%$ | $23 \%$ | $39 \%$ | 3,7485 |
| KP | Urban | $71 \%$ | $14 \%$ | $15 \%$ | 5,797 |
| Punjab | Rural | $32 \%$ | $44 \%$ | $24 \%$ | 3,3081 |
| Punjab | Urban | $57 \%$ | $22 \%$ | $20 \%$ | 65,704 |
| Sindh | Rural | $91 \%$ | $6 \%$ | $3 \%$ | 46,283 |
| Sindh | Urban | $43 \%$ | $26 \%$ | $31 \%$ | 15,663 |

Source: NEMIS-AEPAM 2021-22.
The shortage in school establishments varies across provinces. Shortages are much more pronounced in Balochistan and Sindh, where more than 75 percent of educational institutions are only primary schools. The situation in rural Sindh is particularly stark, since 91 percent $(41,998)$ of schools are primary schools, and only 9 percent are middle or secondary schools. This is followed closely by rural Balochistan where 83 percent $(8,386)$ of schools are primary schools.

Too few schools lead to the need to travel long distances to attend school, which has been shown to significantly impact enrollment and regular attendance, particularly of girls. ${ }^{27}$ This report utilized a regression analysis to estimate the correlation between distance to school, as measured by minutes to go to school, and school attendance. For children enrolled in secondary school in rural areas, 20 percent had to travel over 2 kilometers to their closest secondary school, and 14 percent had to travel more than 5 kilometers. ${ }^{28}$

Findings showed that traveling a greater distance to school affects boys' attendance at the primary school level but does not have much of an effect at later schooling levels whereas traveling a long distance to school for girls remains a significant challenge at all school levels. For example, girls in middle school (ages 10-12) who spend between 45 minutes to 1 hour to go to school are 15 percentage points less likely to attend school than those who spend less than 15 minutes to go to school. A greater distance to high school is also associated with a lower probability of attending school for girls, while it has no effect on school attendance for boys.

Having to travel long distances to get to school raises safety concerns, particularly for girls. As noted from their household survey responses, parents prefer not to allow their children to attend school that are far away, for fear that their children may be harmed during their journey to and from school. In Pakistan, girls face a myriad of school-related gender-based violence (SRGBV). ${ }^{29}$ SRGBV can be physical, sexual or psychological aggression, punishment, ostracism, corporal punishment, bullying, humiliation and degrading treatments, harassment, sexual abuse and exploitation perpetrated by teachers, and fellow students. ${ }^{30}$ The effects of SRGBV on girls are serious, and range from physical and emotional health issues, including depression, missing school or dropping out altogether, and poor academic performance, among others. ${ }^{31}$

Traveling long distances to and from schools leaves girls vulnerable to harassment and violence. Girls are harassed, oftentimes daily, by men encountered on the streets, in and around the school gate, and on the vehicle taking them to school. According to studies, 63 percent of respondents believed that public streets were areas of high and moderate vulnerability for girls. ${ }^{32}$ Once girls
manage to arrive at school, they can face more instances of SRGBV. Among those surveyed, 53 percent of girls indicated that corporal punishment by faculty was one of the primary reasons they had persistent absenteeism or dropped out of school, while 33 percent of respondents indicated that they feared both sexual violence from faculty and from individuals encountered while walking to school. ${ }^{33}$ The impact of these experiences of violence, the inability to seek help, the lack of reporting mechanisms and the possible fear of blackmail by harassers, takes a toll on the psychological and physical well-being of many girls, which can lead to the discontinuation of their education

With an insufficient number of schools, especially in rural areas, children are also impacted by a low quality learning environment. Though overall teacher-to-pupil ratios in Pakistan are reasonable, one issue that disproportionately affects rural students is the practice of combining students of different grade levels into one very large classroom. Some refer to this as multigrade teaching but in reality it does not follow the pedagogy of true multigrade teaching where teachers integrate similar or related concepts/ themes across contents of different levels. ${ }^{34}$ In recent years, the government has hired several batches of teachers to make up for these shortfalls but has not necessarily constructed new schools to adequately address multigrade teaching classrooms. In Punjab, 25 percent of primary schools have combined classrooms, and 50 percent of the classrooms in public schools are overcrowded, with one class containing over 40 students. ${ }^{35}$ In Sindh, parents in multiple rural districts reported that overcrowding was one of their primary concerns, and was a factor in their decision not to send their children to school. ${ }^{36}$

The few schools that are available lack adequate infrastructure to promote a proper learning environment, especially for girls. Figure 12 shows the school condition and facilities by province, where schools in Punjab and KP are better equipped than other provinces. The differences in Sindh and Balochistan between rural and urban schools is more marked. Proper water, sanitation and hygiene (WASH) facilities in schools are especially important for the well-being of adolescent girls making the transition to puberty, and having adequate WASH facilities for girls can support better school attendance and performance. ${ }^{37}$ Evidence shows that the quality of school infrastructure has a positive impact on school enrollment
rates, attendance rates, and learning outcomes. ${ }^{38}$ There are 33 percent of schools in Pakistan that do not have basic sanitation or toilet facilities. ${ }^{39}$ In particular, poor toilet facilities significantly affect young girls who have started to menstruate. The lack of education around menstruation and the absence of private gender-segregated toilets equipped with running water create difficulties for girls managing menstrual hygiene at school. ${ }^{40}$ A study in Sindh revealed that 55 percent of girls missed class during their menstrual cycles. ${ }^{41}$ In many instances, this can lead to prolonged absenteeism and eventual discontinuation of school.

Figure 12. School condition and facilities, by province (\% schools with specified facility)



[^2]
## Challenge 2: Possible solutions

To improve the overall learning environment, reduce
SRGBV, alleviate costs for the poorest families, and
ensure that children, especially girls, have access
to schools with proper infrastructure and facilities,
policymakers could consider:
Increasing the supply of well-constructed and safe schools, especially middle schools
The data shows that there is a dire need for more schools, especially at the middle and secondary levels. Though school construction is not always considered a "smart buy", data shows that it is a necessary input in Pakistan, as it would help reduce travel times to school. However, more is not always better. Newly built schools should also meet quality criteria - that they be constructed to meet the needs of the community, are easily accessible for students, that they include gender-segregated toilets and wash facilities, have enough tables and chairs for students, proper teaching and learning supplies, and a boundary wall to prevent SRGBV, among other things. Evidence shows that having a boundary wall is connected to a 3.9 percent
higher overall enrollment for both boys and girls, while having a boundary wall at the middle and secondary levels corresponds to higher enrollment specifically for girls. ${ }^{42}$ The problems with school infrastructure and travel times to school have very real and significant consequences for students, especially girls.

Lastly, in theory, an increase in the number of schools should also drive down costs for families because more schools would translate into more choices for families (be it government, private, or lowcost private), and families would also have less need to pay for transportation costs. However, more research on whether this holds true would be warranted.

## Focusing school expansion in areas with larger concentrations of rural girls

In line with the idea that more does not equate to better, it will be important for policymakers to target school expansion in areas that need it the most-those with high concentrations of low-income families and/or rural families. In Burkina Faso, when "girl-friendly" schools were built in rural villages, both enrollment and learning outcomes increased significantly for girls. ${ }^{43}$ Similarly, in Indonesia, the gender gap in enrollment was eliminated when 60,000 new schools were constructed in conveniently located areas. ${ }^{44}$

| CHALLENGE | POSSIBLE SOLUTIONS | BENEFIT <br> TO GIRLS | COST | IMPACT |
| :--- | :--- | :--- | :--- | :--- | SCALABILITY

[^3]CHALLENGE 3
There is a shortage of qualified teachers, particularly female teachers in rural schools

A shortage of qualified and trained female teachers, especially in rural areas, contributes to girls' dropout rates. In urban areas, female teachers make up a large percentage of the overall teachers. In rural areas, however, except for Punjab, female teachers make up a smaller share of the overall number of teachers (figure 13). There have been greater efforts in Punjab to reach male/female teacher parity, but more research needs to be done to understand how this can be accomplished and whether it can be replicated in other areas of the country.

Teacher shortages riddle the education system across the country. Teachers are known to be the most important school input to engaging children in the learning process and to encouraging them to stay in school. However, teacher vacancies persist across the country. In Punjab, there are over 77,000 vacancies in the school system across all levels, with nearly 70,000 of those vacancies for teachers alone, according to the latest data in the School Information System (SIS). The teacher vacancies account for 17 percent of the total number of sanctioned posts. They are critical to a quality education and schools need to be adequately staffed. Having an adequate number of quality teachers is more impactful and has a higher rate of return than investments that improve physical infrastructure and equipment. ${ }^{45}$

Figure 13. Number of teachers per province


Source: NEMIS-AEPAM 2021-22.
A legacy of low investment in girls' education has made it difficult to hire and retain female teachers. There is also a large body of evidence from high-income countries and some low-income countries that show that same-gender teachers, especially for girls, can help underserved students learn better. ${ }^{46}$ Female students are likely to have more schooling benefits when they have a female teacher. However, there remains a shortage of female teachers, especially in rural areas where parents often prefer them as teachers for their daughters.

There are few local women with the appropriate educational qualifications to teach in rural schools, especially in Sindh and Balochistan (Zafar 2007), while in urban schools, there is a higher proportion of female teachers compared to male teachers (see figure 13). In rural Pakistan, girls' enrollment is highly correlated to the share of teachers residing in the village. ${ }^{47}$ However, without many girls completing their education, along with the remote locations of many rural schools, it has been difficult to hire and retain female teachers in those posts.

There are also other teacher characteristics, such as qualifications, content mastery, and attendance, that influences girls' education in Pakistan. Even though evidence shows that the gender of teachers matters for girls' educational outcomes, especially in socially conservative cultures, it is important to note that hiring female teachers is not the only factor in creating a positive environment for girls' education. ${ }^{48}$ Most importantly, teachers must be qualified, well-trained and responsive to their students. A study showed that rural students of female teachers performed worse in mathematics, and contributing factors for the students' poor performance were the formal educational level of the teacher, and the coverage of the mathematics curriculum by the teachers. ${ }^{49}$ This suggests that the gender of the teacher was not as important as the teachers' knowledge of mathematics and their teaching practices.

In KP, only 60 percent teachers could pass a grade 5 mathematics exam, compared with a 40 percent pass rate among their students. ${ }^{50}$ Similarly, 56 percent of the teachers across Punjab could correctly answer at least 80 percent of the items in a basic content knowledge assessment. ${ }^{51}$ These findings suggest that a substantial share of teachers are not well prepared to teach and that many children who enter school are exposed to a classroom environment that is not conducive to learning. Quality concerns occur in both private and public schools but can present themselves differently. At private schools, mainly low-cost ones, parents have also expressed
concern over teachers being poorly educated and underqualified. In public schools, parents and students have complained of teacher absenteeism, overcrowded schools, and poor facilities. ${ }^{52}$

Teacher absenteeism is a chronic problem in Pakistan. In Punjab, on any given day, 18 percent of the teachers are absent from their classroom, and in 14 percent of the schools, the teacher is not even physically present at the school. ${ }^{53}$ Teacher absenteeism is not unique to Pakistan; it also occurs in many other countries in South Asia. In Afghanistan on any given day, 10 percent of teachers are missing from school, and in Sri Lanka, most teachers take all of their available leave, which means that they are absent for 15 percent of the school year. ${ }^{54}$ Not only does teacher absenteeism have a direct effect on teacher performance and student learning, but it also exacerbates inequity. Schools with the poorest and lowest performing children, who are rural girls in Pakistan, often suffer from the highest rates of teacher absenteeism. ${ }^{55}$

Teachers in Pakistan are often underqualified and do not have much access to training and professional development opportunities. In Pakistan, many teachers obtain degrees from teacher training institutions to make them eligible for a job, rather than to improve the quality of their teaching instruction. ${ }^{56}$ A 2018 study found that there was no strong relationship between teacher qualifications (i.e., a credentialed teacher) and teacher effects on student achievement in either government or private schools in Pakistan. ${ }^{57}$ In addition, once teachers are hired, their opportunity for professional development is scarce. A primary teacher earns an opportunity for in-service training after 13 years of service while a secondary school teacher must teach for 16 years before having a similar in-service opportunity. ${ }^{58}$

## Challenge 3: Possible solutions

> Given that teachers are at the heart of learning, a robust and sufficient cadre of qualified and effective teachers in Pakistan are essential to ensuring that all children can reach their potential. While teacher salaries comprise the majority of the education sector's budget, salary increases may improve the quality of teachers entering the profession and help with retention. Any effort to make teachers more effective would likely increase the efficiency of the entire education system. Changes that focus on improving teacher motivation and ensuring adequately resourced teaching environments could also help reduce absenteeism. To create a positive impact on greater student engagement and improved learning outcomes, policy makers could:

Accelerate teacher recruitment for vacant positions, with a focus on hiring more female teachers in rural areas
Some strategies used to improve recruitment and retention in other countries, especially in challenging schools and areas, include offering financial incentives, accepting an alternative path to teaching, improving working conditions (induction programs, mentoring), and providing professional development and leadership support. ${ }^{59}$ However, evidence for the success of these strategies remain mixed. Financial incentives can attract teachers to more challenging schools, but this may not be enough to ensure their retention. There is mixed evidence on whether allowing noncertified teachers (e.g.,
paraprofessionals, recent university graduates) to become teachers improves the quality of learning. ${ }^{60}$ In KP, the replacement of a preservice qualification with a nine-month school-level program was found to be inconsistent with the quality standards set out in the National Education Policy. ${ }^{61}$ The evidence is also mixed on whether improved working conditions or induction programs/mentoring are effective, as most of the studies are single-group causal comparisons, and it is difficult to discern which of the mechanisms within these programs actually drive learning impact. ${ }^{62}$ Supporting teachers, either by providing professional development or other types of support, tend to have generally positive outcomes in teacher effectiveness though they are not necessarily related to recruitment or retention.

Improvements to teacher recruitment could be achieved in two main ways: increasing girls' enrollment and girls' completion of a full cycle of education would help build a pipeline of potential future female teachers; and providing preservice female teachers who have not yet been hired with training and professional development. While more data are needed to better understand both of these potential approaches, some evidence suggests that more public investment in girls' secondary education would increase the local pool of potential female teachers, making "the students of today the teachers of tomorrow". ${ }^{63}$

## Improve training and professional development for all teachers

Across South Asia, countries tend to be stronger in curriculum development and frameworks than preservice and in-service training. ${ }^{64}$ More attention could be paid to provide all teachers with more consistent and easily accessible teacher training programs that focus on content, pedagogical skills, child psychology, and activitybased teaching strategies. There is a large body of evidence that shows how programs that successfully provide relevant and ongoing teacher professional development and coaching opportunities have been linked with higher student learning outcomes. ${ }^{65}$ In Brazil, a classroom observation and coaching program for teachers led
to better use of teachers' instruction time, producing statistically significant gains in student engagement and learning. ${ }^{66}$ The program was also delivered via Skype, which kept the program's costs low. ${ }^{67}$ A body of new research supports this idea that the way to best improve girls' learning is to improve the training and professional development of teachers. ${ }^{68}$

## Develop a transparent deployment strategy across a variety of geographies

Evidence from South Asia shows that many teachers spend a lot of energy, time, and money on ensuring a good job deployment, which can dramatically affect their working and living conditions. ${ }^{69}$ Oftentimes the teachers seek transfers regardless of the need for teachers at particular schools; many teachers prefer to be located in urban areas versus rural ones. This surplus of teachers in schools and geographical regions that do not need them impedes student achievement, especially for rural students. While some qualitative reports indicate that there are fewer female teachers in rural areas, and that attracting teachers to more remote, rural posts is difficult, there is not enough data on teacher transfers and deployment
at the national level. In Punjab, there is an e-transfer system and accompanying guidelines that allows teachers to make transfer requests, but anecdotal evidence suggests that deployments remain politicized. While there is data available on the type of transfer request, there is not sufficient information on which transfers were reversed or other qualitative information that would help create a fuller picture of how teacher transfers affect rural/urban schools and other equity indicators.

More research is also needed to better understand the obstacles that female teachers face regarding job deployment. Some barriers female teachers face, especially those deployed to rural areas, seem similar to their students: transport and security. Many rural areas are not easy to access, do not have clean sanitation facilities, and lack proper housing. ${ }^{70}$

Financial incentives may also help with recruitment of teachers specifically to rural areas, an initiative that has successfully worked in KP as well as countries as diverse as the Gambia, the Republic of Korea, and Rwanda. ${ }^{71}$

| CHALLENGE | Possible solutions | BENEFIT <br> TO GIRLS | cost | IMPACT | SCALABILITY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Shortage of qualified teachers | Hiring more female teachers | $\bigcirc$ | $\bigcirc \bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  | Improving training, content mastery and professional development | - 0 | - $\bigcirc$ | $\bigcirc \bigcirc$ | - 0 |
|  | Developing a more strategic deployment system in particular for rural schools | $\bigcirc$ | $\bigcirc \bigcirc$ | $\bigcirc \bigcirc$ | $\bigcirc \bigcirc$ |

[^4]Source: Authors' own table.

CHALLENGE 4

## There remain some sociocultural beliefs and household factors that hinder girls from getting an education

## Much has been written on conservative gender norms and other socially conservative beliefs that affect the enrollment and completion rates of girls.

This section attempts to summarize some of this literature, to help develop a clearer understanding of the greatest challenges girls confront in seeking an education in Pakistan. There are various reasons that parents give for their children not being in school, as shown in table 3.


Table 3. Reasons for child dropping out of school

| Reason | Percent of parents <br> of bops | Percent of parents <br> of girls |
| :--- | :---: | :---: |
| Child not willing | 38 | 23 |
| Parents/elders did not allow | 3 | 19 |
| Had to help at home | 4 | 15 |
| Too expensive | 12 | 13 |
| Other | 14 | 9 |
| Too far away | 3 | 8 |
| Education completed | 2 | 3 |
| Had to help with work | 17 | 3 |
| Education not useful | 1 | 2 |
| Child sick | 1 | 1 |
| Poor teaching behavior | 1 | 1 |
| Marriage | 0 | 1 |
| No female staff | 0 | 1 |
| Child too young | 1 | 1 |

Source: PSLM 2019-20.
Beliefs around gender norms can have an impact on schooling for girls. Parents in Pakistan have different professional aspirations for daughters and sons, with 97 percent of parents of boys wanting them to work outside the home compared to 47 percent of the parents of girls. ${ }^{72}$ Among survey respondents, 43 percent of men thought women should not be allowed to work outside the home, compared to 20 percent of women. These perceptions may influence parents in prioritizing boys' education as they are the ones who are more likely to work outside of the home. However, people with more schooling were more likely to have progressive attitudes, respondents with secondary school degrees were 10-12 percent more likely to agree with the statements "women should be allowed to work outside of the home" and "women can do the same jobs as men." This suggests that increasing educational attainment can decrease gender biases.

Child and early marriage is another sociocultural issue that contributes to girls dropping out of school. A relatively low percentage (1 percent) of parents reported that their daughters left school to marry. However, it remains a barrier to girls completing school. Child and early marriage can occur for a variety of reasons. A household's socioeconomic status can be a driver, pressuring a girl to relieve the financial burdens of her family by marrying early. ${ }^{73}$ There is also a correlation between child marriage and lower wealth, lower education levels, and higher labor force participation in Pakistan. ${ }^{74}$ Put simply, girls in Pakistan are more likely to marry early if they live in rural areas and come from a lower-socioeconomic groups. Though there has been a reduction in child marriage in Pakistan, around 21 percent of girls are married before the age of $18 .{ }^{75}$ Girls who are better educated are less likely to be married off as children and are more likely to have opportunities to build a healthier and more prosperous life for themselves and their families. Women with primary schooling are 18 percent more likely to report feeling that they have a say in the number of children they have, compared with women with no education. ${ }^{76}$ Relatedly, children born to a mother who can read are 50 percent more likely to survive past age 5, and one additional year of schooling for 1,000 women can lead to two fewer maternal deaths. ${ }^{77}$

Two household factors, illiteracy and geographic location (rural/ urban), can affect a child's likelihood of receiving an education. Having illiterate parents significantly reduces the chances of attending school, especially for girls. In Pakistan, children whose mothers have even a single year of education spend one extra hour studying at home every day and report higher test scores. ${ }^{78}$ The same study showed that a child living in a household where the head of the household is illiterate is 26 percentage points less likely to attend school, compared to one living in a household where the head is literate.


Better educated girls are less likely to be married off early, and more likely to have opportunities to lead healthier lives.

Whether a family lives in an urban or rural setting directly impacts girls' education enrollment. Those who live in rural areas are much less likely to attend school. When enrollment by location and gender is analyzed, findings show that female students living in rural areas are the most disadvantaged demographic in terms of school attendance across the entire country. In Punjab, in urban areas, enrollment rates for boys and girls are very similar, but in rural areas there is a significant gender gap in enrollment. In KP, Balochistan, and Sindh, the gender gap in enrollment is present both in urban and rural areas, with the gender gap in rural areas being much more pronounced. Interestingly, male students in KP living in urban or rural areas are significantly more likely to attend school, compared to female students living in urban or rural areas. In Balochistan, male students living in rural areas are as likely to attend school as female students living in urban areas.

## Challenge 4: Possible solutions

Changing beliefs and household factors can be difficult, as they are entangled with entrenched issues like poverty and sociocultural norms. However, there are initiatives domestically and internationally that have showed promise, and policy makers can:

## Develop targeted communications campaigns

A low cost, pilot program in Punjab called SMS GIRL is testing the impacts of SMS and phone messages to engage with remote instruction (TV), with specific messages for girls' engagement, and

SMS and phone messages and social mobilization to encourage reenrollment in schools. Initial findings show positive effects on girls' enrollment and learning outcomes after schools re-opened.79

In Zimbabwe, the Girls Education Challenge launched a communications campaign to change attitudes to increase girls' enrollment and educational achievement. The "Improving Girls' Access through Transformative Education" initiative sought to convey information about the rights of girls, the importance of girls' education, and the barriers that girls face in their pursuit of education. It provided strategies to help address some of the most substantial barriers to girls' education. The initiative led to improved enrollment rates, where girls who would have otherwise left school remained in school for one additional year, on average. ${ }^{80}$

A novel approach that is being tested to help change gender norms is education entertainment. This has been used in various contexts, including India. Two 25 -minute shorts were delivered through Facebook Messenger to reduce the social acceptability of violence against women and participants were randomly assigned to watch video clips with both implicit and explicit messaging formats. After one week, viewers were 91 percent more likely to add a frame against violence against women in their Facebook profile picture and those who viewed the explicit messaging were more likely to share video clips with friends and promote information seeking behaviors. ${ }^{81}$

## Work with multiple stakeholders <br> to reinforce the same message

There have been a number of different types of interventions to improve girls' educational experiences that focus on alleviating financial burdens, improving infrastructure, and other institutional changes such as school and classroom reforms. ${ }^{82}$ However, combining these interventions may have more promising effects than single interventions. For example, infrastructure-related reforms together with institutional change with regard to developing girls' schools may have more affect in increase girls' learning outcomes than pursuing one of these interventions separately. ${ }^{83}$ The combination of activities also have the potential to involve a greater number of stakeholders and form deeper alliances around gender equality.

In the 2000s in Niger, local communities including school management committees, educational officers, and government officials came together to create a common agenda to tackle low girls' enrollment. In the densely populated region of Maradi, 33 out of 47 school management committee federations organized joint actions to increase girls' enrollment where they used radio messaging and endorsement by prominent community leaders such as local chiefs to significantly boost total enrollment and improve gender parity. ${ }^{84}$ These efforts helped contribute to girls' enrollment in Maradi and accounted for a 53 percent increase in the total number of girls enrolled at the national level for the 2009-10 school year. ${ }^{85}$

| CHALLENGE | POSSIBLE SOLUTIONS | BENEFIT TO GIRLS | COST | IMPACT | SCALABILITY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sociocultural beliefs | Communications campaigns | $\bigcirc$ | $\bigcirc$ | $\bigcirc \bigcirc$ | $\bigcirc \bigcirc$ |
|  | Aligning stakeholders | $\bigcirc$ | - $\bigcirc$ | $\bigcirc \bigcirc$ | $\bigcirc \bigcirc$ |

[^5]Source: Authors' own table.

CHALLENGE 5
Without quality education available for all children, progress will remain slow

Children in Pakistan will continue to face challenges with enrollment and completion unless the quality of education improves.

In responses to the household surveys, parents overwhelmingly express direct or indirect concern about the quality of education. They directly state that the "quality of schools" or "education not useful" was a reason for not sending their children. Their other reasons for not sending their children to school may serve as proxies for their concern about the low quality education: the shortage of teachers, their children's lack of interest in studies, and the unnecessary need for further education for their children. Even if other challenges are addressed, by reducing or eliminating fees, building more schools, or hiring more teachers, if schools do not provide children with the requisite knowledge and skills to improve their futures, families and students will not see the benefits of attending or completing school.

Education quality is a multidimensional issue that includes a quality learning environment of teachers, school infrastructure, and teaching and learning materials to support students and their families. This report seeks to highlight some of the main challenges to improving the low quality of education that are particularly applicable to Pakistan and provide possible solutions to overcome these barriers.

In Pakistan there is a trend of delayed enrollment, in which data show that the highest enrollment rate occurs at age $9 .{ }^{86} \mathrm{~A}$ possible result of this late enrollment age is that many children are not ready for school, i.e. they are neither academically prepared nor socially or
emotionally prepared. There are several risks to children under age 6 regarding school readiness. Factors such as parental distress, lack of psychosocial stimulation, food insecurity, low maternal education, no enrollment in early childhood education, and living in a rural area were associated with children's learning outcomes. ${ }^{87}$ A lack of psychosocial stimulation between caregivers and children of all ages corresponds most strongly to a lack of school readiness. Overall, this is an issue that affects both boys and girls, but mothers with greater educational attainment were more likely to talk to their children, read to them, or take them on outings. ${ }^{88}$

A topic that has significant education quality implications, but also substantial political, cultural, and economic subtext is language of instruction. The use of a dominant language of instruction negatively affects students' ability to learn the language and understand the broader curriculum, particularly for girls and other disadvantaged groups. ${ }^{89}$ According to UNESCO, 40 percent of children globally are not receiving an education in a language they understand. ${ }^{90}$ In Pakistan, Urdu and English are the official mediums of instruction, which could hinder a child's educational attainment should they not be proficient in either language. While Urdu is the official language, only 11 percent of the population speaks it, and only 0.01 percent speak English. ${ }^{91}$ More recently, various provinces indicated that children and teachers are not proficient in either language and in reality most schools still used local languages for instruction. ${ }^{92}$ Instruction in a child's mother tongue can have a positive impact on girls' enrollment and transition rates as girls traditionally have less exposure to languages outside of the home. ${ }^{93}$

Classroom teaching and learning materials like textbooks also contribute to the overall learning environment. Textbooks are an important factor in education practice and a pedagogical tool that helps link the curriculum to what is taught. ${ }^{94}$ While teachers and their mastery of content is tantamount, the textbooks that teachers use, and other teaching materials must also be of high quality, and perhaps more importantly, available to use. In Pakistan, quality aside, textbook availability and procurement is a problem. In 2022, a paper
shortage due to inflation led to textbook publishers being unable to print textbooks for school use. ${ }^{55}$ In 2023, schools in a KP district were asked to return 30 percent of the free textbooks they received to help alleviate the shortage of textbooks in the province. ${ }^{96}$ If families cannot afford textbooks, or if textbooks are in short supply, then students miss out on having an essential learning aid. Textbook shortages also affect teachers, who rely on textbooks to help them teach

This challenge requires policy makers to consider the full range and variety of solutions that have been mentioned in this report. Table 4 in the Conclusion (section 5) contains a complete list of solutions and parameters for decision-making. Ultimately, what is clear is that without greater investments in education quality, neither boys nor girls will succeed in school.

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Additional impacts to girls' education

This section briefly outlines a few topics that are outside of the formal education system but are directly linked to girls' education in Pakistan. Policy makers may need to consider these factors in their decision-making process, to ensure that girls are able to start and remain in school.

## Emergencies

There are many types of emergencies that hinder or stop educational opportunities, especially for girls. In emergency situations, girls often face greater threats of violence, increased rates of early marriage and teenage pregnancy, and take on a greater share of domestic labor. However, it is during these emergency states that education for girls becomes even more important, as it provides psychosocial, cognitive, and even physical protection. ${ }^{1}$

## The COVID-19 pandemic

The pandemic has had undeniable effects on every country's education sector, including Pakistan's. There is a lot of research that has been published or is forthcoming that examines those effects, including in the specific context of Pakistan. The share of students who cannot read or understand a simple text by age 10 in low- and middle-income countries could reach 70 percent because of long school closures and ineffective remote learning. ${ }^{2}$

In Pakistan, COVID-19 forced schools to close with minimal success with distance learning. As a result of the COVID-19 pandemic and the resulting school closures, 75 percent of families with children ages 3 to 17 reported stopping education, and more than 80 percent of boys and girls reported not attending school for between 6 to 12 months. ${ }^{3}$ During school closures, the federal ministry and provincial education departments made great efforts to implement diverse modes of digital learning through radio, TV, and online platforms. However, the most marginalized households lacked adequate infrastructure and/or digital technology. On average, 21 percent of households with school-going children do not have any access to electricity; and rates are highest in provinces with large rural populations such as Sindh (53 percent), KP (30 percent), and Balochistan (11 percent). ${ }^{4}$ It is likely that students' limited ability to engage with remote learning will further enlarge the gaps in educational achievement in these provinces.

Girls, especially from rural households, were more likely to drop out of school after the COVID-19 pandemic. According to the household survey data, 7 percent of rural households reported that girls did not return to school after the pandemic, compared to just 3 percent reporting the same for boys. ${ }^{5}$ In some communities, more than 10 percent of households reported that their daughters did not return to the classroom once schools reopened; this was observed in Balochistan (11 percent) and Sindh (15 percent), two provinces that already have some of the lowest education outcomes in the country. ${ }^{6}$

The outbreak of COVID-19 also perpetuated stereotypical gender roles for both girls and boys. Girls faced increased responsibilities to complete household chores, and boys were more at risk of being pushed into child labor and income generating activities. ${ }^{7}$ Children from rural households were also more likely to report having to participate in income generating activities than those from urban households. ${ }^{8}$

While the long-term effects of the COVID-19 pandemic are still being studied, current evidence suggests that girls, especially rural girls, were severely impacted and stand to lose more by way of educational opportunities than boys.

> Data suggest that girls in rural households were more than twice as likely than boys not to return to school after the pandemic.

## Climate change

Floods are part of the overall global climate crisis that does and will have implications for girls' education. Pakistan has been experiencing more severe weather patterns in recent years than before. In 2022, devastating floods left a third of the country's land mass under water. As a result, 24,000 schools were damaged or destroyed, and roughly 3.5 million children had their schooling disrupted. ${ }^{9}$

While climate change affects everyone, it disproportionately affects women and girls. Since many women work in the agricultural sector, when disasters occur, they often must work harder to secure income and resources, which puts pressure on girls to leave school to help manage the household. ${ }^{10}$ A study in Bangladesh showed that some families also married off their daughters earlier to offset financial distress and to prevent sexual violence that can occur during crisis times. ${ }^{11}$ Climate disasters exacerbate the conditions which lead to girls dropping out of school and discontinuing their education.


Climate change disproportionately affects women and girls, who often work in the agricultural sector.


A GENDER EQUALITY PERSPECTIVE

> Without understanding women's opinions and lived experiences, it will be difficult to tailor the education system to serve boys and girls equally well.

## Women's voices in the public and private spheres

Incorporating a gender equality perspective into all aspects of daily life, both public and private, can have a direct effect on girls' education. One way to do this is to ensure that women's voices are heard at all levels of government and that female perspectives are part of education policy discussions. In 2022, Pakistan went from no female ministers in the last decade to 5 out of 37 ministers. It will be important to continue to make progress in alleviating the barriers women face to becoming decision-makers. Interviews in Punjab indicated that many women still struggled to enter the political sphere due to sociocultural norms such as the culture of pardah (the practice of female seclusion either physically or through veiling), dual responsibility of housework and a political career, and the lack of support by political party leadership. ${ }^{12}$ Without understanding women's perspectives and hearing their opinions and lived experiences, it will be difficult to tailor the education system to serve boys and girls equally well.

## Stunting and nutrition

Over 40 percent of Pakistan's under-five children are stunted, as compared to the South Asian average of 31 percent. ${ }^{13}$ Girls tend to have worse health outcomes. In Punjab, girls have a 27 percentage point higher chance of being severely stunted relative to boys. ${ }^{14}$ New factors such as social identity have also emerged as drivers of physical development, in Pakistan these are often associated with the fact that many families prioritize boys by sending them to school where there may be school feeding programs and ensuring they are better fed overall than their girl counterparts. ${ }^{15}$

School feeding programs are common around the world and have positive impacts on the energy intake and micronutrient status of children and help reduce infections and morbidities. ${ }^{16}$ In Pakistan, a school feeding program in 29 of the poorest rural districts implemented a lunch program for two years in girls' schools and found that malnutrition declined by almost half and enrollment increased by 40 precent. ${ }^{17}$

## SECTION NOTES

| 1 | INEE, 2023. | 11 Ahmed, Haq and Bartiaux, 2019. |
| :--- | :--- | :--- |
| 2 World Bank, 2021. | 12 Zakar, Zakar, and Hamid, 2018. |  |
| 3 World Bank, unpublished. | 13 Ersado et al., 2023. |  |
| 4 | Ibid. | 14 Ibid. |
| 5 | Ibid. | 15 Qaisar and Karim, 2022. |
| 6 | Ibid. | 16 Jomaa, McDonnell, and Probart, 2011. |
| 7 | Ibid. | 17 Pappas et al., 2008. |
| 8 | Ibid. |  |
| 9 | Saavedra and Sherburne-Benz, 2022. |  |
| 10 UN Women, 2022. |  |  |

In Punjab, girls are 27\% more likely than boys to be severely stunted due to malnutrition.

Conclusion

Despite progress in access and enrollment, girls still lag in educational opportunities. Girls, in comparison to boys, are less likely to be enrolled in school, less likely to stay in school, and less likely to learn even when they do attend school. Girls from rural areas suffer the worst educational outcomes and are the most susceptible to factors like poverty and sociocultural norms that prevent women from completing their education.

This report identifies five main challenges for girls' education in Pakistan and proposes solutions policy makers can take to overcome these barriers.


1. Poverty continues to prevent children, especially girls, from going to school and staying in school

POSSIBLE SOLUTIONS
$\rightarrow$ Use incentives to target girls' enrollment
$\rightarrow$ Replicate successful public-private partnerships (PPPs) to increase girls' access to school
2. There are an insufficient number of schools for girls to attend, especially at the middle school and secondary levels

## POSSIBLE SOLUTIONS

$\rightarrow$ Increase the supply of well-constructed and nearby schools, especially middle schools, so that girls feel safe to attend school
$\rightarrow$ Focus on school expansion in areas with larger concentrations of rural girls

3. There is a shortage of qualified teachers, particularly female teachers in rural schools and at higher levels of schooling

## POSSIBLE SOLUTIONS

$\Rightarrow$ Accelerate teacher recruitment for vacant positions, with a focus on hiring more female teachers in rural areas
$\rightarrow$ Improve training and professional development for all teachers
$\rightarrow$ Develop a transparent deployment strategy to get more female teachers in rural posts

4. There remain some sociocultural beliefs and household factors that prevent girls from getting an education

## POSSIBLE SOLUTIONS

$\rightarrow$ Develop targeted communications campaigns to educate families about the benefits of girls' education
$\rightarrow$ Work with multiple stakeholders to reinforce the same message about the importance of girls' education

5. Without quality education available for all children, progress in educational enrollment and completion rates will remain slow.

## There are no easy solutions to these challenges.

To deliver a quality education for all children, policy makers will need to consider a combination of solutions, including increasing education expenditure and efficiency.

On the next page, Table 4 aggregates the proposed solutions in this report along with the following parameters to assess them:

The immediate benefit to girls for their educational opportunities

Given that girls make up the largest population of out-ofschool children, have lower enrollment rates than boys, and also have lower achievement of learning outcomes, this parameter indicates how direct of a benefit the proposed solution has to girls' enrollment and/or learning

The cost of the intervention
All interventions have a financial cost. This parameter is meant to indicate whether the financial investment in the proposed solution is high or low. For example, building more schools is much more costly than paying for a communications campaign on social media platforms.
The potential impact on
girls' educational returns in
the long term
Educational returns namely
refer to the increase in potential
earnings for girls if they
complete their education. This
parameter measures how strong
of an impact the proposed
solution has for girls' future
economic prospects.

The potential impact on girls' educational returns in the long term

Educational returns namely refer to the increase in potential earnings for girls if they complete their education. This of an impact the proposed solution has for girls' future economic prospects.

How likely the intervention can be scaled to a national or provincial level

Scaling an intervention is no easy feat. Scalability can be determined by various dimensions:
(i) the core elements of what actually will be scaled;
(ii) who will scale it;
(iii) what is the implementation plan for scaling; and
(iv) what evidence is available to ensure successful scaling. ${ }^{1}$

Table 4. Possible solutions and effect on girls' education


[^6]Source: Authors' own table.

[^7]
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For more information on data sources and the regression analysis, please refer to this report's supplementary material.

## ADDITIONAL CREDITS

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## BREAKING BARRIERS, IMPROVING FUTURES

While some progress has been made, there is still work to be done before girls in Pakistan are able to receive the education that they deserve to live healthy, empowered, and productive lives.



[^0]:    Source: PSLM 2019-20

[^1]:    Note: For more details, see Challenge 1 on page 18. The circles show the parameter on a scale of 1-3, with one filled circle (eoo) being low and three filled circles (e৫७) being high.

[^2]:    Source: NEMIS-AEPAM 2018

[^3]:    Note: For more details, see Challenge 2 on page 22. The circles show the parameter on a scale of 1-3, with one filled circle (•00) being low and three filled circles (৩৫) being high.
    Source: Authors' own table.

[^4]:    Note: For more details, see Challenge 3 on page 26. The circles show the parameter on a scale of 1-3, with one filled circle (eoo) being low and three filled circles (••७) being high

[^5]:    Note: For more details, see Challenge 4 on page 30. The circles show the parameter on a scale of 1-3, with one filled circle (eoo) being low and three filled circles (৫৫७) being high.

[^6]:    Note: The circles show the parameter on a scale of 1-3, with one filled circle (•00) being low and three filled circles ( $\bullet \bullet$ ) being high.

[^7]:    SECTION NOTES
    1 Adapted from: Kohl and Linn, 2022.

