BRINGING ALL THE GIRLS TO SCHOOL

A CASE FOR MORE INVESTMENT



PAKISTAN COALITION FOR EDUCATION
PCE
An Initiative of SAQE

PAKISTAN YOUTH CHANGE ADVOCATES



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ACKNOWLEDGEMENT AND CREDITS

This study is a result of the hard work and guidance of various individuals and organizations. It is the need of the hour to explore the federal, provincial and regional public sector education budgets of the last 10 years after devolution, analyse the trends and showcase the roadmap for the future.

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ACRONYMS & ABBREVIATIONS

AEPAM	Academy of Educational Planning and Management
AIP	Accelerated Implementation Plan
AJ&K	Azad Jammu & Kashmir
ANP	Awami National Party
BISP	Benazir Income Support Program
COVID-19	Coronavirus
EU	European Union
FATA	Federally Administered Tribal Areas
FR	Frontier Region
GB	Gilgit Baltistan
GDP	Gross Domestic Product
ICA	Integrated Context Analysis
ICT	Islamabad Capital Territory
JIP	Jamaat-e-Islami Pakistan
JUI-F	Jamiat Ulema-e-Islam-Fazl-ur-Rehman
KPK	Khyber Pakhtunkhwa
NADRA	National Database Registration Authority
NDMA	National Disaster Management Authority
NEMIS	National Education Management Information System
NFC	National Finance Commission
NIC	National Identity Card
NIPS	National Institute of Population Studies
OOS	Out of School
OOSC	Out of School Children
OOSG	Out of School Girls
PCE	Pakistan Coalition for Education
PFC	Provincial Finance Commissions
PML-F	Pakistan Muslim League - Functional
PML-N	Pakistan Muslim League - Nawaz
PPP	Pakistan Peoples Party
PTI	Pakistan Tehreek-e-Insaaf
PYCA	Pakistan Youth Change Advocates
SDG	Sustainable Development Goals
SERP	Sindh Education Reform Program
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WFP	World Food Programme

PREFACE

It goes without saying that education plays a fundamental role in the social and economic uplift of a society. Not only is it closely linked to poverty eradication and accelerated economic growth but it also contributes towards reducing income inequality, greater social enrichment, inclusion and enhanced welfare.

Unfortunately, during its existence spanning over seven decades, Pakistan has consistently struggled to ensure that its children attend, stay and learn in schools. While the last decade or so has seen the country make some significant improvements in this field, especially in terms of enrollment, the fact that 22.8 million children – majority of whom are girls – continue to be deprived of education is a perturbing testament of the country's overall gloomy education landscape.

And while a number of variables are at play to limit children, especially girls' access to formal education, not much can be done to effectively address them without first improving Pakistan's current state of public investment in education drastically. This study is an attempt to not merely provide an overview of Pakistan's current state of education financing but unlike other similar attempts in the past, it also provides a detailed roadmap and spending plan to guide policy decisions.

The primary objective and scope of this study is to delineate and offer multiple unique insights for reforms that can directly generate more revenue for Pakistan to invest in its education sector. Briefly, the study offers the following insights:

- A detailed overview of the situation of the out-of-school children in Pakistan with a special focus on the out-of-school girls.
- An extensive education sector diagnostics and identification of the core issues that limit girls' access to education and for which reforms ought to be planned.
- An in-depth evidence based empirical analyses of urban and rural bias of education spending and urban & rural demand- and supply-side problems.
- A province/region wise analyses across all areas investigated in the study.
- A summary of the political economy of education in Pakistan complete with an overview of the fiscal system and political priorities that have continued to impact the education sector.
- A comprehensive overview of Pakistan's performance vis-à-vis education financing using time series data.
- A detailed roadmap on how the structural rigidities within the country's economic system can be addressed and more revenue generated both at the federal and provincial levels to invest in education.
- A concrete list of recommendations for reforms at the district level which are based on various economic and non-economic indicators.
- Finally, the study also touches upon the adverse effect the COVID-19 outbreak is likely to have on Pakistan's already frail economy and how the recovery phase can be accelerated to minimize its spill-over on the education system.

To emphasize how this study has contextualized the case for education and public finance reforms, it is important to make a few points abundantly clear for the readers:

1. The study is based on secondary data taken from reports published by the governments (federal and provincial) in Pakistan. Regarding the data sources, the following publications have especially been referred to:

a. Pakistan Education Statistics from 1992-93 to 2016-17 annually published by the Academy of Educational Planning and Management, Ministry of Federal Education and Professional Training. The study especially refers to the latest available Pakistan Education Statistics 2016-17, District Education Profile 2015-16, Integrated Context Analysis (ICA) On Vulnerability to Food Insecurity and Natural Hazards Pakistan, 2017, Housing and Population Census 2017.

b. Federal and provincial education budgets, Annual Budget Statement, Public Sector Development Programme, Annual Development Plan, Pakistan Economic Survey, Fiscal Policy Statement, Debt Policy Statement of various years and a few other reports published over the years.

2. As the study aims to provide an appraisal of public spending on education in Pakistan, the analyses is based on data corresponding specifically to public sector schools.

3. The total number of out-of-school girls in Pakistan corresponding to the age groups currently enrolled from Grade One to Grade Twelve stands at 12.1 million. However, since the scope of this study is restricted to the out-of-school girls in the age groups corresponding to grades 1-10, therefore the resource estimation for OOS girls and the proposed financial plan in this report will be presented for 8.96 million girls.

4. To provide an undiluted provincial and regional analyses, FATA, which was merged with Khyber Pakhtunkhwa only in 2018 has been treated as a separate region.

It is also important to point out that most of the studies about education sector financing merely emphasize the need to bridge the gap between Pakistan's current state of education spending and the 4 percent GDP mark prescribed internationally. However, one of the potential merits of this study is to provide a roadmap and spending plan for Pakistan to educate all its out-of-school children by the year 2030. In doing so, the study compliments the government's objectives of education sector policy making.

Lastly, this study opens up many questions that require further exploration of existing data, schemes and plans addressing investment in public education in Pakistan vis a vis equity, inclusion and equality especially with respect to the post-COVID19 situation. Pakistan Coalition for Education hopes that this endeavor will serve as a valuable addition to the existing pool of literature on the subject and an important reference point to set-up a reform agenda for educating Pakistan's out-of-school girls.



EXECUTIVE SUMMARY

Currently, 22.8 million children aged 5-16 years in Pakistan are out of school. This figure represents 44 per cent of the total population in this age group and amounts to the second largest population of out-of-school-children (OOSC) in the world.

True, that the last 10 years have seen a greater effort to enroll children into primary schools, however the overall dip in the number of out-of-school children has, at best been marginal.

While this dismal performance can in part be attributed to an array of demand side elements such as disparities based on gender, socio-economic status and geography, supply-side design elements (e.g. a significant shortage of schools beyond primary level) also serve as important barriers to improving Pakistan's education indicators.

It is important to point out here that nearly 10.7 million boys and 8.6 million girls are enrolled at the primary level, this drops to a mere 3.6 million boys and 2.8 million girls at the lower secondary level. This comparison brings to light two urgent concerns:

i. There is a dramatic rise in school drop-outs post primary level (and)
ii. Gender-wise, boys outnumber girls at every stage of education.

Of the 22.8 million out-of-school children in Pakistan 53 per cent are girls and 47 per cent are boys. The present enrollment of girls between 5 to 16 years (grade 1-10) in public schools is 7.73 million and the number of OOSG is 8.96 million. Simply put, this means that compared to the number of girls who are currently enrolled, more girls of school-going age in Pakistan are out of school.

The disparity in numbers is congruous with another disturbing reality: the number of public schools for girls are far fewer than those for boys at all educational levels. On the whole, in Pakistan there are 78,601 primary schools for boys compared to only 40,548 for girls. Similarly, there are 15,902 secondary schools for boys against 13,012 secondary schools for girls and finally, against 976 higher secondary schools for boys, the number of girls' schools is 722.

In a nutshell, the infrastructure at the higher levels is simply not sufficient to sustain the retention of the post-primary population of children in general and girls in particular. This in turn points toward an urgent need for the state to invest in post-primary educational infrastructure on one hand and ensure that the inherent gender discrimination in the system – at all educational levels – is addressed simultaneously.

Unless the state does not introduce holistic reforms to address these issues that lie at the core of Pakistan's staggering number of out-of-school children it will be wholly impossible to fulfill the constitutional promise of providing free, compulsory and quality education to every Pakistani child between 5 – 16 years of age.

Notes:

- The total number of out-of-school girls in Pakistan corresponding to the age groups currently enrolled from Grade One to Grade Twelve stands at 12.1 million. However, since the scope of this study is restricted to OOS girls in the age groups corresponding to grades 1-10, therefore the resource estimation for OOS girls and the proposed financial plan in this report will be presented for 8.96 million girls.

- This study is an attempt to initiate a much needed public discourse on the need for greater investment by the government in education as a whole and girls' secondary education particularly. It would only be possible to do this by offering a detailed appraisal of Pakistan's public education system. Thus, enrollment, drop-out and retention rates provided in this study exclusively focus on public school data.

- The Federally Administered Tribal Areas were merged with Khyber Pakhtunkhwa in 2018. Since the merger is fairly recent, FATA has been treated as a region separate from Khyber Pakhtunkhwa for the purpose of analyses in this report. Combining data of erstwhile FATA with Khyber Pakhtunkhwa would have resulted in analytical bias.



1. INTRODUCTION

With a population of 207 million[1] people, Pakistan currently ranks as the fifth[2] most populous country in the world. Not only is the absolute base of the population large but the country's annual growth rate at 2.4 per cent is also considerably high. At this pace, it is projected that Pakistan's population will stand at a staggering 307 million[3] by the year 2050.

In absolute numbers, the total population of men, women and transgender people stands at 106,449,322, 101,314,780 and 10,418 respectively. Percentage wise, men form 51 per cent, women 48.76 per cent and transgender people 0.24 per cent of the country's population.

Despite being in a sizable number, women do not enjoy the same level of access to education, property and economic opportunities as their male counterparts. This disparity can primarily be attributed to the traditional patriarchal structure of the Pakistani society that encourages the systematic subordination of women. True, that this disparity varies considerably across regions and socio-economic classes, however, a look at the bigger picture reveals an overall unfavorable status of women compared to men in Pakistan. Women's access to education and its life-long implications in terms of social mobility and economic empowerment alone can serve as a viable example to illustrate the generally unequal position of women in the country.

Pakistan remains one of the worst performing countries in terms of education with girls being most affected at every educational stage. Nationwide, the net enrollment rate for girls is 53 percent at the primary level, 21 percent at middle and only 14 per cent at the high school level[5]. Socio-cultural demand-side barriers coupled with gaps in service provision at all the educational levels together hamper girls' chances to access and sustain formal education.

There is no denying that education is among the most important elements that propel social and economic development, Lack of access to learning opportunities not only limits an individual's personal and economic growth, but also hampers a nations overall GDP growth

Accordingly, with a female literacy rate of only 45 per cent, the limited exposure of Pakistani women to education is not a stand-alone concern. It inevitably has a spillover effect in every other facet of their lives. Uneducated or less educated women are more susceptible to violence, less likely to access healthcare (both for themselves and later their children) and have far fewer avenues to upward social and economic mobility compared to women who have received at least 12 years of sustained education.

The far-reaching adverse impact of this phenomenon can be illustrated from the Global Gender Gap Report 2020 issued by the World Economic Forum[6]. Pakistan ranks on 150 out of the 153 countries on the Global Gender Gap Economic Participation and Opportunity Subindex. The scoreboard in the same report places Pakistan at 143 in educational attainment, 149 in health and survival and 93 in political empowerment.

[1]Pakistan Bureau of Statistics, Results of 6th Population & Housing Census-2017 [As on January 03, 2018]
[2]United States Census Bureau.
[3]World Population Prospects 2017, United Nations, Department of Economic and Social Affairs, Population Division.
[4]The Census 2017 does not include Azad Jammu & Kashmir and Gilgit Baltistan.
[5]Net Enrollment Ratio: "Total number of pupils of the official primary school age group who are enrolled at primary or secondary education, expressed as a percentage of the corresponding population." (Government of Pakistan, Pakistan Education Statistics 2016-17, pp. 176).
[6]"Global Gender Gap Report 2020" (Geneva: World Economic Forum, 2019), pp. 9-62

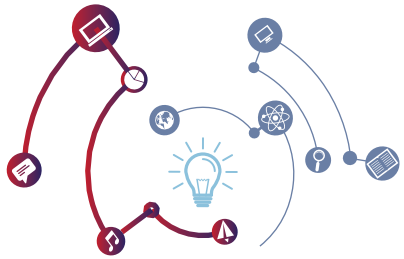
Province[4]	Rural/Urban	No. of Household	2017 Population	2017 Rural/ Urban%	1998 Population	1998 Rural/ Urban%	1998-2017 Annual Growth Rate
Punjab	Rural	10,714,102	69,625,144	63.3	49,490,394	67.2	1.81
	Urban	6,389,733	40,387,298	36.7	24,130,896	32.8	2.74
	Total	**17,103,835**	**110,012,442**	**100.0**	**73,621,290**	**100.0**	**2.13**
Sindh	Rural	4,185,828	22,975,593	48.0	14,744,436	48.4	2.36
	Urban	4,399,782	24,910,458	52.0	15,695,457	51.6	2.46
	Total	**8,585,610**	**47,886,051**	**100.0**	**30,439,893**	**100.0**	**2.41**
Khyber Pakhtunkhwa	Rural	3,104,154	24,793,737	81.2	14,456,435	81.5	2.87
	Urban	741,014	5,729,634	18.8	3,287,210	18.5	2.96
	Total	**3,845,168**	**30,523,371**	**100.0**	**17,743,645**	**100.0**	**2.89**
Balochistan	Rural	1,301,212	8,943,532	72.5	4,797,055	73.1	3.33
	Urban	474,725	3,400,876	27.5	1,768,830	26.9	3.49
	Total	**1,775,937**	**12,344,408**	**100.0**	**6,565,885**	**100.0**	**3.37**
FATA (merged in KP during 2018)	Rural	542,255	4,859,778	97.2	3,090,858	97.3	2.41
	Urban	16,124	141,898	2.8	85,473	2.7	2.70
	Total	**558,379**	**5,001,676**	**100.0**	**3,176,331**	**100.0**	**2.41**
Islamabad	Rural	165,246	991,747	49.4	276,055	34.3	6.95
	Urban	170,936	1,014,825	50.6	529,180	65.7	3.48
	Total	**336,182**	**2,006,572**	**100.0**	**805,235**	**1 00.0**	**4.94**
Pakistan	Rural	20,012,797	132,189,531	63.6	86,855,233	65.6	2.23
	Urban	12,192,314	75,584,989	36.4	45,497,046	34.4	2.70
	Total	**32,205,111**	**207,774,520**	**100.0**	**132,352,279**	**100.0**	**2.40**

Table 1.1 Housing and Population Census

Source: Author's compilation from Population Census of Pakistan, 2017.

For Pakistan to achieve the desired economic affluence, it has to invest in education with a particular focus on bringing more girls – who form the majority of the out-of-school children in Pakistan – into classrooms. This investment needs to be made urgently; this investment needs to be made now.

This report will provide insights into the many challenges that young girls face in order to exercise their Right to Education and offer a set of recommendations for the federal and provincial governments to help them achieve SDG 4 by 2030.



2. OUT-OF-SCHOOL GIRLS IN PAKISTAN

Pakistan has an estimated 22.8 million children aged between 5-16 years who are currently not in schools. More than 12 million of these are girls. These estimated figures are considerably higher than the entire populations of most Nordic countries such as Norway, Denmark and Finland!

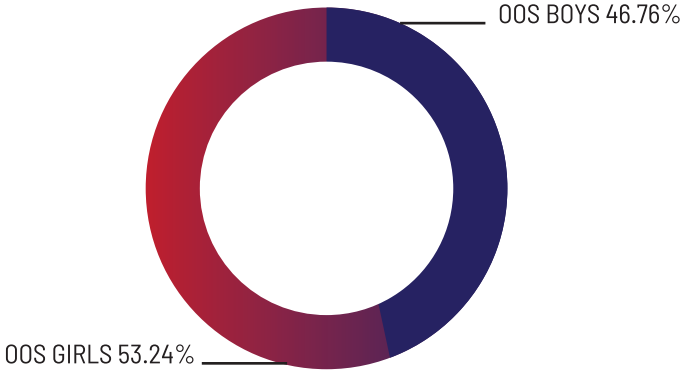


Figure 2.1 Percentage of girls and boys among the overall out-of-school children

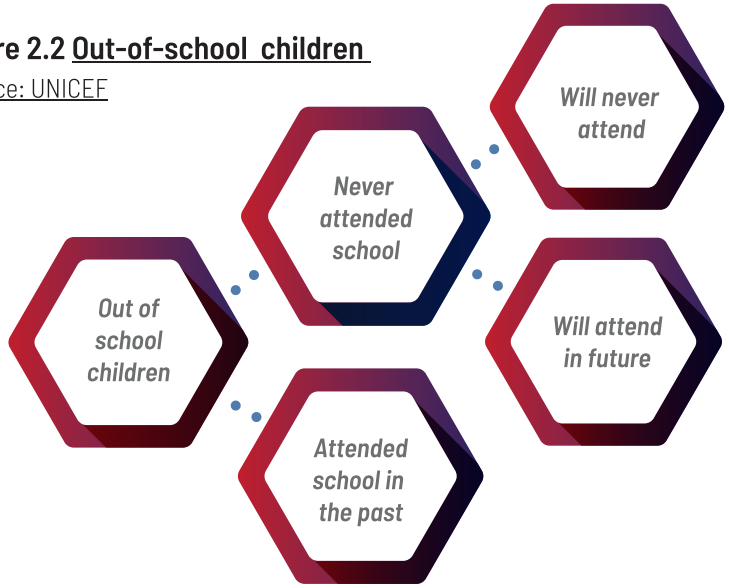


Figure 2.2 Out-of-school children

Source: UNICEF

2.1 Defining out-of-school children

The definition of out-of-school children is rather simple. It is bifurcated into two categories: children who have attended school at some point but dropped out, and children who never attended school. Depending on both the demand- and supply-side elements, the second category of children might attend school in the future or alternatively, they might continue to remain deprived of formal education.

2.2 Characteristics of out-of-school girls in Pakistan

This section of the report will discuss the impact of the characteristics such as geography, urban/rural background, age, parent's education and occupation on a girl-child's ability to attain and/or sustain her education.

2.2.1 Regional break-down of OOS girls in Pakistan

The total number of girls enrolled at the primary level (grades 1-5) in Pakistan is 5,087,322[7]. In the same age bracket there are 3,031,511[8] girls who are out of school. This means that an estimated 37.3 per cent of the primary school-going aged girls are currently not attending school. The out-of-school girls in Sindh, Balochistan, GB and the erstwhile FATA districts are more than the girls in school, at the primary level.

[7]Table 3.3, Page 69, Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training. Islamabad.
[8]Table 1.3, Page 39, Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training. Islamabad.

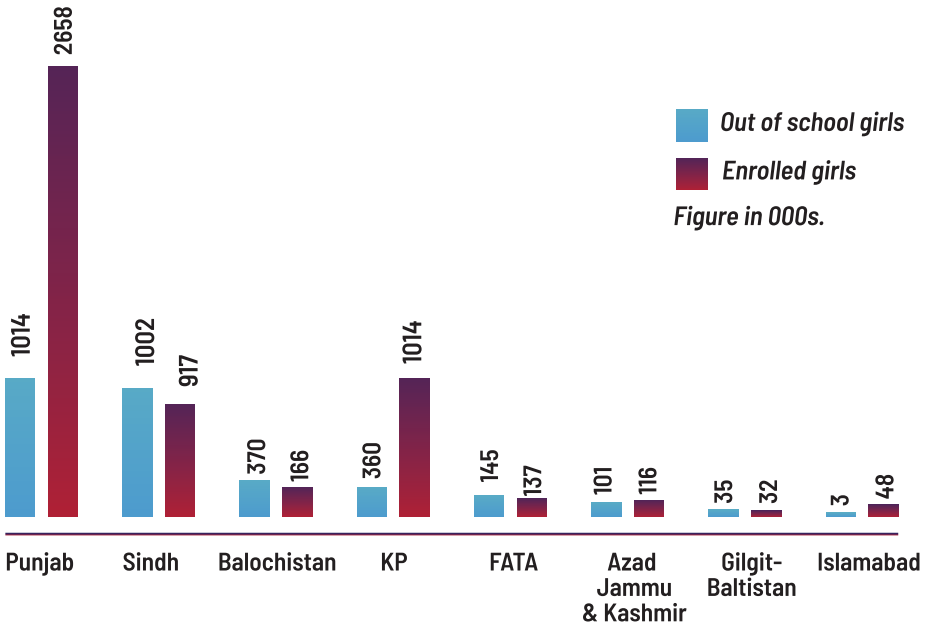


Figure 2.3 Primary school enrollment and out-of-school girls-2017

Source: Author's compilation and analysis using Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.
Note: From left to right, provinces/regions are placed in descending order of the number of OOS girls.

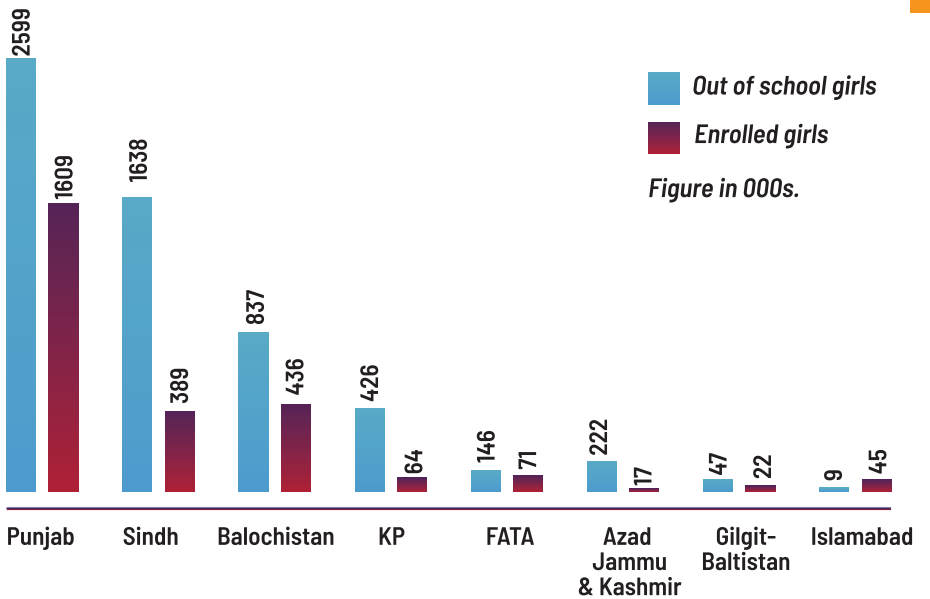


Figure 2.4 Secondary school enrollment and out-of-school girls-2017

Source: Author's and analysis compilation using Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.
Note: From left to right, provinces/regions are placed in descending order of the number of OOS girls.

The situation takes a sharp nose dive at the secondary level (grades 6-10) where the population of out-of-school girls, i.e. 5,925,475 surpasses the total number of girls who are enrolled (i.e. 2,653,181) by a large margin. In simpler words, 69 per cent of the girls in this same age bracket are out of school in Pakistan.

A further comparative analysis of the number of enrolled and OOS girls across the regions reveals that the stats of OOS girls at the primary stage are better. For every 100 girls enrolled in primary schools in Islamabad, only 6 are OOS, whereas with a figure of 223, the situation of OOS primary school-going girls is the worst in Khyber Pakhtunkhwa. Contrary to the above, the situation at the secondary level is starker. Except for Islamabad, the number of OOS girls is many times higher than the number of girls enrolled in secondary schools across all other regions.

An acute lack of secondary schools serves as one of the biggest contributors to this dismal state of affairs. For instance, secondary schools in Pakistan (i.e. 29,004) are disproportionately lower compared to the number of primary schools (i.e.119,149). This means that for every 100 primary schools, there are only 24 secondary schools. This dismal figure also explains why the overall number of OOS girls is more than twice the present level of secondary enrollment in the country. It goes without saying that a system of secondary schools, which is one-fourth the size of primary schools can simply not accommodate all the primary graduates even if, in the best case scenario, 100 per cent of the primary graduates are willing and otherwise able to transition to the secondary level.

This signifies that if all the out-of-school girls are to be sent to schools, the existing capacity of the system has to be increased by more than double.

Individually, the situation is worst in less developed regions. For instance, for every 100 girls enrolled in erstwhile FATA districts there are 1,306 girls who are out-of-school. Similarly, although Sindh's spending on education is much higher than FATA, KP and Balochistan but the situation of OOS girls in the province is not much better compared to the lowest performing regions of Pakistan. A closer look at the spatial distribution reveals that two-thirds of the out-of-school girls in Pakistan – both at the primary and secondary levels – are based in Punjab and Sindh; approximately one-third in each province. This is a given in view of the fact that Punjab (ranked at number 1) and Sindh (ranked at number 2) are the most populous provinces of the country. Conversely, Islamabad, Gilgit-Baltistan and Azad Jammu & Kashmir fare better than most other parts of the country.

Rank	Primary			Secondary		
	Province/Region	Enrolled	Out of School	Province/Region	Enrolled	Out of School
	Pakistan	100	60	Pakistan	100	223
1st	Islamabad	100	6	Islamabad	100	20
2nd	Balochistan	100	36	Punjab	100	162
3rd	Punjab	100	38	KP	100	192
4th	AJK	100	87	AJK	100	206
5th	FATA	100	106	Gilgit-Baltistan	100	214
6th	Sindh	100	109	Sindh	100	421
7th	Gilgit-Baltistan	100	109	Balochistan	100	666
8th	KP	100	223	FATA	100	1306

Table 2.1 Comparative analysis of enrolled and OOS girls

Source: Author's analysis from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.
Note: Ranking follows ascending order with respect to the number of OOS girls.

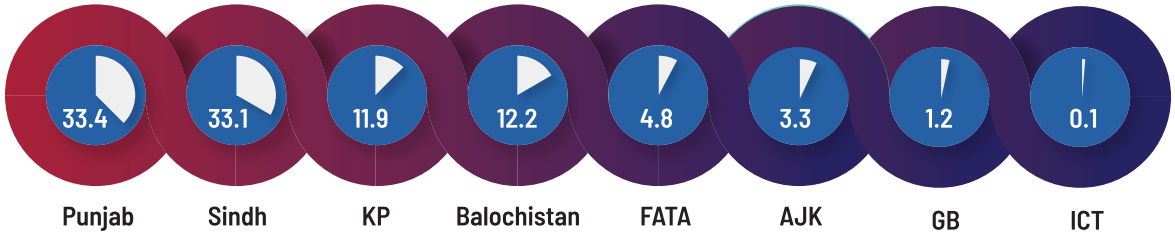


Figure 2.5 Spatial distribution of grade 1-5 out-of-school girls-2017

Source: Author's analysis from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad

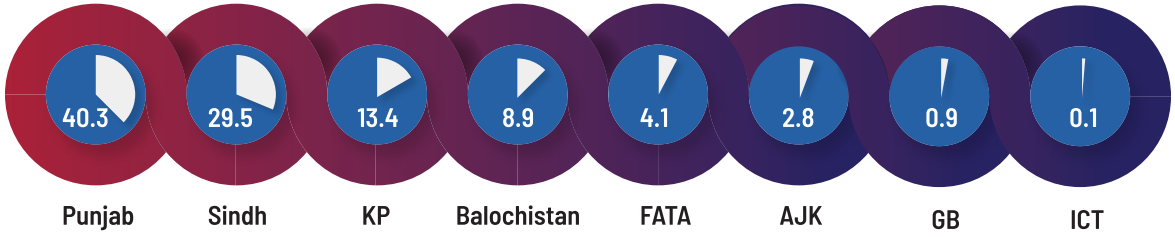
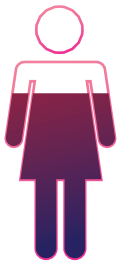


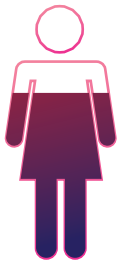
Figure 2.6 Spatial distribution of grade 6-10 out-of-school girls-2017

Source: Author's analysis from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

1,970,482
Two-third of the total out-of-school girls of grades 1-5 are in Punjab and Sindh. Approximately, one-third in each province.



4,135,981
Two-third of the total out-of-school girls of grades 6-10 are in Punjab and Sindh.



2.2.2 Rural/urban distribution of out-of-school girls in Pakistan

Despite the fact that the majority of the primary and secondary schools and the bulk of public investment on education is concentrated in the rural areas, the female drop-out rates in rural areas are much higher than those in urban centers. A sharp increase in female drop-outs is especially evident in the rural districts after Grade Five.

The total primary schools in urban areas are 10,843, which is one-tenth of the number of primary schools in the rural areas, i.e. 108,306. This means that for every 100 schools in urban areas there are 999 schools in rural areas. Similarly, the total number of secondary schools in urban areas are 5,257, which is slightly more than one-fifth of the secondary schools in rural areas i.e. 23,747.

While no empirical evidence is available to determine where the OOSC are mostly concentrated in the urban-rural spectrum, however intelligent guesswork indicates that the majority of the girls who are out of school are based in villages and in urban slums. Pakistan missed the opportunity to collect the exact data on OOSC during the 2017 census. It is highly recommended to document where the major bulk of the out-of-school children are in all the provinces to initiate bespoke policy interventions.

2.3 The trajectory of the estimate

Having established the magnitude of the out-of-school children in Pakistan, it is equally important to see if there has been any change in the number of OOSC over the years.

Since 2012-13, the Ministry of Federal Education and Professional Training has been providing the estimated number of OOSC every year. The figures published by the Ministry annually depict an overall decrease in the number of OOS children, albeit the decrease has been significantly slow. The number of out-of-school boys has decreased from 12.20 million in 2012-13 to 10.68 million in 2016-17, which is a decrease of 12 per cent. Among girls, the number has dropped from 13.75 million in 2012-13 to 12.16 million in 2016-17, which also shows a decrease of 12 per cent.

Although the number of out-of-school girls has reduced over the years in absolute terms, 49 per cent of the entire population of girls corresponding to the age group of 5-16 years still remain out of school.

Over the period of five years from 2012-13 to 2016-17, the number of out-of-school children (boys and girls) has declined by 12 per cent approximately. Considering this rate of change, it would take Pakistan another 42 years to clear the existing backlog of OOS children across the country!

2.4 Recommendations

The federal and provincial governments in Pakistan are still dependent on estimated figures for out-of-school children. There is no breakdown available below provincial levels that can help the governments tailor targeted interventions to address the issue in the most affected areas.

The next census must not miss out on this opportunity and should build in a detailed enumeration of the out-of-school children. The National Education Management Information System (NEMIS) that collects education data from all the provinces and regions should in turn make the latest data available to the public and the policymakers within 6 – 9 months of its collection.

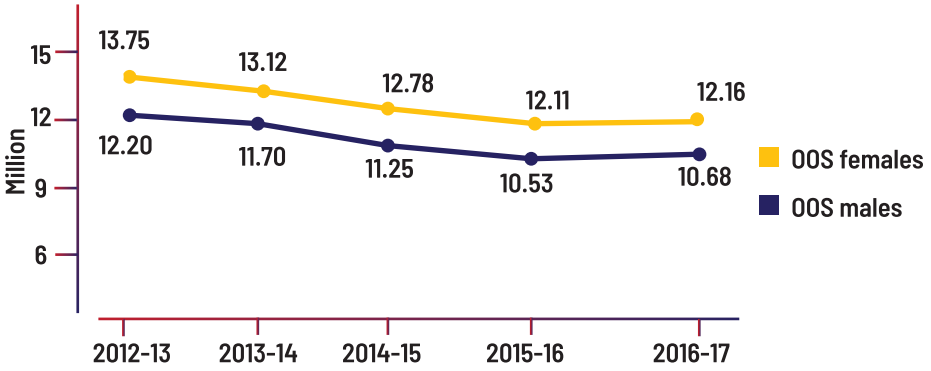
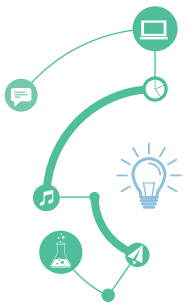


Figure 2.7 The change in the number of out of school children over time

Source: Author's compilation from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.



3. WHY EVERY GIRL IN PAKISTAN IS NOT IN SCHOOL?

Pakistan is a low-income country and a large portion of its labor force works in the informal sector, managing its cost of living on a day-to-day basis. The UNICEF's Pakistan Annual Report 2018 states, "One in four Pakistanis lives in extreme poverty." Similarly, according to the Global Multidimensional Poverty Index 2018, Pakistan has the highest intensity of child poverty in South Asia, at 53 per cent, with girls and women being particularly at risk. Pakistan also ranks 150th out of the 153 countries for gender parity on the World Economic Forum's Global Gender Gap Report 2020.

Gender-specific bottlenecks (elaborated in the subsequent sections) include limited mobility, a lack of access to resources and decision making and restrictions specific to adolescent girls which limit their opportunities for education and for working outside their homes.

There are multiple determinants of low female literacy and a large number of OOS girls. These factors are broadly classified into two categories:

1. **Push-out-of-school factors**

The push factors are supply-side contributors that include the physical condition of and missing facilities in schools, non-availability of teachers (especially a lower number of female teachers in post primary girls schools) and the overall poor quality of education.

2. **Pull-out-of-school factors**

The pull factors are demand side elements, mostly relevant to a household's socio-economic conditions, the number of children in the family, socio-cultural norms, population density of the area, food deficiency, medical and labor market conditions.

3.1 Push-out factors

The push-out factors compel students to involuntarily drop-out of school owing to elements within the system's design that prevent students from attaining and/or sustaining their education.

As pointed out in Table 3.1 push-out factors can range from a lack of school infrastructure and availability of teachers to a lack of basic facilities within schools such as drinking water, electricity and toilets.

3.1.1 Availability of schools beyond the primary level

One of the biggest hurdles for girls while continuing their education beyond the primary level is the lack of post-primary schools.

Push-Out-of-School Factors	Pull-Out-of-School Factors	
	Socio-cultural factors	Economic factors
• Missing facilities, especially lack of functional toilets and boundary walls • Lack of female teachers in post-primary girls schools • High student density and multi- grade teaching • Distance of school from home and the lack of transportation facilities • Low number of schools, especially beyond primary • Constraints for disadvantaged children (no ramp/path for wheel chairs)	• Lack of early childhood education • Low literacy in Pakistan • Social norms that block participation of girls and women in public life • Shame or discomfort associated with disability • A large number of siblings resulting in parents often preferring to send their male children to school over their female offsprings • Early marriages • Migration • Poor performance especially in early classes • Domestic responsibilities • Tribal and feudal system in certain regions	• Poverty • High opportunity cost in the short term • Indirect cost of education (e.g. uniform, stationary, transportation and textbooks) • Low expected economic return to education • Local labor market opportunities • Social constructs that associate greater economic benefit with the education of boys

Table 3.1 Factors stopping girls from education

The students who continue education after completing primary education are far less compared to the initial enrollment numbers recorded in Grade One. Fewer secondary schools point towards a system-oriented obstacle, which might prove difficult to overcome in the short run.

Table 3.2 summarizes this predicament. For every 100 primary schools in the country, there are only 24 secondary schools. This means that the system's overall capacity at secondary level is one-fourth times constrained compared to the number of primary schools. This in turn indicates that if all the students are willing to continue their education after completing primary, majority of them will simply be compelled to discontinue their education because of the capacity constraint of the system.

When analyzed from the perspective of the urban-rural divide, for every 100 primary schools there are 48 secondary schools in the urban areas and only 22 in the rural localities of the country. This inevitably puts children in the rural areas at a disadvantage, making it far more difficult for them to continue their education after completing primary schooling.

A look at the rural and urban distribution of OOS girls provides for an interesting contradiction: while the bulk of public investment vis-à-vis the establishment of public schools has been prioritized in the rural areas of Pakistan, yet at the same time, the drop-out rate of girls in rural areas is much higher than that in urban areas. This is true both at the primary and the secondary level.

It is also interesting to note that while the number of girls' secondary schools are significantly higher in rural areas, the post-primary drop-out rate is also much sharper in these areas which is evident from the fact that for every 100 girls enrolled in Grade One of urban areas 77 of them complete Grade Ten, whereas the same goes for 18 girls in rural areas.

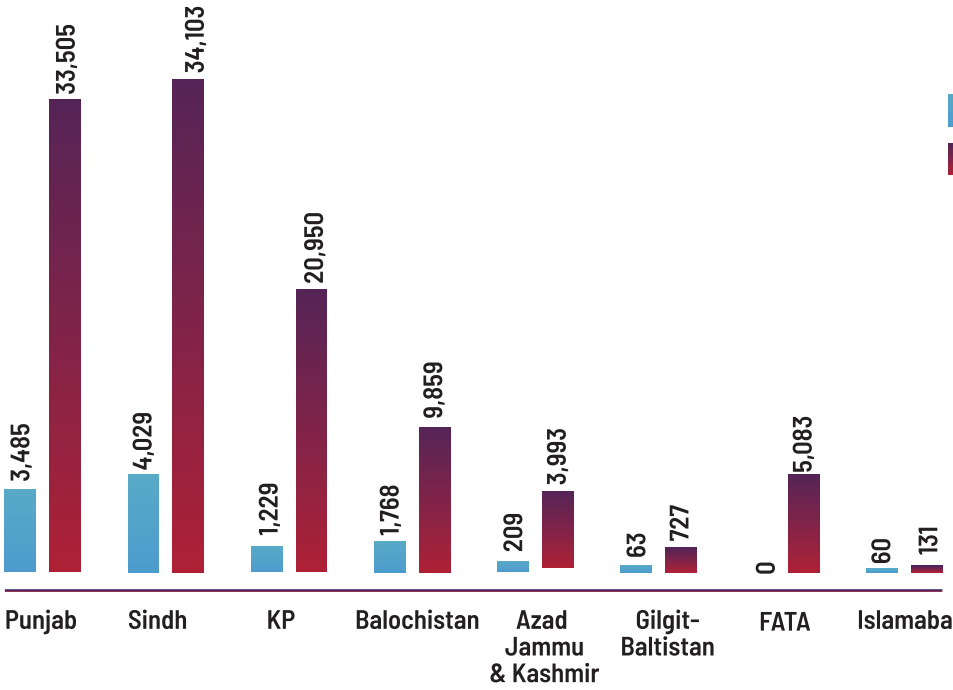


Figure 3.1 Urban and rural distribution of primary schools

Source: Author's compilation from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

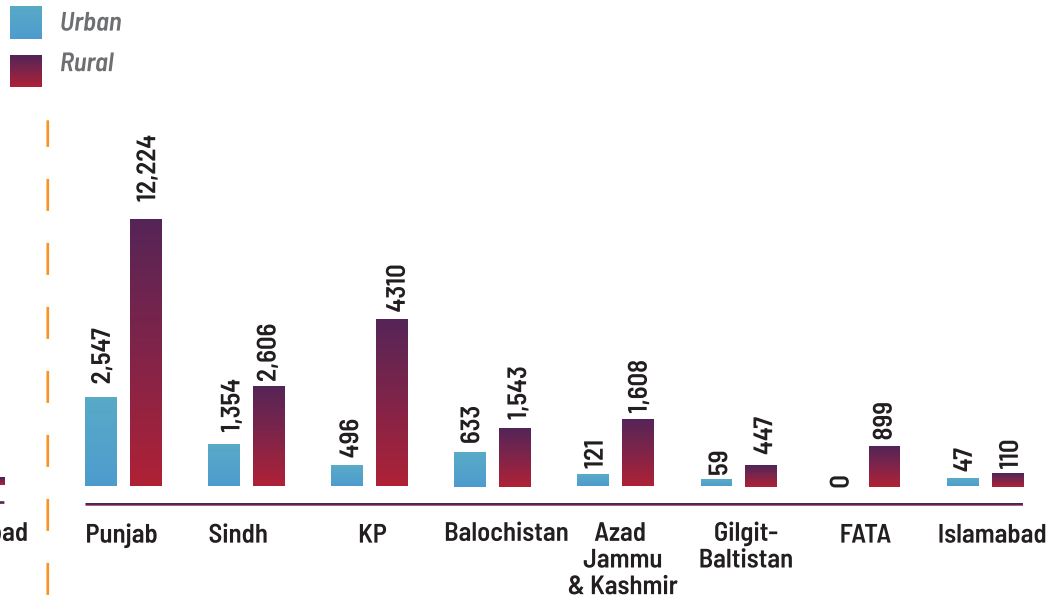


Figure 3.2 Urban and rural distribution of secondary schools

Source: Author's compilation from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

As the overall national average shows, the situation across the country is poor. However, the bottleneck in Sindh is worse with only 10 secondary schools for every 100 primary schools. A further breakdown of the province's situation reveals that for every 100 primary schools in the urban areas of Sindh there are 34 secondary schools, whereas there are merely 8 secondary schools for every 100 primary schools in the rural areas.

The ranking based on the disparity of primary and secondary schools shows Balochistan, erstwhile FATA districts and Sindh to be the poorest performers whereas Gilgit-Baltistan, Islamabad and Punjab show reasonably decent parity – see Table 3.2.

In order to fulfill the state's constitutional commitment under Article 25-A the number of secondary schools need an increase across the country. However, the governments of Sindh, KP and Balochistan will have to allocate a major chunk of their development spending to construct more secondary schools or upgrade existing schools so children in those provinces have a level playing field when graduating from primary to the secondary level.

		Primary			Secondary	
Rank	Province/Region	Urban	Rural	Province/Region	Urban	Rural
	Pakistan	100	48	Pakistan	100	22
1st	Gilgit-Baltistan	100	94	Gilgit-Baltistan	100	84
2nd	Islamabad	100	78	Islamabad	100	61
3rd	Punjab	100	73	Punjab	100	40
4th	AJK	100	58	AJK	100	36
5th	KP	100	40	KP	100	21
6th	Balochistan	100	36	Balochistan	100	18
7th	Sindh	100	34	Sindh	100	16
8th	FATA	-	-	FATA	100	8

Table 3.2 Primary vs Secondary Schools

Source: Author's calculations from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training. Islamabad.

Note: The ranking follows a descending order with respect to the number of secondary schools i.e. the highest number of secondary schools per 100 primary schools means highest rank and the lowest number corresponds to the lowest rank.

3.1.2 Student-teacher ratio

Student-teacher ratio is the number of students who attend a school divided by the number of teachers in the institution. In simple words, it refers to the number of students per teacher.

While not a gender specific issue, it cannot be denied that the student-teacher ratio has a direct bearing on the retention. Accordingly, it has been included as a variable for this discourse. At the primary stage the student-teacher ratio in urban areas ranges from 64 students per teacher in Punjab to 21 students per teacher in Gilgit-Baltistan. The number of students per teacher in rural areas is comparatively less.

As discussed earlier, the students who continue their education beyond primary are far less compared to those who enroll in Grade One. This has resulted in an unexpected consequence: the student-teacher ratio at the secondary level across Pakistan is significantly better than that at the primary level. And while in some areas of Pakistan, the student to teacher ratio at the secondary level is even better than that found in some of the most developed countries in the world, it is important to remain mindful of the fact that this is a consequence of a sharp decline in the number of students enrolled at secondary schools and not because of a large base of teachers.

Similarly, observing the number of students per school offers an insight into the average enrollment capacity of schools. For example, at the primary stage the number of urban and

rural primary schools in Sindh are more than those in Punjab. However, the per school enrollment in Sindh's urban areas is nearly half and in the rural areas it is one-third of that in Punjab. This simple comparison suggests that while more financial resources are certainly required for expanding the system, existing structures are also being underutilized in terms of accommodating out-of-school children.

Table 3.4 indicates that the number of students per school in rural areas is higher than that in urban areas. This is mainly because on one hand the population of school-aged children is much higher in rural as compared to the urban areas and on the other hand, students in the periphery only have access to public sector schools.

A comparison of the average number of teachers per school shows that the number of teachers in secondary schools is more compared to primary schools. However, as earlier discussed this cannot be counted as a merit. Owing to the disproportionately lower number of secondary schools in Pakistan the relative ratio of teachers per school tends to improve at the secondary level.

An urban-rural comparison of the primary schools in the same table shows that schools in less developed regions of the country are likely to have fewer teachers, especially at the rural level.

Balochistan for instance has an average of 2 teachers per school in the urban areas and 1 teacher per school in the rural areas. The situation is only very slightly better for Sindh, Gilgit-Baltistan, Azad Jammu & Kashmir and the erstwhile Federally Administered Tribal Areas with an average of between 2 to 6 teachers in urban and only 2 teachers in the primary schools of their rural areas.

	Primary Schools				Secondary Schools			
Rank	Province/ region	Urban	Province/ region	Rural	Province/ region	Urban	Province/ region	Rural
	Pakistan	38	Pakistan	35	Pakistan	20	Pakistan	15
1st	Punjab	64	Punjab	45	Islamabad	36	Islamabad	25
2nd	Balochistan	38	GB	45	KP	33	KP	24
3rd	AJK	35	Islamabad	41	Punjab	22	Sindh	23
4th	Islamabad	33	KP	31	Sindh	18	Punjab	14
5th	Sindh	25	Sindh	27	GB	9	GB	11
6th	KP	31	AJK	27	AJK	9	FATA	11
7th	GB	21	FATA	29	Balochistan	7	AJK	8
8th	FATA	-	Balochistan	24	FATA	-	Balochistan	5

Table 3.3 Comparative performance indicators – student-teacher ratio

Source: Author's calculations from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Note: The ranking follows descending order with respect to student-teacher ratio i.e. higher the ratio the higher is the rank.

	Primary Schools				Secondary Schools			
Rank	Province/ region	Urban	Province/ region	Rural	Province/ region	Urban	Province/ region	Rural
	Pakistan	202	Pakistan	85	Pakistan	427	Pakistan	163
1st	Islamabad	701	Islamabad	367	Islamabad	958	Islamabad	349
2nd	Punjab	307	Punjab	131	Punjab	540	KP	213
3rd	KP	193	KP	98	KP	451	Sindh	194
4th	Sindh	165	GB	89	Sindh	354	Punjab	170
5th	GB	129	FATA	67	AJK	162	GB	87
6th	Balochistan	90	AJK	54	Balochistan	147	FATA	81
7th	AJK	72	Sindh	51	GB	134	AJK	80
8th	FATA	-	Balochistan	34	FATA	-	Balochistan	59

Table 3.4 Comparative performance indicators – students per school

Source: Author's calculations from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Note: The ranking follows descending order with respect to the students per school i.e. higher the ratio higher is the rank. Very low number of students per school shows the system's in-built inefficiency.

	Primary Schools				Secondary Schools			
Rank	Province/ region	Urban	Province/ region	Rural	Province/ region	Urban	Province/ region	Rural
	Pakistan	5	Pakistan	2	Pakistan	21	Pakistan	11
1st	Islamabad	21	Islamabad	9	Islamabad	27	Islamabad	14
2nd	Sindh	7	Punjab	3	Punjab	24	Punjab	12
3rd	KP	6	KP	3	Balochistan	21	Balochistan	12
4th	GB	6	Sindh	2	Sindh	20	AJK	10
5th	Punjab	5	GB	2	AJK	18	KP	9
6th	AJK	2	AJK	2	GB	16	Sindh	9
7th	Balochistan	2	FATA	2	KP	14	GB	8
8th	FATA	-	Balochistan	1	FATA	-	FATA	7

Table 3.5 Comparative performance indicators – teachers per school

Source: Author's calculations from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Note: The ranking follows descending order with respect to the students per school i.e. higher the ratio higher is the rank. Very low number of students per school shows the system's in-built inefficiency.

3.1.3 Male to female teacher ratio

The availability of female teachers in secondary schools is another essential determinant for parents to send their daughters to secondary schools. In case of absence of female teachers, parents are highly reluctant to send their daughters to schools – especially at the post primary schooling level.

As illustrated in Table 3.6 and Table 3.7 the male to female teacher ratio is considerably good in urban areas, whereas in rural areas the number of female teachers compared to male teachers is far less.

For every hundred male teachers in urban primary schools, there are 112 female teachers, and for primary schools in rural areas the number is 65. Similarly, for secondary schools in urban areas, there are 119 female teachers for every 100 male teachers, but the same number is 74 in secondary schools of the rural areas.

At the primary level in the urban areas, the male to female teacher ratio is fairly good across all regions with Balochistan being the only province recording a stark disparity.

When the same indicator is however, analyzed in the rural areas, the inequality increases sharply. For example, for every 100 male teachers in primary schools of the rural areas of Sindh, there are only 21 female teachers.

		Urban			Rural	
Rank	Province/Region	Male	Female	Province/Region	Male	Female
	Pakistan	100	112	Pakistan	100	65
1st	Gilgit Baltistan	100	491	Punjab	100	135
2nd	Punjab	100	194	Islamabad	100	100
3rd	AJK	100	115	AJK	100	93
4th	Islamabad	100	100	FATA	100	66
5th	Khyber Pakhtunkhwa	100	89	Khyber Pakhtunkhwa	100	54
6th	Sindh	100	84	Gilgit Baltistan	100	39
7th	Balochistan	100	59	Balochistan	100	37
8th	FATA	-	-	Sindh	100	21

Table 3.6 Male to female teacher ratio - Primary schools

Source: Author's calculations from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and professional training, Islamabad.

Note: The ranking follows descending order with respect to male to female teacher ratio, number of female teachers per 100 male teachers i.e. higher the ratio higher is the rank.

Rank	Urban			Rural		
	Province/Region	Male	Female	Province/Region	Male	Female
	Pakistan	100	119	Pakistan	100	74
1st	Islamabad	100	198	Islamabad	100	111
2nd	Gilgit Baltistan	100	181	Punjab	100	104
3rd	Punjab	100	134	AJK	100	65
4th	Sindh	100	122	KP	100	50
5th	AJK	100	116	Balochistan	100	41
6th	KP	100	72	Gilgit Baltistan	100	35
7th	KP	100	72	Sindh	100	33
8th	FATA	-	-	FATA	100	27

Table 3.7 Male to female teacher ratio - Secondary schools

Source: Author's calculations from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.
Note: The ranking follows descending order with respect to the male to female teacher ratio, (number of female teachers per 100 male teachers) i.e. higher the ratio, higher is the rank.

3.1.4 Physical facilities in schools

Not only the relative distribution of schools but the poor situation of the physical facilities in most public schools in Pakistan is also considered one of the chief reasons resulting in the country's high drop-out rate. 35 per cent of the primary and 15 per cent of the secondary schools in Pakistan have no access to electricity. Similarly, one-fourth of the primary schools have no access to drinking water and around one-tenth of the secondary schools face the same situation. A similar scenario persists with regard to the availability of toilets with one-fourth of the primary schools and 8.3 per cent of the secondary schools having no toilet facility at all.

Missing facilities in public schools are one of the leading causes of discomfort and drop-outs. Table 3.8, Table 3.9 and Table 3.10 provide a raking of the provinces/regions based on their performance vis-à-vis physical facilities. A higher rank indicates a lesser percentage of schools with missing facilities while a lower rank points at a higher percentage of schools with missing facilities.

Balochistan ranks among the bottom four in all the three tables, showing very sobering statistics. 74.6 per cent of the urban primary schools and 80.6 per cent of the rural primary schools in Balochistan lack electricity.

Similarly, only 29 out of the 34 districts in Balochistan have no gas supply preventing the schools in the deprived districts from providing adequate heating to their students during the province's harsh winters.

Table 3.9 ranks schools based on the availability of drinking water. Between half and one-third of the schools in the bottom four regions are without drinking water. What is even more alarming is the revelation that for the bottom four ranks the situation is equally poor in both urban and rural areas.

On a similar line, Table 3.10 ranks provinces/regions based on schools without toilets. Between 42 to 64 per cent of the urban primary schools in the bottom four and between 46.1 to 78.6 per cent of the rural primary schools are without toilets. The situation is relatively better in secondary schools where between 15.3 to 23.1 per cent of the urban schools and 19.7 to 38.2 per cent of the rural schools in the bottom four are without toilets.

It is important to point out here that a lack or absence of toilets in schools is an important contributor towards girls' drop-out after Grade Six.

	Primary Schools				Secondary Schools			
Rank	Province/ Region	Urban	Province/ Region	Rural	Province/ Region	Urban	Province/ Region	Rural
	Pakistan	26.0	Pakistan	37.0	Pakistan	10.2	Pakistan	18.2
1st	Islamabad	-	Islamabad	0.8	Islamabad	-	Islamabad	-
2nd	KP	1.1	Punjab	9.4	Punjab	0.5	Punjab	1.6
3rd	Punjab	3.3	KP	12.7	KP	7.9	KP	15.3
4th	Sindh	30.4	FATA	42.5	GB	10.2	GB	29.5
5th	GB	44.4	Sindh	61.2	AJK	15.7	Sindh	34.3
6th	AJK	56.0	GB	61.2	Sindh	17.3	FATA	34.7
7th	Balochistan	74.6	AJK	71.7	Balochistan	35.4	Balochistan	58.7
8th	FATA	-	Balochistan	80.6	FATA	-	AJK	75.7

Table 3.8 Missing facilities: schools without electricity (%)

Source: Author's compilation from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Education. Islamabad.

Note: The rankings follow ascending order with respect to schools without electricity, i.e. lower the percentage of schools without electricity the higher is the rank.

	Primary Schools				Secondary Schools			
Rank	Province/ Region	Urban	Province/ Region	Rural	Province/ Region	Urban	Province/ Region	Rural
	Pakistan	19.1	Pakistan	25.5	Pakistan	8.0	Pakistan	11.9
1st	Islamabad	-	Punjab	0.6	Islamabad	-	Islamabad	-
2nd	Punjab	0.3	Islamabad	3.8	Punjab	0.2	Punjab	0.1
3rd	KPK	1.1	KPK	10.8	KPK	5.2	KPK	10.5
4th	Sindh	28.3	Balochistan	41.2	GB	6.8	GB	25.1
5th	GB	41.3	FATA	42.2	Sindh	11.4	Sindh	26.2
6th	Balochistan	43.9	Sindh	47.3	AJK	26.4	FATA	32.0
7th	AJK	51.2	GB	51.7	Balochistan	31.9	AJK	39.9
8th	FATA	-	AJK	60.5	FATA	-	Balochistan	41.1

Table 3.9 Missing facilities: schools without drinking water (%)

Source: Author's compilation from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Education. Islamabad.

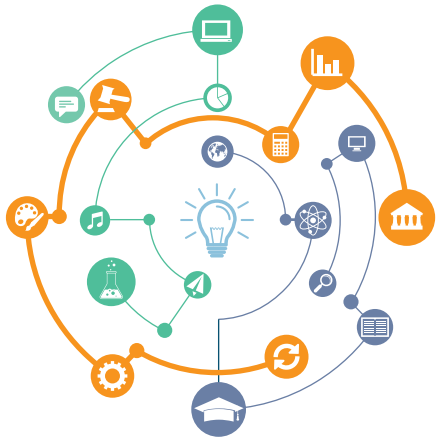
Note: The rankings follow ascending order with respect to the percentage of schools without drinking water, i.e lower the percentage of schools without drinking water, the higher the rank.

	Primary Schools				Secondary Schools			
Rank	Province/ Region	Urban	Province/ Region	Rural	Province/ Region	Urban	Province/ Region	Rural
	Pakistan	20.1	Pakistan	25.1	Pakistan	5.8	Pakistan	8.9
1st	Islamabad	-	Punjab	1.0	Islamabad	-	Punjab	0.2
2nd	Punjab	0.5	Islamabad	1.5	Punjab	0.1	Islamabad	1.8
3rd	KP	0.7	KP	3.8	KP	2.8	KP	3.0
4th	Sindh	22.3	Sindh	41.0	Sindh	8.0	Sindh	17.8
5th	AJK	42.6	FATA	46.1	GB	15.3	GB	19.7
6th	GB	47.6	AJK	53.5	Balochistan	22.4	Balochistan	30.9
7th	Balochistan	64.2	GB	58.2	AJK	23.1	AJK	36.2
8th	FATA	-	Balochistan	72.8	FATA	-	FATA	38.2

Table 3.10 Missing facilities: schools without toilets (%)

Source: Author's compilation from Pakistan to the Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Provincial Training, Islamabad.

Note: The ranking follows ascending order with respect percentage of schools without toilets i.e. lower the percentage of schools without toilets, the higher is the rank.



3.1.5 Number of classrooms per school

One of the factors to which a high drop-out between Grade One and Grade Two is attributed is a lack of classrooms. Both Table 3.11 and Table 3.12 show an insufficient number of classrooms in schools, which certainly needs to be increased to enhance the physical capacity to have a more enabling learning environment.

Table 3.11 shows a comparative analysis of the number of classrooms in primary schools across Pakistan. There are a total of 8,445 primary schools in Pakistan with no classrooms. Out of these 4,810 or 57 per cent are located in Sindh. Of the total, 4,202 primary schools in Azad Jammu & Kashmir, 42.3 per cent are without classrooms.

The situation in secondary schools is comparatively better with only 24 per cent of the schools having three classrooms or less.

Province	No	One	Two	Three	Four	Five	Six	Seven	More than Seven	Not Reported	Total
Pakistan	8,445	21,309	47,778	13,289	9,797	5,981	4,373	1,676	2,832	3,669	119,149
%	7.1	17.9	40.1	11.2	8.2	5.0	3.7	1.4	2.4	3.1	100
Punjab	663	2,166	16,518	6,049	5,162	2,775	2,102	703	852	-	36,990
%	1.8	5.9	44.7	16.4	14.0	7.5	5.7	1.9	2.3	-	100
Sindh	4,810	14,678	12,979	1,826	1,100	1,195	563	292	689	-	38,132
%	12.6	38.5	34.0	4.8	2.9	3.1	1.5	0.8	1.8	-	100.0
KP	349	342	8,812	3,863	2,693	1,636	1,462	565	1,065	1,392	22,179
%	1.6	1.5	39.7	17.4	12.1	7.4	6.6	2.5	4.8	6.3	100.0
Balochistan	827	3,352	4,718	647	499	195	120	69	101	1,099	11,627
%	7.1	28.8	40.6	5.6	4.3	1.7	1.0	0.6	0.9	9.5	100.0
AJ&K	1,779	714	1,272	291	109	20	12	4	1	-	4,202
%	42.3	17.0	30.3	6.9	2.6	0.5	0.3	0.1	0.0	-	100.0
GB	12	16	218	223	82	47	15	11	18	148	790
%	1.5	2.0	27.6	28.2	10.4	5.9	1.9	1.4	2.3	18.7	100.0
FATA	5	40	3,259	382	137	81	59	19	26	1,030	5,038
%	0.1	0.8	64.7	7.6	2.7	1.6	1.2	0.4	0.5	20.4	100
ICT	-	1	2	8	15	32	40	13	80	-	191
%	-	0.5	1.0	4.2	7.9	16.8	20.9	6.8	41.9	-	100

Table 3.11 Number of Classrooms in Primary Schools

Source: Author's compilation and computation from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Provincial Training. Islamabad.

Province	No	One	Two	Three	Four	Five	Six	Seven	More than Seven	Not Reported	Total
Pakistan	674	354	717	3,198	2,033	2,457	3,180	2,528	13,591	272	29,004
%	2.3	1.2	2.5	11.0	7.0	8.5	11.0	8.7	46.9	0.9	100
Punjab	30	15	109	188	816	885	1,912	1,594	9,222	-	14,771
%	0.20	0.10	0.7	1.3	5.5	6.0	12.9	10.8	62.4	-	100
Sindh	100	227	266	563	477	591	239	134	1,363	-	3,960
%	2.5	5.7	6.7	14.2	12.0	14.9	6.0	3.4	34.4	-	100.0
KP	70	26	70	1,915	314	465	471	362	977	136	4,806
%	1.5	0.5	1.5	39.8	6.5	9.7	9.8	7.5	20.3	2.8	100.0
Balochistan	15	41	175	89	179	216	188	182	1,084	7	2,176
%	0.7	1.9	8.0	4.1	8.2	9.9	8.6	8.4	49.8	0.3	100.0
AJ&K	455	41	71	134	116	167	218	141	386	-	1,729
%	26.3	2.4	4.1	7.8	6.7	9.7	12.6	8.2	22.3	-	100.0
GB	3	-	17	22	42	46	43	48	254	31	506
%	0.6	0.0	3.4	4.3	8.3	9.1	8.5	9.5	50.2	6.1	100.0
FATA	1	4	9	284	87	81	103	61	171	98	899
%	0.1	0.4	1.0	31.6	9.7	9.0	11.5	6.8	19.0	10.9	100
ICT	-	-	-	3	2	6	6	6	134	-	157
%	-	-	-	1.9	1.3	3.8	3.8	3.8	85.4	-	100

Table 3.12 Number of Classrooms in Secondary Schools

Source: Author's compilation and computation from Pakistan Education Statistics, 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

3.2 Pull-out factors

3.2.1 Socio-cultural norms

Traditionally, in Pakistan, the concepts of honor and pardah are more closely associated with the girl-child than the male child. This is especially true for adolescent girls whose mobility is dramatically curbed upon reaching puberty. This cultural norm inevitably also has a fall-out on a girl-child's chances of accessing secondary education. Thus, many parents, especially in the less literate, rural parts of the country are unwilling to send their adolescent daughters to a school that might not be close to their homes.

3.2.2 Child marriages

In specific regions across the country, child marriages are one of the most significant determinants for a girl to be out of school. Pakistan has the sixth highest number of child brides in the world with 21 per cent being married before their eighteenth birthday and 3 per cent before the age of 15 years[9]. Once marriage occurs, these child-brides are likely to give birth to their own child within the first year of the nuptials thereby, in most cases sealing their chances of pursuing an education.

As reported by Girls Not Brides, ending child marriage in Pakistan could lead to a $6,229 million rise in earnings and productivity[10] .

[9]National Institute of Population Studies (2013), Pakistan Demographic and Health Survey 2012-13, Islamabad.
[10]https://www.girlsnotbrides.org/child-marriage/pakistan/

3.2.3 Proximity to schools

As discussed earlier, despite higher budgetary allocation and consequent spending in rural areas, the number of schools, especially at the secondary level remain far below the requisite numbers.

At the same time, in topographically hilly terrains such as those in Balochistan province, the population density per kilometer is often very low. This results in schools being located far apart from the residences of the students, thus discouraging parents from sending their daughters to school.

3.2.4 Poverty

The prevalence of poverty is in itself a huge barrier to girls' education. Daughters in poorer households are often engaged in labor within the family or employed for thinly paid outdoor work. Poverty coupled with socio-cultural norms that favor a male-child's education over a female child's often significantly limit the chances of girls to acquire and/or sustain long-term formal education.

3.2.5 Malnutrition

Malnutrition is one of the biggest problems in children of school going age in Pakistan.

In many marginalized areas malnutrition often contributes towards poor performance and ultimately dropping-out of the affected students.

3.3 What happens to girls who go to school?

After discussing at length the many structural and non-structural issues preventing girls from accessing formal education in the country, let us now take a look at the ranking of Pakistan's various regions vis-à-vis girls' enrollment, their retention and the overall situation of female drop-outs.

3.3.1 Area-wise ranking of girls' enrollment

A look at Table 3.13 and Table 3.14 provides a ranking of all the provinces and regions vis-à-vis their success in increasing girls' enrollment at the primary and secondary levels between 2008 and 2017. The tables also further bifurcate the data for each province and region according to urban and rural settings.

While most areas show a positive trend in terms of increasing girls' access to primary schools in urban centres, Azad Jammu & Kashmir and Sindh have recorded a negative trend with a growth of -2.6 per cent and -22.5 per cent respectively.

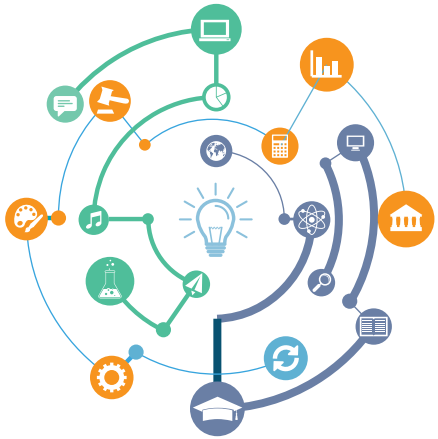
On the flip side, the situation at once becomes adverse when girls' enrollment at the primary level is analysed in the rural segments of the same provinces and regions. Except for FATA (merged districts), Khyber Pakhtunkhwa and Islamabad, all other areas reflect a negative percentage of growth. The excellent performance by the former FATA districts here deserves a special mention. True, that the region took-off from a baseline figure that was lower than most of the other regions, nevertheless a growth of 43 per cent over a ten year period points at a promising future for the region, especially following its recent merger with Khyber Pakhtunkhwa.

Despite the bulk of the public sector education funds being allocated and consequently spent in rural Pakistan, this poor performance once again points at the loopholes in planning that fail to take account of the many demand-side issues preventing girls' access to education.

Interestingly, compared to the primary level the situation at the secondary level reflects better results. Only Sindh and Azad Jammu and Kashmir record a negative growth percentage of -1 per cent and -12.9 per cent respectively. Similarly, the percentage of growth with regard to girls' enrollment at the secondary level is positive for every province and region in the rural areas.

However, while the growth rate seems encouraging on the surface it is important to reiterate that 69 per cent of the girls in the age bracket corresponding to grades 6 – 10 remain out of school in Pakistan (see Chapter 2 for details). Thus, while progress in the right direction is being made there is a lot that still needs to be done – and at a much faster pace – to make universal secondary education a reality for Pakistani girls.

To significantly improve the rate of female literacy, merely increasing enrollments is not enough. A simultaneous plan for girls' retention and graduation up to matriculation needs to be followed and regularly monitored.



	Primary Schools				Secondary Schools			
Rank	Province/ Region	2008	2017	Percentage change	Province/ Region	2008	2017	Percentage change
1st	GB	4,033	4,645	15.2	FATA	95,458	136,541	43.0
2nd	Islamabad	17,940	20,638	15.0	KP	750,600	902,076	20.2
3rd	Balochistan	60,527	69,615	15.0	Islamabad	21,446	26,873	25.3
4th	KP	103,045	111,705	8.4	Punjab	2,125,297	2,086,532	-1.8
5th	Punjab	546,877	571,914	4.6	AJK	116,425	108,605	-6.7
6th	AJK	7,621	7,425	-2.6	GB	32,112	27,728	-13.7
7th	Sindh	385,026	298,217	-22.5	Sindh	731,852	618,554	-15.5
8th	FATA	-	-	-	Balochistan	138,094	96,254	-30.3

Table 3.13 Girls enrollment performance – primary level

Source: Author's calculation from Pakistan Education Statistics, 2007-08 and 2016-17. AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Note: The ranking follows descending order with respect to the percentage change i.e. maximum change refers to highest rank and minimum change corresponds to lowest rank.

	Primary Schools				Secondary Schools			
Rank	Province/ Region	2008	2017	Percentage change	Province/ Region	2008	2017	Percentage change
1st	Islamabad	17,029	22,905	34.5	GB	9,799	17,610	79.7
2nd	Punjab	617,757	716,071	15.9	KP	203,468	332,372	63.4
3rd	KP	89,559	103,745	15.8	Islamabad	13,957	22,306	59.8
4th	GB	3,679	4,024	9.4	Sindh	106,416	158,046	48.5
5th	Balochistan	38,554	40,146	4.1	Balochistan	16,254	23,945	47.3
6th	Sindh	233,667	231,369	-1.0	FATA	11,515	16,524	43.5
7th	AJK	9,965	8,679	-12.9	Punjab	653,599	893,298	36.7
8th	FATA	-	-	-	AJK	57,379	62,141	8.3

Table 3.14 Girls enrollment performance – secondary level

Source: Author's calculation from Pakistan Education Statistics, 2007-08 and 2016-17. AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Note: The ranking follows descending order with respect to the percentage change i.e. maximum change refers to highest rank and minimum change corresponds to lowest rank.

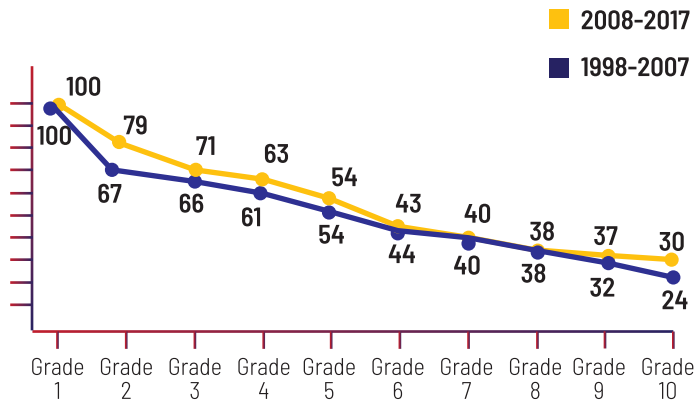


Figure 3.3 Comparing female retention rates 1998-2007 & 2008-2017 - overall

Source: Author's computations from Pakistan Education Statistics, 1992-93 to 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Figures 3.4 and 3.5 illustrate the trajectory of retention and drop-out rates in urban and rural areas.

The girls' rate of retention in urban areas is higher than the rate of drop-outs. For every 100 girls enrolled in Grade One in 1998, 62 managed to complete Grade Ten in 2007. The situation recorded a significant improvement for girls who enrolled in Grade One in 2008. For every 100 of these girls 77 girls completed their education till tenth grade.

Box 1.1 Methodology of Calculating Year on Year Retention

The analysis of year on year retention/drop-out from Grade One (1998) to Grade Ten (2007) and for subsequent ten years from Grade One (2008) to Grade Ten (2017) is important in the context of assessing what is the highest drop-out point (grade) and how the trend goes on. Similarly, an overall average situation sometimes does not reveal a clear picture, for which there is a clear segregation of the year-on-year female retention/drop out analysis into urban and rural. This certainly reflects need for customized reforms. The formulae used for year-on-year retention and drop-outs are provided below.

$$\textit{Year on Year Retention Rate} = \left(\frac{Enrolment_t}{Enrolment_{t-1}}\right) * 100$$

Figure 3.4 shows that the rate of retention of girls in urban areas improves after Grade Five. This is because in urban centers public schools receive an influx of students from Grade Six onwards who migrate from low- and medium-cost primary schools.

On the other hand, the girls' rate of retention in rural areas, especially from Grade Four onwards is extremely poor to say the least.

For every 100 girls enrolled in Grade One in 1998, only 11 managed to complete Grade Ten in 2007. Surprisingly after a decade the situation improved only very slightly: for every 100 girls enrolled in Grade One in 2007 only 18 girls completed Grade Ten in 2017.

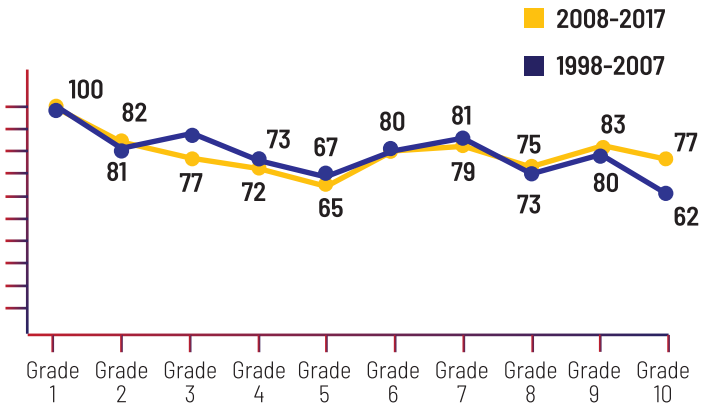


Figure 3.4 Comparing female retention rates 1998-2007 & 2008-2017 - urban

Source: Author's computations from Pakistan Education Statistics, 1992-93 to 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

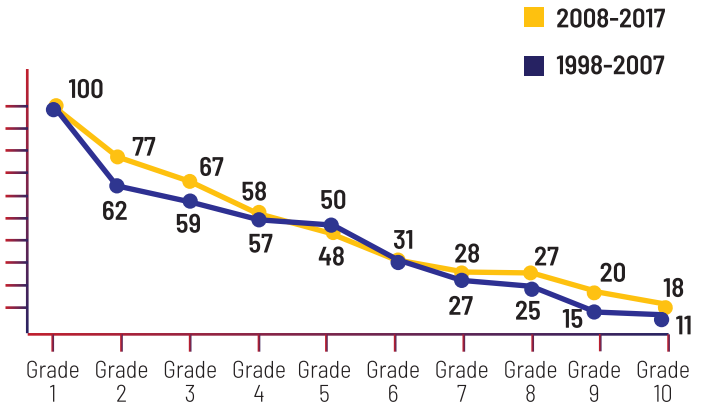


Figure 3.5 Comparing female retention rates 1998-2007 & 2008-2017 - rural

Source: Author's computations from Pakistan Education Statistics, 1992-93 to 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Table 3.15 summarizes the average female drop-out rates up to Grade Five. Gilgit-Baltistan ranks the highest with a 100 per cent retention rate for girls at the primary level, both in urban and rural areas. Azad Jammu & Kashmir Punjab, and Khyber Pakhtunkhwa also have decent and sustainable retention rates for girls till Grade Five. However, the retention rate in Sindh stands at a mere 58 per cent in urban and 39 per cent in rural areas. This is despite the fact that Sindh has both a greater number of primary schools and primary school teachers compared to the comparatively well-off Punjab.

Table 3.16 documents the average female drop-out rate for girls at the secondary level. Once again, urban hubs fare well with the developed districts of Punjab, AJ&K and GB recording retention rates till Grade Ten that are above 80 per cent.

Conversely, the situation in rural areas across the country paints a grim picture. Only 15 per cent of the girls in rural Pakistan who enrolled in Grade One in 1993 were able to graduate from Grade Ten in 2017. Sindh, Balochistan and the former FATA districts rank among the lowest performers with retention rates of 9, 8 and 7 per cent respectively.

Box 1.2 Methodology of Calculating Cumulative Retention and Drop-out Rates at Grade Five and Grade Ten

$$\text{Retention Rate up to Grade 5} = \left(\frac{\text{Enrolment}_{t+4,\ \text{Grade 5}}}{\text{Enrolment}_{t,\text{Grade 1}}}\right) * 100$$

Cumulative drop out rate till Grade 5= 100-Retention Rate to Grade 5

$$\text{Retention Rate up to Grade 10} = \left(\frac{\text{Enrolment}_{t+9,\ \text{Grade 10}}}{\text{Enrolment}_{t,\text{Grade 1}}}\right) * 100$$

Cumulative drop-out rate till Grade 10= 100-Retention Rate to Grade 10

The detailed results and comparative analysis is presented in Table 3.13 and Table 3.14

	Urban				Rural			
Rank	Province/ Region	Grade-1 admission	Cumulative drop-outs of 5 years	Grade-5 Completion	Province/ Region	Grade-1 admission	Cumulative drop-outs of 5 years	Grade-5 Completion
	Pakistan	100	-33	67	Pakistan	100	-49	51
1st	GB	100	-	100	GB	100	-	100
2nd	AJK	100	-3	97	Islamabad	100	-10	90
3rd	Islamabad	100	-4	96	AJK	100	-14	86
4th	Punjab	100	-27	73	KP	100	-39	61
5th	KP	100	-30	70	Punjab	100	-48	52
6th	Balochistan	100	-35	65	Sindh	100	-60	40
7th	Sindh	100	-42	58	Balochistan	100	-61	39
8th	FATA	-	-	-	FATA	100	-65	35

Table 3.15 Average female drop-outs up to Grade Five, 1993-2017

Source: Author's compilation from Pakistan Education Statistics, 1992-93 to 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Note: The ranking follows an ascending order with respect to drop-out rate i.e. minimum drop-outs mean highest rank and maximum drop-outs correspond to lowest rank.

	Urban				Rural			
Rank	Province/ Region	Grade-1 admission	Cumulative drop-outs of 10 years	Grade-10 Completion	Province/ Region	Grade-1 admission	Cumulative drop-outs of 10 years	Grade-10 Completion
	Pakistan	100	-36	64	Pakistan	100	-85	15
1st	Punjab	100	-9	91	Islamabad	100	-41	59
2nd	AJK	100	-11	89	GB	100	-74	26
3rd	GB	100	-19	81	AJK	100	-77	23
4th	Islamabad	100	-21	79	KP	100	-81	19
5th	KP	100	-35	65	Punjab	100	-86	14
6th	Sindh	100	-55	45	FATA	100	-91	9
7th	Balochistan	100	-56	44	Sindh	100	-92	8
8th	FATA	-	-	-	Balochistan	100	-93	7

Table 3.16 Average female drop-outs up to Grade Ten 1993-2017

Source: Author's compilation from Pakistan Education Statistics, 1992-93 to 2016-17, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Note: The ranking follows an ascending order with respect to drop-out rate i.e. minimum drop-outs mean highest rank and maximum drop-outs correspond to lowest rank.

3.4 The cause and effect of push and pull factors on girls' education

More often than not design-side push-out factors and demand side pull-out factors do not work in isolation. The former often become a pretext for encouraging pull-out factors such as cultural barriers and poverty to come into play, thereby severely limiting a child's ability to attain or sustain formal education. This is an important consideration when understanding why girls' rate of drop-out at all levels of schooling is much higher for rural as compared to urban areas.

It is also important to emphasize here that both push-out and pull-out factors are disproportionately more pronounced in rural as compared to urban areas. The overall rate of retention for girls is higher than the rate of drop-out till Grade Five. However, the retention rate experiences a sharp and consistent decline from Grade 6 onwards. This sudden nose dive is primarily attributed to poor retention and high drop-out rates in the rural areas of Pakistan.

3.4.1 Distribution of the education budget

A closer look at the distribution of funds reveals that the bulk of the non-development funds in terms of teachers' salaries, utilities and maintenance are directed towards rural areas. As already demonstrated this investment is not having the desired effect on the retention of girls in rural Pakistan. This then points at the need to re-direct the bulk of this investment towards introducing programs and schemes that address pull-out factors such as regressive socio-cultural norms and poverty. Alternatively, in the short-term the scope of such government-led poverty alleviation programs as the Benazir Income Support Program / Ehsaas should be broadened to limit the impact of poverty on a child's chances to attain education.

At the same time, it is the non-development and not the development costs that take the lion's share of the education budget. This structural rigidity makes the diversion of funds to activities like food support, student stipends and compensation for child labor's opportunity cost extremely difficult. This aspect will be discussed in detail in the consequent chapter of this report.

3.4.2 Inter-provincial disparity

The inter-provincial disparity is stark between the provinces in the north and south. Both Khyber Pakhtunkhwa, Punjab, AJK and GB have relatively better retention rates than Sindh and Balochistan with the newly merged districts in KP being the exception. The provinces in the south stand well below the national average.

In the same realm, Sindh has more schools than Punjab despite being less than half both in terms of population and area. The number of primary schools in Sindh is 38,132 while Punjab stands at 36,900. However, despite a greater number of schools, girls' enrollment in Sindh stands at 2,398,592, which is less than half of the enrollment in Punjab, which is 5,465,564.

A comparison of the school statistics between these provinces indicates that for every 100 primary schools in Sindh there are 97 primary schools in Punjab, whereas for every 100 students enrolled in Sindh, the count for Punjab is 227.

The trends in terms of girls' enrollment are more adverse: for every 100 girls enrolled in Sindh, there are 289 girls enrolled in Punjab.

With almost the same number of schools and resources, Sindh in the south has consistently been performing far below the mark compared to its counterparts in the north like Punjab.

Contrary to mainstream perception, in Khyber Pakhtunkhwa, the retention rate for girls at Grade 10 in rural areas is better than that of Punjab. The average in the retention rate may fall with the merger of the new districts from the former FATA region.

3.4.3 Role of the private sector

The retention rate in the urban areas of Pakistan improves beyond Grade Five owing to the influx of new children who migrate to the public education system from low- and medium cost private schools. This may attribute to the transition from low-cost private schools to public schools as the cost of education at secondary increases and parents trust to invest more on the tuition centers.

3.4.4 Emerging phenomena

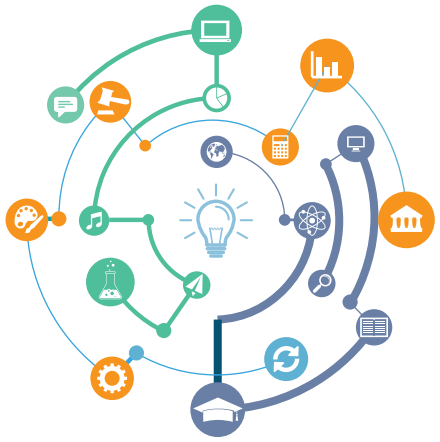
While reviewing the trajectory of girls' retention at various levels of schooling in Pakistan, two emerging phenomena must be borne in mind to effectively plan for the future.

Firstly, the urban population growth rate has surpassed the rural population growth rate as a result of which secondary schools in the urban areas are likely to face additional pressure in the near future.

Secondly, as a result of the COVID-19 crisis the average household income in the urban centers is projected to decline in the coming years. There is thus, a high probability that parents will prefer public schools over low- or medium-cost private schools both at the primary and secondary levels. At the same time, with extended school closures due to the pandemic, many low-cost private schools will also close their operations owing to limited financing. These factors will inevitably add further pressure on the existing public resources. The pandemic has also affected a large labor force of daily wagers who might opt to pull out their children from schools, resulting in an increase in the incidence of child labor.

A UN short brief[11] sums up the situation in the following words:

"If given the infectious nature of the COVID-19, in order to contain the spread of the virus, the government has instructed public and private schools to shut down across Pakistan. As observed in previous health emergencies such as the Ebola outbreak, the education system in Pakistan with low learning levels and high drop-out rates is likely to be severely impacted. Within the system, it is the vulnerable students, including girls who face the most disproportionately negative impacts. Given mobility constraints, when schools are closed, girls are generally given more household responsibilities as compared to boys. Prolonged closure could exacerbate the inequalities in educational attainment as this will result in higher rates of female absenteeism and lower rates of school completion. As the schools open a lot of girls will find it difficult to balance schoolwork and increased domestic responsibilities."



[11] UN Women & Government of Pakistan (2020), Gendered Impact and Implications of COVID-19 in Pakistan.

4. THE POLITICAL ECONOMY OF EDUCATION

The issues that have a direct bearing on the enrollment and retention rates of children in general and girls in particular have been discussed at length in the previous chapters of this report. However, to overcome the challenges posed by the push-out and pull-out-of-school factors it is important to understand the elements that affect the delivery capability of the country's education system.

A deeper look into these elements reveals their roots within the motivations and choices of two specific actors: the government and leading political forces.

At the level of governance, Pakistan's financial system is critically constrained by its large financial outlay on account of debt servicing, defense and general administrative expenditure. These three heads of expenditures crowd most of the federal budget, leaving little space for development initiatives. At the same time, Pakistan's financial resource pool is also restricted owing to the country's poor tax collection. Pakistan's tax-to-GDP ratio is one of the lowest among developing countries, resulting in the state's reliance on external support and debt.

The politics of education on the other hand is rich with promises of change that are often not followed-up with much enthusiasm. The state's inability to meet its international obligation of allocating 4 per cent of the GDP to education (explained further in consequent sections) during the past 20 years alone is a glaring manifestation of an acute lack of political will.

This chapter will then, take a deep dive into the political economy of Pakistan's education sector. It will first provide the readers with an understanding of the country's fiscal system. The later sections will then analyze the political performance of various elected governments over time from the perspective of the actual investment made in education, the percentage of the allocated funds diverted towards development and non-development budgetary heads and finally, the trends in the utilization.

4.1 Pakistan's fiscal system & its performance

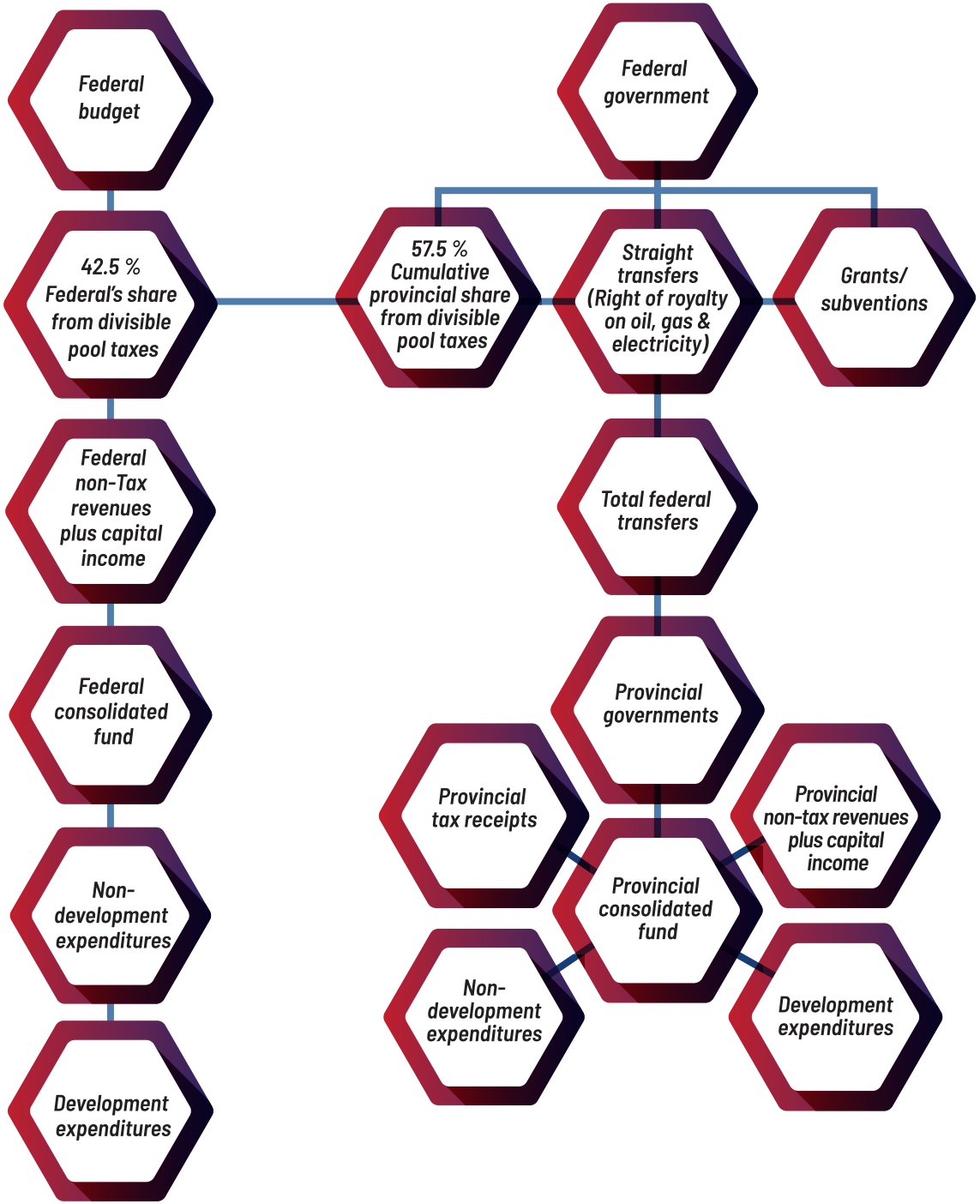
Pakistan has three vertical tiers of the government, i.e. federal, provincial and local. The Constitution of Pakistan clearly assigns revenues and expenditures to the federal and provincial governments. Most of the revenue is collected by the federal government and then shared with the provinces through a mechanism called the National Finance Commission (NFC).

The public finance structure significantly depends on inter-governmental fiscal transfers, i.e. transfers of public resources between various levels of government, federal, provincial and local. The federating units under the constitutional mandate of the National Finance Commission are the four provinces of Pakistan i.e. Punjab, Sindh, Khyber Pakhtunkhwa and Balochistan. The tax collected by the federal government is distributed between federal and provincial governments through a system known as vertical sharing of divisible pool taxes whereby the share of each province is determined by a formula-based distribution. The divisible pool taxes are shared between federal and provincial governments in a ratio of 42.5 per cent (federal) and 57.5 per cent (cumulative share of all the four provinces) per NFC Award, 2010. This arrangement allows more resource transfers to provinces so that they can independently manage their augmented set of responsivities and challenges after the devolution in 2010. A province's own taxes and on-tax revenues are then added to the provincial share, out of which, provinces allocate shares for local governments. The transfers to the local tiers of the government are administrated through the Provincial Finance Commissions

It goes without saying that a country's sound fiscal position is imperative to achieve stability at the macroeconomic level. It is also a key ingredient to ensure sustainable economic growth leading to poverty reduction. A country with stable fiscal indicators is likely to mobilize greater domestic savings, enhance its ability for more efficient resource allocation and be in a much better position to achieve its development goals. On the other hand, a lax fiscal policy makes economic recovery, long-term sustainable growth and investment in development initiatives extremely difficult. Pakistan's fiscal system unfortunately falls in the latter category making large investments in areas such as education exceptionally challenging.

Pakistan's current dismal fiscal performance can be attributed to four factors:

1. The country's inability to generate adequate revenues to meet expenditure;
2. A flawed system of taxation punctuated with generous tax exemptions, massive tax evasion and heavy reliance on indirect instead of direct taxes;
3. Large outlay of inefficient subsidies to power, textile and agricultural sectors for covering up the country's incapacity to diversify its exports resulting in a persistent trade deficit, (and)
4. Finally, a huge amount of public debt that continues to mount and a large chunk of the budget is utilized in debt servicing.



Consequently, efforts geared at reducing fiscal deficit have often led to curtailing development expenditure, which in turn has hampered the process of growth and resulted in a decline in human development indicators, increasing the incidence of poverty.

A look at the overall position of all the major fiscal indicators in Pakistan over a period of two decades unfortunately reveals the same or a very similar story. Except for a few years recording a relatively decent growth, the general picture is marred by low tax-to-GDP ratios, high budget deficits and poor fiscal indicators. This points at a vicious cycle of low growth and under-development that persistently prevents Pakistan from achieving its true economic potential.

Figure 4.1 Federal and provincial fiscal system of Pakistan

Source: Author's conceptualization from the Constitution of Pakistan and the fiscal system of the federal and provincial governments.

		Growth and Deficit		Expenditure			Revenue			Public Debt	
Government	Fiscal Year	Real GDP Growth	Overall Fiscal Deficit	Total	Non Develop-ment	Develop-ment	Total	Tax	Non-Tax	Debt/ GDP	Debt/ Service
Non-civilian regime	FY99	4.2	6.1	22.0	18.6	3.4	15.9	13.3	2.6	79.6	6.0
	FY00	3.9	5.4	18.7	16.5	2.2	13.5	10.7	2.8	78.9	5.5
	FY01	1.8	4.3	17.2	15.5	1.7	13.3	10.6	2.7	83.8	4.4
	FY02	3.1	4.3	18.8	15.9	2.9	14.2	10.9	3.3	79.7	4.2
	FY03	4.7	3.7	18.6	16.3	2.3	14.9	11.5	3.4	75.1	3.3
	FY04	7.5	2.4	16.7	13.5	3.2	14.3	11.0	3.3	67.1	2.7
	FY05	8.6	3.3	17.2	14.5	2.7	13.7	10.0	3.7	62.5	2.7
	FY06	6.6	4.0	17.1	12.6	4.5	13.1	9.8	3.3	57.2	2.6
	FY07	6.8	4.1	19.0	14.4	4.6	14.0	9.6	4.4	55.4	3.7
	FY08	5.0	7.3	21.4	17.4	4.0	13.8	9.6	4.2	59.0	5.5
PPP	FY09	0.4	5.2	19.0	15.5	3.5	14.0	9.1	4.9	59.9	6.8
	FY10	2.6	6.2	20.4	16.0	4.4	14.0	9.9	4.1	60.6	5.7
	FY11	3.6	6.5	18.7	15.9	2.8	12.3	9.3	3.0	58.9	4.7
	FY12	3.8	8.8	21.2	17.3	3.9	12.8	10.2	2.6	63.3	5.1
	FY13	3.7	8.2	21.5	16.4	5.1	13.3	9.8	3.5	60.1	5.4
PML-N	FY14	4.1	5.5	20.8	15.9	4.9	14.5	10.2	4.3	58.1	5.8
	FY15	4.1	5.3	20.3	16.1	4.2	14.3	11.0	3.3	58.3	5.8
	FY16	4.6	4.6	20.6	16.1	4.5	15.3	12.6	2.7	61.3	5.5
	FY17	5.2	5.8	21.6	16.3	5.3	15.5	12.4	3.1	61.5	5.9
	FY18	5.5	6.5	21.6	16.9	4.7	15.1	12.9	2.2	66.5	5.6
PTI	FY19	3.3	8.9	21.6	18.4	3.2	12.7	11.6	1.1	76.6	7.9

Table 4.1 Major fiscal indicators as percentage of GDP

Source: Ministry of Finance, Government of Pakistan, Fiscal Policy Statement, Debt Policy Statement, Pakistan Economic Survey, various issues.

4.2 Political promises vs. investment in education

4.2.1 Political promises & their follow-up

There are two key ways to gauge the seriousness and commitment of the political forces vis-à-vis education. These are (i) the importance accorded to education in political campaigning and manifestoes and (ii) budgetary and non-budgetary commitments, policies and plans once these political actors come into power.

At various intervals during the last ten years elected governments have reiterated their resolve to address the challenges facing Pakistan's education landscape.For instance, Ishaq Dar, the then Finance Minister under the PML-N government in his budget speech of 2015-16 urged the provinces to allocate more money to education so that the country could bridge the funding gap and dedicate 4 per cent of its GDP to education[12] .

Similarly, Dr. Miftah Ismail, Finance Minister (PML-N) in his budget speech of 2018-19 announced the introduction of the "100 100 100 Plan." This signified the federal government's commitment to ensure that 100% of the Pakistani children would be enrolled in schools, 100% children would be retained in schools and finally, 100% would graduate from schools[13].

[12]http://www.finance.gov.pk/budget/budget_speech_english_2015_16.pdf
[13]http://www.finance.gov.pk/budget/budget_speech_english_2018_19.pdf

More recently, the National Education Policy Framework 2018 reiterates PTI's, "Leave no child behind" resolve to bring more than 20 million out-of-school children into the educational fold. The National Education Policy also plans to introduce food-based incentives to increase enrollment and improve retention and completion rates, especially for girls. At the same time, the then Finance Minister of PTI Asad Umar in his budget speech of 2018-19 announced a commitment of special incentives for parents to send their children to schools in the lagging districts of the country.

However, while promises and commitments do indicate governments' understanding of the issues limiting Pakistan from achieving its educational goals, the true barometer of its inclination to bring change depends largely on tangible actions. In simpler words this means that careful policy planning supplemented with actual investment in education is a direct reflection of a leadership's political will to bring about change in Pakistan's current dismal state of education indicators.

For the purpose of this discourse, we will take a look at the education-related promises made by all the key political parties ahead of the 2018 general elections.

A comparison of the promises documented in the manifestoes of Pakistan's key political parties prior to the 2018 elections shows that there has most certainly been an awakening on their part as far as understanding the core issues of Pakistan's education dilemma are concerned. For instance, the urgency to bring more girls to schools is documented in one or the other way in the political manifestoes of all the key parties. This reflects an acknowledgement on the part of the political elite that the staggering number of the out-of-school children cannot be curtailed unless more girls – who form the majority of the OOSC – are brought into schools.

To a certain level, this "awakening" has also been translated into actions by the political parties that consequently came to power in the provinces following the 2018 polls. For instance, every province is currently implementing a scholarship and/or stipend-based program specifically aimed at increasing the enrollment of girls. In the same realm, early childhood programs introduced by the Government of Punjab have not merely been focusing on improving learning outcomes but have also resulted in a 4 per cent decrease in the provincial drop-out rate[19]. Similarly, the Government of Sindh in partnership with the World Bank and the EU has initiated the Sindh Education Reform Program (SERP) and the Girls' Enrollment program to reduce the number of out-of-school children, specifically girls in the province. The Government of Khyber Pakhtunkhwa has also initiated the "Accelerated Implementation Plan" (AIP) for merged districts of the erstwhile Federally Administered Tribal Areas to increase girls' access to quality education in Kurram and Orakzai districts. Finally, the recently released report, "Five years of education reforms in Balochistan: Wins, Losses and Challenges for 2018-2023" highlights the improvements this region has made in enhancing access to and the quality of education in the province[20].

There is no denying that political performance with regard to education has demonstrated improvement overtime and there seems to be increasing realization to bring about structured change in the education system of the country. That said, not only does the pace of change leaves a lot to be desired for but the actual investment in education has also unfailingly remained far below the desired mark.

Commitments	ANP	PML-N	PTi	JUI F	PPPP	JI	PML-F
Sending OOSC to schools	-	-	✓	✓[15]	✓	✓[16]	-
Increase GDP allocation	6%	-	4%	-	5%[17]	-	-
Additional resource allocation for girls	-	✓	✓	-	✓	-	✓
Provide stipends/special incentives to increase girls enrollment	✓	✓	✓	✓[18]	-	✓	✓
Establishment of new girls schools	✓	✓	-	-	-	-	-
Upgradation of existing girls schools	✓	✓	✓	-	✓	-	-

Table 4.2 General elections 2018 - girls education and political commitments and manifestos

Source: Author's compilation from Election 2018 manifestos of political parties

[14]http://aserpakistan.org/document/2018/National_Eductaion_Policy_Framework_2018_Final.pdf
[15]No out of school child in next 20 years.
[16]100% literacy in 5 years
[17]Gradual increase and up to 5% till 2025
[18]For all poor students including girls
[19]Budget Speech 2019
[20]https://www.globalpartnership.org/news/new-report-highlights-balochistans-progress-improving-education-and-challenges-remain

4.2.2 Investment in education

In the last few years, provincial governments have been successful in allocating 20 per cent or one-fifth of their planned public expenditure on education. This is in line with the guiding principles laid down in the "Education 2030 Incheon Declaration and Framework for Action ," in 2015 according to which every country should spend at least 4 per cent of its GDP on education and/or allocate at least 15 to 20 per cent of its public expenditure for education. However, despite consistently satisfactory allocations by the provincial governments, Pakistan has never reached the benchmark of spending 4 per cent of its GDP on education.

A snapshot of the actual percentage of GDP spent on education during the last 20 years does not reflect much change and the overall allocation as a percentage of the GDP has remained far below the international benchmark of 4 per cent.

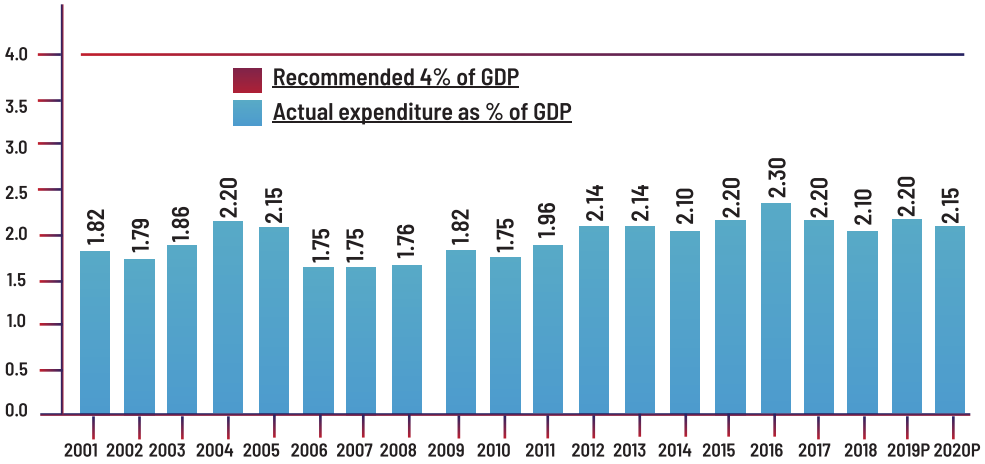


Figure 4.2 Comparing 4% of GDP with Actual Expenditure on Education as % of GDP

Source: Author's compilation from Election 2018 manifestos of political parties

An overtime comparison of the actual state of education spending vs. the 4 per cent benchmark shows that the gap between the two variables has not changed much overtime. This can be illustrated from the fact that during the fiscal year 2012-2013, there was a gap of 44.4 percent between the actual spending on education and the recommended 4 per cent mark. By 2018-19, this gap had only come down to 38.6 per cent.

Had 4 per cent of the GDP been allocated on education, the basket of financial resources in absolute rupee terms would have been significantly larger. At the same time, education spending would also have gone up by approximately 40 per cent of the existing education spending.

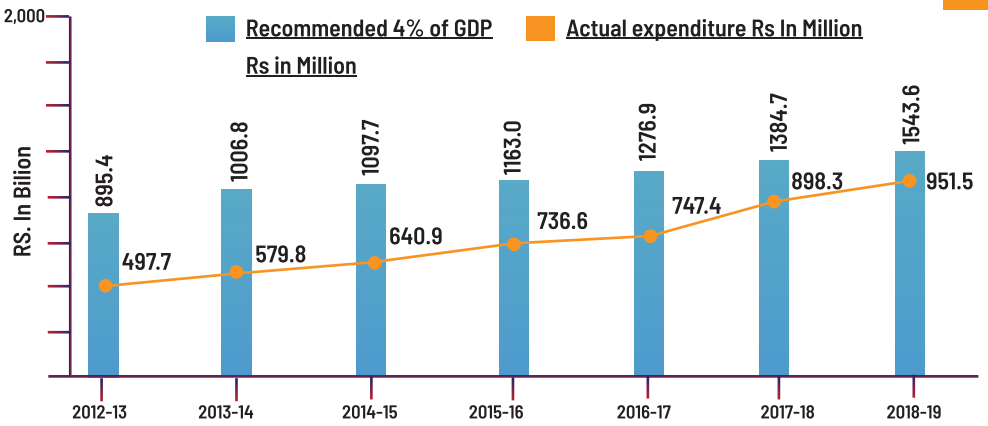


Figure 4.3 Education spending vs. the 4 % mark

Source: : Author's computation from the federal and provincial budgets and the various issues of the Pakistan Economic Survey.

A comparison of Pakistan's public spending on education against that of other South Asian countries again reveals a sorry picture. In 2017 Pakistan allocated 2.9 per cent of its GDP to education. Except Bangladesh and Sri Lanka, all other South Asian countries ranked above Pakistan in terms of public spending on education as a percentage of their GDP.

It must also be pointed out that while 2.9 per cent was allocated, at the end of the fiscal year only 2.2 per cent was actually spent[22] .

Country	% of GDP	% of public expenditures	Income group	Poverty headcount at 3.20$/day (% of population)
Afghanistan	4.1	15.7	Low	-
Bangladesh	2.0	14.6	Lower middle	52.9
Bhutan	6.6	22.8	Lower middle	12.0
India	3.8	14.1	Lower middle	60.4
Maldives	4.1	11.3	Upper middle	24.4
Nepal	5.2	14.2	Low	50.8
Pakistan	2.9	14.5	Lower middle	34.7
Sri Lanka	2.1	11.3	Upper middle	10.1

Table 4.3 The spending of South Asian countries on education, income and poverty status

Source: United Nations Educational, Scientific and Cultural Organization, SDG-4 Country Profiles and World Bank.

[22] Author's computation from Federal and Provincial Budgets and the various issues of the Pakistan Economic Survey.

4.2.3 Provincial allocations

As earlier established, after the passage of the 18th Constitutional Amendment, the responsibility of adequate spending on education to meet Pakistan's national and international commitments lies primarily with the provinces. Despite calls from the consequent federal governments urging provinces to allocate more funds towards education it cannot be denied that most of the provinces have stepped-up to fulfill this responsibility and allocated significant amounts of budgets for education.

For instance, in the fiscal year 2016-2017 each of the four provinces had earmarked more than 15 per cent of their respective budgets for education. Even Balochistan that had experienced a significant cut in its education budget that year managed to earmark 17 per cent of its budget for education.

However, while the provinces have been meeting their obligation, the federal government has constantly failed to meet its end of the bargain. Figure 4.4 below provides a snapshot of the percentage of the total budget earmarked by the federal and provincial governments between 2014 and 2019. A quick look at the graph shows that while the provincial governments have allocated well above the minimum limit of 15 per cent throughout this time, the federal government has fallen short of the mark by a huge margin with allocations dwindling between a mere 2 – 2.2. per cent!

And so, even though education is primarily a provincial subject, the onus of responsibility to correct Pakistan's current miserable state of education spending as a percentage of its GDP lies largely on the federal government. Because the federal spending on education as a percentage of the total spending is so low, it inevitably brings down the cumulative average.

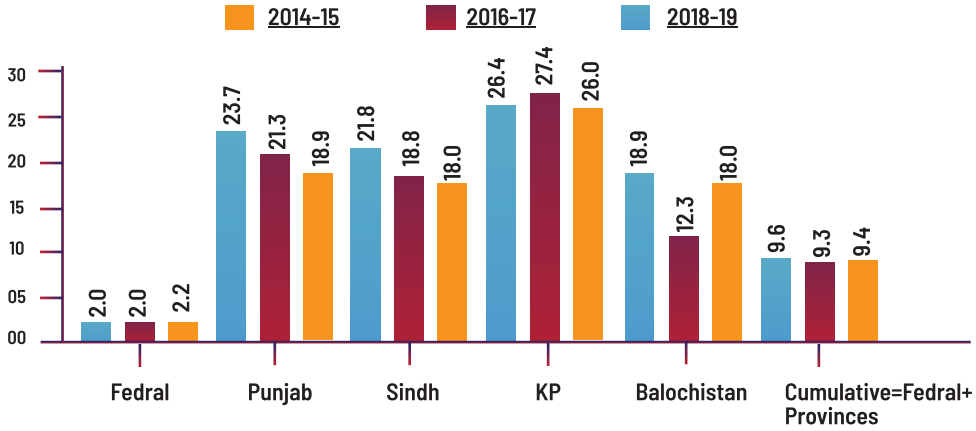


Figure 4.4 Education spending as percentage of total public spending

Source: Author's calculations using Annual Budget Statements, Annual Development Programs, federal and provincial Governments, various years.

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4.3.4 Non-development & development education budgets

While the provincial governments deserve credit for striving to achieve the benchmarks set forth in the 2015 "Education 2030 Incheon Declaration and Framework for Action," it is also important to point out that provincial education budgets are crowded with non-development priorities. Non-development expenditures such as salaries and adminis trative costs often leave little room to allocate and consequently spend on education development initiatives.

Non-development budgets are traditionally neither conditional nor flexible. This means that governments can't just avoid these expenditures and are under compulsion to ensure adequate allocation of financial resources to meet them. These expenses include such line items as salaries, administrative and ancillary expenditures.

In principle, non-development expenditures are downward rigid and are unlikely to contribute to any physical expansion in educational infrastructure and facilities. However, despite this fact when funds are being earmarked, non-development budget takes precedence over the development budget. This is evident from the fact that whenever a budget cut is announced, the development budget is the first to be to be reduced.

The problem of budgeting has also been eroding public resources. The recurrent (non-development) budgets are prepared based on an incremental approach followed by development budgets on residual basis i.e. prioritizing development spending in whatever is left over.

Figure 4.5 and Figure 4.6 offers a simple analysis of the development vs. non-development spending of the provinces and regions. Except for Islamabad, Khyber Pakhtunkhwa, Punjab and Gilgit-Baltistan the ratio of development spending has been appallingly low.

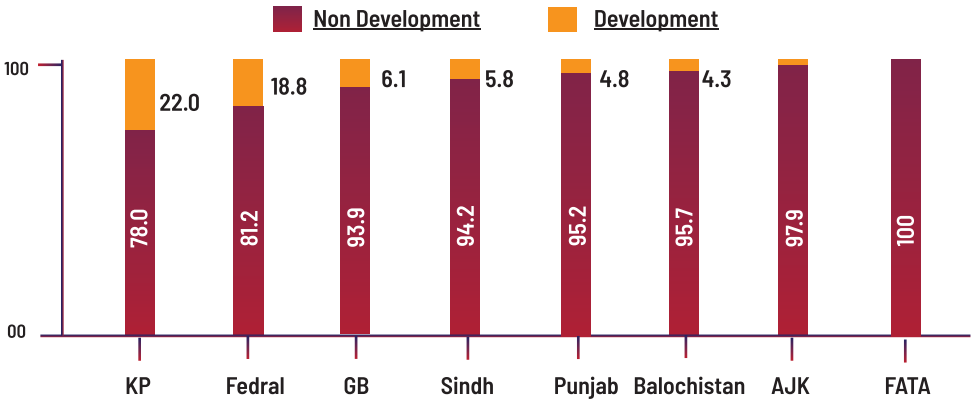


Figure 4.5 Non-development and development education budgets 2012-13

Source: Author's calculations using Annual Budget Statements, Annual Development Programs, federal and provincial Governments, various years.

Note: From left to right, provinces are placed from highest ratio of development budget to the lowest, or from lowest non-development budget to highest non-development budget.

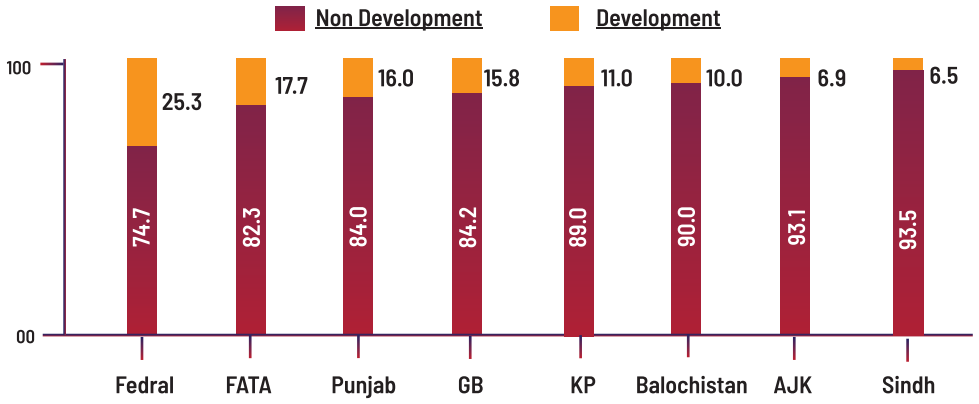


Figure 4.6 Non-development and development education budgets 2018-19

Source: Author's calculations using Annual Budget Statements, Annual Development Programs, federal and provincial governments, various years.

Note: From left to right provinces are placed from highest ratio of development budget to the lowest, or from lowest non-development budget to highest non-development budget.

Although education spending as a percentage of the GDP is less than the recommended 4 per cent, yet over time the education outlays have increased substantially in Pakistan. But the considerable and consistent increase has little room for expansion of the existing system, provision and improvement of physical facilities, teachers' training and student stipend programs etc. This is because the proportion of development funds is meager compared to the voluminous outlays on account of salaries and other non-development expenditures.

Unfortunately, such an inadequate allocation for the education development budget has persisted even after the National Finance Commission Award, 2010 and 18th Amendment to the Constitution of Pakistan. The provinces have been awarded more financial resources and enormous powers, yet the situation of development spending on education is very similar to what it was prior to 2010.

Also, the bulk of public resources in education have been invested in rural areas, which ironically have the poorest outcomes in terms of retention rates and learning scores. This situation, where the poorest outcomes are being recorded from areas with the highest proportion of investment demands introspection. The situation warrants that before investing an additional rupee in the rural areas, a fair, objective and unbiased efficiency assessment should be conducted. And if the funds and inputs require to be re-allocated to such aspects as introducing programs and schemes to address the pull-out of school factors then re-allocation and investment in those areas should not be compromised.

In a nutshell, there is a need for rationalization of budgetary resources. It needs to be evidence-based linked to improve both retention and learning outcomes in the least performing regions.

4.3.5 Utilization rate of the education budget

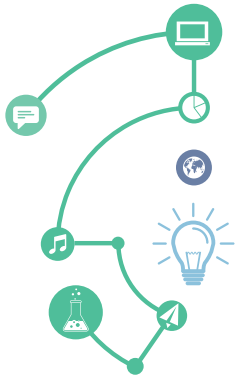
As important as it is for greater resources to be allocated for education, equally important is the need for the allocated funds to be utilized. An average of the rate of utilization of the education budget between 2012-13 and 2017-18 shows an overall satisfactory picture. This is true for both the consumption of the development and non-development budget heads.

However, given the meager resources allocated under the education development budget even average consumption rates exceeding 100 per cent (e.g. Gilgit-Baltistan, Azad Jammu & Kashmir and Balochistan) have not done much to improve the miserable state of Pakistan's education indicators.

Rank	Education Budget (Non-Development + Development)	Utilization Rate %	Rank	Non-Development Budget	Utilization Rate %	Rank	Non-Development Budget	Utilization Rate %
1st	FATA	126.77	1st	FATA	108.27	1st	GB	165.15
2nd	GB	104.65	2nd	Federal	105.32	2nd	AJK	142.33
3rd	AJK	101.82	3rd	GB	100.11	3rd	Balochistan	116.36
4th	Federal	99.87	4th	AJK	100.09	4th	FATA	96.86
5th	Balochistan	96.34	5th	Punjab	98.31	5th	Federal	93.34
6th	Punjab	94.53	6th	Balochistan	97.06	6th	Punjab	82.57
7th	KP	91.08	7th	KPK	97.05	7th	KPK	77.88
8th	Sindh	78.12	8th	Sindh	85.89	8th	Sindh	54.67

Table 4.4 Average utilization rate of the education budget 2012-13 to 2017-18

Source: Federal and Provincial Annual Budget Statements 2018-19, Public Financing in Education Sector, 2019 Academy of Educational Planning and Management, Ministry of Federal Education and Professional Training, Islamabad.



5. HOW TO ENSURE EDUCATION FOR EVERY PAKISTANI GIRL-CHILD BY 2030

Both demand- and structural supply-side issues coupled with spasmodic planning have contributed to the current grim situation of education in Pakistan (refer to previous chapters for details). And while these predicaments individually and in unison persistently rob millions of Pakistani children from a chance at a better life, they should be seen more as symptoms rather than the root causes of the problem. At the heart of Pakistan's current education crises lies the dilemma of dreadfully low investment.

The present state of education spending is wholly insufficient to accomplish the phenomenal task of ensuring a 100 per cent enrollment, 100 per cent retention and 100 per cent graduation rate for every Pakistani child. In fact, the current state of education spending falls short by a large margin to even bring the country's more than 12 million OOS girls into schools.

As if this situation was not alarming on its own, the outbreak of the novel coronavirus is further likely to aggravate the performance of the country's already frail education indicators. By opting for a "smart" instead of complete lockdown, the government has endeavored to initiate the recovery phase sooner rather than later. However, the situation remains fluid and until the threat of the virus is entirely eliminated, it is unlikely that Pakistan – much like the rest of the world – will be in a sound position to plan and project the pace of recovery. This uncertainty coupled with the extra cost of social distancing, hygiene safety standards and medical expenditures on prevention and control of the pandemic will all continue to mount pressure on the country's meagre resources.

With this background in mind it would seem wholly unreasonable to demand for additional funds to immediately create space in the system for out-of-school girls. However, this also does not mean that progress towards this goal should be left entirely stunted. It is also worth pointing out that with coherent and well-coordinated policy planning, Pakistan actually has the potential to generate far more revenue than it is currently doing. If tapped successfully, new avenues of revenue generation will not only accelerate the pace of recovery in the post-COVID-19 period but will also enable the country to invest more in education.

Accordingly, this chapter strives to answer two questions most integral to this report's discourse:

i. Just how much more money is precisely required to fulfill the constitutional promise of providing free, compulsory and quality education to every Pakistani girl-child?
ii. How will those massive additional funds be raised for education, especially now that the already weak economy has further been hit hard by the pandemic?

5.1 Cost estimate for educating OOS girls

When developing an intelligent cost estimate for the cost per student it is important to keep three considerations in mind:

a. Estimates of both monetary and non-monetary support should be accounted for;
b. Cost components should account for both the demand- and supply side factors; (and)
c. The estimate should be close to the government's own per student average expenditure.

The other important consideration is the ratio of allocation between physical capacity expansion and the provision of incentives to the OOS girls. As provided in Figure 5.1 the cost for primary school-going students is relatively less than that for secondary school-going students due to the low capacity of secondary schools and the large number of allied drop-outs. The overall average ranges from Rs. 2,524 per student per month in Punjab to Rs. 3,790 per student per month in Balochistan.

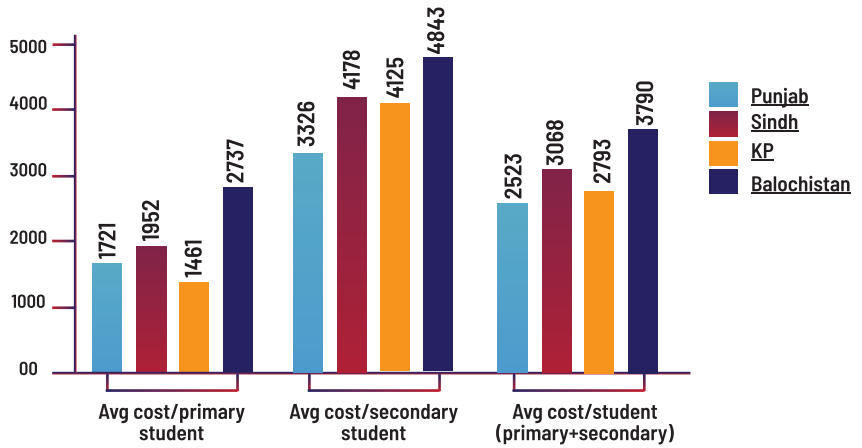


Figure 5.1 Per student cost at primary and secondary level as of 2017

Source: Author's computation from Annual Budget Statements 2018, Annual Development Plans 2018 and Pakistan Education Statistics, 16-2017..

As previously explained, the per student cost at the secondary level is two to three times higher than the per student cost at primary level because the number of secondary schools are three-fourth of the primary schools. Therefore, drop-outs at the secondary level are very high resulting in a high per student cost.

To be conservative we will consider the highest average cost, i.e. Rs. 3,790 so that both the demand- and supply-side constraints may be addressed and the problem of inadequate allocation for OOS may be overcome in advance.

Now let us take a look at the per student expenditure to bring every out-of-school girl into the educational fold.

One-third of the overall per student estimate in Table 5.1 has been earmarked for non-development expenditures to expand the system and provide additional salaries/ project allowances to the teachers working in double shifts for OOS girls. Two-third of the cost allocation has been dedicated for demand-side interventions, such as the provision of food boxes to overcome nutritional deficiencies, free course textbooks, stationary bags and a stipend to encourage parents to educate their daughters.

It is important to understand how the division of one-third (for supply side factors) and two-third (for demand-side factors) has been worked out. All the provincial governments are under the constitutional obligation laid down in Article 25-A to ensure free education for children between the ages of 5 – 16 years. Accordingly, they are already providing books and allied materials free of charge. In the case of educating OOS girls this will remain as it is.

Additionally, two other important deliberations have been considered in this working: provision of food and transportation allowance. Many students in Pakistan lack cognitive skills due to iron deficiency and malnutrition. This creates a direct link between nourishment and students' learning outcomes making the provision of free, nourishing snacks at public schools a necessity. A transportation allowance on the other hand is especially important in areas with very low population densities. In such areas schools are often located at a considerable distance making it very difficult for poor households to afford the added cost of transportation to get their child to school. For the food insecurity index and population densities refer to tables 5.4 to 5.8 where the nature of the required reforms, with their urgency assessment and a proposed timeline have been provided.

Finally, the continuation and enhancement of stipend or conditional cash transfer programs to encourage greater enrollment have become all the more important following the COVID-19 crisis. This has been seconded by a joint brief[23] prepared by the UN and the Government of Pakistan, which states:

"While schools remain closed, the Education Ministry has announced the 'Tele-school' initiative to provide learning opportunities for school going children. A large majority of households in the country have access to television and smartphones and will be able to access these educational programs. Public-private partnerships can be established to develop learning content and increase accessibility of learning materials to children. Once schools reopen, additional efforts will be needed to bring girls back to school and bridge the education gap. Monthly stipends and conditional cash transfer on high rates of attendance can be used to encourage girls to return and attend schools. Remedial classes should also be set up in order to bridge the learning gap."

Ratio of demand & supply side intervention	Category of expenditure	Rs (per month)	Rs (per year)
Supply side (1/3rd of the total)	Running expenses	1,200	14,400
Demand side (2/3rd of the total)	Stipend	1,500	18,000
	Course Books	62	744
	Uniforms + Stationary	60	720
	Food Box	968	11,616
Supply + Demand side	Total	3790	45,480

Table 5.1 Provision of per student cost

Source: Author's estimates based on the methodology provided above.

5.2 Projected financial outlays for education and additional finances

Table 5.2 provides an estimate of the cost that will be incurred to educate all the out-of-school girls in Pakistan over a ten-year period, i.e. from Grade One to Grade Ten. We assume a 5 per cent increase in the education budget during the first year and thereafter a consistent 10 per cent increment on account of inflation adjustment. Based on the methodology described in the previous section the estimated cost of 10 years of schooling for 8.96 million OOS girls stands at Rs. 6.5 trillion. If the same approximation is done for OOS boys an estimated Rs. 5.5 trillion will be added, bringing the total to Rs.12 trillion.

Table 5.3 provides an estimated breakdown of the projected regional budgetary outlays and the additional cost of educating the out-of-school girls.

Being the biggest province in terms of population, Punjab also houses the highest number of out-of-school children in the country[24]. Accordingly, as per the projections provided in Table 5.3, with an overall investment of Rs. 10,138.6 billion, Punjab will need to allocate and consequently spend the highest amount of resources to ensure 10 years of education for every girl currently out of school in the province. With an estimated Rs. 5,948.6, Sindh stands at number two.

[23] UN Women & Government of Pakistan (2020), Gendered Impact and Implications of COVID-19 in Pakistan.

[24] https://timesofislamabad.com/27-Apr-2018/punjab-province-has-the-highest-number-of-out-of-school-children-in-the-world-report

In view of the size of their populations, Gilgit-Baltistan and Islamabad will require the least amount of resources (i.e. Rs. 214.3 billion and Rs. 8.7 billion respectively) to ensure 10 years of education for all the OOS girls in their areas.

These indicative 10 years' budget outlays offer a fair and objective idea about the allocation of additional funds to educate OOS girls and can help the federal and provincial governments in Pakistan while designing their respective education strategies. Of course, they may want to add more financial and non-financial resources to these estimates during the planning phase.

Province	Level	OOS Girls	Rs/Month	Rs in Billion										
				Year-1	Year-2	Year-3	Year-4	Year-5	Year-6	Year-7	Year-8	Year-9	Year-10	Grand Total
Punjab	Primary	1,013,974	3,790	46.12	50.73	55.80	61.38	67.52	74.27	81.70	89.87	98.85	108.74	**734.96**
	Secondary	2,598,985	3,790	118.20	130.02	143.02	157.33	173.06	190.37	209.40	230.34	253.38	278.71	**1883.83**
	Total	3,612,959	7,580	164.32	180.75	198.82	218.71	240.58	264.63	291.10	320.21	352.23	387.45	**2,618.80**
Sindh	Primary	1,001,989	3,790	45.57	50.13	55.14	60.65	66.72	73.39	80.73	88.80	97.68	107.45	**726.28**
	Secondary	1,637,740	3,790	74.48	81.93	90.13	99.14	109.05	119.96	131.95	145.15	159.66	175.63	**1187.09**
	Total	2,639,729	7,580	120.05	132.06	145.27	159.79	175.77	193.35	212.68	233.95	257.35	283.08	**1,913.37**
Khyber Pakhtunkhwa (FATA Included)	Primary	506,897	3,790	23.05	25.36	27.89	30.68	33.75	37.13	40.84	44.93	49.42	54.36	**367.42**
	Secondary	1,059,541	3,790	48.19	53.01	58.31	64.14	70.55	77.61	85.37	93.90	103.30	113.62	**767.99**
	Total	1,566,438	7,580	71.24	78.37	86.20	94.82	104.30	114.74	126.21	138.83	152.71	167.98	**1,135.41**
Balochistan	Primary	369,518	3,790	16.81	18.49	20.33	22.37	24.61	27.07	29.77	32.75	36.02	39.63	**267.84**
	Secondary	426,357	3,790	19.39	21.33	23.46	25.81	28.39	31.23	34.35	37.79	41.57	45.72	**309.04**
	Total	795,875	7,580	36.20	39.82	43.80	48.18	53.00	58.29	64.12	70.54	77.59	85.35	**576.88**
Islamabad	Primary	101,412	3,790	4.61	5.07	5.58	6.14	6.75	7.43	8.17	8.99	9.89	10.88	**73.51**
	Secondary	145,999	3,790	6.64	7.30	8.03	8.84	9.72	10.69	11.76	12.94	14.23	15.66	**105.83**
	Total	247,411	7,580	11.25	12.38	13.62	14.98	16.47	18.12	19.93	21.93	24.12	26.53	**179.33**
Azad Jammu & Kashmir	Primary	35,065	3,790	1.59	1.75	1.93	2.12	2.33	2.57	2.83	3.11	3.42	3.76	**25.42**
	Secondary	47,468	3,790	2.16	2.37	2.61	2.87	3.16	3.48	3.82	4.21	4.63	5.09	**34.41**
	Total	82,533	7,580	3.75	4.13	4.54	5.00	5.50	6.05	6.65	7.31	8.05	8.85	**59.82**
Gilgit-Baltistan	Primary	2,656	3,790	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.24	0.26	0.28	**1.93**
	Secondary	9,385	3,790	0.43	0.47	0.52	0.57	0.62	0.69	0.76	0.83	0.91	1.01	**6.80**
	Total	12,041	7,580	0.55	0.60	0.66	0.73	0.80	0.88	0.97	1.07	1.17	1.29	**8.73**
Grand Total		8,956,986	53,060	407.36	448.10	492.91	542.20	596.42	656.06	721.67	793.84	873.22	960.54	**6,492.33**

Table 5.2 Ten years cost estimates for educating OOS girls in Pakistan

Source: Author's estimates.

Province	2019	2020	Estimated Ten Years Education Budget and Additional Cost of Educating OOS Girls (Rs in billion)										
			Year-1 2021	Year-2 2022	Year-3 2023	Year-4 2024	Year-5 2025	Year-6 2026	Year-7 2027	Year-8 2028	Year-9 2029	Year-10 2030	Grand Total
Punjab	61.38	402.4	422.5	464.8	511.3	511.3	618.6	680.5	680.5	823.4	905.7	996.3	7,519.8
Cost of OOS Girls	157.33	-	164.3	180.8	198.8	198.8	240.6	264.6	264.6	320.2	352.2	387.5	2,618.8
Total	218.71	402.4	586.9	645.5	710.1	710.1	859.2	945.1	945.1	1,143.6	1,258.0	1,383.8	10,138.6
Sindh	60.65	215.9	226.7	249.4	274.4	274.4	332.0	365.2	365.2	441.9	486.0	534.6	4,035.3
Cost of OOS Girls	99.14	-	120.1	132.1	145.3	145.3	175.8	193.4	193.4	234.0	257.4	283.1	1,913.4
Total	159.79	215.9	346.8	381.5	419.6	419.6	507.7	558.5	558.5	675.8	743.4	817.7	5,948.6
KP (FATA included)	30.68	196.2	206.0	226.6	249.2	249.2	301.5	331.7	331.7	401.4	441.5	485.6	3,665.4
Cost of OOS Girls	64.14	-	71.2	78.4	86.2	86.2	104.3	114.7	114.7	138.8	152.7	168.0	1,135.4
Total	94.82	196.2	277.2	304.9	335.4	335.4	405.8	446.4	446.4	540.2	594.2	653.6	4,800.8
Balochistan	22.37	66.4	69.7	76.7	84.4	84.4	102.1	112.3	112.3	135.9	149.5	164.5	1,241.2
Cost of OOS Girls	25.81	-	36.2	39.8	43.8	43.8	53.0	58.3	58.3	70.5	77.6	85.4	576.9
Total	48.18	66.4	105.9	116.5	128.2	128.2	155.1	170.6	170.6	206.5	227.1	249.8	1,818.1
Azad Jammu & Kashmir	6.14	28.8	30.2	33.3	36.6	36.6	44.3	48.7	48.7	58.9	64.8	71.3	538.2
Cost of OOS Girls	8.84	-	11.3	12.4	13.6	13.6	16.5	18.1	18.1	21.9	24.1	26.5	179.3
Total	14.98	28.8	41.5	45.6	50.2	50.2	60.7	66.8	66.8	80.9	88.9	97.8	717.5
Gilgit-Baltistan	2.12	8.3	8.7	9.5	10.5	10.5	12.7	14.0	14.0	16.9	18.6	20.5	154.4
Cost of OOS Girls	2.87	-	3.8	4.1	4.5	4.5	5.5	6.1	6.1	7.3	8.1	8.9	59.8
Total	5.00	8.3	12.4	13.7	15.0	15.0	18.2	20.0	20.0	24.2	26.7	29.3	214.3
Islamabad (Federal)	0.16	137.7	144.6	159.1	175.0	175.0	211.7	232.9	232.9	281.8	309.9	340.9	2,573.3
Cost of OOS Girls	0.57	-	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.1	1.2	1.3	8.7
Total	0.73	137.7	145.1	159.7	175.6	175.6	212.5	233.7	233.7	282.8	311.1	342.2	2,582.0
Grand Total (Budget)	1,005.4	1,055.7	1,108.5	1,219.3	1,341.3	1,341.3	1,622.9	1,785.2	1,785.2	2,160.1	2,376.1	2,613.8	19,727.5
Grand Total Cost of OOS	-	-	407.4	448.1	492.9	492.9	596.4	656.1	656.1	793.8	873.2	960.5	6,492.3
Grand Total	1,005.4	1,055.7	1,515.8	1,667.4	1,834.2	1,834.2	2,219.4	2,441.3	2,441.3	2,954.0	3,249.4	3,574.3	26,219.9

Table 5.3 Comparing federal and provincial education budgets and cost of educating OOS girls

Source: Author's estimates.

5.2.1 How will this money be raised?

This section provides a proposal and a roadmap for short-, medium- and long-term reforms along with a systematic design that Pakistan needs to adopt, especially with the view to make-up for the financial losses incurred during the COVID-19 outbreak in the country. The proposed roadmap can easily be adjusted in both the short- and the long-run periods.

Short-term measures

- Shifting the practice of budgeting from incremental approach to performance-based budgeting can avoid unnecessary increase in expenditures. Usually budgeting in Pakistan is incremental, which simply means adding a fixed, pre-decided percentage to the previous year's budgetary provision. This tactic is imprudent and often unwittingly rewards inefficiency. Instead a performance-based approach needs to be adopted where, for instance such increments as those in teachers' salaries would be tied to their performance.

- The flawed system of taxation in the country demands an urgent review.

  - A feasible starting point would be to gradually increase taxes on the most privileged 1 per cent. This gradual adoption of a more progressive system of taxation is likely to result in an immediate improvement in Pakistan's budgetary position, making room for an increase in funds for social protection.
  - In the short-run, tax revenue can be significantly enhanced by documenting the otherwise neglected areas of tax collection such as immovable properties in urban areas and automobiles. These shot-run measures will in turn have a significant impact on the country's ability to generate more revenue through tax collection bringing fiscal solvency and more resources may be available to divert towards the education sector.
  - Finally, well-thought through measures need to be implemented to curtail the rampant culture of tax evasion. Setting-up an e-portal/e-desk for small and medium enterprises, industries and the labor department could serve as a good starting point to document and track businesses, consequently making it difficult for them to conceal facts and evade taxes.

Medium-term measures

- An overall rationalization and revision of the taxation system is integral among medium term measures. This should be done with the intention to reduce horizontal tax inequality, which is often a result of unfair systems of taxation in such sectors as agriculture.

- A number of sectors and industries receive massive subsidies in Pakistan that do not necessarily contribute towards the country's overall economic growth.

  - In a lot of instances these subsidies are consumption based. This means that the consumers who consume more of a resource (e.g. water) receive greater subsidy. This needs to be rationalized urgently so that funds lost in subsidizes can instead be diverted towards development interventions including those in education.
  - In the same realm, all general blanket subsidies should generally be removed. Every subsidy should be properly targeted and lower income groups should receive greater benefit from them.

Long-term measures

- In the long-term, say the next 15 to 20 years, Pakistan's entire economy needs to be documented. It goes without saying that the current magnitude of Pakistan's undocumented, informal economy serves as a huge loss for the country in terms of valuable tax revenue.

- In the long-term, the Federal Bureau of Revenue and the provincial tax authorities should gradually decrease the exorbitantly high tax rate to encourage more people to come into the tax net.

- Fully automated transaction monitoring systems for tax filing, assessment and claim settlement should be developed, so that a decrease in human involvement also leads to a decrease and eventual elimination of bribery, rent seeking and malpractices.

5.2 How to use more money?

Educating millions of OOS girls is a phenomenal task, which doesn't merely require administrative and structural reforms but also enormous amounts of funds. The estimates and working provided offers a conservative estimate of Rs. 6.5 trillion spread over 10 years for educating all the OOS girls from Grade One to Grade Ten.

Now that we know how much money is required, it is imperative to answer:

a. How should this money be used?
b. And what should the order and logical sequencing of the demand- and supply-side reforms be?

These questions are important to answer because only the optimal utilization of public resources will effectively resolve the issues of inefficiency and poor governance, making way for an educated Pakistan.

5.2.1 Demand-side, non-design reforms

As established in the earlier chapters, Pakistan currently centers its education development initiatives mainly in the rural areas but despite a consistently huge investment the country has been unable to increase the retention and decrease the drop-out rates in the periphery as compared to the urban centers. This situation in turn points towards the immense influence of pull-out factors at play in the less developed regions of the country.

Accordingly, if the government hopes to achieve better returns to its investment it is extremely important to initiate various interventions in rural areas to create greater demand for education as a whole and girls' education in particular.

Recommended reforms

Short-term measures

- Assigning an identical e-identity number to every OOS girl – Every intervention needs to be specific with a very precise identification of the target population, its location and any other data which has a direct relevance to the nature of the intervention. Accordingly, assigning an e-identity number would go a long way in understanding the spatial distribution of the OOS girls in Pakistan.

- Provision of stipend (monetary incentive) to every out-of-school girl across the country – Sustaining and enhancing existing stipend programs, especially in the post-COVID-19 scenario is extremely important to encourage girls' enrollment. On one hand, such schemes serve to compensate poor households for taking their daughters out of low paid jobs and sending them to school and on the other hand they cover such costs as transportation that poor households can otherwise not afford. However, it is important to ensure that these stipends are in the form of conditional cash transfers, tying their payment to such conditions as full attendance, retention and improved learning outcomes.

- Provision of free uniform and books serving as a non-monetary incentive – As far as books are concerned, after promulgation of Article 25-A, course books are already being provided to the students free of cost. However, the increased magnitude of the expense as a result of educating all the OOS girls should not be left unaccounted.

- Provision of nutritional support in schools by mandating snack boxes – As earlier explained this is not only an important incentive for children coming from impoverished households but is also closely linked with the improvement in students' learning outcomes.

- Ensuring the inclusion of children living with disabilities – The provision of medical devices, especially to facilitate girls living with disabilities is important to ensure that no girl is left behind. One example could be the provision of hearing aids to girls with hearing loss.

- Behavior change campaigns targeting the education of child brides – Family planning campaigns especially encouraging delayed birth of the first child and/or adequate birth spacing to support child brides to continue their education need to be launched in areas with the highest incidence of child marriages.

- Ensuring the provision of functional toilets – While the provision of all the missing facilities is important, as a first step the provision of functional toilets in all primary and secondary schools keeping the specific hygiene requirements of adolescent girls in mind should be ensured.

- Recruitment of a greater number of female teachers – Efforts need to be geared to immediately increase the number of female teachers, especially at the secondary level.

- A comprehensive program to protect against sexual harassment and violence – The launch and strict implementation of such a program across all levels of schooling will not merely encourage more parents to send their daughters to secondary and higher secondary schools but will also facilitate in the recruitment of a greater number of female teachers.

- Special examination set-up for OOS girls – Girls who have the good fortune of receiving sustained and uninterrupted education starting from Grade One certainly have a competitive advantage over those out-of-school girls who might get enrolled at an older age. Accordingly, it would not be entirely fair to examine the performance of these two groups based on the same benchmarks. The solution to this conundrum is the introduction of a separate examination system for the latter category of students.

Medium-term reforms

- Supporting cottage industry in extremely poor areas – This measure is likely to bring about an improvement in the economic status of the most impoverished communities, resulting in a greater demand for education.

- Holiday schools – This measure is especially important for those girls who might be of secondary school-going age but have never attended school. Holiday Schools would then serve as accelerated learning centers allowing such girls to cover up the coursework from lower grades.

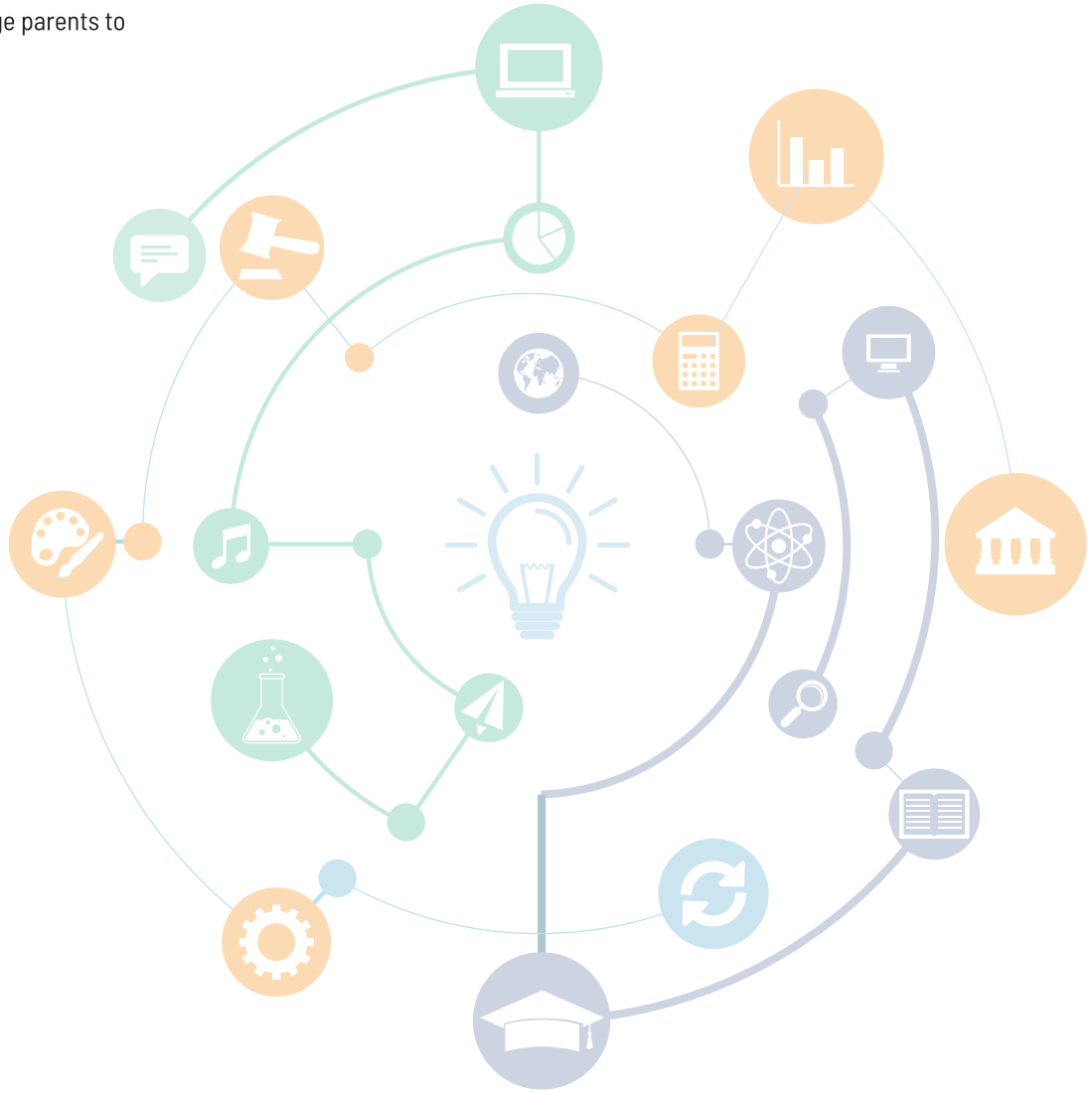
Long-term reforms

- Bringing the number of secondary schools at par with primary schools – The government needs to embark on a long-term plan to bring the number of secondary

schools at parity with the primary schools in the country. As established previously, this is absolutely necessary to ensure that every child who graduates from Grade Five has access to a secondary school close to her home.

- Provision of missing facilities – The federal and provincial governments must embark on an incremental program to bridge the gap of missing facilities in all the public schools across the country.

- Improve the student-teacher ratio at the primary level – A lower student-teacher ratio is important for the teacher to be more effective and for the students to have a better success rate. Both these factors have in turn been known to encourage parents to sustain the education of their children.



District	Food Security Index	Flood Hazard	Draught Hazard	Food Based Intervention (based on Food Security)	Population Density (Persons / Sq. Kms)	When to Introduce Transportation Allowance for OOS Girls
Attock	Low	Low	Low	Long Run	275	Medium to Long Run
Bahawalnagar	Low	Low	High	Long Run	336	Medium to Long Run
Bahawalpur	Medium	Low	High	Short Run	148	Short Run
Bhakkar	Medium	Medium	Medium	Short Run	202	Medium to Long Run
Chakwal	Low	Low	Medium	Long Run	239	Medium to Long Run
Chiniot	Low	High	Medium	Long Run	518	Medium to Long Run
Dera Ghazi Khan	High	High	Medium	Immediately	241	Medium to Long Run
Faisalabad	Low	Low	Medium	Long Run	1344	Medium to Long Run
Gujranwala	Low	Medium	Low	Long Run	1384	Medium to Long Run
Gujrat	Low	Medium	Low	Long Run	863	Medium to Long Run
Hafizabad	Low	Low	Low	Long Run	489	Medium to Long Run
Jhang	Low	High	Medium	Long Run	445	Medium to Long Run
Jhelum	Low	Low	Low	Long Run	341	Medium to Long Run
Kasur	Low	Low	Medium	Long Run	865	Medium to Long Run
Khanewal	Low	Low	High	Long Run	672	Medium to Long Run
Khushab	Low	Medium	Medium	Long Run	197	Medium to Long Run
Lahore	Low	Low	Medium	Long Run	6279	Medium to Long Run
Layyah	Low	High	High	Long Run	290	Medium to Long Run
Lodhran	Medium	Low	High	Short Run	612	Medium to Long Run
Mandi Bahauddin	Low	Low	Low	Long Run	596	Medium to Long Run
Mianwali	Low	High	Medium	Long Run	265	Medium to Long Run
Multan	Low	High	High	Long Run	1276	Medium to Long Run
Muzaffargarh	High	High	High	Immediately	524	Medium to Long Run
Nankana Sahib	Low	Low	Medium	Long Run	816	Medium to Long Run
Narowal	Low	Medium	Low	Long Run	732	Medium to Long Run
Okara	Low	Low	Medium	Long Run	701	Medium to Long Run
Pakpattan	Low	Low	High	Long Run	669	Medium to Long Run
Rahim Yar Khan	Medium	High	High	Short Run	405	Medium to Long Run
Rajanpur	High	High	Medium	Immediately	162	Medium to Long Run
Rawalpindi	Low	Medium	Low	Long Run	1023	Medium to Long Run
Sahiwal	Low	Low	Medium	Long Run	786	Medium to Long Run
Sargodha	Low	Low	Low	Long Run	632	Medium to Long Run
Sheikhupura	Low	Medium	Medium	Long Run	805	Medium to Long Run
Sialkot	Low	Medium	Low	Long Run	1291	Medium to Long Run
Toba Tek Singh	Low	Low	High	Long Run	673	Medium to Long Run
Vehari	Low	Low	High	Long Run	664	Medium to Long Run

Table 5.4 District wise mapping of demand side interventions for OOS girls – Punjab

Source: Author's compilation and analysis from Integrated Context Analysis (ICA) On Vulnerability to Food Insecurity and Natural Hazards Pakistan, 2017 National Disaster Management Authority (NDMA) and United Nations World Food Programme (WFP) and Pakistan Bureau of Statistics, Population Census of Pakistan.

Note: If population density is less than 50 persons per square km, transportation allowance to be started 'immediately'. If it is greater than 50 but less than 150, then introduce in 'short run' and if it is greater than 150 then medium to long-run.

District	Food Security Index	Flood Hazard	Draught Hazard	Food Based Intervention (based on Food Security)	Population Density (Persons / Sq. Kms)	When to Introduce Transportation Allowance for OOS Girls
Badin	High	Medium	High	Immediately	279	Medium to Long Run
Dadu	Medium	High	High	Short Run	193	Medium to Long Run
Ghotki	High	High	Low	Immediately	253	Medium to Long Run
Hyderabad	Low	Medium	Medium	Long Run	2154	Medium to Long Run
Jacobabad	High	High	Low	Immediately	363	Medium to Long Run
Jamshoro	High	High	Medium	Immediately	88	Short Run
Kambar Shahdad Kot	Medium	High	Medium	Short Run	240	Medium to Long Run
Karachi - Central	Low	Medium	Medium	Long Run	47946	Medium to Long Run
Karachi - East	Low	Medium	Medium	Long Run	17636	Medium to Long Run
Karachi - Korangi	Low	Medium	Medium	Long Run	25863	Medium to Long Run
Karachi - Malir	Low	Medium	Medium	Long Run	762	Medium to Long Run
Karachi - South	Low	Medium	Medium	Long Run	21079	Medium to Long Run
Karachi - West	Low	Medium	Medium	Long Run	6214	Medium to Long Run
Kashmore	High	High	Low	Immediately	427	Medium to Long Run
Khairpur	Medium	High	Medium	Short Run	151	Medium to Long Run
Larkana	Medium	High	Low	Short Run	800	Medium to Long Run
Matiari	Low	Medium	Medium	Long Run	527	Medium to Long Run
Mirpur Khas	High	Low	High	Immediately	454	Medium to Long Run
Naushahro Feroze	Medium	Medium	Medium	Short Run	795	Medium to Long Run
Sanghar	Medium	Medium	High	Short Run	201	Medium to Long Run
Shaheed Benazirabad	High	Medium	High	Immediately	349	Medium to Long Run
Shikarpur	Medium	High	Low	Short Run	478	Medium to Long Run
Sujawal	High	High	High	Immediately	90	Short Run
Sukkur	Low	High	Low	Long Run	285	Medium to Long Run
Tando Allahyar	High	Low	High	Immediately	532	Medium to Long Run
Tando Muhammad Khan	High	High	High	Immediately	373	Medium to Long Run
Tharparkar	High	Low	High	Immediately	83	Short Run
Thatta	High	High	High	Immediately	127	Short Run
Umer Kot	High	Low	High	Immediately	195	Medium to Long Run

Table 5.5 District wise mapping of demand side interventions for OOS girls – Sindh

Source: Author's compilation and analysis from Integrated Context Analysis (ICA) On Vulnerability to Food Insecurity and Natural Hazards Pakistan, 2017 National Disaster Management Authority (NDMA) and United Nations World Food Programme (WFP) and Pakistan Bureau of Statistics, Population Census of Pakistan.

Note: If population density is less than 50 persons per square km, transportation allowance to be started 'immediately'. If it is greater than 50 but less than 150, then introduce in 'short run' and if it is greater than 150 then medium to long-run.

District	Food Security Index	Flood Hazard	Draught Hazard	Food Based Intervention (based on Food Security)	Population Density (Persons / Sq. Kms)	When to Introduce Transportation Allowance for OOS Girls
Abbottabad	Low	Medium	Medium	Long Run	678	Medium to Long Run
Bannu	High	Low	Medium	Immediately	952	Medium to Long Run
Batagram	High	Medium	Medium	Immediately	366	Medium to Long Run
Buner	High	Medium	Medium	Immediately	481	Medium to Long Run
Charsadda	Medium	High	Low	Short Run	1623	Medium to Long Run
Chitral	Low	Medium	Medium	Long Run	30	Immediately
D.I.Khan	High	High	High	Immediately	222	Medium to Long Run
Hangu	Medium	Low	Low	Short Run	473	Medium to Long Run
Haripur	Low	Medium	Medium	Long Run	581	Medium to Long Run
Karak	Medium	Low	Medium	Short Run	210	Medium to Long Run
Kohat	Low	Low	Medium	Long Run	391	Medium to Long Run
Kohistan	High	High	Low	Immediately	105	Short Run
Lakki Marwat	Medium	Low	High	Short Run	277	Medium to Long Run
Lower Dir	Medium	Medium	Low	Short Run	907	Medium to Long Run
Malakand	Medium	Medium	Medium	Short Run	948	Medium to Long Run
Mansehra	Medium	Medium	Medium	Short Run	340	Medium to Long Run
Mardan	Low	Medium	Medium	Long Run	1454	Medium to Long Run
Nowshera	Low	High	Low	Long Run	869	Medium to Long Run
Peshawar	Low	High	Low	Long Run	3396	Medium to Long Run
Shangla	High	High	Low	Immediately	478	Medium to Long Run
Swabi	Low	Medium	Low	Long Run	1097	Medium to Long Run
Swat	Medium	High	Medium	Short Run	433	Medium to Long Run
Tank	High	High	Medium	Immediately	233	Medium to Long Run
Tor Garh	High	Medium	Low	Immediately	367	Medium to Long Run
Upper Dir	High	High	Medium	Immediately	256	Medium to Long Run

Table 5.6 District wise mapping of demand side interventions for OOS girls – Khyber Pakhtunkhwa

Source: Author's compilation and analysis from Integrated Context Analysis (ICA) On Vulnerability to Food Insecurity and Natural Hazards Pakistan, 2017 National Disaster Management Authority (NDMA) and United Nations World Food Programme (WFP) and Pakistan Bureau of Statistics, Population Census of Pakistan.

Note: If population density is less than 50 persons per square km, transportation allowance to be started 'immediately'. If it is greater than 50 but less than 150, then introduce in 'short run' and if it is greater than 150 then medium to long-run.

District	Food Security Index	Flood Hazard	Draught Hazard	Food Based Intervention (based on Food Security)	Population Density (Persons / Sq. Kms)	When to Introduce Transportation Allowance for OOS Girls
Awaran	High	Low	Medium	Immediately	4	Immediately
Barkhan	High	Low	High	Immediately	49	Immediately
Chagai	High	Low	High	Immediately	5	Immediately
Dera Bugti	High	Low	High	Immediately	31	Immediately
Gwadar	Medium	Medium	High	Short Run	21	Immediately
Harnai	High	Medium	High	Immediately	39	Immediately
Jaffarabad	High	High	High	Immediately	210	Medium to Long Run
Jhal Magsi	High	High	High	Immediately	41	Immediately
Kachhi	High	Medium	Medium	Immediately	44	Immediately
Kalat	High	Low	High	Immediately	49	Immediately
Kech	High	Medium	High	Immediately	40	Immediately
Kharan	High	High	High	Immediately	4	Immediately
Khuzdar	High	Low	Medium	Immediately	23	Immediately
Killa Abdullah	High	Low	High	Immediately	155	Medium to Long Run
Killa Saifullah	High	Low	Low	Immediately	50	Short Run
Kohlu	High	Low	Medium	Immediately	28	Immediately
Lasbela	High	Medium	High	Immediately	38	Immediately
Lehri	High	Medium	Medium	Immediately	65	Short Run
Loralai	High	Low	Low	Immediately	50	Immediately
Mastung	Medium	Low	High	Short Run	81	Short Run
Musakhel	High	Low	Medium	Immediately	29	Immediately
Nasirabad	High	High	High	Immediately	145	Short Run
Nushki	Medium	Low	High	Short Run	31	Immediately
Panjgur	High	Low	High	Immediately	19	Immediately
Pishin	High	Low	High	Immediately	118	Short Run
Quetta	Low	Low	High	Long Run	660	Medium to Long Run
Sherani	High	Low	Medium	Immediately	36	Immediately
Sibi	Medium	Medium	Medium	Short Run	26	Immediately
Sohbatpur	High	High	Medium	Immediately	570	Medium to Long Run
Washuk	High	High	High	Immediately	17	Immediately
Zhob	High	Low	Low	Immediately	19	Immediately
Ziarat	High	Low	High	Immediately	49	Immediately

Table 5.7 District wise mapping of demand side interventions for OOS girls – Balochistan

Source: Author's compilation and analysis from Integrated Context Analysis (ICA) On Vulnerability to Food Insecurity and Natural Hazards Pakistan, 2017 National Disaster Management Authority (NDMA) and United Nations World Food Programme (WFP) and Pakistan Bureau of Statistics, Population Census of Pakistan.

Note: If population density is less than 50 persons per square km, transportation allowance to be started 'immediately'. If it is greater than 50 but less than 150, then introduce in 'short run' and if it is greater than 150 then medium to long-run.

District	Food Security Index	Flood Hazard	Draught Hazard	Food Based Intervention (based on Food Security)	Population Density (Persons / Sq. Kms)	When to Introduce Transportation Allowance for OOS Girls
Bajour Agency	Low	Low	Medium	Immediately	848	Medium to Long Run
FR Bannu	No data	Low	Low	Immediately	58	Short Run
FR D I Khan	No data	Low	Medium	Immediately	34	Immediately
FR Kohat	No data	Low	Low	Immediately	266	Medium to Long Run
FR Lakki Marwat	No data	Low	Low	Immediately	200	Medium to Long Run
FR Peshawar	No data	Low	Low	Immediately	248	Medium to Long Run
FR Tank	No data	Low	Medium	Immediately	30	Immediately
Khyber Agency	Medium	Low	Low	Immediately	383	Medium to Long Run
Kurram Agency	Medium	Low	Low	Immediately	183	Medium to Long Run
Mohmand Agency	Medium	Low	Medium	Immediately	203	Medium to Long Run
North Waziristan Agency	Medium	Low	Low	Immediately	115	Short Run
Orakzai Agency	High	Low	Low	Immediately	165	Medium to Long Run
South Waziristan Agency	Medium	Low	Medium	Immediately	103	Short Run

Table 5.8 District wise mapping of demand side interventions for OOS girls – Merged Areas

Source: Author's compilation and analysis from Integrated Context Analysis (ICA) On Vulnerability to Food Insecurity and Natural Hazards Pakistan, 2017 National Disaster Management Authority (NDMA) and United Nations World Food Programme (WFP) and Pakistan Bureau of Statistics, Population Census of Pakistan.

Note: If population density is less than 50 persons per square km, transportation allowance to be started 'immediately'. If it is greater than 50 but less than 150, then introduce in 'short run' and if it is greater than 150 then medium to long-run.

Supply-side issues, design issues

Short-term reforms

- **Increase in the development budget-** As analyzed earlier the development budget for some of the provinces is as low as 5 per cent of the total budget; this is simply unsustainable. Rationalization and gradual increase in the size of the development budget is imperative. The provinces should adhere to the binding commitment of not cutting the development budget, at least as far as the social sector spending is concerned. With widespread poverty and unemployment resulting from the COVID-19 pandemic the need for development funds will be all the more pronounced.

- **Database and documentation of the out-of-school children-**An important first step in this direction would be for the Pakistan Bureau of Statistics to release the data and reports of the Population Census, 2017. Based on this data, district wise estimates of the number of out-of-school children should be released adhering to the methodology that the Annual School Statistics has laid down.

- A separate field to gather information about OOS children should be added to the National Identity Card (NIC) form issued by the National Database Registration Authority (NADRA).

- Passport offices working under the Ministry of Interior can be an important source to identify and update information about OOSC. The information collected to register or renew a passport should also document any OOS children in the house of the applicant.

- It is assumed that a significant number of the 5.8 million beneficiaries of the Ehsaas Program / Benazir Income Support Program must have OOS children in their households. So, in the short-term even the BISP database can serve as a quick source to gather information on the precise number and spatial distribution of OOS children.

- Inter-departmental coordination to educate marginalized children – Various

ministries and departments that regularly interact with children must coordinate with the education department in their areas to ensure the provision of education to marginalized children. For instance, the Police and Jail Departments can launch programs in partnership with the Ministry or Department of Education to provide regular classes to juvenile offenders and/or those children who accompany their mothers in jail. Similarly, the health departments should allocate additional funds for children with disabilities who might not be attending school due to the non-availability of such things as hearing aids, wheel chairs or even specific medicines.

- Accelerated learning programs – Such programs should be initiated at a mass scale with the aim to bring those OOS girls into the educational fold whose age group is enrolled in secondary schools.

Medium-term reforms

- Documentation of OOS children during census – An exclusive section on OOS children should be added to the population census questionnaire. This section should inquire if a household has any OOS children aged between 5 – 16 years and document the reasons for the child/children being out of school.

- All the public primary and secondary schools should be operated in double shifts to effectively accommodate the colossal number of children of school-going age.

Long-term reforms

- Develop and launch an e-database and multi-year tracking system for OOS girls that would include:

  - Updating the census of OOS children every year
  - Assigning a unique ID to each out-of-school girl
  - Designing a digital tracking system with the help of NADRA
  - Publishing annual statistics on OOS children

- The following institutions/offices should be taken on-board for designing and tracking this e-database:

  - Deputy Commissioner of the district
  - Union councils
  - Masjid, mandir and religious institutions
  - Public schools (data of drop-outs)

District	Average Number of students per primary school	Less than 100 students per school improve missing facilities	Average number of teachers per primary school	Recruitment of more primary teachers	Secondary schools per 100 primary schools	Immediately invest to increase number of secondary schools
Attock	128	-	3	-	49	-
Bahawalnagar	92	✓	3	-	32	-
Bahawalpur	82	✓	3	-	29	-
Bhakkar	104	-	3	-	29	-
Chakwal	105	-	3	-	59	-
Chiniot	146	-	3	-	29	-
Dera Ghazi Khan	97	✓	3	-	23	-
Faisalabad	264	-	4	-	70	-
Gujranwala	171	-	3	-	50	-
Gujrat	161	-	3	-	51	-
Hafizabad	127	-	3	-	33	-
Jhang	133	-	3	-	53	-
Jhelum	122	-	3	-	28	-
Kasur	179	-	3	-	38	-
Khanewal	253	-	4	-	74	-
Khushab	99	✓	3	-	35	-
Lahore	398	-	5	-	88	-
Layyah	106	-	2	✓	32	-
Lodhran	135	-	3	-	42	-
Mandi Bahauddin	182	-	3	-	50	-
Mianwali	99	✓	3	-	29	-
Multan	160	-	3	-	37	-
Muzaffargarh	107	-	3	-	21	-
Nankana Sahib	160	-	3	-	44	-
Narowal	117	-	3	-	32	-
Okara	154	-	3	-	42	-
Pakpattan	157	-	3	-	37	-
Rahim Yar Khan	89	✓	2	✓	24	-
Rajanpur	72	✓	2	✓	16	✓
Rawalpindi	136	-	3	-	55	-
Sahiwal	210	-	3	-	64	-
Sargodha	155	-	3	-	50	-
Sheikhupura	143	-	3	-	36	-
Sialkot	125	-	4	-	34	-
Toba Tek Singh	211	-	4	-	66	-
Vehari	157	-	3	-	43	-

Table 5.9 District wise mapping of supply side interventions – Punjab

Source: Author's computation from District Education Profile, 2015-16, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

District	Average Number of students per primary school	Less than 100 students per school improve missing facilities	Average number of teachers per primary school	Recruitment of more primary teachers	Secondary schools per 100 primary schools	Immediately Invest to increase number of secondary schools
Badin	41	✓	2	✓	6	✓
Dadu	74	✓	3	-	7	✓
Ghotki	63	✓	2	✓	7	✓
Hyderabad	113	-	4	-	19	-
Jacobabad	68	✓	3	-	8	✓
Jamshoro	67	✓	2	✓	10	✓
Kambar-Shahdadkot	67	✓	3	-	7	✓
Karachi-Central	139	-	8	-	63	-
Karachi-East	155	-	6	-	54	-
Karachi-Korangi	142	-	6	-	45	-
Karachi-Malir	67	✓	2	-	24	-
Karachi-South	133	-	4	-	49	-
Karachi-West	120		5	-	32	-
Kashmore	55	✓	2	✓	7	✓
Khairpur Mirs	54	✓	2	✓	10	✓
Larkana	125	-	5	-	12	✓
Mirpur Khas	50	✓	2	✓	9	✓
Mitiari	64	✓	3	-	7	✓
Naushero Feroze	60	✓	2	✓	10	✓
Nawab Shah	54	✓	2	✓	9	✓
Sanghar	49	✓	2	✓	6	✓
Shikarpur	78	✓	3	-	10	✓
Sujawal	37	✓	1	✓	3	✓
Sukkur	91	✓	3	-	13	✓
Tando Allah Yar	60	✓	2	✓	11	✓
Tando Muhammad Khan	44	✓	2	✓	7	✓
Tharparkar	32	✓	1	✓	8	✓
Thatta	38	✓	1	✓	6	✓
Umerkot	38	✓	2	✓	7	✓

Table 5.10 District wise mapping of supply side interventions –Sindh

Source: Author's computation from District Education Profile, 2015-16, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

District	Average Number of students per primary school	Less than 100 students per school improve missing facilities	Average number of teachers per primary school	Recruitment of more primary teachers	Secondary schools per 100 primary schools	Immediately Invest to increase number of secondary schools
Abbottabad	64	✓	3	-	21	-
Bannu	58	✓	2	✓	21	-
Batagram	54	✓	2	✓	13	✓
Buner	142	-	3	-	26	-
Charsadda	116	-	4	-	20	-
Chitral	55	✓	2	✓	25	-
D. I. Khan	83	✓	3	-	25	-
Hangu	125	-	3	-	23	-
Haripur	72	✓	3	-	27	-
Karak	81	✓	3	-	21	-
Kohat	119	-	4	-	24	-
Kohistan	51	✓	2	✓	13	✓
Lakki Marwat	69	✓	3	-	19	✓
Lower Dir	128	-	3	-	22	-
Malak & Protected Area	136	-	4	-	25	-
Mansehra	68	✓	3	-	17	✓
Mardan	146	-	4	-	23	-
Nowshera	130	-	4	-	24	-
Peshawar	186	-	5	-	27	-
Shangla	97	✓	2	✓	19	✓
Swabi	128	-	4	-	24	-
Swat	139	-	4	-	19	✓
Tank	73	✓	3	-	24	-
Torghar	71	✓	2	✓	15	✓
Upper Dir	125		3	-	18	✓

Table 5.11 District wise mapping of supply side interventions –Khyber Pakhtunkhwa

Source: Author's computation from District Education Profile, 2015-16, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

District	Average Number of students per primary school	Less than 100 students per school improve missing facilities	Average number of teachers per primary school	Recruitment of more primary teachers	Secondary schools per 100 primary schools	Immediately Invest to increase number of secondary schools
Awaran	58	✓	1	✓	22	-
Barkhan	21	✓	1	✓	9	✓
Chaghi	51	✓	2	✓	20	-
Dera Bugti	45	✓	2	✓	21	-
Gawadur	82	✓	1	✓	26	-
Harnai	35	✓	2	✓	20	-
Jafer Abad	60	✓	1	✓	14	✓
Jhal Magsi	39	✓	2	✓	19	✓
Kachhi	39	✓	2	✓	16	✓
Kalat	44	✓	2	✓	20	-
Kech	72	✓	2	-	28	-
Kharan	42	✓	1	✓	26	-
Khuzdar	45	✓	2	✓	16	✓
Killa Abdullah	51	✓	1	✓	15	✓
Killa Saifullah	34	✓	2	✓	12	✓
Kohlu	10	✓	1	✓	10	✓
Lasbela	46	✓	2	✓	16	✓
Loralai	19	✓	1	✓	12	✓
Mastung	45	✓	2	✓	27	-
Musakhel	20	✓	1	✓	13	✓
Naseer Abad	42	✓	1	✓	12	✓
Noshki	77	✓	2	-	40	-
Panjgur	50	✓	2	-	23	-
Pishin	42	✓	2	✓	19	✓
Quetta	150	-	4	-	41	-
Sherani	27	✓	1	✓	10	✓
Sibi	55	✓	2	-	27	-
Sohbat Pur	50	✓	2	✓	14	✓
Washuk	40	✓	1	✓	26	-
Zhob	50	✓	2	✓	16	✓
Ziarat	31	✓	1	✓	19	✓

Table 5.14 District wise mapping of supply side interventions –Balochistan

Source: Author's computation from District Education Profile, 2015-16, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

District	Average Number of students per primary school	Less than 100 students per school improve missing facilities	Average number of teachers per primary school	Recruitment of more primary teachers	Secondary schools per 100 primary schools	Immediately Invest to increase number of secondary schools
Bagh	67	✓	2	✓	70	-
Bhimber	55	✓	2	✓	42	-
Hattian	64	✓	2	✓	35	-
Haveli	57	✓	2	✓	37	-
Kotli	58	✓	2	✓	35	-
Mirpur	47	✓	2	✓	41	-
Muzaffarabad	54	✓	2	✓	38	-
Neelam	66	✓	2	✓	28	-
Poonch	43	✓	2	✓	45	-
Sudhnoti	50	✓	2	✓	41	-

Table 5.11 District wise mapping of supply side interventions –Azad Jammu & Kashmir

Source: Author's computation from District Education Profile, 2015-16, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

District	Average Number of students per primary school	Less than 100 students per school improve missing facilities	Average number of teachers per primary school	Recruitment of more primary teachers	Secondary schools per 100 primary schools	Immediately Invest to increase number of secondary schools
Astor	106		2	-	80	-
Diamer	61	✓	1	✓	17	-
Ghanche	72	✓	3	-	61	-
Ghizer	102	-	3	-	62	-
Gilgit	129	-	4	-	79	-
Hunza	96	✓	3	-	147	-
Kharmang	44	✓	2	✓	42	-
Nagar	113	-	3	-	103	-
Shigar	99	✓	2	✓	46	-
Skardu	101	-	4	-	66	-

Table 5.12 District wise mapping of supply side interventions –Gilgit-Baltistan

Source: Author's computation from District Education Profile, 2015-16, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

Frontier Region/ Agency	Average Number of students per primary school	Less than 100 students per school improve missing facilities	Average number of teachers per primary school	Recruitment of more primary teachers	Secondary schools per 100 primary schools	Immediately Invest to increase number of secondary schools
Bajaur Agency	167	-	2	✓	17	✓
FR Bannu	51	✓	2	✓	17	✓
FR D.I.Khan	35	✓	2	✓	17	✓
FR Kohat	61	✓	3	-	26	-
FR Lakki	45	✓	2	✓	20	-
FR Peshawar	47	✓	3	-	20	-
FR Tank	49	✓	2	✓	21	-
Khyber Agency	75	✓	2	✓	14	✓
Kurram Agency	81	✓	3	-	21	-
Mohamad Agency	77	✓	2	✓	20	-
N.W. Agency	45	✓	2	✓	16	✓
Orakzai Agency	33	✓	2	✓	15	✓
S.W. Agency	27	✓	2	✓	18	✓

Table 5.15 District Wise Mapping of Supply Side Interventions –Merged Areas

Source: Author's computation from District Education Profile, 2015-16, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.

PRIMARY SCHOOLS				SECONDARY SCHOOLS			
District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools	District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools
Badin	Sindh	470	17%	Rawalpindi	Punjab	180	27%
Sanghar	Sindh	431	15%	Faisalabad	Punjab	135	14%
Kambar-Shahdadkot	Sindh	330	22%	Rahimyar Khan	Punjab	119	20%
Mirpur Khas	Sindh	309	16%	Sargodha	Punjab	105	16%
Nawab Shah	Sindh	307	13%	Gujranwala	Punjab	103	19%
D.G. Khan	Punjab	278	20%	D.G. Khan	Punjab	85	27%
Dadu	Sindh	273	15%	Attock	Punjab	83	20%
Jacobabad	Sindh	259	20%	Sahiwal	Punjab	78	17%
Thatta	Sindh	255	18%	Khushab	Punjab	67	26%
Khairpur Mirs	Sindh	247	8%	Gujrat	Punjab	64	13%
Tharparkar	Sindh	243	7%	Kasur	Punjab	64	16%
Umerkot	Sindh	240	12%	Lahore	Punjab	61	11%
Rahimyar Khan	Punjab	239	10%	Khanewal	Punjab	60	11%
Sujawal	Sindh	228	14%	Lodharan	Punjab	60	25%
Ghotki	Sindh	221	12%	T. T. Singh	Punjab	60	13%
Bahawalnagar	Punjab	212	12%	Bahawalnagar	Punjab	59	11%
Rawalpindi	Punjab	212	17%	Narowal	Punjab	59	19%
Shikarpur	Sindh	197	17%	Nankana Sahib	Punjab	57	25%
Faisalabad	Punjab	183	14%	Sheikhpura	Punjab	54	15%

PRIMARY SCHOOLS				SECONDARY SCHOOLS			
District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools	District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools
Pishin	Balochistan	172	22%	Sialkot	Punjab	54	11%
Naushero Feroze	Sindh	164	8%	Bhakkar	Punjab	51	17%
Gujranwala	Punjab	158	14%	Layyah	Punjab	50	13%
Sargodha	Punjab	156	12%	Mianwali	Punjab	50	17%
Sukkur	Sindh	152	14%	Chakwal	Punjab	49	11%
Tando Muhammad Khan	Sindh	150	16%	Multan	Punjab	49	13%
Narowal	Punjab	145	15%	Bahawalpur	Punjab	48	11%
Mitiari	Sindh	140	17%	Mandi Baha-ud-Din	Punjab	47	17%
Jhang	Punjab	137	11%	Jhang	Punjab	46	13%
Mianwali	Punjab	137	14%	Vehari	Punjab	42	9%
Sialkot	Punjab	133	9%	Jehlum	Punjab	40	14%
Bhakkar	Punjab	128	12%	Muzaffargarh	Punjab	38	11%
Bahawalpur	Punjab	125	8%	Jacobabad	Sindh	37	35%
Lodharan	Punjab	122	21%	Okara	Punjab	35	8%
Muzaffargarh	Punjab	120	7%	Rajanpur	Punjab	32	21%
Awaran	Balochistan	119	55%	Khairpur Mirs	Sindh	30	10%
Killa Saifullah	Balochistan	118	24%	Shikarpur	Sindh	30	25%
Jafer Abad	Balochistan	116	24%	Pakpattan	Punjab	28	12%
Loralai	Balochistan	115	20%	Tharparkar	Sindh	28	10%
Kashmore	Sindh	114	8%	Kambar-Shahdadkot	Sindh	27	25%
Attock	Punjab	113	13%	Kech	Balochistan	27	19%
Barkhan	Balochistan	113	21%	Awaran	Balochistan	26	54%
Khuzdar	Balochistan	110	19%	Central Karachi	Sindh	25	11%
Sohbat Pur	Balochistan	110	30%	Naushero Feroze	Sindh	25	12%
Khushab	Punjab	107	14%	Sanghar	Sindh	24	14%
Tando Allah Yar	Sindh	106	15%	Pishin	Balochistan	23	15%
Jamshoro	Sindh	102	14%	Mirpur Khas	Sindh	22	12%
Lasbela	Balochistan	102	20%	Thatta	Sindh	22	26%
Naseer Abad	Balochistan	101	22%	Badin	Sindh	21	13%
Sahiwal	Punjab	99	14%	Sukkur	Sindh	21	15%
Layyah	Punjab	97	8%	Ghotki	Sindh	20	16%
Hyderabad	Sindh	97	13%	Dera Bugti	Balochistan	20	33%
Kech	Balochistan	94	18%	Sohbat Pur	Balochistan	20	38%
Multan	Punjab	90	9%	Chiniot	Punjab	19	12%
Vehari	Punjab	89	9%	Jafer Abad	Balochistan	18	27%
Rajanpur	Punjab	86	9%	Hafizabad	Punjab	17	10%
Kachhi	Balochistan	86	23%	Kashmore	Sindh	17	18%
Kohlu	Balochistan	84	21%	Umerkot	Sindh	17	12%
Larkana	Sindh	82	8%	Naseer Abad	Balochistan	17	31%
Dera Bugti	Balochistan	81	28%	South Karachi	Sindh	16	10%

PRIMARY SCHOOLS				SECONDARY SCHOOLS			
District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools	District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools
Kasur	Punjab	80	7%	Sibi	Balochistan	14	25%
Sheikhpura	Punjab	80	8%	Lasbela	Balochistan	13	15%
T. T. Singh	Punjab	73	10%	Korangi Karachi	Sindh	12	7%
Kalat	Balochistan	72	18%	Nawab Shah	Sindh	12	6%
Nankana Sahib	Punjab	70	14%	Khuzdar	Balochistan	12	13%
Killa Abdullah	Balochistan	70	16%	Jamshoro	Sindh	11	16%
Okara	Punjab	64	6%	Mitiari	Sindh	11	19%
Khanewal	Punjab	63	9%	Kohlu	Balochistan	11	28%
Jehlum	Punjab	62	12%	Dadu	Sindh	10	8%
Mandi Baha-ud-Din	Punjab	61	11%	Malir Karachi	Sindh	10	8%
Lahore	Punjab	57	9%	Sujawal	Sindh	10	21%
Malir Karachi	Sindh	56	11%	Kachhi	Balochistan	10	17%
Korangi Karachi	Sindh	55	15%	Loralai	Balochistan	10	14%
Musakhel	Balochistan	55	21%	Zhob	Balochistan	10	21%
Jhal Magsi	Balochistan	53	21%	Tando Allah Yar	Sindh	9	11%
Sibi	Balochistan	53	25%	Jhal Magsi	Balochistan	9	20%
Panjgur	Balochistan	52	17%	Ziarat	Balochistan	9	21%
Gujrat	Punjab	47	5%	Larkana	Sindh	8	6%
Quetta	Balochistan	47	11%	West Karachi	Sindh	8	9%
Pakpattan	Punjab	46	7%	Barkhan	Balochistan	8	17%
Zhob	Balochistan	46	15%	Kalat	Balochistan	8	10%
West Karachi	Sindh	42	15%	Noshki	Balochistan	8	12%
Chakwal	Punjab	41	6%	Quetta	Balochistan	8	5%
South Karachi	Sindh	41	12%	East Karachi	Sindh	7	8%
Sherani	Balochistan	39	23%	Hyderabad	Sindh	7	5%
Central Karachi	Sindh	38	10%	Tando M. Khan	Sindh	7	10%
Gawadur	Balochistan	34	16%	Kharan	Balochistan	7	15%
Mastung	Balochistan	32	10%	Killa Saifullah	Balochistan	7	11%
Ziarat	Balochistan	31	14%	Chaghi	Balochistan	6	14%
Chiniot	Punjab	27	5%	Gawadur	Balochistan	6	11%
East Karachi	Sindh	26	15%	Killa Abdullah	Balochistan	6	9%
Harnai	Balochistan	26	18%	Musakhel	Balochistan	6	17%
Washuk	Balochistan	26	19%	S.W. Agency	Merged Areas	6	5%
Chaghi	Balochistan	22	10%	Washuk	Balochistan	5	14%
Noshki	Balochistan	21	13%	Panjgur	Balochistan	4	6%
Kharan	Balochistan	20	11%	Sherani	Balochistan	4	24%
Hafizabad	Punjab	19	4%	Mastung	Balochistan	2	2%
S.W. Agency	Merged Areas	17	3%	Mohamad Agency	Merged Areas	2	2%
N.W. Agency	Merged Areas	10	1%	N.W. Agency	Merged Areas	2	2%
Orakzai Agency	Merged Areas	10	2%	Harnai	Balochistan	1	3%
Bajaur Agency	Merged Areas	9	2%	FR D.I.Khan	Merged Areas	1	4%

PRIMARY SCHOOLS				SECONDARY SCHOOLS			
District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools	District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools
FR Kohat	Merged Areas	8	5%	FR Kohat	Merged Areas	1	3%
FR D.I.Khan	Merged Areas	4	3%	FR Peshawar	Merged Areas	1	3%
Khyber Agency	Merged Areas	4	1%	Orakzai Agency	Merged Areas	1	2%
Mohamad Agency	Merged Areas	3	1%	Abbottabad	KP	-	0%
FR Tank	Merged Areas	2	1%	Bannu	KP	-	0%
FR Peshawar	Merged Areas	1	1%	Batagram	KP	-	0%
Abbottabad	KP	-	0%	Buner	KP	-	0%
Bannu	KP	-	0%	Charsadda	KP	-	0%
Batagram	KP	-	0%	Chitral	KP	-	0%
Buner	KP	-	0%	D. I. Khan	KP	-	0%
Charsadda	KP	-	0%	Hangu	KP	-	0%
Chitral	KP	-	0%	Haripur	KP	-	0%
D. I. Khan	KP	-	0%	Karak	KP	-	0%
Hangu	KP	-	0%	Kohat	KP	-	0%
Haripur	KP	-	0%	Kohistan	KP	-	0%
Karak	KP	-	0%	Lakki Marwat	KP	-	0%
Kohat	KP	-	0%	Lower Dir	KP	-	0%
Kohistan	KP	-	0%	Malakand	KP	-	0%
Lakki Marwat	KP	-	0%	Mansehra	KP	-	0%
Lower Dir	KP	-	0%	Mardan	KP	-	0%
Malakand	KP	-	0%	Nowshera	KP	-	0%
Mansehra	KP	-	0%	Peshawar	KP	-	0%
Mardan	KP	-	0%	Shangla	KP	-	0%
Nowshera	KP	-	0%	Swabi	KP	-	0%
Peshawar	KP	-	0%	Swat	KP	-	0%
Shangla	KP	-	0%	Tank	KP	-	0%
Swabi	KP	-	0%	Torghar	KP	-	0%
Swat	KP	-	0%	Upper Dir	KP	-	0%
Tank	KP	-	0%	Bagh	AJK	-	0%
Torghar	KP	-	0%	Bhimber	AJK	-	0%
Upper Dir	KP	-	0%	Hattian	AJK	-	0%
Bagh	AJK	-	0%	Haveli	AJK	-	0%
Bhimber	AJK	-	0%	Kotli	AJK	-	0%
Hattian	AJK	-	0%	Mirpur	AJK	-	0%
Haveli	AJK	-	0%	Muzaffarabad	AJK	-	0%
Kotli	AJK	-	0%	Neelam	AJK	-	0%
Mirpur	AJK	-	0%	Poonch	AJK	-	0%
Muzaffarabad	AJK	-	0%	Sudhnoti	AJK	-	0%
Neelam	AJK	-	0%	Astor	GB	-	0%
Poonch	AJK	-	0%	Diamer	GB	-	0%

PRIMARY SCHOOLS				SECONDARY SCHOOLS			
District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools	District/Region	Provice	No. of Dangerous School Buildings	Dangerous Schools as % of total schools
Sudhnoti	AJK	-	0%	Ghanche	GB	-	0%
Astor	GB	-	0%	Ghizer	GB	-	0%
Diamer	GB	-	0%	Gilgit	GB	-	0%
Ghanche	GB	-	0%	Hunza	GB	-	0%
Ghizer	GB	-	0%	Kharmang	GB	-	0%
Gilgit	GB	-	0%	Nagar	GB	-	0%
Hunza	GB	-	0%	Shigar	GB	-	0%
Kharmang	GB	-	0%	Skardu	GB	-	0%
Nagar	GB	-	0%	Bajaur Agency	Merged Areas	-	0%
Shigar	GB	-	0%	FR Bannu	Merged Areas	-	0%
Skardu	GB	-	0%	FR Lakki	Merged Areas	-	0%
FR Bannu	Merged Areas	-	0%	FR Tank	Merged Areas	-	0%
FR Lakki	Merged Areas	-	0%	Khyber Agency	Merged Areas	-	0%
Kurram Agency	Merged Areas	-	0%	Kurram Agency	Merged Areas	-	0%
Islamabad	Capital	-	0%	Islamabad	Capital	-	0%

Table 5.16 Mapping district wise supply interventions – replacement or rehabilitation of dangerous schools buildings

Source: Author's computation from District Education Profile, 2015-16, AEPAM, Ministry of Federal Education and Professional Training, Islamabad.
The districts follow- descending order with respect to the number of dangerous school buildings in both categories i.e. primary and secondary schools.

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Annexure

Methodology

Chapter-1

Table 1.1	Simple compilation from the mentioned source.

Chapter 2

Figure 2.1	(Out of school boys)/(Total out of school children)*100 and (Out of school girls)/(Total out of school children)*100
Figure 2.3	Placement of provinces/regions in descending order of number of OOS girls (Primary schools)
Figure 2.4	Placement of provinces/regions in descending order of number of OOS girls (Secondary schools)
Figure 2.5 & Figure 2.6	Pie charts identifying relative percentage of OOs girls with corresponding province/region.
Figure 2.7	Absolute number of OOS boys and girls from 2012-13 to 2016-17 (the latest available figures)
Table 2.1	Ranking of provinces/regions in ascending order with respect to the number of OOS girls i.e. the region with least number of out of schools girls per 100 girls enrolled will be ranked as 1st and the regions with highest out of school girls compared to per 100 girls enrolled will ranked 8th.
Table 3.2	The ranking based on Provincial/regional comparative of relative numbers of primary versus secondary schools. The ranking follows descending order with respect to number of secondary schools i.e. highest number of secondary schools per 100 primary schools means highest rank and lowest number corresponds to lowest rank.

Chapter 3

Figure 3.1	Absolute number of primary schools in urban and rural areas
Figure 3.2	Absolute number of secondary schools in urban and rural areas
Figure 3.3, 3.5 & 3.6	Year on Year Retention Rate = $\left(\frac{Enrolment_{t}}{Enrolment_{t-1}}\right)*100$
Table 3.3	(Number of students enrolled in primary schools)/(Number of primary teachers) and (Number of students enrolled in secondary schools)/(Number of secondary teachers)
Table 3.4	(Number of students enrolled in primary schools)/(Number of primary schools) and (Number of students enrolled in secondary schools)/(Number of secondary schools)
Table 3.5	(Number of primary teachers)/(Number of primary schools) and (Number of secondary teachers)/(Number of secondary schools)
Table 3.6 & Table 3.7	The ranking follows descending order with respect to male to female teacher ratio, number of female teachers per 100 male teachers i.e. higher the ratio higher is the rank.
Table 3.8	(Number of schools where eletcricity is not available)/(Number of total schools)*100
Table 3.9	(Number of schools where drinking wanter is not available)/(Number of total schools)*100
Table 3.10	(Number of schools where toilet faccility is not available)/(Number of total schools)*100
Table 3.11 & Table 3.12	Simple calculation of percentage for each class, for example (Number of schools with only one class rooms)/(Number of total schools)*100 and same for all percentages in the two Tables.
Table 3.13 & Table 3.14	Percentage change of two different observations over two distant time i.e. 2017 and 2008
	$\left(\frac{Enrolment_{2017} - Enrolment_{2018}}{Enrolment_{2008}}\right)*100$
Table 3.15 &Table 3.16	Retention Rate up to Grade 5
	$\left(\frac{Enrolment_{t+4,\ Grade\ 5}}{Enrolment_{t,Grade\ 1}}\right)*100$

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https://data.worldbank.org/indicator/SE.XPD.TOTL.GB.ZS

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https://southasianvoices.org/direct-taxation-in-agriculture-failure-of-public-policy-in-pakistan/

Cumulative drop out rate till Grade 5= 100-Retention Rate to Grade 5 Retention Rate up to Grade 10 = $\left(\frac{Enrolment_{t+9,\ Grade\ 10}}{Enrolment_{t,Grade\ 1}}\right)*100$

Cumulative drop out rate till Grade 10= 100-Retention Rate to Grade 10

Chapter 4

Figure 4.1	Author's conceptualization of flow of resources from Article 160, 161 & 162 of the Constitution of Pakistan.
Figure 4.2	Simple compilation from mentioned sources
Figure 4.3	GDP/100*4 = Four percent of GDP. The figures of GDP considered for calculations are based on which the education spending as percentage of GDP is reported, Source: Pakistan Economic Survey.
Figure 4.4	(Education spending)/(Total public spending)*100 (for Federal and all provinces)
Figure 4.5 & Figure 4.6	(Development Education Budget)/(Total Education Budget)*100) and (Non-Development Education Budget)/(Total Education Budget)*100)
Table 4.1 to Table 4.3	Simple compilation from mentioned sources
Table 4.4.	(Actual Spending)/(Budget Allocation)*100

Chapter 5

Figure 1.	Per student cost at primary level (Budget for primary education)/(Total primary enrolment) Per student cost at secondary level (Budget for secondary education)/(Total secondary enrolment)
Table 5.1	Balochistan shows a highest per student cost of Rs 3,790 which is considered as estimated per student expenditure for educating OOS girls and the same is divided in one-third for supply side and two-third for demand side elements. Since the public investment is going to complement existing infrastructure and investment, therefore, it is kept as one-third.
Table 5.2	Considering 2018-19 as base year, due to COVID an increase of five per cent in education budget for first year, and a consistent 10 per cent for over ten years is considered (inflation indexation).
Table 5.3	The estimates for educating OOS girls provided in Table 5.2 are compared with projected education expenditures over next 10 years, to show that how much additional finances will be required.
Table 5.4	Compilation from mentioned sources. If 'Food Insecurity Index' of a particular district is 'high' then start food-based intervention immediately and for medium and low index values should be in short run and long run respectively. If population density of a particular district is less than 50 persons per square km, transportation allowance to be started 'immediately' if it is greater than 50 less than 150, the introduce in 'short run' and if it is greater than 150 then medium to long run.
Table 5.9-Table 1.15	If for every 100 primary schools, the number of secondary schools are equal to less than 20, immediately invest to build new secondary schools. If average number of teachers in primary schools are equal to less than 2, recruit more primary teachers. If student enrolment in a primary school is less than 100 consider examining the physical facilities.
Table 5.16	(Number of dangerous primary schools buildings)/(Total primary schools) and (Number of dangerous secondary schools buildings)/(Total secondary schools)

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