SPEND BETTER, SPEND MORE

How to Make Education Expenditures Count for Children in Pakistan

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IN THIS REPORT →

Over the last few decades, Pakistan has made great strides in strengthening its education system.

Pakistan has expanded free and compulsory education to millions of students and increased female school attendance. Punjab alone doubled the number of 6- to 15-year-old children in school to 26 million between 1998 and 2020. The country has also introduced innovative reforms, most notably, merit-based recruitment of teachers and strategic use of public-private partnerships (PPPs) to support the expansion of the system and improve teaching. All of these reforms have been underpinned by a significant increase in data availability and active participation of civil society organizations, promoting transparency and inclusivity in the education system. Pakistan's cumulative efforts, marked by an openness to experimentation and research, have laid a solid foundation for sustained improvement in its education system.

Yet the country still has a long way to go. Pakistan's education spending falls below the average for South Asia, and the results show. The country has the second-highest number of out-of-school children (OOSC) worldwide, at 20.3 million.[1] Eight out of every 10 children in Pakistan cannot understand a basic short text by age 10, reflecting a high level of learning poverty.[2] In the long term, this leads to reduced human capital and stunted economic productivity and growth. To address these issues, the country needs to rethink its approach to education financing. But implementing the policies needed to strengthen the efficiency and effectiveness of the education system is a complex task. There are no easy solutions to fix many of the system's deficiencies.

The country's education challenges have been exacerbated by the global pandemic, the 2022 floods, and the current political climate, which have hindered the introduction of vital reforms. Facing large fiscal deficits, high inflation, and a pressing need to stabilize the economy, Pakistan finds itself in a precarious position. Within this context, chances may appear slim for finding budgetary support and political momentum for a comprehensive overhaul of the education system. However, the country's urgent need for education reform is underscored by the erosion of human capital caused by the COVID-19 pandemic[3] and floods[4], and compounded by already low learning levels prior to these crises. Pakistan cannot afford to fall further behind in building the human capital critical to driving economic growth.

We propose a comprehensive reform agenda focused on enhancing Pakistan's efficiency in public education expenditure, with an emphasis on improving children's learning outcomes. The suggested reforms are built around **five Key Messages** related to education spending: the need for **(1) adequacy**, **(2) efficiency**, **(3) equity** in spending; **(4)** improved **management and coordination**; and **(5)** greater involvement by **parents and civil society**.

The reforms linked to these messages are diverse, reflecting different cost structures and tailored approaches. Most draw upon proven initiatives within Pakistan, capitalizing on their evidence of impact, but some demand a bolder approach. While these recommendations may require significant investment up front, they would aim to sustainably resolve critical inefficiencies within the system. As such, their results would be enduring and pay substantial dividends year after year. By tackling fundamental issues in the education system, the proposed reforms promise not only to rectify existing inefficiencies but also to lay the groundwork for a continuous program of improvement and expansion.

A successful reform agenda necessarily involves multiple levels of government, and the recommendations within this proposed agenda call for action at all tiers of government: national, provincial, and district. While the education systems across provinces vary in maturity, many face similar challenges, albeit, varying in degree. Many of the reforms suggested here offer multiple benefits to the education system. For instance, a specific recommendation might enhance teacher effectiveness, while also bridging equity gaps and fostering greater transparency within the sector.

Reforms should be prioritized to reflect the challenges and realities of what can realistically be achieved under current economic conditions. In this report, we propose a method of prioritizing policy recommendations based on five factors—two considerations and three constraints. Given the urgent need to pivot the system toward a path that delivers for children and to increase efficiency of expenditures in education, it is essential to consider whether the reform can start in the short term, and what potential efficiency gains can be achieved in the medium term. We also identify three specific constraints[5] that may influence policy implementation: the fiscal costs associated with the reforms, the complexity of executing them within the unique context of Pakistan, and the level of political buy-in required to carry them out.

The reform agenda recommended in this report draws from existing evidence at local and global levels, implementation knowledge, global insights, and findings within the report itself to classify each intervention.[6] If Pakistan currently cannot implement a comprehensive menu of policies to enhance the efficiency and effectiveness of public expenditure for education, it could prioritize those that can start soon and deliver the most efficiency gains. This approach would use a similar amount of funding as currently budgeted. It is also flexible enough to account for the fact that education systems of different provinces are at varying stages of development and to allow for distinct paths of improvement for each.

KEY MESSAGES: OVERVIEW

This overview lists the five Key Messages. Each message is followed by specific recommendations for action, targeting key areas where the education sector's efficiency can be enhanced and facilitate system expansion when economically possible. The final chapter of the report provides the prioritization framework to guide the sequence and timing of these actions.

01

ADEQUACY

Pakistan needs to spend more on education. The country's low allocation is contributing to high dropout rates, learning poverty, reduced human capital, and stunted economic growth. Pakistan must increase education spending to at least 4.3% of GDP from 2.1% in 2020 to achieve its commitment to provide free compulsory education to children ages 5–16.

02

EFFICIENCY

Pakistan needs to spend better on education. Pakistan's education spending fails to secure the quality and access enjoyed by other countries in part due to a misallocation of financial and human resources. It can make spending more efficient by improving the impact of major recurrent budget items, such as teacher effectiveness, among other actions.

03

EQUITY

Inequities are reinforced by the way educational funds are allocated. Low, inefficient spending has led to an inequitable provision of education services, affecting children from poor families and other disadvantaged groups. Pakistan can boost equity by using data to create targeted initiatives and adopting an inclusive approach in its budget process.

04

MANAGEMENT AND COORDINATION

Enhanced sector management and coordination can improve services and the efficiency of public sector spending. After more than a decade of devolution to the provinces, some problems have emerged, including inefficient teacher deployment. Solutions include improving education management information system (EMIS), strengthening stakeholder coordination, and reducing bureaucratic duplication.

05

PARENTS AND CIVIL SOCIETY

Empower parents and civil society with voice, support, and participatory mechanisms. The current level of engagement of parents and community stakeholders in education-budgeting decisions often falls short. Establishing formal platforms for participation can improve the effectiveness of budgetary and policy-making processes in Pakistan's education system.

KEY MESSAGE 01

ADEQUACY

Pakistan needs to spend more on education.

In 2020, the country spent 2.1% of gross domestic product (GDP) on education, below the South Asian regional average of 2.9% and the global average of 4.3%. Alarmingly, Pakistan's expenditure decreased to 1.5% in 2023. Such investment is inadequate for achieving its constitutional pledge to provide free and compulsory education to children ages 5–16. The consequences of inadequate spending are apparent in the country's high numbers of OOSC, the learning poverty rate, and stunted economic growth. Pakistan needs to rethink its approach to education financing, increase government revenue, and gradually raise its education expenditure to at least 4.3% of GDP to ensure access to a higher quality of education. This is more important than ever with new census data confirming a higher fertility rate that will bring more children than expected into the education system in the near future.

Recommendations

Spending

Even with the most efficient allocation of resources, Pakistan cannot deliver on its commitment to free and compulsory education without additional funding. To ensure that all children attend school and are learning, the government must invest an amount equivalent to between 4.3% and 5.4% of GDP in education. While this is a formidable figure, annually agreed-upon increases in overall budgets (as a percentage of GDP) could set Pakistan on track to fulfill this obligation. To augment expenditure on education, Pakistan needs to bolster government revenues through enhanced fiscal efforts and internal negotiations regarding the revenue distribution of the 8th National Finance Commission (NFC) Award.[7]

Allocation

How should the increased funding be allocated? Priority could go to expanding access to quality education with well-prepared teachers by continuing to strengthen the public sector. Other options include enhancing PPPs, guided by robust regulation; making optimal use of current infrastructure, for instance, by implementing double shifts; and promoting coordinated, targeted expansion in tandem with the Benazir Income Support Program (BISP) and education foundations for data-driven growth, thereby maximizing the impact of resources, including conditional cash transfers. It is also essential to expand early childhood education (ECE) in a progressive and strategic way to ensure children are ready to begin school on time. This will require investing in ECE access and quality, including recruiting new teachers and providing effective training, defining sustainable modalities for programs, and strengthening regulation. Finally, improving technological and managerial systems will allow for more efficient and effective use of new resources. Implementing these strategies will ensure that any increase in the education budget is utilized to its fullest potential.

KEY MESSAGE 02

EFFICIENCY

Pakistan needs to spend better on education.

Pakistan's education spending fails to secure the quality and access enjoyed by other countries with similar education budgets. One reason is because human and financial resources are not directed to where they are most needed: About 70% of the budget is allocated to salaries and only about 10% to development—and the latter is usually not fully executed. System-management challenges hinder delivery of support to teachers in the public system, affecting student learning and decreasing parents' desire to send their children to public school. Given the country's limited fiscal space, Pakistan must prioritize enhancing the efficiency of its educational expenditure. It could do so by improving the impact of major recurrent budget items, particularly teacher effectiveness; eliminating duplicative departmental mandates; improving management; ensuring full execution of development budgets; and ultimately, focusing on and strengthening learning.

Recommendations

Teachers

Given the sizeable share of the budget dedicated to teacher salaries, the most impactful way to enhance system efficiency is by strengthening teacher effectiveness in the classroom. Improving teaching practices directly bolsters system efficiency by improving student outcomes. A key part of this strategy involves improving teacher recruitment, management, and development, including evaluation and promotion. Establishing a comprehensive career pathway for teachers can foster their continuous improvement, maximizing their impact in the classroom. Leadership roles at schools and within districts should be clearly delineated and supported. And teacher deployment policies should seek to ensure equitable distribution across schools and educational levels, with clear guidelines issued on teacher incentives and absenteeism consequences. This will also provide a barrier to political patronage.

Focusing on pedagogical practices in early-grade reading and writing, complemented by relevant learning materials, promises both immediate and long-term efficiency gains. Teachers can also benefit from structured in-service training, ongoing feedback, and access to quality resources. It is essential to ensure that middle and secondary school teachers possess deep subject-matter expertise, and that schools with multigrade classrooms—a necessary reality for many—offer authentic multigrade teaching. This requires clear policies, specialized teacher training, clear guidelines on the materials to use, and ongoing monitoring and evaluation. Also, reviewing and revamping preservice teacher training practices can drive long-term system improvements.

(Recommendations continue on next page.)

KEY MESSAGE 02

EFFICIENCY (continued)

Learning

To enhance learning, it is vital to embrace teaching methods that have been shown to yield significant results both internationally and within Pakistan. Some evidence-based strategies that have positively impacted learning outcomes in Pakistan and other countries can be found in initiatives such as the Pakistan Reading Program and in teaching training programs such as The Citizens Foundation's training for teachers and leaders. Children must also be able to comprehend classroom instruction. Given Pakistan's linguistic diversity, clear policies regarding language use in schools are crucial, as is their implementation by the public sector. A transparent mother-tongue policy, including communication with parents, will facilitate a smoother transition to designated instructional languages. Lastly, campaigns can help ensure children begin school at the right age and with the skills to thrive, by promoting effective parenting practices, especially in early reading, as well as by progressively mobilizing funds to expand early childhood education. Achieving system-level improvements in learning through evidence-based programs will require the alignment of curriculum, assessment, language policies, and teaching.

Financing and budgeting

Improvements in efficiency will remain elusive for Pakistan without incorporating proper financial and budgetary processes and strategies into the reform agenda. Defining clear targets and consistently monitoring progress in alignment with realistic sector plans could help bridge the gap between available funding and educational objectives. Leveraging existing data for budget planning contributes to more efficient resource allocation while discouraging inappropriate external influences in the process. A comprehensive review of the 8th NFC Award is imperative, specifically regarding the introduction of incentives-linked education financing at both federal and provincial levels. Strengthening education department personnel's capacity in budget planning, monitoring, and procurement can ensure optimal utilization of limited development budgets each year. A transition to development planning at the school level and program- and school-centric budgeting, with continuous engagement with finance departments to secure timely fund release, can bolster school leadership and ensure that funds are addressing foundational infrastructure and other specific needs of schools.

KEY MESSAGE 03

EQUITY

Inequities are reinforced by the way educational funds are allocated.

The combination of low and inefficient spending leads to inequitable provision of educational services across regions and among different population groups. This especially affects the enrollment, progression, and learning outcomes of disadvantaged populations, including children from low-income families, those living in remote areas, girls, children with disabilities, and minorities. Persistent educational inequalities prevent individuals from making full societal contributions and perpetuate cycles of poverty. Although data exist that highlight these disparities, they often are not used during budget planning, leaving these inequities unaddressed. Pakistan can ensure a more equitable distribution of resources by using data for targeted initiatives, enhancing districts' technical and managerial capacity, and incorporating an inclusive perspective into budget processes. Any decisions to expand the education system should consider the potential equity impact of supporting private versus public schools.

Recommendations

Resources

To enhance equity, Pakistan could reevaluate its existing mechanisms that address disparities in expenditure per child, establishing targets and monitoring processes to reduce such differences. By using clear formulas anchored in data and principles of equity and inclusion, resources can be directed where they are most needed. Programs could be tailored to cater to populations that have traditionally been marginalized, such as children in rural-area school systems that lack middle schools (up to grade 8) and postprimary-school-age children in these regions that have a prevalence of dropping out of school. Effective, long-term strategies might encompass recruiting teachers from local communities, diversifying school calendars to cater to all children, formalizing multigrade teaching where needed, and identifying cost-effective programs for children with disabilities. To ensure the programs' viability, it is vital to establish targets that align with these budgets.

Girls

Ensuring safe spaces for girls by building boundary walls, hiring female teachers, and providing proper water, sanitation and hygiene (WASH) facilities can significantly improve gender equity. Emphasizing female well-being can also help, including providing safe transportation for female teachers and students and offering life skills and other cocurricular activities. These measures not only can enhance girls' learning but also enable them to leverage their education to positively impact their families and communities.

KEY MESSAGE 04

MANAGEMENT AND COORDINATION

Enhanced sector management and coordination can improve services and the efficiency of public sector spending.

After a decade of devolution to the provinces, it is important to understand how the education system has evolved. Several issues have become apparent: inefficient teacher distribution and deployment; poorly implemented, de facto multigrade teaching in many schools; lack of targeted budgetary allocations; and duplication of efforts at both provincial and federal levels. The result is low levels of investment efficacy and failure to provide high-quality services for children and their families. Often, teachers, districts, and government departments lack the capacity, authority, and incentives to align their actions toward a system that ensures quality education. To address these issues, Pakistan must prioritize improving the management and execution of policies related to significant budget portions that impact many children. There are specific managerial and policy decisions essential for systemwide enhancement as well as areas for transformative action in management and coordination, including data management and use, stakeholder coordination, decentralization of authorities to lower levels of government, and inclusive education.

It is important to prioritize improving the management and execution of policies related to significant budget portions that impact many children.

Recommendations

Data management

Pakistan has a wealth of data, but there is an urgent need to improve data management, specifically the EMIS. The emphasis should be on integration, transparency, and regular and timely utilization of EMIS data for planning and targeting at national, provincial, and district levels. Tapping into the full potential of this data can bolster system improvement. For instance, presenting budget and execution data in citizen-friendly formats could foster public understanding and spotlight areas where funds could be directed for maximum impact.

Coordination

Streamlining coordination mechanisms, at both the national and provincial level, can spur knowledge exchange on best practices and policies. By involving education foundations and literacy departments within provinces, resources can be employed more efficiently.

Decentralization

With the 18th Amendment giving more autonomy to provincial education authorities starting in 2010, now is a timely opportunity to assess the federal and provincial education systems. A comprehensive review of all education departments and initiatives can pinpoint duplication and opportunities for realigning programs and bureaucratic structures to enhance efficiency. Such a review can also assess system capacities, quality assurance, and costing protocols for inputs such as textbooks and pedagogical materials, and the efficacy of school supervision. As decentralization continues from provincial to district level, provinces could adopt rule-based mechanisms to govern funds transfers, making district-level funding more transparent, predictable, and need-based. Adding a results-based component to resource-allocation formulas could further incentivize districts to perform.

Inclusive education

It is essential to amplify the government's dedication to inclusive education. Strategic public campaigns via social media, television, radio, and grassroots community interactions can spotlight the importance of education, advocate for marginalized children, and elevate the perception of public schools.

KEY MESSAGE 05

PARENTS AND CIVIL SOCIETY

Empower parents and civil society with voice, support, and participatory mechanisms.

Parents have an intrinsic motivation to support their children's education, and their involvement can act as a shield against poor education-sector decisions. However, the current level of engagement of parents and community stakeholders in Pakistan's budgetary decisions often falls short. Parents' concerns remain underrepresented, even as families pay high out-of-pocket expenses for uniforms and other school-related costs, or opt for expensive private schools, which are seen as offering a superior education. Indeed, the private sector has emerged as a dominant provider of education in many regions of Pakistan. The absence of formal platforms that promote active parental participation and collaboration with various governmental tiers creates a disconnect between the education system and the communities it serves. This can lead to a lack of accountability in the education system, potentially increasing susceptibility to political influence, resource misallocation, and erosion of the social contract. To rectify this, it is essential to engage and empower parents, teachers, and civil society organizations, so they can participate in budgetary and other processes and help ensure that the education system reflects local values and needs.

The absence of formal platforms that promote active parental participation and collaboration with various governmental tiers creates a disconnect between the education system and the communities it serves.

Recommendations

Testing and evaluation

A foundational step toward strengthening the involvement of parents and civil society in the education system is by ensuring that national diagnostic student assessments occur regularly. The assessments can include citizen-led and official government evaluations, and international assessments conducted every few years. Such routine checks not only measure student progress but also can provide an indication of the effectiveness of the education system. The dissemination of results should be paired with actionable plans aimed at addressing any weaknesses and improving learning outcomes in the public sector. With access to such data, parents and civil society will be better informed about, and are likely to get involved in, the education system, both by engaging with different levels of government on policy decisions and by supporting children's learning at home.

Budgetary process

Analysis of budget proposals offers an opportunity for collaboration among civil society, academia, and the public sector. Given that budgets tend to be lengthy and intricate, academics can help to clarify the goals, targets, and incentives behind budgetary proposals and facilitate a more expansive dialogue with parent associations and other civic groups that could result in more effective resource allocation. The formal introduction of platforms fostering government and civil society cooperation can maximize the benefits of this collaboration and give parents and society greater influence over budgetary decisions. Ways to participate include through citizen participatory budget processes at education departments and budgetary discussions at Local Education Group meetings, where the public sector could garner feedback and innovative ideas before finalizing budgets. Continued engagement with civil society after budgets receive approval can ensure that resources are executed on time and can pave the way for potential technical collaboration aimed at improving policy and execution. Strengthening the role of communications teams and media to distill messaging on complex budgeting decisions can also help to empower families to be more engaged in budgetary processes.

SECTION NOTES

1 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.

2 Learning poverty is a World Bank metric that estimates the percentage of 10-year-olds who can read and understand a paragraph of age-appropriate text. OOSC are automatically counted as illiterate. (World Bank 2022).

3 ASER Pakistan (2021).

4 Barón et al. (2022); Dahlin and Barón (2023).

5 Schady et al. (2023).

6 Banerjee et al. (2023).

7 The National Finance Commission (NFC) Award is a constitutional arrangement in Pakistan, designed to distribute financial resources among the federal government and the provinces.

INTRODUCTION

Over the last three decades, Pakistan has expanded free and compulsory education to millions of students and increased female students' attendance at school. Punjab alone doubled the number of 6- to 15-year-old children in school to 26 million between 1998 and 2020. The country has also introduced innovative reforms, most notably, merit-based recruitment of teachers and strategic use of public-private partnerships (PPPs) to support the expansion of the system and improve teaching. In addition, the government has increased data availability and encouraged active participation of civil society organizations, promoting transparency and inclusivity and establishing a foundation for sustained improvement in the education system. These laid a solid foundation for sustained improvement in its education system.

To unlock Pakistan's potential for economic growth and prosperity, it is fundamental to address systemic educational issues, most notably the alarming numbers of out-of-school children (OOSC) and pervasively low learning levels. Even when in school, children in Pakistan are not learning nearly as much as they could and should. These challenges create a formidable barrier to the nation's growth and the prosperity of its people.

Adding a layer of complexity to these educational challenges is the critically low public expenditure on education in Pakistan. Pakistan has invested about 2.0% of its gross domestic product (GDP) in education, leaving most of the cost of education to families who make great efforts to send their children to school, and who consistently opt out of the public sector when they can afford private schools. More concerning is the fact that public investment in education has been declining for the last three years. As of December 2023, data show that public expenditure was roughly 1.7% of GDP. For Pakistan to give itself an opportunity for productivity, growth, social inclusion, and prosperity, it needs to invest efficiently in education to provide better opportunities to its citizens.

Since Pakistan approved the 18th Amendment to the Constitution (2010), education provision in the country has changed. The amendment has empowered provinces to deliver education services directly. These changes have spurred investigations into the effectiveness and efficiency of the mechanisms that have been created for financing education and the institutions that deliver it. This report contributes to this inquiry by offering insights into the education system as it stands today.

Pakistan needs a comprehensive reform agenda that involves both improvement in the efficiency of current spending and an increase in education expenditure overall. By spending better, the country can achieve more with existing funding, ensuring maximum impact for every rupee spent. By spending more, it can marshal the resources needed to enhance access to quality education across the nation, especially for subgroups of the population that are being left behind. For parents, stakeholders, and the broader public to trust and support an increase in education expenditure, they need to see a tangible link between spending and improved educational outcomes. Hence, this report seeks to provide robust, evidence-based policy recommendations that can enhance resource allocation in ways proven to improve educational outcomes.

This report uses a diverse and innovative set of data sources to provide a comprehensive narrative about education expenditures and their impact on educational outcomes. These sources include household surveys, phone surveys, international student assessments, administrative data, and local and global research (see Box 6 on page 29). By drawing on these multiple sources of data, the report can provide a comprehensive and nuanced narrative of the efficiency, equity, and overall effectiveness of education financing in Pakistan today. The report's findings are based on rigorous analysis of these data sources and provide valuable insights into the challenges and opportunities facing Pakistan's education system.

The intended audience for this report is policy makers, stakeholders, and parents who are interested in understanding the status of the education system and the economic decisions and dynamics that underpin children's learning outcomes. The report is straightforward and concise, making it accessible to a wide range of readers. The complexity of the subject is distilled to five key components, providing a useful resource for those who want to be more informed about the status of education in Pakistan, its financing, and what it would take to improve the education system.

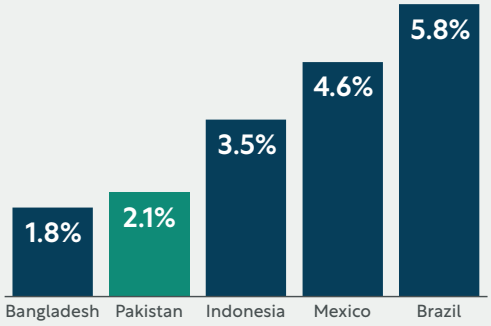
The reform agenda proposed in this report is comprehensive and necessary. There are no easy solutions for the magnitude of the challenges Pakistan faces in improving its education system. High debt levels, high inflation, and grim economic growth in the medium term make investments in education more important, not less. Education is not social assistance; it is an investment for long-term prosperity, opportunity, social cohesion, and inclusion.

BOX 1

Benchmarking Pakistan Education Systems

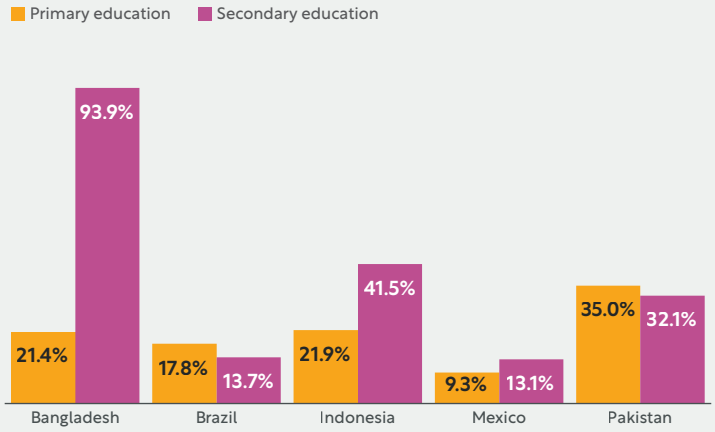
The graphs in this box illustrate how Pakistan compares to similar large, federal countries, some of which have upper middle-income economies (Argentina, Brazil, Indonesia, Mexico) or others which have lower-income economies (Bangladesh).

***Figure B1.1.** Government expenditure on education as a percentage of GDP in 2020*



Source: UNESCO UIS Database.

***Figure B1.2.** Percentage of enrollment in primary and secondary education in private institutions in 2017*



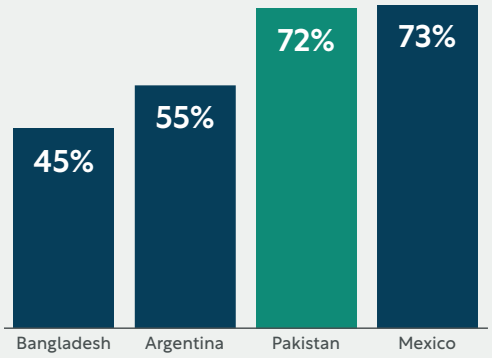
Source: UNESCO UIS Database.

In terms of government expenditure on education as a percentage of GDP, Pakistan allocates a relatively low share compared to Indonesia, Mexico, and Brazil, but has a more similar share to that of Bangladesh.

There are some stark differences in the percentage of enrollment in private institutions, with some countries such as Bangladesh, being able to expand secondary schooling primarily through the private sector. This is especially true throughout the South Asia region, where the private sector has played a key role in expanding educational access.[1]

Pakistan spends quite a large percentage of its total public expenditures on teacher salaries, roughly the same amount as Mexico, and nearly 20 percentage points greater than Argentina, an upper middle-income country.

***Figure B1.3.** Teaching staff compensation as a percentage of total expenditure in public institutions in 2019*



Source: BOOST Database based on data from Pakistan Ministry of Finance and UNESCO UIS Database.

1 Béteille et al. (2020).

This report is divided into the following sections:

Section 01 provides a brief description of the system and its main aggregate outcomes.

Section 02 discusses the financing of education in Pakistan.

Section 03 discusses issues of efficiency within the system, and

Section 04 discusses equity challenges, both deeply linked to financing.

Section 05 provides an explanation of the drivers behind the outcomes we observe, allowing data driven identification of opportunities to improve education spending.

Section 06 provides insights into parents' view of education and the influence they have on the future of their children. This section emphasizes the importance of engagement by both parents and civil society to ensure the education system delivers a quality education for their children.

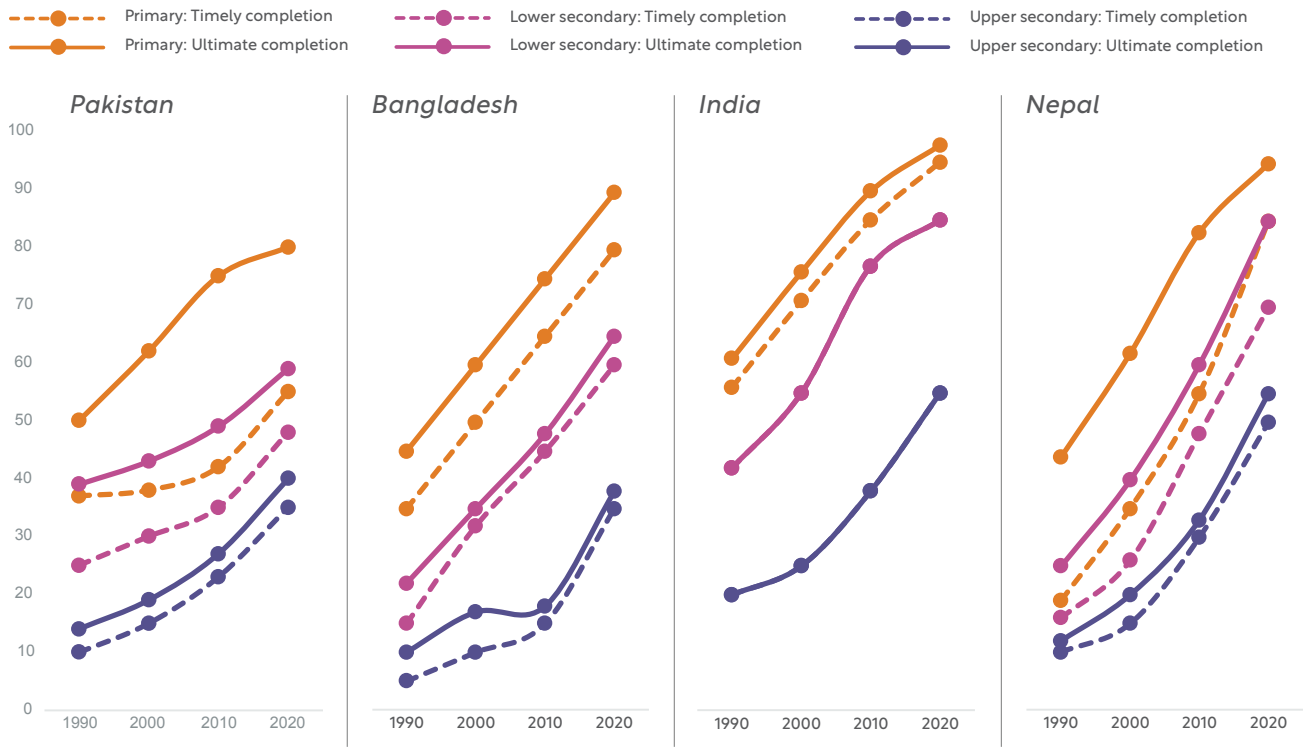
Section 07 closes the report with a proposed reform agenda, which takes into consideration the constraints that exist in the country now as well as those projected in the years to come.

01

OVERVIEW OF THE EDUCATION SYSTEM IN PAKISTAN

From 1990 to 2020, Pakistan and other countries in South Asia significantly expanded their education systems. During this period, Pakistan's primary completion rate (the proportion of children who complete primary education) rose from approximately 50% to 74%, lower secondary completion rate increased from 38% to 56%, and upper secondary completion rate grew from 16% to 26%. Despite this progress, Pakistan has been outpaced by every other South Asian country in expanding education (Figure 1.1). Pakistan stands out as the only country in the region where education expansion has averaged below 1 percentage point per year during the period,[1] and it has the lowest completion rates in the region for every education level and at the aggregate level.

Figure 1.1. Completion rates, by country in South Asia, 1990–2020



Source: Authors' estimates based on Global Education Monitoring Report 2021–2022.
Note: Timely completion refers to the percentage of students who complete a certain level of education within the expected or standard number of years for that level. For example, if the standard time to complete primary education is six years, timely completion measures how many students finish primary education within those six years. Ultimate completion measures the percentage of students who eventually complete a certain level of education, regardless of the time taken. This metric includes those who may have taken longer than the standard number of years to finish their education. For example, if a student completes primary education in seven or more years instead of the standard six years, they are still counted in the ultimate completion rate.

The slow expansion of education opportunities in Pakistan has contributed to low levels of human capital, as measured by the World Bank's Human Capital Index (HCI). The HCI measures the amount of human capital that a child born today can expect to attain by her 18th birthday, given the risks of incomplete education and poor health that prevail in her birth country. Pakistan's HCI of 0.41 is low in absolute and relative terms. It is lower than South Asia's average of 0.48, with Nepal at 0.49 and Bangladesh at 0.46. Pakistan's human capital outcomes are comparable to countries in Sub-Saharan Africa, which have an average HCI value of 0.40. While a child in Pakistan who starts school at age 4 can expect to complete 8.8 years of school by her 18th birthday, factoring in what children learn, the expected years of schooling in Pakistan are only 4.8 years, showing the ineffectiveness of the education system in achieving learning outcomes. The low HCI in Pakistan limits human development, productivity, and growth.

Pakistani children are not learning the fundamentals. Learning poverty, the percentage of children unable to read and understand a short, age-appropriate text by age 10, was 75% even before the COVID-19 pandemic. Estimates show that learning poverty has increased to 77%, in part due to school closures resulting from the pandemic and direct and indirect impacts of the 2022 floods. This low level of foundational learning has most likely

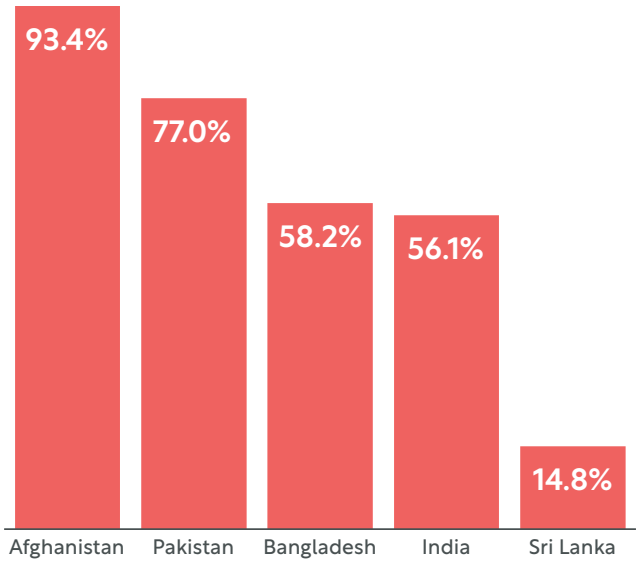
contributed to high dropout rates, low learning in other subjects, and overall low educational achievement in later years. Learning poverty in Pakistan is also exceptionally high relative to regional and global comparator federal countries (Figure 1.2).

The challenges in learning are not only prevalent in early literacy but also in early numeracy and science. In the 2019 Trends in International Mathematics and Science Study (TIMSS) assessment for grade 4 math and science, 75% of students did not reach the minimum lowest benchmark. Only 20% of students achieved the low benchmark, and a mere 1% of students reached the high benchmark. Notably, no students achieved the advanced benchmark in math, with similar results for science. Low learning levels in foundational subjects impact the ability of students to engage in other subjects meaningfully, generate doubts in parents about the usefulness of education, and facilitate the disengagement of families with the education system.

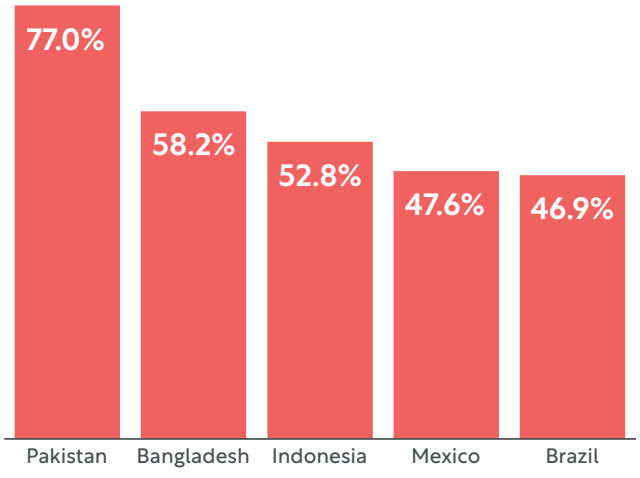
One stark characteristic of Pakistan's education system is the significant number of OOSC, which is estimated at approximately 20.3 million. This accounts for about 10% of the global total of OOSC, making Pakistan the second-largest contributor to the nearly 250 million children out of school worldwide, surpassed only by Nigeria (Figure 1.3). Other countries with larger populations and at different stages of economic development than Pakistan, such as India, China, Indonesia, and Brazil, have fewer children out of school. Solving the global issue of OOSC will require addressing this significant challenge within Pakistan.

Figure 1.2. *Learning poverty in Pakistan: Regional and global perspective*

(a) South Asia region (selected countries)

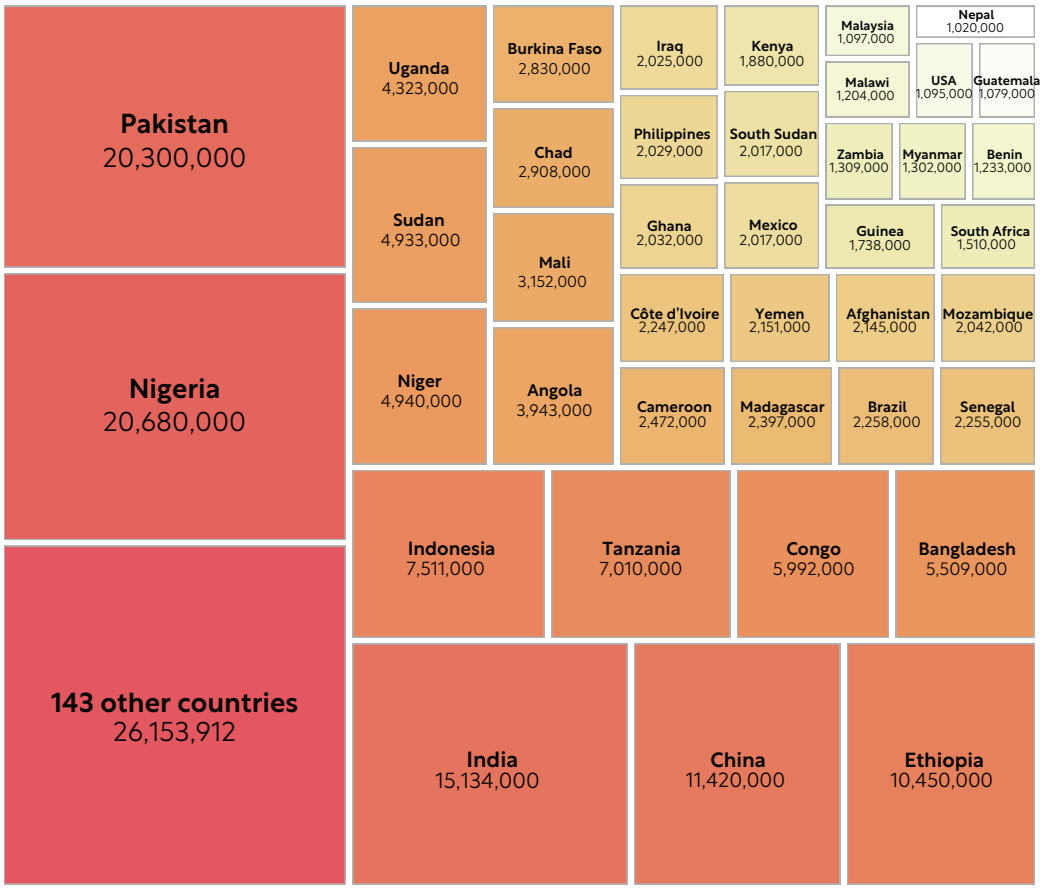


(b) Large federal countries (selected countries)



Source: Learning Poverty Country Briefs (World Bank 2023)
Note: Panel (b) shows large countries with federal systems, except Bangladesh, at different levels of development. The federal structure imposes unique challenges for service delivery.

***Figure 1.3.** Pakistan has the second largest number of out-of-school children in the world*



Source: Authors' estimates for Pakistan are based on census data from 2017 and for children ages 5 to 16.
Note: The figure only shows countries with more than 1.0 million OOSC. Data for India include only primary and lower secondary education learners. The Pakistan Education Statistics report for 2021–2022 estimates the population of OOSC to be 26.2 million. See Box 2 on page 20 for different estimations of OOSC in Pakistan.

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. (See Box 2 on page 20.)

Private education is a notable aspect of the education system in Pakistan. A key feature of the system is the substantial number of students attending private schools, with most of these schools receiving no support from the public sector.[2] The expansion of private education in Pakistan began in the 1990s, doubling its share of students from 15% to 30% between 1991 and 2001. This growth continued, with private school enrollment accounting for approximately 34% by 2008.[3] By the 2020s, Pakistan had one of the largest shares of private school enrollment in primary education in South Asia, second only to India and trailing India and Bangladesh in secondary education (Table 1.1). Compared with the global averages of 19% for primary education and 27% for secondary education, the prevalence of the private sector in Pakistan is particularly striking.

BOX 2

Measuring Out-of-School Children

Taking an accurate count of the total number of out-of-school children (OOSC) in Pakistan is a difficult task given the various ways in which data collection tools are designed.

For example, the Pakistan Education Statistics report for 2021–2022 estimates the population of OOSC to be 26.2 million, however, many researchers calculate estimations from the PSLM, as that 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 B2.1.** Estimates of OOSC by source*

Source	OOSC (in millions)	Age range
The Missing Third (2021)	20.1	5–16
UNESCO	20.7	6–18
UNICEF (2016–17)	22.8	5–16
Pakistan Education Statistics 2021–2022	26.2	5–16
Pakistan Education Statistics 2016–2017	22.8	5–16
Pakistan Education Statistics 2017–2018, 2018–19, 2019–20	n.a.	
PSLM District Report		5–16
PSLM National Report		5–16
Policy Framework for Pakistan's Out-of-School-Children (2020)	18.7	5–16

***Table 1.1.** Share of enrollment in private schools, 2020 or later*

	Preprimary	Primary	Secondary
Pakistan	39%	34%	34%
Afghanistan	n.a.	7%	4%
Bangladesh	55%	24%	94%
Bhutan	14%	4%	10%
India	25%	45%	51%
Maldives	36%	4%	5%
Nepal	47%	25%	24%
Sri Lanka	80%	3%	n.a.
South Asia	*32%*	*38%*	*50%*
World	*38%*	*19%*	*27%*

Source: UIS Database, UNESCO.
Note: Based on the UNESCO Institute of Statistics (UIS) database, Pakistan has a primary enrollment share of 34% while the average in South Asia is 38%. Within South Asia, Pakistan ranks second after India (45%) and is 15 percentage points above the world average. In secondary enrollment, Bangladesh ranks first with 94% of the enrollment share, which is significantly above the global average of 27%.

Pakistan's expenditure per child is low compared to other countries in the South Asian region (Table 1.2). Pakistan only spends US$338 per student at the primary level, which is less than Nepal (US$350) and Sri Lanka (US$901). This underscores the urgent need for Pakistan to increase its public expenditure per student to accommodate its large school-age population. This report encourages these increases to help improve the equity and efficacy of the country's education system. In other words, to improve children's educational outcomes, Pakistan needs to spend better and to spend more.

Pakistan faces considerable challenges when it comes to gender gaps in education. It ranks 142 out of 146 countries on the Global Gender Gap Index 2023. Looking at different aspects of this index, Pakistan ranks 138th on educational attainment, 132nd on health and survival, 95th on political empowerment, and 143rd on economic participation and opportunity.[4] While these broad disparities in gender equality affect both genders, they particularly and significantly hinder girls' ability to unlock their potential and contribute to Pakistan's economic and social advancement.

Table 1.2. *Public expenditure per student in South Asia, by education level (US$)*

	Primary	Secondary
Afghanistan	231	255
Bangladesh	n.a.	381
Nepal	350	296
Pakistan	338	668
Sri Lanka	901	887

Source: Authors' calculations based on data from the Global Monitoring Report 2021.
Note: Pakistan spends US$338 per student at the primary level which is lower than Nepal (US$350) and Sri Lanka (US$901). At the secondary level, the spending is US$381 per student which is higher in comparison to Bangladesh, Nepal, and Afghanistan.

Pakistan's expenditure per child in primary education is low and hinders needed investments to improve quality of and access to education.

BOX 3

Private Schools

The private sector plays a large role in Pakistan's education system, especially through public-private partnerships.

However, private schooling, i.e. schools that do not receive any support from the public sector, is prevalent in Pakistan, serving 42.4% of all students. The share of private schooling among total enrollment is higher in urban areas (40.1%), and among the provinces, it is highest in Punjab, where 62.9% of all students go to private schools. The share of poor students attending private schools is 19.3%.

The expansion of private education in Pakistan began in the 1990s, doubling its share of students from 15% to 30% between 1991 and 2001. This growth continued, with private school enrollment accounting for approximately 34% by 2008. By the 2020s, Pakistan had one of the largest shares of private school enrollment in primary education in South Asia.

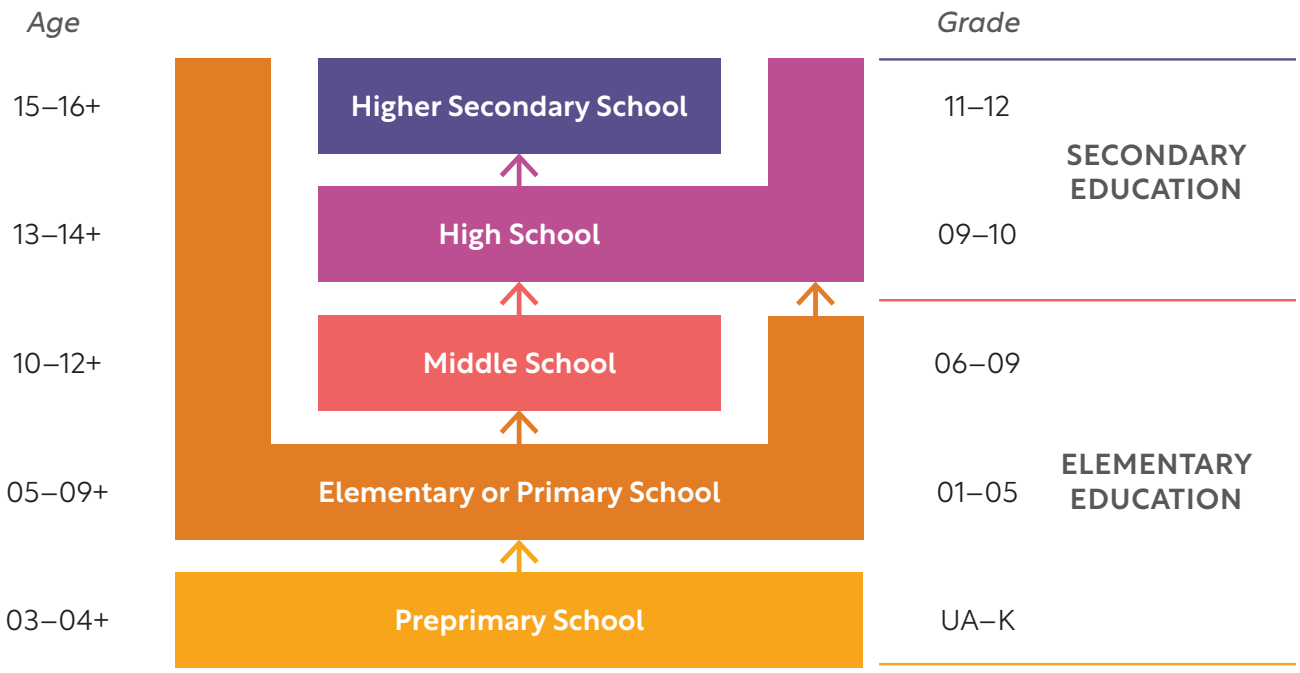
One of the key differences in students who attend private school versus public school is obvious – most poor students tend to attend public schools, and their representation in private school enrollment is low. Almost 81 of every 100 poor students attend public schools, and poor students only represent 8% of all students enrolled in private schools. This situation can be symptomatic of parents opting out of public schools when they can afford to do so or when alternative options are available nearby.

One of the primary reasons parents opt to send their children to private schools is driven by their perception of quality teaching. In fact, 88% of parents say the main reason they send their children to private schools is "good teaching," compared to 38% of parents who send their children to public schools.

Another key difference between private and public schools is teacher salary. While children at private schools generally achieve slightly higher learning outcomes than their counterparts in public schools, that outcome often comes at the expense of teachers. Teachers at private schools earn between one-eighth and one-half of what public school teachers are paid. This is particularly concerning since teacher salaries at private schools are often linked to the underpayment of predominantly young female teachers. These financial issues underscore a need for better regulation.

Ultimately, the implications of a two-tier education system, where the poor predominantly attend public schools, while the nonpoor attend private schools, are extensive and profound. This system risks promoting social segregation, limiting opportunities for interaction and learning among children from diverse backgrounds in a world that is increasingly polarized by political and social issues. In order to address these equity concerns effectively, there must be increased investment in the public education sector to enhance its quality and offer parents better quality options for the education of their children.

Figure 1.4. *The education system in Pakistan, from preprimary to higher secondary school*



Source: Pakistan Education Statistics 2020–2021.
Note: The structure of Pakistan's education system has five levels: preprimary, elementary/primary, middle, high, and higher secondary.

The education system of Pakistan has five levels: preprimary (ages 3–4), elementary/primary (grades 1–5), middle (grades 6–9), high level (grades 9–10), and higher/tertiary level (grades 11 and beyond). The levels of education can broadly be categorized into elementary education (preprimary, primary, middle school) and secondary (high school and beyond) (Figure 1.4). These education levels encompass both public and private institutions. The education system also incorporates a significant number of religious schools called madrassas, which primarily provide religious education. Technical and vocational education is offered by the Technical Education and Vocational Training Authority (TEVTA) schools, providing various skills-based programs. These vocational institutes are exclusive of elementary and secondary education.

Pakistan's education system is vast. As of 2017, Pakistan, with a population nearing 221.0 million, had 58.9 million school-age children (ages 5 to 16).[5] Among these children, 38.2 million were enrolled in primary to secondary educational institutions. Pakistan's education system accommodates approximately 55.4 million students, extending from preprimary to tertiary levels, including technical and vocational education (Table 1.3). The gender-based gross enrollment rates at primary, middle, and secondary levels are 87:75, 60:51, and 64:51 (male to female), respectively. The country employs roughly 1.8 million teachers across the education levels, yielding an average student-to-teacher ratio of 30:1. Pakistan hosts nearly 300,000 educational institutions nationwide. Despite the size of the system, as of June 2024, the adult literacy rate stands at 62.8%.[6]

The most substantial change to Pakistan's education system occurred in 2010 when the Constitution of Pakistan was amended. [7] The 18th Amendment to the Constitution resulted in two fundamental changes: (1) education became decentralized, and the provinces were empowered to deliver educational service; and (2) education became a basic right, under Article 25, "A Right to Education," and the State (understood as the federal and provincial governments) would provide free and compulsory education to all children between the ages of 5 and 16. The first change radically transformed how education was planned, monitored, and funded. The second made education a fundamental right in Pakistan. The decentralization process of education was intended to bring the government closer to citizens and to better respond to local needs. The changes also brought up challenges in establishing policy coherence, ensuring capacity to deliver services at the provincial level, setting education policies, and managing disparities in educational funding across the provinces. The changes also opened a debate about the role of the federal government to support and guarantee the right to education to all citizens. The amendment left no provisions for provincial accountability to the federal government for their new responsibilities and resources.[8] Since 2010, provinces have made progress in improving the management of education systems, but substantial challenges remain in accountability and planning of resources to ensure the provision of quality inputs needed to guarantee quality education for all children in Pakistan.[9]

Table 1.3. *The education system in Pakistan*

	Primary*	Secondary	Tertiary	Technical and vocational education	Total
Enrollment	45,058.6	4,548.7	5,310.5	455.5	55,373.3
Institutions	229.4	34.8	11.5	3.7	279.4
Teachers	906.7	598.9	295.2	18.2	1,819.0

Source: Pakistan Economic Survey 2022–2023.
Note: *Primary includes preprimary, religious schools, and nonformal basic education (NFBE). Religious schools account for nearly 10% of school enrollment. Pakistan's education system accommodates approximately 55.4 million students, extending from preprimary to tertiary levels, including technical and vocational education (TVET). Approximately 45.1 million of the total enrolled students are in primary education.

BOX 4

COVID-19 Impacts

It is undeniable that COVID-19 has had a huge impact on schooling around the world and worsened existing inequalities and challenges with getting children in school and learning.

Pakistan was one of the first countries to institute school closures and unfortunately found minimal success with distance learning. As a result of the COVID-19 pandemic and the resulting school closures, 75% of families with children ages 3 to 17 reported stopping education, and more than 80% of boys and girls reported not attending school for between 6 to 12 months.[1]

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% of households with school-going children do not have any access to electricity; and rates of households without electricity were highest in provinces with large rural populations such as Sindh (53%), KP (30%), and Balochistan (11%).[2]

Girls, especially from rural households, were more likely to drop out of school after the pandemic. According to household survey data, 7% of rural households reported that girls did not return to school after the pandemic, compared to just 3% reporting the same for boys.[3]

For the children who did return to school, learning losses were evident. Between 2021–2022, the Annual Status of Education Report (ASER) was able to once again conduct a nationwide survey for both rural (152) and urban (22) districts in Pakistan. Rural and urban differences remain, with rural children experiencing lower levels of learning, though the amount of learning loss that both urban and rural children faced is similar. For rural children, in 2021-2022, 55.0% of grade 5 children could read a grade 2 level story in Urdu/Sindhi/Pashto compared to 59.0% in 2019.[4] Similarly, for urban children, in 2021–2022, 65.3% of grade 5 children could read a grade 2 level story in Urdu/Sindhi/Pashto compared to 69.5% in 2019.[5] There was an even greater decline in math scores during this same period, where 51% of grade 5 children in rural districts could do two-digit division as compared to 57% in 2019.[6] For urban children, in 2021–2022, 61.5% of grade 5 children could do two-digit division compared to 65.9% in 2019.[7]

While the long-term effects of the COVID-19 pandemic are still being studied, current evidence suggests that girls and rural children are much more impacted and stand to lose more by way of educational opportunities than other children. To prevent further learning losses, actions can be taken to boost enrollment and limit dropouts, utilize student assessments to reveal the true extent of the problem, and expand access to connectivity so that remote learning can take place, if necessary, in the future.[8]

1 World Bank (forthcoming).
2 Ibid.
3 Ibid.
4 ASER (2021, 2022a, 2022b).
6 Ibid.
7 Ibid.
8 Geven and Hasan (2020).

BOX 5

Floods

Beginning in June 2022, heavy monsoon rains led to widespread flooding, which affected approximately one-third of the country, with Sindh province experiencing the worst of the damage.

The floods not only caused physical destruction but also had significant long-term impacts on children's educational access and outcomes. All families faced direct and indirect consequences such as damage to homes, loss of income, and increased health risks, though families with better educated parents were more equipped to deal with the climate shock.

The floods severely damaged the education system. Over 6,000 schools were fully damaged, and nearly 11,000 schools were partially damaged, impacting over 2.6 million enrolled children[1,2]. A survey carried out six months after the floods[3] showed that economic activity, health, and education indicators began to improve, but challenges persisted for households in completely flooded areas. Even when many of the schools reopened, many children affected by the floods were unlikely to return. Some schools had been completely destroyed, while others required an increase in travel costs and travel distances. Economic hardships of some families forced their children to work, leaving them unable to return to school.

To address the current and future threats posed by climate change in Pakistan, it is crucial to understand the interplay between socioeconomic factors and people's attitudes and actions towards climate change. Using data to understand what drives people's climate behavior can help policy makers target interventions to bridge the gap between climate awareness and action and develop strategies that encourage people to prioritize climate change and take proactive measures to address it.

Women and those with higher education levels are more concerned about the impacts of climate change, especially its effects on children.[4] Though awareness is higher among the educated, distrust in climate information prevails, particularly in rural areas and among the less-educated population. According to a recent phone survey, less than half of respondents believe that climate change is caused by human activity, and almost one third of respondents do not trust any source of climate change information.

While there is widespread support for introducing climate education in schools, less than half of parents discuss climate change with their children at home.[5] This gap between awareness and action underscores the need for enhanced efforts to promote discussions and actions at the household level and highlights the potential role of schools in educating families on climate change issues.

Despite experiencing the impacts of climate change, there is limited support for both personal and government climate action in Pakistan, highlighting the imperative for enhanced communication and education on actionable steps. Equipping individuals with knowledge about climate change will incentivize them to effectively address its impacts in the short and long term.

1 Government of Pakistan, Asian Development Bank, European Union, United Nations Development Programme, and World Bank (2022).

2 Barón et al. (2022).

3 Barón and Dahlin (2023).

4 Asad, Barón, and Dahlin (2023).

5 Ibid.

Coordination across provinces and federal government is important to increase the resilience of the education system and better tackle the impacts of natural disasters.

All provinces began developing education sector plans to guide education services delivery under the 18th Amendment and enhance their capacity for education policy making on curriculum, textbooks, and management of teachers. Sizeable parts of provincial budgets, between 10% and 20%, are allocated to the education sector every year by the provincial planning and development departments. However, this setup lacks (1) coordination among provincial and federal governments to achieve national-level objectives, including appropriate checks and balances as in other federal countries[10]; and (2) knowledge sharing on implementation, data-driven budget allocation, and lessons learned in policy creation and implementation. These shortcomings contribute to low-quality country-level data and inequality in educational outcomes, limiting Pakistani authorities' ability to measure national and international commitments and improve education policy.

The coordination challenges are evident even at the level of aggregating provincial data for reporting on international commitments, such as the United Nations Sustainable Development Goals (SDGs). Only recently, with the leadership of the Ministry of Federal Education and Professional Training (MOFEPT) the country has started to develop a common framework for standardizing data for better policy making in the country and for reporting on international commitments with high-quality data. Without such a framework, each province has developed its own education and information management system (EMIS), which tracks indicators of its education systems but does not necessarily provide comparable data across provinces.

One attempt at coordination at the highest level of education policy has been the development of the National Curriculum, which emerged out of the National Education Policy (NEP) and the Single National Curriculum (SNC) in 2021. In 2021, the government developed the NEP with input from the public and various stakeholders in a consultative three-month process (December 2020 to March 2021). In addition, the federal government emphasized its commitment to a unified system of education across the country with the intention of addressing equity issues in the education system with the SNC, which was rolled out in three phases over three years: phase I, the development of the SNC and textbooks for preprimary to grade 5 (March 2021); phase II, the development of SNC and textbooks for grades 6–8 (March 2022); and phase III, development of SNC and textbooks for grades 9–12 (March 2023). (A consensus on the SNC core curriculum for middle-school grades had been achieved in February 2022.) The SNC has since been transformed into the National Curriculum of Pakistan, which emphasizes a minimum curriculum of knowledge and things that children in Pakistan must know and be able to do. While respecting the power the 18th Amendment bestowed to the provinces, the government will not force the implementation of the National Curriculum; instead, the MOFEPT is committed to playing a supporting role to all provinces for capacity building in education and interprovincial harmony.

An ad-hoc coordination mechanism, the Inter-Provincial Education Ministerial Conference (IPEMC), has proven to be a useful platform for coordination among provinces and the federal government in Pakistan. The IPEMC is a forum where education ministers from all provinces convene to discuss and make decisions on significant educational issues and policies at the national level. The conference was particularly beneficial as a coordination mechanism during the COVID-19 pandemic, and when it addressed curriculum development, examinations, and educational standards. The IPEMC is increasingly becoming the primary means through which provincial and federal education authorities attempt to coordinate and align educational policy. However, as a coordination mechanism, the IPEMC lacks formal enforcement power to ensure compliance with agreed-upon decisions.

In 2019, the IPEMC approved the National Education Equitable Education Program (NEEP), a vertically integrated initiative in which the MOFEPT provides additional provincial grants based on performance indicators. NEEP's aim was to enhance service delivery in the most disadvantaged districts of each province. The World Bank funded the initiative through a project called ASPIRE (Actions to Strengthen Performance for Inclusive and Responsive Education).[11] The primary objective of the project was to bolster federal-provincial coordination and management. Specifically, this involved: (1) strengthening data systems, (2) promoting knowledge sharing, (3) enhancing the use of data to target lagging districts with low educational outcomes, and (4) supporting interventions to incentivize behavioral change among teachers, students, and parents.[12] Additionally, the mechanism integrated performance-based indicators for provinces. It was designed to serve as a model for future discussions on education financing, specifically in relation to the 8th National Finance Commission (NFC) award,[13] which determines financial formulas for distributing financial resources to provincial and federal governments. Building on this design, in July 2023, the Ministry of Planning Development and Special Initiatives (MOPD) launched a performance-based initiative to incentivize provinces to reduce the number of OOSC in lagging districts.

BOX 6

Data

This report utilizes data from a variety of sources to present a comprehensive picture of the state of education in Pakistan. Various sources were used to ensure accurate analysis and to enable as much disaggregation as possible. A description of the sources is below in Table B6.1.

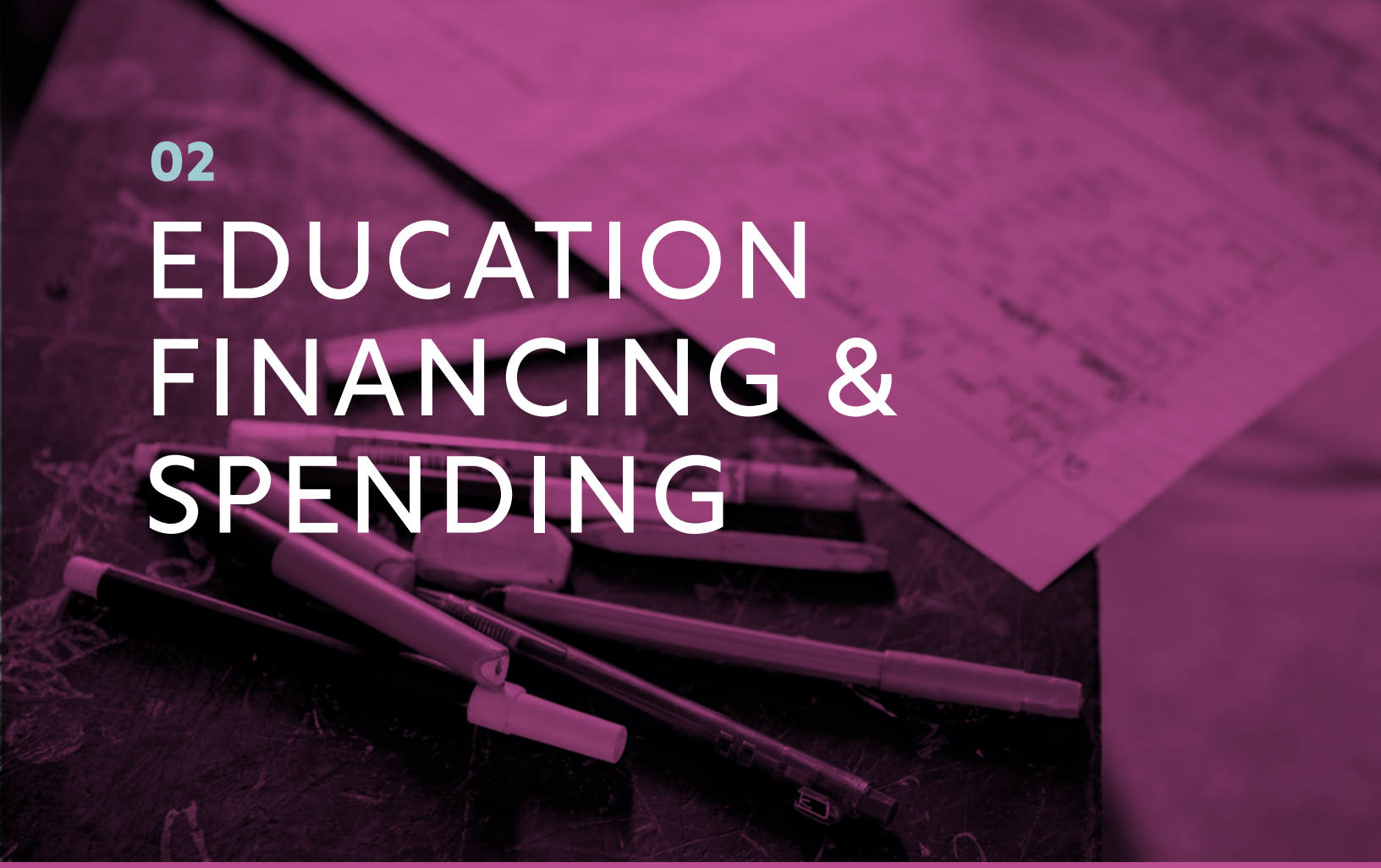
***Table B6.1.** Description of data sources used in this report*

Data	Description
ASER 2020–2021	The Annual Status of Education Report (ASER) is a household-based survey conducted across rural districts in Pakistan assessing the learning outcomes on language and mathematics of children ages 5–16.
BOOST 2010–2021	BOOST collects district-level expenditure data of Pakistan on multiple categories and levels.
PSLM 2004–2014	Pakistan Social and Living Standards Measurement (PSLM) collected social and economic indicators at the province and district level.
PSLM/HIES 2018–2019	PSLM and Household Integrated Economic Survey (HIES) collected social and economic indicators at the province and district level. The data contain information on household income and consumption by category.
PSLM 2019–2020	PSLM collected social and economic indicators at the province and district level.
AEPAM 2018–2019, 2020-2021, 2021–2022	Academy of Educational Planning & Management (AEPAM) provides data on enrollment, repetition, teachers, school condition, school facilities, and nonteaching staff.
NAT 2018–2019	National Achievement Test (NAT) 2019 for grade 4 and grade 8 test scores in English, science, general science, and mathematics.
Pakistan Population Census 2017	The census includes information on electrification, population density and more.
World Bank WDI	World Development Indicators provides cross comparison, time series and country-level data on global development. The information is used to carry out expenditure efficiency analysis.
WEF	The World Economic Forum (WEF) conducts an annual assessment of 103 countries' economic performance that measures how countries perform on 11 dimensions of economic progress in addition to GDP.
GEM Report 2021	The Global Education Monitoring Report (GEM) is an editorially independent annual report hosted and published by UNESCO, which is mandated to monitor progress on education in the SDGs and on the implementation of national and international education strategies to help hold all relevant partners to account for their commitments.
TIMSS 2019	The Trends in International Mathematics and Science Study (TIMSS) is an assessment of the mathematics and science knowledge of learners in grade 4 (or 5) and grade 8 (or 9) in various countries around the world.
UNESCO UIS	The UNESCO Institute for Statistics (UIS) provides free access to data for all UNESCO countries and regional groupings from 1970 to the most recent year available and encourages developers and researchers to build websites and applications that make rich use of UIS dissemination data.
Pakistan Economic Survey 2022–2023	The Pakistan Economic Survey 2022–2023 presents analysis of the performance of different sectors of the economy.
Pakistan Education Survey/ Statistics 2022	Pakistan Education Statistics is a publication by the Pakistan Institute of Education (PIE).
SABER SDI	SABER Service Delivery Indicators (SABER SDI) is an initiative by the World Bank Education Global Practice to uncover bottlenecks that inhibit student learning in low-income and middle-income countries. This school survey collects strategic information on school inputs and processes that produce learning outcomes.
GEPD 2023	Global Education Policy Dashboard (GEPD) is a data-collection tool developed by the World Bank identifying priorities for investments and policy reforms.
NAT 2019	National Achievement Test (NAT) 2019 is a nationwide tool that assesses student achievement in core subjects like English, Urdu, math, and science, and Sindhi in Sindh province, offering valuable data to inform educational progress.

Education is not social assistance; it is an investment for long-term prosperity, opportunity, social cohesion, and inclusion.

SECTION NOTES

1 UNESCO (2022).
2 UNESCO (2022).
3 Andrabi, Khuwaja, and Das (2006); Nguyen and Raju (2014).
4 WEF (2023).
5 PBS (2017a).
6 Government of Pakistan (2023).
7 Constitution of Pakistan as modified up to 2018 (Government of Pakistan 1973).
8 I-SAPS (n.d.).
9 Kakar, Saleem, and Sarwar (2022).
10 Shah (2006).
11 World Bank (2020).
12 The Actions to Strengthen Performance for Inclusive and Responsive Education (ASPIRE) program helps Pakistan address school disruptions related to COVID-19 by accelerating virtual and distance learning opportunities for out-of-school children (OOSC), particularly among disadvantaged communities. It helps strengthen coordination between federal and provincial authorities to generate new investments in traditional and alternative education programs to accelerate recovery.
13 National Finance Commission (NFC): Article 160 (1) of Pakistan's constitution provides for the establishment of the NFC.



02

EDUCATION FINANCING & SPENDING

Education in Pakistan is financed through a blend of private and public sources. The public sector accounts for approximately 45% of total education expenditure. The private sector encompasses a diverse range of sources, which include families, foundations, nongovernmental organizations, charities, and religious institutions.[1]

Funding for Education in Pakistan

To fulfill constitutional obligations related to public education provision, the government funds public expenditure from government revenue, primarily taxes.[2] It is the responsibility of the National Finance Commission (NFC), under the presidential directive, to distribute tax revenue between the federal and provincial governments through a mechanism known as the NFC Award. The NFC Award distributes a common pool of funds derived from taxes, such as taxes on income, wealth, capital value, sales and purchases of goods, export duties on cotton, custom duties, federal excise duties, and any other tax imposed by the federal government. While the current NFC Award, the 7th, was set to expire in 2015, it has instead been extended annually since consensus has not been reached on changes to the distribution formulas. Typically, the NFC Award is revised every five years, which presents opportunities to improve the decentralization process.

KEY MESSAGE

ADEQUACY

Pakistan needs to spend more on education.

In 2020, the country spent 2.1% of gross domestic product (GDP) on education, notably below the South Asian regional average of 2.9% and the global average of 4.3%. Alarmingly, this allocation decreased to 1.5% in 2023. Such investment is inadequate to achieve Pakistan's constitutional pledge to provide free and compulsory education to children age 5–16. Consequently, Pakistan has the second-highest number of out-of-school children (OOSC) worldwide, at 20.3 million. Eight of every 10 children in Pakistan cannot understand a basic short text by age 10, classifying them as "learning poor." The socioeconomic consequences of this underfunding include reduced human capital and stunted long-term economic productivity and growth. Pakistan needs to rethink its current approach to education financing, increase government revenue, and gradually increase its education expenditure to at least 4.3% of its GDP—essential for ensuring access to a higher quality of education. This has become more important since the release of new data from the 7th Population and Housing Census 2023. The data indicates that the population growth averaged 2.55% annually between 2012 and 2023, up from 2.40% annually between 1998 and 2017. This acceleration in population growth will bring millions more children than expected into the education system in the near future.

The NFC Award is the main source of provincial expenditure. The common pool of funds, after certain exclusions, is divided between the four provinces and the federal government at a ratio of 57.5% to the provinces and 42.5% to the federal government.[3] This allocation is based on population (82.0%), poverty (10.3%), revenue collection (5.0%), and inverse population density (2.7%). As a result of this formula, the 57.5% allocated to the provinces is divided as follows: Balochistan receives 5.2%, Khyber Pakhtunkhwa (KP) receives 8.4%, Punjab receives 29.8%, and Sindh receives 14.8% (approximate values). In the fiscal year 2022, provincial expenditures financed by transfers from federal governments (mainly through the NFC) represented 100% in Punjab, 80% in Sindh, 86% in KP, and 89% in Balochistan.[4]

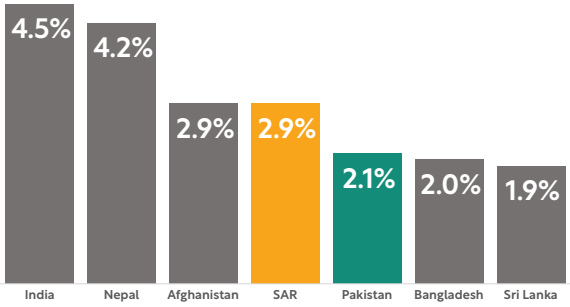
The NFC Award plays a significant role in funding provincial activities and services. Provinces supplement this source of government funding with their own taxes on services, as well as funding from development assistance and loans.[5] Once the NFC Award funds have been allocated, it is up to each province to decide how to distribute these funds among various sectors, including education. Provinces allocate between 13% and 20% of their budgets toward education. A noteworthy aspect, particularly relevant to education, is that the NFC Award did not include checks and balances for accountability or incentivize certain activities or targets, apart from impacting the distribution formula. There are no provisions or compensation funds, which are common in other federal countries, that incentivize provinces and districts to ensure a more geographically balanced development path.[6]

While the 18th Amendment to the Constitution devolved service delivery to the province level, the devolution process remains incomplete, especially at the district level, in some provinces. All the provinces have approved their local government acts with later amendments. These local government acts in Pakistan's provinces outline different levels of education administration responsibilities. In KP[7] and Punjab,[8] education has been devolved to local governments, enabling district-level autonomy in management, planning, taxation for support, and the overseeing of educational development. Punjab's District Education Authorities (DEA) oversees the entire education sector. KP and Punjab have also devolved educational planning to the local level, giving districts more fiscal autonomy and control over education and, in theory, enabling them to respond to the local needs of their population. In contrast, the decentralization process has stalled in Balochistan and Sindh, especially at the district level. In Sindh, local governments have limited roles, such as promoting adult education and monitoring primary education,[9] while Balochistan's local government focuses on providing and maintaining primary schools.[10] It has been 12 years since the amendment was enacted, and these two provinces have yet to announce a Provincial Financial Commission.

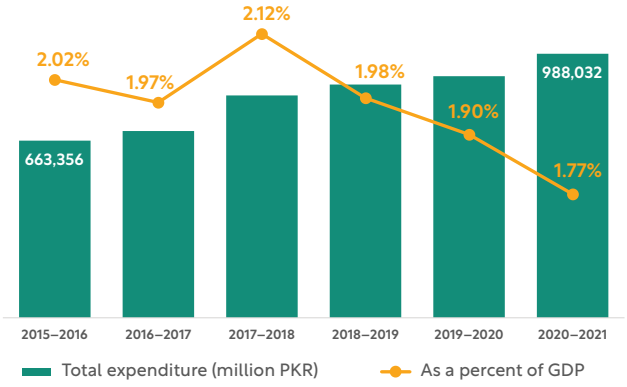
Quality education demands supportive public institutions for monitoring, evaluating, and building capacity beyond just improving resources. These institutions, varying by name across provinces, perform essential functions to facilitate student learning. These institutions have evolved from the 18th Amendment, both at the provincial and federal government levels. Although it is beyond the scope of this study, it would be important to assess the efficiency and relevance of these numerous institutions. Many of them are legacy institutions at the federal government level but were never absorbed by provincial governments when the decentralization of educational services occurred. In some provinces, there are even two distinct departments, like literacy and school education, that do not necessarily work together. At the federal level, there are organizations such as the National Commission of Human Development and the Basic Education Community Schools that also operate in the provinces with similar mandates to the ones of the provincial education and literacy departments. Assessing the efficiency and relevancy of these institutions will allow for duplication to be eliminated, enhancing efficiency and freeing additional resources for service delivery.

***Figure 2.1.** Characteristics of education financing in Pakistan*

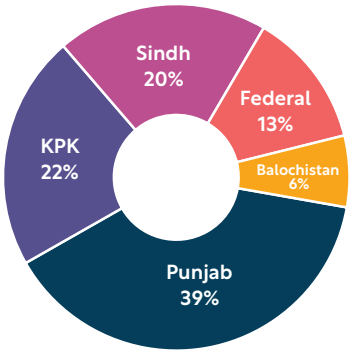
(a) Public expenditure in education compared to other countries, as percentage of GDP, 2020



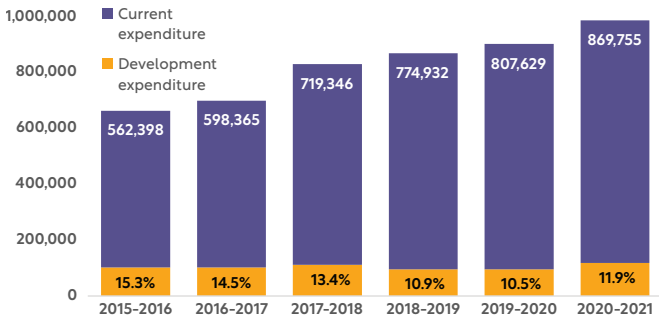
(b) Trends in total education expenditures nominal (in million PKR) and as a percentage of GDP, 2015–2020



(c) Share of total public education expenditure, by province, 2021



(d) Current versus development expenditure in education (in million PKR)



Source: Authors' estimates, using data from the World Bank's World Development Indicators database and Pakistan Economic Survey 2021–2022.
Note: Pakistan's share of education expenditure as GDP tends to slightly differ depending on the source of information: World Development Indicators (WDI) / UNESCO, BOOST, or Pakistan Economic Survey; decreasing trends in expenditure are, however, consistent in all three sources of information. In absolute nominal terms, total expenditure on education has risen from PKR 663,356 million in FY 2015–2016 to PKR 988,032 million in FY 2020–2021. In 2021, Punjab had the highest share of total public expenditure in education at 39.0% followed by Khyber Pakhtunkhwa (KP), Sindh, Federal and Balochistan. Development expenditure as a portion of total expenditure in education has seen a decline from FY 2015–2016 at 15.3% to 11.9% in 2020–2021.

Education expenditure in Pakistan

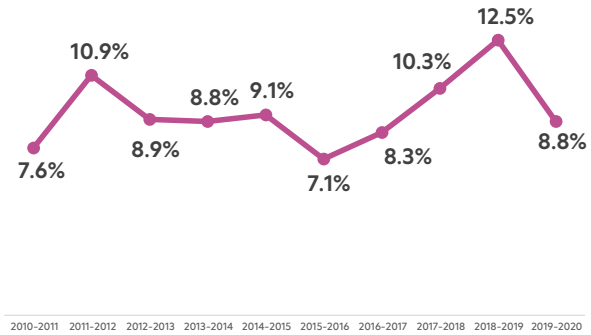
Compared to international benchmarks and regional counterparts, the percentage of GDP Pakistan allocates to education is low. As of 2020, Pakistan's educational expenditure was 2.1% of its GDP (Figure 2.1a). This is less than the allocation of spending by India (4.5% of GDP), Nepal (4.2%), and the region's average (2.9%). Furthermore, Pakistan's education expenditure is considerably less than the minimum threshold set at the World Education Forum (WEF) in Incheon in 2015, which suggested that education sector spending should be between 4.0% and 6.0% of GDP.[11] In 2020, Pakistan's education expenditure was less than half of the lower limit of this benchmark. Among regional peers, only India and Nepal surpassed the minimum spending threshold of 4% of GDP.

The downward trend in Pakistan's expenditure on education is a cause for concern. Despite nominal increases in yearly allocations that have led to a nearly 50% surge in education expenditure between 2015 and 2020, the proportion of the GDP allocated to education has consistently decreased since 2018, from 2.12% to 1.77% (Figure 2.1b). These data do not fully capture the impacts of the recent pandemic and floods on education spending. Therefore, the proportion of GDP allocated to education could shrink further. In addition, with high levels of inflation, nominal increases might not compensate for the reduction in purchasing power, thereby potentially leading to a further contraction in real education expenditure.

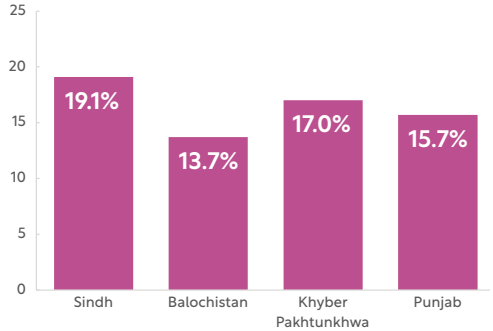
To understand the potential impact of education expenditures across Pakistan, it is useful to look at the distribution of expenditure across provinces and the federal government (Figure 2.1c). Punjab accounts for 39.0% of all education spending in the country, followed by Sindh (19.7%) and KP (21.9%). Despite having a larger population than KP, Sindh spends less on education. Balochistan and the federal government account for 6.7% and 12.7% of total education expenditure, respectively. However, the allocation of these expenditures differs within each province.

Figure 2.2. *Public education expenditure as percentage of total public expenditure*

(a) Country level, 2010–2020

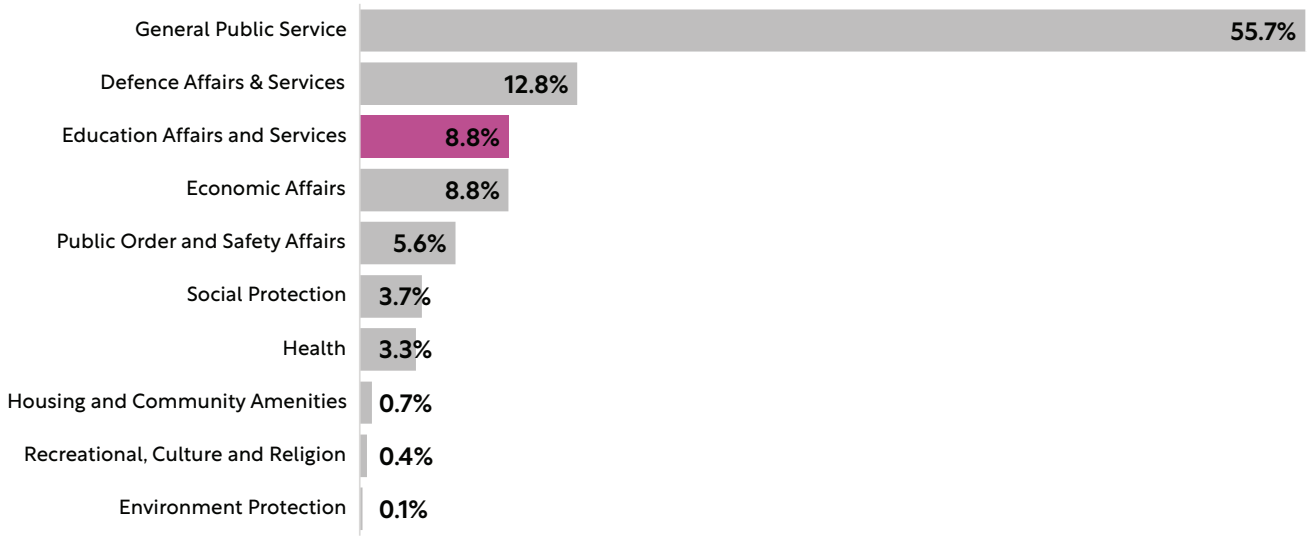


(b) By province, 2022–2023



Sources: Expenditure data BOOST Database based on data from Pakistan Ministry of Finance; and GDP data from the World Bank.
Note: Public education expenditure as a percentage of total public expenditure in 2019–2020 was 8.8%, close to the total expenditure in 2010–2011 at 7.6%. The highest public expenditure was in 2018–2019 at 12.5%. In 2022–2023, the public expenditure on education by province was Sindh at 19.1%, Khyber Pakhtunkhwa (KP) at 17.0%, Punjab at 15.7%, and Balochistan at 13.0% of the total public expenditure.

Figure 2.3. Public expenditure by function, 2019–20



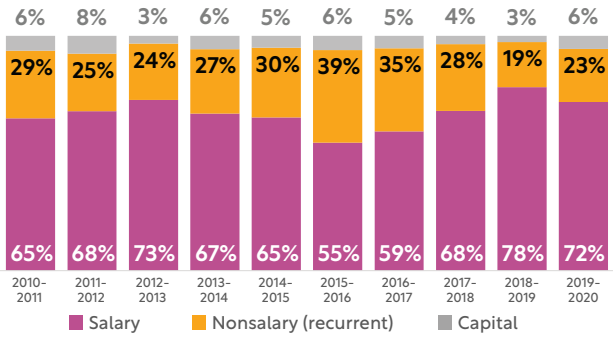
Source: BOOST Database based on data from Pakistan Ministry of Finance.
Note: The general public service sector receives the highest share of public expenditure at 55.7%, followed by the defense affairs and services sector at 12.8% and education at 8.8% in 2019–2020.

In 2020, 90% of Pakistan's expenditure was on recurrent expenditures, with teachers' salaries representing between 70% and 75% of the recurrent budget. This leaves limited funds for the education system's expansion and improvement of quality (Figure 2.1d). In Pakistan, expenditures are categorized into two types: recurrent and development (capital). Recurrent expenditures include salaries, textbooks, and small repairs (maintenance), while development expenditures refer to funding allocated for specific projects, such as the construction or improvement of schools. Balancing between recurrent and development spending is crucial.[12] For example, classrooms need teachers, who in turn need textbooks to facilitate education. If the expenses allocated to teachers eclipse those for textbooks, it could undermine the overall efficacy of education and hamper student learning.[13] With only 10% of public expenditures dedicated to new schools, teacher training, and other quality-enhancing activities, it is highly likely that salaries are crowding out expenditures that guarantee teachers and students the infrastructure and the pedagogical material needed for quality education.

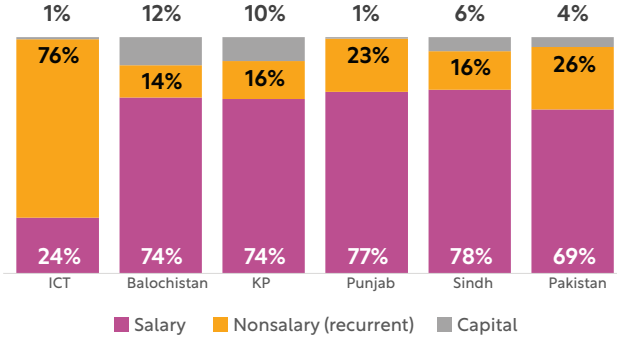
Pakistan allocates approximately 9.0% of its total public expenditure, including federal and provincial budgets, to education. This allocation falls short of the commitment Pakistan, along with other nations, made at the WEF in Incheon in 2015. This forum advocated that countries dedicate at least 15.0% to 20.0% of public expenditure to education. The highest proportion of spending Pakistan has allocated to education in the past decade was 12.5% in 2018–2019, just before the pandemic. However, the allocation has also dipped as low as 7.1% in 2015–2016. A review of the trends since 2010 reveals a cyclical pattern in public expenditure on education (Figure 2.2). This cyclical investment trend hinders the sector's ability to plan for the long term and impedes progress.

Figure 2.4. *Salary, nonsalary, and capital expenditures evolution, from 2010–2020 and by province*

(a) Spending by salary, nonsalary, and capital



(b) Distribution of federal and provincial expenditure, by activity



Source: BOOST Database based on data from Pakistan Ministry of Finance.
Note: Salary expenditure varies from 55% to 78% over time from FY 2010–2011 to 2019–2020 in Pakistan. Capital expenditures have remained below 10% consistently over time while nonsalary expenditures varied from 19% to 39% over time. By province, all except for Islamabad Capital Territory (ICT) spends approximately 75% of expenditures on salary. Punjab and ICT both have the lowest spending on capital expenditures at 1%.

As of 2021, provincial expenditure levels in Pakistan have fallen between 13% and 20%, with Balochistan as the exception. Balochistan has struggled to reach the 15% public expenditure spending benchmark set at the WEF in 2015; instead its spending level is at 14%. In contrast, KP and Punjab allocate approximately 20% and 17%, respectively. It is essential to interpret these figures within their proper context. Comparing provincial expenditure shares with international benchmarks misses the purpose of these benchmarks, which is to incentivize increased public spending in education. The benchmarks are tailored to countrywide public expenditure, not the expenditures at the subnational level.

Given that Pakistan spends less on education than many other countries in the South Asian region, where does most of Pakistan's public money go? The answer lies primarily in the general public service sector, which consumes 56% of the total budget. The most substantial portion of this allocation is consumed by domestic debt management and interest payments. The second major sector of expenditure is for defense affairs and services, which receives 13% of the budget. Education spending ranks third among budget priorities, receiving just 9% of the total public expenditure (Figure 2.3).

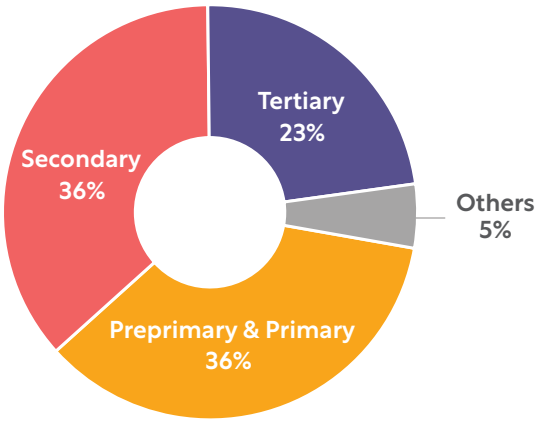
Over the past five years, salary expenditures have increased by an average of 3% points per year and account for 70% of Pakistan's education expenditures. In 2019–2020, 72% of sector spending went to salary payments, 23% to nonsalary recurrent expenditures, and only 6% to capital investment (Figure 2.4). Compared to 2016–2017, the share of salary spending increased by 13% points, mainly coming from nonsalary recurrent expenditures. Of these salary payments, more than 98% are employee-related expenses, and less than 2% correspond to pension benefits. In 2019–2020, 55% of employee-related expenditures were salaries, and 45% were allowances (up from 37% in 2016–2017). The capital expenditure, at only 6%, mostly includes civil works, such as construction. Nonsalary recurrent expenditures, at 23%, consist largely of grants, subsidies, write-offs, transfers, and operating costs.

All provinces in Pakistan dedicate approximately 67% of their spending to salaries, while the federal government primarily focuses on nonsalary recurrent expenditures (Figure 2.4). Balochistan and KP commit slightly more funds than the other regions to capital investments, chiefly infrastructure. Meanwhile, Balochistan and KP both spent 74%, Punjab spent 77%, and Sindh spent 78% on the capital investments. Both the federal government and Punjab allocated only 1% of their budgets to infrastructure; the former due to its limited mandate for direct service delivery, and the latter due to its focus on system expansion via public-private partnerships (PPPs) rather than the construction of new school infrastructure. Punjab's expenditure figures also indicate a higher proportion of nonsalary recurrent expenditures, which includes an increased allocation for grants to districts and schools as part of the ongoing decentralization process within the province.

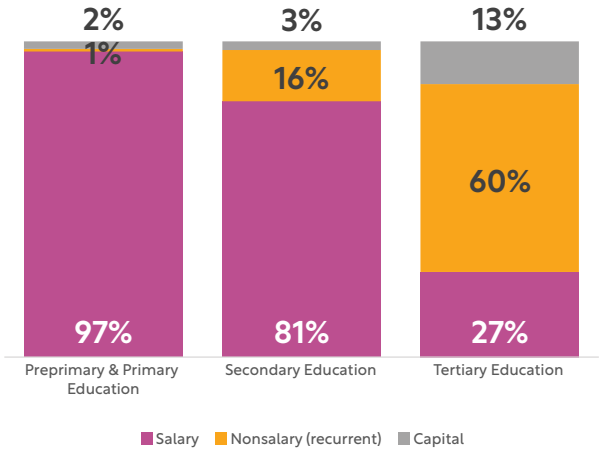
Pakistan makes almost equal investments in primary and secondary education, while less is spent on tertiary education. Considering the low enrollment and completion rates in secondary education, it is reasonable to question the efficiency of the budget allocation, which has generally remained constant, with only minor fluctuations, over the past decade. In the fiscal year 2019–2020, Pakistan allocated 36% of its education budget to primary education, an equal proportion to secondary education, and 23% to tertiary education (Figure 2.5a).

Figure 2.5. ***Public expenditure, by education level***

(a) Expenditure, by level, 2019–2020



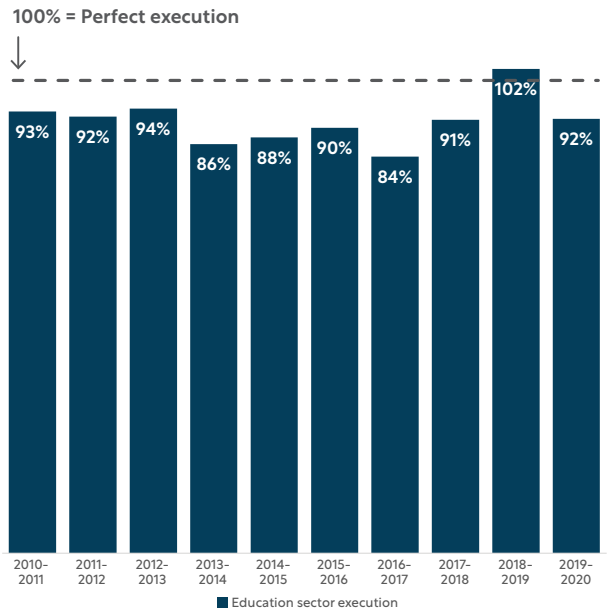
(b) Type of expenditure, by education level, 2019–2020



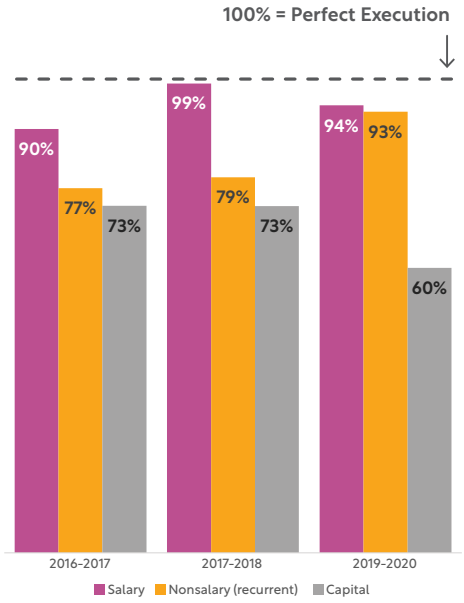
Source: BOOST Database based on data from Pakistan Ministry of Finance.
Note: In the fiscal year 2019–2020, Pakistan allocated 36% of its education budget to primary education, an equal proportion to secondary education, and only 23% to tertiary education. During 2019–2020, almost all expenditures (97%) were channeled to salaries in primary education. In secondary education, salary payments accounted for 81% of spending, while nonsalary recurrent expenditures took up 16%, and capital investment constituted the remaining 3%.

Figure 2.6. *Budget execution from different perspectives*

(a) Evolution



(b) Execution is lower in nonsalary (recurrent) and development budget



Source: BOOST Database based on data from Pakistan Ministry of Finance; based on data from the World Bank's WDI database; Pakistan Economic Survey 2021–2022.
Note: Formula for budget execution = (Actual Expenditure ÷ Final Budget) × 100%. Pakistan maintains budget execution rates of around 90% from FY 2010–2011 to FY 2019–2020. Execution rate for the recurrent salary budget is nearly 100%. The nonsalary (recurrent) and development budgets pose challenges, with execution rates varying between 75% to 85% and 60% to 70%.

As the level of education increases, the proportion of expenditure spent on salaries decreases. At all levels of education, most expenditures are dedicated to salaries, with important differences. During 2019–2020, almost all expenditures (97%), as with previous years, were channeled to salaries in primary education. In secondary education, salary payments accounted for 81% of spending, while nonsalary recurrent expenditures took up 16%, and capital investment constituted the remaining 3% (Figure 2.5b). In tertiary education, the bulk of expenditure, 60%, was nonsalary recurrent, largely comprised of grants, subsidies, and write-offs of loans/advances/others, with salary payments at 27% and capital expenditures comprising 13%. To enhance the quality of education, the system must increase development spending in primary education. More development expenditure at this level will allow for better and more support for teachers and students to acquire the foundational skills they need to benefit from the rest of their experience in the education system. It could also ensure that multigrade education is formalized and implemented adequately. Investing more in primary education will enhance the efficiency of the system as it would enhance the efficacy of the large recurrent expenditures in teacher salaries.

Decentralization of sector service delivery is evident, with most of the expenditures taking place at the regional level, especially at the primary and secondary levels. In 2019–2020, nearly all of primary and secondary education spending (99% and 97%, respectively) took place at the provincial level. For tertiary education, 50% of spending occurred at the provincial level and 50% at the federal level. Between 2010 and 2019, the proportion of education expenditures made by the federal

government decreased from 21% to 13% (with a spike in 2015 that reached 26%). This shows the devolution of service delivery from federal to provincial governments that has been happening for more than a decade.

Pakistan maintains budget execution rates of around 90%, a trend that has held steady since the devolution process in 2010 (Figure 2.6). However, this figure hides information critical for policy making, especially considering the execution rate for the recurrent salary budget, which is nearly 100%. The disbursement of salaries to teachers and administrators is a straightforward and predictable task that does not require following intricate procurement procedures. However, the nonsalary recurrent and development budgets pose challenges, with execution rates over three years averaging 84% and 69%, respectively (Figure 2.6). It is also unsurprising, given the expenditure structure, which is predominantly composed of transfers and salaries, that the federal government exhibits near-perfect execution rates. In terms of education levels, primary education almost consistently demonstrates the highest rates of execution, an expected outcome considering that salaries constitute most of their budget. Execution in secondary education is only marginally lower than primary in certain years, which is also understandable given the substantial proportion of salaries and other nonsalary recurrent costs comprise 97% of the budget.

Overall, not only is the development budget relatively small, but it is also not fully executed. This implies that the resources necessary for system expansion and quality improvement are limited. It seems that even the minimal opportunity for change is not being fully realized. Making sure that these unexecuted resources are fully carried out could create an opportunity for Pakistan to increase the efficiency of expenditure, especially if that unexecuted budget is used to make the recurrent expenditures, such as salaries of teachers, more impactful.

Procurement, planning, and parking of funds all contribute to underutilizing the development budget, according to extensive consultations with officials from provincial and federal education, finance, and planning and development departments. Cumbersome procurement processes often hinder the full deployment of the budget. Complex procedures, stringent regulations, and bureaucratic red tape can slow the acquisition of essential goods and services, impeding the effective implementation of development plans. Discrepancies between planning and execution can also arise due to inadequate forecasting or unrealistic budgeting, leading to the underutilization of funds. A lack of technical skills and knowledge in the agencies tasked with executing the development budget presents another challenge. Capacity building within these agencies is essential to ensure the efficient execution of the budget and full utilization of allocated funds. Furthermore, "parked" allocations, or funds listed in the budget with no intention of them being fully spent, can inflate the size of the development budget artificially while actual spending remains low.

The overarching challenge lies in the inconsistent and often delayed release of funds, which causes difficulties in planning and implementing projects as per approved budgets. This delay can create substantial disparities between budgeted and actual expenditures, as the time for implementation during the fiscal year shrinks due to the delays. To fully utilize the development budget and to ensure the expansion and enhancement of Pakistan's education system, addressing these underlying challenges is crucial.

BOX 7

Pensions

In Pakistan, teacher salaries are paid by each provincial education department while teacher pensions are paid out from a provincewide pension pool, which disburses pensions to all civil servants.

For example, retired public school teachers in Punjab and retired finance department employees would receive their pensions from the same provincial pot of funds which are managed separately from salaries. In annual provincial budgets, there is a separate heading for pensions, which are allocated separately, like other administrative departments.[1]

For retired teachers to receive their pensions, they must submit a request to the provincial Accountant General (AG) offices in all four provinces and District Accounts Offices (DAOs). Once this request is made, they must provide their service book (a file that documents their tenure) and other documents that prove their identity and years of service.

1 See, for example, Annual Budget Statements for each provincial government.

Increasing expenditure in education will require effort from both provincial and federal governments. The fragmentation and lack of cohesion in tax policies between federal and provincial levels further complicate revenue collection. The World Bank notes that Pakistan's fiscal deficits are large, persistent, and growing, which exacerbates macroeconomic volatility and limits the government's ability to invest in critical sectors like education.[14] Effective fiscal management, including reducing the fiscal deficit, is crucial for enabling more substantial investments in education. Given that provinces are heavily reliant on a divisible pool of funds,[15] the NFC Award, which is the main source of provincial expenditure, would provide an opportunity to discuss and agree on a system that incentivizes performance in terms of increased learning outcomes and access to education. However, the 7th NFC Award, which expired in 2015, remains in place with an annual renewal, since a consensus has not yet been established for the 8th NFC Award.

How much would it cost to send children to better quality schools?

Funding for education in Pakistan is inadequate. It not only fails to cover all children, but a large portion of it comes from parents. As part of this report, a simulation model was developed to understand the financial implications of funding all children to go to school.

The simulation tool provides cost estimates for addressing barriers to enrollment and reenrollment, accommodating a growing population of school-age children, and improving the quality of education. The tool forecasts incremental costs from 2024 to 2030 that will be required to overcome existing challenges, particularly pertaining to getting OOSC to enroll and attend school. The tool assumes a constant GDP in 2023 PKR to capture the current economic conditions that limit growth.

The tool considers population growth and the age of school-going children and considers different responses to the challenge of OOSC. Responses to children out of school are based on the taxonomy put forward by the World Bank's Human Capital Review, which splits OOSC into different groups, requiring different interventions based on their experience with the education system and their current age. This setup captures the unique challenges faced by each group of OOSC, allowing for differential costing for each group and making the simulations more realistic. The results are produced at the provincial level and aggregated to generate a national expenditure profile and public sector capacity requirements.

The tool's parameters consider differences in urban and rural expenditures, gender-specific interventions, and improvements in the efficiency of public expenditure. Given Pakistan's acute learning poverty crisis, improving learning outcomes requires interventions at the teacher, assessment, school, and community levels.

The sensitivity parameters use national blended costs to provide more conservative estimates for the needs of lagging and vulnerable groups, such as the rural population and girls. These factors help map the additional costing requirements to serve these groups. Additionally, one parameter helps gauge the savings that can come from increased efficiency in utilizing expenditure. Importantly, the simulation assumes that the public sector can generate efficiency in spending of 20% (the system can achieve 20% more outcomes with the same allocation of resources).

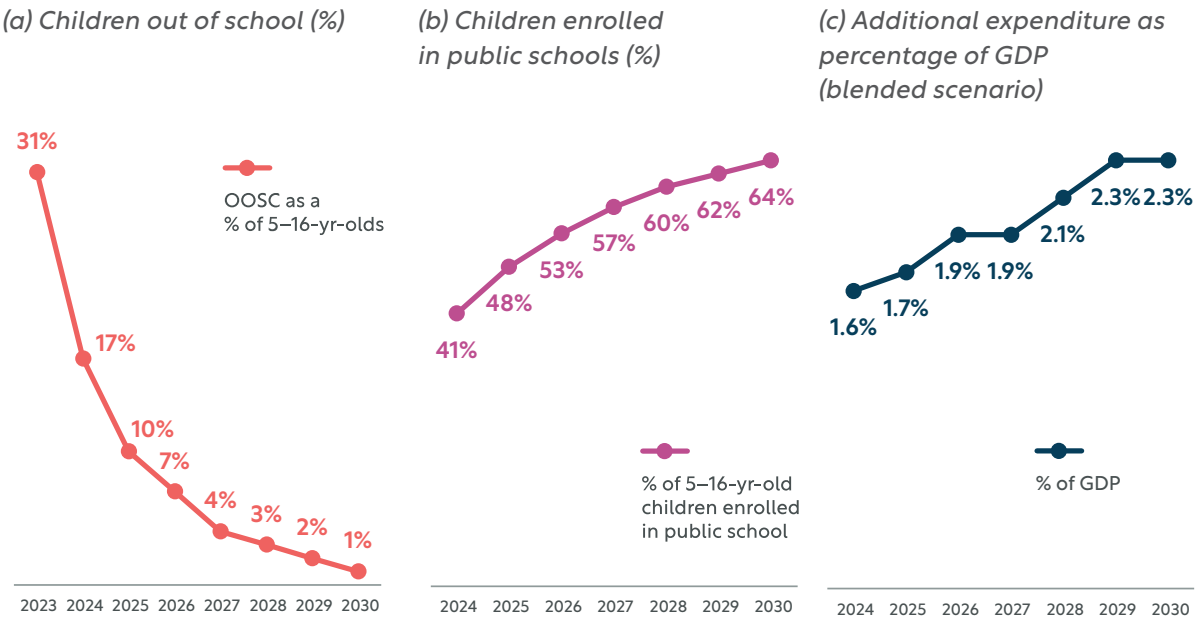
By 2030, the number of school-eligible children ages 5 to 16 in Pakistan is estimated to grow from 63.0 million to 76.5 million, reflecting a consistent annual growth rate of 2% of new 5-year-olds each year. As the population of eligible students continues to expand and the OOSC crisis persists, the need for Pakistan to address its public education service delivery becomes even more pressing with each passing year.

The simulation estimates that Pakistan can reduce its OOSC population to 1% by 2030 with substantial technical and financial effort (Figure 2.7). This can be done by setting annual intervention targets geared toward reducing the number of children who have never enrolled or dropped out of school. This is an extremely ambitious but useful exercise. It provides benchmarking into what it would take to solve the enrollment problem

The public school system is expected to enroll approximately 64% of all school-eligible students. Therefore, it is essential to focus on enhancing the capacity and quality of education provided by the public sector to effectively meet the needs of the expanding student population.

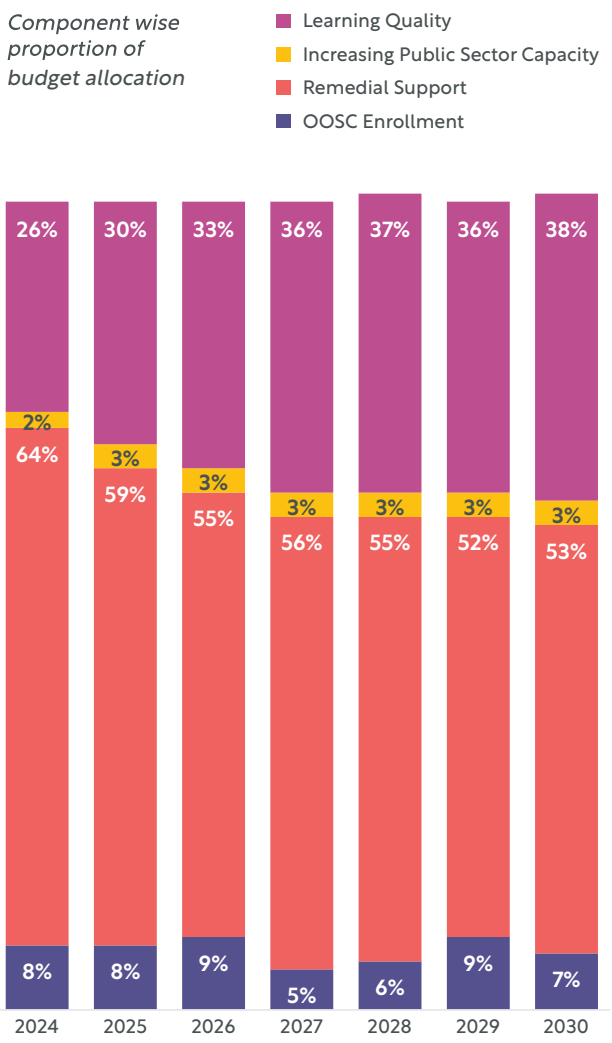
To realize this expectation, incremental public expenditure on education is required. It needs to increase by 2.3 percentage points by 2030, and reach at least 4.3% of GDP if current allocations are maintained (approximately 2.0% of GDP). In absolute terms, the required public expenditure needs to increase from PKR 1.3 trillion to PKR 1.9 trillion from 2024 to 2030.

Figure 2.7. Simulation results



Source: Authors' calculations based on simulation tool.
Note: Over time, the percentages of out-of-school children (OOSC) are shown to decline continuously and is expected to reach a low of 1% in 2030 from a high of 31% in 2023. Enrollment is expected to rise and reach a high of 64% for all school-going children in 2030. Increasing public expenditure on education is required to reduce the number of OOSC. More details on the simulation tool are available upon request.

Figure 2.8. Shifting of resources from remedial to investments in quality



Source: Authors' calculations based on the simulation tool.
Note: Based on the simulation, a change in the allocation of public funds is observed, focusing less on enrolling out-of-school children and providing remedial support, and shifting toward investments in enhancing the overall quality of education. More details on the simulation tool are available upon request.

The current simulation shows a shift in the distribution of public expenditure from OOSC enrollment and remedial support toward investments in improving the quality of education (Figure 2.8). With the reduction in the number of children out of school, there is an increasing emphasis on ensuring that the output of public education consistently delivers high-quality learning outcomes. Subsequently, the pressure on public expenditure pivots toward sustaining the continuous improvement of education quality in the years to come while having most children in the system.

The recent preliminary results of the aggregate number of the 2023 population census indicate that financing education for all in Pakistan will become more complex. Between 2017 and 2023, the population of Pakistan increased annually at rate of 2.55%, higher than the rate between 1998 and 2017, which was 2.40%.[16] Although numbers by age groups are not yet available, it is safe to assume that Pakistan's effort to guarantee the right to education for all will be higher than estimated, given the millions of additional children expected to join the system due to increased fertility. Unless Pakistan increases efficiency, expenditure, and seeks out-of-the-box solutions to expand the system, the number of OOSC will continue to grow.

Greater frequency of extreme weather events, such as the 2022 floods, highlights the importance of increasing the resilience of school infrastructure and the education system to minimize the impact of school closures.

BOX 8

Resiliency and climate change in education

Climate change is causing major disruptions to education.

Over the last 20 years, climate disasters such as floods, cyclones, drought and crop failures have forced schools to close roughly 75% of the time during these extreme events.[1] Strong evidence from COVID-19 shows that, on average, a day of school closures equals a day of learning lost.[2] Despite these statistics, most climate policy does not include educational considerations. In Pakistan, greater incidence of extreme weather such as the floods of 2022, which disrupted access to education and other basic services, shows the importance of building resilience within the education system to withstand future climate shocks.

To do this, policy makers could consider: (1) education management for resilience (e.g., developing disaster risk planning); (2) school infrastructure for resilience (e.g., reinforcing the physical structure of schools to minimize damage and/or keep students cool/warm); (3) ensuring learning continuity (e.g., keeping schools open or engaging in reenrollment campaigns); and (4) empowering teachers and students as change agents (e.g., training teachers on climate risks and climate knowledge).[3] These discussions are also important to have within households, given that people with the least education are most likely to distrust sources of climate-related information, even though parents have a high demand of climate change education for their children.[4]

1 Venegas, Schwarz and Sabarwal (2024).
2 Ibid.
3 Ibid.
4 Asad, Dahlin, and Barón (2023).

RECOMMENDATIONS

ADEQUACY

Pakistan needs to spend more on education.

Spending

Pakistan cannot deliver on its constitutional commitment to provide free and compulsory education to children ages 5 to 16 without additional resources, even if the most efficient allocation of resources were to be achieved. To ensure that all children attend school and are learning, Pakistan must invest an amount equivalent to between 4.3% and 5.4% of its GDP in education. While this is a formidable figure, annually agreed-upon increases in overall budgets (as a percentage of GDP) could set Pakistan on the right track to fulfill its obligations to both current and future generations. To augment expenditure on education, Pakistan needs to bolster government revenues through enhanced fiscal efforts and internal negotiations regarding the revenue distribution of the 8th NFC Award.

Allocation

Should the education budget increase, how should these funds be allocated? Priority could be given to expanding access to quality education with well-prepared teachers by continuing to build the public sector. Additionally, other viable avenues include enhancing public-private partnerships (PPPs) with robust regulation, making optimal use of current infrastructure—for instance, by implementing double shifts—and promoting coordinated, targeted expansion in tandem with Benazir Income Support Program (BISP) and education foundations for data-driven growth (to maximize the impact of resources, including conditional cash transfers). It is also essential to expand early childhood education (ECE) in a progressive and strategic way to ensure children are ready to begin school on time. This means defining sustainable modalities, improving regulation, implementing pedagogical and language approaches, such as socioemotional learning, enhancing ECE structures for implementation, and establishing formal programs for teacher training. Such expansion will require investment in ECE access and quality, including recruitment of new teachers and effective teacher training. Finally, improving technological and managerial systems will allow for more efficient and effective use of new resources. Implementing these strategies will ensure that any increase in the education budget is utilized to its fullest potential.

Increasing education expenditure to 4.3% to 5.4% of GDP is crucial for Pakistan to meet the educational needs of children, and pave the path to higher productivity and economic growth.

SECTION NOTES

1 Bano (2008).
2 PCE (2017).
3 Government of Pakistan (2010).
4 World Bank (2023c).
5 Ahmed and Kamal (2014).
6 Boadway and Shah (2009).
7 Government of Khyber Pakhtunkhwa (2013).
8 Ibid.
9 Government of Sindh (2013).
10 Government of Balochistan (2010).
11 UIS (2015).
12 Malik and Naveed (2012).
13 Development expenses by the government are undertaken through dedicated schemes reflected in the Annual Development Plan (ADP) on the provincial level and Public Sector Development Program (PSDP) at the Federal Level. These expenses also include Foreign Project Assistance in the form of grants and loans. ADP and PSDP are a combined set of schemes for all departments including education. Hence, development expenses covered under these schemes for education may include upgradation or reconstruction of existing facilities such as schools or classrooms; construction of new school buildings; provision of missing facilities such as water, washrooms, school walls etc.; teacher training; collaborative foreign funded projects; provision, rehabilitation, and reconstruction of field services among others.
14 Husain, Qureshi, and Hussain (2019).
15 World Bank (2023b).
16 Pakistan Bureau of Statistics (2023).

03

EFFICIENCY IN THE EDUCATION SECTOR IN PAKISTAN

Increasing the efficiency of public expenditure in education is needed to provide more children with the opportunity to benefit from education with the same resources and show citizens the country's commitment to better-managed and efficient institutions.

Internal efficiency

One method to assess the efficiency of education systems and their expenditures is by examining both gross enrollment rates (GER) and net enrollment rates (NER). The GER is calculated as the total number of students, irrespective of their age, enrolled in a specific level (such as primary education) divided by the total number of children who are officially within the age range for that level. This measure includes underage and overage children, the latter being particularly relevant for Pakistan. It also indirectly accounts for repetition, as students who repeat grades are likely to be older than the standard age range for their grade. In contrast, the NER captures what the enrollment should ideally be. It measures the percentage of students who are of the official age for their education level (or grade, if calculated for a specific grade) divided by the total number of children who are officially within the age range for that level (the same denominator as for the GER).

KEY MESSAGE

EFFICIENCY

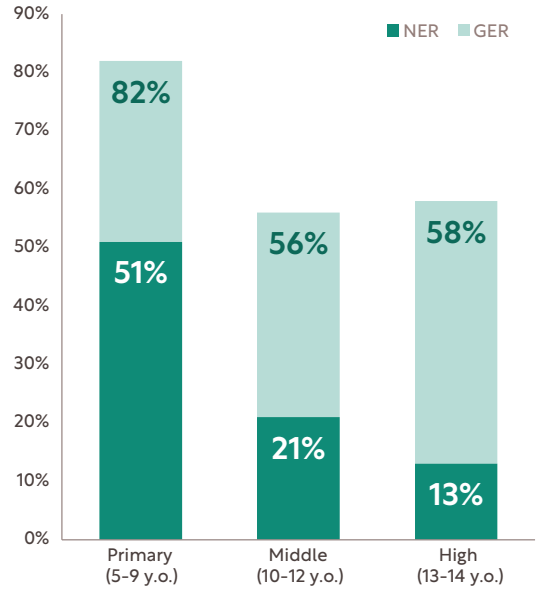
Pakistan needs to spend better on education.

Pakistan's education spending fails to yield results regarding quality and access compared to countries that spend similar budgets on education. Human and financial resources are not directed where they are most needed to improve quality and access to education. Approximately 70% of the budget is allocated to salaries and only about 10% to development—which is usually not fully executed. System management challenges hinder delivery of the support teachers need, affecting students' learning opportunities in the public system. Such resource allocation and results decrease parents' desire to send their children to public school. Given the current economic conditions in the country, Pakistan can increase expenditure efficiency by focusing on improving the impact of major recurrent budget items, particularly teacher effectiveness; eliminating duplicative departmental mandates; improving management; ensuring full execution of development budgets; and ultimately focusing on and strengthening learning.

In a system where students are enrolled in school at the correct age for their level or grade, the NER would be 100% (and so would be the GER). However, for most systems, it signifies what percentage of children are in school at the appropriate age (excluding children who are underage or overage). Therefore, NER is a superior measure of efficiency (being in school and at the right age), while GER is a secondary measure (being in school, regardless of age). If the GER is significantly higher than the NER, it most likely indicates a high prevalence of grade repetition or delayed school start, both reducing the efficiency of expenditures.[1]

The discrepancy between GER and NER reveals considerable inefficiencies within the education system. At all three levels (primary, middle, and high school), the GER is at least 30 percentage points higher than the NER. This means that in an average public primary school, 3 out of every 8 students are overage (given it is highly improbable that underage children would be present), 3 out of 5 students are overage in middle school, and 5 out of 6 are overage in high school (Figure 3.1). This makes clear internal inefficiency challenges, especially considering that overaged students are more likely to drop out of school.[2] It is also notable that NERs are low, with 50% in primary school, 21% in middle school, and 13% in high school, indicating that most students who make it to those grades are not advancing through the system as expected.

Figure 3.1. NER and GER per education level

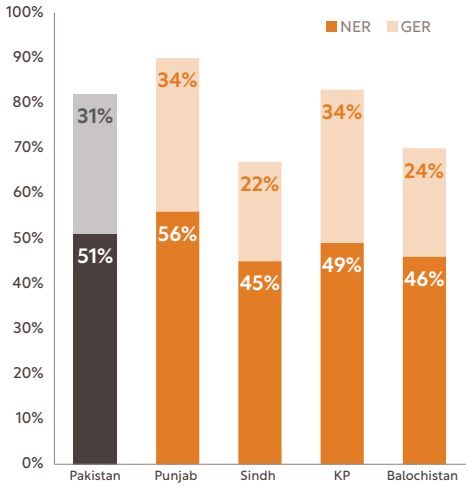


Source: Pakistan Economic Survey 2022–2023.
Note: Based on the Pakistan Economic Survey, the net enrollment ratio (NER) for primary, middle and high school is 51%, 21%, and 13%, respectively. Gross enrollment ratio (GER) has been recorded at 82%, 56% and 58% for primary, middle, and high school, respectively. A significantly higher GER in comparison to NER is indicative of repetition or delayed school start.

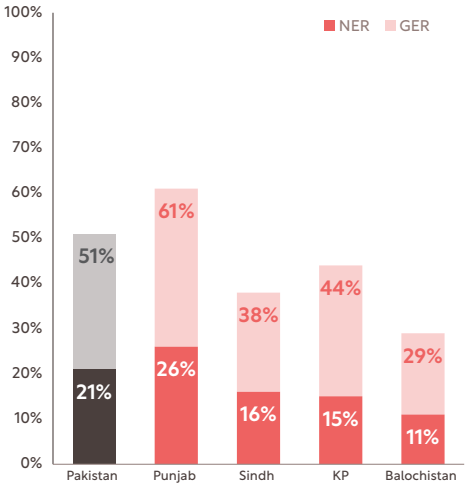
The aggregate GER and NER figures conceal provincial and gender variation, highlighting substantial efficiency challenges. In primary education, for instance, despite Punjab having the highest GER, approximately 6 out of every 9 students are overage, compared to 5 out of every 8 in KP. Primary school NERs range between 45% and 56% in Sindh and Punjab, respectively (Figure 3.2a). In addition, the discrepancy between GER and NER for middle school girls reveals that, in Punjab, nearly 50% of the girls are overage. Consequently, while many girls are enrolled and attending school, many are too old for their grade. Overall, in Pakistan, only 2 out of every 5 middle school girls are of the correct age for it (Figure 3.2b). NER rates for middle school girls are as low as 11% in Balochistan and 26% in Punjab. NERs are consistently lower for primary and middle school girls than for boys (except for Punjab, not shown). Therefore, it is not only that many girls are not in school, but those who are enrolled tend to be overage. There are also more overage girls than boys. This indicates that girls tend to start school when they are older than boys.

Figure 3.2. NER and GER, by province and gender

(a) Primary level, by province



(b) Middle school for girls, by province



Source: Pakistan Economic Survey 2022.
Note: At the primary level, net enrollment ratio (NER) by province varies between 45% and 49% for Sindh, KP, and Balochistan. Punjab has a higher NER versus other provinces and Pakistan as a whole. At the middle school level, Balochistan has the lowest NER at 11% while Punjab has the highest value at 26%. Punjab, at the primary school level, has a higher NER than the national average of 21%.

Low enrollment, high repetition rates, the prevalence of overage students, and the high number of dropouts impact completion rates, which are low across all levels of the education system. For instance, out of every 100 students expected to complete primary education each year, only 67 students successfully finished the final year of primary school. This trend of decreasing completion rates continues as students get older. For lower secondary education, only 43 out of every 100 students expected to complete this level did so. When it comes to completing the full cycle of basic education, which includes upper secondary school, the rate drops even further: only 23 out of every 100 students expected to reach this level successfully managed to do so.[3] In 2019, completion rates for Pakistan are low against any comparator: The world average for primary and upper secondary rates stood at 89% and 76%, respectively. In South Asia, the primary completion rate is 90%, substantially higher than Pakistan's rate of completion at 67%.[4]

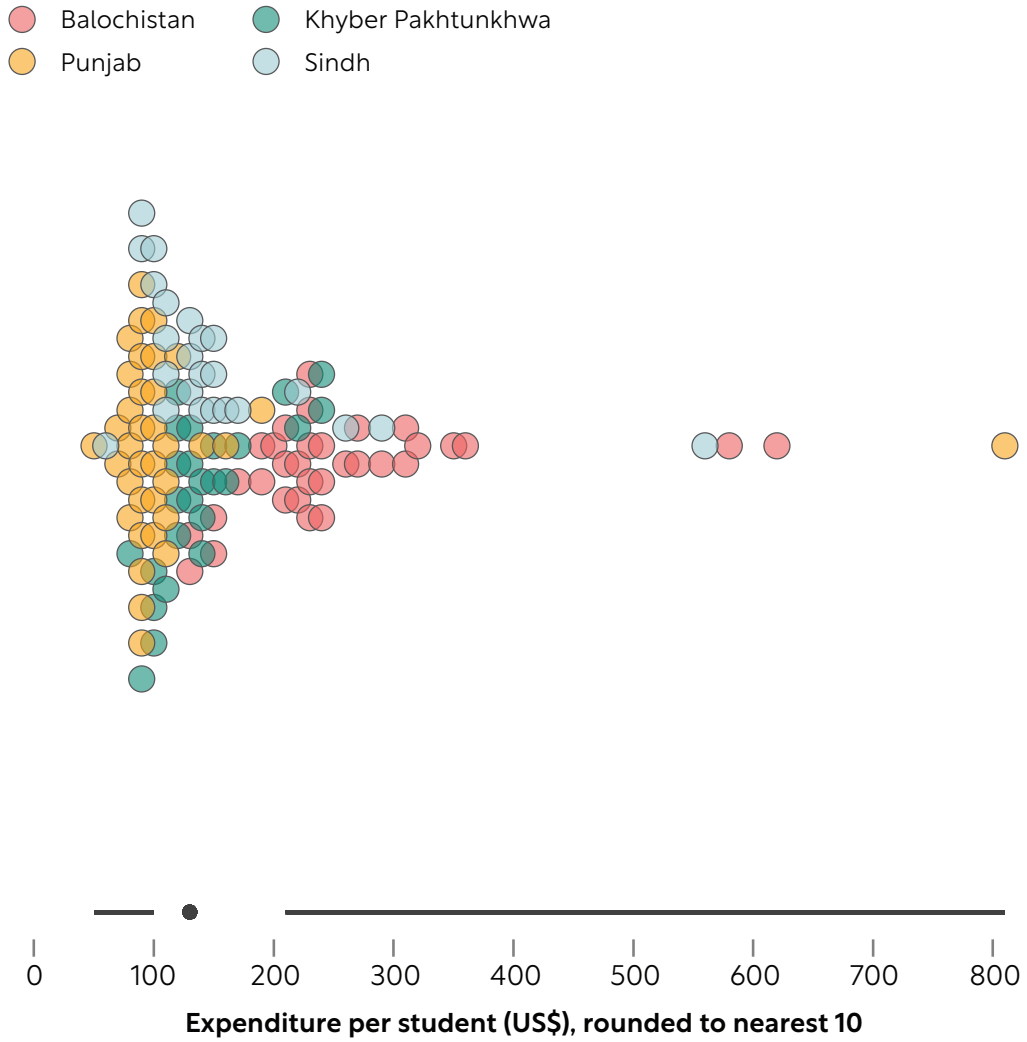
While the system invests in providing students with an education, these investments do not reach enough children. Too many are overlooked, and although some may come to understand the value of education later in their life, they are unable to reclaim and maximize on the individual and social benefits of a basic education. This underscores the urgent need to address the efficiency challenges and opportunities to make better use of limited resources in Pakistan to reach more children.

To ensure all children complete their schooling and benefit from quality education, Pakistan must invest more in education and improve the efficiency of those investments.

Geography, expenditure and education outcomes

Expenditure across districts in Pakistan shows substantial variation. While some districts spend over US$1,000 per student (Figure 3.3), many districts, particularly in Punjab, spend less than US$100. The factors driving these disparities are multiple, encompassing elements like population density, enrollment, and the availability of public schools, which affect both the distance and cost required to provide public education. Given this extensive variation in expenditure per child per district, two points of interest arise: (1) the correlation between expenditure and education outcomes, and (2) the potential degree of efficiency in translating expenditure into education.

Figure 3.3. *Spending per student on education varies across districts*



Source: Authors' calculations based on data from BOOST 2010–2021 (average).
Note: There exist substantial variation in expenditures across districts in Pakistan with spending reaching greater than US$1,000 per child in some districts. There are a number of districts within the province of Punjab that spend less than or equal to US$100 per child.

Districts that invest more funds per student tend to exhibit improved learning outcomes and increased access to education. As seen in the regression analysis, which controls for a set of district and household level characteristics, there is a correlation between education expenditures and several key outcomes (Table 3.1). The results reveal a significant positive correlation between education expenditure and several learning outcomes, such as math scores, English reading proficiency, and fluency in a local language. An increase in expenditure is positively associated with the number of years students spend in school. Also, higher expenditure is linked with lower rates of OOSC. Taken together, these findings suggest that districts that invest more funds per student tend to exhibit improved learning outcomes and lower rates of children who are out of school.

Although there is indeed a role for expenditure in enhancing education outcomes, increased expenditure does not strongly translate into improved outcomes (the economic size of the relationship is small). The correlation is weak: an increase of 1% in education expenditure is linked to a decrease in the percentage of OOSC, as indicated by a coefficient of -0.021. This figure illustrates a negative association. However, despite the statistical significance, the economic size is minimal. For instance, a district would need to double its expenditure per child to achieve a mere two percentage point reduction in dropout rates. Similarly, a 10% boost in education expenditure per child is correlated with an increase in the average years of schooling by just over half a year (0.600 years). This positive association, while statistically significant, is economically minor. Comparable conclusions are drawn when considering all the learning outcomes in Table 3.1.

In short, the education system struggles to convert financing into substantial results in the sector. Although more investment in education is needed, the system can improve its efficiency by strengthening the association between expenditure and education outcomes, making every rupee count toward advancing learning outcomes for children.

***Table 3.1.** More expenditure, better education outcomes*

Dependent Variable: **Covariates:**	**Math**	**English reading**	**Local reading**	**Years of school**	**Out of school ALL**
Log of primary spending per primary student (US$)	**0.028*** **	**0.025*** **	**0.029*** **	**0.061*** **	
	(0.004)	**(0.004)**	**(0.004)**	**(0.010)**	
Log of total spending per student (US$)					**-0.021*** **
					(0.003)
Observations	73,262	72,639	73,364	73,580	74,096
R^2	0.15	0.14	0.12	0.62	0.16
Controls	Yes	Yes	Yes	Yes	Yes
Province fixed effects	Yes	Yes	Yes	Yes	Yes

Source: Authors' calculations based on data from ITA 2021, Population Census 2017, and PSLM 2018–2019.
Note: Results from a regression analysis of the outcome variable in each column on expenditure (ln) and a set of sociodemographic controls that includes gender of household head, household head years of education, child gender, house ownership, computer ownership, smartphone ownership, electricity connection, population density, and public student proportion. Standard errors in parentheses. (*, **, ***) denote statistical significance at 10%, 5% and 1% levels, respectively. Mean of dependent variables math, English reading, local reading, years of school, and out of school is 0.266, 0.298, 0.303, 4.03, and 0.192, respectively.

Efficiency at the country, district, and school levels

The concept of efficiency is crucial in public expenditure, particularly in education, where the use of resources can significantly impact children's lives. An effective tool for examining efficiency is the Data Envelopment Analysis (DEA), a method used in economics to estimate the most efficient production frontier. In the following sections, the report examines the results of applying DEA analysis at three levels to assess how effectively resources are used to achieve educational outcomes. This will help identify inefficiencies by showing the heterogeneity in the combination of inputs and outcomes. DEA, as a methodology, provides the unique opportunity to evaluate the comparative efficiency of decision-making units—in this case, provinces, districts, or schools—thereby helping the system identify opportunities for policy interventions.

Efficiency at the country level

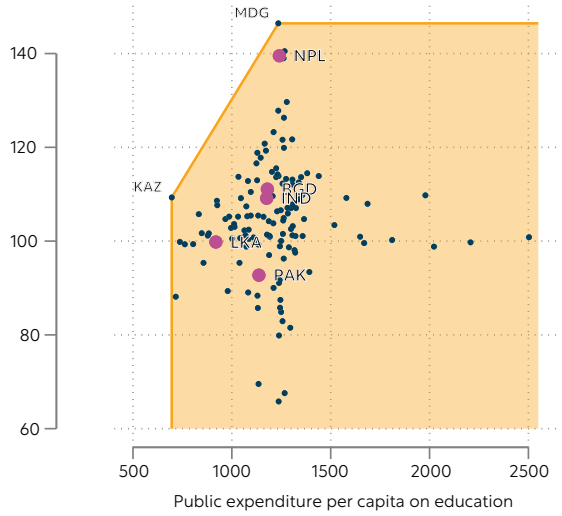
Is Pakistan's education system making efficient use of its resources? As shown in figure 3.4, the DEA provides answers to this question by looking at four main outcomes of the education system: gross primary enrollment, gross secondary enrollment, youth literacy rates, and the quality of math and science education. Figure 3.4 shows how the relationship between education spending and the resulting outcomes in Pakistan can be better understood by considering these four perspectives. Countries worldwide are points in a Cartesian plane, with per capita expenditure on education on the x-axis and an indicator of access or quality on the y-axis (Figure 3.4). The DEA helps not only to identify the most efficient use of resources for any given level of expenditure but also to pinpoint. This analysis establishes an efficiency frontier that represents the best output that can be achieved for every level of education expenditure. Consequently, any system positioned below this efficiency frontier is deemed inefficient relative to its counterparts on or close to the frontier.

Pakistan is substantially far from the efficiency frontier. The country's educational outcomes do not correspond with those of more efficient nations with similar levels of expenditure per child (Figure 3.4); those near the efficiency frontier (line). This discrepancy becomes even more pronounced in comparison to other countries in the South Asian region. In both access indicators, enrollment in primary and enrollment in secondary education, Pakistan trails all other regional countries (Figure 3.4). For a similar level of expenditure per student, most other education systems deliver superior outcomes for their children, as evidenced by the vertical distance between the dot for Pakistan and the efficiency frontier. This same challenge is evident when considering proxies for education quality, such as youth literacy and the quality of math and science (Figure 3.4). At similar levels of expenditure, countries worldwide produce better educational outcomes for their children than Pakistan.

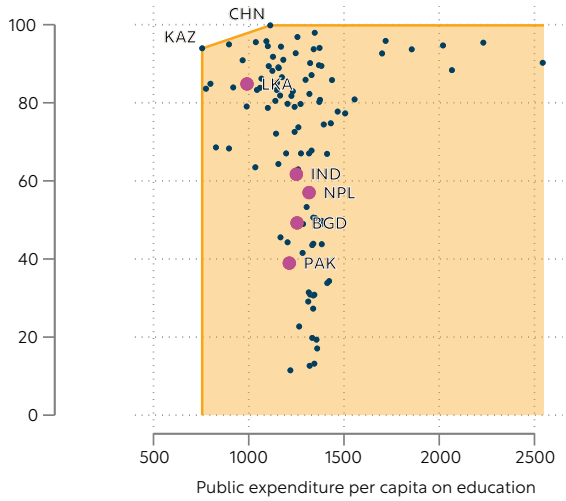
Pakistan's inefficiency in spending suggests the need for reforms to maximize the use of resources to improve educational access and quality. Moreover, the DEA findings underscore the importance of focusing not just on inputs (expenditure) but also on outputs (educational outcomes) to make a difference in education quality and access. Pakistan needs to spend better.

Figure 3.4. *Efficiency at the country level (DEA)*

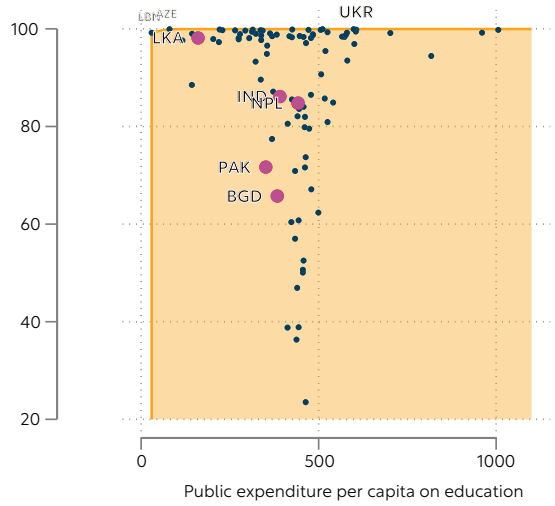
(a) Gross primary enrollment versus education expenditure



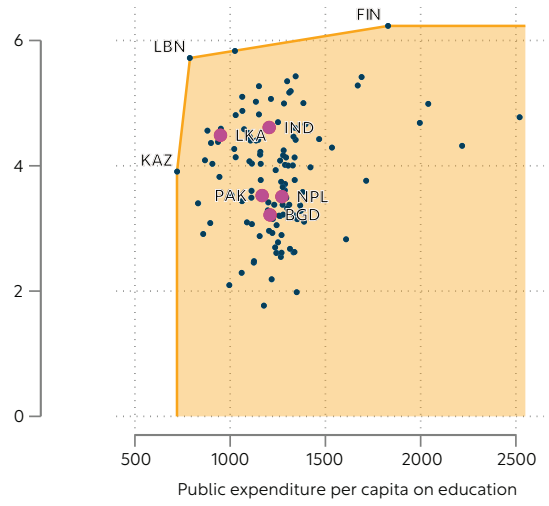
(b) Gross secondary enrollment versus education expenditure



(c) Youth literacy versus education expenditure



(d) Quality of math and science versus education expenditure



Source: Authors' calculation based on data from Herrera and Ouedraogo (2018).
Note: A technical efficiency plot (input oriented) visualizes how much a country spends to achieve the same level of outcome as other countries. Analyzing the plot horizontally shows how much a country spends to achieve a score in comparison to other countries with a similar score. Analyzing the plot vertically shows how a country achieves a score based on spending levels versus other countries spending the same amount.

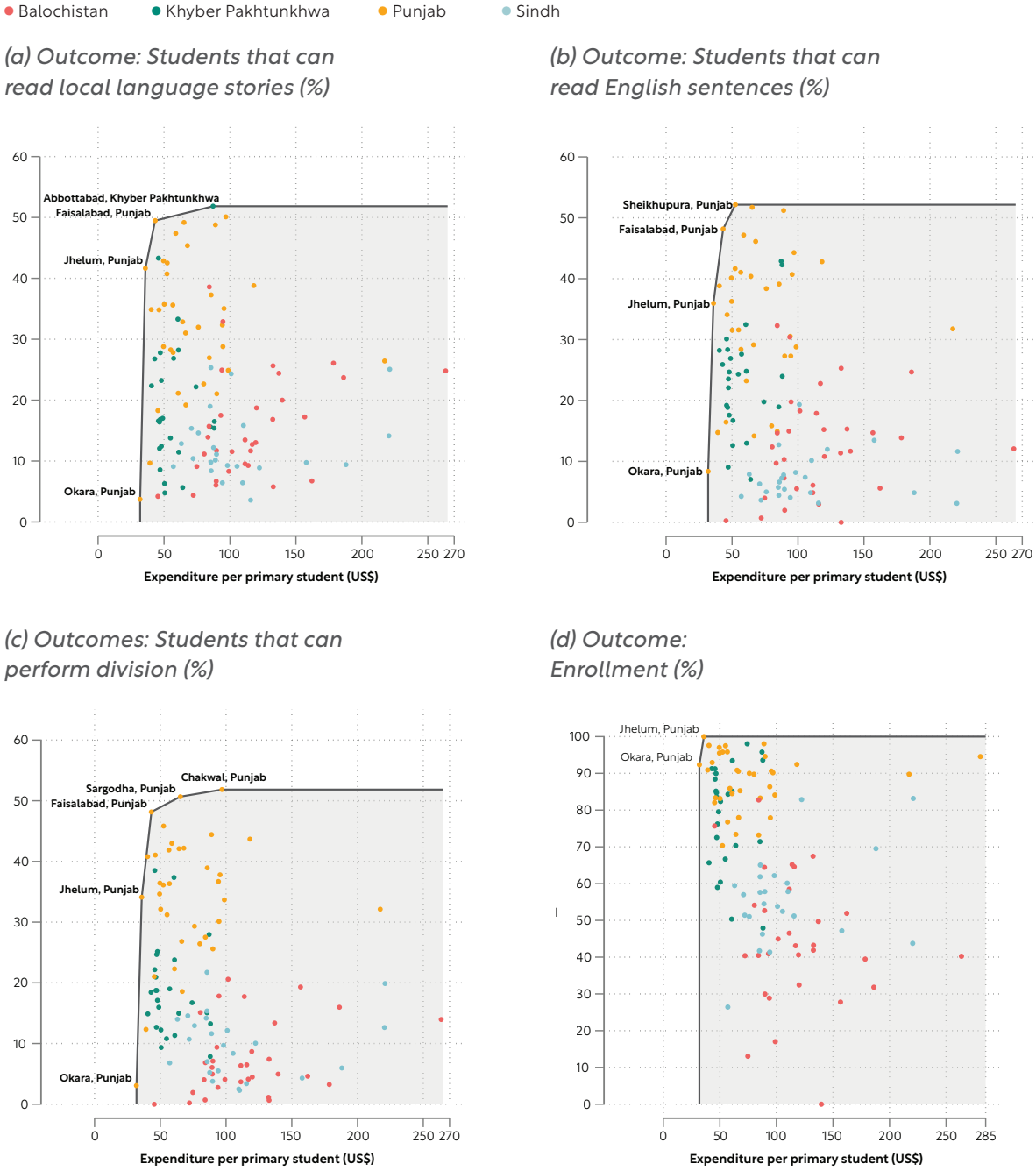
Efficiency at the district level

The DEA, when applied to district outcomes and expenditures, provides a nuanced understanding of the efficiency of resource utilization across different districts in Pakistan. In Figure 3.5, each dot represents data on learning outcomes, enrollment, and expenditures per student for a district within the country. The dots are color-coded to identify the province they belong to. The placement of a district on the graph illustrates the efficiency level with which resources are being utilized. By providing a visual analysis of the data, efficiency patterns can be seen across different provinces, identifying which districts are performing better or worse given their level of expenditure, and potentially discovering areas for improvement or best practices that could be shared across districts.

There are significant insights to draw from this DEA. There is considerable variation in the efficiency of outcomes production across different expenditure levels. For instance, while there are many districts that manage to yield substantial learning outcomes with an expenditure level of US$50 per student, some districts have low learning outcomes at the same expenditure level. This pattern is consistent across all expenditure levels, suggesting opportunities for collaboration, sharing best practices, and cross-learning to identify areas of low-cost improvement. Figure 3.5, as shown in the color-coding, reveals that districts in Punjab tend to be the most efficient, while those in Sindh and Balochistan are typically the least efficient at every expenditure level. It is crucial to note that the graphs do not adjust for specific district characteristics, such as poverty levels or population density, both of which may impact efficiency. Nevertheless, these unconditional efficiency scores are significant; they provide a firsthand, immediate overview of the substantial differences in efficiency across districts.

Districts in Pakistan show different levels of efficiency in their educational expenditure, with Punjab's districts on average showing higher levels of efficiency.

Figure 3.5. *Efficiency at the district level (DEA)*



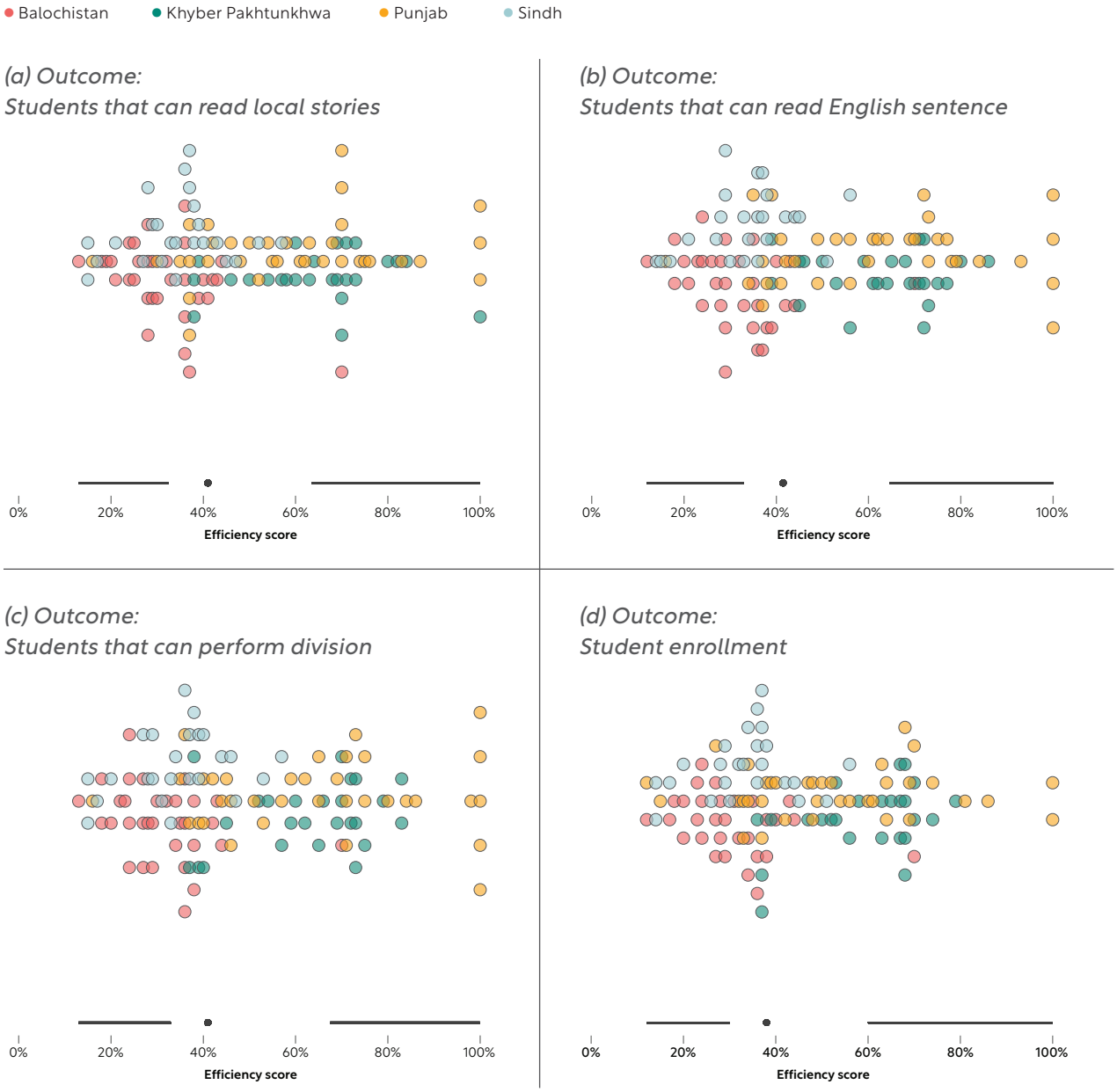
Source: AEPAM 2018–2019; ASER 2020–2021; BOOST 2010–2021.
Note: Efficiency analysis of students that are able to read local language stories visualizes that most of the districts from Punjab form the efficiency frontier with one district belonging from Khyber Pakhtunkhwa (KP) in relation to all others. From the plot, Punjab and KP have districts closer to the efficiency frontier, an indication that their efficiency score is closer to districts forming the efficiency frontier versus those from Sindh and Balochistan. When it comes to students' ability in reading English sentences, there is a similar picture; however, the efficiency frontier is formed by districts from Punjab only. A cluster is formed on the lower end of the y-axis for district from Sindh and Balochistan, indicating lower efficiency. Five districts form the efficiency frontier when analyzing efficiency for students' ability in performing division in mathematics. The districts are all from Punjab and within the plot, major districts closer to the efficiency frontier are from Punjab, including scores on the higher side. The analysis of out-of-school children (OOSC) is opposite to the way we described for plots (a) to (c). Most of the districts forming the efficiency frontier are from Balochistan, which has the highest number of OOSC among the provinces. Districts from Sindh and Balochistan spend less and are seen to have a lower incidence of enrollment while Punjab and KP spend slightly more and show higher enrollment rates.

Geographical disparities in efficiency are significant. This report maps district variation in efficiency, where each circle represents a district in the country, and colors represent the province where that district is located (Figure 3.6). Districts in Punjab consistently score higher in efficiency than other provinces and host some of the most efficient districts in the country; districts in Punjab also appear to be more efficient than those in other provinces (we see more yellow circles to the right of the figures). KP districts come second, showing better efficiency scores (indicated by dark green circles in Figure 3.6) than Sindh and Balochistan, which consistently have the least efficient districts across all outcomes (Figure 3.6).

Geographical disparities in educational efficiency suggest the presence of systematic regional differences in Pakistan. This may be linked to a deeper decentralization process in Punjab and KP after the 18th Amendment, which has not necessarily advanced at the same pace in Balochistan and Sindh. It signifies an opportunity for districts and provinces to learn from each other, adapting, emulating, and scaling up what works.

The DEA thus stresses the importance of investigating the differences in education expenditures further to identify successful policies and practices in the more efficient regions and to create formal mechanisms of coordination and knowledge sharing among provinces. Lessons learned from these districts could potentially be applied in less efficient areas. Moreover, it underscores the need to understand and address the specific challenges faced by districts in Sindh and Balochistan to improve their educational efficiency.

Figure 3.6. *The most efficient districts in Pakistan*



Source: AEPAM 2018–2019; ASER 2020–2021; BOOST 2010–2021.
Note: Circles represent districts and colors represent different provinces. Circles to the right of each panel indicate higher efficiency scores. Visualizing efficiency scores geographically for students' ability to read local stories indicates higher efficiency scores in the northern part of the country with the most efficient districts in Punjab. Most efficient districts fall within Punjab, according to the scores of students who can read English sentences. A similar pattern is observed whereby the central and northern parts of the country are doing relatively better than those in the south. The pattern is replicated when observing the ability of students in performing division in mathematics where all five of the most efficient districts fall in Punjab. Mainly districts from Punjab are among those with the highest efficiency score in terms of enrollment.

Efficiency at the school level

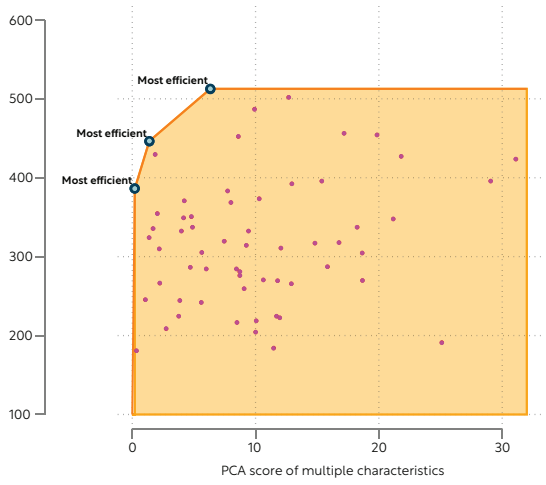
Is there a similar variation in the efficiency with which schools can transform inputs into outcomes? To investigate this, the report uses data from the 2019 Trends in International Mathematics and Science Study (TIMSS). TIMSS is particularly useful as it provides extensive background and sociodemographic characteristics. While there is a lack of data on expenditure per school, we construct an index of inputs for each school and use it to assess how each school in Pakistan's sample converts those inputs into learning outcomes in science and mathematics, the two subjects included in TIMSS (Figure 3.7).

Similar to Pakistan's provinces and districts, its schools demonstrate substantial variability in their efficiency at producing learning outcomes. There are schools that are more and less efficient. With an input math score of 10, differences between schools are staggering, of almost 300 points on the TIMSS scale (which ranges from 100 to 700) (Figure 3.7a). Similar variations in schools are present in the results for science (Figure 3.7b). However, it is worth noting that compared to other countries, Pakistan's efficiency frontier is substantially lower, given that scores can reach as high as 700 points on the TIMSS scale.

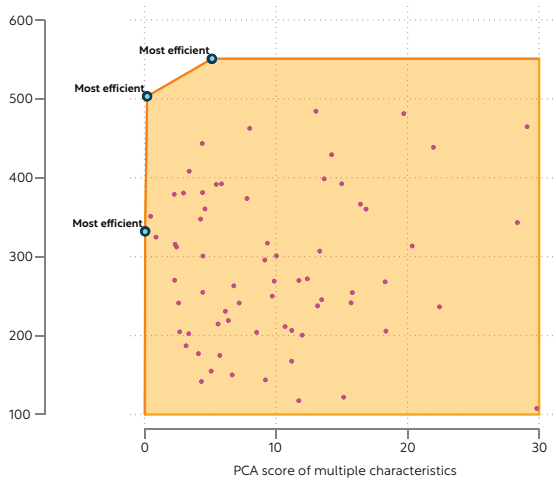
What do all these findings imply? The implications presented in this section are clear. Pakistan has the potential to achieve better learning outcomes by spending its limited resources more efficiently. Provinces, districts, and schools can benefit greatly from learning from each other, sharing experiences on organizational processes, deepening decentralization, and managing limited resources at the school level. These findings suggest that structured and formal platforms for collaboration could substantially improve the efficiency of the limited resources that Pakistan invests in education, thereby paving the way for increased investment. Evidence from other federal countries undergoing education decentralization may be useful to add to the policy options that Pakistan can consider as it deepens its own decentralization process.

Figure 3.7. *Efficiency at the school level*

(a) Outcomes: 2019 TIMSS math score, by school



(b) Outcomes: 2019 TIMSS science score, by school



Source: Author's calculations are based on data from TIMSS 2019.
Note: Efficiency frontier for TIMSS math score denotes large variations among schools when measured against an index of inputs. Efficiency frontier for TIMSS science score depicts large variations among schools; however, variation in the science score is more spread out with schools on the lower score level than the variation in the math score.

RECOMMENDATIONS
EFFICIENCY

Pakistan needs to spend better on education.

Teachers

Given the sizeable portion of the budget dedicated to teacher salaries, the most impactful way of enhancing system efficiency is by ensuring that teacher effectiveness in the classroom is higher. Improving teaching practices directly bolsters system efficiency by improving learning outcomes for students. Due to a limited budget, Pakistan must prioritize enhancing the efficiency of its educational expenditure. This is not only to achieve more with the existing resource of teachers but also to reassure the public that the education system can indeed serve children, families, and the nation effectively.

A key part of this strategy involves improving teacher recruitment, management, and development. This encompasses how teachers are recruited, supported, trained, managed, evaluated, and promoted. Establishing a comprehensive teacher career pathway can foster continuous improvement, maximizing teachers' classroom impact. Leadership roles at schools and within districts should be clearly delineated and supported. Moreover, teacher deployment policies need an overhaul to ensure equitable distribution across schools and educational levels, providing clear guidelines on teacher incentives and absenteeism consequences. This will also provide a barrier against political patronage.

Focusing on pedagogical practices in early-grade reading and writing, complemented with relevant learning materials, promises both immediate and long-term efficiency gains. Structured in-service training, ongoing feedback, and quality resources are key. It is also essential to ensure that middle and secondary school teachers possess deep subject-matter expertise. In many schools, it has become a necessity to place students in multigrade classrooms, making it crucial to equip teachers with effective strategies for multigrade teaching. This involves clear policies, specialized teacher training, clear guidelines on the materials to use, and ongoing monitoring and evaluation. Also, reviewing and revamping preservice teacher training practices can yield investments that drive long-term system improvements.

Learning

To enhance learning, it is vital to embrace teaching methods that have yielded significant results both internationally and within Pakistan. Some evidence-based strategies that have positively impacted learning outcomes in Pakistan and other countries can be found in initiatives such as the Pakistan Reading Program, Teach for Pakistan, the contributions of an NGO called Durbeen for teacher training in Sindh, the Citizens Foundation's training for teachers and leaders, and the "Teach at the Right Level" approach piloted in Khyber Pakhtunkhwa (KP) province by the Centre for Economic Research in Pakistan (CERP) and other provinces by Idara-e-Taleem-o-Aagahi (ITA), and Punjab's data-driven continuous teacher training approach. However, it is not just about training teachers. From the moment children step into school, comprehension is key. Given Pakistan's linguistic diversity, clear policies regarding language instruction in schools are crucial, as are their implementation by the public sector. Transitioning from home languages to instructional languages

(Recommendations continue on next page.)

EFFICIENCY (continued)

presents challenges, compounded by parental preferences for specific languages they believe will ensure their child's success. A transparent mother-tongue policy, which includes open communication to involve parents, will facilitate smoother transitions to the designated instructional languages. Lastly, campaigns promoting effective parenting practices, especially early reading, will optimize subsequent educational investments, ensuring children begin school at the right age and better equipped to thrive, while funds are progressively and strategically mobilized to begin expanding early childhood education. Improvements in learning through evidence-based programs will require the alignment of curriculum, assessment, language policies, and teaching if results are expected to be achieved at a system level.

Financing and budgeting

Improvements in efficiency will remain elusive for Pakistan without incorporating financial and budgetary processes and strategies into a reform agenda. From a financial perspective, defining clear targets and consistently monitoring them in alignment with realistic sector plans could help bridge the disconnect between available funding and educational objectives. Leveraging existing data for budget planning not only promises a more efficient allocation of resources but also shields the budgetary process from inappropriate external influences. There is also an imperative need for a comprehensive discussion on the 8th National Finance Commission (NFC) Award, specifically on introducing incentives related to education financing at both federal and provincial levels. Strengthening the capacity of education department personnel in budget planning, monitoring, and procurement can ensure optimal utilization of the limited development budget each year. This should be complemented by a transition to improved development planning and program- and school-centric budgeting, and a strategic, sustained engagement with finance departments to ensure the timely release of funds. By decentralizing expenditures down to the school level and broadening school grants, school leadership can be bolstered. Such decentralization also increases the likelihood of consistently meeting the foundational infrastructure requirements essential for maintaining safe learning environments.

SECTION NOTES

1 In 2018, Pakistan's primary school repetition rate was 1.9%, and 1.6% for lower secondary. These rates are high when compared to other countries in South Asia and the World (UNESCO 2022).

2 EPDC (2009).

3 Government of Pakistan (2022).

4 UNESCO (2022).

04

EQUITY IN PAKISTAN'S EDUCATION

Societies aim to provide every child with fair and equitable access to education. Despite these intentions, factors such as education policies on equity and access, parents' decisions on school choice and attendance, and resource allocations determined by the government often lead to disparities in children's educational opportunities. By examining differences in outcomes for some subgroups of the population, policy makers, parents, and other stakeholders can gain insights into how the education system can more effectively meet the needs of all children in the country.

KEY MESSAGE

EQUITY

Inequities are reinforced by the way educational funds are allocated.

The combination of low and inefficient spending leads to an inequitable provision of educational services across regions and among different population groups. Such practices limit the education of disadvantaged populations, exacerbating inequities. Children from low-income families, those living in remote areas, girls, children with disabilities, and minorities often receive fewer educational resources. This situation negatively impacts their enrollment, progression, and learning outcomes. Although data exist that highlight these disparities, they often are not used during budget planning, leaving these inequities unaddressed. Persistent educational inequalities lead to reduced social mobility, eroded social cohesion, decreased civic participation, and limited opportunities for segments of the population, preventing individuals' full societal contribution and perpetuating cycles of poverty. Addressing these disparities to ensure equal opportunities for all children is essential. To achieve this, Pakistan can ensure a more equitable distribution of resources by using data for targeted initiatives, enhancing the technical and managerial capacity of districts, and incorporating an inclusive perspective into budget processes. Any decisions to expand the system via private or public schools would impact equity and would need to be considered.

Equity challenges in access and quality of education

Approximately 20.3 million school-age children are out of school.[1] This number is expected to have increased given the COVID-19 pandemic and the 2022 floods, which impacted 33% of the country. Out-of-school children (OOSC) are more likely to live in rural areas, come from low-income households, and be older. About 35% of rural children (15 million) ages 5 to 16 are out of school, compared with 20% (4.4 million) of urban children. This gap has remained constant over the past two decades. More secondary-school-age children are out of school (40%) than middle-school-age children (25%) or primary-school-age children (23%).[2] The number and share of OOSC differ drastically across provinces: 53% of all OOSC live in Punjab and 23% in Sindh, totaling approximately 14 million children. However, Balochistan and Sindh hold the country's highest provincial rates of OOSC.[3]

Girls' education is one of the most critical issues for equity and inclusion in Pakistan, with about 11 million girls out of school, roughly 2 million more than boys. In 2018, 26% of girls and 19% of boys had never attended school. Some of the major challenges that limit girls' education are poverty and distance to school.[4] The gender gap falls as wealth rises: among poor families, girls are 22 percentage points less likely to attend school than boys, while there is no gender gap in school attendance for children from the wealthiest quintile, where enrollment is around 87%

for both genders. Girls face challenges to their security in public spaces, when taking transportation, and near schools.[5] Given concerns about security, parents in Pakistan often delay the education of their girls (more than boys) or prevent them from attending school altogether. At the current pace of incorporating girls into schools, it will take Pakistan at least 50 years to enroll all school-age girls (and 31 years to enroll all school-age boys).[6]

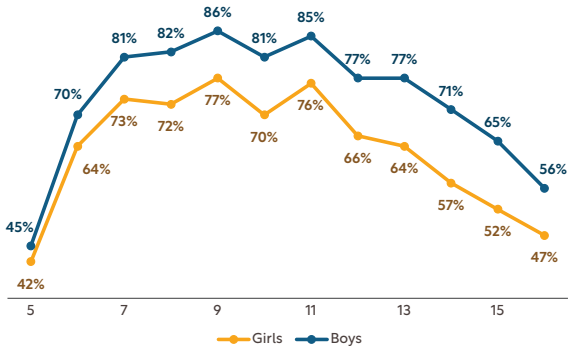
Hiding behind the overall enrollment numbers is an alarming reality: almost 20% of children ages 10 to 16 have never stepped foot in a school. This is more common among girls, with a 27% rate compared to 16% among boys. The disparity is also more pronounced in rural areas, where 26% of children have never been to school, compared to 12% in urban regions. The situation is particularly dire in Sindh and Balochistan where children have never been to school at 34% and 38%, respectively. Conditions are slightly better in Punjab and KP, where children have completely missed out on schooling at 14% and 20%, respectively.[7]

Girls and children in rural areas are less likely to attend school at any age. As illustrated in Figure 4.1, the enrollment profiles differ significantly when comparing boys and girls, and rural and urban children. Across Pakistan, the overall enrollment rate for children ages 5 to 16 is 68%, which masks crucial differences. For instance, at younger ages, enrollment rates for girls and boys are only 42% and 45%, respectively. Despite the enrollment rate experiencing a sharp rise during primary-school-age children, peaking at 86% for boys and 77% for girls, it dwindles quickly as children start becoming teenagers. A significant gender enrollment gap of about 10 percentage points disadvantaging girls remains by the time children are of school-finishing age.

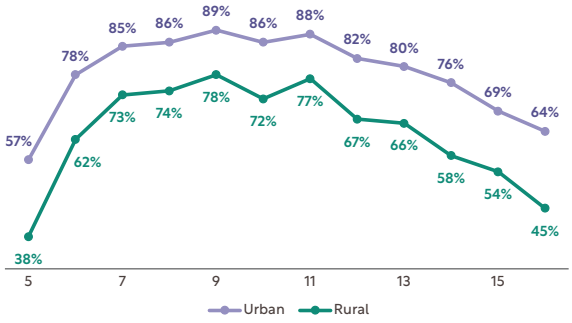
A similar pattern of enrollment disparity emerges when comparing children from urban and rural areas. The urban-rural divide is noticeable from as early as age 5, which is the official school-going age. Even more concerning is the gap's size, starting at a substantial 17 percentage points. Although the gap slightly narrows to around 11 percentage points during the primary school years, it rapidly expands again to almost 20% by the time children reach age 16, putting rural children at a substantial disadvantage. This gap underscores the urgent need for effective interventions and policies to better support rural enrollment and retention, and directly impacting efficiency of the resources that have already been invested in these children.

Figure 4.1. ***Girls and children in rural areas are less likely to be in school***

(a) Enrollment, by age and gender (% of children)



(b) Enrollment, by age and rural status (% of children)



Source: Authors' calculations based on data from PSLM 2019–2020.
Note: Enrollment profiles differ significantly when comparing boys and girls by age. From age 8 onward, there is an approximately 10 percentage point difference between the two genders with girls consistently displaying lower enrollment scores by age. Enrollment profiles also differ significantly when comparing rural and urban areas by age. Rural enrollment remains consistently lower than urban enrollment with similar patterns by age.

BOX 9

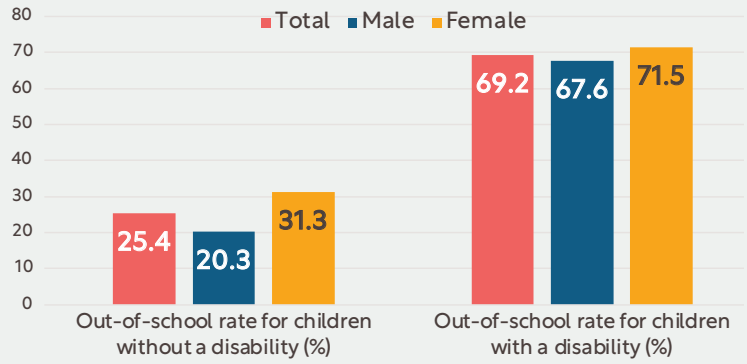
Disability and inclusion

Data on children living with disabilities in Pakistan is slowly improving, with the inclusion of questions about disability in the survey tools of both the Pakistan Social and Living Standard Measurement (PSLM) and the Annual Status of Education Report (ASER).

Both tools include some of the core questions presented by the Washington Group on Disability Statistics to assess internationally comparable measures related to disability, such as seeing, hearing, communication, cognition, walking, and self-care.[1]

The Pakistan Demographic and Health Survey (2017) shows that roughly 13% of children age 5 years and above have difficulty in at least one of the aforementioned domains.[2] According to the 2019–20 PSLM, the share of OOSC with disabilities at the primary school level is significantly higher than children without disabilities (Figure B9–1). The number only increases at the secondary school level.

***Figure B9.1.** Share of out-of-school children*



Source: Bashir and Ahsan, 2023.

Despite improvements in data collection, information is still unreliable, as some families respond inaccurately due to social stigma.[3] Discrimination continues to affect children with disabilities in Pakistan, though the government has made efforts to initiate different programs to support their well-being in school. For example, the government has introduced legislative frameworks that adopt international conventions around inclusive education.[4] In addition, roughly 20% of schools in Pakistan cater to children with special needs.[5]

However, more work is needed to ensure that children with disabilities are truly included in the education system. First, strengthening data collection instruments and properly identifying children with disabilities remain critical to better serving those children.[6] Without this knowledge, administrators, teachers, policy makers and community members cannot make appropriate recommendations and accommodations. Second, more efforts are needed to mainstream issues for children with disabilities, to ensure that they have access not only to school buildings but also to safe transportation options and teachers who are trained in special education. Finally, mainstreaming inclusive education into the formal education system will take much more government coordination and provincial ownership, given the highly decentralized nature of Pakistan.[7]

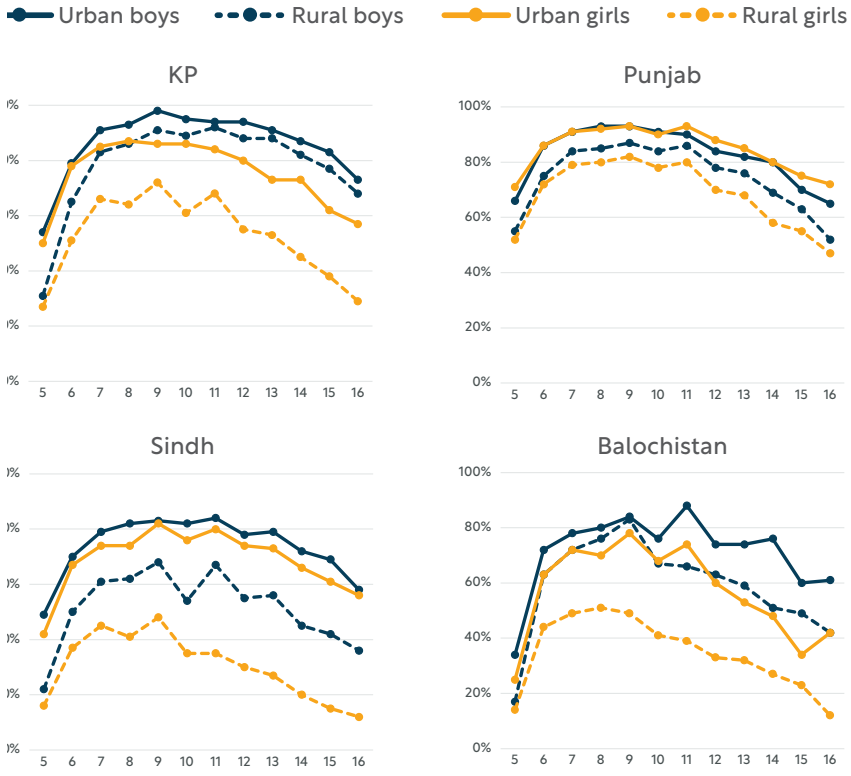
1 Bashir and Ahsan (2023).
2 UNICEF (2021).
3 Shaukat (2022).
4 UNICEF (2021).
5 UNICEF (2021).
6 Rose and Singal (2018).
7 Rose and Singal (2018).

Rural girls in Pakistan face the greatest barriers to education, a pattern that surfaces in every province but varies in severity. All provinces have significant gaps in enrollment rates between rural girls and other groups, such as rural boys and urban children (Figure 4.2). This gap is particularly glaring in KP, Sindh, and Balochistan, where the differences in enrollment rates between rural girls and urban boys at age 10 reach 34 percentage points, 47 percentage points, and 34 percentage points, respectively. This results in staggering low enrollment rates for rural girls in KP (29%), Sindh (12%), and Balochistan (12%) by the time girls should be completing school. Only 10% of girls are enrolled in school in Sindh and Balochistan by the time they are 15 years old.

Punjab stands out in these findings. In this province, the enrollment gap between urban girls and boys has nearly closed (Figure 4.2). The range in school attendance rates between urban and rural children in Punjab has also narrowed to just 18 percentage points (substantially lower than any other province). Despite these strides, there is still room for growth as gross enrollment rates are still far from reflecting all children in school. Since almost 50% of the children in the country live in Punjab, any increase or decrease in enrollment would directly drive up enrollment rates for Pakistan as a whole.

Sindh, in contrast, is a cause for concern. As the province with the second-largest population in Pakistan, it is alarming that it presents some of the lowest enrollment rates for rural girls—rates that are the lowest in the country at certain ages (35% for 10-year-olds and 12% for 16-year-olds), rivaled only by Balochistan (Figure 4.2). Given these challenges, Sindh could focus more on efforts to increase school enrollment, particularly among rural girls, if the country wants to improve the efficiency of the whole system. Given its combination of low education outcomes and high population, improving enrollment rates in Sindh would significantly boost national figures and contribute meaningfully to addressing education disparity in Pakistan.

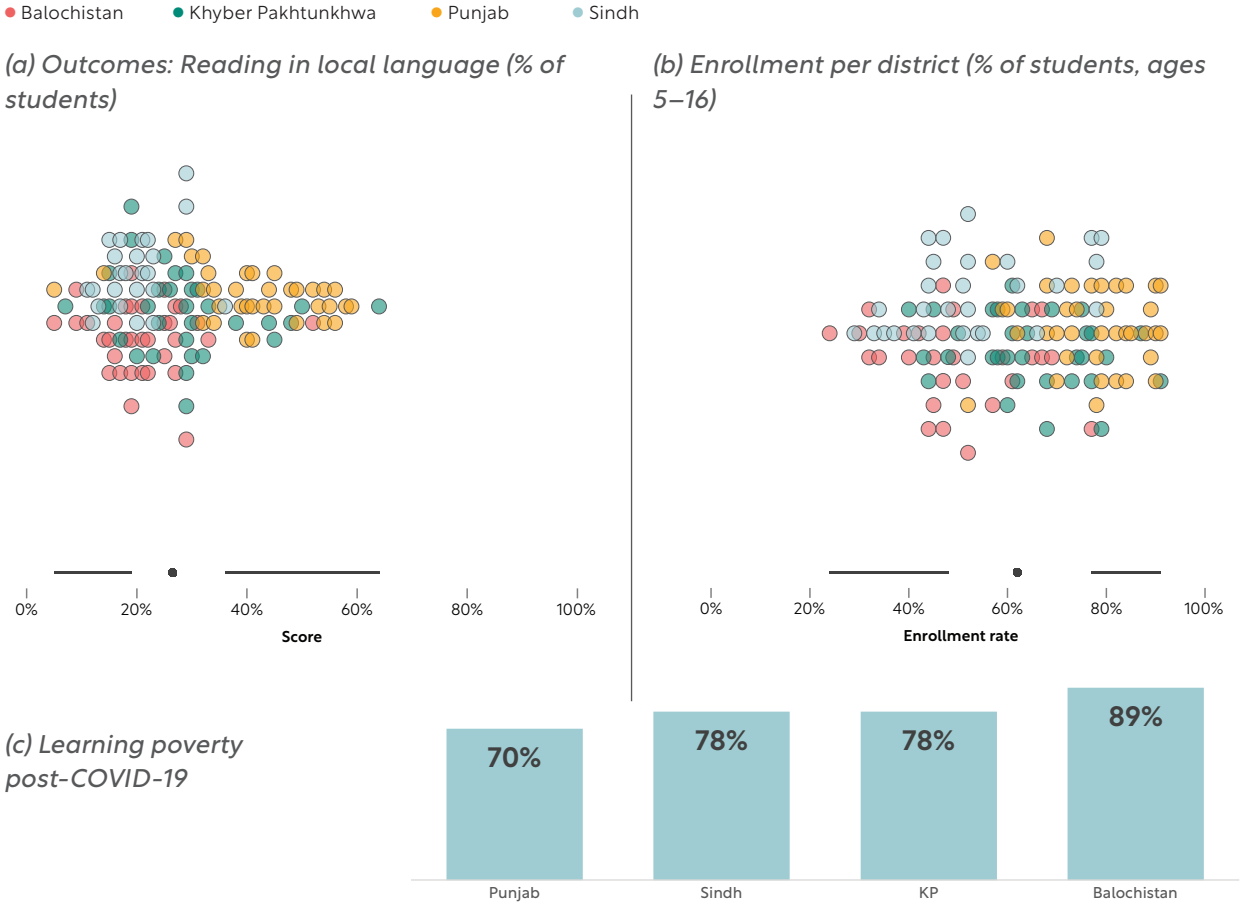
Figure 4.2. ***Gross enrollment for urban and rural boys and girls, by province***



Source: Authors' calculations based on data from PSLM 2019–2020.
Note: All provinces have significant gaps in enrollment rates between rural girls, rural boys, and urban children. The gap between rural girls and others is significantly higher in KP, Sindh, and Balochistan. This leads to low enrollment rates for rural girls in KP (29%), Sindh (12%), and Balochistan (12%) by the time girls should be finishing school. In Punjab, the enrollment gap between urban girls and boys has nearly closed.

Challenges in enrollment and learning outcomes persist in some districts (Figure 4.3), varying significantly within and across provinces, which emphasizes the different challenges of each province and the national education system's capacity to address them all. The cases of learning outcomes and enrollment per district show the geographic heterogeneity: districts in Punjab show higher learning outcomes, and they are more effective at enrolling children in school. These differences per district highlight the need for tailored strategies to tackle challenges in different parts of the same province. Any solutions, however, need to consider public capabilities for implementation and the local context of the provinces and districts.

Figure 4.3. *Provincial and district disparities in learning and enrollment*



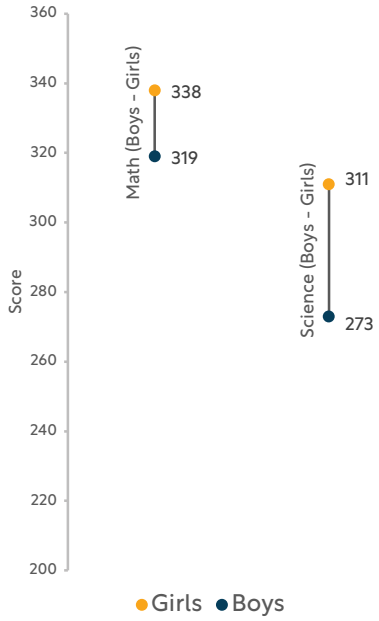
Source: Authors' calculations are based on data from ASER 2020–2021, PSLM 2019–2020, learning poverty estimates, and World Bank calculations.
Note: Learning outcome of children when using ASER data for measuring child's ability to read a story in local language depicts large variations across districts. Enrollment per district also varies widely with a visible pattern where the southern part of the country experienced lower enrollment in comparison to central and northern parts. Learning poverty by district is high for all provinces, with Balochistan taking the lead (89%), followed by KP (78%), Sindh (78%), and Punjab (70%).

At the provincial level, learning poverty rates display substantial disparities (Figure 4.3). Learning poverty is a metric introduced by the World Bank to measure the percentage of 10-year-olds who cannot read and understand an age-appropriate text.[8] The metric counts all OOSC among the learning poor. Roughly 9 in 10 children in Pakistan are learning poor, while Punjab exhibits a notably lower percentage of 7 in 10 children experiencing learning poverty. This diversity in education outcomes across provinces calls for customized solutions to address the challenges faced by each province.

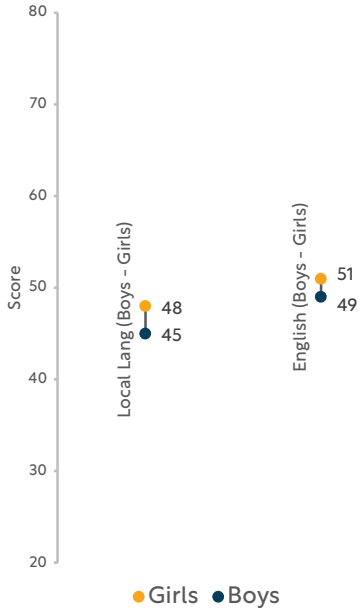
Equity issues are evident in learning outcomes across various other groups. While there is only a small difference in language outcomes by gender as measured by citizen-led assessments (in rural areas) at grade 5, international assessments reveal variations that favor girls in both math and science in a representative sample of schools in Pakistan (Figure 4.4). As seen in Figure 4.4, girls score 19 points and 38 points higher than boys in math and science, respectively.

Figure 4.4. *Inequity in learning outcomes*

(a) Difference in performance for different subgroups in TIMSS



(b) Difference in learning outcomes for boys and girls in rural, % Pakistan (ASER assessment)



Source: Authors' calculations based on TIMSS and ASER Pakistan 2021.
Note: TIMSS assessments for math and science reveal that girls outscore boys by 19 points and 38 points, respectively (yellow marker = girls). ASER data reveal that a slight difference between learning outcomes between girls and boys. In ability to read local stories, girls outscore boys by 3 percentage points. When measuring ability of children in reading English sentences, girls outperform boys by 2 percentage points.

Education and the poor: A tale of two types of schools

Poor children in Pakistan are underrepresented in the education system. The official national methodology for measuring monetary poverty classifies households that spend less than PKR 3,757.85 per adult equivalent each month as poor. Based on this definition, in the fiscal year 2018–2019, approximately 28.4% of children under 18 were identified as poor. Despite the high number of poor children, only a fifth (18.6%) of the student population comes from poor households (Table 4.1). The education system struggles to bring poor children into the school system.

Private schooling is widespread in Pakistan, serving 42.4% of all students (Table 4.1). The share of private schooling among total enrollment is higher in urban areas (40.1%). Among the provinces, it is highest in Punjab, where 62.9% of all students go to private schools (not shown). The share of poor students attending private schools is 19.3%. Despite the low percentage of poor students in private schools, private schooling remains a major option for households, serving 42.4% of all students in the country.

Overall, girls are underrepresented among students: 44.5% of all enrolled students are girls, even though they represent 48.6% of all children under 18 (Table 4.1). The share of students who are female varies significantly across regions. For example, in Punjab, 48.2% of students are girls, but in KP and Balochistan, just 38.0% and 34.9% of students, respectively, are female (not shown).

Table 4.1. Profile of currently enrolled students: Girls, the poor, and public versus private schools

	Girls	Boys	All	Poor
Total number of students	**24,287,444**	**30,351,982**	**54,639,426**	**10,167,943**
Share of total	44.5%	55.5%	100.0%	18.6%
By region:				
Rural	56.7%	62.4%	59.9%	79.9%
Urban	43.3%	37.6%	40.1%	20.1%
By poverty status:				
Nonpoor	82.8%	80.3%	81.4%	
Poor	17.2%	19.7%	18.6%	
By type of provider:				
Government	57.2%	57.9%	57.6%	80.7%
Private (NGOs, madrassas, others)	42.8%	42.1%	42.4%	19.3%

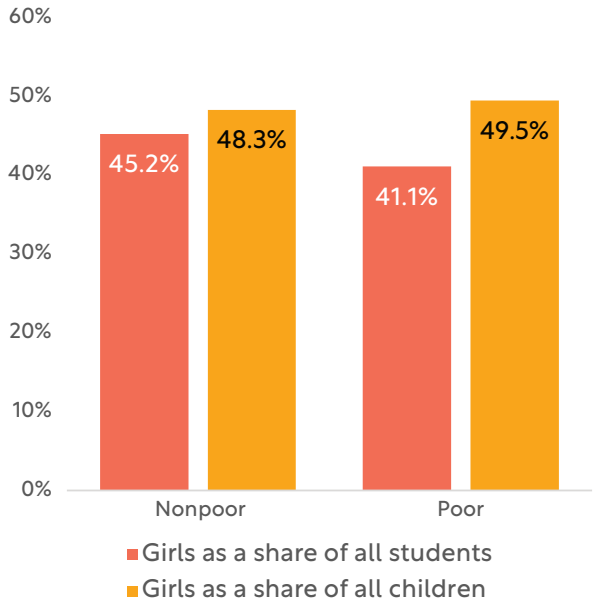
Source: Authors' calculations based on HIES 2018–2019 microdata and welfare data obtained from World Bank Poverty Global Practice's Database of Harmonized Datasets DATALIBWEB.
Note: The subsample of the poor includes currently enrolled students from households classified as poor based on the official monetary poverty measure. A fifth (18.6%) of the student population comes from poor households. Private schooling is widespread in Pakistan, serving 42.4% of all students.

Poor girls are underrepresented in education compared to nonpoor girls (Figure 4.5). Better-off households are more likely to send girls to school: among poor students, 41.1% are girls, compared to 45.2% of students from nonpoor households. The gap between the share of girls in the total population, compared to the population of enrolled students is 8.4 percentage points for the poor and 3.1 percentage points for nonpoor girls.

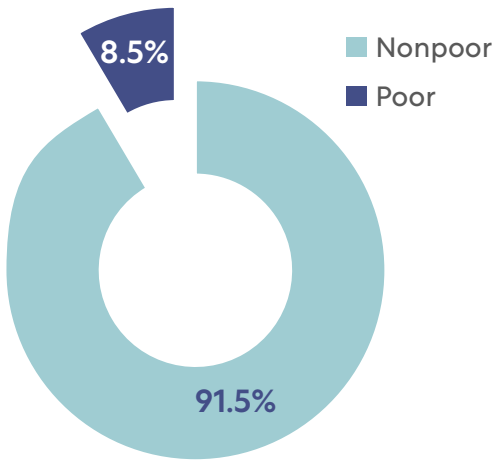
Most poor students tend to attend public schools, and their representation in private school enrollment is low. Almost 81 of every 100 poor students attend public schools (Table 4.1), but poor students only represent 8% of all students enrolled in private schools (Figure 4.5). This situation can be symptomatic of parents opting out of public schools when they can afford to do so or when alternative options are available nearby. This two-tier education system exacerbates existing socioeconomic disparities, as children from better-off families typically have access to superior opportunities both at home and in private schools, which could further increase inequality. For instance, rural private schools offer children a broader spectrum of learning opportunities than their public-school counterparts.[9] Rural private schools are more likely than rural public schools to have usable water and slightly higher availability of usable toilets and boundary walls. They are also more likely than rural public schools to have solar panels, computer labs, and smartboards, by 56 percentage points, 82 percentage points, and 36 percentage points, respectively.

Figure 4.5. ***Poor girls are underrepresented in school enrollment, and poor children are underrepresented in private schools***

(a) Poor children are less likely to attend school, compared to nonpoor children



(b) Distribution of students in private schools, by poverty status

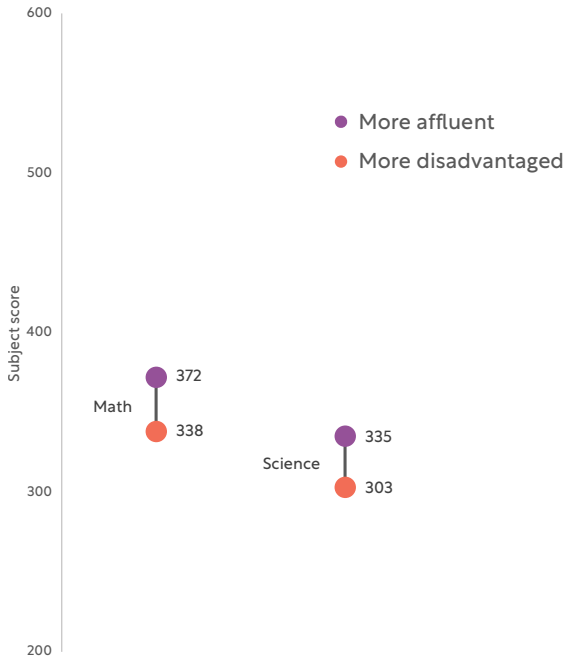


Source: Authors' calculations based on data from HIES 2018–2019.
Note: Nonpoor families are more likely than poor families to send their girls to school. Among poor families, 41.1% have girls who attend school, while in nonpoor families, 45.2% of their girls attend school. The difference between the number of girls in the whole group and the ones in school is 8.4% for poor girls and 3.1% for the nonpoor girls. Out of all the children going to private schools, only 8.0% come from poor families. Children of nonpoor families usually have better chances to learn and are able to learn both at home and in school. This might make the learning gap between nonpoor and poor children even bigger.

The implications of a two-tier education system, where the poor predominantly attend public schools, while the nonpoor attend private schools, are extensive and profound. This system risks promoting social segregation, limiting opportunities for interaction and learning among children from diverse backgrounds in a world that is increasingly polarized by political and social issues. One concerning outcome is the potential stigmatization of public schools, potentially labeled as "institutions for the poor," further dividing society along socioeconomic lines and negatively impacting the self-esteem and aspirations of students attending these schools. If wealthier families favor private schools, they may be less inclined to support public schools, exacerbating funding disparities and less attention to accountability of the public sector. Ultimately, as education is viewed as a critical driver of social mobility, a system that inherently favors wealthier students perpetuates socioeconomic inequality.

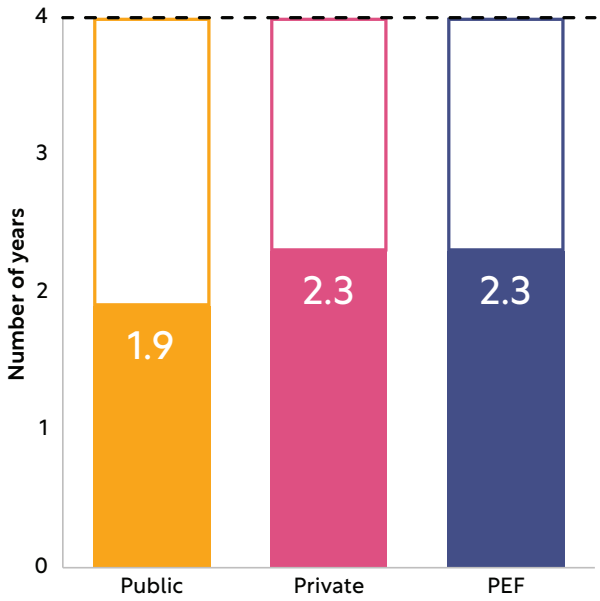
Figure 4.6. *Learning outcomes, by socioeconomic background and type of school*

(a) Learning outcomes, by socioeconomic background (average score)



Source: Authors' calculations based on 2019 TIMSS.
Note: More affluent = Schools where more than 25% of the student body comes from economically affluent homes and not more than 25% from economically disadvantaged homes as reported by the Principal's Reports; More disadvantaged = Schools where more than 25% of the student body comes from economically disadvantaged homes and not more than 25% from economically affluent homes.

(b) Learning outcomes in private schools are higher (Punjab, in number of years of learning)



Source: Authors' calculations based on SABER SDI Survey, Punjab 2019.
Note: The SABER-SDI Survey includes 18,055 student observations from the province of Punjab. PEF = Punjab Education Foundation. Learning outcomes in private schools surpass those in public schools by 0.4 years.

Students from more affluent socioeconomic backgrounds achieve better learning outcomes. These students perform better on standardized tests than their more disadvantaged peers (Figure 4.6). The difference in performance between the two groups is substantial, amounting to 34 points and 32 points in math and science, respectively.

Learning outcomes in private schools slightly surpass those in public schools, despite overall low-learning levels for all students. In Punjab, after four years of schooling, children in private schools have mastered 2.3 years of the curriculum, in comparison to 1.9 years mastered by those in public schools (Figure 4.6). Interestingly, students in public-private partnerships (PPPs), such as those in Punjab Education Foundation (PEF) schools, perform similarly to nonsupported private schools. Others have also documented that PPP students outperform students in the public sector in Pakistan.[10] In theory, the better results of private school can be explained by school autonomy in the use and presence of important inputs in the education process, such as ensuring teacher quality and pedagogical inputs in the schools.

Children at private schools generally achieve higher learning outcomes, often at a lower cost than public schools, yet, poorer children predominantly attend public schools. This situation has several implications for the educational system and resource allocation. PPPs could be used to rapidly expand the system and enhance its quality, as demonstrated in Punjab over the last few decades. If better regulated and integrated into a strategic plan, PPPs could effectively increase school enrollment and improve educational quality. However, the current two-tier system of public and private schools exacerbates existing socioeconomic inequalities as poorer children receive an inferior quality of education in public schools, which tends to limit their future opportunities and social mobility.

To improve learning outcomes for all students requires better service delivery, especially in public schools. Service delivery in public schools requires increased attention, support, and accountability to ensure better quality. The comparable performance of students in PPPs in Punjab to those in private schools suggests that innovative approaches involving the private and public sectors are part of the solution. These findings underscore the critical importance of ensuring access to high-quality education for all children, regardless of their socioeconomic status. This objective can be achievable through better regulation of schools, especially private schools. Analysts have emphasized that the cost advantage of private schools, especially low-fee schools, often stems from underpaying teachers, sometimes even below minimum wage.[11] Private schools tend to hire female teachers who are local, moderately educated, and have limited alternative employment opportunities.[12] Closer oversight to enforce labor and other relevant laws in private schools, in particular low-fee schools, is key to ensuring that the education expands in a way that gives teachers the protections guaranteed under labor laws.

Government interventions on the demand and supply of education

Programs to support the demand of education

As of 2024, the Benazir Taleemi Wazaif program, formerly known as the Waseela-e-Taleem program, is the most effective tool Pakistan utilizes to stimulate education demand. This conditional cash transfer (CCT) initiative is designed to encourage families to enroll their children in school by alleviating the financial burden and incentivizing families' commitment to education. This program operates under the broader umbrella of the Benazir Income Support Program, which is dedicated to protecting and helping the poor and vulnerable, specifically those in the bottom two quintiles of the income distribution.

In 2012, the CCT program was piloted in five districts, later expanding to 32, 50, and 100 districts in 2015, 2018, and 2020, respectively. In 2020, the CCT program expanded to all districts of Pakistan and introduced transfers to families of children in middle, secondary, and high school, supporting beneficiaries up to the higher secondary level.[13] It also created differential cash transfers for girls, to tackle the low enrollment rates of girls among the poor. The program is coordinated with provincial education departments. From 2013 to 2023, the program has enrolled about 12 million students (with 47.5% girls) and disbursing a total of PKR 63.34 billion.

The CCT program is designed to address the primary challenges of getting children to school in Pakistan. It provides greater resources for girls' attendance, as they traditionally have lower enrollment rates, and for all children's attendance at higher levels of education (Table 4.2). This structure provides incentives to boost enrollment. For example, to encourage primary school completion for girls, a one-time graduation bonus of PKR 3,000 is disbursed.

***Table 4.2.** Quarterly stipend rates for enrolled students for the Taleemi Wazaif program (in PKR, 2023)*

Level	Girls (PKR per quarter)	Boys (PKR per quarter)
Primary	2,000	1,500
Secondary	3,000	2,500
Higher secondary	4,000	3,500

Source: Benazir Income Support Program 2023.

The beneficiaries of Taleemi Wazaif receive quarterly transfers, if they maintain 70% attendance, which is assessed on a quarterly basis by the program. Students who cannot meet this condition for three consecutive quarters are removed from the program. To be eligible, students must be active beneficiaries of BISP Kafaalat and fall in the age brackets of 4 to 12 years, 8 to 18 years, and 13 to 22 years for primary, secondary, and higher secondary education levels, respectively. The process also entails mandatory verification through the National Database and Registration Authority (NADRA) database.

In 2016, before the program's expansion, an impact evaluation was conducted comparing beneficiaries in districts where the Taleemi Wazaif program was implemented to similar potential beneficiaries in districts where the program was not active. The results showed a significant increase in school enrollment due to the program, especially among primary students ages 5–12, with comparable increases for both boys and girls (at that time, the payment for both boys and girls was the same). Compared to households not benefiting from the program, Taleemi Wazaif raised the enrollment of children in the same age group by 10 percentage points. When the children benefiting from Taleemi Wazaif were compared to those benefiting from the base Benazir Income Support Programme (BISP), there was an additional increase in enrollment by 9 percentage points.[14]

A unique aspect of the Taleemi Wazaif program is its attempt to align available spaces in both public and private schools with potential beneficiaries. This ensures that families wishing to send their children to school have a nearby, accessible option. However, this is contingent upon meeting two conditions in the respective areas of the country: (1) the existence of operational public or private schools, and (2) adequate school capacity for new students.[15] This suggests that the success of this demand-side intervention is influenced by the supply of educational opportunities in many areas and highlights the importance of working together not only with provincial education departments and joint targeting tools to maximize the impact of the increased spaces for children but also the Taleemi Wazaif program.

A notable strength of the program is its robust attendance monitoring system. Education departments stand to benefit from this model to bolster their own education management information systems (EMIS) and enhance the reporting of educational statistics. This can be achieved if BISP and provincial departments formalize collaborations on data sharing and devise a concrete plan to learn from BISP's data collection system for the Taleemi Wazaif. This would require extending data collection to all students in each province, enabling more effective educational decision-making and potentially leading to more efficient use of public resources during budgetary decisions.

Pakistan has experimented with other programs to incentivize demand for education with success. These include student vouchers (as currently seen in Punjab's Education Voucher Scheme program), and girls' stipends in Sindh and Punjab, among others. BISP and provincial governments have agreed that BISP will not offer secondary school programs in districts where provinces already have a similar program for girls. Overall, these types of stipend programs have shown positive results, in both the short and long term: they increase the likelihood of beneficiaries completing secondary school, reduce the likelihood of teenage marriage and childbirth, and even exhibit intergenerational effects (children of women exposed to the program are less likely to be underweight or stunted). These impacts seem to be achieved through "assortative mating" by education, improved health knowledge, and women empowerment.[16]

New initiatives employing mobile phone technology to encourage reenrollment in schools via text messages have shown promise. In this experiment in Punjab, one group of families received messages that specifically mentioned the adolescent girl in their households, while another group received gender-neutral messages. The findings indicate that text messages on reenrollment and gender-neutral messages successfully encouraged families to send girls back to school after school reopened.[17] Given the positive results and the low cost of text messaging compared to other alternatives, this approach presents an efficient method to help boost reenrollment and initial enrollment rates.[18]

The supply of education services

Much discussion has surrounded the challenges of providing quality educational resources in Pakistan. An abundance of statistics is available regarding the supply of such inputs as textbooks, teaching and learning materials, and the need for infrastructure improvements. However, in this section, the report focuses on strategies that could significantly impact education on a broad scale if teacher management programs and PPPs are implemented correctly. The former represents the largest expenditure in the education sector and, if improved, can yield substantial efficiency gains on public resources. The latter is a strategy that Pakistan has been employing for almost two decades.

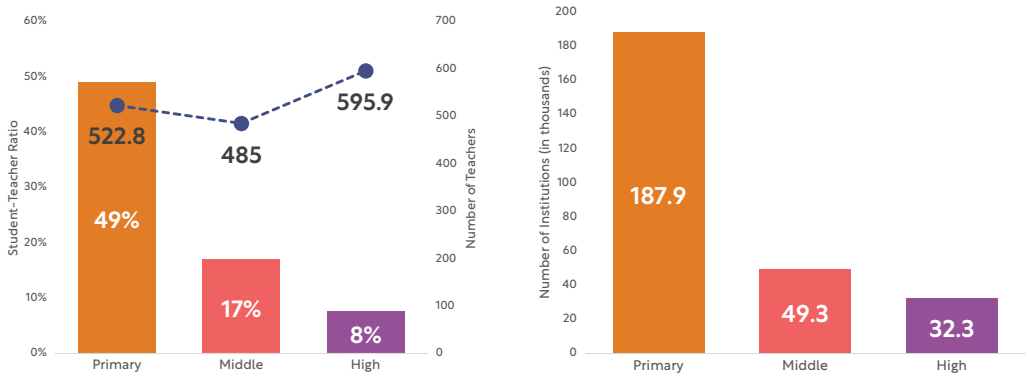
The supply of education services: Teachers

Pakistan's education system presents a supply-side puzzle. Enrollment in primary education is relatively high. There were 25.7 million enrolled students in 2020–2021. However, enrollment plummets to 8.3 million in middle school. This substantial drop is largely due to a scarcity of middle educational institutions, which decreased from 187,900 schools to 49,300 schools during the same period (Figure 4.7). Meanwhile, the count of teachers across all levels, approximately 1.6 million (primary, middle, and high school), remains relatively constant across education levels at 0.5 million.[19] This results in a disproportionate spread of teachers in the education system (Figure 4.7). In high school, there are 8 students per teacher. In middle school, there are 17 students per teacher. In primary schools, where there are the highest number of students, there are the fewest number of teachers. Primary schools have nearly 49 students per teacher. The high number of teachers in middle and high school relative to primary school, despite substantially lower enrollment after primary school, is further confounded by the provincial education departments' confirmation of nearly 200,000 unfulfilled positions as of 2023. The situation is more pressing considering that almost 40% of schools in Pakistan have some form of multigrade teaching (see section below).

Figure 4.7. *Student-teacher ratios and education institutions, by education level*

(a) Student-teacher ratios drop significantly after primary education (2020–2021)

(b) Drastic drop in the number of schools after primary education (in thousands)



Source: Authors' calculations using data from the Pakistan Economic Survey 2021.
Note: There has been a decline in student-teacher ratios, from nearly 49 students per teacher in primary schools to 17 students per teacher in middle schools and reaching 8 students per teacher in high schools. There has been a drastic decline in the number of schools after the primary level. There are 187,900 primary schools, 49,300 middle schools, and only 32,300 high schools.

Even though Pakistan requires subject-matter teachers for middle and secondary schools, the low teacher-to-student ratio in the face of declining student enrollment postprimary education calls into question the effectiveness of existing human resource strategies and teacher management and deployment policies. There is a persistent demand from teachers to transfer to "better locations"; there is a preference for schools in urban centers that promise improved living conditions for teachers and their families. However, it is important to consider that there may be instances where political interests align with facilitating teachers' requests for school transfers through education departments, given the critical role teachers play as polling agents during political elections.

Improving teacher management and deployment can significantly enhance the efficiency of the most important inputs in the education system. To accomplish this, the following four key inputs could be considered: ensuring appropriate teacher-student ratios, incentivizing rural school placements, streamlining the recruitment process, and improving the teacher deployment process. To improve the efficiency of the education system, it is important to ensure that teacher-student ratios are appropriate to facilitate effective teaching and learning. Another crucial input for improvement is to make teaching in rural schools attractive by having incentives in place, such as differential salaries, housing allowances, hardship allowances, or fast-tracked career progression to attract and retain teachers in rural areas.

Enhancing teacher support, recruiting local teachers, and creating career development opportunities can attract and retain good teachers in the classrooms that need them the most.

Rural schools should also meet minimum infrastructure standards, which will make rural postings more attractive for teachers. It is also important to streamline the recruitment process to fill vacant positions faster, including for professionals from other areas who want to become teachers. Transparency in the hiring process can attract more qualified applicants and reduce favoritism and political influence. Hiring teachers from local communities could also be considered. The final key input to help improve the efficiency of the education system is to employ data-driven decision-making in teacher deployment to identify vacancies and anticipate openings, creating incentives and removing restrictions on the teacher deployment and management process (e.g., which teachers can apply to which schools). Technology can support these process changes efficiently and ensure transparency.

Relatively high rates of teacher absenteeism are another signal that teacher management in Pakistan stands to improve. Data from Punjab in 2019, for example, shows that in unannounced visits, 14% of teachers are absent from school.[20] Data from 2021 confirms a similar rate for the Islamabad Capital Territory. Although these rates are, in general, lower than in similar countries, the fact that 14% of teachers in the public sector are absent from school on any given day means that nearly 215,000 teachers are absent from their classrooms, and an estimated 4.3 million students are not benefiting from the main input in their education.

Provincial governments could also make strides in supporting the teaching profession and better manage the workforce. Incentives could be put in place to help improve the recruitment processes, onboarding, certification, support, performance evaluation, promotions, and exit strategies from the education system. For example, for teachers already in the system, professional support could be given to help them advance in their careers without having to leave the classroom to become administrators, keeping good teachers in the classroom.[21] Defining a career path for school administrators and leaders that includes pedagogical support as part of their duties could also go a long way in professionalizing teaching and establishing the incentives for an improved quality learning environment.

The supply of education services: Public-private partnership

Pakistan has experimented with several programs to enhance education provision via public-private partnerships (PPPs) in multiple provinces. Overall, these programs include direct subsidies and vouchers to students to use in specific schools, partnerships with NGOs to manage public schools, and collaborations with private schools to offer new places or open schools in underserved regions. PPPs amount to roughly 5% of the education department budget in Punjab, the largest implementer of PPPs in the country.

The strategy of integrating the private sector into education service delivery has been institutionalized through Provincial Education Foundations across all provinces. Within this framework, private schools receive a per-student subsidy, as seen in the Foundation Assisted Schools Program (FAS) in Punjab and Sindh, or the private sector adopts a public school, taking over their management and daily operations, such as in the Adopt a School Program (AASP) in Sindh or the Public School Support Program (PSSP) program in Punjab. These partnerships particularly emphasize supporting access in areas where public schools are underperforming and the prevalence of OOSC is high. These programs have requirements for selection and performance and have developed data monitoring systems for decision-making.

Robust evaluations of the PPPs in Pakistan have shown positive results on access and learning (when measured). In Sindh, the Promoting Private Schooling in Rural Sindh (PPRS) shows substantial results in both access and quality in marginalized areas of the province; it increased enrollment by 32 percentage points and learning by 0.63 standard deviations.[22] In Punjab, the FAS program has shown large positive impacts on school enrollment, the number of teachers, and other inputs for program schools. However, it is unclear how much of the additional enrollment came from students already enrolled in the system. The program increased enrollment by 59% (around the enrollment cutoff for schools to be eligible), additional teachers by 46%, classrooms by 47%, and reduced crowded classrooms by 14%.[23] Balochistan experimented with PPPs more than 20 years ago with the Quetta Urban Fellowship Program (similar to the FAS in Punjab), which incentivized the opening of private schools for girls by offering subsidies directly to schools and guaranteed public support for three years; the program increased girls' enrollment around 33 percentage points.[24] A similar program in rural areas of Balochistan had no impact on school enrollment.[25]

Existing research indicates that in Punjab, PPPs generally cater to a similar demographic of students in the public sector who are typically less affluent than students enrolled in private schools. While private school students tend to come from wealthier backgrounds and often receive private tuition, there is no significant difference between the socioeconomic status of students enrolled in PPP schools and those in public schools, both groups being relatively less affluent than students in private schools. Students participating in the New School Program (one of Punjab's PPP initiatives) are the most disadvantaged among all PPP students, confirming the progressive targeting of PPPs in the province.[26] This suggests that targeting of PPPs is adequate to reach the most marginalized children.

An alternative approach to PPPs with some demonstrated effectiveness involves the public sector outsourcing the management of public schools to the private sector. The PSSP in Punjab provides government subsidies per enrolled student in public schools. The results indicate that enrollment in program-affiliated schools increased by over 60%, though average test scores decreased. However,

it remains unclear whether this reduction in learning is due to the overall academic performance of newly enrolled students or to the short-term potential disruptions caused by the program.[27] More research is needed to understand how to preserve gains in enrollment and ensure that student learning increases.

New research in Pakistan underscores the need to examine the distribution of learning outcomes within schools, not just across schools by type. Conclusions about differences between public and private schools may vary significantly when assessed at different points in the distribution of learning.[28] Given this, it becomes crucial to invest in and develop strategies targeting the effectiveness of teachers in classrooms, regardless of whether the teacher-student interaction occurs in public or private schools.

PPPs in Pakistan have demonstrated significant results on the ground, both in terms of access and quality. They are institutionalized as part of government processes and have been used to address the needs of the most marginalized children. However, some modalities, such as NGO-managed public schools, face challenges with no observable increase in learning outcomes.

The lessons and experiences from the past 20 years of implementing PPPs in Pakistan provide a solid foundation for a new generation of PPPs. Below are some ideas to consider for improved use of PPPs:

- *Enhance interdepartmental and interprovincial coordination.* Bolster the synergy between education departments and education foundations, ensuring strategic planning, data sharing, and targeting to eliminate program overlap and unnecessary competition between PPP and public schools. Develop and implement concrete institutional protocols for coordination. Encourage cross-province knowledge sharing on operational, implementation, and policy design. Pakistan's diverse program experiences can provide valuable insights to enhance service delivery through PPPs.

- *Prioritize underserved groups.* Implement targeted strategies for delivering education to children with disabilities and other underserved groups. An inclusive and welcoming school culture and infrastructure should be promoted in every school.

- *Focus on supply-side programs in primary, middle, and high school.* Consolidate efforts toward improving and expanding programs that target supply-side issues while enhancing coordination with BISP to use it for demand-side programs. A well-coordinated approach with the CCT program will allow resources to be used more efficiently for monitoring, managing, and regulating the PPP schools at the provincial level.

- *Strengthen governance and management.* Improve teacher-related policies, including law-abiding compensation, and promote transparency. Foster accountability through easy-to-access data with all stakeholders. Consider introducing policy amendments allowing education foundations to raise funds, enhancing their capacity directly. Maintain a focus on building an evidence base with rigorous impact evaluations and process evaluations. Avoid duplication of functions when implementing PPPs, such as the occurrence of administrative overlap in the Sindh Education Foundation and the PPP node at the School Education Department.

- *Emphasize learning outcomes.* While PPPs have proven effective in enhancing access to education, their impact on education quality is mixed. Strengthen incentives and regulations to align PPPs with learning while strengthening regulations and monitoring their adherence. Requiring partners to focus on heterogeneity within schools could potentially speed up increases in student learning.

Taking stock of what Pakistan has achieved in education PPPs in the last 20 years will allow the country to think and develop a new generation of PPPs that can deliver improved outcomes for children. PPPs should not be viewed as replacements for offering access to quality public education but as a strategic and complementary tool to address the immediate educational needs of children.[29] PPPs led by education foundations should work closely with the public sector, strengthening the state's capacity to provide and widen access to quality education. Incorporating nonformal education programs into PPPs' design and aligning the institutions, both at federal and provincial levels, will enhance the efficiency of public expenditure, reduce duplication, and enhance the effectiveness of programs. Close monitoring, enforcement of laws and programs' design features are necessary to enhance accountability of private schools.

How many children do PPPs in Pakistan support? According to data from the 2021 education foundation reports in Sindh and Punjab, Sindh supports approximately 960,000 children, while Punjab supports 2.2 million children mainly through the FAS and the NSP.[30] Altogether, at least 3.2 million children are supported through PPPs in the country. These numbers may be higher, but data from KP and Balochistan education foundations are not provided on their websites. For comparison, it is estimated that nearly 5.0 million children attend religious schools.[31]

As of 2023, school payments through PPPs vary. Monthly payments include PKR 550 per student in primary school, PKR 600 in elementary, PKR 900 in secondary arts schools, PKR 1,100 in secondary science schools, PKR 1,200 in higher secondary arts schools, and PKR 1,500 in higher secondary science schools. In Punjab, as of 2023, the public payments for a child's education per school year is between US$20 and US$52 (286 PKR/US$). In 2021, the rate was between US$37 and US$97 per year per student; the difference is due to recent exchange rate fluctuations. (In 2017, yearly spending per student was US$338 in primary and US$668 in secondary.)

The substantial difference between the cost of educating a child in the public system makes the PPP model particularly attractive and efficient. However, there have been several issues associated with this model. One pressing concern is that the lower cost of private schools, including those under PEF and others, is often linked to the underpayment of predominantly young female teachers, many of whom earn below the provincial minimum wage.[32] This underscores the need for careful regulation design and further enhancement of the PPP model.[33]

Household education spending patterns

On average families spend 5% of their household budgets on the education of their children. In 2018–2019, households spent PKR 1,424 per student, which amounts to .8% of their total monthly spending (Table 4.3). However, there is large variation across the population. Households in Punjab spent the highest amount per student (PKR 1,518), while households in KP devoted the largest share of their monthly budgets to education: 6%. Urban households on average spend the highest amount on education (PKR 2,121), more than twice as much as rural households (PKR 957).

At the other end of the spectrum, poor households, and those in Balochistan, spend the least amount on education. In Balochistan, 50% of all households do not report any education spending, and the average household spends less than 50% of the national average, which might be related to the low prevalence of private schooling in Balochistan, the lowest in the country. Similarly, poor households spend 20% of what nonpoor households spend per student (PKR 367 versus PKR 1,665) and allocate just 3% of their monthly budget to education, about 50% of what nonpoor households spend (Table 4.3).

Table 4.3. *Household spending on education*

	Education budget share	Average monthly spend per student (2018–2019 PKR)		
		All	Private	Public
Pakistan	**4.8%**	**1,424**	**2,314**	**769**
By region:				
Rural	3.8%	957	1,686	612
Urban	6.3%	2,121	2,838	1,144
By province:				
KP	5.8%	1,253	2,111	758
Punjab	5.2%	1,518	2,348	836
Sindh	3.6%	1,444	2,449	672
Balochistan	1.9%	664	1,515	414
By poverty status:				
Nonpoor	5.2%	1,665	2,465	936
Poor	2.5%	367	673	294

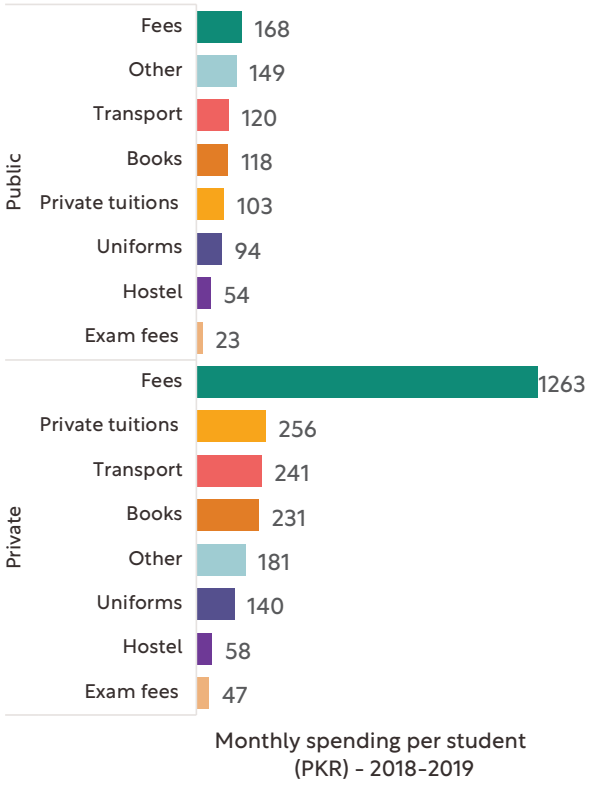
Source: Authors' calculations based on HIES 2018–2019 microdata and welfare data obtained from World Bank Poverty Global Practice's Database of Harmonized Datasets DATALIBWEB.

These differences in education spending come largely from the choice of private versus public schooling: the average cost for families of sending a child to private school is three times higher compared to public (government) schooling (2,341 versus 769; see Table 4.3). This difference stems primarily from school fees, which are more than seven times higher in private schools since public education is largely free of cost (Figure 4.8) while fees in private schools include teachers' salaries.

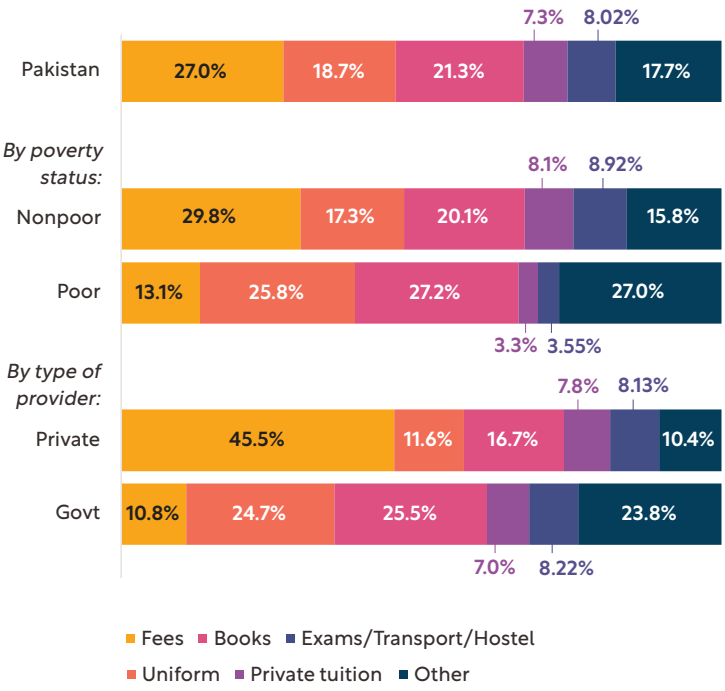
In addition to fees, transportation costs are also twice as high for private school-goers, along with the cost of books and private tuitions. These differences are reflected in the composition of education spending, which is dramatically different for both. School fees take the biggest share for those enrolled in private school (45.5%), compared to just 10.8% for public school students. In both cases, books and uniforms form the second largest component of education spending.

Figure 4.8. *Breakdown of education expenditure for families*

(a) Breakdown of education costs, by type of school (monthly spending per student; PKR)



(b) Breakdown of education costs, by type and poverty status

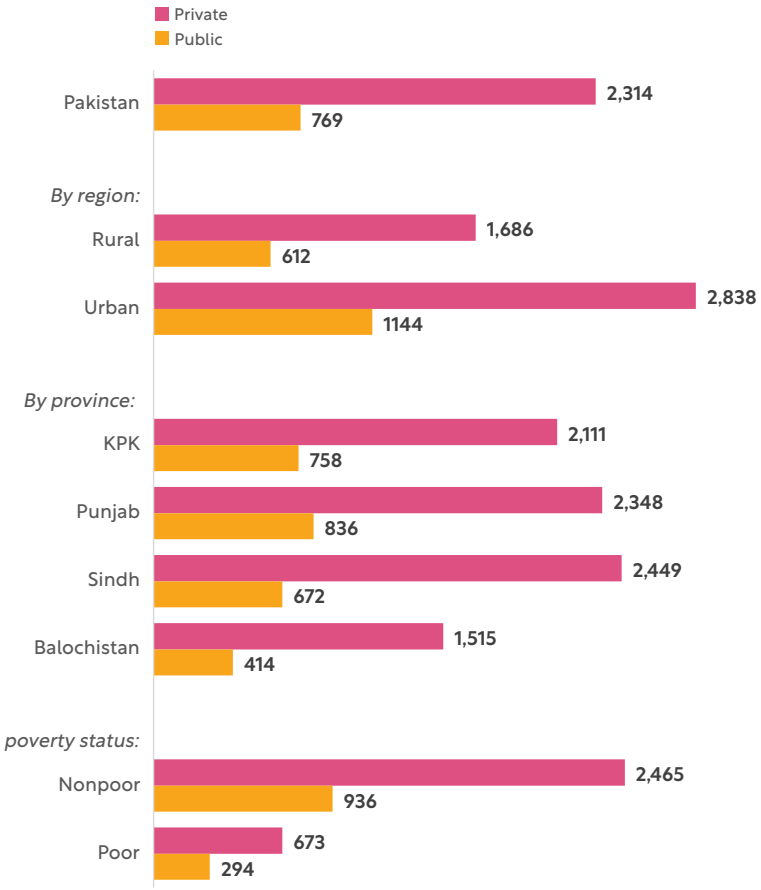


Source: Authors' calculations based on data from HIES 2018–2019.

The per-student cost of private schools also varies across the population (Figure 4.9). Students from poor households tend to attend low-cost private schools, spending just 25% of the average for nonpoor households (2,465 versus 673). Private schooling is also significantly more expensive in urban areas (2,838 versus 1,686 in rural areas), and in Sindh (2,449) and Punjab (2,348).

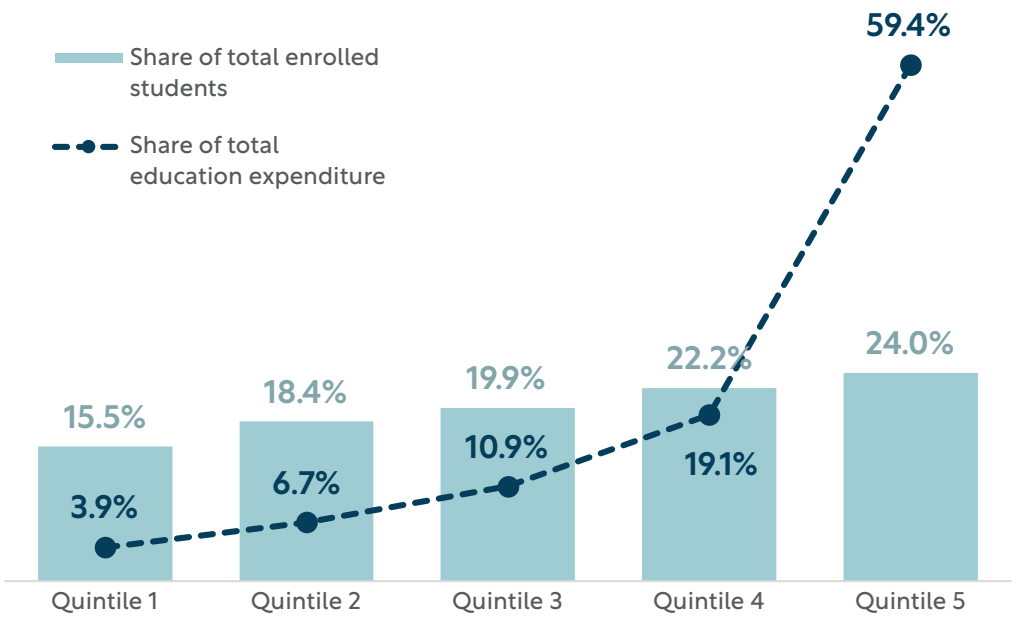
To identify other potential determinants of households' education expenditure, a multivariate regression analysis (not shown) was carried out. A range of household and individual level characteristics are included as independent variables, including age, gender, type of provider, level of schooling, household size, welfare status, and location identifiers. This analysis corroborates the importance of private provision, location of households, and welfare status as significant correlations in households' education spending per student. In addition, it also points toward the level of schooling and mother's level of literacy as important factors. Having a literate mother is associated with an increase of PKR 392 per month in a student's education spending.

Figure 4.9. *Public versus private school spending (PKR)*



Source: HIES 2018–2019.
Note: Children from poor families often go to low-cost private schools, spending only 25% of the amount nonpoor families spend (2,465 compared to 673). Private schools are also much pricier in cities, leading to the enrollment of 2,838 students compared to 1,686 students in rural areas, and this is especially true in Sindh (2,449 students) and Punjab (2,348 students).

Figure 4.10. Education expenditure across the welfare distribution



Source: HIES 2018–2019.
Note: The wealthiest of households contribute to 59.4% of all the money spent on education. Within different income groups of students, the percentage of students enrolled in school also rises along with the household income level, with the richest quintile having the highest enrollment (24.0%).

The analysis further indicates that education spending varies vastly across the welfare distribution. Belonging to the top welfare quintile[34] is associated with an increase in spending per student of PKR 2,106 per month relative to the bottom quintile. However, moving from the lowest quintile to the second or even third quintile does not appear to have a significant correlation with education spending. Because of this large disparity, education spending by the top quintile accounts for 59.4% of total spending on education made by households (Figure 4.10), showing substantial inequality between the top income quintile and the rest of the population, especially the poorest. This difference can be attributed to the higher likelihood of the wealthiest children attending private schools, where fees are higher, and opportunities for further investment, such as private tutoring, abound.

Strategies to increase the quantity and quality of public schools are key to improving education system equity in Pakistan. Focusing on providing more and better education opportunities to poor households, girls, and middle- and secondary-school-age children top the priority list and should be attended to first. PPPs can complement these efforts and enhance the efficiency of public spending.

RECOMMENDATIONS
EQUITY

Inequities are reinforced by the way educational funds are allocated.

Equity

To enhance equity, Pakistan could reevaluate its existing mechanisms that address disparities in expenditure per child, establishing targets and monitoring processes to reduce such differences. By using clear formulas anchored in data and principles of equity and inclusion, resources can be directed where they are most needed, helping to bridge spending gaps. Programs could be tailored to cater to populations that have traditionally been marginalized. Notably, given the scarcity of middle schools and prevalent dropout rates after primary school, there is a pressing need to emphasize elementary schools that go to grade 8 in rural areas.

Girls

Ensuring safe spaces for girls through boundary walls, hiring female teachers, and providing proper water, sanitation and hygiene (WASH) facilities can significantly impact equity. Effective, long-term strategies might encompass recruiting teachers from local communities, diversifying school calendars to cater to all children, formalizing multigrade teaching where needed, and identifying cost-effective programs with care for children with disabilities, among other initiatives. In the process, it is vital to set aside budgets and establish targets that align with these budgets, ensuring the programs' viability. Emphasizing female well-being, which includes safe transportation for both teachers and students, offering life skills, and providing other cocurricular activities, can empower girls. This approach not only enhances their learning but also enables them to leverage their education to positively impact their families and communities.

Allocating resources to underserved areas and hiring local female teachers can enhance equity and improve education for girls in Pakistan.

SECTION NOTES

1 Out-of-school children (OOSC) accounted for in learning poverty calculations are assumed not to have achieved minimum proficiency in reading. This means that the inclusion of OOSC increases learning poverty rates.
2 MOFEPT (2020a).
3 Ersado et al. (2023).
4 Barón and Bend (2023).
5 Report with the gender team.
6 Barón et al. (forthcoming).
7 The calculations are from Pakistan Social and Living Standards Measurement Survey 2019–2020 (PBS 2020).
8 World Bank (2019a).
9 ASER Pakistan (2022a).
10 Amjad and MacLeod (2014).
11 Andrabi, Khuwaja, and Das (2006).
12 Bari (2023).
13 Benazir Taleemi Wazaif, formerly known as the Waseela-e-Taleem (WET) program.
14 Cheema et al. (2016).
15 Benazir Taleemi Wazaif, Benazir Income Support Programme, Government of Pakistan.
16 Musaddiq and Said (2023).
17 Hasan et al. (2021).
18 Barrera-Osorio and Raju (2015); Churchill et al. (2021); Hiraoka, Rizwan, and Taniguchi (2021); Iqbal (2021); Malik and Naveed (2012); World Bank (2011).
19 Government of Pakistan (2022).
20 Geven (2019).
21 World Bank (2013).
22 Barrera-Osorio et al. (2022).
23 Barrera-Osorio and Raju (2015).
24 Kim, Alderman, and Orazem (1999).
25 Alderman, Kim, and Orazem (2003).
26 Ansari (2020).
27 Crawfurd and Alam (2023).
28 Andrabi et al. (2022).
29 PPPs are a complementary tool to investments in the improvement of the public sector. See examples from the case of Punjab (Tahir and Geven 2023).
30 The Punjab Education Foundation (PEF) and Sindh Education Foundation (SEF) are semiautonomous organizations with a mandate to support education in the provinces through a multitude of interventions. See (PEF 2021) and sef.org.pk.
31 Government of Pakistan (2021).
32 Andrabi, Khuwaja, and Das (2006).
33 UNESCO (2022).
34 Welfare quintiles associated with this distribution were constructed by splitting the population-weighted distribution of the official welfare aggregate (consumption per adult equivalent) into five groups. The bottom quintile represents the bottom 20% of the population in terms of welfare, whereas the top quintile represents the top 20% of the population.

05

SYSTEM MANAGEMENT & COORDINATION

Increasingly, the significance of management, both at the school and system levels, and the potential impact of the political economy on policy and implementation decisions affecting learning outcomes are being recognized.

Understanding school management practices in Pakistan

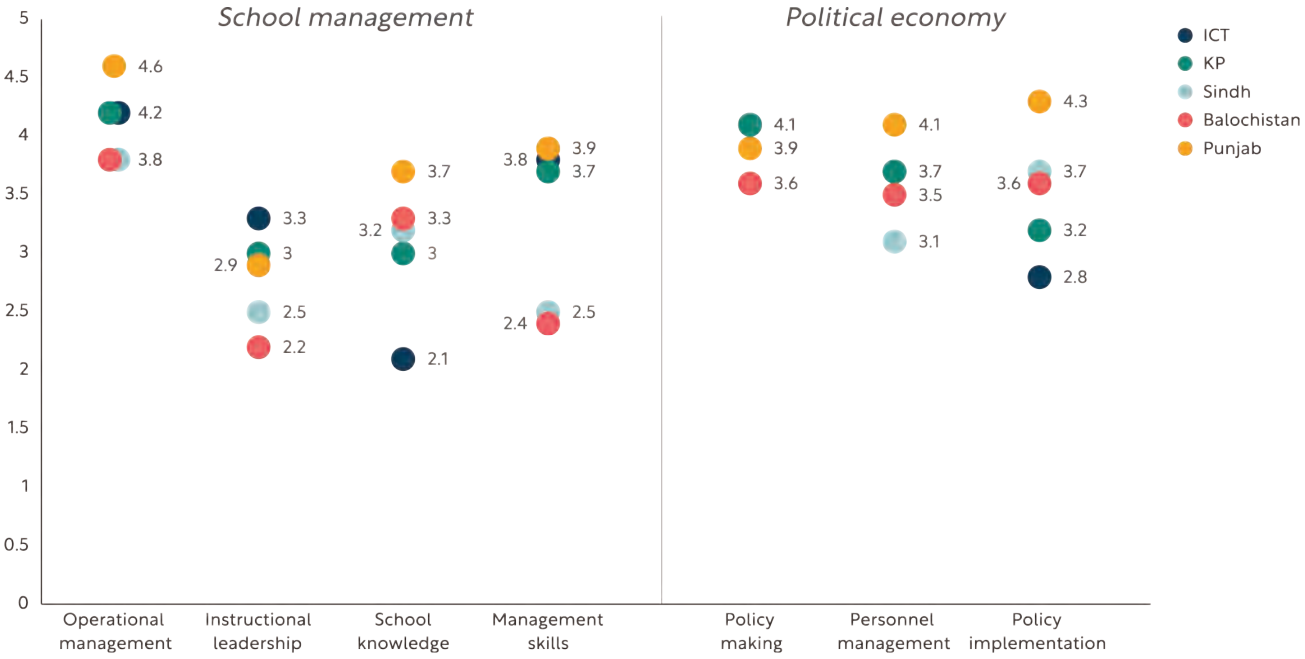
School management in Pakistan, as approximated by the data collected in all provinces of Pakistan as part of the Global Education Policy Dashboard, indicates that schools still have room for improvement in all indicators of school management. Across provinces, schools perform better in operational management, with Punjab scoring the highest at 4.6 out of 5.0, but less well in instructional leadership, with ICT leading the provinces with a score of 3.3 (Figure 5.1). There is greater variation in scores for school knowledge and management skills. ICT lags with a score of 2.1 in school knowledge and both Balochistan and Sindh have relatively similar scores of 2.4 and 2.5 management skills, respectively. These scores show that

all provinces have room for improvement to ensure that students and teachers have the inputs they need to succeed.

The Global Education Policy Dashboard data (Figure 5.1) yields an impartial decision-making score intended to assess the impact of external factors on the distribution of resources within education departments. Examining the indicators across provinces for the political economy shows no discernible politicization in policy making (average score of 3.9) and personnel management (average score of 3.6, with Sindh bringing down the average), but does reflect some degree of politicization in policy implementation. This indicates that while favoritism is not evident in policy making or management of education personnel, implementation may be subject to patronage. This result aligns with a hypothesis that budget allocations might be swayed by political agendas, determining the direction of resource deployment and explaining the lack of correlation between budget allocation and need.

In fact, political patronage appears to be a common occurrence in the education sector in Pakistan,[1] and frustrated policy makers, analysts, and the public lament the limited gains on access and learning outcomes after substantial increases in budgets that followed the enactment of the 18th Amendment.[2]

Figure 5.1. *Score for school management and political economy*



Source: Authors' calculations based on Global Education Policy Dashboard for ICT 2021.
Note: Analyzing the impartial decision indicators designed for Pakistan reveals that there is no significant bias in policy making (score of 3.5) and personnel management (4.1). However, there is evidence of partial politicization in policy implementation, with a score of 2.8, noticeably lower than the scores in other domains.

Findings from the Research on Improving Systems of Education (RISE) diagnostic tool administered in Balochistan (2023) conclude that this tendency for political patronage pervades the system:

> *"[T]he education system is well aligned—but about patronage, not learning. … In analysing the school construction reforms, … new schools were built according to political criteria rather than community need. Budgets have therefore been spent inefficiently, and available data was ignored. There is a misalignment between patronage-driven goals and access-oriented finance and information."*
>
> *–Kakar, Saleem, and Sarwar 2022*

Consultations for this report, including education analysts, academics, civil society organizations, and public officials from education, finance, and planning and development departments have corroborated the findings presented in the RISE report.

> *"[P]atronage has perverted teacher human resource (HR) systems. On one hand, reforms introduced an examination-based teacher recruitment policy. By ensuring that the teacher recruitment is conducted [in] a rules-based manner, this policy has helped insulate this aspect of teacher HR from the patronage in the surrounding system. However, teacher assignment is still driven by patronage and connections, allowing teachers to transfer out of undesirable rural posts and leaving many schools severely understaffed. Thus, access-aligned reforms in one part of the system (i.e., school construction) are undermined by patronage-aligned norms in another (i.e., patronage-based teacher assignment)."*
>
> *–Kakar, Saleem, and Sarwar 2022*

Others have also documented political patronage examples in teacher hiring in KP, and the tension between teacher postings to rural schools and positions remaining vacant.[3] It is rare to have patronage align with learning outcomes; instead, patronage often generates inefficient allocation of resources, resulting in suboptimal outcomes for children.

Understanding the factors driving children's educational outcomes in Pakistan is crucial when seeking opportunities to improve the management of the system and its efficiency. While multiple factors influence school attendance and learning, not all fall within the education system's purview. This section of the report investigates the primary drivers believed to significantly affect the system's capability to generate superior learning outcomes and expand educational access. With Pakistan grappling with fiscal constraints, optimizing resource management in the education sector will ensure more results from existing resources. This challenge requires a shift in both perspective and methodology. Confronting systemic duplication in the public sector and reallocating resources toward activities that target the real drivers of low educational outcomes is essential.

What factors explain school attendance and dropout rates in Pakistan?

By examining household data from almost the last 20 years, this report identifies the main factors that influence school attendance. A multivariate analysis enables the identification of factors that most impact attendance, such as poverty, the education level of the household head, the distance to the school, instances of early marriages, and rurality. Among the parents surveyed for this report, respondents also emphasized gender and age as contributing factors to their children dropping out of school.

In fact, poverty is the most significant factor influencing school attendance for children of all ages. This is measured using a wealth index. Children from families in the bottom wealth quintile are 20 percentage points to 40 percentage points less likely to attend school compared to children from families in the top quintile. This holds true even after accounting for other sociodemographic characteristics of the household. The impact is even more pronounced for older children.

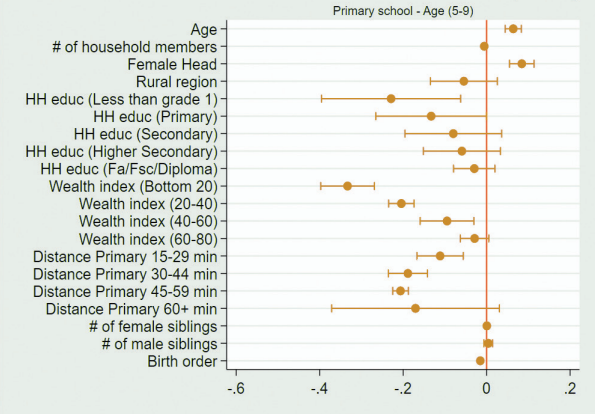
The educational attainment and gender of the household head plays a crucial role in school attendance. Children from households where the head of the household has less education tend to attend school much less compared to those with more educated heads. This is a consistent finding across all age groups, underscoring the significance of parental perspectives and norms in preventing the intergenerational transmission of learning poverty. Households with female heads are more likely to have children who attend school (both boys and girls) at all ages.

Distance to school also notably impacts attendance, particularly considering age and gender. The further a school is, the lower the attendance rate for primary-school-age children, regardless of gender. School attendance decreases by 10 percentage to 25 percentage points as the distance to school increases (compared to schools located within a 15-minute walk). Among older children (ages 10 to 16) increased distance to school significantly diminishes attendance for girls, but not for boys (Figure 5.2). Numerous factors may contribute to this gap, such as safety concerns for girls in their commute to school and within school premises. Girls frequently report instances of harassment and bullying.[4] If schools do not offer what parents perceive as safe spaces, such as boundary walls and female teachers, or they lack fundamental sanitation infrastructure, such as facilities with clean water or accommodations for menstrual hygiene, it becomes understandable why parents may opt not to send their daughters to school. Only 63% of middle schools in Balochistan and 79% in Sindh have access to water, while even fewer (60%) of primary schools in these two provinces can say the same. Similarly, only 71% of middle schools in Balochistan and 83% in Sindh are equipped with boundary walls, whereas the percentages are even lower for primary schools in these provinces, at 59% and 37%, respectively.[5]

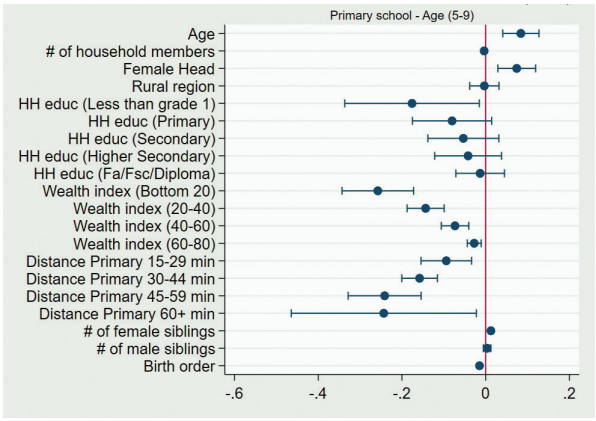
Rurality and early marriage are additional factors that impact girls' school attendance. Early marriage affects school attendance for boys and girls ages 13 to 16 (Figure 5.2). School attendance drops by almost 20 percentage points for children who are married. Even after considering rural-specific characteristics such as distance to school, poverty, and family size, rural status significantly impacts school attendance for girls, particularly older girls, but not for boys of any age (Figure 5.2). This trend likely captures the more conservative norms and attitudes toward girls' education in rural areas. This difference is notable, affecting attendance rates by 6 percentage points to 10 percentage points.

Figure 5.2. *Determinants of school attendance for younger (ages 5 to 9) and older (ages 13 to 16) children, by gender*

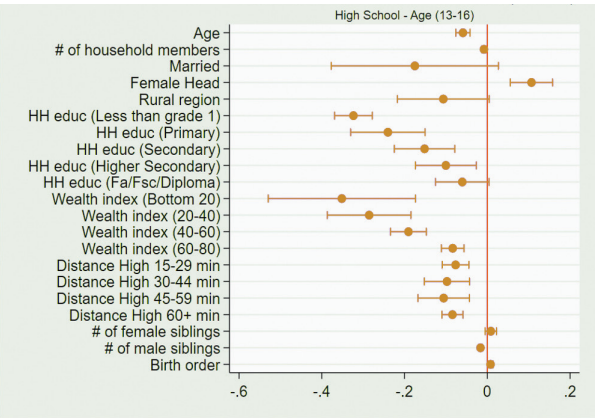
(a) Girls, ages 5 to 9



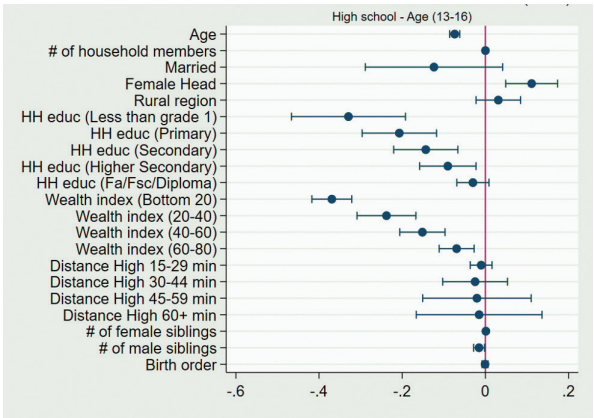
(b) Boys, ages 5 to 9



(c) Girls: ages 13 to 16



(d) Boys: ages 10 to 16



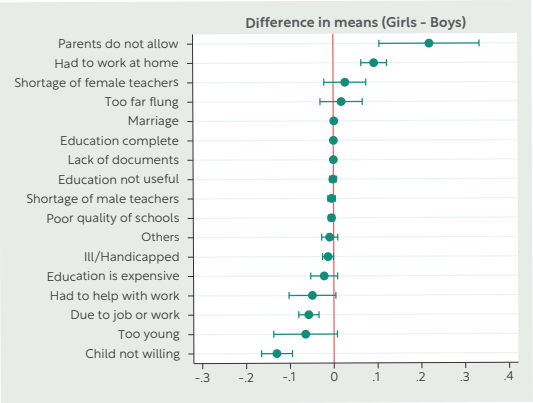
Source: Authors' calculations based on PSLM Survey data 2004 to 2014.
Note: This is a multivariate analysis of school attendance. Dots are marginal effect coefficients with confidence intervals at the 95% level. If the confidence interval of the marginal effect includes the value 0, then the result is insignificant at the 5% level.

When directly questioned about why children dropped out of school, parents offered a variety of responses reflecting both demand- and supply-side constraints. Approximately 36% of parents report their child's unwillingness to attend school, which may likely be linked to parental attitudes toward education. Another 15% cited high cost as an educational barrier, signaling a demand issue. Parents also highlighted the need for children to work either within (8%) or outside (9%) the household. A small fraction, about 4%, mentioned that the school's remote location was a contributing factor, indicating a supply-side constraint.[6] Note that the reasons given interact with each other and are only rough proxies for demand and supply.

Parents' reasons for dropping out of school have a gender component. According to PSLM data, the reasons for more girls dropping out of school compared to boys include parents not allowing them to attend (20 percentage points), the need to help at home (10 percentage points), the school being too far away (11 percentage points), the expense of education (5 percentage points), and the belief that further education is unnecessary (especially for older girls, 12 percentage points) (Figure 5.3). According to DHS data, the reason more boys in comparison to girls drop out is the need to work and earn money (15 percentage points) (Figure 5.3). These trends highlight the significance of gender norms where dropouts are driven by stereotypes of traditional gender roles.

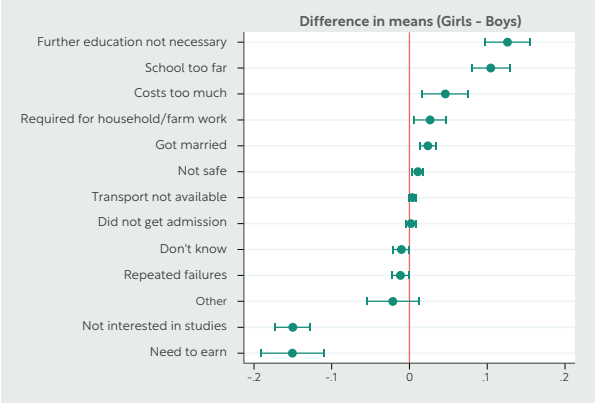
Figure 5.3. *Reasons for children out of school (ages 5 to 16), by gender*

(a) PSLM data



Source: Authors' calculations based on PSLM Survey data 2004 to 2014.
Note: Reasons why more girls drop out of school compared to boys include parents not permitting them to attend (a difference of 20 percentage points) and the necessity to assist with household chores (a difference of 10 percentage points). Conversely, reasons why more boys dropping out than girls include the need to work and earn money (a difference of 5 percentage points) and being considered too young (a difference of 7 percentage points).

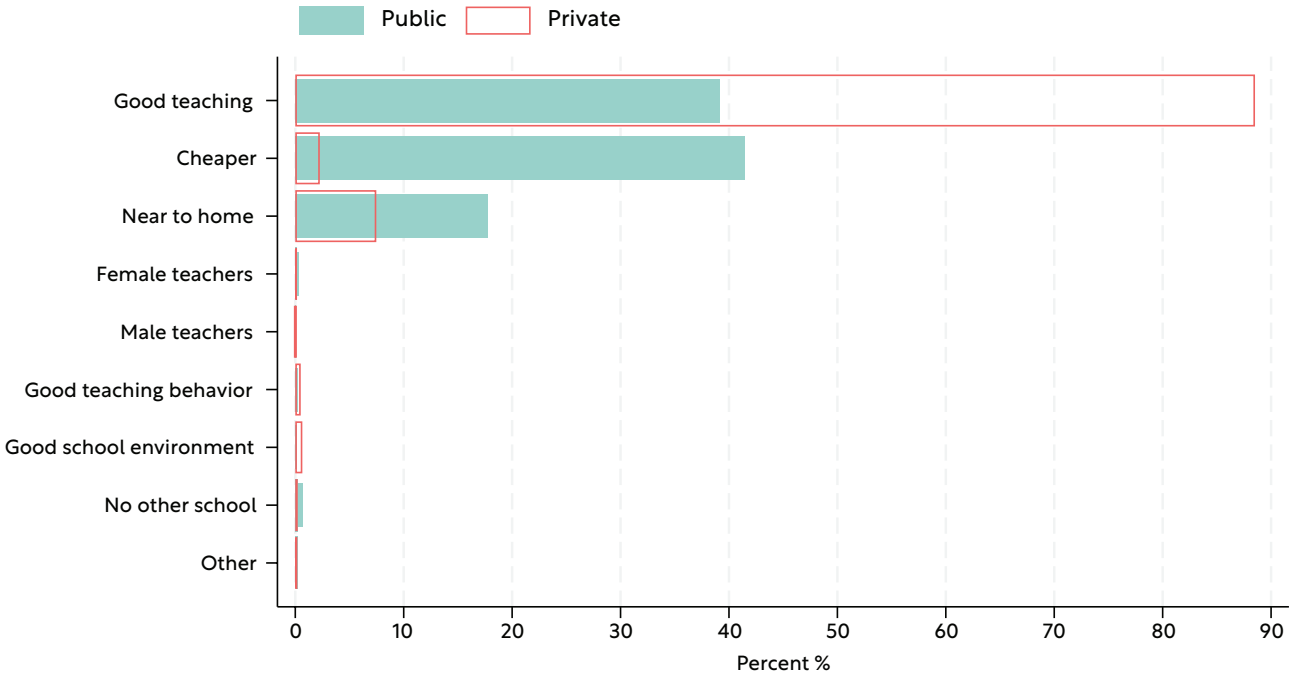
(b) DHS data



Source: Authors' calculations based on DHS Survey data 2004 to 2014.
Note: The causes behind girls dropping out in contrast to boys, include the schools being located too far away (a difference of 11 percentage points), the cost of education (a difference of 5 percentage points), and the perception that additional education is not essential (particularly among older girls, a difference of 12 percentage points). A main factor for more boys than girls dropping out is the need to work and earn money (a difference of 15 percentage points).

Multiple factors impact parents' decision to send their children to school, but one notable reason is that parents value the quality of education and their belief in their children's ability to access quality education. The primary reason parents opt to send their children to private schools is driven by their perception of quality. In fact, 88% of parents say the main reason they send their children to private schools is "good teaching," compared to 38% of parents who send their children to public schools (Figure 5.4). In contrast, 43% of parents reported that a main factor driving their decision to send their children to public schools is that it is "cheaper" (Figure 5.4).

Figure 5.4. *Main parental reason for children's school enrollment, by type of school*



Source: HIES 2018–2019.
Note: Private schools are chosen by 88% of parents because of the quality of teaching, while public schools are chosen by 38% of parents for the same reason. On the flip side, 43% of parents point out the affordability of public schooling as the leading factor in their choice of school.

What factors explain low learning levels?

Improving the management of the system in key aspects can certainly increase the efficiency of the system in producing learning outcomes. These key aspects include: teachers ready to teach, schools ready to receive students with the most appropriate pedagogical organization (recognition of multigrade teachings as a reality of the system), and children ready to learn.

Teacher readiness

Teachers hold a crucial role that transcends merely disseminating information; they are key in shaping students' academic journeys and overall learning experiences. Considering they account for the largest portion of the education budget, enhancing teacher effectiveness is a direct path to improving expenditure efficiency. The essence of teacher effectiveness lies in the quality of the interaction between teachers and students. This interaction, underpinned by the teacher's mastery of subject content and effective pedagogical practices, fundamentally determines the quality of education and, by extension, impacts student outcomes.

An analysis of teaching practices across a sample of 809 schools in Punjab reveals both strengths and areas for improvement in pedagogical skills in the classroom (Table 5.1). Teachers demonstrated strengths in social behaviors within the classroom culture, such as fostering supportive learning environments (70% of public teachers) and providing equal opportunities for learning (89% of teachers in all types of schools). However, in instruction, only a few teachers displayed crucial teaching behaviors such as checking for understanding of what is being taught (11% of public teachers, for example) and providing feedback to students (14% of public teachers).

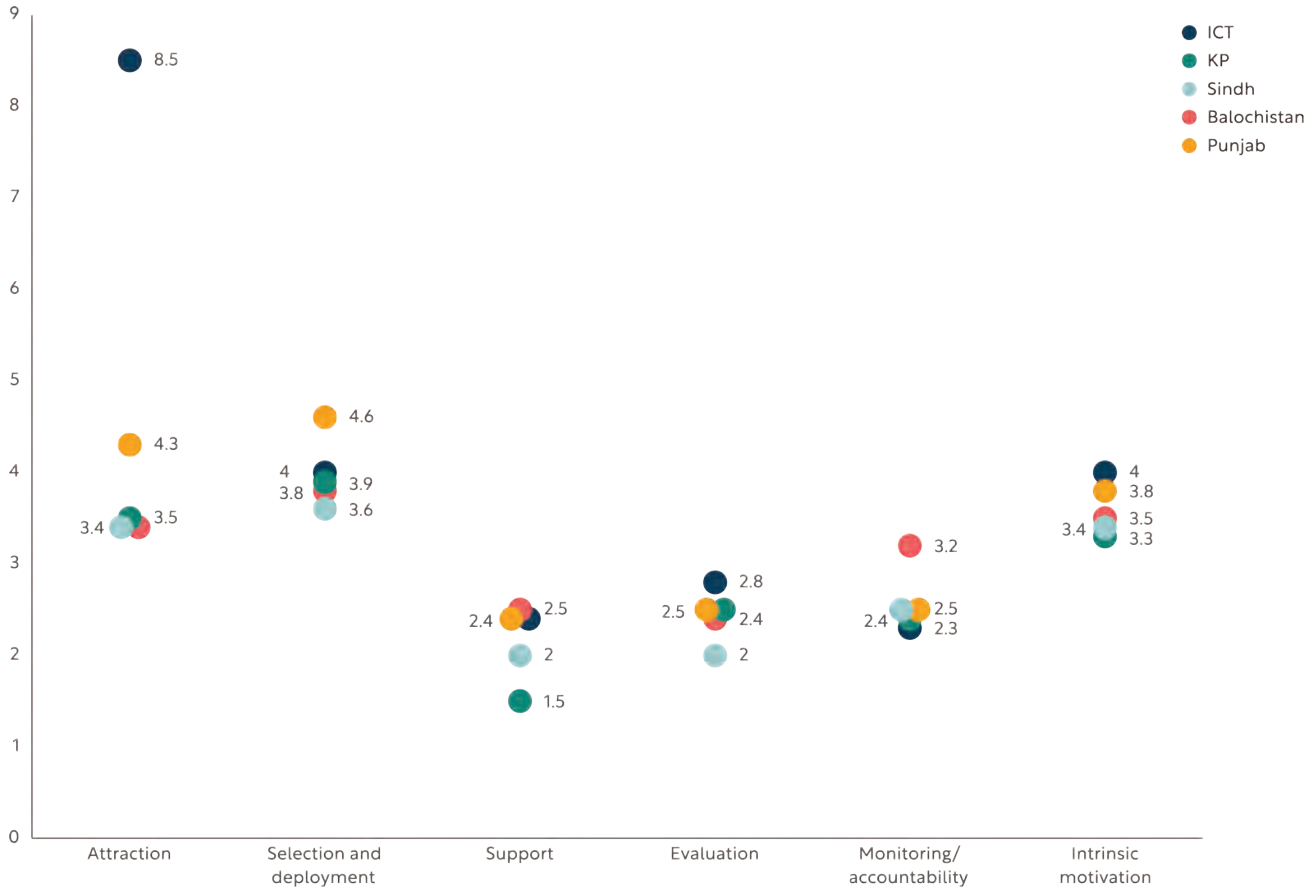
Table 5.1. *Share of teachers showing good pedagogical practices in Punjab, by type of school, 2019*

Good practices	Public	Private and PPPs (average)
Classroom culture	**82**	**76**
Supportive learning environment	70	61
Setting positive behavioral expectations	36	29
Providing equal opportunities to learn	89	89
Instruction	**7**	**4**
Lesson facilitation	28	11
Checking for understanding	11	6
Providing feedback	14	11
Critical thinking	3	2

Source: SABER SDI, Punjab 2019.
Note: Two forms of practice were measured: classroom culture and instruction. For classroom culture, 89% of the teachers in public and private schools and PPPs demonstrated strength in providing equal opportunities for children to learn. Overall, approximately 66% of teachers (70% of teachers in public schools and 61% in private schools) fostered a supportive learning environment. For instruction, overall, 13% of teachers provided feedback to students while 9% of teachers checked their students for understanding.

The data reveal similarities and differences across provinces in their teacher policies. For example, teacher support in all provinces is low, though teachers are generally quite motivated (Figure 5.5). In addition, the Islamabad Capital Territory (ICT) is significantly stronger in attracting teachers than Balochistan or Sindh (see Figure 5.5). A key factor impacting teacher effectiveness, and therefore the allocation of resources, is the observed lack of practice in the classroom. In ICT, a mere 18% of teachers have had in-classroom practice, and from within this group, only 28% had undergone any in-service teacher training, with just a part of their training being executed in the classroom. To enhance both the effectiveness and efficiency of funds dedicated to teachers, more practical, classroom-based support is needed. Given that the ICT is among the most advanced education systems and one of the smaller ones, it is not necessarily representative of the entire country. However, the provincewide data show that ICT is not actually scoring much higher than the other provinces (except in attracting teachers), reinforcing the fact that greater attention is needed for teacher policies and their implementation.

Figure 5.5. *Score for teachers' policies, by region*

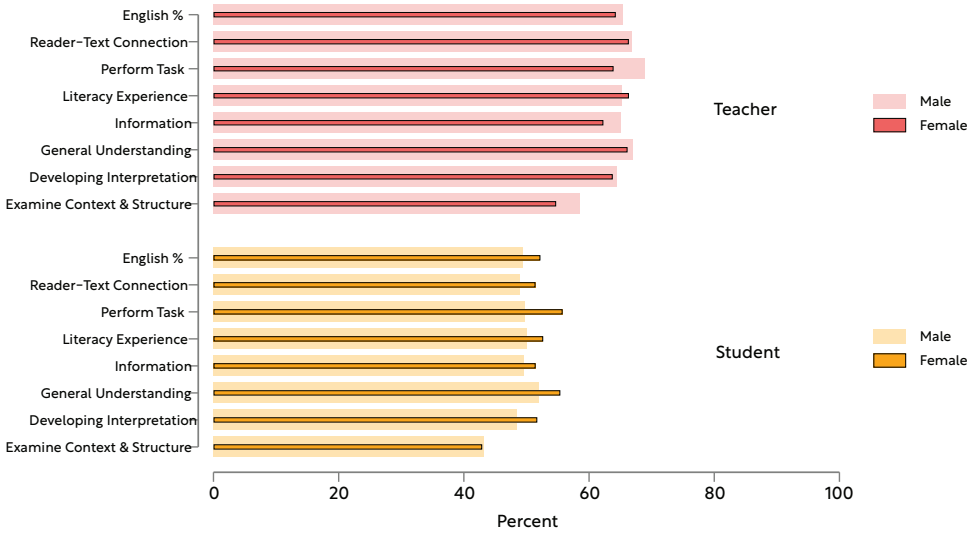


Source: Authors' calculations based on Global Education Policy Dashboard 2023.
Note: The evaluation of policies in the Islamabad Capital Territory (ICT) reveals that the selection and deployment aspects receive a satisfactory rating of 4.1 out of 5.0. However, there is room for substantial enhancement in teacher support and monitoring, both of which scored only 2.7 and 2.3 out of 5.0, respectively.

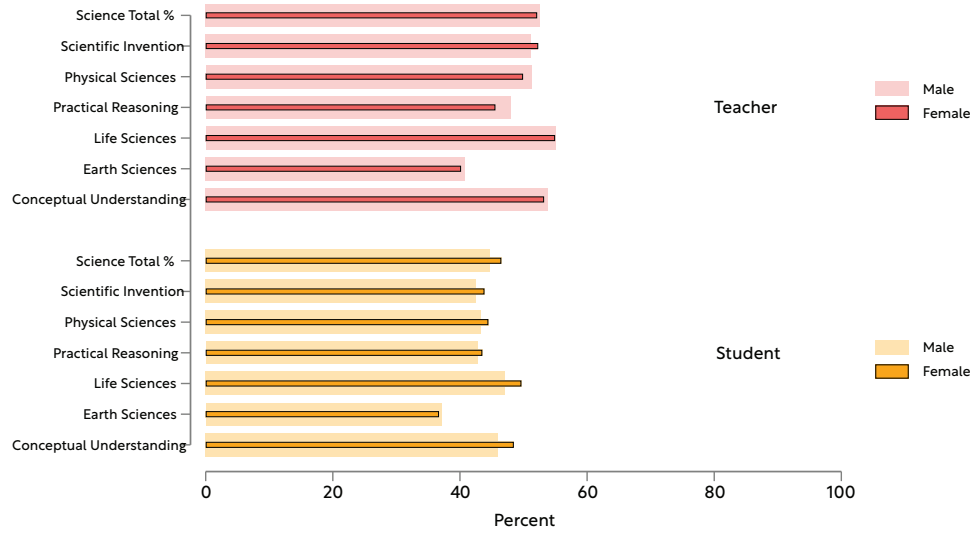
Another aspect to consider when assessing teacher effectiveness is their content knowledge. Teacher content knowledge levels tend to be only slightly higher than their students for any gender and in all subjects (Figure 5.6). For teachers to adequately teach the content and help students develop necessary skills, they are expected to have complete mastery of the content they are teaching. Data from the ICT confirm that teacher content knowledge is low; only 4.9% of teachers are proficient in their teaching content. The low levels of content knowledge of teachers underscore the challenges of improving teacher effectiveness.

Figure 5.6. *Content knowledge of teachers is low*

(a) English score



(b) Science score



Source: National Assessment Test 2019.
Note: National Assessment Test (NAT) employs the same assessment tool for both teachers and students. Teachers exhibit comparable levels of content knowledge to their students, which sheds light on the challenges they face in fully comprehending the subjects they teach. This trend holds true across all genders and subjects, with teacher knowledge closely mirroring that of their students, albeit slightly higher. In the context of English scores, teachers score around 60% to 65%, while students score 45% to 55%. A similar pattern emerges for science scores, with the gap between teachers and students being even narrower.

Teachers' salary is also a factor to consider in improving teachers' effectiveness. On average, public school teachers earn slightly more than any other category.[7] By education level, for instance, in Sindh, primary school teachers earn about 0.8 times the average salary, whereas secondary school subject-specialist teachers earn 1.8 times the average salary. In Punjab, teachers in rural schools earn less than their counterparts in urban schools. Teachers in Balochistan earn 9.2 times per capita income (as of 2015), while teachers in Punjab earn 5.5 times per capita income. Importantly, private school teachers earn between one-eighth and one-half of what public school teachers earn.[8]

> *"The study also highlights the misalignment that exists between teacher pay (finance) and incentives to teach (motivation). Government teachers are highly paid, with the stated goal of attracting talent, but there are few intrinsic or extrinsic motivators to teach well. The study concludes that high salaries have done little to motivate teachers in the absence of concomitant changes to school culture and teacher career ladders."*
>
> *–RISE Diagnostic Tool, Balochistan 2022*

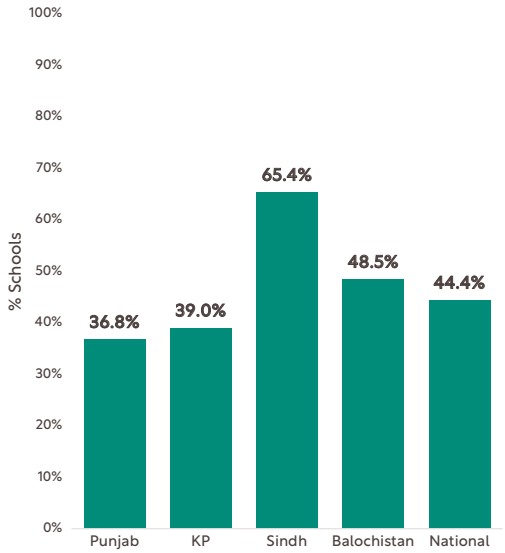
This quote highlights the need to think about the teaching profession and management holistically, including all aspects of selection, support, assessment, and incentives, among others. Only providing better salaries is not enough to motivate and support teachers.[9] Policies should help get teachers' intrinsic motivation at play (their internal drive for satisfaction, or interest it brings), and also provide extrinsic motivation (salaries, promotions, accountability, support).

Multigrade teaching and classrooms

In Pakistan, despite not being recognized officially as a pedagogical approach, multigrade teaching, where two or more grades are taught within a single classroom, is prevalent in many public schools. Schools adopt multigrade classrooms in response to low enrollment in certain grades, teacher attrition, and/or limited availability of classrooms.[10] While often necessary, it is not acknowledged as an official pedagogical practice. During preservice training, teachers are not given the pedagogical training and practice needed to effectively prepare multigrade lessons and assessments, nor manage multigrade classrooms. During in-service training, teachers learn how to teach in monograde curricular standards, but in actuality, in their classrooms, they operate in multigrade situations for which they do not have the adequate tools. Unplanned for multigrade classrooms result in poor working conditions for teachers and lower learning outcomes among students.[11]

Given the unofficial nature of multigrade classrooms, the education system does not consistently report on its existence. However, an estimate of multigrade prevalence can be calculated from available data by quantifying the percentage of schools where grade 2 students were reported to be sharing classrooms with students from other grades.[12] Data from 2011 shows multigrade classrooms in 44% of all public schools in Pakistan, with Sindh showing up to 65% of schools with multigrade classrooms (Figure 5.7). Data from 2022 estimates multigrade prevalence in rural and urban settings at 40%.[13]

***Figure 5.7.** Multigrade classrooms: Grade 2 students sitting with other grades, 2011*



Source: ASER Pakistan 2011.
Note: Multigrade classrooms are measured using the percentage of grade 2 students that are sharing classrooms with students from other grades. Data reveal that 44.4% of public schools nationally have multigrade classrooms. Disaggregated by province, Sindh has the largest percentage of public schools with multigrade learning.

In Pakistan, teachers lack institutional and system-level support needed to effectively facilitate multigrade learning. Policy makers' failure to effectively plan for many public schools' multigrade realities by, among other things, offering teachers the preservice and in-service training to effectively teach, manage, and assess students in multigrade classrooms makes this necessary situation less successful than it might be. Improvements will only happen if policy makers recognize true multigrade education as a viable and official means to organize and manage service delivery in some parts of the country.

Escuela Nueva (EN) offers several lessons in creating the conditions for teachers and students to optimize multigrade learning environments. The earliest multigrade reform in Latin America, EN, was piloted in Colombia in 1975. It has since been successfully adopted in Chile, Guatemala, and Viet Nam, among other countries.[14] While each country has adapted EN to fit the districts within which it is being implemented, they share several characteristics: (1) teachers receive adequate training to teach in multigrade environments; (2) teachers and students are given instructional materials and textbooks designed for classrooms in which the teacher does not teach all students and grades at the same time; (3) students are seen as active participants in the learning process, and encouraged to work independently and creatively toward specified learning goals; and (4) multigrade teachers are provided opportunities for professional interaction with colleagues in other schools. Viet Nam successfully expanded EN to all districts, using a cascade approach to efficiently and cost-effectively train teachers to facilitate multigrade learning.[15]

Children's school readiness

Are children in Pakistan adequately prepared for learning when they begin attending school? In parallel with a robust supply of educational services to run an efficient education system, it is essential that children are prepared for learning. This readiness, known as "school readiness," is a key driver of learning outcomes.

A key indicator of school readiness is the enrollment rate in early childhood education (ECE). Ample evidence indicates that, especially among children from the lowest socioeconomic levels, quality ECE programs are key to school readiness because they can support young children in developing the early social and preliteracy and prenumeracy skills needed to succeed in primary school and beyond. **Data from the national** phone survey conducted in **2021–2022 in Pakistan** shows that more than 1 in 2 parents failed to provide engagement that promotes their child's psychosocial development at home.[16]

Whether based in schools or homes, early childhood education (ECE) is an important tool to enhance education equity. Data indicate that investments made early in a child's life cycle are the most cost-effective and yield the greatest returns in human capital and well-being over the course of his/her life.[17] Data from a citizen-led household survey conducted in Pakistan in 2021 reveal that ECE enrollment stood at only 38% for children ages 3 to 5 in rural areas and 47% in urban areas, with an 8% dropout rate.[18] Among the four provinces, Sindh and Balochistan reported the lowest enrollment rates, at 30%. The survey also painted a sobering picture of school readiness based on preliteracy and prenumeracy indicators. Results show that in rural areas of Balochistan and Sindh, 76% and 63% of children, respectively, scored lowest in school readiness, compared to 56% and 57% in KP and Punjab, respectively.[19] Therefore, enhancing school readiness as children enter primary school is an immediate challenge that, if addressed, could make investments in primary education more effective and efficient. Since big investments in ECE might be prohibitively expensive in the current economic environment, home-based parenting interventions could be an alternative to help parents support their children develop preliteracy and prenumeracy skills, as well as socioemotional and motor skills.

Language of instruction

Children learn more and are more likely to remain in school if they are first taught in a language they speak and understand. In many countries such as Pakistan children are required to learn in a language different from their mother tongue, putting children, especially the poorest, at a significant disadvantage throughout their schooling. When the instruction language is not the children's first language, it takes them longer to acquire foundational skills. This is a reason why many countries have very low learning levels.

In Pakistan, the main languages of instruction are usually English and Urdu. However, most children probably do not understand those languages in early grades as they are not exposed to them regularly at home. It is not effective to use Urdu and English as the main languages of instruction to teach children early literacy skills when few children are familiar with these languages (Table 5.2).[20] In Balochistan, most people speak Balochi and Pashto at home; in KP the main language is Pashto; in Sindh, they speak Sindhi and Urdu; and in Punjab, the main languages are Punjabi, Saraiki, and Urdu. It would be more effective and efficient for local languages to be used in schools, especially in ECE. Pakistani scholars have called for policy practices for language instruction that are carefully planned and informed by local conditions and requirements for better implementation.[21]

Table 5.2. Language used at home, by province (% of households)

Province	Urdu	Punjabi	Pashto	Sindhi	Saraiki	Balochi	Hindko	Other
Balochistan	3.8	1.4	29.1	12.5	3.7	37.1	0.9	11.5
KP	5.6	4.9	70.1	0.3	6.0	0.1	8.6	4.3
Punjab	14.2	57.9	1.9	0.6	22.5	0.8	1.0	1.2
Sindh	32.8	7.0	3.5	43.2	7.2	3.4	0.5	2.6
Pakistan	*16.5*	*33.0*	*15.3*	*10.8*	*14.6*	*3.4*	*2.7*	*3.7*

Source: Authors' calculations based on a phone survey of 4,000 families with children of school age, 2023.
Note: The 2017 Census of Pakistan calculated similar statistics that are well captured by a phone survey.

Some principles for language of instruction could help accelerate language acquisition[22]: (1) teach children in their first language through at least the first six years of primary schooling; (2) use a student's first language for instruction in academic subjects beyond reading and writing; (3) if students are to learn a second language in primary school, introduce it as a foreign language with an initial focus on oral language skills; (4) continue first-language instruction even after a second language becomes the principal language of instruction; and (5) continuously plan, develop, adapt, and improve the implementation of the language of instruction policies in line with country contexts and educational goals.

The Citizens Foundation, the largest provider of private schooling for the poor in Pakistan, has developed and used with great success, a similar approach to introduce Urdu and English, starting from Sindhi (and similar languages) for children who usually speak Sindhi at home.[23] During the Single National Curriculum discussions, the importance of mother tongue as an entry point to Urdu and English was emphasized.

Developing and implementing new policies on language of instruction will accelerate the acquisition of reading and writing skills for children and improve the efficiency of existing resources in the system. Local experiences with first-language instruction exist, and there is a policy framework in place to better prepare and transition children from their local language(s) into second-language instruction in Urdu or English.

RECOMMENDATIONS

MANAGEMENT & COORDINATION

Enhanced sector management and coordination could improve services and the efficiency of public sector spending.

After a decade of devolution to the provinces, it is important to understand how the education system has evolved. Several issues have become apparent. Inefficient teacher distribution and deployment, poorly implemented de facto multigrade teaching in many schools, lack of targeted budgetary allocations, and duplication of efforts at both provincial and federal levels result in low levels of investment efficacy, and failure to provide high-quality services for children and their families. Often, teachers, districts, and government departments lack the capacity, authority, and incentives to align their actions toward a system that ensures quality education. This situation often results in teachers continuously seeking transfers, often without adequate support and becoming victims of political patronage. Additionally, overcrowded, understaffed schools and those in low-density areas resort to poorly executed multigrade teaching methods, and budgets are not tailored to bolster system improvements. To address these issues, Pakistan must prioritize improving the management and execution of policies related to significant budget portions that impact many children. This can be achieved by reevaluating teacher management policies, refining multigrade teaching approaches, building the capacity of district and provincial officials for planning and quality assurance, and fostering better coordination among education departments, literacy units, education foundations, and legacy federal departments from the pre-18th Amendment of the Constitution, while ensuring streamlined implementation. While Pakistan possesses considerable experience in education reform, there is room to deepen coordination among provinces for rapid, scalable solutions and knowledge sharing to tackle these challenges.

Better management of the system will ensure teachers are more effectively supported to increase education outcomes, increasing the efficiency of the entire education system.

SECTION NOTES

1 The Economist (2018).
2 Kakar, Saleem, and Sarwar (2022).
3 Gershberg and Spindelman (2023); Ross-Larson, Caponio, and Crumplar (2022).
4 Center of Gender and Policy Studies (2022).
5 Government of Pakistan (2018).
6 PBS (2020).
7 Béteille et al. (2020).
8 Ibid.
9 Béteille and Evans (2021); World Bank (2013).
10 ISAPS (2019).
11 Little (2004); Government of Balochistan (2022).
12 Mansoor (2011).
13 ASER Pakistan (2022b).
14 Colvert et al. (1993); Craig, Kraft, and Du Plessis (1998); Reimers (2000); World Bank (2019b).
15 World Bank (2019b).
16 Hentschel et al. (2023).
17 Melhuish (2014).
18 ASER Pakistan (2022b).
19 ASER Pakistan (2022a).
20 PBS (2017b).
21 Ashraf, Turner, and Laar (2021)
22 World Bank (2021).
23 Naviwala (2019).

06

PARENTS & CIVIL SOCIETY

Families in Pakistan bear the brunt of educational expenditure in the country. Private expenditures comprise over 50% of total educational expenses, which include both public and private outlays in the country (Figure 6.1).

This contrasts with other countries in the South Asian region, such as India and Sri Lanka, where the corresponding figures are 40% and 45%, respectively. Under significant economic pressure, some families discontinue or refrain from sending their children to school. This situation gives rise to inequality, as higher-income families can invest more in education compared to their lower-income counterparts, diverting attention and accountability away from necessary improvements in public schools. Economic pressure in families can also exacerbate gender disparities in education. When faced with limited resources for education, families may choose to prioritize boys over girls for schooling, due to the inability to afford education for both.

KEY MESSAGE

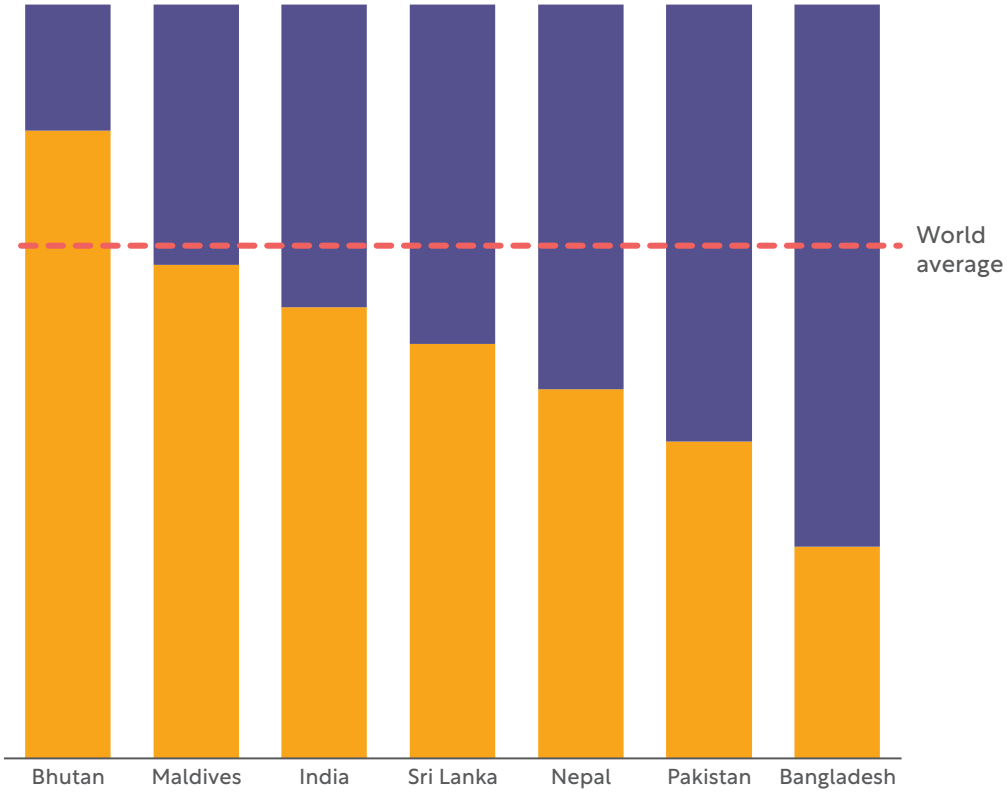
PARENTS & CIVIL SOCIETY

Empower parents and civil society with voice, support, and participatory mechanisms.

Parents have an intrinsic motivation to support their children's education. By actively involving them and recognizing their voice, this can act as a shield against inefficient and misguided decisions in the education system. However, the current level of engagement of parents and community stakeholders in Pakistan's budgetary decisions often falls short of expectations. Parents' concerns remain underrepresented despite their sacrifices, which include paying high out-of-pocket expenses for school-related costs such as uniforms, materials, lunches, transportation, and tuition for private schools (where they believe a better quality of education is offered). It is worth noting that, in many regions of Pakistan, the private sector has emerged as a dominant provider of education (See Box 3 on page 22). The absence of formal platforms that promote active participation, accountability, and collaboration with various governmental tiers creates a disconnect between the education system and the communities it serves. Such disconnection precipitates a lack of accountability, susceptibility to political influences, resource misallocation, and erosion of the social contract. To rectify this, it is essential to engage and empower parents, teachers, and civil society organizations, ensuring that the education system resonates more with local values and needs. By introducing open platforms for parents and other stakeholders to actively participate, such as in the formation of participatory budgets and other accountability mechanisms, and building their capacity, Pakistan can foster a more transparent discussion on budgetary priorities, allocations, and implementation.

Parents of school-age children consistently ranked education as one of the main issues facing the country, but only 2 out of 10 parents are highly satisfied with the state of education in Pakistan, according to the phone survey carried out for this report.

Figure 6.1. *Pakistani families' spending on education, compared to other countries of South Asia and the world average*



Source: GEMR 2021.
Note: Private expenditures comprise over 50% of total educational expenses. In India and Sri Lanka, the corresponding figures are 40 and 45%.

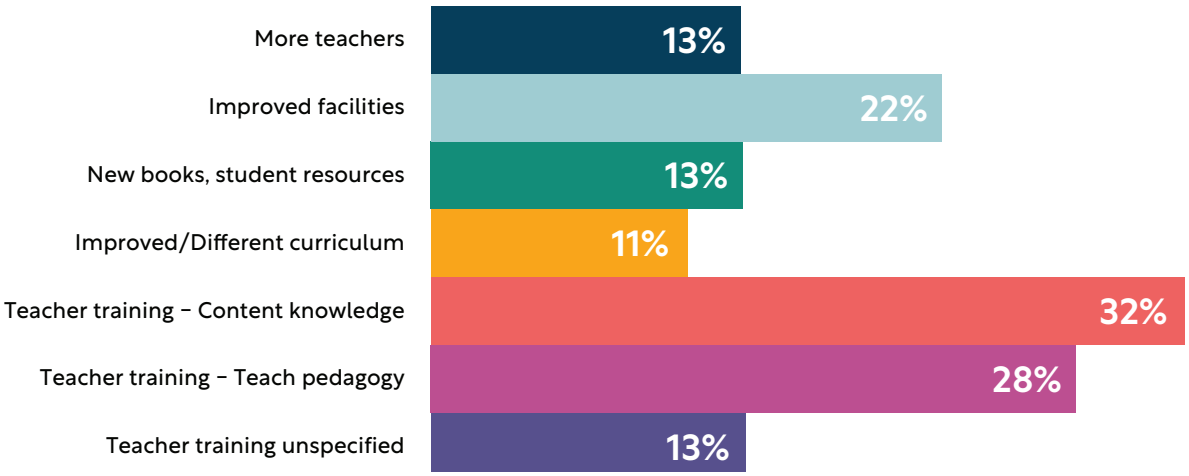
Parents can also have a transformative role in the education of their children beyond heavily investing in their education. They can have a profound impact on their children's academic success, by actively supporting their children's education at home and selecting the school their children will attend. Parents can serve as advocates, ensuring that the education system remains responsive to their children's needs. They can influence the allocation of resources, pushing for adequate funding for well-equipped classrooms and quality teaching materials. They can actively engage with schools, teachers, and administrators to create supportive environments for their children. They can also participate in decision-making discussions, such as in school management committees and advocacy groups, to influence education policy that will impact their children. Education systems can benefit from considering parents' views in policy discussions and providing platforms for their participation and influence.

To consider parents' views, this report draws upon a nationally representative phone survey of parents of school-age children. This phone survey was conducted in March 2023, and 5,249 families with children ages 5 to 17 were interviewed. Overall, among the households that participated in the survey, 95.5% of the children were currently enrolled in school; with slightly more boys (95.5%) enrolled than girls (93.5%). The survey results have been adjusted for parents with lower incomes, who generally do not own a mobile phone, offering an imperfect but still very important snapshot of parents' views on education.

According to the survey, parents ranked education and health as among the top issues of concern in Pakistan. The survey shows parents' ranking of the top three most important issues facing the country today (from left to right column). When asked to identify the top three issues, parents consistently ranked education and health behind inflation and poverty. Among the respondents, 6% considered education to be the top concern, while 51% ranked inflation as the biggest problem. When asked to rate their satisfaction with the state of education in Pakistan today on a scale of 1 to 10, only 20% of parents responded that they were completely satisfied with their children's education.

Parents generally believed that schools have the necessary resources to provide children with an adequate education but emphasized the need for increased teacher support and better infrastructure. Approximately 68% of respondents indicated that they either strongly agree or agree that schools and teachers have the necessary resources to deliver a good education, irrespective of the child's gender. However, parents identified the following areas as needing improvement to ensure quality teaching: teacher training in content knowledge and pedagogical approaches (60%), and school facilities (22%) (Figure 6.2).

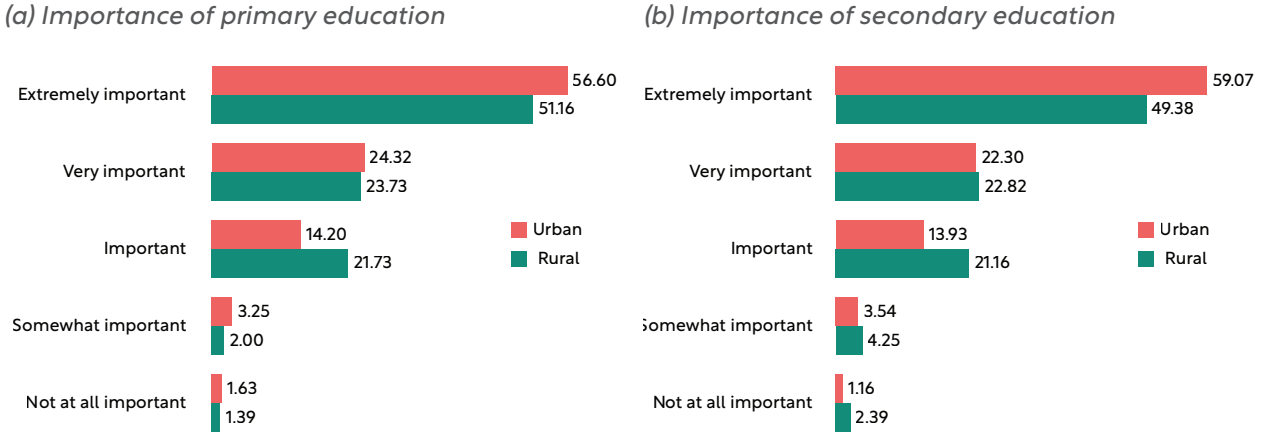
Figure 6.2. *Additional resources that schools need to improve education*



Source: Authors' calculation based on a phone survey.
Note: Respondents were asked, "What additional resources are required for schools/teachers to provide adequate education?", and they were allowed to list as many options as they liked. Enumerators then categorized the responses. Most of the responses considered enhancing teacher training in content knowledge and pedagogy as an important additional resource (60%) that schools needed to improve education.

Parents placed a high priority on their children's educational attainment. When asked how important completing primary or secondary schooling is for their child's future, approximately 75% of parents said it is extremely or very important. At each education level, over 50% of the respondents ranked completion as extremely important (Figure 6.3). While urban and rural households largely agreed that primary attainment is a high priority for their child's future, parents in urban areas were 10 percentage points more likely than rural parents to view upper secondary completion as extremely important (Figure 6.3b). Parents expressed similar views regarding the importance of completing tertiary (university) education. However, the data (not shown) indicated that parents in urban areas (75%), compared to rural areas, are more likely to consider tertiary education important for their children's future. Regardless of whether parents had the economic capacity to support their child to attain higher levels of education, they viewed education as a pathway to a better future for their child.

Figure 6.3. *Parental views on the importance of primary and secondary education, by area*

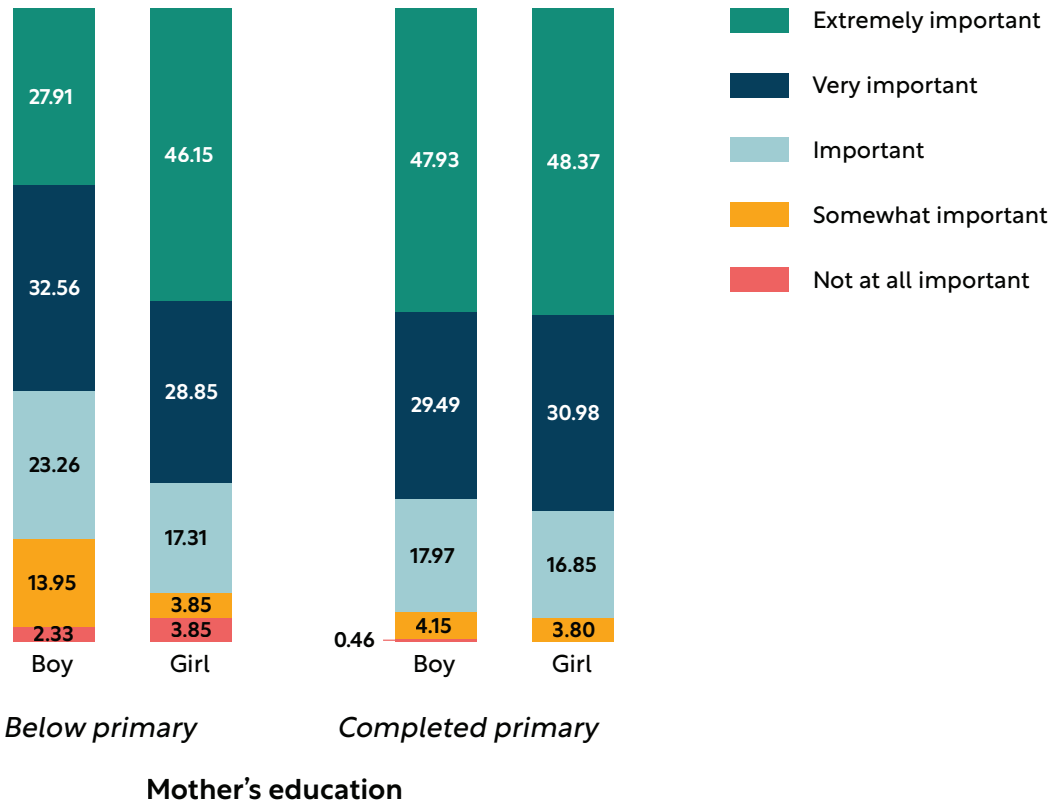


Source: Authors' calculation based on a phone survey.
Note: Respondents were asked the following two questions: "In your opinion, how important for [child name]'s future is it that [child gender – he/she] completes higher secondary school education (through grade 12)?"; and "In your opinion, how important for [child name]'s future is it that [child gender – he/she] completes higher secondary school education (through grade 12)?". Response options were as follows: not at all important, somewhat important, important, very important, or extremely important. Approximately 75% parents in both rural and urban areas agreed that primary and secondary education are extremely important and very important for their child. More urban area parents than rural area parents emphasized this importance of education.

Parents expressed a strong view for both their boys and girls to complete school. Across all education levels, the importance parents placed on their child's education appears to be largely independent of the child's gender. More than 50% of parents reported that educating both boys and girls is extremely important. However, a slightly larger proportion of parents viewed boys' education as extremely important compared to girls' education, with differences varying by education level. The maximum discrepancy observed a difference of 6 percentage points at the primary education level. A similar preference was seen at the higher education level, with parents placing slightly more importance on their boys rather than their girls. This difference may have resulted from factors other than gender. Factors such as security, safe transportation, costs, and distance to school can drive a wedge between parents' expressed views and their actions.

Mothers with less education, particularly those who did not complete primary education, expressed a strong desire for their girls to complete school. Almost 50% of mothers who responded to the survey said it was extremely important for their daughters to complete primary education, in contrast to only 28% who said the same for their sons (Figure 6.4). These responses were similar to the responses of mothers who had completed primary education. When it comes to secondary school, mothers with less education assigned more importance to the completion of school of their daughters than their sons, with 78% versus 64% of these mothers viewing education as either extremely important or very important for their child's future. These views seem more prevalent among less educated mothers whose children attend public schools. Among these mothers, 57% viewed it as extremely important for their daughters to finish primary education, compared to only 27% for their sons. Similar trends continued at secondary and higher education levels. Among less educated mothers whose children attended public schools, 50% deemed the completion of secondary school for their daughters as extremely important, compared to just 38% for their sons.

Figure 6.4. *Parental views on the importance of primary education, by mother's education level and child's gender*

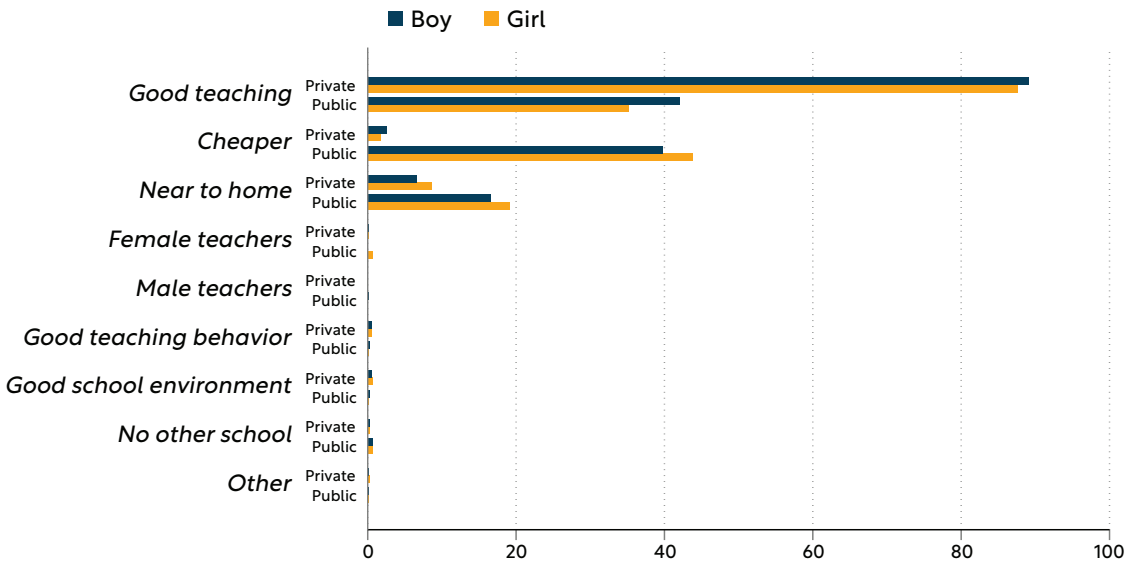


Source: Authors' calculation based on the national phone survey.
Note: Respondents were asked, "How important they felt it was for their son or daughter to complete primary education?" Response options were as follows: not at all important, somewhat important, important, very important, or extremely important. Mothers with less than primary education expressed a strong desire for their girls to complete primary education. Approximately 75% of mothers wanted their girls to complete primary education while 50% of mothers said they wanted their boys to complete it. Mothers who had completed primary school indicated that they wanted both their sons and daughters to complete their primary education.

Families placed great emphasis on education quality. A hypothetical scenario was posed in the survey, asking parents to consider their willingness to face trade-offs to provide better education to their children. The survey asked parents to choose between two schools: School A, which is closer to home (a 10-minute commute) but of low quality (only 50% of children know how to read), or School B, which is farther away (a 20-minute commute) but of significantly higher quality (70% of children know how to read). When presented with this choice, a significant majority of parents prioritized educational quality over proximity. Among respondents, 74% of parents preferred to send their child on a longer commute to a school of higher quality. This finding is especially relevant considering one of the main constraints to education in Pakistan is the safety of school commutes and, in many instances, the distance to school, particularly in rural areas (Figure 6.5).[1] The data suggest that, given the right conditions, parents will prioritize higher-quality schools; they understand that close proximity of a school that would likely result in better school attendance is not sufficient for a quality education for their child. This sentiment was relatively consistent across responses from different family members, despite minor variations.

Household data confirmed the results of this hypothetical scenario, highlighting the importance of quality in school selection. For parents who sent their children to school, whether public or private, good teaching consistently ranked at the top of their decision-making criteria (Figure 6.5). This preference was especially pronounced among parents who opt for private schooling, with 90% citing good teaching as a key factor in their choice. In comparison, only about 40% of parents who sent their children to public school emphasized good teaching as a priority. Notably, the importance of good teaching varied by gender of the child, a subject that will be further explored later in the report.

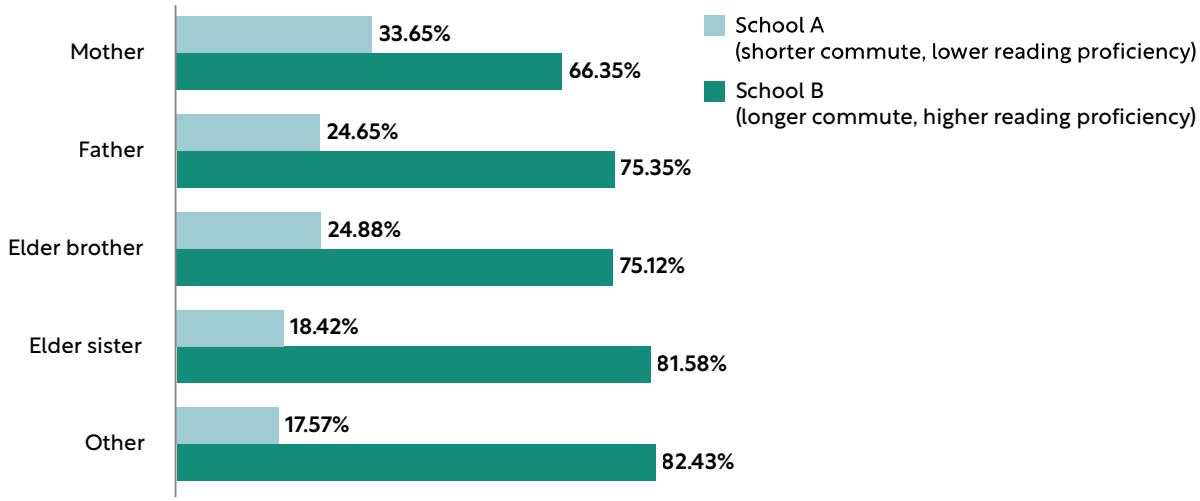
Figure 6.5. ***Good teaching is important for parents' decisions about their children's education (% of parents)***



Source: Authors' calculation based on HIES 2018/19.
Note: Respondents were asked, "Why did enroll in this school/institution?". Parents indicated good teaching as a top priority, especially among parents who selected private schools (90%), compared to public school parents (40%). The importance parents placed on good teaching varied according to their child's gender. The difference between boys and girls is similar for those opting for private schools while for public schools, the gap increases in favor of boys.

While parents valued learning, many found themselves unable to support their children's learning at home. Literacy is a crucial objective for any education system, forming the basis for effective lifelong learning and the development of human capital. However, in Pakistan, around 42% of adults (those ages 15 and older) are illiterate,[2] and 75% to 79% of 10-year-olds are in a state of "learning poverty,"[3] which means that by age 10, a child is unable to read and understand an age-appropriate paragraph. In the survey sample, nearly 20% of mothers and 25% of fathers had not completed primary school. Under 33% of parents with children under the age of eight reported spending at least 15 minutes daily reading aloud to their children. Over 14% of households responded that they did not own any children's print books, while the largest portion, 42%, owned between one and nine books.

Figure 6.6. ***Would parents send their children to a further away school if it provides better education? (by relation to the child)***



Source: Authors' calculation based on the national phone survey.
Note: Respondents were asked, "Imagine you are choosing between two new schools for [child name], School A and School B, which cost the same. School A is a 10-minute commute with 50% of students proficient at reading. School B is a 20-minute commute with 70% of students proficient at reading. Which school would you choose for [child name]?" Response choices included one or the other, but not both, of the schools. Respondents included mothers, fathers, brothers, and sisters. Among the mothers who responded, 66% chose school B over school A, indicating that mothers are more likely than fathers to send their child to a better school regardless of the distance.

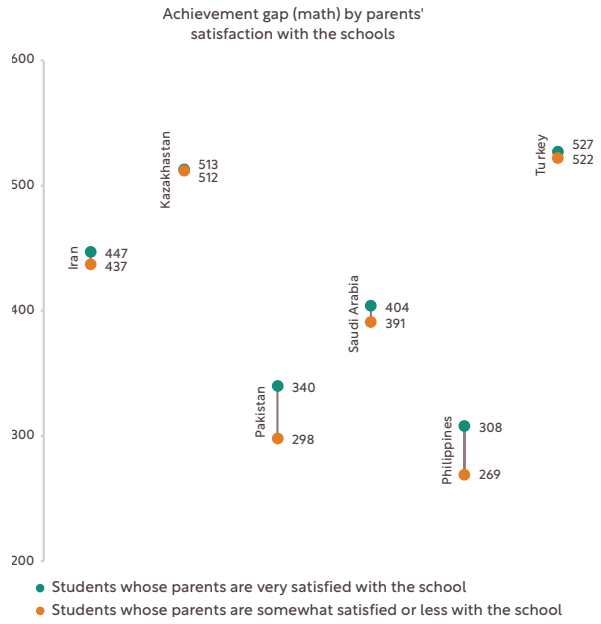
The findings of a phone survey provided an informative sample of parents' views for education policy and their children's experience with its practice. The survey indicated that regardless of their educational attainment, Pakistani parents highly valued their children's education, emphasizing quality schooling over proximity and acknowledging education as a key to their children's school performance and their future. However, it also showed that parents faced hurdles in realizing their aspirations for their children's education, with many parents struggling to support their children's home learning due to systemic issues such as illiteracy and learning poverty. Findings provide context for the broader systemic and societal challenges parents face in attaining a quality education for their children; there are direct and indirect costs of education, poverty, safety concerns, distance to schools, and gender norms that may hinder parents' ability to convert their positive attitudes about education into tangible educational opportunities for their children.

Parents' satisfaction with schools play a significant role in student learning in Pakistan. This is exemplified in the 2019 Trends in International Mathematics and Science Study (TIMSS) assessment in which Pakistan participated. Children whose parents were highly satisfied with their schools scored 42 points higher in math and 49 points higher in science, compared to children whose parents were only somewhat satisfied or less (Figure 6.7).

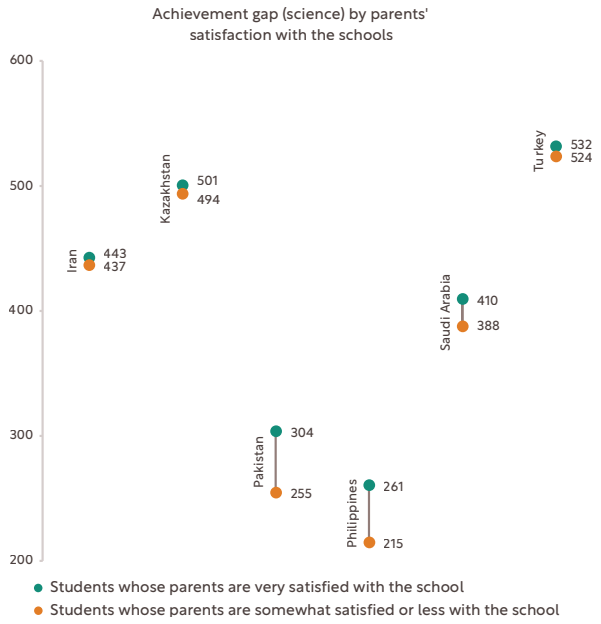
While this data represent a correlation, it is crucial to recognize that satisfied parents are more likely to engage with the school, seek out superior educational activities for their children, and contribute to improved learning environments. In essence, parental involvement in and their perspectives on their children's schooling matter; parents not only influence their children's participation in school but also their learning outcomes.

Figure 6.7. *Parents' satisfaction with school matters for student learning*

(a) Achievement gap by parents' satisfaction with the schools (math)



(b) Achievement gap by parents' satisfaction with the schools (science)



Source: Authors' calculation based on the 2019 TIMSS International Assessment.
Note: In the 2019 Trends in International Mathematics and Science Study (TIMSS) assessment, Pakistani parents who were satisfied with their child's school showed better educational outcomes versus those who were not. In mathematics, the children of satisfied parents scored 42 points higher in mathematics and 49 points higher in science.

Given the significance of parental involvement in their children's education, there exists an untapped potential for them to contribute to improvements in the education system more broadly. The role of parents extends beyond mere interactions with their children's schools. They can influence broader system-level aspects, including budget decisions of education departments, provincial budget allocations for education. They can also ensure social accountability in terms of allocation, execution, prioritization, and targeting.

Bringing government and citizens together for better budgeting in education

Considering the challenges in budgeting, participation, and resource allocation, two methodologies could assist provincial decision-makers in aligning better with the aspirations of their constituents and their children: social accountability and participatory budgeting (PB) practices.

Social accountability

Social accountability is an approach that fosters accountability through civic engagement involving public and civil society organizations. In the context of the public sector, it involves various actions and mechanisms that citizens and local groups can use to hold public systems accountable regarding education sector budgeting. These measures include participatory budgeting, public expenditure tracking, monitoring public service delivery, and citizen associations. These efforts complement internal mechanisms of accountability already implemented in the public sector.[4]

Implementing participatory approaches entail effective organization, social dialogue, and strategic public engagement.[5] Citizens and local groups participate in decision-making processes and advocate for policies in the public interest, whereby governments can enhance participation and increase transparency over budgeting processes.[6] To enhance participation, countries have also developed guides and enhanced the capacity of civil organizations to understand the budgeting process to guarantee citizens' active participation.[7]

Budget transparency and social accountability tend to be weak in countries with high poverty levels, increasing inequalities, and where there exist prevalent rent-seeking behavior or political patronage.[8] However, in many developing contexts, citizens' associations have been advocating for platforms for increased public participation in budgeting processes and decision-making.

(1) ***Brazil.*** Instituto Brasileiro de Análises Sociais e Económicas (Ibase) is a budget program with the aim to promote active citizenship. It was established in 1990 after the country's return to democracy, and its mission is to focus on building citizens' capacity, analyzing budget information, and using this information to engage with central and local governments.

(2) ***Croatia.*** The Institute of Public Finance (IPF) is a publicly funded research organization, transformed from a tax-focused organization to a regional and international research network in public finance. It maintains an academic focus but collaborates with policy makers and media to widely disseminate budget and policy information.

(3) ***Dominican Republic.*** The Socio-Educational Forum (FSE) is a network of civil society organizations (CSOs) that have come together to put forward policy proposals pertaining to public expenditures in education. The FSE launched the Ministry of Education Budget Monitoring Watch in 2010, and it continues to involve civil society in ensuring fair public investment in education through this tool. The tool enhances transparency by strengthening civil society's role in social audit processes and monitoring education plans and budgets.[9] FSE has also mobilized public opinion to demand and achieve an increase of public investment in education from 2.3% to 4.0% of GDP.

(4) ***India.*** The Development Initiatives for Social and Human Action (DISHA) empowers marginalized communities through budget analysis to demand

resources and services from the state government. It trains other Indian NGOs in budget work, inspiring budget groups in other states to improve government accountability.

(5) ***Mexico.*** The Center for Research and Analysis (FUNDAR) prioritizes budget analysis to promote social justice and human rights. It also monitors public funds in areas vulnerable to health risks.

(6) ***South Africa.*** The Budget Information Service (BIS), as part of the Institute for Democracy in South Africa (IDASA), monitors the government's transition toward inclusion and democracy through applied budget work. It has a strong reputation for fact-based analysis in various budget areas, supporting budget groups in Sub-Saharan Africa through the Africa Budget Project.

(7) ***Uganda.*** Uganda Debt Network (UDN), originally a debt relief campaign, has evolved into an NGO conducting budget analysis, advocacy, and anti-corruption efforts in Uganda. conducting budget analysis, advocacy, and anti-corruption efforts in Uganda. It effectively uses media to disseminate findings, campaigns for better governance, and coordinates civil society groups to influence government policies.[10]

Despite persistent challenges in capacity building within civil society, Pakistan stands to gain from involving local education groups in shaping public expenditure policies. A structured approach at district and provincial levels would enable local groups and CSOs to advocate for increased financing. Consistent cross-sectoral partnerships can mobilize stakeholders around ongoing budgetary processes, thus promoting social accountability and budgetary transparency. This can ensure efficient resource allocation in Pakistan's public education sector across districts and provinces. Leveraging the strong technical expertise of Pakistani universities can help facilitate citizens' understanding and analysis of budget proposals, execution, and decision-making processes.

Participatory budgeting practices

Participatory budgeting (PB) is a process that allows citizens to participate directly in deciding how public funds are allocated within a government.[11] Through this type of budgeting model, citizens and local groups are empowered to deliberate and sometimes have discretion over the allocation of public resources, whereas governments can curb inefficiencies while maintaining accountability and transparency. In 1988, it was used successfully in Brazil, and subsequently it has appeared to be a common practice in multiple high- and low-income countries in Asia, North America, Latin America, Africa, and Europe.[12]

PB has proven to be beneficial for governments at various levels of service delivery, fostering innovation in democracy as well as local development. Research suggests that PB can lead to increased civic and community engagement, greater social capital, and improved educational outcomes for learners while facilitating greater public participation and local agendas.[13] It also reinforces inclusive governance as it can help address power imbalances and promote social justice by providing politically marginalized and disadvantaged communities with a higher representation in public decision-making.[14] This results in equitable spending that focusing on areas where gaps remain under conventional budgeting procedures. PB allows governments to respond to the needs of their citizens and enhance service delivery efficiently and cost-effectively.

Implementing PB practices in education requires strong leadership, effective social dialogue, and sustained community engagement.[15] PB in education involves engaging stakeholders, such as students, parents, teachers, community members, and local education groups, in decision-making around the allocation and provision of education budgets. In the case of Brazil, a municipality study of São Paulo suggests that the transfer of education resources from the central to local government levels ensured that 25% of municipal resources were reserved for primary education[16]. The overall investments in the education sector also resulted in the provision of funds to the districts with the highest demand.

There are different levels of PB practices:

Consultative. Governments, usually local, but also including government departments, seek input or feedback from the public about the budget. This might involve public meetings or surveys. While the local government is not obliged to act on the public's suggestions, it provides opportunities for the public's voice to be heard.

Involved. Public engagement is included in the decision-making process. This could involve workshops or public forums where citizens can discuss budget priorities and make recommendations.

Collaborative. The public actively collaborates with the local government or government department to create the budget. This might involve a series of meetings or workshops where citizens can work with government officials to decide budget priorities.

Empowered. The local government commits to implementing the budget priorities decided upon by the public. This often involves a formal process where citizens propose, discuss, and vote on budget priorities.

PB requires public support from citizen groups and stakeholders who will actively engage in social dialogue, provide political insulation from legislative backlashes, and contribute financial resources that help fund citizen-led education initiatives. At the same time, PB can help build a new social contract between the state and its citizens, facilitating processes of decentralization.[17] Engaging in participatory budgeting heightens the local education stakeholders' perceptions of fairness in public decision-making. This further helps promote transparency, inclusivity, and deliberative practices in local governance and enhances the perceived legitimacy of public institutions. This model also creates space for politically excluded communities and districts and serves as a defense against political patronage and undue political influence. Regulating and supporting participatory budgeting practices can bring public institutions to listen to their citizens and transform those interactions into actionable budgets that reflect all citizens.[18]

In Pakistan, initiatives such as those led by the Omar Asghar Khan Foundation play a crucial role in involving citizens in the budgeting process. These initiatives empower citizens to engage with government decision-making and understand the impacts of these decisions on their lives and those of marginalized groups. The foundation works to build citizens' capacity to understand how public funds are managed, fostering transparency and accountability in government.

Expanding such initiatives and developing similar ones focused specifically on education can have an impact on efficiency. They can help public officials better identify opportunities to improve the quality and access to education. Moreover, these initiatives can protect the education sector from undue political influences by ensuring that budgetary decisions are made transparent and in the best interest of the community.

RECOMMENDATIONS

PARENTS & CIVIL SOCIETY

Empower parents and civil society with voice, support, and participatory mechanisms.

Testing and evaluation

Parents and civil society have a significant role in the Pakistan education system. Their involvement must be deepened with the support of the public sector to foster system improvement through participatory mechanisms. These platforms should not only bolster advocacy for parents and society but also grant them greater influence over budgetary decisions, turning advocacy into tangible action. A foundational step is ensuring national diagnostic student assessments occur regularly. The dissemination of these assessments should be paired with actionable implementation plans. The assessments can range from citizen-led to official government evaluations, and international assessments conducted every few years. Such routine checks can measure the progress of the education system and help develop improvement strategies that the public sector takes on. They can serve as a channel to convey to parents the significance of their voice and of their involvement with different levels of government and their children's learning at home.

Budgetary process

Analysis of budget proposals is an opportunity for collaboration among civil society, academia, and the public sector. Given that budgets tend to be lengthy and intricate, and considering that academics in Pakistan possess high technical expertise, they can assist in clarifying the goals, targets, and incentives behind budgetary proposals, facilitating a more expansive dialogue that could influence resource allocation effectively. These proposals can then be discussed with parent associations and other civil society groups. To maximize the benefits of this collaboration, platforms fostering government and civil society cooperation could be formally instituted. These might encompass citizen participatory budget processes at education departments and budgetary discussions at Local Education Group meetings. This approach would open avenues for the public sector to receive feedback and innovative ideas before finalizing budgets. After budgets receive approval, continued engagement with civil society can ensure resources are executed on time and can pave the way for potential collaboration with NGOs. Enhancing the capacity of communications and media to distill messaging on budgeting decisions for the average citizen can also help to empower families to be more engaged with budgetary processes.

Parents and civil society can play a big role in improving Pakistan's education system. They need more support to make a difference through their participation and engagement.

SECTION NOTES

1 Barón et al. (forthcoming).
2 According to World Bank and UIS data, the literacy rate of the total adult population (% of people ages 15 and above) in 2019 in Pakistan is 58%.
3 Ersado et al. (2023).
4 Forster, Malena, and Singh (2004).
5 Van de Walle and Nead (1995); Ginwright and Cammarota (2002).
6 Shah (2007); Wampler (2010).
7 OECD (2019).
8 De Renzio and Krafchik (2007).
9 CLADE (2012).
10 De Renzio and Krafchik (2007).
11 Shah (2007); Wampler (2010).
12 Huq (2022).
13 Santos, Batel, and Gonçalves (2019).
14 Shah (2007).
15 Ginwright and Cammarota (2002).
16 Cabannes (2004).
17 UNDP (2022).
18 OECD (2019).

07

CONCLUSION & RECOMMENDATIONS

Implementing the necessary policies to tackle the efficiency and effectiveness challenges of Pakistan's education system is a complex task. At the end of each chapter, this report has highlighted areas of potential work to enhance education investments. Taken together these sets of recommendations complement others that can be important for specific provincial governments. There are no easy solutions to fix the system's many deficiencies. The situation has been further complicated by emergencies, such as the COVID-19 pandemic, the 2022 floods, and the current political climate, that have hindered economic opportunities to enact and implement vital education reforms. Facing large fiscal deficits, high inflation, and a pressing need to stabilize the economy, Pakistan finds itself in a precarious position.

Within this context, the chance of finding budgetary support, focused attention, and political momentum for a comprehensive overhaul of the education system seems slim. Nonetheless, the urgency to address these issues remains and is underscored by the erosion of human capital caused by the COVID-19 pandemic[1] and the 2022 floods,[2] and compounded by already low learning levels prior to these crises. Despite these significant challenges, Pakistan cannot afford to fall further behind in building the human capital needed to drive economic growth.

Developing and implementing a comprehensive reform agenda would help enhance Pakistan's efficiency in public expenditure and improve children's educational outcomes. The suggested reforms in this section are diverse, reflecting different cost structures and tailored approaches. Most of the proposed actions draw upon proven initiatives within Pakistan, capitalizing on evidence of their impact. However, some recommendations present a bolder approach, needing substantial investments to increase access to education. While these recommendations may require significant resources upfront, they are targeted at sustainably resolving critical inefficiencies within the system. As such, their results are enduring and will pay substantial dividends year after year. By tackling the fundamental issues, the proposed reforms promise not only to rectify existing inefficiencies but to lay the groundwork for a continuous program of improvement and expansion.

A successful reform agenda necessarily involves multiple levels of government, with each reform potentially yielding numerous benefits for the education system. The recommendations within the proposed agenda call for action at all tiers of government: national, provincial, and district. While the education systems across provinces vary in maturity, many of them face similar challenges—albeit to varying degrees—stemming from their shared origins prior to the 18th Amendment. Many of the reforms suggested in this section can offer multiple benefits to the education system.

Prioritizing policy recommendations

This report proposes a method of prioritizing policy recommendations based on five factors, with two considerations and three constraints. Given the urgency of the system to pivot toward a different path that delivers for children, and the need of the system to increase the efficiency of expenditures in education, the two considerations are relevant:

(1) **Whether the reform can start in the short term**

(2) **What potential efficiency gains can be achieved in the medium term**

Alongside these considerations are three specific constraints[3] that may influence policy implementation. These include:

(3) **The fiscal costs associated with the reforms**

(4) **The complexity of executing reforms within the unique context of Pakistan**

(5) **The level of political buy-in required to carry them out**

The policy recommendations have been accessed and prioritized as low, moderate, or high.

The challenging economic outlook in Pakistan is marked by record debt, high interest rates, and high inflation, casting a shadow over the country's medium-term economic growth.[4] These economic pressures are further exacerbated by the ongoing recovery from the COVID-19 pandemic and the 2022 floods. Despite these obstacles, Pakistan's path to inclusive and sustained long-term growth lies in a strategic investment in human capital. Such investment is not merely a social responsibility; it is an economic imperative. By focusing on education, Pakistan can lay the foundation for increased productivity, higher tax revenue, reduced social assistance costs, and diminished inequality in a country that is becoming more and more urbanized. The long-term dividends of these investments are a promising vision for the nation's future and a call to action for today's policy makers. Pakistan will not achieve middle-income country status without increased investment in human capital development.[5]

The reform agenda recommended in this report draws from existing evidence, implementation knowledge, findings within this report, and global insights to classify each intervention (Table 10.1).[6] If implementing a comprehensive menu of policies to enhance the effectiveness of public expenditure is out of reach, Pakistan could prioritize those that can start soon and deliver the most efficiency gains. This approach would use a similar amount of funding as currently budgeted.

Factors for prioritizing policy recommendations

01 **Assessing whether an action can be initiated in the short term.** Starting the discussion to formally incorporate multigrade teaching as a pedagogical approach to improving teacher effectiveness can begin in the short term, as can improving data integration, to both better use and enhance transparency of existing data. In contrast, working toward incorporating checks and balances as part of the 8th NFC Award would certainly require a more strategic and focused approach, and it would take more time to get started.

02 **Evaluating the efficiency of the proposed actions in the medium term.** This would include considering their potential to optimize the use of funds in the medium term. Most of the proposals in Table 10.1 are aimed at enhancing efficiency. For instance, the impact on the sector's efficiency over the medium term has been assessed as substantial for high-efficiency actions such as developing the teaching career, beginning with teachers' deployment and transfer policies, and almost all actions concerning access and learning, such as enhancing public-private partnerships (PPPs) or defining and implementing a concrete policy on mother-tongue education in early grades. In contrast, a lower efficiency score has been given to the formalization of coordination mechanisms, such as the Inter Provincial Education Ministers Conference (IPEMC), and the creation of platforms for improved collaboration among education foundations, education departments, and literacy departments, although these are likely to help efficiency in the long term.

03 **Categorizing potential fiscal costs.** This approach was taken due to the lack of detailed financial information at the program level (except for the data presented in this report). For instance, low-cost examples such as parenting

communication campaigns, nudges, and other communication strategies, all of which focused on concrete messaging about the benefits, costs, and quality of education, are not only fiscally economical but also highly effective, according to local and international research.[7] In contrast, initiatives aimed at expanding access to education, such as providing more PPPs, increasing ECE opportunities, or coordinating infrastructure development with BISP, inevitably entail higher fiscal costs. Some of these costs can be absorbed through efficiency savings from other reforms in the proposed reform agenda or by diligent execution of the development budget, reduced duplication of activities across various departments, or efficiency savings from other reforms in the proposed reform agenda. Potential fiscal costs are organized into three levels: low (●○○), medium (●●○), and high (●●●).

04 **Developing new infrastructure, some of which may be complex to execute.** This includes the physical construction or creation of previously nonexistent soft infrastructure and coordination between provincial or federal authorities. When evaluated through these lenses, many actions are not overly complex, partly due to the reform agenda's focus on building upon existing programs and leveraging the experience and capacity the public sector already possesses. For example, making the budget process more open to stakeholders and using data for better targeting in education budgeting decisions are not inherently complex activities. Enhancing PPPs would not require massive capacity building, given Pakistan's experience with PPPs. However, implementing other activities, such as foundational learning activities and mother-tongue teaching, may be more complex to execute because they would require the creation of new platforms of collaboration with private and public stakeholders, systems, and deep technical work. They would also require new learning materials and appropriate teacher training and support. The execution levels of complexity for the development of new infrastructure are organized into three levels: low complexity (●○○), medium complexity (●●○), and high complexity (●●●).

05 **Assessing political buy-in.** This considers whether civil society understands that the reform will improve outcomes or should be a priority (and hence are less likely to oppose it); what vested interests stand to lose from reform implementation; and if the reform requires a high degree of political consensus or political appetite, to advance and be successful. Teacher career reform, or even teacher deployment and transfer policies, would require the consensus of multiple stakeholders and would impact vested interests in the systems. These reforms require a high level of political commitment for its implementation, despite being highly impactful on efficiency and only moderately expensive and complex. The assessments of buy-in are categorized into three levels: low (●○○), medium (●●○), and high (●●●).

The reform agenda

Many of these reform agenda actions can increase the efficiency of public sector spending on education, and involve better information and policy decision-making, such as improved coordination, teacher management, and a more transparent budgeting process that includes external stakeholders. Only actions that aim to enhance access, such as those that improve the quality of resources, will require substantial fiscal investment; many others will not require such funding. These other initiatives can be achieved by executing almost 9% of the budget that often goes unspent (mainly from the development side). For example, recognizing multigrade teaching as a system reality, formalizing it in education policy, and providing support materials and training for teachers would require a moderate investment but could exponentially enhance system efficiency.

Table 10.1. Policy reform agenda

	POLICY	Short term (0 – 1)	Efficiency impact (1 – 3)	Constraints: Fiscal cost (1 – 3)	Constraints: Execution complexity (1 – 3)	Constraints: Political buy-in (1 – 3)	Unviability Index* (3 – 9)
Key Message 1. Adequacy: Pakistan needs to spend more on education							
Access	Enhance PPPs and strengthen regulation	●	●●●	●●○	●○○	●○○	4
	Optimize infrastructure use, including double shifts	●	●●●	●○○	●○○	●●○	4
	Expand BISP and enhanced targeting and coordination with education foundations for data-driven expansion	●	●●●	●●○	●○○	●●●	6
	Expand quality ECE (long-term) based on a sustainable strategy	○	●●●	●●●	●●●	●●●	9
Key Message 2. Efficiency: Pakistan needs to spend better on education							
Teachers	Develop teachers' career—management of teachers	○	●●●	●●○	●●○	●●●	7
	Define school leadership roles at school and district level	●	●●○	●○○	●●○	●○○	4
	Introduce multigrade formally (teacher, materials, training)	●	●●●	●●○		●●○	7
	Reform preservice teaching institutions	●	●●●	●○○	●○○	●○○	3
Learning	Improve pedagogical practices through effective teacher training and new approaches such as Teach at Right Level	●	●●●	●●○	●●●	●●○	7
	Expand foundational learning programs at all levels building on programs that exist and had delivered results	●	●●●	●○○	●●○	●○○	4
	Define and implement policy on mother tongue	○	●●●	●●○	●●○	●●●	7
	Enhance parenting practices / Reading as national goal		●●●	●○○	●○○	●○○	3
Financing and budgeting	Define financing targets aligned with realistic sector plans and monitor them yearly	●	●●○	●○○	●○○	●●●	5
	Use data for budget definition—justification of decisions	●	●●●	●○○	●○○	●●●	5
	Discuss the 8th NFC Award that incorporates check and balances for education financing at federal and provincial levels	○	●●●	●○○	●○○	●●●	5
	Strengthen multi-year planning, budgeting, and procurement with clearer development plans, outcome based, and a shift to program-based budgeting	●	●●●	●○○	●○○	●○○	3
	Introduce/develop school grants programs for small expenses (nonsalary budgets)	○	●●●	●●○	●●○	●●●	7
Key Message 3. Equity: Pakistan could address disparities in the allocation of funds							
Equity	Review allocation mechanisms, set targets, and monitor to narrow differences in expenditure per student	●	●●○	●○○	●○○	●●●	5
	Ensure middle schools in rural areas are safe spaces for girls (boundary wall, female teachers, WASH, transport)	●	●●○	●●○	●○○	●●●	6
	Expand targeted support to disadvantage students	○	●●○	●●○	●○○	●○○	4
Key Message 4. Management: Pakistan could enhance management practices							
Management	Improve data quality (EMIS), integration, openness, transparency and use for planning and budgeting	●	●●○	●○○	●●○	●●●	6
	Formalize coordination mechanisms at national and provincial levels, within provinces, including education foundations and literacy departments, cross-learning	●	●○○	●○○	●○○	●●●	5
	Review and reform education departments and programs to eliminate duplication of programs and activities	●	●●●	●○○	●○○	●●●	5
	Make district funding rules-based and performance-based	○	●●●	●○○	●●○	●●●	6
	Review quality assurance process on inputs and supervision			●○○	●○○	●●○	4
Key Message 5. Participation and buy-in: Pakistan could empower stakeholders							
Parents	Facilitate access to all education data to civil society organizations, academia (for analysis)	●	●●●	●○○	●○○	●●●	5
	Set up participatory budget process at education departments	○	●●●	●○○	●○○	●●●	5
	Carry out communication campaigns of the role of parents	●	●●●	●○○	●○○	●○○	3
	Discuss education budget at local education groups meetings	●	●○○	●○○	●○○	●○○	3

Source: Authors' own table.

Many actions with low fiscal impact simply need proper planning and execution. Others, however, necessitate considerable political commitment. Coordination is a prime example: the education sector in Pakistan could achieve more with available resources through reduced duplication and improved coordination across the federation and within provinces. This includes better alignment with literacy departments and education foundations, as well as clarifying the role and responsibility of every institution at the federal and provincial levels. Gains in efficiency will require more than financial resources, they will require ongoing commitment. Another action that demands political will is opening the budget process and creating platforms for citizen accountability. Engaging in participatory budgeting processes, discussing budgets at district levels, and involving local education groups could also be highly beneficial for creating the right incentives for public officials and protecting them from outside influences that generate inefficient expenditure allocations.

The report includes an aggregate index called the Unviability Index (Table 10.1). This index sums the number of full circles assigned to three constraints: fiscal cost, execution complexity, and political buy-in. The Unviability Index can range from 3 to 9, with higher numbers indicating less viable reforms due to high fiscal cost, complex execution, and the need for extensive political buy-in. Conversely, reforms with lower values on the Unviability Index demand less fiscal effort, are simpler to execute, and enjoy widespread political support.

Evaluating the feasibility of various educational reforms reveals a range of challenges and potential long-term efficiency gains. Reforms deemed most unviable have an index value of 9, such as expanding quality ECE. The viability of the reform is based on a sustainable strategy. This initiative demands substantial financial investments, faces execution complexity due to the imperative of quality in ECE services, and requires strong political commitment to evidence-based approaches. Nonetheless, when implemented effectively, it can yield significant long-term efficiency gains by better preparing children for primary education and reducing repetition and dropout rates. Other crucial reforms, with index values ranging from 3 to 7, can enhance the sector's efficiency by improving learning, such as those aimed at boosting the effectiveness of teachers. Additionally, many reforms related to management, coordination, participation, and equity are viable, promising substantial improvements in the sector's functioning and efficiency (with scores between 3 and 6).

If the country is to use its resources more efficiently and tackle the pressing challenges of its education system, Pakistan must undertake many if not all, of these recommended reforms (Table 10.1). Responding to the needs of children and the nation is vital. This can be done with greater efficiency with existing funds as well as with an increase in education investments. To spend existing funds better, and to have more to spend will enable the country to deliver better learning outcomes for children, their families, and the country of Pakistan as a whole.

SECTION NOTES

1 ASER Pakistan (2021).
2 Barón et al. (2022); Dahlin and Barón (2023).
3 Schady et al. (2023).
4 World Bank (2023b).
5 Blanco Armas et al. (2019).
6 Banerjee et al. (2023).
7 Ibid.

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Spending better and spending more will help children learn, benefiting them, their families, and all of Pakistan.