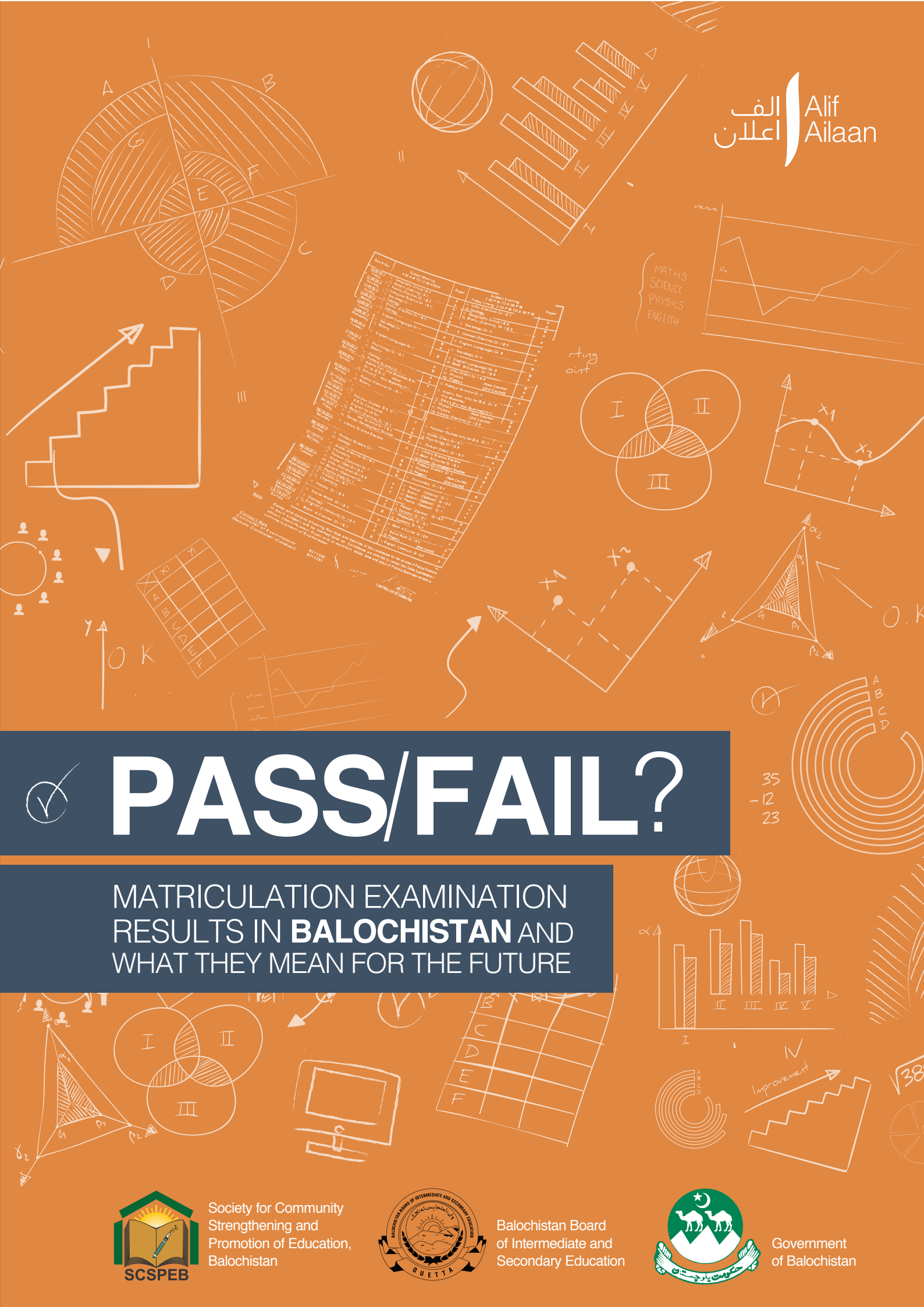

Alif Ailaan
الف اعلان

PASS/FAIL?

MATRICULATION EXAMINATION RESULTS IN **BALOCHISTAN** AND WHAT THEY MEAN FOR THE FUTURE

Society for Community Strengthening and Promotion of Education, Balochistan

Balochistan Board of Intermediate and Secondary Education

Government of Balochistan

Alif Ailaan

PASS/FAIL?

MATRICULATION EXAMINATION RESULTS IN **BALOCHISTAN** WHAT THEY MEAN FOR THE FUTURE

Authors:

Abdus Sami Khan
Irfan Ahmed Awan
Mohammad Anwar
Rehana Anjum
Mohammad Aamir Khan
Syed Shoaib Ali Zaidi
Salma Javed
Talha Zakria

SCSPEB
Society for Community Strengthening and Promotion of Education, Balochistan

Balochistan Board of Intermediate and Secondary Education

Government of Balochistan

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List of Acronyms

ASER	Annual Status of Education Report
BBISE	Balochistan Board of Intermediate and Secondary Education
BEMIS	Balochistan Education Management Information System
BESP	Balochistan Education Sector Plan
BISE	Board of Intermediate and Secondary Education
BOC & ES	Bureau of Curriculum and Extension Services
BRC	Balochistan Residential College
BTBB	Balochistan Text Book Board
DOE	Director of Education
EMIS	Education Management Information System
FBISE	Federal Board of Intermediate and Secondary Education
FC	Frontier Corp
GCSE	General Certificate of Secondary Education
GDA	Gwadar Development Authority
GER	Gross Enrolment Rate
HED	Higher Education Department
HSSC	Higher Secondary School Certificate
MIS	Management Information System
NER	Net Enrolment Rate
PITE	Provincial Institute for Teachers Education
PSLM	Pakistan Social and Living Standard Measurement
SAHE	Society for the Advancement of Education
SCSPEB	Society for Community Strengthening and Promotion of Education, Balochistan
SED	Secondary Education Department
SSC	Secondary School Certificate

Foreword

Bismillahirr Rahman irr Raheem

Each year hundreds of thousands of young Pakistani men and women appear in what we traditionally call matric exams, as they complete ten full years of schooling. These are the relatively lucky ones - the Pakistani children that not only were enrolled in a school at some stage in their life, but also had the chance to complete a full ten years in school.

What do we know about this vital cohort of young Pakistanis? Very little. Neither of the two official national government datasets (the PSLM and the AEPAM's NEMIS) that offer any statistics about education addresses the quality of education. When we conceived this study, this was the first conversation we were keen to initiate. We have attempted to initiate this very conversation through a range of other research and publication efforts, including our annual district rankings and the "25 million broken promises" report that articulates the methodology through which we have calculated Pakistan's large out-of-school children population.

The second conversation we were keen to initiate through this study was about the usefulness and utility of using data as a tool to inform broader public policy. Lying within the godowns of each and every examination board in the country, which administer the matric exam to hundreds of thousands of students completing ten years of education, are reams of data about what those students know and don't know. The data is not only disaggregated by student, but by subject area, and by specific question. For those that are excited by the prospect of more data, generating greater information, producing more knowledge and leading to more wisdom, the board examination data in Pakistan is a treasure trove, waiting to be explored. For too many senior bureaucrats and weary politicians, opening up the doors for researchers to dig into this data opens up vulnerability to criticism and political attacks. However, within the data, also lies the power to shape and articulate irrefutable evidence for policy changes. If one is interested in changing the future of Pakistan for the better, not using the vast amounts of data lying around and rotting in the various boards is akin to criminal negligence.

Why have we become so strongly convinced of the power this data holds? Because when we began this research exercise, we were essentially exploring the conceptual construct of this data's usefulness. Thanks to the good graces of the Balochistan Department for Education, and the stellar

leadership of Sardar Raza Barech, the Secretary of the Department, Abdul Saboor Kakar and Prof. Saadullah Tokhi, the Chairman of the Balochistan Board of Intermediate and Secondary Education (BBISE), and most of all, the superb research team at Society for Community Strengthening and Promotion of Education, Balochistan (SCSPEB), we discovered that the data offers a rich panoply of insights about the education system.

Similar studies need to be conducted in all the provinces. We were privileged to have found the SCSPEB, and their passion for the idea that motivated this study was a key informant and driver of this effort.

While the data tells us a lot, it does not tell us what we would expect to learn most immediately. Matriculation exam results do not offer insights into the quality of learning, but a much more limited window into the ability of students to cram information and reproduce it on the day of the examination. The debate about assessments is long overdue in Pakistan, and is far short of how deep and rich it needs to be. Regardless, a deeper dig into board examination data is a good starting point.

We are particularly proud and humbled to be able to release this report as we approach three years of campaigning. What began as a journey to convince the national discourse about the importance of universal enrolment could be shaping itself into a conversation about examination results. That represents a significant evolution. Yet it is far, far removed from the kind of outcomes all Pakistanis yearn to see in our schools and colleges: children from all backgrounds having a reasonable chance of fulfilling their potential and achieving their dreams. Getting to that place is a much longer, harder and more arduous journey. We hope this report serves as a small, but important step in that journey. If it generates the debate and helps elicit a government response we believe it can.

Mosharraf Zaidi
Alif Ailaan
September 2015

Acknowledgements

For the first time in Pakistan, the Secondary School Certificate Exam results of almost 37,000 students have been analysed to draw policy recommendations. This report primarily uses the cumulative scores of students who appeared in the grade 10 Secondary School Certificate (SSC) Annual Examination 2014, conducted by the Balochistan Board of Intermediate and Secondary Education (BBISE).

Alif Ailaan, in partnership with Society for Community Strengthening and Promotion of Education, Balochistan (SCSPEB), Balochistan Board of Intermediate and Secondary Education (BBISE) and the Secondary Education Department (SED) Government of Balochistan have conducted this study titled: PASS/FAIL? Matriculation Examination Results in Balochistan and What They Mean for the Future.

This study would not have been possible without the support of Prof. Saadullah Tokhi, Chairman BBISE who not only allowed us to access the SSC Annual 2014 data for analysis but also provided guidance at all stages of analysis. We further acknowledge that for the first time in Pakistan, a Board of Intermediate and Secondary Education has shared their data with a private sector organisation for analyses. The BBISE has done this as a part of their quality-indicator set under the Balochistan Education Sector Plan (2013-18). We thank the chairman and his team for their generous support in completing this analysis.

We are also thankful to Mr. Abdul Saboor Kakar, Secretary of Education, the secondary education department, the government of Balochistan who were kind enough to support the study and review the process and set the ground for making this report useful in their efforts for education improvement in the province.

We are thankful to Sardar Raza Muhammad Bareach, Advisor to Chief Minister for Education, for his patronage and keen interest in this study.

We owe our gratitude to Mr. Abdus Sami Khan, the lead researcher for painstakingly carrying out the analysis and shaping it into what it is: an important report that adds value to the national debate about education and a tool for education improvement in Balochistan.

We thank Mr. Muhammad Aamir Khan, Information Officer, SCSPEB for running the critical analysis and conducting the tabulation as a strong part of the study. Additionally, we thank Mr. Muhammad Anwar, SCSPEB who enriched the study with his experience and insight. Finally, we would like to thank Ms. Rehana Anjum, Ms. Salma Javed, Mr Syed Shoaib Ali Zaidi and Mr.Talah Zakria from SCSPEB for actively helping the team in the overall analysis and compilation of this report.

We would like to pay gratitude to Ms. Saman Naz for her essential support in converting the concept of this report into practice for carrying out the study and her critical review and guidance in further enriching the study before it came to the stage of final report. We are grateful to Ms. Sarah Nadeem Ahmad, Ms. Zainab Iqbal and Ms. Hina Sabeen Khan for providing excellent editorial support. We are also thankful to Ms. Noreen Fatima for diligently designing the layout of this report.

Finally, the SCSPEB is grateful to Alif Ailaan for having faith in the organisation for carrying out the first of its kind study in the province which may also inspire other provinces to conduct similar studies. We thank the leadership of Alif Ailaan for extending technical and financial support in conducting this study and bringing these issues to the surface.

We dedicate this report to the children of Balochistan and the Balochistan Education Department for their efforts towards education improvements currently in place.

Irfan Ahmed Awan
Managing Director
SCSPEB

Executive Summary

Across Pakistan, both at the individual and the institutional levels, parents, teachers and the education system as a whole, view the results in matric board examinations as reflections of a student's potential in life. But what do these results as a whole say about the system itself, and its potential to equip the nation with the tools it needs to build a better future?

This was the question we collectively posed to ourselves as we shaped this study's contours. The Balochistan Board of Intermediate and Secondary Education (BBISE) was a keen and willing partner to share data and provide the support that external researchers required to conduct an in-depth analysis of board examination results at the macro-level.

Traditionally, board results have not been analysed to evaluate systemic patterns and diagnose problems that may need policy responses. Huge datasets produced by the BBISE examinations exist without any utilisation beyond conveying results to the students. This is as true of Balochistan as it is of the other three provinces' boards, as well as those boards in the other regions of the country.

This report attempts to demonstrate the potential of this board result data through some basic analysis. In doing so, it seeks to establish a precedent for a deeper and more meaningful conversation about the availability of data to assess the quality of education being provided in Pakistan, and the need to invest in "big data" as an informant of better public policy, especially in the education sector.

To do this, we use the cumulative scores of students who appeared in the grade 10 or "matric" examination of 2014. This means the scores for grade 9 exams in 2013 have been clubbed into the former as per the procedure of BBISE. Historical data on participation and pass percentage has also been obtained. For this purpose, data from year 2001 to 2015 has been included.

The report categorises schools as 'government', 'other government' and 'private'. 'Government' schools are managed by the Secondary Education Department, 'other government' by different government organisations that range from the armed forces to the department of labour. In 2014, 71% of the candidates appeared from government schools, 26% from private schools and only 3% from 'Other Government'.

The analysis reveals a steady, long-term increase in participation of students in the examinations process since 2001. Participation has increased by 79% in the last 15 years. The bulk of growth has been in female participation, which grew by 193%, as against, 54% for boys. The share of female participation has increased from 18% in 2001 to 30% in 2015. The growths, in both cases, seem to be correlated to increase in the

number of high schools available during the period. Female schools, though still much lower in number than male ones, have seen a greater expansion rate. This explains the faster increase in female participation.

Pass percentage exceeded the high 90s in the last 5 years up to 2014. Overall for most years the percentages have been high with some exceptions in 2001-2 and 2007. Anecdotal evidence suggests that these are years where the government cracked down on cheating – an endemic problem in the BBISE examinations. The limited information available for the 2015 results also reveals a downward trend indicating the impact of the government's campaign against cheating.

Despite this cheating scores remain skewed. Only 0.06 percent of students scored an 'A plus' and 11.6 percent scored an 'A'. The remaining scored at grades 'B' and below. Almost 50% scored at 'C' and below. These scores indicate that the pass percentage loses its meaning. Majority of the students who appear for the examinations will have very limited options to move to promising career options as students with grades of 'B' and below are generally not expected to recover in their subsequent academic careers.

Students from 'Other Government' schools dominate the higher grades. Students from these schools have a share of 62.5% share in the 'A plus' category. Within this category the Balochistan Residential Colleges (BRCs) managed by the Higher Education Department, military-run schools and cadet colleges dominate. Based on median aggregate scores these institutions take the first five rankings. Their students occupied 15 of the top 20 positions in 2014. These have been termed as 'elite government schools' in the report. "Other government' schools also dominate the scores in the four subjects analysed. These subjects are English, Urdu, Mathematics and Computers.

Across government and private schools the differences appear to be marginal with private schools only slightly ahead in aggregate as well as subject scores. The main gaps are in English and Computers where private schools have a better median score. If performance of students is used for a value-for-money analysis for the Department of Secondary Education then, depending on the assumptions used, 'A plus' costs the government over Rs. 797 million per year. If students with scores of 'A' and above are taken into account then it amounts to Rs. 8.54 million only. Furthermore, if only pass students are taken into account then it is Rs. 0.84 million per year. Even if these numbers are reduced by one fifth considering that secondary school (grade 9 and 10) constitute 20 percent of the school period, the costs seem to be untenable against any measure of efficiency.

The low scores of the government sector schools have to be seen in the context of high dropout rates at the primary level, low NERs at the secondary level and a generally poor quality of education. Even the BBISE examinations are considered to test rote memory only.

The largest share of females is in private schools at 34% followed by government schools at 32%. The lowest percentage is in the 'Other Government' category at 22%. Girls therefore face a degree of exclusion from the elite government schools that they do

not face in ordinary government schools, or private schools. Generally, girls outperform boys in the aggregate as well as individual subjects. In years of crackdown on 'cheating' female pass percentage does not fall by as much as that for males.

District wise comparisons could only be made for schools in the government sector. In the case of private schools, the data does not clarify the location in a number of schools. The largest proportion of students appears from Quetta district (31%). Only 10 districts had candidates numbering 1000 or above. Sherani had only 85 candidates. Only 3 districts have female participation rates of 40% and above. These include Sherani where 51% of the candidates were females. In Quetta the share is 32%. Ten districts have less than 20% share of girls among the candidates. In Qilla Saifullah only 9% of the students appearing were females.

Despite the high participation rates, the aggregated performance of schools in Quetta remains below others in overall as well as subject results. Overall, based on median scores, Quetta ranks at 19 out of 30 districts. The district also does not fare well in subject scores. This would seem counterintuitive, given that in the Alif Ailaan district rankings Quetta ranks at the top of the list. However that index measures the performance of a much higher number of students at a much lower level (i.e. primary school), whereas the matric scores we explored assess student performance at the high school level. Nevertheless, the analysis of the board examinations results suggests a number of anomalies when compared with datasets like PSLM and Alif Ailaan. These differences simply reinforce the need for more detailed, more robust and much smarter data collection and analysis by provincial education departments. Another example of the contradiction is Dera Bugti which ranks third in BBISE ranking based on performance despite very poor education indicators. Nasirabad tops the overall ranking followed by Qilla Saifullah.

Low positions in ranking do not indicate the absence of good schools. Some of the low performing districts have schools in the 'A' category while others like Dera Bugti at 3rd rank has no school in the 'A' category. Some of the top ranked government and private schools are in Quetta city. A total of 6 government and 3 private schools in Quetta fall in the median score of 'A'. Panjgur has two private schools and 3 government schools in the same category. Noshki has 4 government schools in 'A' category. Overall Noshki does not figure in the top 5 districts. Similarly Sibi is ranked at 18th but has two schools in 'A' category. High performing schools in low performing districts, and vice versa, need to be factored into policy and planning processes.

Two sets of recommendations emerge in the report. The first set has been based on the experience of data collection of the report while the second set of recommendations has been made as a result of the data analysis. In the former the main recommendation is of the creation of a regular mechanism of data collection and analysis through a management information system for BBISE. This MIS should be made part of the provincial education management information system and must be used in policy, planning and implementation processes.

The recommendations based on data analysis are:

i. More female high schools should be operating as there appears to be a clear correlation between increased number of female high schools and girls' participation in BBISE examinations.

ii. Girls should be provided an opportunity to have their own elite government schools. (With the assumption that in the long run all schools should be able to meet standards and elite schools may not be required).

iii. The examination results for languages (Urdu and English, both) suggest that a greater emphasis on rigorous teacher training programmes for government schools is required for middle and high school teachers.

iv. The government needs to strengthen its technical and vocational education sector as a very high number of candidates will not be able to qualify for better quality higher education institutions.

v. Provincial education departments must incorporate the local context, and especially the status of education in specific districts in framing policies, in order to ensure better performance by each school. A one-size-fits-all approach is producing highly unequal outcomes both within and across districts.

vi. High performing schools in low performing districts must be studied in more detail. They may offer ideas and models that can be learnt from.

vii. Maximum data should be collected from districts and analysis should be carried out using various datasets, including BBISE data, for better comprehension of the issues.

1. Introduction

Every year thousands of children appear in the 'high stakes' examinations of the various boards of intermediate and secondary education across the country. These examinations determine the career, and often life paths of the students. Anxiety and expectations of students, and parents, lead to an atmosphere of fear and, often, desperation. Over the years the examination boards, the departments of education and even society view these as tests of students' ability and aptitude. Students who fail to perform condemn themselves to low self-esteem. Even society and families begin to see them as 'low achievers for life'.

This singular approach of focus on the student assumes that the education system functions efficiently. There has been an en masse failure to see the results as a product of the education system prevalent in the jurisdiction of the relevant examination board. In some provinces, at times, education administrations have tried to hold head teachers responsible for 'poor' examination results. This again reflects the limited understanding of the policymakers and implementers of the two-way causal linkages between these 'high stakes' examinations and the education service delivery system and other complexities. The approach has resulted from a failure to recognise the importance of the data and the need to analyse these examinations to improve the education system.

On average each Board conducts 4 exams per year. Data of these examination results continues to accumulate every year without an attempt at utilisation for analysis. Balochistan Board of Intermediate and Secondary Education (BBISE) has not been an exception. The dormant 'Research Cell' of the Board has never employed the data in any analysis. The dormancy stems from, historically, a lack of demand for any data based analysis from senior management within the Board and the senior education management from the Secondary Education Department. Even computerisation of examination results has been initiated as late as 2014.

In the absence of structured databases and analyses, the information generated continues to be wasted.

Hopefully the situation has begun to change. This report has been prepared with the active support and assistance of the senior management of Balochistan Board of Intermediate and Secondary Education. It is an effort to use some of the data of the BBISE and identify possible approaches to its analysis. The results presented do not exhaust the options for analysis.

The report purports to reveal potential connections between the examination outcomes and the education delivery system. The attempt does not pre-empt causation but presents enough information for reflection and further research. The skewedness of the results in favor of elite institutions, the variation in pass percentage depending on administrative management of examinations, performance gaps across genders and the fact of low participation emerge very clearly in the results. These results pose clear policy implications for the Government of Balochistan, especially, in terms of equity and

financial efficiency. An interesting by-product has been the estimation of the private school participation in the province. At almost 25% at the secondary level it exceeds the estimate of 15% made in the Balochistan Education Sector Plan 2013-17.

The data does not provide an insight into the quality of the examinations. This has, nevertheless, been discussed as part of the context. Views and results from other sources have been added. The findings of most of these sources criticise the poor quality of the examination. This provides a further perspective to the analysis.

The report primarily uses data from the annual secondary examination for 2014. Some historical data on participation and pass rates dates from 2001. Also towards completion of the report BBISE announced results of its annual examination for 2015. Though detailed data is still being developed some useful numbers have been used in the report to the extent possible.

The analysis is limited to description of data using basic tools like disaggregation. A small value for money analysis has been undertaken using a non-statistical model Inferential statistics have not been applied even though the data provides a huge opportunity. This has been avoided due to dearth of time and also to keep the analysis simple. As the first report of its kind there is a need to attract a large audience, which can find the descriptive analysis easy to comprehend.

The report has been divided into 7 chapters including the introduction. The next chapter explains the methodology and background. Chapter 3 describes the education sector in Balochistan to the extent of its relevance to the report. Additionally, various school types and the role of BBISE have also been explained. The analysis begins in Chapter 4, which provides an overall view. Chapter 5 analyses across school types, Chapter 6 discusses gender related data and chapter 7 comparison of results across districts though the chapter remains restricted to government schools only.

2. Background and Methodology

Research based policy and planning has been a major deficit in Pakistan. Examination results collected each year by the Balochistan Board of Intermediate and Secondary Education (BBISE) have remained an unexplored opportunity for decades. The purpose of this study is to explore the potential of this information for policy, planning and implementation analyses.

To undertake the study, support was sought from the Balochistan Board of Intermediate and Secondary Education. Showing a keen interest in the endeavour, the Chairman of the Board allowed the Society for Community Strengthening and Promotion of Education, Balochistan (SCSPEB) access to all secondary data available. The main dataset used has been the examination results of science group for the secondary examinations conducted in 2013/14 for grades 9th and 10th respectively. Overall the number of students who appeared in the examinations was 48,172 of which 79% (37,886[1] candidates) belonged to science group and the remaining to humanities.

The science group was selected as a number of candidates in humanities appear as private students were not linked to any school. This would have made school wise analysis difficult. Secondly comparisons across subjects required that a single set be taken and as science forms the overwhelming majority it was taken and as the target data for the analysis.

Data was entered in an excel sheet and various disaggregation options applied to reach conclusions on various aspects of the results.

The study has been conducted with the following purposes:

- Explore the potential of examination data of BBISE as a feedback into the education sector.
- Identify patterns of performance across schools, subjects, students, gender and districts.
- Provide a basis for more detailed analysis of examination data and a sustainable MIS for the BBISE

2.1 Data Analysis Approach

Data for the Secondary School Examinations for 2014 has been used. Practically it is the combined result of grade 9th annual examination in 2013 and grade 10th annual examination held in 2014. The bulk of analysis has been conducted through the accumulated scores. Additionally historical data from 2001 to 2013 has also been provided but this information is limited to participation and pass percentage. Limited

1 Data of only 37,137 has been used as BBISE did not declare the result of the remaining candidates. The latter's certificates of grade 8 could not be confirmed.

data details of 2015 examinations have also been provided. These have been used in some parts of the report.

Simple descriptive analysis has been used through disaggregation of data according to the following variables: schools, school types, students, gender, districts, grades and subject grades.

School types have been divided into three types: Government, other government and private[2]. Government Sector schools are managed by the Secondary Education Department. The other government category includes schools managed by government sector entities other than the SED. Theses include schools managed by the Higher Education Department (HED) of the Government of Balochistan[3].

For aggregation of scores for overall, as well as, subjects median has been used as the measure. This reduces the impact of outliers. Median has been employed in school rankings, district rankings and gender analysis.

2.2 Limitations

The analysis has the following limitations:

i. The huge database of BBISE examinations can be analysed through inferential statistical techniques. These have not been employed therefore the various gaps cannot be considered as statistically significant.

ii. Time series data beyond participation and pass percentage would have further enriched the analysis.

iii. In the majority of cases information available on private schools did not allow the location of the school to be disclosed. Therefore district-wise comparisons use data of government schools only.

iv. As a number of students in the humanities group appeared as ‘private candidates’ who are not enrolled in any school, hence they were not included in the analysis as school-wise comparison was not possible with this data.

v. Quality of the examinations cannot be determined from the data available. (The issue of quality has been discussed sparingly quoting other sources).

vi. Cheating is endemic in the examinations. It has been discussed in the report and analysis has been made on the assumption that cheating impacts pass percentage but not relative performance across students and schools. High grades cannot be obtained through cheating.

2 This terminology was used in the ‘National Education Census 2005’ conducted by the Federal Ministry of Education.
3 Details have been provided in the next chapter.

3. Education Structure

Similar to other provinces in Pakistan, students from a variegated set of school types appear in the secondary examinations conducted by Balochistan Board of Intermediate and Secondary Education. Not all students who take secondary examinations (or equivalent) in the province appear as candidates of the BBISE. Some elite schools have options of international certifications like the GCSE[4]. Students of schools managed by the Federal Government or its agencies opt for the examinations conducted by the Federal Board of Intermediate and Secondary Education (FBISE). The largest set of schools belongs to the Secondary Education Department of the Government of Balochistan. Students from these schools constituted about 75% of the students who sat the secondary school examinations of the BBISE in 2014.

Impact of the Secondary Education Department is not limited to schools under its direct jurisdictions. All other schools that participate in BBISE examinations follow the curriculum and textbooks approved by the DOE. The BBISE results for all types remain relevant to the policies and efficiency of the Department.

3.1 Structure of Education Sector

The structure of the education sector needs to be understood in a three dimensional explanation: administrative structures, the various school types and linkages of the latter with the former.

3.1.1 Administrative Structure(s)

Administratively the sector is divided across two secretariats: Secondary Education Department and the Higher Education Department. The former has the responsibility for school education and most organisations providing relevant services are attached to it. Higher Education Department's main responsibility is college education but it has some schools functioning under it as well. The Balochistan Board of Intermediate and Secondary Education (BBISE) is also attached to HED.

3.1.1.1 Secondary Education Department

The Secondary Education Department constitutes the largest and most important administrative unit for education management in the government sector. A number of important service delivery organisations function under the secretariat of SED either as attached departments or autonomous bodies. The former include the Directorate of Education, Provincial Institute of Teacher Education (PITE) and Bureau of Curriculum and Extension Services (BOC &ES). Balochistan Textbook Board (BTBB) operates as the only autonomous body under the SED. The majority, but not all, government sector schools in the province are managed by the SED.

4 These are limited to two to three schools in Quetta city only.

3.1.1.1.1 Directorate Education

The Directorate of Education is the technical arm of SED responsible for management of schools and teachers in the districts. District administrative units of the Directorate perform this function.

3.1.1.1.2 Balochistan Textbook Board

Balochistan Textbook Board has the responsibility for textbooks and other learning material used from pre-primary to grade XII in schools. As already mentioned all schools that appear in the BBISE examinations use official textbooks notified by the BTBB.

3.1.1.1.3 Bureau of Curriculum and Extension Services

BOC &ES has the mandate for curriculum review and approval of textbooks. The former role has been assigned to the Bureau after the 18th Amendment to the Constitution of the Islamic Republic of Pakistan. At present all textbooks have been prepared under the curriculum approved by the Federal Ministry of Education in 2006 and 2007. The provincial government has adopted it as the extant curriculum for the province. The Government of Balochistan, through the BOC&ES, will undertake further reviews and notifications of the curriculum. Again, theoretically, all schools whose students appear for BBISE examinations follow the official curriculum notified by the SED.

3.1.1.1.4 Provincial Institute of Teacher Education (PITE)

The PITE functions as the premier teacher training institution in the province for teachers employed in schools managed by SED.

3.1.1.2 Higher Education Department

The Higher Education Department manages colleges in the government sector. These colleges have both intermediate as well as graduate classes. In addition to this role, the HED also runs some schools whose students appear in the SSC examinations of the BBISE. These are the elite government schools described below. The Balochistan Board of Intermediate and Secondary Education (BBISE) functions as an autonomous body of the Higher Education Department.

3.1.1.3 Balochistan Board of Intermediate and Secondary Education

The Balochistan Board of Intermediate and Secondary Education came into existence under the Balochistan Board of Intermediate and Secondary Education (Quetta) ordinance 1969. The law was amended and in substitute through Balochistan Board of Intermediate and Secondary Education ordinance 1977 which was approved by the Governor of Balochistan on November 7, 1977. Prior to establishment of BBISE, the SSC and HSSC examinations were held by the BISE Multan which had a branch office in Quetta, and before that, the SSC examinations were responsibility of the University of the Punjab. A chairman supported by a Secretary and Controller of Examinations heads the Board. A number of committees oversee the work of the Board.

The Board has powers to register schools for affiliation and monitor standards in such institutions. Every year the Board holds 8 examinations. These include the regular and the supplementary examinations across a huge variety of subjects. At the secondary level students are divided primarily between two sets: sciences and humanities. The pattern of subjects for science students is well settled. Humanities students have a wider array of optional subjects. The latter can appear as private candidates not affiliated with any education institutions. Candidates who appear in the science group have to be regular students of a registered school.

The Board outsources most of its work. The paper setters, supervisors and invigilators are hired from the colleges and schools managed by the provincial government. It faces a huge logistical challenge in each examination. The vast area of the province (44% of Pakistan) and poor communications structure pose major challenges. Over the years, the Board has managed to operationalise a function system that ensures timely examinations throughout the year.

The quality of papers prepared in the Board has often been challenged. The Balochistan Education Sector Plan calls for 'quality' and 'standards based' examinations conducted by the BBISE. At present the papers prepared by the Board tilt heavily towards rote learning. Examiners appointed are not trained in developing examination papers. Often they either use past papers or textbooks for developing these papers as opposed to the curriculum. Resultantly, some papers do not cover the requisite weightages required by the curriculum.

The Board needs to improve the quality of its papers. It faces a handicap even if it tries to change its examination pattern. The primary and middle school teaching relies heavily on rote learning and students cannot be expected to shift the approach, drastically, at the secondary level. Unless an across the board approach is undertaken, a reform of the Board alone will not change the education quality. Irrespectively, the weight of the Board's examination approach will be the heaviest in influencing the teaching and learning processes in the classroom.

3.2 School Types

As already mentioned in the previous chapter, this report categorises school types as Government, Other government and Private. All schools under the control of SED will be called 'Government', those managed by government sector entities other than SED will be referred to as 'Other government' and the remaining as Private.

3.2.1 Government Schools

There are four types: primary, middle, secondary and higher secondary. Primary classes begin at pre-primary classes (kachi) and terminate at grade 5. Middle consists of grades 6 to 8. Secondary level includes grades 9 and 10 and higher secondary covers grades 11 and 12. Most secondary schools also have middle and primary sections. Also, higher secondary schools also have lower sections, sometimes, right down to primary. The province has 10,586 primary, 1,165 middle, 783 high and 43 higher secondary schools.

3.2.2 Private Schools

In addition to government schools the number of private schools has also increased over the last few years. While the exact number remains unknown due to lack of data the Balochistan Education Sector Plan estimates enrolment in private schools at around 15 to 20 percent of the total. A number of these private schools also offer secondary education. Candidates from these schools appear in the examinations held by the Board of Intermediate and Secondary Education.

3.2.3 Other Government Schools

As already mentioned these schools are run by government sector entities other than the Secondary Education Department. The following types function under this head:

3.2.3.1 Balochistan Residential Colleges:

These are 'elite' government sector boarding schools under the Department of Higher Education. Classes in these schools begin at grade 6 and continue till higher secondary levels. The BRCs conduct entry tests for students and only those who qualify occupy the few seats available. The medium of instruction is English. Teachers in these colleges have a better career prospects than the 'non-elite' government schools. These teachers also have higher qualifications and enjoy more prestige. The students who are admitted against general seats are charged Rs.40,000/annum while the students who take admission on a self-financing basis are charged Rs. 63,300. There are three such institutions located at Loralai, Khuzdar and Kech.

3.2.3.2 Cadet Colleges:

Cadet colleges are run by armed forces personnel from the education corps. These can again be considered 'elite' government sector schools with boarding and lodging. Cadet colleges are set up through funding from the Federal Government and then handed over to the provincial government. These colleges enjoy a high degree of autonomy. Similar to BRCs teachers have better qualifications, career structures and prestige. The cadet colleges enjoy a reputation for high quality education institutions all over the country. There are 5 cadet colleges in the province, located at Mastung, Jaffarabad, Qilla Saifullah, Pishin and Punjgur. Cadet College Punjgur is newly established college therefore the students from this college did not appear in the exams this year.

3.2.3.3 Workers Model Schools:

The Labour Board Balochistan which works for the welfare of labour community in the province and is associated with Department of Labour (DOL) also manages nine schools. Though these schools have been established for the children of labourers but they also cater to the needs of community around them. These schools are managed with the funds generated through various types of cess. A total of nine such schools send children for the secondary school examination of BBISE.

3.2.3.4 Metropolitan Corporation:

The Metropolitan Corporation Quetta manages a high school for girls in Quetta. The terms and conditions of service, in this school, are same as government school teachers. The school charges fee which parents can easily afford. The school cherishes good reputation for its facilities, discipline and quality of teaching and therefore, has a good enrolment.

3.2.3.5 Frontier Corps (FC):

Frontier Corps (FC) is a paramilitary force operational in Balochistan for security duties. While the force has not traditionally been housed in Balochistan it has become an almost permanent part of the security apparatus due to the peculiar situation in the province. FC also runs five schools that offer secondary examinations. These schools are located in Chaman, Muslim Bagh, Dera Bugti, Kohlu, Loralai Noshki Quetta.

3.2.3.6 Divisional Schools:

Every Divisional Headquarter has a Divisional Government School, which is funded by the Deputy Commissioner of the Divisional Headquarter. The teachers have a low salary structure as compared to government schools. The medium of instruction in these schools is English and quality of education is considered to be better than in the government schools.

3.2.3.7 Gwadar Development Authority:

Gwadar Development Authority (GDA) manages a single school in Gwadar city.

3.3 Balochistan Education Management Information System

The Balochistan Education Management Information System has been functional since early 1990s. It collects data from schools each year. These are schools managed by the Secondary Education Department only. Neither other school types nor private school information has ever been collected.

BEMIS functions as a standalone database. Its information is used in very limited areas. The narrow scope and limited usage means that there are no linkages between BBISE date and the information accumulated in BEMIS database.

3.4 Linkages of BBISE results with BEMIS school census

An absence of linkages has limited the scope of analysis of this report. One of the indicators to analyse the SSC results was to find out the completion rate of the enrolled students in class 10. The baseline is available in BEMIS data to calculate the required set of information. This analysis would have enriched the report's findings, as this would have produced information on efficiency of the schools in terms of enrolment, results and appearing of students in exams.

Considering the importance of the analysis the linkages were created between BEMIS and BBISE data. The process includes adding the BEMIS code against school names in BISE data and editing the school names to maintain the uniqueness in spellings.

A number of limitations were seen in the comparisons. These made it impossible to be able to link scores in schools to endowments available. Two sets of information were sought for the comparison: student teacher ratios and teacher qualifications. Firstly the teacher student ratio in Balochistan is high in general and very high in the case of secondary education. It ranges from 1:20 or below for the largest number of schools in the government sector. As almost all schools enjoy a high ratio then linking the ratio to results does not make sense. Theoretically all schools should have performed very well.

Teacher qualification could have been the other variable pursued. Limited data in BEMIS prevented this analysis. The latter does not provide specific information on teachers' qualifications, number of years in a school and experience.

A major deficiency seen in BEMIS data is the absence of information on private and other government schools. This further limited analysis that could emerge from comparison of BEMIS and BBISE data.

A few noteworthy facts that emerged from the data are:

Out of a total of 826 high schools in the government sector 144 schools did not send any student to the examinations. As 73 of these schools had been upgraded in the year of the examinations these could not send students for the examinations. There is no explanation available for students from the remaining schools that were not part of the examinations.

Secondly as per BEMIS data a total of 29,635 students were enrolled in grade 10 while only 26,548 students of government schools appeared in the examinations. A total of 3,177 candidates did not appear in the examinations. Although the two databases have different dates, ideally, all students in BEMIS data should have appeared in the BBISE examinations. There is dearth of information on these missing students. Most probably they dropped out before the examinations.

4. State of Education

Historically, Balochistan's performance in the education sector has been the weakest among all provinces. It has the lowest net enrolment rates and the highest gender gaps. In terms of quality its performance has been poor but not very dissimilar to other provinces. In terms of relevance to the subject of this report three issues need to be considered: the net enrolment rates at secondary level are very low, the quality of examinations conducted by BBISE is not rated very highly and a strong tradition of cheating in the secondary examinations (and beyond) prevails.

4.1 Pre-Secondary Situation

As per PSLM net enrolment rates at the primary school level for ages 6 to 10 is 52%. For females it is 42% and for males it is 65%. The gender gap appearing at primary continues at the middle level where overall NER reduces even further.

Table 4.1: Net enrolment rate at primary and middle level

Year	NER 6-10 (Primary)			NER 11-13 (Middle)		
	Total	Female	Male	Total	Female	Male
PSLM 2005	44	33	52	17	13	19
PSLM 2007	50	38	60	19	13	23
PSLM 2009	54	42	64	22	15	28
PSLM 2011	56	40	68	25	13	34
PSLM 2013	52	42	65	28	17	36

Source: PSLM surveys

NER for girls at middle school level is only 17%. For most of the last ten years it has hovered around 13%. The reduction in both male and female NERs at middle school level shows the effect of dropouts.

4.1.1 Survival rates

The survival rate at primary (Class kachi[5] to 5 in government schools) is 27% in 2013-2014. It has been around this figure for the last 5 years. The system loses more than 70% children at this stage. It is possible that some of these may be migrating to private schools but the absorption in private schools cannot accommodate more than a small percentage of these drop outs. If taken as a proxy of quality education these figures show a generally poor level of education being imparted.

5 *Kachi* is a pre-primary grade that precedes grade 1

Table 4.2: Survival rate

Year	School level								
	Primary			Middle			High		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
2009-10	25%	25%	25%	77%	82%	79%	95%	91%	93%
2010-11	25%	25%	25%	74%	76%	75%	93%	92%	92%
2011-12	26%	27%	26%	76%	80%	78%	92%	93%	93%
2012-13	26%	27%	26%	79%	80%	79%	91%	96%	93%
2013-14	27%	27%	27%	79%	81%	80%	95%	100%	97%

Source: Balochistan Education Management Information System

At the middle school level the survival rates improve but these need to be seen in the context of transition rates and survival rates at the primary level. By the time students reach the middle school level, the system has already lost a huge percentage of children at the primary level. Even incremental losses beyond primary have serious implications.

4.1.2 Transition rates

In addition to the low survival rates (or high dropout rates) the 23% losses in transition from primary to middle school and another 11% from middle to high school results in very low NERs at secondary level.

Table 4.3: Transition rates

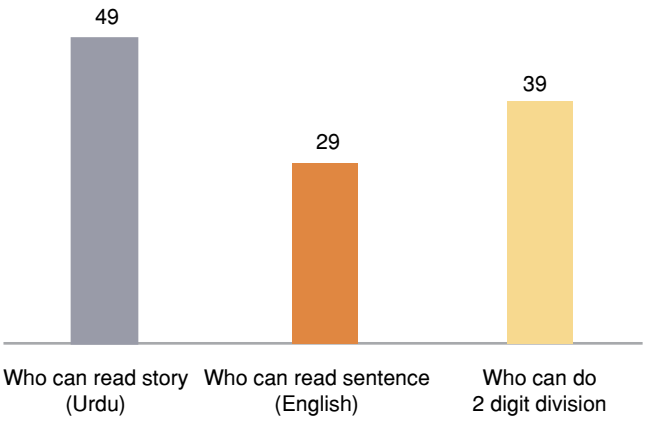
Years	Primary to middle			Middle to high		
	Boys	Girls	Total	Boys	Girls	Total
2009-10	82%	68%	77%	92%	85%	89%
2010-11	78%	66%	73%	87%	82%	85%
2011-12	82%	68%	75%	88%	85%	87%
2012-13	78%	64%	73%	87%	84%	85%
2013-14	82%	69%	77%	87%	88%	87%

Source: Balochistan Education Management Information System

4.1.3 Quality of Education

As already seen above low survival rates persist at primary level. The data reasserts the prevalence of poor quality of education provision. This is confirmed through results of the Annual Status of Education Report (ASER) for 2014. As seen in Figure 4.1 below only 49% of grade 5 students can read a story. Out of the remaining only 29% can read a sentence in English. In arithmetic only 39% can do 2-digit division.

Figure 4.1: Learning outcomes of class-5 students



Source: ASER 2014

4.2 Secondary Education

The Net Enrolment Rate for secondary level (ages 14-15) has not exceeded 14% over the last few years. This means roughly 80 percent of children of secondary age do not appear in this examination because they either never enrol or drop out during earlier years.

Table 4.4: Net enrolment rate at secondary school level

Year	NER at matric level (14-15 year olds)		
	Total	Girls	Boys
PSLM 2005	9	6	12
PSLM 2007	10	7	12
PSLM 2009	11	8	13
PSLM 2011	14	4	21
PSLM 2013	14	7	19

Source: PSLM surveys

Even if the factor of overage participation is estimated at 20% about 70% children remain out of school by this stage. The BBISE data represents a fraction of the secondary age group children. This already creates a serious policy concern for the government.

4.3 Quality of Examinations

Examinations conducted by the BBISE have been criticised for being low quality. Balochistan Education Sector Plan 2013-17 makes the following observations:

"The routine assessment systems (BISE, DOS and internal assessments in schools) lack standards and are criticised for inducing rote learning in the classrooms. Neither the teachers in the classroom nor examiners employed by the BISE receive training in developing assessment tools."

These findings resonate with perceptions of most professionals in the sector. Government of Balochistan, with support from UNICEF, conducted a capacity gap analysis[6] of the Balochistan Board of Intermediate and Secondary Education as well as the assessment regime in schools. Discussion in the following section has, mostly, been picked from this analysis.

Assessment remains one of the weakest links in the education service delivery process in Pakistan. According to the 'Voice of Teachers' study conducted by Alif Ailaan and SAHE in 2013, almost 90% of the teachers sampled in Balochistan responded that they had never received any training on assessment. An equally large number stated that they were not familiar with taxonomies. The findings have serious implications for the teaching and learning process in the classroom.

Unfortunately, the problem at the level of the Board of Intermediate and Secondary Education does not change. Most examiners who prepare the papers are not familiar with taxonomies or even the curriculum. Papers are developed using either textbooks or past papers.

The problem arises from within the BBISE itself. The Board does not have internal capacity to prepare quality papers. The quality assurance and control mechanisms in the Board do not ensure preparation of papers, which test concepts (and cognition). The main quality control is about the content and accuracy of the questions. These are not benchmarked against requirements of the curriculum. This leads to papers that test rote memory. Gaps exist at various levels:

i. No clear standards have been developed for preparation of examination papers to evaluate the quality of the paper with reference to needs of the curriculum. The latter include weightages to various topics and the learning of higher order thinking.

ii. Selected examiners have no training in preparation of examinations. The Board does not provide any training. No certification process exists for examiners.

iii. Model test papers, and item banks, are not tested in the field.

iv. The Board does not have an assessment expert within its own set of officers. This seriously limits its ability to develop quality examinations.

v. The Research cell in the Board has not conducted any serious research over the years despite compilation of massive data every year.

6 Analysis in this section has been picked from "Capacity Development Plan: Assessment and Examination: Quality Management Framework" UNICEF-Secondary Education Department 2014. This is an unpublished document prepared as part of a capacity development plan for the education sector in Balochistan.

BBISE functions through a number of committees, which includes the Academic Committee. The Committee has the powers to set standards as provided for in the law. Neither the members of the Academic Committee, nor the Board, have ever focused on the issue of standards. Most of the decision making process pertain to the selection of subjects and examiners.

The BBISE can influence the teaching and learning process in a number of ways. The overall approach of the examinations also impacts the teaching-learning process in the classroom. As the former tests memory teaching also focuses on rote learning. An examination that requires creative thinking will therefore impact the teaching and learning process in the classrooms. The problem will be whether the current set of teachers has the capacity to shift their approach.

The situation has created a conundrum for reform. If the BBISE shifts its approach classroom teaching may not be able to produce students capable of attempting conceptual papers that test higher order thinking. Conversely the teaching process cannot change in isolation of reform of the external examinations system.

A more direct influence can be through the mandate of BBISE to regulate schools that participate in the secondary schools examinations. The Board enjoys these powers through law. It executes these through the Directorate of Schools of the Secondary Education Department. In practice no effective regulation takes place of the teaching and learning process and the facilities. Both fall within the purview of the law.

The problems in the examinations cannot be simply seen as a function of the capacity of the Board. The schools sector has been comfortable with the quality produced over the years. No analysis has been conducted to evaluate the quality of the examinations. Quality has been the ignored component of schooling as a whole. BBISE examinations are symptomatic of the low priority given to quality in the education service delivery.

4.3.1 Cheating in Examinations

The examinations in BBISE have often been criticised for massive cheating. The Balochistan Education Sector Plan highlights this as a major threat. In the current year, 2015, the Government of Balochistan has undertaken a massive campaign against cheating with the name of ‘Goodbye to Cheating’. The year for detailed analysis of this report precedes this campaign and the influence of cheating on the results cannot be excluded. Some facts, available from the 2015 examinations, have also been added to contextualise the extent and direction of impact of cheating. These have been discussed in the relevant portions of the Report.

4.4 Conclusion

The BBISE examinations appear close to end of the students' career at school. By this point systemic problems have already ossified. An overwhelming majority of students have dropped out. Rote learning has taken route as the poor cognitive development at the primary level prevails. At middle and secondary levels the teaching process does not change. In fact the memory based examination of BBISE ensures that the teaching process does not induce conceptual learning or creative thinking. The problem of cheating has become an additional factor to consider and data in the report has been explained in context of the problem.

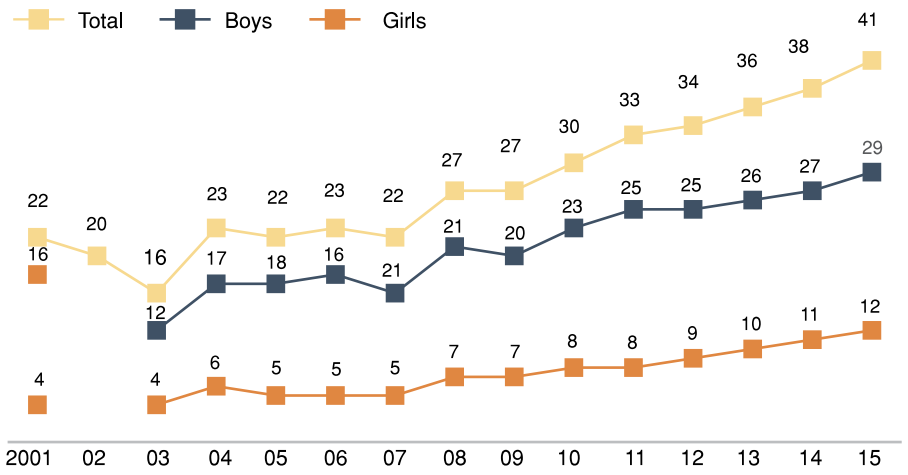
5. Overall Participation and Performance

Over the last fifteen years, there has been an increase in the number of candidates appearing in the Secondary School Certificate examination of BBISE despite a low and stable Net Enrolment Rate for ages 14 to 15. Female participation continues to increase but is still only one third of the total. Scores in the examinations show high pass percentages but generally poor scoring outcomes for the majority of students. Inflection points in the data indicate that even pass percentage falls in years where the government has taken stricter measures against cheating. Early indicators based on limited data available predict that 2015 might be a similar year.

5.1 Participation Trend

Paricipation in SSC examinations for the science group has increased by 79% since 2001 (Figure 2.1). On average there is a 5% growth per annum. This has to be considered a slow improvement given the extremely low base in province. There have been some years where the numbers have reduced. A clear explanation could not be obtained for the loss. Irrespective, the trend, especially since 2008 has been of net increase.

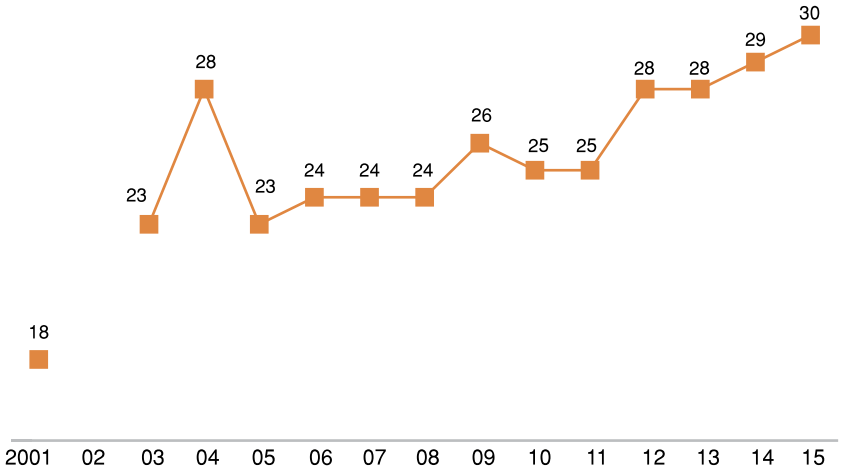
Figure 5.1: Trends in the number of students appeared in SSC examination 2001-2015 ('000)



Note: Gender disagregated data is not available for year 2002-03.

The growth of female participation has been greater than male participation. The former increases by a 193% percent as against 54% of the latter. Despite the growth rate the share of female has remained low. In 2014 around 11,000 females appeared as against 27,000 males.

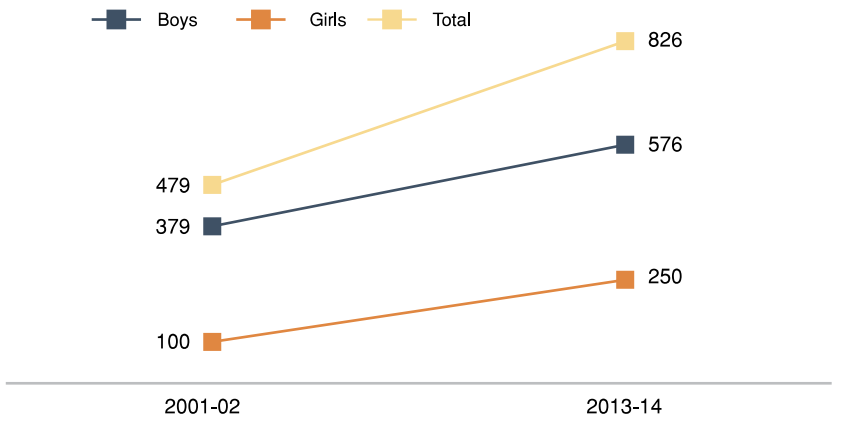
Figure 5.2: Trends in girls' participation in SSC examination 2001-2015



Note: Gender disagregated data is not available for year 2002

Overall the share of females has increased from 18% in 2001 to 29% in 2014 and 30% in 2015 (figure 2.2). The trend has been secular except for 2004. The share increased to 28% in 2004 before declining to 23% in 2005 . From 2005 it continues to increase but at a slow rate of 1% to 3%. Despite the steady increase, the present female participation rate is less than one third of the total. This has been discussed in greater detail in Chapter 6.

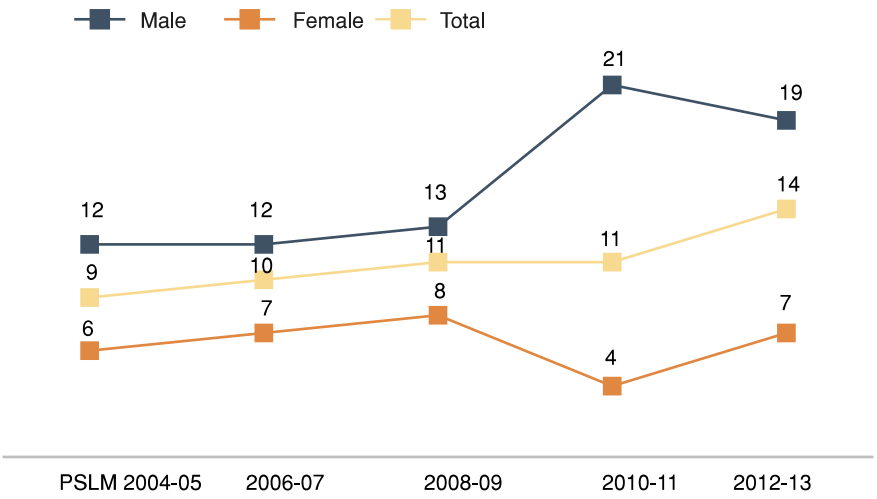
Figure 5.3: Number of high schools in Balochistan



An important reason for increased female participation has been the growth of female high schools from 2001 to 2014. As seen in the chart above the number of female schools has more than doubled. The growth rate has been faster than in the male schools. This reveals shifts in priorities of subsequent governments. The gap still is very large and closely corresponds with the relative shares of males and females in the examinations. The figure represents only governemnt schools. There is anecdotal evidence that the number of private schools with female enrolment has only increased during this period. This may also have impacted the participation rates of females positively. The increase in male participation also appears to have resulted from an increase in the number of high schools.

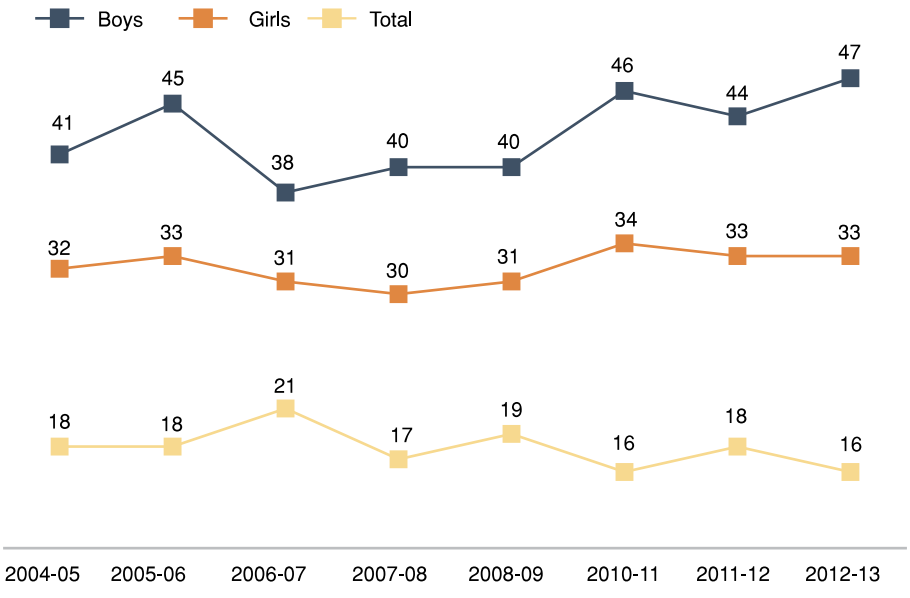
The participation also needs to be seen in the context of net enrolment rates for secondary level students. Using data from Pakistan Social and Living Measurements Surveys from 2005 to 2013 Figure 5.4 shows that the low levels of NER have grown at a stagnant rate of less that 1% per year. In case of females they have remained almost unchanged during the period.

Figure 5.4: Net enrolment rates at high school level (age 14-15 years)



The increase in participation in secondary examinations has been faster than the growth in secondary NER for ages 14 to 15. There are two possible explanations. Firstly the population has grown at a rate that has not allowed NER to improve despite increase in participation rates in the secondary examinations for both boys and girls. Secondly most of the students are probably in a different (intuitively speaking higher) age bracket.

Figure 5.5: Gross enrolment rate at high school level (age 14-15 years)

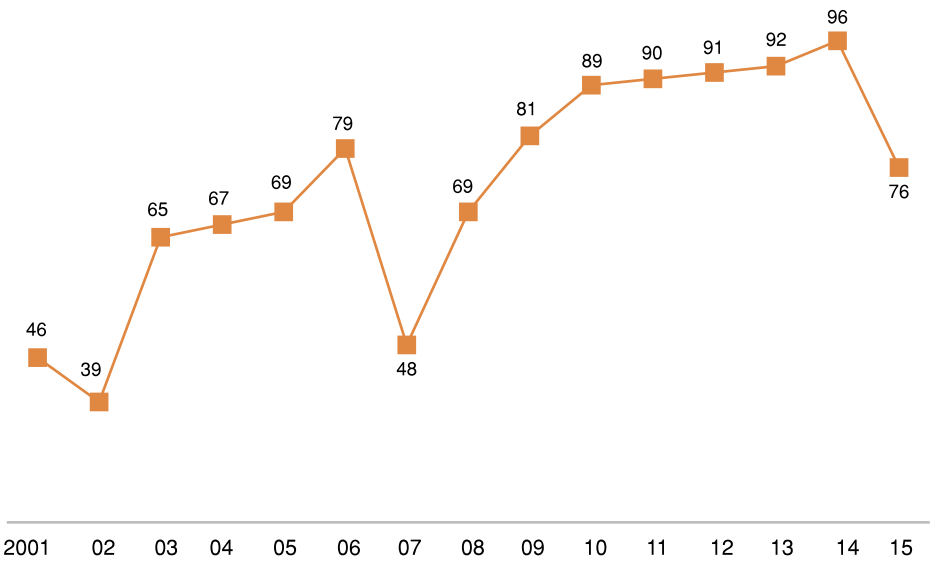


The GER values given in the figure above indicate that it may more be the case of overage children appearing in secondary examinations in large numbers than population growth. The GER almost doubles NER for all three categories. Despite this it remains below 50%. This means a high percentage of students of secondary-age are out of school.

5.2 Historical Pass Percentages

Pass percentage shows an increasing trend with steep falls in specific years. The percentage moves from the lowest of 38.7 % in 2002 to 95.6 % in 2014. It reduces to 85.16 % in 2015. The increase, and steep shifts, cannot be accepted as normal. During this period no major reforms were made in the school system to improve quality. Similarly the examination structure, including papers, was not made easier. The most plausible explanation for sudden jumps to a pass percentage of above 80 percent after lows 40s in specific years, is prevalence of cheating.

Figure 5.6: Trends in pass percentage of students 2001-2015



The lowest points can be seen in 2001 and 2002. In these years, key informants are of the view that, the non-political government cracked on cheating. The other inflection appears in 2007. Anecdotal evidence reveals that in this year the Board management took a stricter approach to cheating. The lower trend begins to shift in the next year but does not reach 80% till 2009. After 2010 it remains in the 90s. The next decline has appeared in 2015 though due to limited disaggregation of data the complete effect cannot be captured (see section 5.2.1).

Existence of cheating influences data. The main difference appears in the pass percentage. High grades cannot, intuitively, be attained through cheating in the examiantion halls. This assertion appears to be supported by results from the 2015 examinations. The best performing schools continue to be almost the same in both the years. The latter has been discussed in detail in the next chapter.

5.2.1 The Cheating Factor

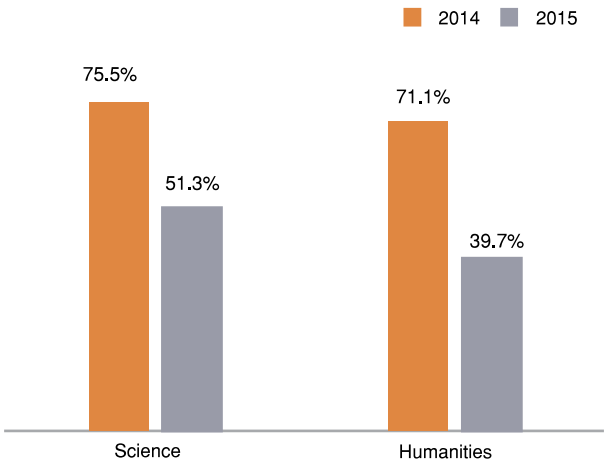
Over the last few years cheating in examinations has become endemic. Unfortunately it involves all sections of society: teachers, parents, political leaders, civil servants and others. A political economy of cheating has developed that has taken a stranglehold on the process. Balochistan Education Sector Plan (BESP) 2013-17 highlights it as the most serious threat to the province's future.

The bulk of cheating takes place in the examination halls. Impersonations, externally provided material and even use of mobile phones by candidates are rampant. To counter this, now endemic social menace, the government of Balochistan initiated a high profile 'Goodbye to Cheating' campaign in 2015.

Chief Minister of Balochistan took the lead and not only made it a priority for his officials but also governmentally demonstrated his will. He participated in walks against cheating in Quetta city. The Chief Secretary Balochistan, Secretaries of School and Higher Education and Chairman Board of Intermediate and Secondary Education developed a plan. On examination day district administrations were ordered give the priorities control of cheating. A number of administrative steps were taken[7].

There is a general perception that the cheating was seriously curtailed. The results available from the examinations show some impact. The results received from BBISE show aggregated scores for grade 10th (grade 9th for 2014 and 10th for 2015) and cannot be analysed for the impact of the government's administrative steps. Grade 9 scores are available separately as the exclusive product of the 2015 examinations.

Figure 5.7: Pass percentage of Science and Humanities group 2014-2015 (class-9 only)



Provided, higher pass percentage is assumed to be a function of cheating, the 'impact' is seen in both science and humanities groups. In case of grade 9th science examinations pass percentage has reduced from 75.52% to 51.33% from 2014 to 2015. For the humanities group the percentage has declined from 71.07 to 39.73%. In fact

7 Movement of unauthorized personnel was declared illegal within a certain radius of examination halls. Photocopying shops that were used to copy papers and answers for scale dissemination, were closed for the day. Senior government officials, including secretaries, visited various examination halls.

scores for grade 9th for 2014 for both groups already show decline from the trend of high nineties. There appears to have been some check on cheating already in 2014.

Based on available data the 'Goodbye to Cheating' campaign appears to have been a qualified success. It needs to continue over the next many years before a sustained reversal of the trend will be possible. A crackdown on cheating alone will not achieve the sustainability. It can only be seen as a necessary but not a sufficient condition for reversal of the problem. A number of other reforms have to be in place. The selection process of supervisors and invigilators has to become merit based. Currently the teachers' associations control the process and duties are assigned through a lottery. Corrupt invigilators and supervisors have a high chance of getting selected.

At a more structural level the BBISE has to improve the standard of its examination to move away from rote testing. This will not be possible without a concomitant shift in the teaching learning process in the classroom. The Directorate of School will have to ensure quality teaching to help children develop cognitive and other abilities.

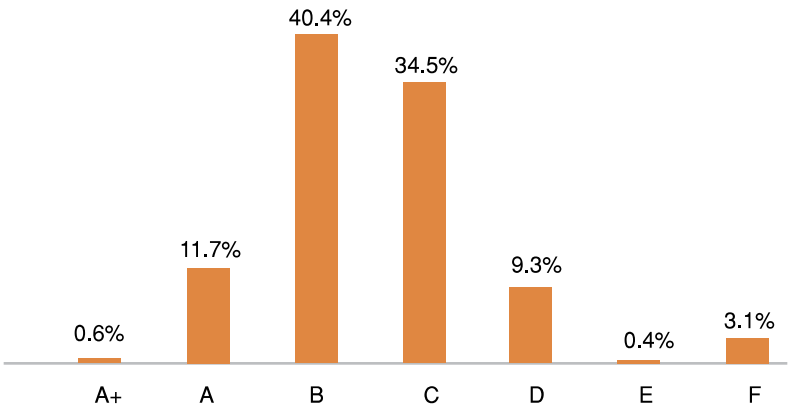
5.3 Grade-wise Distribution

Grade-wise distribution is skewed on both ends. Only 0.6% students obtained A+ and 3.1% failed. Percentage of A grade also remained low at 11.7%. The bulk of students scored either a B or a C grade (40.4 and 34.5 percent respectively).

About 47.3% students remain below grade B. This indicates that even if endemic cheating is assumed a very low percentage of students obtained high grades.

In terms of career opportunities (given that these are high stake examinations) most students with grade B and below (87.7%) would not have a chance of making to better institutions of higher education. In exceptional situations students might reverse the trend and recover their grades in higher secondary examinations. In most cases the scores in secondary examinations would predict possibilities in the near future.

Figure 5.8: Grade-wise distribution of results (students appeared in 2014)



These students will not only have their options blunted in the academic chain but also face difficulties in the job market. Given that options of technical and vocational education in the province are few, and not necessarily of the requisite quality, prospects will remain bleak for the majority of these boys and girls.

5.4 Conclusion

Incremental increase in the participation rate can be seen over the last decade and half. This increase appears to be directly linked to more schooling opportunities for both boys and girls. The gender gap persists although it continues to reduce very slowly. Clearly more drastic steps are needed increase overall participation and to reduce the gender gap. The data from BBISE clearly calls for early interventions. Gaps at secondary level cannot be reduced drastically until the process begins at the primary level.

Similarly the quality gap also needs to be addressed right at the primary level. The extremely low percentage of ‘A+’ and ‘A’ grades shows that an overwhelming majority of students have poor career prospects. Such skewed results need to be not only addressed at the school level but also beyond.

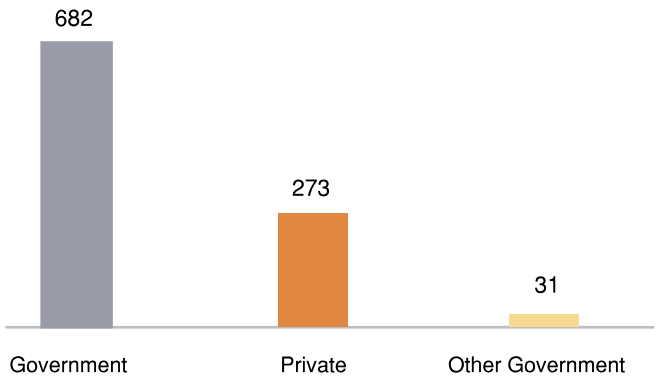
6. Analysis by School Type

As already seen above, students from a variety of school types appear in the secondary examinations. These include schools managed by the provincial Secondary Education Department (referred to as government in the rest of the report) and other government and private schools. This chapter explains data for other government in two steps, aggregate of other government and then, where relevant, their break up.

6.1.1 Participation

Figure 6.1 shows that government and private sector remain the highest contributors. Among others the largest share is of divisional schools followed by military.

Figure 6.1: Number of schools participated in SSC examinations 2014



Note: "Other government schools" include the following schools: BRC, Cadet, Divisional, FC, GDA, Labour, Military and Municipal schools

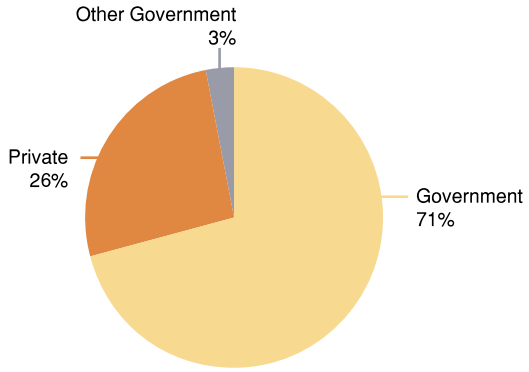
While figure 6.1 shows share in terms of participation by candidates, Table 3.1 shows share of schools for each type. Government schools at 682 form 69% of the total schools participation in the science examination of BBISE. A total of 273 private schools participated in the examinations forming 27.7 % of the total number. Only 31 schools fall in the category of other government.

The data clearly shows that the direction of the aggregate results in the BBISE examinations will depend on the performance of students in government schools. The next major group to impact will be private schools.

6.1.2 Participation by School Type 2014

Time series data on participation by school type is not available. This break up has been provided for 2014 only. The bulk of students appearing in the examination belong to government sector institutions followed by private schools (Figure 6.2). Only 3% students appeared from 'other government' schools. Government schools contributed 71% and private schools 26% of the candidates.

Figure 6.2: Type of schools participated in SSC examinations 2014



The participation of candidates from private schools can be seen as a proxy of the latter's share in enrolment. The Balochistan Education Sector Plan estimates the share of private sector at 15% of the total enrolment. If the data from BBISE can be seen as indicative of all participation then the estimate needs to be revised. The BBISE data emphatically highlights the need for a more serious effort to collect information on private schools. To date Balochistan has not collected this information across the province.

6.2 Pass Percentage

Table 6.1 shows that in every school type more than 90% of the candidates have passed. The best results can be seen in the Balochistan Residential Colleges, Gwadar Development Authority Schools and, Military and Municipal. All of these have a 100% pass rate. Government and private sectors have a pass rate of 96% and 97% respectively. Given the large share of both this cannot be seen as worse performance than others.

Table 6.1: Pass percentage by type of school

School type	Number of students appeared	Number of students passed	Pass percentage
Government	26,548	25,602	96%
Private	9,456	9,151	97%
Other Government	1,128	1,102	98%
BRC	143	143	100%
Cadet	240	238	99%
Divisional	258	253	98%
FC	92	91	99%
GDA	48	48	100%
Labour	173	157	91%
Military	80	80	100%
Municipal	25	25	100%
OPF	69	67	97%

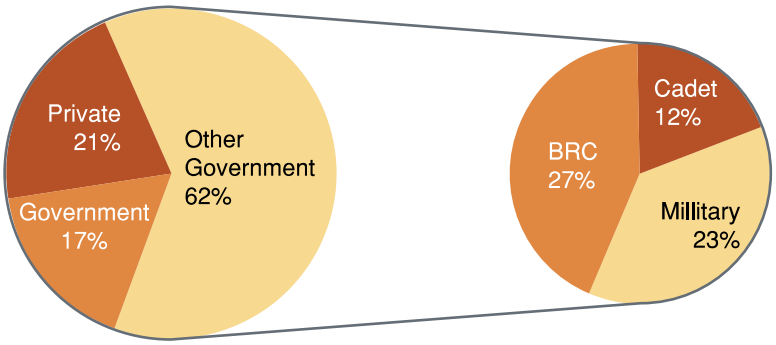
Source: BBISE, SSC Annual 2014

Pass percentage may not be the best comparator across schools due to the high incidence of cheating. The next section analyses the grades across each type. These explain the differences more realistically and starkly.

6.3 Grade Positions

Figure 6.3 shows the share in A+ grades. A total of 214, a mere 0.6%, students obtained A+ grade in the BBISE examinations for 2014. The largest share of A plus scores belong 'Other Government Schools'. Out of all students who obtained A plus grade 62.5 percent belong to this category. Balochistan Residential Colleges got the largest share at 27.1% followed by military, and private schools. Government shares only 17.29% (of the 0.6%) in the total despite having 71% of the share in total participation. Private sector performed slightly better with a share of 21%.

Figure 6.3: Distribution of A+ grades by type of school

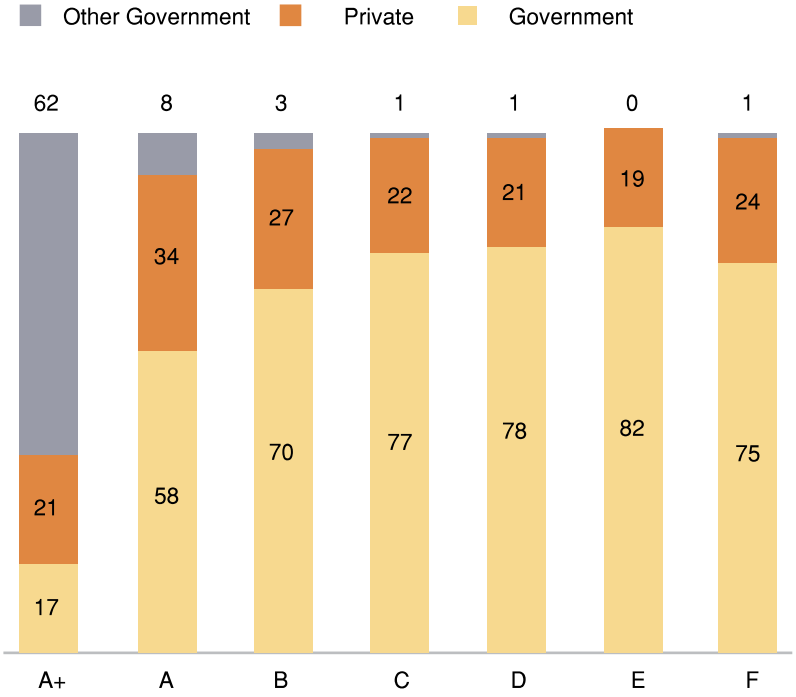


Source: BBISE examination result 2014

Cadet Colleges have a 12.15 percent share. All schools, other than government and private, contribute less than 1% students to the examination.

Grades A and B given in figures 6.4 show that the share of government and private schools increases. The share of government rises to 58% in the case of A and 70% in the case of B grade.

Figure 6.4: Distribution of grades by type of school in percentage



In the case of 'other government' the bulk of students have already been accommodated in higher grades. In any case the extremely low percentage of their candidates begin to be reflected in these grades. A more realistic picture appears in Table 6.2 below.

Table 6.2 shows the share of grades within each school type. Military College Sui has 61.3 percent candidates in the A+ category while BRCs have 40.6% in the same category. Similarly, 77% of the candidates from BRCs and 98.7% from Military College Sui are in the A and A+ category. The latter has no student below B. BRC has a larger percentage in B but no candidate has performed below C. In case of government majority of candidates are in the category of B and below. While the percentages appear to be disappointing a large number of students manage to get A and above. The performance of private schools appears to be marginally above the government schools but still far below BRCs, military and cadet colleges.

Table 6.2: Distribution of result-grades by type of school

School type	Grade secured in exams (%)							
	A+	A	B	C	D	E	F	Total
Government	0.1	9.4	39.4	37.0	10.2	0.5	3.3	100
Private	0.5	15.4	43.3	29.8	7.7	0.3	3.0	100
Other government	12.5	31.0	41.6	12.9	1.1	0.0	1.0	100
BRC	40.6	36.4	21.7	1.4	0.0	0.0	0.0	100
Cadet	10.8	63.8	22.9	1.7	0.0	0.0	0.8	100
Divisional	0.0	26.5	51.2	17.7	2.8	0.0	1.9	100
FC	0.0	19.6	72.8	6.5	0.0	0.0	1.1	100
GDA	0.0	25.0	58.3	16.7	0.0	0.0	0.0	100
Labour	0.0	8.8	46.3	39.4	3.8	0.0	1.9	100
Military	61.3	37.5	1.3	0.0	0.0	0.0	0.0	100
OPF	0.0	0.0	41.7	41.7	16.7	0.0	0.0	100

Source: BBISE examination result 2014

The institutions managed by FC have the worst performance outside of government schools. Where 80.4% students are in the category of Grade B and below.

6.4 Government's Value for Money from the Education System

The secondary school examinations provide a very potential measure of the value for money. This section looks at this analysis from 3 perspectives: number of A plus grades, number of A grades and pass percentage. In all three cases the results show that the government needs to improve its efficiency drastically to achieve some level of value for money.

To make the analysis the entire education budget for 2013-14 has been used as the base. The assumption being that the outcome of secondary examinations is a result of the entire prior education levels of the system. The following reasons support the approach:

i. Participation at the secondary level impacts the financial and administrative efficiency of the education sector. Participation itself is a function of intake, transition and survival rates in earlier grades and levels.

ii. The bases for quality education (higher order thinking, literacy and numeracy) are laid in the early grades. The eventual success of the student in the examinations (and also survival rates) depends on the quality of teaching and learning in earlier levels.

The entire education recurrent budget for secondary education for 2013-14 was Rs. 21.529 billion. If the secondary results for government schools are taken then the following table explains the value for money of the different variables used.

Table 6.3: Grades acquired and per child expenditure in government schools (in Rs. Million)

Exam result	Number of students	Per child expenditure	
		System wide	One fifth
A+	27	797	160
A and above	2,522	8.54	1.70
Pass students (without cheating)	25,672	0.84	0.17
Pass students (20% cheating)	20,538	1.05	0.21
Pass students (30% cheating)	17,970	1.20	0.24

Source: Annual Education Budget Balochistan 2013-14 and BBISE 2014

The budget has been used for the analysis in two ways. Under the column 'System Wide' the entire education budget has been used as the base. This means that the eventual outcome of the effort of the Secondary Education Department is the product at the matriculation level. The number of students who participate, the number passing and grades all become part of this final outcome. Under this assumption the budget can seen as an effort towards this product.

The other option is to see only expenditure at the secondary level that consists of grade 9 and 10 – a fifth of the total school period. As budgetary break ups could not be obtained form primary, middle and secondary it is assumed that one-fifth of the total data gets spent on the secondary. Theoretically this can be supported on the fact that a fifth of this budget would be used with the given cohort every year. The column 'one-fifth' uses a fifth of the current budget as expenditure on the secondary school children.

The table attempts to calculate value for money at three levels:

i. A+ as the criterion for system efficiency.

ii. A and above as the criterion for system efficiency.

iii. Pass percentage as criterion for system efficiency. In this case the analysis has been undertaken within three possibilities. The first one assumes that there is no cheating and the result depicts actual ability. The second level assumes 20% of the pass to have been propped by cheating and the in the third level 30% students to have passed due to availability of cheating.

6.4.1 A+

If A Plus is taken as the system output then one A Plus costs the education department Rs. 797 million. If the 'one fifth' factor is used then the amount comes to Rs. 160 million per year. The monthly expenditure would exceed Rs. 13 million. As against this amount Balochistan Residential College Loralai has 60 students in the A plus category out of 143- i.e. 40.6 percent.

6.4.2 A and Above

In the A and above category the expenditure in the 'System Wide' Analysis comes to Rs. 8.54 million per annum. Which means to produce an A student the system needs to spend close to Rs. 0.712 million per month. At the one fifth factor the value goes closer to Rs. 1.7 million per year or close to Rs. 142,000 per month. In case of BRC 77% students fall in this category and in the case of Military College Sui 98%.

6.4.3 Pass Percentage (without cheating)

If it were to be assumed that all children pass without cheating it would mean that the value is a measure of student ability. Under this assumption the 'System Wide' analysis gives a value of Rs. 0.84 million per year or approximately Rs. 70,000 per month. At the one fifth this would be close to Rupees 14,200 per passed student per month. Even the latter exceeds the average private school by almost 300 percent in terms of fees and other expenses paid by the parents.

6.4.4 Pass Percentage (20% cheating factor)

With a 20% cheating factor the System Wide analysis expenditure comes to Rs.1.05 million or approximately Rs. 87,500 per month. At 'One fifth' this comes to Rs. approximately Rs. 17,500 per month or Rs. 0.21 million annually for every student who passes the examinations without cheating.

6.4.5 Pass Percentage (30% cheating factor)

With a 30% cheating factor the System Wide analysis expenditure comes to Rs.1.20 million per student per year or approximately Rs. 100,000 per month. At 'One fifth' this comes to Rs. approximately Rs. 20,000 plus per month or Rs. 0.24 million annually for every student who passes the examinations without cheating.

6.4.6 Limitations

The value for money analysis has a number of limitations. It can only be seen as indicative of the larger problem and not an exact set of numbers. The main limitations are:

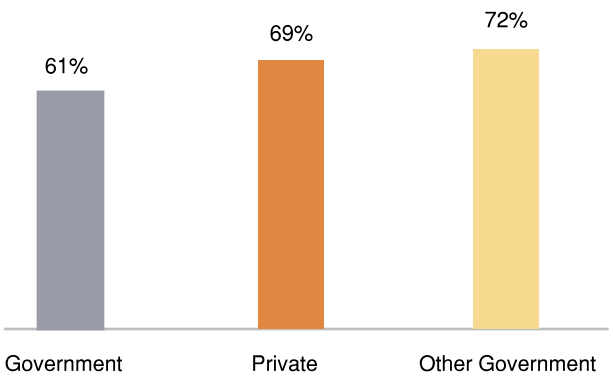
i. Ideally actual budgets for the last ten years should have been taken, after adjustment for inflation.

ii. The budget tends to inflate per student at secondary level. The assumption of one fifth expenditure at the secondary level is linear and, most probably, underestimates the figures.

6.5 Subject Grades

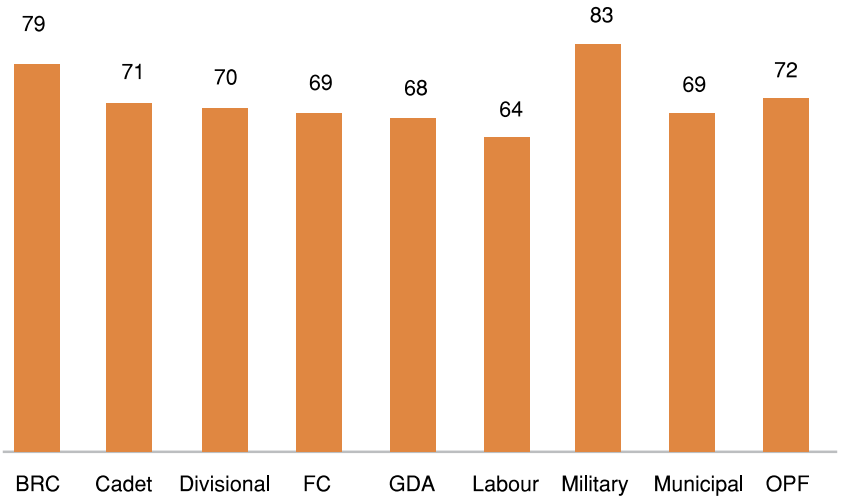
Subject-wise grades have a similar trend to the overall scores (Figure 6.5). 'Other Government' have the best median score in English at 72% followed by private (69%) and government (61%).

Figure 6.5: Median scores in English by type of school



Looking at median scores[8] for 'Other Government' in Figure 6.6, military colleges and BRC perform better for all subjects. In English Military College Sui and BRCs have the best performance at 83% and 79% median scores. Private schools, at 69%, perform better than government while not being very far from some of the others. This shows that despite attracting parents for English being the medium of instruction in these private schools, these schools are not necessarily producing the requisite skill. However, they still outscore the government schools by sufficient margin. In the absence of inferential analysis it cannot be stated if these scores are statistically significant. The elite government school types still outperform them in English language scores.

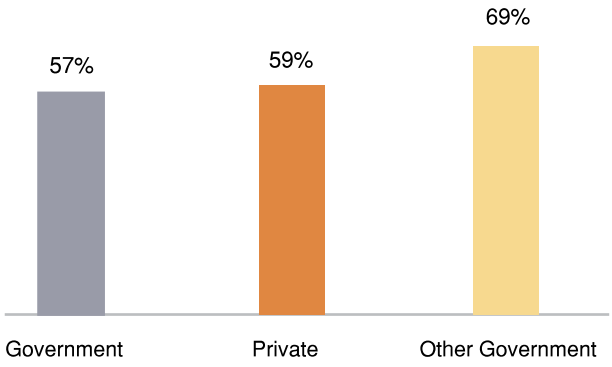
Figure 6.6: Median scores in English by type of school ("other government schools" only)



8 Median scores have been used instead of mean as the latter has higher chances of being skewed by outliers.

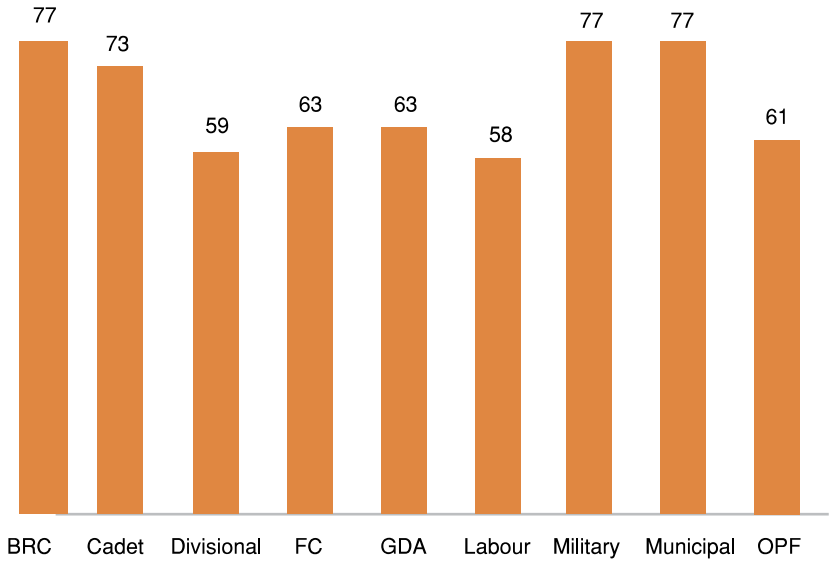
'Other Government' also tops in Urdu at 69% (Figure 6.7). Government and private schools have very little difference at 57 and 59% respectively. This raises question on language teaching in both school types.

Figure 6.7: Median scores in Urdu by type of school



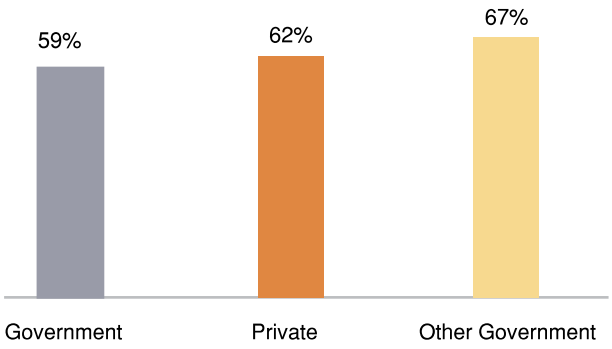
This again raises concern at language teaching in both school types. Within 'Other government' category BRCs, military and municipal have the highest median score at 77% followed by 73% for cadet colleges.

Figure 6.8: Median scores in Urdu by type of school
("other government schools" only)



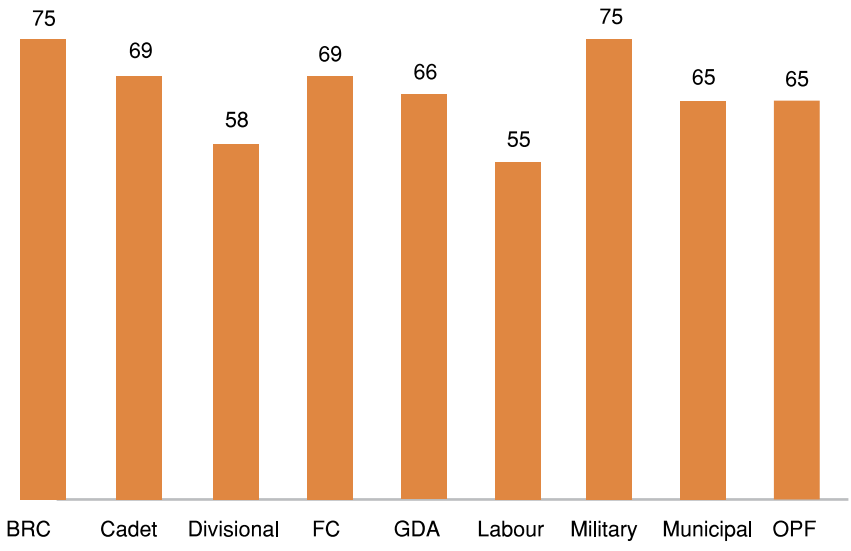
The 'Other Government' category outscores others in mathematics also by a large margin at 67% as against 62% for private and 59% for government. In case of the latter the difference is again not very significant. Again without statistical testing this cannot be stated conclusively.

Figure 6.9: Median scores in Mathematics by type of school



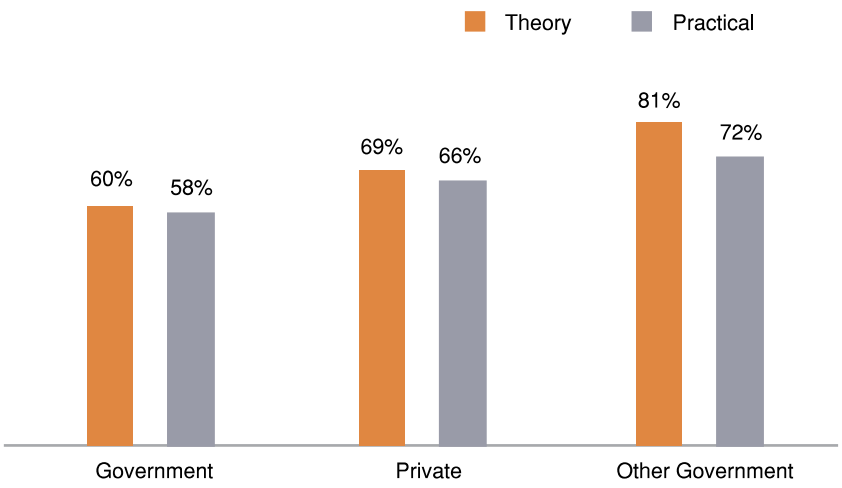
For other school types, in mathematics, both military and BRC have the highest percentage again. Although at 75% this may not be a very exciting score for mathematics these colleges still perform better than others. Incidentally the scores for private and government schools again coincide for mathematics. Both remain on the lower side compared to others with the exception of 'labour' and 'divisional' categories.

Figure 6.10: Median scores in Mathematics by type of school ('other government schools' only)



In computers, as with other subjects, 'Other Government' performs the best. Private schools outscore the government sector more clearly in both theoretical and practical part of the examination. This may partly be due to better computers facilities in private schools.

Figure 6.11: Median scores in computer sciences by type of school



Within 'other government' a large number of school types do not appear in the examination. This includes cadet colleges. Here also military college and BRC have the highest scores. Government and private schools have lower scores though the latter fares better. This may be due to better computer facilities in these schools.

For all remaining subjects (Physics, Chemistry, Biology, Pakistan Studies and Islamiat) the trend continues with military, cadet and BRCs topping the scores. Government and private schools remain in the lowest quarter. The differences between government and private schools remain marginal in all subjects. No student from military college appeared in Biology for the 2014 examination.

6.6 School Ranking

Ranking has been based on the median score achieved by each school. The top 20 have been ranked in Table 6.4. No government school appears in the tope 5. Government Boys High School Bandat Musazai is the top ranked government school at number 6. It is the only government school with a median score of above 800 out of a total of 1050.

Table 6.4: School ranking based on median score (all schools)

School name	Type	Median score	Rank
Balochistan residential college Loralai	BRC	879	1
Military college Sui	Military	860	2
Cadet college Pashin	Cadet	840	3

School name	Type	Median score	Rank
Balochistan residential college Turbat	BRC	806	4
Cadet college Qilla Saif Ullah	Cadet	806	4
Government boys high school, Sbandat Musazai	Government	801	6
The oasis high school Panjgur	Private	774	7
Government high school Shoran	Government	773	8
Girls high school Aziz Abad Kharan	Government	770	9
The ideal academy Panjgur	Private	767	10
Government high school Chattar	Government	766	11
Cadet college Jaffarabad	Cadet	765	12
Government high school Shahrak	Government	763	13
The educators city campus-II Quetta	Private	761	14
Government girls high school Wahdat Coloney Quetta	Government	761	14
Government girls high school Zhob	Government	761	14
Government girls high school Shahrak, Turbat	Government	758	17
Government girls high school Hudda Quetta	Government	756	18
Government girls high school Loralai Cantt	Government	756	18
Ever green grammar high school Pishin	Private	755	20

Source: BBISE examination results 2014

Balochistan Residential College Loralai tops the scores followed by Military College Sui. Overall three cadet colleges and two BRCs fall in the top 20. The median score of over 800 is achieved by two cadet colleges and two BRCs. Five girls' higher secondary schools fall within the top twenty though none of them has a median score of 800 or more. Only one private school has made it to top 20; the Oasis High School Panjgur. Ranked at number 7 the school has a median score of 774. This appears as a surprise because intuitively a school in Quetta should have qualified. No private school in Quetta makes it to the top 20. It needs to be remembered that the elite private schools offer O and A levels and do not participate in the BBISE examinations.

Table 6.5: School ranking based on median score (government schools)

School name	Type	Median score	Rank
Balochistan residential college Loralai	BRC	879	1
Military college Sui	Military	860	2
Cadet college Pashin	Cadet	840	3
Balochistan residential college Turbat	BRC	806	4
Cadet college Qilla Saif Ullah	Cadet	806	4
Government boys high school, Sbandat Musazai	Government	801	6
The oasis high school Panjgur	Private	774	7
Government high school Shoran	Government	773	8
Girls high school Aziz Abad Kharan	Government	770	9
The ideal academy Panjgur	Private	767	10
Government high school Chattar	Government	766	11
Cadet college Jaffarabad	Cadet	765	12
Government high school Shahrak	Government	763	13
The educators city campus-II Quetta	Private	761	14
Government girls high school Wahdat Coloney Quetta	Government	761	14
Government girls high school Zhob	Government	761	14
Government girls high school Shahrak, Turbat	Government	758	17
Government girls high school Hudda Quetta	Government	756	18
Government girls high school Loralai Cantt	Government	756	18
Ever green grammar high school Pishin	Private	755	20

Source: BBISE examination results 2014

Out of the top 20 ranked government schools 15 are girls higher secondary schools. As mentioned earlier, only one government school has a median score of above 800. District wise Quetta, Kachhi and Kech have 3 schools in top 20. Panjgur has 2 schools while the districts of Nasirabad, Noshki, Pishin, Sibi, Loralai, Kharan and Zhob have one each. Overall the girls appear to be more competitive.

Table 6.6: School ranking based on median score (private schools)

School name	Type	Median score	Rank
Balochistan residential college Loralai	BRC	879	1
Military college Sui	Military	860	2
Cadet college Pashin	Cadet	840	3
Balochistan residential college Turbat	BRC	806	4
Cadet college Qilla Saif Ullah	Cadet	806	4
Government boys high school, Sbandat Musazai	Government	801	6
The oasis high school Panjgur	Private	774	7
Government high school Shoran	Government	773	8
Girls high school Aziz Abad Kharan	Government	770	9
The ideal academy Panjgur	Private	767	10
Government high school Chattar	Government	766	11
Cadet college Jaffarabad	Cadet	765	12
Government high school Shahrak	Government	763	13
The educators city campus-II Quetta	Private	761	14
Government girls high school Wahdat Coloney Quetta	Government	761	14
Government girls high school Zhob	Government	761	14
Government girls high school Shahrak, Turbat	Government	758	17
Government girls high school Hudda Quetta	Government	756	18
Government girls high school Loralai Cantt	Government	756	18
Ever green grammar high school Pishin	Private	755	20

Source: BBISE examination results 2014

Quetta district has 5 schools in the top 20 within the category of private schools. Panjgur has 3 but the district occupies the first two positions. As already seen, it has the only private school that falls within the top 20 schools in the province, across all categories. On the lower end the median score falls below that of the government. Pishin and Noshki have two schools in the top 20 private schools.

6.7 Top Scorers

Balochistan Residential College boasts 15 of the top 20 achievers. A total of 26 candidates scored in the top 20 positions (multiple students scored same marks). Nine positions were obtained by Military College Sui and one position obtained by Cadet College Pishin. Only one private school candidate from Sacred Heart School Quetta falls in the top 20. Incidentally, she is the only female student to fall in the top 20. Balochistan Residential College has continued to dominate the examination results over the years. It owes it to the system developed by its late principal Mr. Mohammad Ali. The college focuses completely on the examination and even has a provision for additional coaching for students who lag.

6.8 Conclusion

Overall and subject-wise scores are skewed heavily in favour of other government schools. Within these the elite government schools are leading. The gap between government and private schools exists but is not significantly large. If tested for statistical significance the difference may not even exist. The main concern for the government is the poor performance of the bulk of its students. In terms of value for money, the performance at secondary level makes a very weak case for more investment in quantity. It clearly shows the need for a greater effort for quality throughout the school system.

Again the term quality has to be carefully calibrated against the requirements of the secondary school examinations. The latter does not test cognition. Results depend heavily on rote learning. The elite government schools teach better to the test. Their students are prepared for the examination from an early stage. A comprehensive reform would change this approach. Strictly quality education cannot be seen without improvements in critical-analytical ability of the child.

7. Gender Analysis

Female participation rates continue to be low despite a dramatic increase in their proportion in the last 14 years. Unfortunately the growth rates have been slow. Low participation has not deterred girls from performing better than boys wherever they have had an opportunity, which is primarily restricted to government and private schools. The elite government sector schools exclude them. In general within the set where they participate they have outperformed boys in overall scores as well as in specific subjects.

7.1 Participation

As already seen, female participation in secondary examinations held by BBISE have increased from 18% to nearly 30% of the total participation. Figure 7.1 shows the percentage of girls appearing in SSC exams by the type of schools. It shows that private schools have the highest percentage of girls at 34% followed by government schools at 32%. Other government schools have the lowest percentage of female students at 22% of the total enrolment in these schools.

Figure 7.1: Percentage of girls appeared in SSC exams by type of school

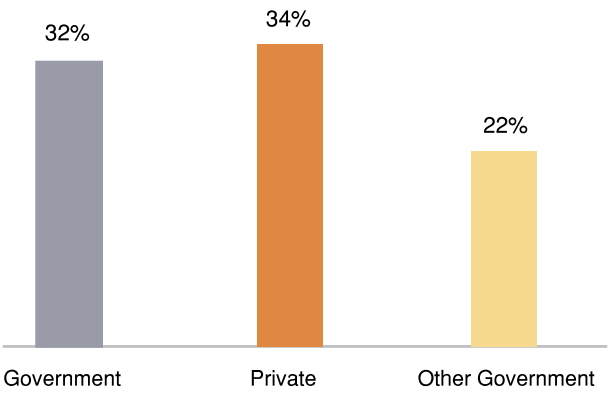
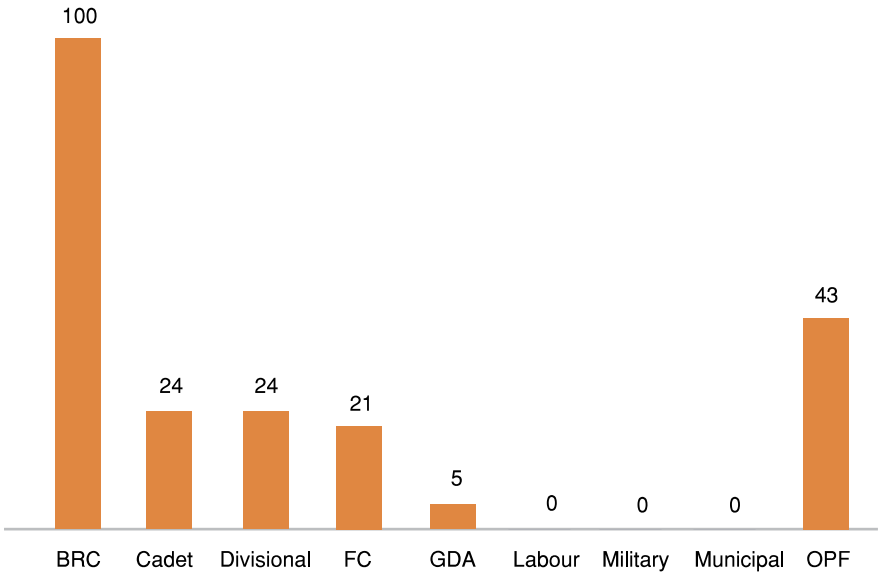


Figure 7.2 shows percentage of girls' participation in the SSC exams by each school type within the category of 'other government'. The elite government schools like cadet colleges, BRCs and military do not enrol female students. No elite schools, similar to these, have been set up for girls. The highest percentage appears in municipal schools but the figure could be misleading as only 25 candidates appeared in SSC examinations in 2014. The 43% in case of OPF seems a better percentage but again the numbers are low. The highest number of girl candidates appears from government sector followed by private schools.

Figure 7.2: Percentage of girls who appeared in SSC exams by type of school (among “other government” schools)



7.2 Pass Percentage

Pass percentage has remained higher for girls throughout the last 14 years. In years where the overall results fell (presumably due to curbs on cheating) the gap increased even further. In 2001, 70% girls passed as against 40.6% boys. Similarly in 2007, 61 percent girls passed as against 44 percent boys.

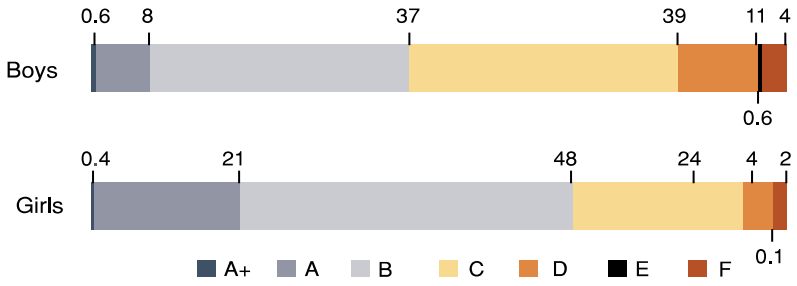
Figure 7.3: Comparison of pass percentage of girls versus boys

Note: gender disaggregated data for year 2002 is not available.

7.3 Grade Positions

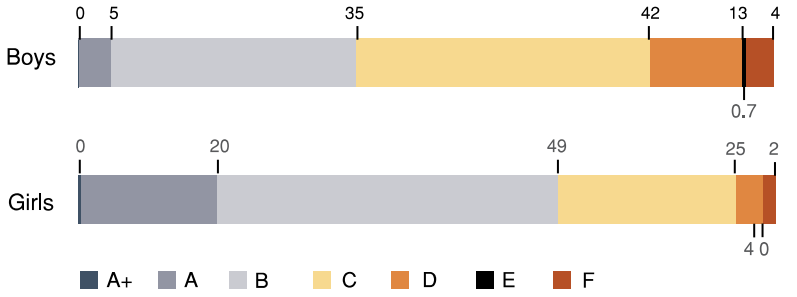
In the case of grades also, the girls perform better. The only exception is 'A+'. As seen above the majority of students who have this grade belong to the elite government sector schools like BRCs, military and cadet colleges. As girls have been excluded from these facilities, and none have been provided as alternate, their share remains lower. In grades 'A' and 'B' the share of girls is higher. In lesser grades, their share lowers.

Figure 7.4: Comparison of grades secured in exams, girls versus boys



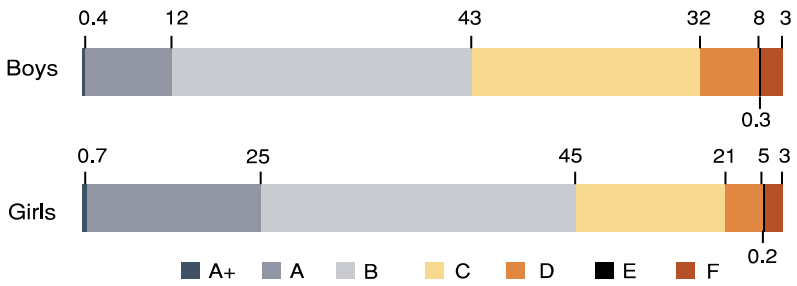
A fairer, and realistic, comparison will be for students from government schools. Here the girls clearly outperform the boys. In case of 'A' and 'B', the larger share of government students primarily includes girls. Within each set the percentages are higher for girls as 0.3% of girls have 'A+' grades as against 0.04% boys, 19.6 % girls have 'A' grade as against 4.7% boys and 48.8 percent have a 'B' grade as against 35.1% boys.

Figure 7.5: Comparison of grades secured in exams, girls versus boys (government schools)



As the second largest number of girls appeared from private schools, a comparison has been made with their percentages in figure 7.6. Again the girls appear to have performed better.

Figure 7.6: Comparison of grades secured in exams, girls versus boys (private schools)

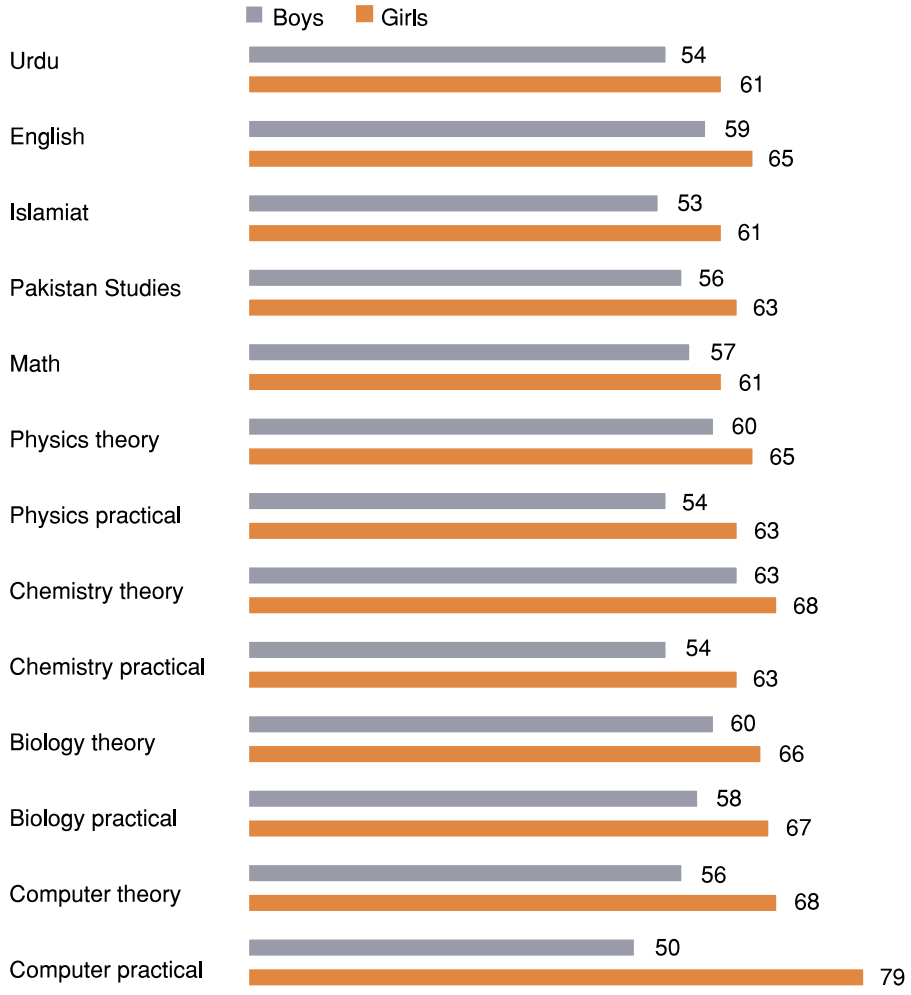


A larger percentage of girls have outperformed boys in all the top three grades of A+, A and B.

7.4 Subject-wise scores

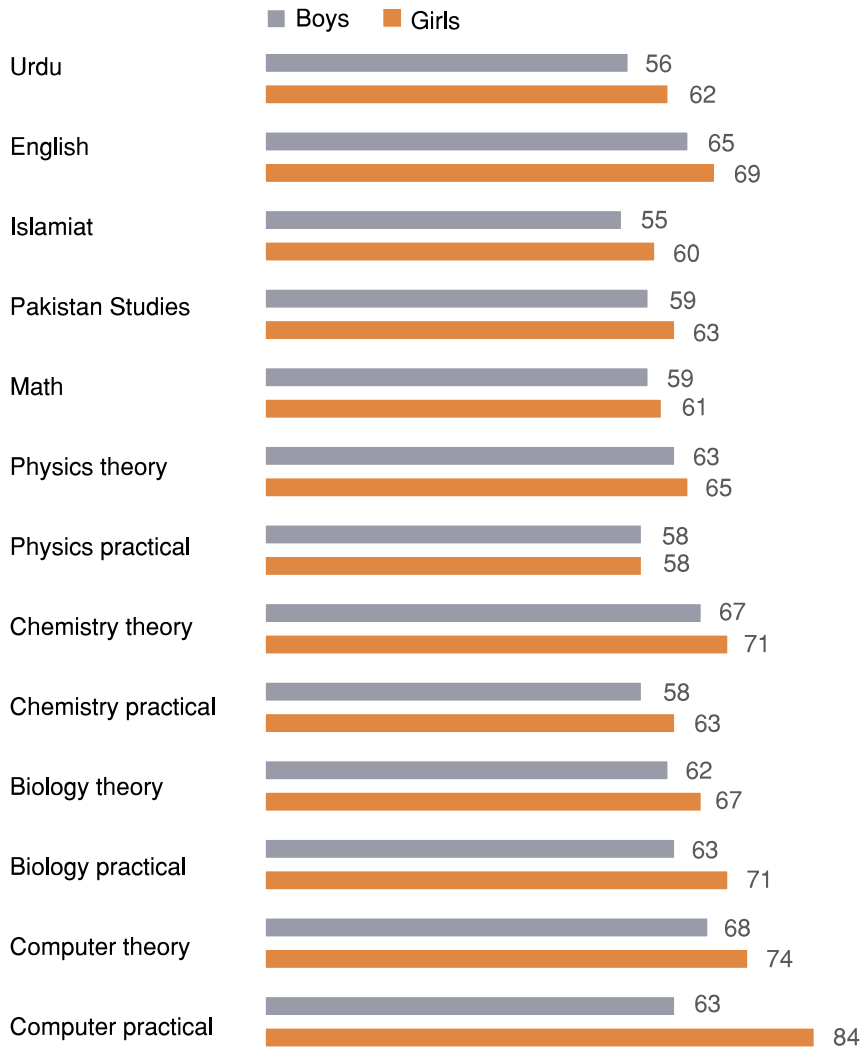
The situation repeats itself in the case of individual subjects. Median score for each subject show that girls outperform the boys in all. The largest gap is in Computer Sciences in both government and private schools. The next big gap is in Biology. In case of private schools, the difference in the median score of Computer Sciences is of 21 percentage points. In all other subjects the difference is relatively smaller.

Figure 7.7: Subject-wise scores of boys and girls (government schools)



For most subjects the difference in median scores for girls in private and government schools remains negligible. The main exceptions are Biology and Computers. In English girls in private schools perform better by 4 percentage points. The biggest gap exists in computers (both theory and practical portion of the examination). The gap in scores for computer practical probably indicates better facilities in private schools. Incidentally the gaps for boys in the computer practical are smaller across private and government schools.

Figure 7.8: Subject-wise scores of boys and girls (private schools)



Scores in practical examinations for chemistry and physics are higher in case of government schools. This may again be a case of better facilities. These laboratories are better established in government rather than in private schools. There may be other reasons but they have not been probed.

7.5 Conclusion

Despite fewer opportunities, girls outperform boys wherever they have space. They have been excluded from elite government schools that provide the best result in the Board examinations. Across both private and government schools they have shown more resilience.

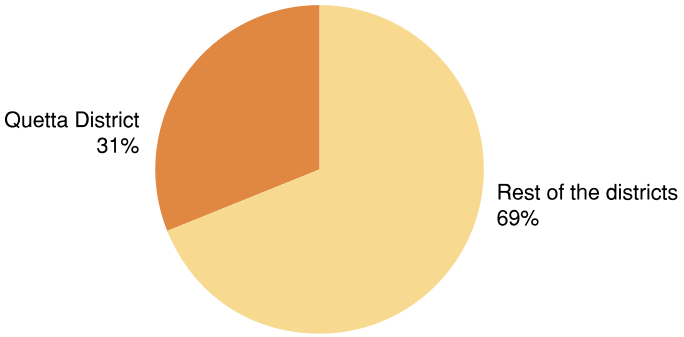
8. District Comparisons

This chapter makes a comparison of the districts. As complete data of district-wise private schools was not available only Government school information has been used except in section 8.4. Comparisons have been made on the basis of participation, overall grades and subject wise grades of English, Urdu and Mathematics. Similar to earlier analysis in the report median scores have been used. The data has been compared with other datasets like the PSLMS and Alif Ailaan district rankings. Some contradictions appear. The disparities do not dilute the authenticity of the data sets. They reveal a new dimension, and value of additional information, for policy makers.

8.1 Participation

Participation patterns show that it is concentrated in a few districts. Quetta has the largest number of candidates appearing in the exams. Figure 8.1 shows that 31% of all candidates were from Quetta. The remaining districts can be seen in Figure 8.2.

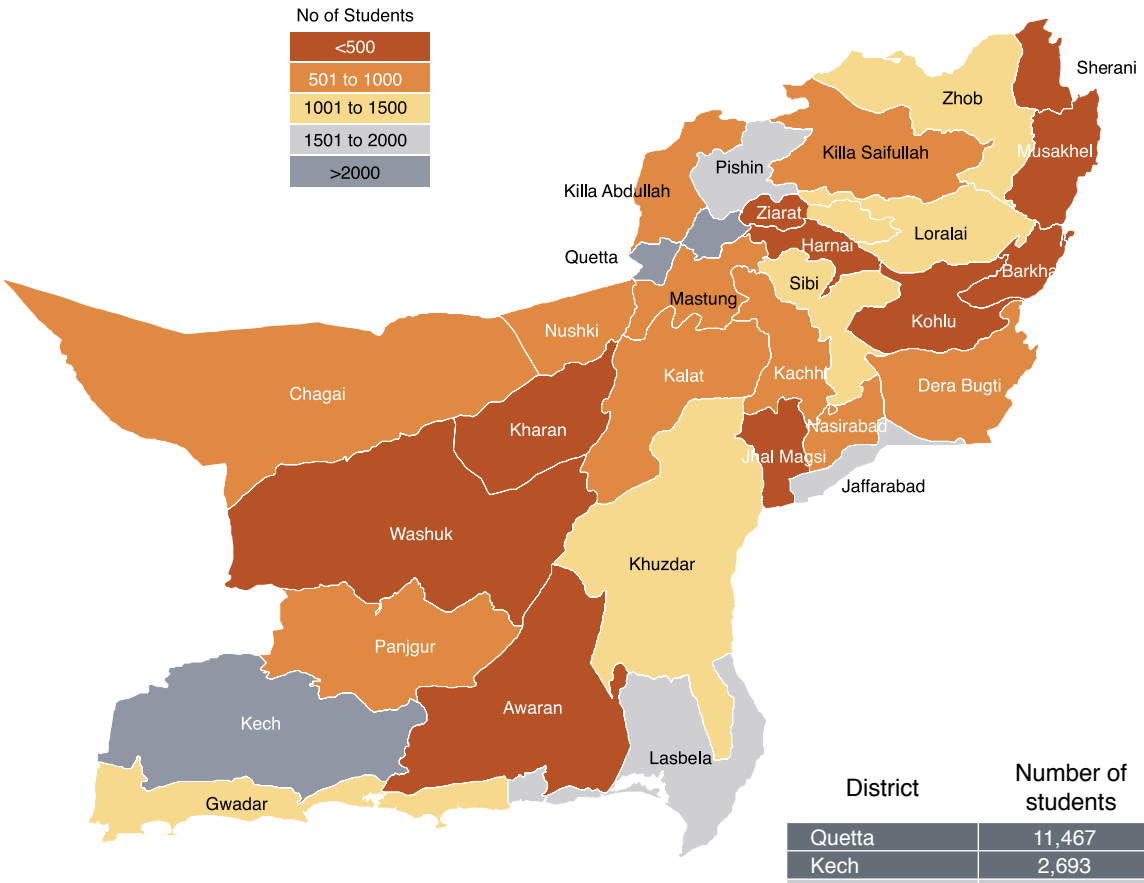
Figure 8.1: Percentage of total candidates appearing in SSC exam from Quetta (government schools only)



Outside Quetta, the highest number of candidates appears in Kech district (figure 8.2). This is followed by Lasbela and Jaffarabad. Sherani has the lowest number of candidates at 85. Eleven districts lie in the range of 500 to 1000 and ten districts have less than 500 candidates.

The spread explains the degree of difficulty faced by the Board in logistics across a province with poor infrastructure. The main concentration is in five to six districts. This means per capita cost of conducting examinations varies across districts.

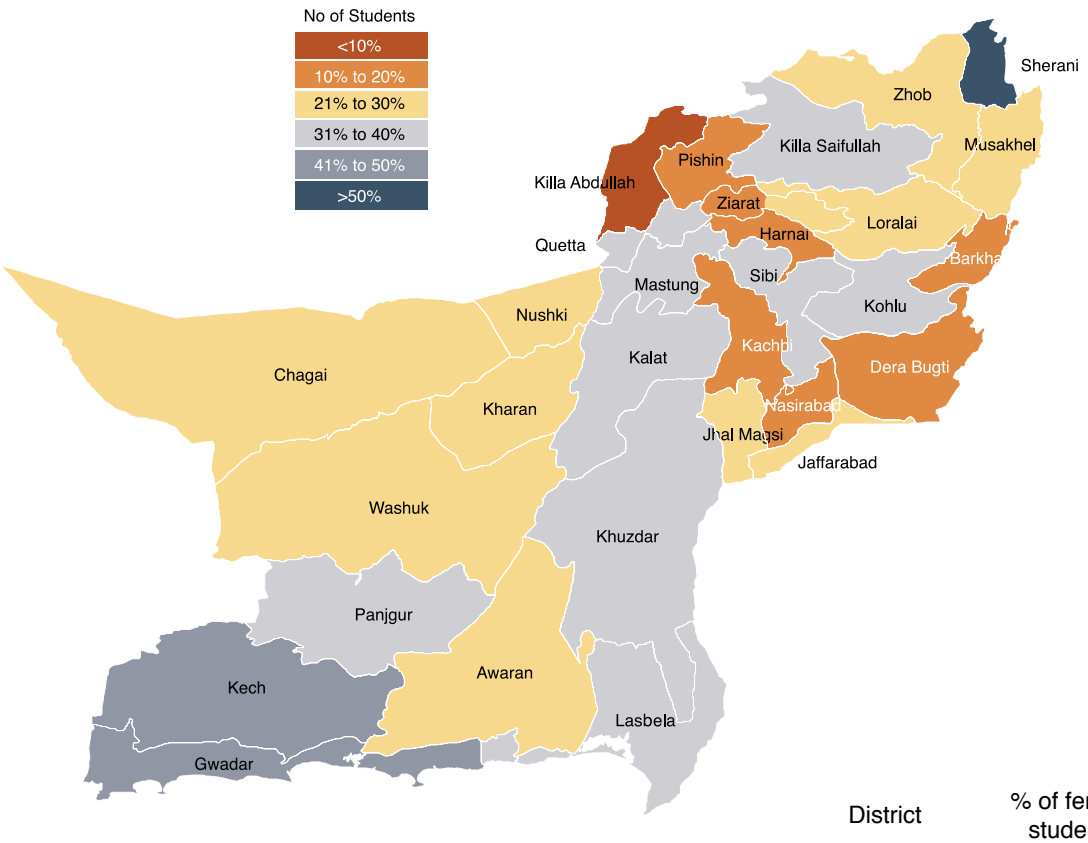
Figure 8.2: District-wise number of candidates appeared in SSC exams



District	Number of students
Quetta	11,467
Kech	2,693
Lasbela	1,966
Jaffarabad	1,687
Pishin	1638
Khuzdar	1394
Loralai	1260
Gwadar	1218
Sibi	1164
Zhob	1025
Panjgur	919
Killa Abdullah	887
Mastung	878
Nushki	876
Nasirabad	872
Sohbatpur	864
Kalat	826
Killa Saifullah	710
Kachhi	678
Chaghi	527
Dera Bugti	510
Kharan	492
Ziarat	453
Musakhail	440
Awaran	403
Barkhan	326
Harnai	267
Kohlu	213
Jhal Magsi	208
Washuk	172
Sherani	85
Total	37,118

Figure 8.3 shows district-wise female participation. The highest female participation is in Sherani district at 51%. In the context of the total number of candidates the district had only 85 candidates. It makes this number misleading. The real problem in the district is the overall participation at secondary levels.

Figure 8.3: District-wise percentage of girls appeared in the SSC exams



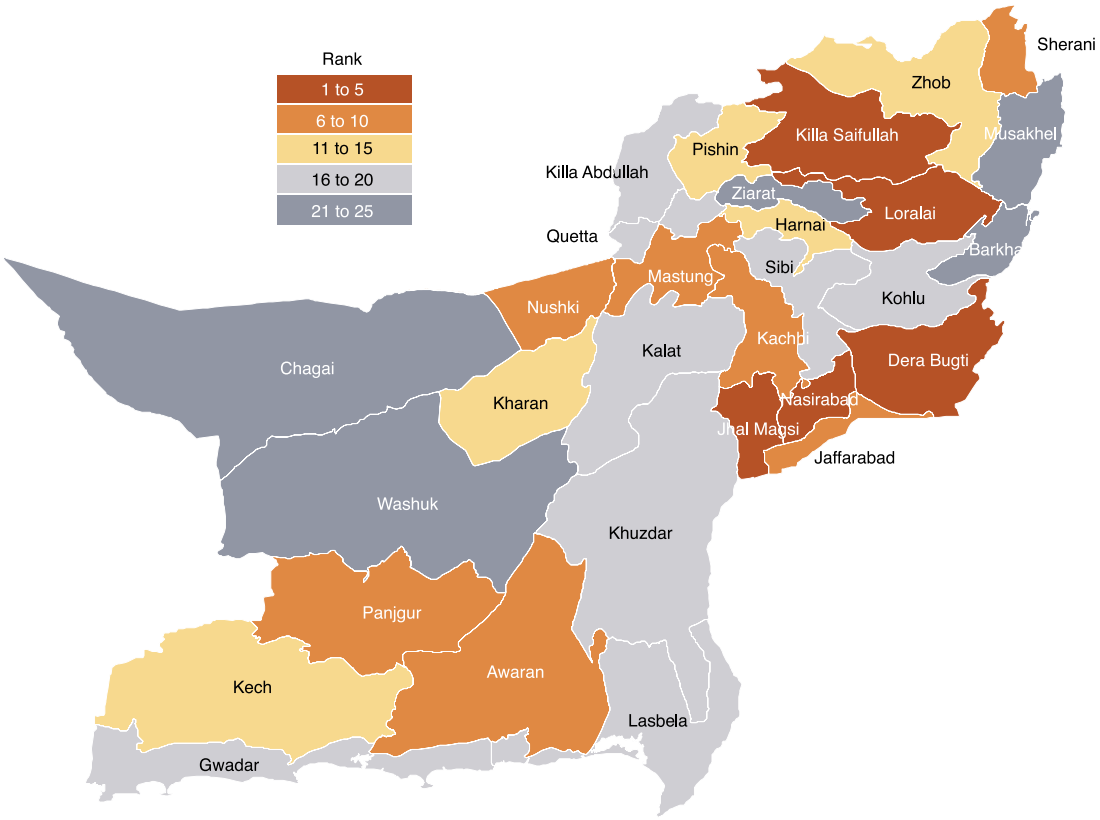
District	% of female students
Sherani	51%
Gwadar	41%
Kech	41%
Kalat	39%
Panjgur	38%
Khuzdar	37%
Mastung	33%
Sibi	33%
Lasbela	32%
Quetta	32%
Killa Saifullah	31%
Kohlu	31%
Musakhail	30%
Jhal Magsi	29%
Kachhi	28%
Nushki	28%
Washuk	27%
Jaffarabad	26%
Zhob	26%
Awaran	23%
Kharan	22%
Chaghi	21%
Loralai	21%
Barkhan	20%
Ziarat	19%
Nasirabad	18%
Pishin	17%
Harnai	13%
Sohbatpur	12%
Dera Bugti	10%
Killa Abdullah	9%

Including Sherani three districts have female participation between 40% and 50%. The other two districts are Kech and Gwadar. Quetta falls in the category of 31% to 40% with 32% of all candidates being girls. Seven districts fall in the 10% to 20% category with Dera Bugti at the bottom of the range. Qilla Abdullah has the worst female participation rate of 9%.

8.2 Aggregate Grade Wise Positions

The relatively weak performance of government schools is also reflected in the district median scores. No district has a median score of above 681. Nasirabad tops the list. The lowest median score of 602 can be seen in district Chaghi.

Figure 8.4: Median scores by districts



As seen in Figure 8.4 the weakest scores are in the five districts of Washuk, Ziarat, Barkhan, Musakhel and Chaghi. Nasirabad performs the best in terms of median scores. This, at least apparently, contradicts its low female participation rate of 18%. Incidentally Dera Bugti, which has generally lower numbers, falls in the top most range in this category. This means that many of the children are out of school but the few that have the opportunity are able to compete with the 'best' in the province.

The table below draws a comparison between district rankings according to Alif Ailaan and BBISE results median scores.

District	Median score	Rank
Nasirabad	681	1
Killa Saifullah	674	2
Sohbatpur	674	2
Dera Bugti	672	3
Loralai	669	4
Jhal Magsi	667	5
Jaffarabad	664	6
Awaran	664	6
Kachhi	659	7
Panjgur	653	8
Nushki	652	9
Mastung	650	10
Sherani	650	10
Harnai	646	11
Pishin	642	12
Kech	641	13
Zhob	637	14
Kharan	634	15
Killa Abdullah	625	16
Kohlu	625	16
Khuzdar	624	17
Sibi	622	18
Quetta	620	19
Gwadar	618	20
Kalat	618	20
Lasbela	618	20
Washuk	617	21
Ziarat	614	22
Barkhan	611	23
Musakhail	606	24
Chaghi	602	25

Table 8.1: Comparison of Alif Ailaan district education rankings and rankings based on median scores in BBISE exams

District	Alif Ailaan district education rankings 2015	District ranking based on BBISE median scores
Quetta	1	19
Kech	2	13
Killa Saifullah	3	2
Mastung	4	10
Kharan	5	15
Gwadar	6	20
Ziarat	7	22
Sibi	8	18
Nushki	9	9
Zhob	10	14
Lasbela	11	20
Jhal Magsi	12	5
Khuzdar	13	17
Pishin	14	12
Awaran	15	6
Panjgur	16	8
Jaffarabad	17	6
Kalat	18	20
Sherani	19	10
Barkhan	20	23
Chaghi	21	25
Loralai	22	4
Harnai	23	11
Kachhi	24	7
Nasirabad	25	1
Washuk	26	21
Kohlu	27	16
Sohbatpur	28	2
Musakhail	29	24
Dera Bugti	30	3
Killa Abdullah	31	16

Table 8.1 provides a comparison between the Alif Ailaan district education rankings and the ranking of districts based on median scores from BBISE exams. The comparison shows a wide variation in the ranks of districts. The main reason for these variations is that the Alif Ailaan district education rankings are based on a number of factors including learning scores, gender parity scores, enrolment and retention. Whereas the rankings based on the BBISE purely rely on the median scores. Alif Ailaan rankings index measures the performance of a much higher number of students at a much lower level (i.e. primary school), whereas the matric scores we explored assess student performance at the high school level. Another important point to note is that these median scores are calculated irrespective of the participation rates (in examinations) from these districts. As a result they provide an uneven and skewed picture of the state of education in these districts.

Nevertheless, the analysis of the board examinations results suggests a number of anomalies when compared with datasets like PSLM and Alif Ailaan. These differences

simply reinforce the need for more detailed, more robust and much smarter data collection and analysis by provincial education departments.

8.3 Subject Grades

Subject-wise median score was calculated for 3 subjects: Urdu, English and Mathematics. In Urdu the scores range between 65% and 52%, in English between 69% to 51% and for Mathematics between 68% and 43%. Figure 8.5 below shows district-wise median score for Urdu. In view of the narrow range only three categories have been created. Sherani district tops the median score at 65%. Quetta has the second lowest score at 53%. Kech is at the bottom with 52%.

Figure 8.6 shows scores for English language. Here again only 4 categories could be developed due to a narrow range, only slightly larger than Urdu. Awaran tops the group at 69% followed by Nasirabad. Incidentally neither of the two districts fall in the top categories for Urdu.

Figure 8.5: District-wise median scores in Urdu

District	Median score (Urdu)
Sherani	65%
Sohbatpur	64%
Barkhan	63%
Jhal Magsi	62%
Kachhi	62%
Killa Saifullah	62%
Kohlu	62%
Zhob	61%
Harnai	61%
Loralai	61%
Dera Bugti	60%
Nasirabad	60%
Jaffarabad	59%
Nushki	59%
Awaran	59%
Mastung	59%
Kalat	58%
Kharan	58%
Sibi	58%
Pishin	57%
Washuk	57%
Musakhail	57%
Chaghi	56%
Killa Abdullah	56%
Panjgur	55%
Ziarat	55%
Lasbela	55%
Gwadar	53%
Khuzdar	53%
Quetta	53%
Kech	52%

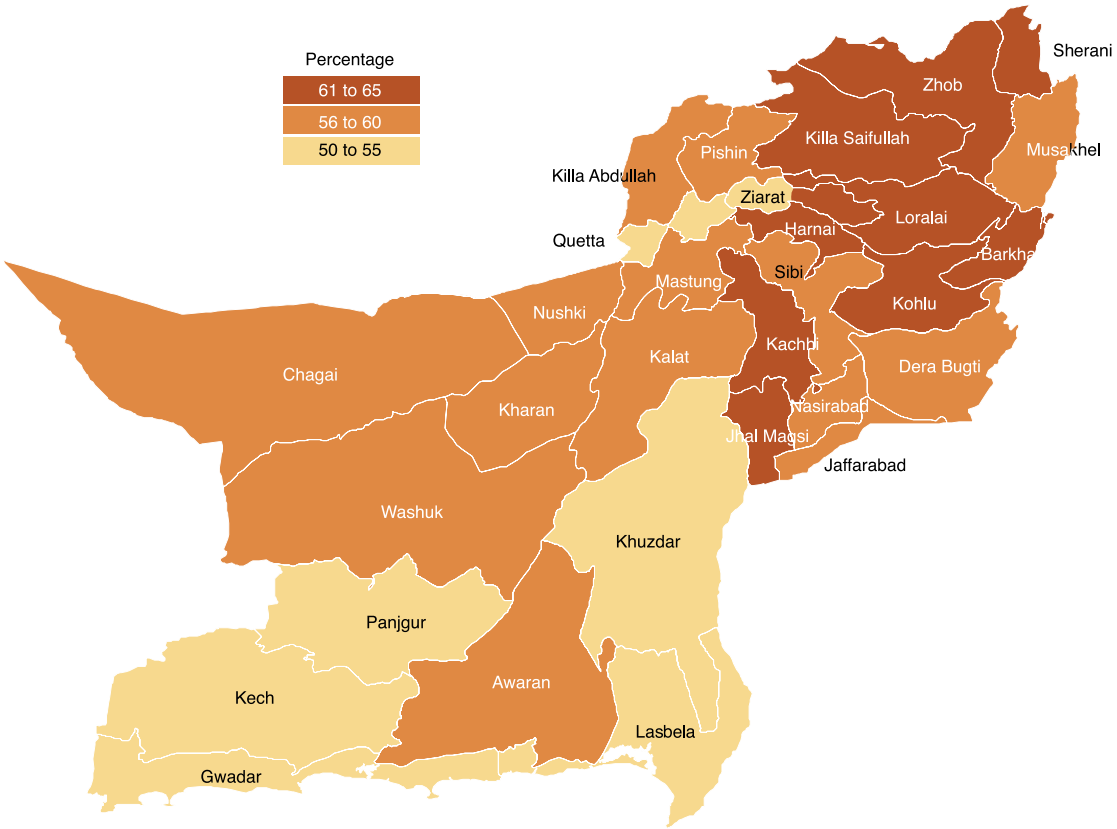
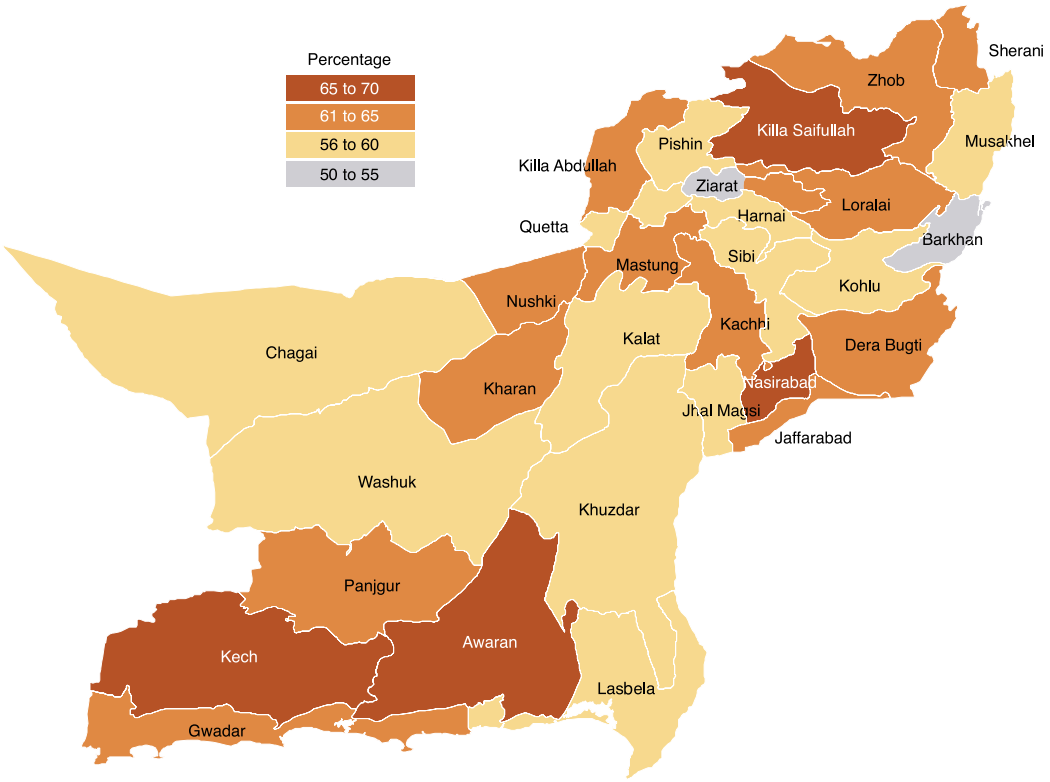


Figure 8.6: District-wise median scores in English

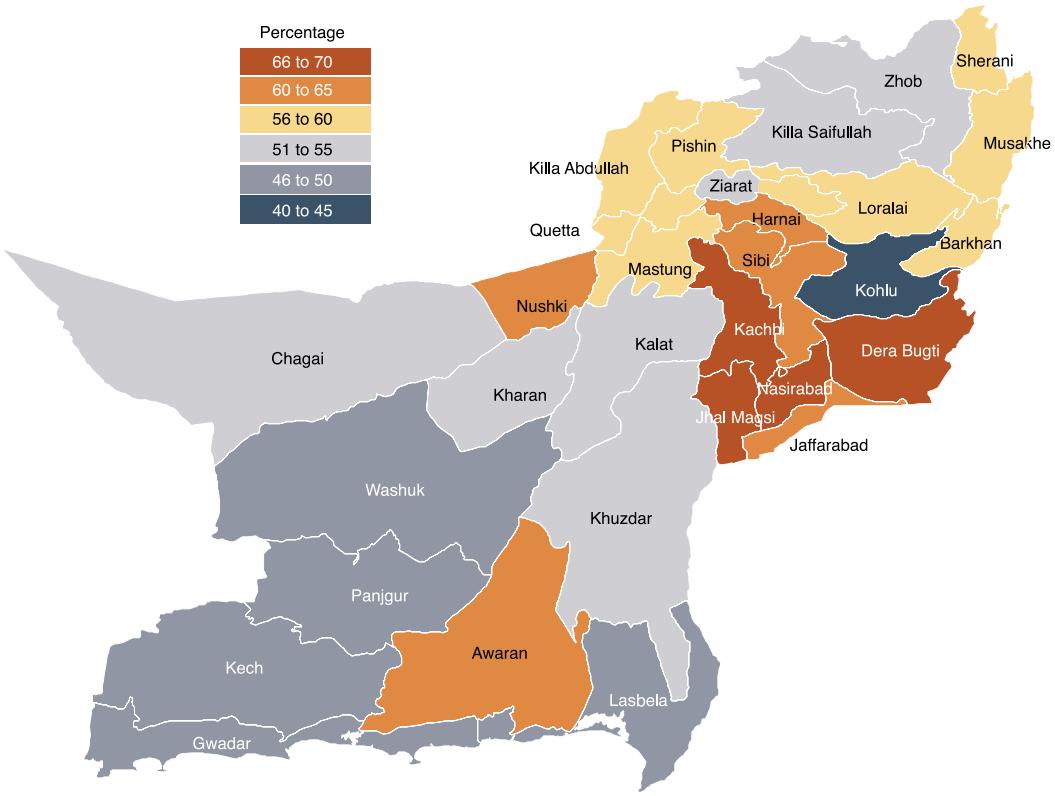


District	Median score (English)
Awaran	69%
Nasirabad	65%
Kech	65%
Killa Saifullah	65%
Dera Bugti	64%
Jaffarabad	64%
Loralai	64%
Sherani	64%
Kachhi	63%
Sohbatpur	63%
Kharan	63%
Nushki	63%
Panjgur	63%
Zhob	63%
Killa Abdullah	62%
Gwadar	61%
Mastung	61%
Harnai	60%
Musakhail	60%
Lasbela	59%
Kohlu	59%
Washuk	59%
Sibi	59%
Chaghi	58%
Kalat	58%
Khuzdar	58%
Quetta	58%
Pishin	57%
Jhal Magsi	57%
Ziarat	55%
Barkhan	54%

Killa Saifullah is the only district which falls in the top percentiles for both Urdu and English. Similar to the situation in Urdu subject, Quetta falls in the lower end in English subject median scores. There are only 4 other districts below Quetta.

Figure 8.7 shows scores for Mathematics. The range for Mathematics score is the maximum. It has allowed division of districts into 6 categories. Kachhi tops the scores, followed by Jhal Magsi and Dera Bugti.

Figure 8.7: District-wise median scores in Mathematics



Killa Saifullah, which performed relatively better in languages plunges to the bottom 3 in mathematics. This indicates that Mathematics teaching requires more attention in the district. Kohlu performs the worst in Mathematics. Unlike the language Quetta does not perform in the bottom quarter. Its score at 58% puts it in the middle. Overall the mathematics scores for mathematics are low. Only 10 districts have scores of 60% or above.

District	Median score (Maths)
Kachhi	68%
Jhal Magsi	68%
Dera Bugti	67%
Sohbatpur	67%
Nasirabad	66%
Jaffarabad	64%
Nushki	63%
Awaran	61%
Harnai	61%
Sibi	60%
Loralai	59%
Mastung	59%
Lasbela	59%
Panjgur	59%
Kech	58%
Quetta	58%
Sherani	58%
Barkhan	57%
Killa Abdullah	57%
Musakhail	57%
Pishin	57%
Gwadar	56%
Washuk	56%
Chaghi	55%
Ziarat	55%
Kalat	55%
Kharan	53%
Khuzdar	51%
Killa Saifullah	51%
Zhob	51%
Kohlu	43%

8.4 Schools with Median ‘A’ grade

Based on median scores, no government or private school falls in the ‘A+’ category. Only schools with ‘A’ grade have been discussed. This is the only section in this chapter that deals with schools other than government, also as the data for private schools with A grades clearly identify the districts in which they are located. There are many others where the addresses are not clear.

Figure 8.8: Districts with the number of schools in A-grade category (government and private)

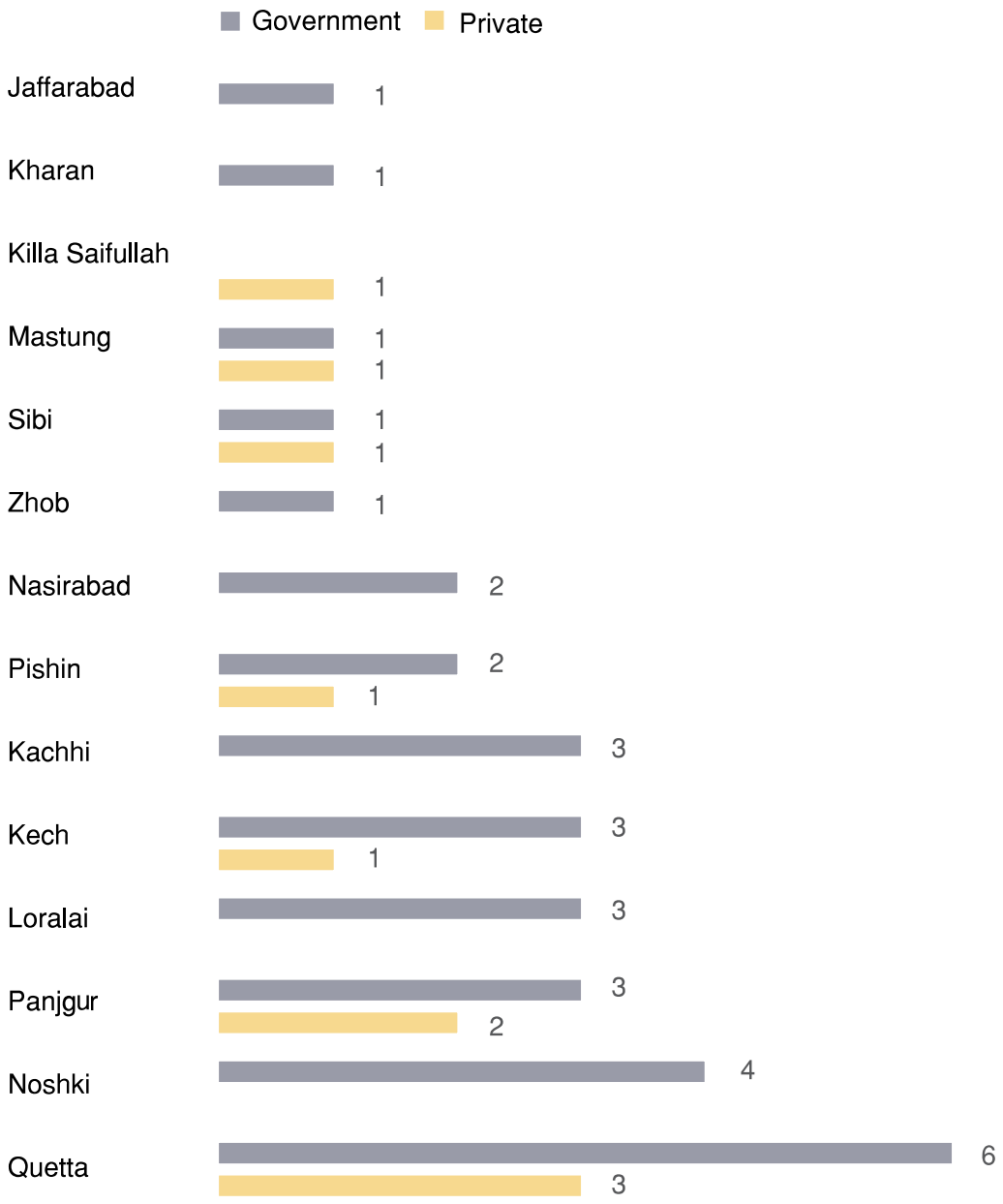


Figure 8.8 compared with figure 8.4 (Grade Wise Performance of Districts) shows that good schools can exist in districts that may not be doing well on the aggregate. Sibi ranked 18 has two schools (on government and one government) in category A. On the other hand Killa Abdullah at number 2 in the aggregate has no school in category A. Similarly Dera Bugti at number 3 does not have a single school in figure 8.8.

The data shows that the highest number of government schools with category A are in Quetta. Noshki has the second highest with 4. If both private and government schools are considered Quetta still tops with 3 private schools in addition to the 6 government ones. This shows that despite lower position in the aggregate scores Quetta has some high quality schools in limited numbers. Panjgur follows a close second with 5 total schools in this category: 3 government and 2 private. Kech has 4 schools in the category: three government and one private.

8.5 Conclusion

It is clear that the government needs to focus on the districts' overall state of education and assessment in greater detail. Aggregates and limited datasets do not provide the complete picture. Results show that districts like Dera Bugti with poor education indicators perform reasonably well in the BBISE examinations. Similarly districts with poor aggregate scores have well performing schools and vice versa. The details also become evident in the case of participation. NER and participation in examinations do not necessarily match either for the total or for females alone. Quetta, the most well-endowed district does not perform well on scores in BBISE. This defies perceptions and again emphasises the need for strong empirical basis for policy and planning. Anecdotal evidence and perceptions may create distortions and contradictions.

9. Conclusion and Recommendations

The BBISE examinations cannot be simply considered an exercise in isolation of the overall education sector. The examinations at the terminal end of secondary education provide an insight into the systemic fault lines in the structure. As long as education managers, parents and the Board itself views these as a measure of student ability only the incentive to analyse, and learn from, the results will be low. The huge datasets produced each year from multiple examinations conducted by BBISE go to waste.

The system firstly needs to register that only a very small percentage of relevant school-going age appears in these examinations. Most children drop out on the way to grade 9th. The bulk of these drop-outs are at the primary level. Even those who succeed to survive till grade 5 have low learning levels.

Even the rudimentary analysis conducted for the purpose of this report reveals serious issues for consideration of education managers and policy makers. The most significant finding of the analysis reveals existence of inequalities. Elite government schools have the largest share of the highest grades despite fielding less than 2 percent of the candidates. Girls' participation continues to be low in the examinations. And while girl students out perform boys wherever they have an opportunity they are excluded from elite government school systems.

Government schools seem to fare the worst but the average private school seems to be only marginally better. Intuitively the career prospects of the students of the two school systems may not be drastically apart.

An overwhelming number of students (about 88%) score at B and below. Almost 50% score below B. The report speculates on the career and life chances of these students based on anecdotal evidence. A more serious study would be required to trace the actual path. As qualitative analysis of the examination has not been included in the scope of this report the actual career path will indicate the learning levels.

District-wise data also indicates trends in participation and scores that should guide policy and implementation focus. Importantly the provincial capital Quetta has the highest share in participation but does not necessarily fare better than the other districts in scores. In many subjects it falls in the bottom quartile. Ostensibly this contradicts the perceptions. The city with its stronger endowments in terms of literacy, access to learning opportunities and proximity to the headquarters should have performed better. One reason may be the existence of O and A level schools but these schools capture a very miniscule percentage of population. The data clearly evinces a need for the government to explore the reasons.

9.1 Recommendations

Recommendations have been categorised into those that focus on improved use of data and others that arise from the data analysis in this report.

i. BBISE should develop an MIS system that links in the central EMIS of the Secondary Education Department. Annually data from these examinations should be included in the EMIS and analysed.

ii. BBISE should prepare an annual report that analyses these data (currently reports are restricted to gazettes). BBISE can conduct both a qualitative and quantitative analysis to include in the annual report.

iii. The Department of Education should use the data and analysis, as part of an annual review of its policy priorities.

iv. Maximum data should be collected from districts and analysis should be carried out using various datasets, including BBISE data, for better comprehension of the issues.

v. Data of private and government schools should be collected annually by the Balochistan Education Management System and added to the database.

vi. Data of private schools, for both BEMIS and BBISE, should include (among other variables) complete address of the private schools.

In addition to the above recommendations based on the data analysis from this report are:

viii. More female high schools should be opened (and existing middle and primary schools upgraded) as there appears to be a clear correlation between increased number of female high schools and girls' participation in BBISE examinations.

ix. Girls should be provided an opportunity to have their own elite government schools. In the long run all schools should be able to meet standards and elite schools may not be required.

x. Language scores, both English and Urdu, have been seen as the lowest in public schools. There is a need to focus on teacher training targeting improved teaching and learning of languages through:

a. Reviewing the existing language policy from primary to high school wherein children can begin in their mother tongues and transition to Urdu and English.

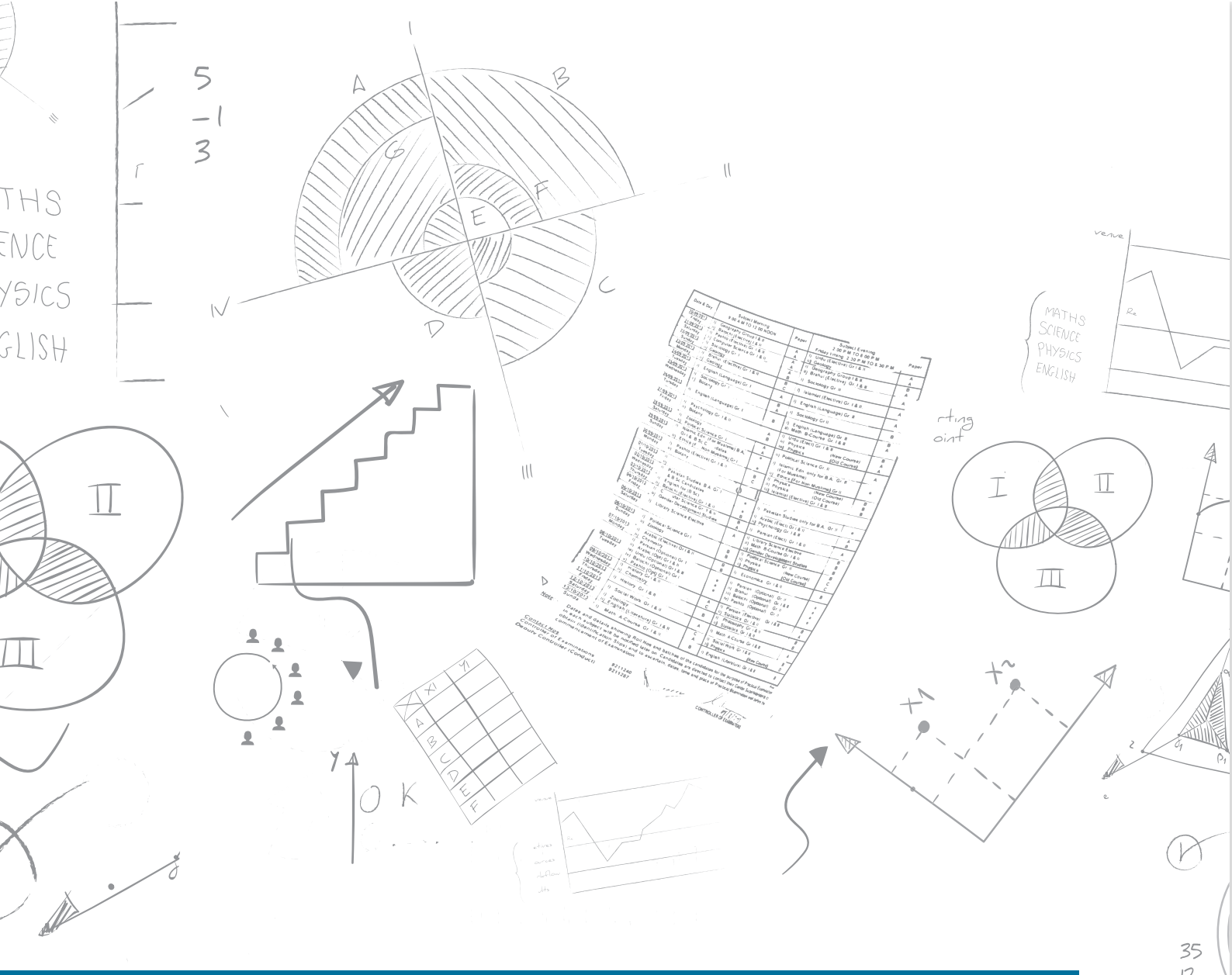
b. Better training of teachers in language teaching including strengthening their grasp of the content, in both pre-service and in-service teacher training programmes.

xi. The government needs to strengthen its technical and vocational education sector as a very high number of candidates will not be able to succeed in qualify for quality higher education institutions.

xii. High performing schools in low performing districts must be studied in more detail.

xiii. Government campaign against cheating in examinations must continue beyond the current year and sustainable systems must be put in place to institutionalise the effort undertaken in 2015.

xiv. The Department of Secondary Education must focus on improved teaching and learning capacity at all levels to ensure greater participation in the examinations as well as better performance of all students. Simple curbing of cheating without improvement in teaching will not be enough.



References

References

Government of Pakistan. 2005. Pakistan Social and Living Standards Measurement Survey 2004-05. Islamabad: Pakistan Bureau of Statistics, Government of Pakistan.
Available at http://www.pbs.gov.pk/content/pakistan-social-and-living-standards-measurementsurvey-pslm-2004-05-provincial-district

Government of Pakistan. 2007. Pakistan Social and Living Standards Measurement Survey 2006-07. Islamabad: Pakistan Bureau of Statistics, Government of Pakistan.
Available at http://www.pbs.gov.pk/content/pakistan-social-and-living-standards-measurementsurvey-pslm-2006-07-provincial-district

Government of Pakistan. 2009. Pakistan Social and Living Standards Measurement Survey 2008-09. Islamabad: Pakistan Bureau of Statistics, Government of Pakistan.
Available at http://www.pbs.gov.pk/content/pakistan-social-and-living-standards-measurementsurvey-pslm-2008-09-provincial-district

Government of Pakistan. 2011. Pakistan Social and Living Standards Measurement Survey 2010-11. Islamabad: Pakistan Bureau of Statistics, Government of Pakistan.
Available at http://www.pbs.gov.pk/content/pakistan-social-and-living-standards-measurementsurvey-pslm-2010-11-provincial-district

Government of Pakistan. 2013. Pakistan Social and Living Standards Measurement Survey 2012-13. Islamabad: Pakistan Bureau of Statistics, Government of Pakistan.
Available at http://www.pbs.gov.pk/content/pakistan-social-and-living-standards-measurementsurvey-pslm-2012-13-provincial-district

Government of Balochistan. 2005. Balochistan Education Management Information System 2004-05, Education department, Government of Balochistan

Government of Balochistan. 2006. Balochistan Education Management Information System 2005-06, Education department, Government of Balochistan

Government of Balochistan. 2007. Balochistan Education Management Information System 2006-07, Education department, Government of Balochistan

Government of Balochistan. 2008. Balochistan Education Management Information System 2007-08, Education department, Government of Balochistan

Government of Balochistan. 2009. Balochistan Education Management Information System 2008-09, Education department, Government of Balochistan

Government of Balochistan. 2010. Balochistan Education Management Information System 2009-10, Education department, Government of Balochistan

Government of Balochistan. 2011. Balochistan Education Management Information System 2010-11, Education department, Government of Balochistan

Government of Balochistan. 2012. Balochistan Education Management Information System 2011-12, Education department, Government of Balochistan

Government of Balochistan. 2013. Balochistan Education Management Information System 2012-13, Education department, Government of Balochistan

Government of Balochistan. 2014. Balochistan Education Management Information System 2013-14, Education department, Government of Balochistan
Available at http://www.bemis.edu.pk/

SAHE and Alif Ailaan. 2014. The voice of teachers: learning from teachers across Pakistan. Islamabad: Alif Ailaan
Available at http://www.alifailaan.pk/voice_of_teachers

Government of Balochistan. 2014. Balochistan School Education Sector Plan 2014-19, Education department, Government of Balochistan
Available at http:// www.emis.gob.pk/Balochistan%20Education%20Sector%20Plan.pdf

Alif Ailaan. 2013. Alif Ailaan Pakistan district Education Rankings 2013.Islamabad: Alif Ailaan Available at http://www.alifailaan.pk/district_rankings

Alif Ailaan. 2014. Alif Ailaan Pakistan district Education Rankings 2014.Islamabad: Alif Ailaan Available at http://www.alifailaan.pk/district_rankings

Government of Balochistan. 2001. Gazette Summary-SSC Annual results-2001-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2002. Gazette Summary-SSC Annual results-2002-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2003. Gazette Summary-SSC Annual results-2003-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2004. Gazette Summary-SSC Annual results-2004-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan
Government of Balochistan. 2005. Gazette Summary-SSC Annual results-2005-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2006. Gazette Summary-SSC Annual results-2006-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2007. Gazette Summary-SSC Annual results-2007-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2008. Gazette Summary-SSC Annual results-2008-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2009. Gazette Summary-SSC Annual results-2009-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2010. Gazette Summary-SSC Annual results-2010-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2011. Gazette Summary-SSC Annual results-2011-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2012. Gazette Summary-SSC Annual results-2012-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2013. Gazette Summary-SSC Annual results-2013-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2014. Gazette Summary-SSC Annual results-2014-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Government of Balochistan. 2015. Gazette Summary-SSC Annual results-2015-Balochistan Board of Intermediate and Secondary Education, Education department, Government of Balochistan

Idara-e-Taleem-o-Aagahi (ITA). 2014. Annual Status of Education Report, ASER- Pakistan 2014. Lahore: South Asian Forum for Education Development Secretariat. ITA.
Available online at http://www.aserpakistan.org/document/aser/2013/reports/national/ASER_National_Report_2014.pdf

Government of Balochistan. 2014-2015. Volume III-E-Demands for Grants & Appropriations Current Expenditure 2014-2015, Finance Department, Government of Balochistan

Other Works Consulted
UNICEF. Capacity Gap Assessment and Capacity Development Plan for Assessment. [Unpublished].

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