WHO GETS THE GOOD JOBS?

Educational experiences that result in economic and social mobility

WHO GETS THE GOOD JOBS?

Educational experiences that result in economic and social mobility

Muhammad Azhar
Faisal Bari
Abdus Sami Khan
Minhaj ul Haque
Abbas Rashid
Zohair Zaidi

sahe | الف اعلان Alif Ailaan

Citation

Alif Ailaan and SAHE. 2016. Who Gets The Good Jobs? Educational experiences that result in economic and social mobility. Islamabad: Alif Ailaan. vii-62 pp.

ISBN: 978-969-7624-03-4

Contents

List of tables and figures iv
Acronyms and abbreviations iv
Foreword v
Acknowledgements vii

Executive Summary 1

1. Introduction: Why this study and what did we set out to explore 4

2. What we know about the link between schooling and earnings 7
   - 2.1. Cost-benefit analysis 7
   - 2.2. English language 8
   - 2.3. School related factors and family background 8
   - 2.4. Gender 9

3. How we went about this study 10
   - 3.1. Permissions and confidentiality 14
   - 3.2. Limitations of the study 14

4. What we found 15
   - 4.1. The top tier school effect 16
   - 4.2. Key factors determining employment outcomes 18
     - 4.2.1. The language effect: the importance of English 19
     - 4.2.2. The family effect: support at home counts 20
   - 4.3. Mobility of students: No way up 20
   - 4.4. Widening disparity across decades 21
   - 4.5. Low tier limitations 21
   - 4.6. The gender effect 22
   - 4.7. Current salary comparison 23
   - 4.8. Regression analysis: confirming school effect on salary 23
     - 4.8.1. Model 1: Private top tier advantage 24
     - 4.8.2. Models 2 & 3: Government and low tier private school disadvantage
   - 4.9. Conclusion 24

5. What needs to be done 25

References 27

Annex 1: Working group 30
Annex 2: List of organisations by city 31
Annex 3: Research instrument/questionnaire 34
Annex 4: Mean starting salary by school level and type 50
Annex 5: Sample profile 51
Annex 6: OLS regression models 60

List of tables and figures

Table 1.1	Categorisation of schools by type and management	4
Table 3.1:	Sectors covered in employee interviews	11
Table 3.2:	Number of organisations and employees interviewed for the survey	12
Table 3.3:	Score range for school and home related factors	14
Table 4.1:	Mean starting real salary by school type and education level	16
Figure 4.1:	Initial mean salary by examination type at secondary and higher secondary level	16
Table 4.2:	Employee perceptions about competencies relevant to their first job	17
Table 4.3:	Employee responses about competencies relevant to their first job	18
Table 4.4:	Impact of different factors on mean starting real salary	18
Table 4.5:	Ranking of major factors by school type	19
Table 4.6:	Student mobility between primary and secondary grades	20
Table 4.7:	Mean starting real salary by school type, decade and level (primary & secondary only)	21
Table 4.8:	Mean starting real salary for men and women	22
Table 4.9:	Gender and key factors	23
Table 4.10:	Mean starting real salary by school type and level (pre-primary to higher secondary)	23

Acronyms and abbreviations

AEPAM	Academy of Educational Planning and Management
ASER	Annual Status of Education Report
DATEX	Data Experts
GDP	Gross Domestic Product
IDEAS	Institute of Development and Economic Alternatives
LEAPS	Learning and Educational Achievements in Punjab Schools
NEAS	National Education Assessment System
OLS	Ordinary Least Square
OOSC	Out-of-school children
PEAS	Punjab Education Assessment System
PIHS	Pakistan Integrated Household Survey
SAHE	Society for the Advancement of Education
SDG	Sustainable Development Goals

Foreword

Bismillah hirr Rahman irr Raheem

The conclusions and findings in this report will not surprise anyone. Pakistan is sustaining an education system in which the rich will stay rich, or get richer, and the poor will have an ever-shrinking chance for social mobility. How? By ensuring that the education available to children from wealthy families results in the best economic opportunities and job outcomes, whilst simultaneously denying the children of less privileged families with a free or low cost education that can help them to leapfrog the socio-economic barriers to a better life that they must contend with from the get-go.

This report represents the second major partnership between Alif Ailaan and SAHE for surveys that we believe reaffirm conventional thinking with irrefutable evidence. In 2014, we released a survey titled “The Voice of Teachers”, the largest and most comprehensive survey of Pakistani teachers ever published. Like that survey, the “Who gets the good jobs?” survey confirms, above all things, the need for a public sector interest in evidence that goes beyond boundary walls, and enrolment data. Pakistan’s education crisis is systemic, multifarious and intergenerational. It can neither be understood, nor tackled without a deeper appreciation for how it is linked to the economic, political, and social context within which it has come to be as dysfunctional as it is.

There are a number of critical areas of academic inquiry that this survey overlaps with, including the exploration of “school effect”, and its juxtaposition with other advantages or disadvantages that students bring with them to the education system. The scope and scale of this study is indicative, and a much deeper and wider collection of data is required to tackle the important questions that come out of this survey.

Our survey found that two of the biggest determinants of salary levels in the country are exposure to the English language, and whether one took O and/or A levels exams or not. This should surprise no one. Yet so many Pakistanis are surprised by the high number of out-of-school children (OOSC) and the high level of dropouts. We should not be surprised. The market speaks clearly: parents without economic means are being told that without an O and/or A levels certification, and without the ability to engage in the English language, your children’s prospects to get the highest paying and best jobs are limited. What then would incentivise those same parents to invest the money, time and effort to educate their children—especially when alternatives to schooling may include labour that adds to their household income?

This is a difficult and scary proposition. It needs more testing, but both the results of this survey and the anecdotal evidence suggest that the choice to educate one's child in any school other than those that we associate as elite institutions, limit the opportunities for economic mobility. Given that access to the elite schools is restricted to begin with, the prospects for social mobility seem to be restricted by the education system. This is not a matter merely for education think tanks, or provincial education departments to be concerned with. For a country with the kind of poverty and inequality that Pakistan has, this proposition represents a major political and economic challenge.

Can an education debate that is obsessed with enrolment rates, and governments that are obsessed with finding someone else to run government schools really address these deep-set challenges to the education system?

As politicians, journalists, and other influencers of public policy peruse this document, we would invite them to consider the depth and urgency of the challenge of the education system. Without dramatically improved government schools across the country, no hopes for any kind of major national improvement, in any field, can be conceived.

Mosharraf Zaidi
Alif Ailaan

Acknowledgements

This report has been made possible by the valuable contributions of a number of researchers and working group members, including Abdus Sami Khan, Faisal Bari, Minhaj ul Haque, Muhammad Azhar and Ayesha A. Awan. Above all, we are particularly thankful to the organisations and those individuals across Karachi, Lahore and Islamabad who gave us access and time for interviews.

We would like to particularly acknowledge the support of our regional partners: Data Experts (DATEX) and SRS for coordinating employee interviews with multiple organisations. We are grateful to Ali Khizar Aslam for coordinating and conducting interviews of senior management and Noor ul Zaman Rafique, Maliha Mushtaq and Syed Usman Haroon for coordinating interviews in various organisations. We would also like to thank Waqas Sheikh for research assistance during the initial phase of the study and, of course we are very grateful to our regional coordinators and enumerators for their excellent data collection work.

Not least, we would like to acknowledge the Alif Ailaan team, and especially Mosharraf Zaidi, Saman Naz, Zohair Zaidi and Ghamae Jamal for continuous engagement, technical and financial support in conducting this study and also making it possible for SAHE to explore the somewhat neglected but significant aspect of schooling outcomes in the context of employment, the labour market and education in Pakistan. We would also like to thank Mahim Maher for her editorial support.

Abbas Rashid
Executive Director – Society for the Advancement of Education (SAHE)

Executive Summary

Who gets the good jobs? This study attempts to explore the link between schooling and job prospects by examining educational backgrounds, and profiles of mid and senior level managers in reputable firms in the three main urban centres in the country. Using the metric of individual starting salaries, we surveyed 828 people in mid and senior management level jobs at over one hundred firms. We chose these urban centres specifically because they have larger populations, greater job opportunities and higher enrolment and achievement rates than other cities. The study selected employees at middle and senior positions between 20 to 35 and 36 to 45 years of age.

Our survey provides a snapshot of people with management level jobs. The study is not exhaustive. A large, nationally representative, household survey would yield better, more durable insights in terms of the link between education and employability. Such a study is urgently needed to inform education policy. Our survey is a small contribution to help spur a policy response.

For parents, there is a wide variety of school options in Pakistan, which is why we elected to look at the type of school rather than the number of years of schooling. While no categorisation could do justice to the different educational experiences offered by all types of schools, we grouped schools into five baskets for practical purposes. These are: low and top tier government schools and low, mid and top tier private schools.

The point of departure is the assumption that different types of schools will produce different salary levels among students down the line. We ascribe three factors that affect salary outcomes for students. First, the quantum of support they receive at home. Second, the quantum of support provided by the school, and third, exposure to the English language. We therefore created two indices, one each for home and school support. Exposure to English is covered by both.

In addition, we asked two other questions:

- How much of an advantage does education at a top tier school provide over the rest?
- Do students from private low tier schools emerge with better upward mobility compared to students in government low tier schools?

The school support (or school quality) index and the household characteristics (or home support) index helped us identify and track a range of questions about today's mid-level or senior level managers' experience at school: how educated a child's parents were, to what level were their brothers and sisters educated, did a child get support with homework, how much access to the general electronic media they enjoyed and so on.

What we discovered: Findings

Our findings suggest that the education system in Pakistan is reproducing existing patterns of distribution of wealth and well-being. If you do not have the privileges needed to enjoy good economic opportunities, the education system does nothing to help change that for the next generation.

Access to quality education is based on ability to pay for it. The rich have ready access to schools that consistently produce people with higher salaries in mid and senior level jobs in the formal market. Lower-middle income and poorer households have access only to an education that produces people with lower salaries. The probability of success for children from poorer backgrounds is engineered to be lower.

The data we collected offered the following specific findings:

A combination of three key factors have the most impact on starting salary outcomes

Three factors seem to have the most impact on starting salary: school support, support at home and exposure to English. Employees who were students at private top tier schools score the highest for each of these three critical factors for high starting salary. They are followed by those who were students at government top tier schools and private mid tier schools, which rank fairly high on all three factors. Unsurprisingly, government low tier schools ranked the lowest. In terms of home support, parent income and home environment appear to be key factors and exposure to English is likely to be as much a function of the home as the school setting.

Aside from the quality of school as a factor for people who ended up with higher starting salaries, we also found that they tended to have upper-middle and higher income parents who were able to provide more home support for them as children. Their parents were likely to have higher levels of education and their siblings were likely to be educated as well. Of the employees we interviewed, those who had started their careers with higher salaries were most likely to have had more books around the house, parents who expected them to do well in school and they were most likely to be able to take better quality tuitions if they had ever needed it.

Private top tier schools make a significant difference

People who went to private top tier schools have a significant advantage when it comes to the salary they will start their career with. In fact, your average starting salary goes up with the number of years you were in a private top tier school. This applied to whether the student went to one such school or more than one starting from pre-primary.

There isn't much of a starting salary difference between government low tier and private low tier schools

It was found that there is only a small difference in a person's starting salary if they went to a government or private low tier school. This means that it is worth taking a closer look at the belief that these mainstream private schools are providing a much better quality education than government schools. Less significantly, we also found that if you went to a government top tier or a private mid tier school there will only be a small difference in your starting salary.

Within the context of top tier schools O' and A' Levels give you a major starting salary advantage

The type of school-leaving examinations taken at the secondary and higher secondary levels matter the most when it comes to person's starting salary. The average salary for an O' Level graduate is more than twice of a Matriculate and the same is true of A' Levels versus a regular Intermediate from a Pakistani examination board.

A majority of students stays stuck with low tier school choices

We wanted to see if students were moving up the ladder in terms of quality of schooling over time. But we found that over a third of people questioned for this study had moved as students from private low tier schools to similar government schools. Only one-third of them moved to government top tier and private mid tier schools. In essence, this means that the majority, or two-thirds, remained at the bottom of the pyramid or in the low tier category.

English skills are linked to higher paying jobs

The importance of learning English for better and higher paying jobs and better careers cannot be overemphasised. Most parents do realise this in Pakistan and their impression is borne out, amply, by our analysis.

People who went to low tier schools are generally though not always limited professionally by them

The sample of people who we interviewed from middle and higher management jobs included a significant number who had attended low tier government or private schools. This suggests that going to these schools does not necessarily shut the door on socio-economic mobility. But, it is likely that only a small percentage of children who go to these schools are able to do as well as the individuals in our sample. In the sample around 25% of respondents had attended an elite school (private top tier category) at least at one level during pre-primary to higher secondary grades and almost 7% of all respondents had appeared for O/A levels. The National Education Census (2005) shows only 270 schools out of 203,000 schools overall were affiliated with the British System (O/A levels). Clearly, there is an over representation of people from elite schools in our sample. We can confidently hypothesise that this must be true for middle and senior management jobs in general.

1. Introduction:
Why this study and what did we set out to explore

Our aim is to explore the correlation between schooling and employability. When we took a look at existing research, we found that it arrived at the conversation with the assumption that the number of years spent in school is a reasonable predictor of the kind of job you are likely to get later in life. And indeed, as these studies showed, there is extensive empirical evidence that confirms this to be generally true no matter where you live in the world. Beyond this assumption, however, the picture is not so simple.

As with other countries, data on this relationship between schooling and wage in Pakistan is complex due to the different factors that affect it. The return, or what you will reap economically after making an investment in education, tends to vary depending on your field, city, job and gender.

One way to measure the return on education has been to look at the kind of starting salary you are able to fetch. What kind of a schooling will lead to a higher starting salary? We have noted, that so far, though, the research on this link has tended to look at the effect of the number of years in school and not the type of school. While quantity is important, this study seeks to fill the gap on the cause and effect of quality. Therefore, we have decided to assess the influence the type of school had on the starting salary of formal sector employees in three major cities of Pakistan.

One reason for deciding to explore the effect of the type of school is that we know that there are many of them to choose from in Pakistan. You have government low tier schools and another type of government schools that charge relatively higher fees. We will refer to these schools as government top tier schools. You also have private low tier schools, private mid tier schools and private top tier schools. If we conceive of the overall schooling structure in Pakistan as a pyramid, there is a very small minority of private top tier schools at the very top that cater to the elite. The wide base of the pyramid constitutes the overwhelming majority made up of government low tier and private low tier schools. In between, we have closer to the tip of the pyramid the government top tier and private mid tier schools.

Table 1.1 Categorisation of schools by type and management

Government	Government low tier	Government low tier schools are managed by the respective provincial school education departments[1].They charge no fee.
	Government top tier	This category includes schools managed by government sector entities other than the departments of education such as divisional and district-based government schools that have a high degree of autonomy and charge relatively higher fees compared to other government schools. Some of these schools also provide boarding and lodging facilities. Army Public Schools and Cadet colleges are set up through funding from the Federal Government and then handed over to the provincial governments. These schools charge a considerable fee and enjoy a high degree of autonomy.

1 Reference to private and government top tier schools category can be found in the literature on education in the context of Pakistan—which uses the term elite in the non-government sector that include the old anglicised missionary and non-missionary institutions. With regard to the government top tier category, it differentiates between the schools run by the provincial government and those managed by autonomous boards as well as the armed forces and their affiliates (Rahman 2004).

Private[2]	Private low tier	Private low tier schools constitute the great majority of private sector schools, are usually located at the neighbourhood level and charge a modest fee[3].
	Private mid tier	These schools fall between private low tier and top tier schools. They typically prepare students for Matriculation and Intermediate exams and cater to middle level income groups.
	Private top tier	This category mostly includes schools charging high fees run by individuals as well as those managed by for-profit organisations operating school systems or chains and some reputable non-profit missionary schools. Private top tier schools prepare students for O' and A' Levels examinations and operationally use English as the medium of instruction.

The spectrum is wide[4] with the majority of Pakistanis sending their children to either government low tier schools or private low tier ones[5]. These schools prepare their students for the local board exams. And while there are exceptions, if we go by the national and provincial surveys (NEAS, PEAS and ASER) of how well students were learning, we see that they are well below what can be regarded as acceptable.

At the other end of the spectrum[6] is a very small percentage of Pakistani students who go to the country's handful of private top tier schools. They provide a completely different kind of education which gives their students a huge advantage in the labour market. These schools usually charge high fees, teach in English and register their students for the globally recognised UK-based O' and A' Level examinations.

The fact that there is such a broad range of schooling options has profound implications for a society already marked by a high degree of inequity. It obviously creates the problem of an unequal and non-uniform standard of education. Indeed, education is not the only area where we see such a gulf between the privileged and the rest of society. The inequality is starkly present in all aspects of life, with lasting implications for the individual and for the future prospects of the country.

This is precisely why one would expect education to level the playing field by becoming the vehicle for change, or a way for the less privileged to improve their lot in life by securing better jobs. In Pakistan, though, government schools are generally perceived as providing poor education and private schools (with their emphasis on English, uniforms, etc.) are regarded by many as the route for upward mobility. This expectation has fuelled the rise of the private school phenomenon.

For us, then there are two central lines of inquiry:

a. How much of an advantage does education at a top tier school provide over the rest?

2 Categorisation of schools is primarily based on respondent's perceptions. In a few cases the categories had to be adjusted as they appeared to be inconsistent with the remaining data. Professional judgment based on visits to websites of schools, a view of school facilities, personal knowledge of schools and offering of O 'levels and A' levels was used.

3 Respondent perceptions regarding fee and nature of schools were utilised to categorise school tiers.

4 Government schools are supposed to provide tuition-free education but it was only after 2010, beyond the scope of this study, that they were supposed to provide books and stationery etc - other costs that parents had to bear.

5 By 'send' we do not want to imply there is much of a choice.

6 If one were to view the school structure essentially in the form of a pyramid there is a considerable gulf between the private elite schools on the one hand and the mainstream government schools as well as the low fee private schools on the other, i.e., top tier and low tier schools. If anything this study is likely to understate the gulf between the two.

b. Do students from private low tier schools emerge with better upward mobility compared to students in government low tier schools?

Our questions determined who we would interview: employees in middle and higher management jobs of a certain age in some of the largest organisations based in three big cities of the country. The study targets success stories from all school types in the country's formal sector and presents a profile of the schools attended by the economically successful in Pakistan. This approach allows us to compare average levels of economic success for graduates of top tier and low tier schools. In the next chapters you will see how we went about conducting the study, what data it yielded and the conclusions we drew from them.

2. What We Know About the Link Between Schooling and Earnings

Over four decades of research has yielded two key ways of thinking about how schooling affects labour economics. One approach, the human capital model, says that schooling raises a worker's productivity by increasing their cognitive abilities. Basically, workers or labour make an investment in themselves (go to school) to acquire marketable skills (degrees etc), which are a form of capital. This perspective links the investment to wages and earnings (Becker, 1964; Card, 1995). Others have dwelt on how, if people stay in school long enough to earn credentials, the learning process leads to higher earnings for them (Chiswick, 1973; Lange and Topel, 2006). In fact, the average rate of return goes up 10% for every year of schooling, as a study estimated in 98 countries (Psacharopoulos and Patrinos, 2004).

The second approach to understanding how schooling affects labour market outcomes is sorting, which explains why credentialed workers (those who have attended high school, college or university) earn more than their counterparts who have not. Employers sort workers by their qualifications to identify those with desirable traits that cannot be directly observed (Arrow, 1973; Spence, 1973; Stiglitz, 1975; Weiss, 1983). The literature has also looked at what school characteristics predict academic achievement or labour market performance. The school effects literature typically involves the identification of certain school characteristics and examines their efficacy in predicting academic achievement or labour market performance via education production functions (Hanushek, 1986; Hedges, Laine, and Greenwald, 1994; Card, and Krueger, 1992a, 1992b).

Much the same conclusions have been drawn in Pakistan by researchers who looked at the returns on schooling. Here too education adds to a person's productivity; there is a 5% to 7% increase in the rate of return from another year of schooling (Qureshi, 2012; Ashraf, 2011; Khan, 2008; Abbas and Foreman-Peck, 2007; Aslam, 2007; Nazli, 2004). An examination of the provinces showed that in Balochistan rewards are higher for high and tertiary education. In the Punjab the returns are higher for secondary education (Jamal et al, 2003). Data from male wage earners showed that the returns to schooling at the national level are 9.1%, for the Punjab 9.9% and for Balochistan 4.4% (Shabbir and Khan, 1991).

2.1 Cost-benefit analysis

How much of an investment are parents willing to make when it comes to their understanding of the returns to education in Pakistan? As expected, the literature tells us that school fees are an important decision-making factor. Alderman et al., 2001 argue that the poorest households prefer private schools more as their incomes go up. This leads to the conclusion that lowering private school fees would have the effect of increasing the enrolment for poor children in Pakistan. Other studies corroborate that private low tier schools empirically emerge as an important category. Nasir and Nazli (2000) estimate returns to education by using continuous years of schooling with the assumption that uniform rate of return exist for all completed years of education. They used the

Pakistan Integrated Household Survey (PIHS) 1995-96 and found that gender, regional, provincial, skilled/unskilled, public/private dimensions have significant impact on earnings. Graduates of private schools earn 31 percent higher than those of public schools.

2.2 English language

Some work has been done to assess the prominence that English language skills hold when it comes to earning capacity after graduating from school. Jamal et al. (2003) found that language proficiency is one reason why the services sector rewards educated workers more than manufacturing and agriculture sectors. In another study it was found that graduates of private schools with English language as the medium of instruction receive higher economic returns compared to the graduates of public schools (Jamal et al., 2003; Nasir and Nazli, 2000).

In India and Pakistan, there are sizeable economic returns to being proficient in English. Two studies on India by Bhandari and Bordoloi (2006) and Azam, Chin and Prakash (2010) find that knowledge of the English language has a significant association with earnings. Incomes are between 13% to 34% higher among workers who speak English, depending on the level of fluency.

To assess English language proficiency, Aslam et al. (2010) administered tests of literacy, numeracy, health knowledge and English language. They found that the picture is not very different in the Pakistani labour market—men and women are rewarded highly for being schooled in advanced English language skills. Among the different test scores, the largest increase in earnings is generated by English language knowledge and the effect is larger for women than for men.

2.3 School related factors and family background

Coleman et al. (1966) were the first to study the effect of school inputs—such as teacher's education, class size and student achievement. They postulated that when the socioeconomic background of the students was held fixed, school inputs had very little measurable effect on student achievement. In addition, they reported negligible effect between school variations in academic achievement. In sum, Coleman et al. (1966) were of the view that schools do not make a notable difference with respect to student achievement. Similarly, Hanushek's (1986) influential study found little evidence of the relationship between school characteristics and student achievement. Hanushek argues that even when a school spends a lot on a student this does not tell us much about the value it is adding. In other words, the years spent in a school should not be considered the only predictor of economic opportunities in future. The quality of the school matters as well. Further in Hanushek's view, family background is clearly very important in explaining differences in achievement (ibid).

This research spawned a series of studies that assessed the effects of school resources on academic achievement but with disparate conclusions. Hedges and Stock (1983), for example, report the opposite findings. Card and Krueger (1992) were the first to establish the link between school effects and earnings later in life. They report that improvements in school characteristics, such as pupil-to-teacher ratios, teacher salary, and length of academic year had positive effects on earnings. In a sequential study, Card and Krueger (1996) found a positive association between school expenditures and student annual earnings later in life. Card and Krueger (1998) propose that the payoff to additional schooling is higher for students attending higher quality schools.

In the case of Pakistan, Behrman et al. (1997) used a mix of supply and demand side factors such as school availability, household schooling demand, school support, home support, household income, parental schooling and reasoning ability. They identify student-teacher ratio and teacher training as important determinants of cognitive achievement in rural schools of Pakistan. This study did not use indicators such as years of schooling and instead focused on school type, student-teacher ratio and whether there was a multi-grade environment or not during primary and secondary grades.

Economists have long been interested in the effects of family environment on the subsequent labour market success of individuals (Becker 1967; Taubman 1977; Griliches 1979). Part of this interest stems from the correlation between the educational attainment of parents, siblings and children and also the increasing role of education as a determinant of economic well-being.

2.4 Gender

The estimation of returns to education by gender has received less attention in the literature. The evidence suggests that lower returns to schooling for women are partly explained by discrimination against female workers and a concentration of women in low-paying and low-skilled jobs.

Pakistan is quite similar in that research on gender differences is limited. A study by Aslam (2006) points to a sizeable gender asymmetry in returns and finds that return to additional years of education ranges between 7% to 11% for men and between 13% and 18% for women.

3. How We Went About This Study

In order to gauge how the type of school one attends influences starting salary, we interviewed employees at a wide range of organisations and gathered data on their schooling history. Using a sample of management level employees in the formal sector as opposed to a conventional household survey was a deliberate choice. The rationale behind this strategy was to have a sample of economically successful individuals in order to relate their level of success to the type of schooling they received. A household survey would have exposed us to a wide ranging sample not allowing us to focus exclusively on the economically successful formal sector[7] workforce. We first mapped and selected organisations in the three cities and then identified employees within them to directly question. We set up a working group that met at regular intervals providing feedback at different stages of the study (Annex 1). Its job was to:

- Identify how many people we would interview (the sample size) and work through various sampling issues
- Work with our provincial partners to develop guidelines on how to identify and collect the data to ensure rigour and consistency
- Design the study and come up with a framework within which to analyse the data we gathered
- Go over the existing research and come up with a way to conduct research for this study (an instrument or tool) that would allow us to do a labour market survey of employees
- Examine how appropriate this method or instrument is and assess how well it would be suited to yielding different kinds of analysis

The work was to take place in Karachi, Lahore and Islamabad. They were the cities of choice as they have larger populations, greater employment opportunities, and higher enrolment and attainment rates than other cities. This is the result of having a large number of private schools, colleges and universities compared to other parts of the country. Also, given data constraints, the study opted to approach only formal sector firms and organisations in these cities. Another reason for choosing these cities was that they are where the head or regional offices of these companies are located.

In the absence of a comprehensive list of organisations and employers in Pakistan, we chose both organisations that were listed (public limited companies and those that are listed with stock exchange) and those that were not listed on the stock exchange. We included non-listed companies because there is a large number of them, public and private, which provide significant employment opportunities for people with different levels of education. We covered a range of businesses from telecom to oil and gas, construction to car dealers.

In order to select the organisations, the study team first reviewed secondary sources to gather preliminary details, annual financial indicators and so on. For listed organisations, selection specifically took into account four-year financial performance in key variables such as revenue and profit generation. The data was taken from official websites, annual reports and websites such as those of the Karachi, Lahore and Islamabad stock exchanges.

7 Employment activities in Pakistan are broadly divided into formal and informal sectors. The informal sector accounts for around three-quarters (72.6%) of non-agricultural employment, more in rural (76.1%) than in urban areas (69.2%). On the other hand, formal sector activities are concentrated more in urban areas (30.8%) than in rural areas (23.9%).

This was how we identified 250 organisations with significant steady financial performance in the first round. Of these, 50 organisations agreed to conduct the labour market survey with their employees. However, due to limitations in the actual participation of certain organisations, a second round of selection was held in which 120 organisations were identified and 53 agreed to take part. In all, 103 organisations covering more than 12 sectors were selected for interviews of employees (Annex 2 has a complete list of organisations).

The team then selected eight to ten employees in each final organisation to participate in the interview. This brought the total to 828 people in the three cities[8].

We wanted to ensure we had covered enough geographical area to capture variations in sector and employee salary. So within each region we set a target of 350 employees and made lists of those at middle (20 to 35 years old) and senior positions (36 to 45 years).

We then selected a sample of employees by following a systematic random sampling design to identify those meeting the age and position criteria. In order to cover for people who did not respond, we worked on a random replacement employee using the same mechanism. Tables 3.1 and 3.2 show how our sample breaks down.

Table 3.1: Sectors covered in employee[9] interviews

Sector	Number of respondents	Percentage of the total sample
Banks & Insurance	186	22
IT & Telecom	141	17
Services	110	13
Oil, Gas & Energy	82	10
Food & Personal Goods	67	8
Media & Advertising	43	5
Textile	38	5
Fertiliser	35	4
Cement	28	3
Pharmaceutical	24	3
Automobiles	19	2
Miscellaneous	55	7
Total	828	100

8 We believe it is fair to assume that the top tier schools graduates in our sample represent the great majority of their cohort when it comes to finding relatively well-paid jobs. Conversely, their counterparts from the government or private low tier schools probably represent a very small minority with the rest being unable to access similar job opportunities in the formal sector.

9 Majority of the employees in the sample were from the private sector (92%) than government sector employees (8%).

Table 3.2: Number of organisations and employees interviewed for the survey

City	Number of organisations	Gender		
		Male	Female	Total
Islamabad	29	221	33	254 (31%)
Lahore	41	256	40	296 (36%)
Karachi	33	225	53	278 (34%)
Total	103	702	126	828 (100%)

The sample contained a considerably higher number of men (85%) compared to women (15%). We found that our sample had more women in Karachi than in Lahore and Islamabad. We tried to ensure greater participation from women, however, owing to reluctance from organisations and the employees we could not improve on the proportion of women in the sample. It should, however, be noted that the proportion of women in our sample is higher than women's employment rates in services and industrial sectors in Pakistan. The share of female labour force is 13.8% in the services sector and 11.3% in the industrial sector (Pakistan Employment Trends, 2013 and Labour Force Survey 2014-15).

We used a quantitative employee questionnaire for the study. In order to develop the questionnaire we interviewed several human resource professionals and incorporated their feedback. The questionnaire was developed in English, however, the interviews were conducted both in English and Urdu depending on the preferences of the responders.

The questionnaire (Annex 3[10]) was divided into three parts:

1. An employee's personal information (basic profile, parents and sibling education, home factors relating to learning resources and so on)
2. An employee's education history from pre-primary to tertiary (school-related indicators by level, such as language, quality and type of school attended)
3. Employment history (acquisition of first job, experience, starting salary and current salary range)

The data was collected in collaboration with SAHE's partners in Islamabad and Karachi because of the complexities in coordinating with organisations, hiring field teams, managing logistics and ensuring quality. The data collection team consisted of 12 field researchers and three regional quality assurance officers. The field researchers were chosen for their experience in the research and education sector. Many of them have been working in education for over five years and have experience in the city they were expected to work in. They were trained for one day in Lahore, where they were given a detailed overview of research objectives, research methods and ethics and a detailed briefing on the questionnaire. Interview practice sessions and preparation of field data collection plans were also overseen during the training session.

The study consists of a simple descriptive analysis by disaggregating or separating data according to variables such as school type, school level, language and so on. At the same time, it also uses simple regression models to explain nuances in the data. We took a multi-level approach in which an earnings framework—that describes the starting salary of individuals as a function of the particular school type attended and important covariates—is adjusted for individual employee characteristics.

10 Annex 3 is provided in the online version only.

Our analysis is multi-faceted but takes as its central fixed point a person's starting salary. This formula necessitated regression analysis, which means we statistically estimated the relationship between starting salary and variables such as the type of school the employee attended, what kind of home support they got as a child, the level of school support they had and how much they had been exposed to language(s).

And so, we began by pegging starting salary to the main variable of type of school. As we dug deeper we combined the differences in salary as influenced by other variables: type of graduation exams at secondary and higher secondary levels[11] and gender. Additionally, we tracked the mobility of students from primary to secondary levels. The impact of the exposure to school types on starting salary[12] has been analysed and current salary is used contextually.

In essence, this framework includes specific indicators of home support, school support and exposure to language at four school levels (pre-primary, primary, secondary and higher secondary). Starting salary has been used to demonstrate employment outcomes.

Given that variations in school support are likely to account for differences in earning, we also created a school support index. It includes key school-related factors such as type of school attended, whether school was in a multi-grade or non-multi-grade environment at primary as well as secondary level, student enrolment per class during secondary grades, availability of essential facilities such as water and electricity and the type of graduation exams.

We also tabulated a household characteristics index which informed our analyses on home support. This includes measures of parental schooling, sibling schooling, support for schoolwork, parental education, access to reading material, type of reading material, access to general electronic media and so on. The study deliberately did not use household income as we felt that the current household income may be a poor indicator of the income at the time the schooling decision was made.

This study has also collected details about exposure to English at school and home. At school, exposure to languages is acquired from inputs such as language of textbooks and medium of instruction and communication. At home, exposure is acquired through language of communication with parents and siblings, peers and learning material available at home. The study has formulated an index by combining exposure to language at school as well as home.

A total of 828 employees were covered across the three selected cities. The number of responses varies across questions. As expected, some of the interviewees did not respond to all the questions. Particularly in four cases partial response has meant that a number of tables show only 824 respondents.

Based on the data acquired for home support, school support and exposure to languages, we constructed an index for the purpose of comparability. The higher score suggests greater significance. The following table shows the score range for various factors of analysis (Table 3.3).

11 O' Levels versus Matric at secondary level and A' Levels versus Intermediate at higher secondary level.
12 The study has taken starting salary as a schooling effect.

Table 3.3: Score range for school and home related factors

Factor	Index score range	
	Minimum	Maximum
School support	0	140
Home support	0	74
Exposure to English	0	44

3.1 Permissions and confidentiality

Before we visited the selected organisations, we obtained official permission from the head offices or regional offices. The study team wrote letters and made personal visits to each organisation head. Field researchers were given a copy of a signed letter of permission to carry with them in the field. Employers and employees were given an overview of the objectives of the study and their permission was sought before the interviews. Confidentiality of the responses was ensured at all levels throughout the study.

3.2 Limitations of the study

- Our goal was to identify diverse organisations for the study. However not all organisations we mapped made their staff available for interviews. Furthermore, among those who had given permission, some organisations were reluctant to spare their employees for individual interviews for an adequate length of time during working hours. Other organisations spared fewer employees than we needed.
- Despite making a considerable effort to comprehensively cover men and women in the employee-based survey, relatively lower numbers of women were to be found in the organisations that we accessed.
- The study does not take into account the differences in ability which may exist among individuals, therefore enabling some people to reach a higher salary level than their peers.
- It should be kept in mind that the findings in this study are indicative rather than representative. A study that is representative of the entire formal sector universe in Pakistan would require a far larger sample.
- There is usually a recall bias among respondents with regard to location, fees, quality of schooling etc. Recall bias means that people do not always have a complete picture or memory of past events when they are self-reporting in the form of interviews.
- The study is not exhaustive. A large, nationally representative, household survey could yield greater insights in terms of education and employability.

4. What We Found

Prior to conducting this research study, the team did have some hypotheses about what predicts earning capacity. We did expect schools to have an impact on the kinds of jobs people ended up with, their starting salaries as well as career progression. However we sought to understand better where people were coming from into middle and higher management. We wanted to understand which type of school and which other factors had an impact on salary. We also wanted to explore whether private low tier schools, a relatively new phenomenon in our society, were working in some way to boost higher social and economic mobility for lower to middle income groups compared to government schools.

We carried out an analysis of school types by starting salary and level. Further, we tracked mobility of students across school types from primary to secondary levels. We also used regression analysis to determine the effects of: school type (government low tier and private low tier schools, government top tier, private mid tier and private top tier schools) attended, home support, school support and exposure to English on starting salary. Finally, we relied on employee perception regarding key factors that contributed to acquiring the first job.

To some extent the results were what we expected, the most prominent being that attending private top tier schools has a large impact on salary. We had assumed this much as these schools are considered to provide better quality services in an array of key areas with exposure to English tending to be particularly decisive. Their decision to prepare and make their students sit, internationally recognised O' and A' Levels exams is also a factor that affects salary compared to other schools in Pakistan that are part of the local Matriculation/Intermediate stream. And finally, but not exclusively, it is a matter of economics; richer households have more of a choice when it comes to the type of school they can afford and the level and quality of support they can provide their children at home. This translates into being able to afford private top tier schools.

But in many instances the study findings also surprised us. The sizes of the effects, attending a private top tier school, exposure to English and coming from O' and A' Levels stream, had on starting salary were greater than we expected.

Contrary to popular perception in Pakistan, our sample indicated that there was not much of a difference between starting salaries of people who came from private low tier schools and government low tier schools.

We have broken down the findings of the survey in the rest of this chapter by presenting the observations and discussions along with the data we collected that led to the conclusions. Below we provide a more detailed discussion on the factors that affect starting salary.

4.1 The top tier school effect

The private top tier school advantage speaks loud and clear, manifesting itself in a significant starting salary advantage as we discovered in our interviews (Table 4.1)[13]. The mean starting real salary is directly proportionate to the number of years spent in a private top tier school. The more the number of years, the higher your salary. This applies whether you went to either one private top tier school or more than one starting from pre-primary and going up to the higher secondary level. The data also shows that with an increase in exposure to private top tier schooling, the salary gap with government low tier schooling widens to over 100%. Employees who went to private top tier schools have a substantively higher mean starting real salary for each level of education compared to people who went to any other type of schools.

Table 4.1: Mean starting real salary by school type and education level

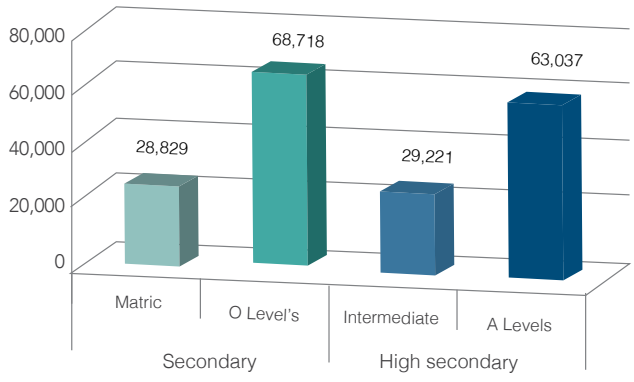
School type	Pre-primary	Primary	Secondary	Higher secondary
Government low tier	24,642	25,653	25,615	27,720
Government top tier	34,867	30,412	31,156	33,819
Private low tier	26,591	27,609	28,419	32,549
Private mid tier	28,741	30,958	30,543	33,110
Private top tier	50,090	48,906	49,332	55,880

At the other end of the spectrum, however, there is a small difference in the starting salary of people who went to government low tier and private low tier schools. This throws into question the belief that private low tier schools are providing much better quality education compared to government schools. We feel this may require closer scrutiny in the light of these findings.

When exploring further the private top tier effect, we find one major difference between private top tier and other types of schools: virtually all private top tier schools make their students sit for O' and A' Levels exams.

The employees said they had appeared in four types graduation exams at secondary and higher secondary level: Matriculation, O' Levels, Intermediate/higher secondary and A' Levels. A majority has sat the local Matriculation (92%) exams and only a small percentage the O' Levels (7.4%). Similarly, nearly 90% have done their Intermediate but only 8.1% the A' Levels. These examinations matter the most by way of starting salary as Figure 4.1 shows below.

Figure 4.1: Initial mean salary by examination type at secondary and higher secondary level



13 Complete table of results – Annex 4, available in the online version.

The average salary for employees who did their O' Levels is more than twice of those who sat for Matric exams from a local examination board. The same is true of employees in our sample who sat the A' Levels versus the Intermediate. Here we see further accentuation of the private top tier effect as these examination types are emblematic of the exclusive private top tier schools. The marginal difference in the starting salary of employees who had the O' Levels versus the A' Levels came down to other factors such as exposure to English, overall school support and home support.

Private top tier schools offer a package of services that clearly has a significant impact on starting salaries and career progression. They offer better infrastructure and other facilities, the quality of teaching/learning is better and they ensure their students are comfortable in English. It is generally assumed that their students also benefit to a greater degree from peer learning and from becoming a part of social networks whose support potentially enhances employability in later years.

An overwhelming majority of these schools charge steep tuition and other fees and are accessible to only the upper middle and higher income groups.

Along with school support, the upper middle and higher income groups are also ones who are able to provide more home support for children. Parents are likely to have higher levels of education, siblings are likely to be educated as well, there are likely to be more books around in the house, expectations of parents regarding educational attainment are also likely to be higher and these households would also be able to secure better quality tuition services if and when required.

Attending a top tier school has many endowments, not all of which could be captured within the framework of the present study. However, going by the respondents' own perception, competencies acquired at educational institutions matter (Table 4.2). Of those who went to either a government or a private top tier school, 45% believe that competencies acquired in school matter in the job as opposed to 26% of those who never went to a top tier school. This suggests that the market operates on the assumption that top tier schools do a better job of imparting required skills and competencies.

Table 4.2: Employee perceptions about competencies relevant to their first job

	Attended a government or private top tier school		
	No	Yes	Overall
	%	%	%
Competencies acquired in schools	26.50	45.35	34.63
Competencies acquired in tertiary education	46.25	59.60	52.01
Relationship with friends and peers	34.90	44.07	38.86
First job relevance with field of study	47.32	52.54	49.57

Almost 60% stated that competencies acquired at the tertiary level matter in the job. Overall, the tertiary level was perceived to matter more for all employees who went to all school types. Clearly, though, the path to a good tertiary education is paved through good schooling and school outcomes, which further strengthens the perception of the top tier advantage.

When perceptions are compared to actual salaries in the first job, a relationship appears (Table 4.3). Those who believe competencies acquired at school matter have higher starting salaries than those who responded as either "somewhat" or "very little".

Table 4.3: Employee responses about competencies relevant to their first job

Competencies acquired	Response	Salary*
In schools	To great extent	Rs 38,400
	Somewhat	Rs 28,566
	Very little/not at all	Rs 28,381
In tertiary education	To great extent	Rs 33,001
	Somewhat	Rs 33,445
	Very little/not at all	Rs 24,610

* Mean starting salary in Pakistani rupees adjusted for 2015 prices using a GDP deflator

4.2 Key factors determining employment outcomes

First we explored the impact of different factors on starting salary, irrespective of school type. We did this by classifying the score for each set of factors into low, mid and high rank categories. We found that the three factors that appear to matter the most are home support, school support and exposure to English language (Table 4.4). The three factors reported by individuals were accordingly ranked and those with high levels of each received a higher starting salary. Exposure to English language appears as the most significant factor.

Table 4.4: Impact of different factors on mean starting real salary

Factor	Rank	Mean starting salary (in Rs)*
Home support	Low	Rs 28,769
	Mid	Rs 28,809
	High	Rs 37,679
School Support	Low	Rs 28,773
	Mid	Rs 27,983
	High	Rs 38,066
Exposure to English	Low	Rs 25,552
	Mid	Rs 29,602
	High	Rs 40,639

* Mean starting salary in rupees per month adjusted for 2015 prices using a GDP deflator

Then we explored the impact of each of these factors by school type attended. Private top tier schools score the highest for each of the three critical factors for high starting salary: home support, school support and exposure to English. These are followed by government top tier and private mid tier schools, which rank fairly high on all three factors. Unsurprisingly, government low tier schools rank the lowest on all three factors. This points to the gulf between government low tier on the one hand and private top tier on the other.

Table 4.5: Ranking of major factors by school type

Factor	Rank	School type				
		Govt. low tier	Govt. top tier	Private low tier	Private mid tier	Private top tier
		%	%	%	%	%
Home support	Low	43	20.3	36.7	23.2	15.5
	Mid	38.1	38.3	41	39.4	30
	High	18.8	41.4	22.3	37.4	54.5
Total		100.0	100.0	100.0	100.0	100.0
School support	Low	47.2	14.5	23.7	20.2	8.3
	Mid	36.5	37.4	39.6	37.7	22.3
	High	16.4	48.1	36.7	42.1	69.4
Total		100.0	100.0	100.0	100.0	100.0
Exposure to English	Low	64.1	19.7	48.9	30.1	5.5
	Mid	22.1	36.5	30.9	29	13.8
	High	13.8	43.8	20.1	40.9	80.6
Total		100.0	100.0	100.0	100.0	100.0

4.2.1 The language effect: the importance of English

The importance of learning English for better and higher paying jobs and better careers cannot be overemphasised. Most parents do, in fact, realise this in Pakistan and their impression is borne out amply by our analysis.

We found that this matters for all types of schools. This is and has been one of the selling points of private schools who understand the education market well. Many provinces have also, it seems, leaned towards this thinking. They have, every so often, announced English as the medium of instruction in government schools as well.

Nevertheless, exposure to English language at private low tier schools is higher than at government low tier schools. And while we had expected that this would have translated into better job outcomes we were surprised to find that the data indicated that this is not the case. For now, we can only speculate that exposure to English at private low tier schools does not come as advertised, however, this merits further investigation.

Clearly knowledge of English matters and it is an important investment for parents and children to make. But the issue of learning English as a language is usually mixed up with using English as a medium of instruction. Children do not learn English as a language if it is simply used as a medium of instruction. Learning English as a language requires presence of teachers who are trained in teaching English and that too as a second language. Neither the government nor the private low tier schools have the number of teachers trained to teach English as a second or foreign language. Given the small supply of such teachers in Pakistan and the salary that such schools offer, it is not likely they will. The top tier schools can and do hire teachers who are proficient in English.

Higher income households are likely to offer advantages to their children even here too as access to books in English, video games, movies and other relevant material would be greater. It might also be

the case that in such higher income households there is a higher usage of English. Children in such households are also more likely to converse with their peers in English.

4.2.2 The family effect: support at home counts

It is certainly an advantage to be born into a higher income household. Our statistical sample suggests that children who get more home support, are able to enrol in better schools and have access to better quality teaching, better infrastructure, exposure to English and opportunities for appearing for O' and A' Level exams. This facilitates entry into higher paying jobs and a faster career progression. Home support measured up stronger for the employees who went to private top tier schools and to some extent for government top tier and private mid tier schools.

If you belong to a lower-middle income or poor household, you are likely to get less support at home, and are likely to be enrolled in a low tier school whether private or government. Learning English will most likely be a struggle and your starting salary will have more chances of being considerably lower than that of your peers from top tier schools.

4.3 Mobility of students: no way up

In this study we also found a corollary to the top tier school effect; overwhelming majority of interviewees enrolled in government low tier schools tended not to be able to move away from the low tier school experience.

Consider the data presented in Table 4.6 which shows the mobility of students between primary (grades 1 to 5) and secondary (grades 6 to 10) schools.

Table 4.6: Student mobility between primary and secondary grades

School type attended at secondary level	School type attended at primary level					Total
	Government low tier	Government top tier	Private low tier	Private mid tier	Private top tier	
Government low tier	86.20%	8.50%	33.90%	21.40%	5.00%	40.40%
Government top tier	5.10%	72.00%	6.50%	5.80%	5.70%	12.30%
Private low tier	0.40%	-	32.30%	0.40%	0.70%	2.90%
Private mid tier	6.20%	12.20%	25.80%	66.30%	8.60%	26.90%
Private top tier	2.20%	7.30%	1.60%	6.20%	80.00%	17.50%

We found there was the least movement by employees who had been enrolled in the government low tier category. Over 30% of private low tier school students moved to the government low tier category. In other words, nearly two-thirds of the sample across the two categories remained at the bottom of the pyramid. One-third moved to the private mid tier and government top tier schools.

It is clear from this table that upward mobility for those at the base of pyramid is not an easy preposition.

If you are put in a private top tier school, chances are your entire schooling career will pass in this stream and the same applies for the low-end schools. The data shows that on average very few students enrolled in government low tier schools are able to escape the trap and move to top tier schools that provide better career opportunities.

4.4 Widening disparity across decades

It is worth mentioning that the data from our sample also allowed us to observe the deepening income divide across two decades between government and private schools. Average starting salaries for graduates of all types of schools except private top tier decreased from 2000s to 2010s in real terms. This means that the gulf between return to private top tier schools and the rest can be observed to have further increased. It indicates an increasing income gap between private top tier graduates and the rest.

Table 4.7: Mean starting real salary by school type, decade and level (primary & secondary only)

School type*	Mean starting real salary at first job* (Rs.)	
	2000s	2010s
Government low tier	26,991	22,093
Government top tier	32,233	27,233
Private low tier	30,519	24,048
Private mid tier	31,331	24,544
Private top tier	48,547	49,272

* Starting salary (Rs/month), adjusted for 2015 prices using a GDP deflator

4.5 Low tier limitations

Our sample of success stories from middle and higher management did have a significant number of people who had attended government or private low tier schools. Going to these schools does not necessarily close the doors to socio-economic mobility. But, in all likelihood a very small percentage of children who go to these schools are able to do as well as the individuals in our sample.

In our sample around 25% of respondents had attended an elite school (private top tier category) at least at one level during pre-primary to higher secondary level and almost 7% of all respondents had appeared for O/A levels. The National Education Census (2005) shows only 270 schools out of 203,000 schools overall were affiliated with the British System (O/A levels). Clearly, there is an over representation of people from elite schools in our sample. We can confidently hypothesise that this must be true for middle and senior management jobs in general.

Private low tier schools have expanded rapidly over the last couple of decades. In fact recent expansions in enrolment that we have seen in Pakistan can largely be attributed to the expansion in these schools as governments have not made many new schools over this period nor have they had large gains in enrolment in existing schools. The common perception is that private low tier schools provide a better quality of education than government low tier schools. There is some evidence (ASER and LEAPS for example), quite robust, that shows that children from private low tier schools, on average, do score higher on tests than children from government schools. This evidence holds even when parental income and some measurable variables on background differences are controlled for. But the same evidence also shows that even though children from private low tier schools might do better than children from government low tier schools, the differences between them are not very large and, when compared with what children should know in their respective grades, even children from private low tier schools fall behind significantly. The quality of teaching and learning in private low tier schools is not very good.

In this study, we wanted to see if private low tier schools can lead to better opportunities for socio-economic mobility for children from lower income groups compared to government low tier schools. We were surprised to see that there were only marginal differences in average starting salary of interviewees who had gone to private low tier schools compared to government low tier schools. A pertinent question that could then be asked is should parents choose to pay tuition fees at private low tier schools or send their children to functional government schools? There might be other reasons like distance to school, better reputation in society, better discipline, availability of instruction of other subjects, or better ideological fit for preferring private low tier schools, but our sample did not show salary differentials to justify the choice.

4.6 The gender effect

Though only 15% of our interviewees were women, we did see an interesting pattern: there was no major difference in the starting salary of men and women in our sample. In fact women on average reported marginally higher first salaries than men (Table 4.8). It is critical to remember, however, that our sample is not nearly large enough to suggest that issues of income differential based on gender do not exist in the market. Secondly, the women included in the sample are employed in high paying management jobs and on average reported better home support, school support and exposure to English than men (Table 4.9). This suggests that women in our sample are from more privileged backgrounds than men which may explain marginally higher first salaries.

Table 4.8: Mean starting real salary for men and women (Rs/month)

	Employee gender		Average
	Male	Female	
Salary* (Rs.)	31,721	32,450	31,830
Number	698	126	824

*Mean starting salary (rupees/month) adjusted for 2015 prices using a GDP deflator

Table 4.9: Gender and key factors

Factor		Gender	
		Male	Female
Home support	Score	40.4	45.1
	Number	698	126
School support	Score	101.6	108.1
	Number	698	126
Exposure to English	Score	12.0	19.9
	Number	698	126

4.7 Current salary comparison

Table 4.10 explains the relationship between mean current salary and overall years of experience. Employees who have attended private top tier schools on average report highest current salary. The data shows that graduates of private top tier schools progress at a faster rate than graduates of other schools.

Table 4.10: Mean starting real salary by school type and level (pre-primary to higher secondary)

School type	Govt. low tier	Govt. top tier	Private low tier	Private mid tier	Private top tier
Mean starting salary (Rs/month)*	26,344	32,376	27,733	30,600	50,585
Mean current salary (Rs/month)*	110,675	106,759	77,698	92,374	138,710
Mean experience (In years)	12.29	9.43	8.02	8.63	9.67

* Salary adjusted for 2015 prices using a GDP deflator

4.8 Regression analysis: confirming school effect on salary

This study also explores the correlation between dependent variable (starting salary of an employee) and type of school attended and a number of other variables that have to do with school support, home support and exposure to English. An Ordinary Least Square (OLS) regression analysis approach has been employed that allows us to break down the difference in starting salary with respect to each of the variables mentioned. There is no causality implications here and all it is doing is explaining the variance in the dependent variable with independent variables.

The purpose of using OLS regression is to allow us to get estimates of coefficients which tell us on average how much variation is associated with each of the independent variables. A large coefficient that has statistical significance allows us to say with more confidence that a particular variable is important and needs further investigation. From the analysis above we know that there are significant differences in mean starting real salary dependent on school type and other variables. The regression analysis that follows serves to deepen our insight into understanding these differences.

4.8.1 Model 1: exploring private top tier school advantage

Model 1 explores the relationship between starting salary, type of school attended (private top tier) and important covariates such as school support, household characteristics and exposure to English. Initial analysis of the data indicates that the private top tier school is substantially ahead of the rest in terms of starting salary of an employee. With regard to the private top tier schools, the variable with the strongest statistical significance is the school type itself (significant at 99%). The model indicates an increase of Rs. 6,528 in the starting salary for each successive level of private top tier school(s) attended from the pre-primary to higher secondary. Exposure to English language and school support are also positively correlated with starting salary.

4.8.2 Models 2 & 3: exploring government and private low tier school disadvantage

Models 2 & 3 explore the relationship between starting salary, type of school attended (government and private low tier) and important covariates such as school support, home support and exposure to English. The regression analysis shows individuals who only attended private or government low tier schools (excludes those who have attended private top tier and private mid tier at any level) seem to be at a disadvantage in terms of securing better starting salaries for their students. No significant difference could be discerned in the initial employment opportunities of private and government low tier schools. The results show a negative correlation of government and private low tier schools with starting salary.

5. What Needs To Be Done

Education is a fundamental right that has to ensure equitable opportunities of social mobility to all. The state has to determine benchmarks of quality and enforce them uniformly, irrespective, of the delivery model. This is not a derivation from random, alien norms. Rather, it is a constitutional obligation for the Pakistani state as detailed in Article 25-A of the constitution. To undertake this obligation, government institutions responsible for education will have to re-evaluate the quantum of financial allocations, the management models and their current capacity to ensure delivery of quality education to all children.

In the context of equity and quality the state needs to improve the quality of government schools and provide a regulatory framework to ensure that private schools also improve their quality. Among the following recommendations for achieving this twin objective, most are cross-cutting.

Government needs to collect and report data on private schools and on learning outcomes and quality. All official government data on education currently lacks any information about learning outcomes and quality. The national census for schools collected by the provinces and collated nationally by AEPAM only counts government schools, ignoring all private schools. Worse still, most official data focuses on school infrastructure and facilities only. There can be no expectation of improved learning outcomes, nor of meeting SDG 4 without robust official government data on private schools, learning outcomes and on quality.

The quality gap between the top tier and the rest has to be minimised. The government has to re-evaluate its approach to quality education in terms of priority and direction. Unless massive investments of time and other resources go into improving quality of teachers, learning material, assessments and research, the education gap and consequently the socio-economic inequities will continue to accentuate. Filling up schools with children is not enough.

Quality needs to be based on minimum standards and not on real or perceived relative differences across school types. An overarching regime of minimum standards needs to be established which applies to both public and private schools.

The first priority of government resources should be the existing government low tier schools. As the quality of these schools improves many of the private low tier schools will either have to improve or be marketed out. In any case, a government structure that does not have the capacity to deliver quality in its own schools will also fail to regulate the education sector, overall.

English language learning path requires an appreciation of the context and improved supply of qualified teachers. The road to better English language proficiency cannot be laid through simple expansion of exposure at school by teaching the language from the first grade (SAHE, 2013). The path to language learning has to meet the circumstances of the child. What is needed then is an appropriate language policy that helps the child learn. Given the high economic and social demand for English, the state will have to invest in creating a larger supply of trained teachers who can teach English as a second language (PEELI, 2013).

Not least, policy must focus on improving assessment systems. In some ways, assessment drives quality, simply because in large measures teachers teach and students learn to take the test. An assessment mechanism that tests only for memory will discourage the teaching and learning of higher order skills because key stakeholders such as students, teachers and parents will always accord the highest priority to passing the exam. Hence examination reforms should be very close to the top of reform agenda to ensure improvement in the quality of teaching and learning in our mainstream schools in both the government as well as the private sector (SAHE, 2015).

References

Abbas, Q. and Foreman-Peck, J. (2007). *The Mincer Human Capital Model in Pakistan: Implications for Education Policy.* Working Paper Series Number 24, Cardiff Business School, United Kingdom Antman,

Alderman, H., Orazem, Peter F. and Paterno, Elizabeth M. (2001). *School Quality, School Cost, and the Public/Private School Choices of Low-Income Households in Pakistan.* Journal of Human Resources 36(spring 2001):304-326.

Andrabi, T., Das, J., Khawaja, I., Vishwanath, T., and Zajonc, T., (2007), Learning and Educational Achievements in Punjab Schools (LEAPS): Insights to inform the education policy debate. Retrieved from http://www.leapsproject.org/assets/publications/leaps_report_execsummary.pdf

Arrow, Kenneth J. (1973). *Higher Education as a Filter.* Journal of Public Economics 2:193-216.

Ashraf, J. (2011). New Evidence On Rates Of Return To Education In Pakistan", Global Journal Of Business Research, Vol. 5 (3)

Ashraf, J. Ashraf, B. (1993). An Analysis of Male-Female Earnings Differential in Pakistan" The Pakistan Development Review Vol. 32 (4), pp. 895-904.

Aslam, M. (2006), Rates of Return to Education by Gender in Pakistan, Global Poverty Research Group. Retrieved from http://www.gprg.org/pubs/workingpapers/pdfs/gprg-wps-064.pdf

Aslam, M., Bari, F. and Kingdon, G. (2010). *Returns to schooling, ability and skills.* Education Economics 1-35.

Azam, M., Chin, A. & Prakash, N. (2010). *The Returns to English Language Skills in India.* Centre for Research and Analysis of Migration Discussion Paper Series, CDP No. 02/10, Department of Economics, University College London.

Becker G. (1964). *Human Capital*. 2nd Edition, Columbia University Press, New York.

Behrman, J., Khan, S., Ross, D. and Sabot R. (1997). *School quality and cognitive achievement production: A case study for rural Pakistan*. Economics of Education Review, vol. 16(2): 127-142.

Bhandari, L. &Bordoloi, M. (2006). *Income Differentials and Returns to Education*. Economic and Political Weekly September 9, 2006, 3893-3900.

Card, David and Alan B. Krueger. (1992a). *School Quality and Black-White Relative Earnings: A Direct Assessment.* Quarterly Journal of Economics: 151-200.

Card, D. (1995). Earnings, *Schooling, and Ability Revisited*. In Research in Labour Economics, Volume 14, ed. Solomon Polachek. Greenwich, CT: JAI Press.

Card, David and Alan B. Krueger. (1992b). *Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States. Journal of Political Economy,* 1-40.

Card, David and Alan B. Krueger. (1996). *The economic return of school quality.* In Assessing educational practices: The contribution of economics eds William Becker and William Baumol, 161-181. (New York Russell Sage).

Card, David and Alan B. Krueger. (1998). *School Resources and Student Outcomes.* Annals of the American Academy of Political and Social Sciences 559, 39-51.

Chiswick, B. (1973). *Schooling, Screening, and Income*. In Does College Matter? ed.Lewis Solmon and Paul Taubman. New York: Academic Press.

Coleman, James S. et al. (1966). *Equality of Educational Opportunity.* Washington, DC: U.S. Government Printing Office.

Corominas, E., Saurina, C. and Villar, E. (2010). *The match between university education and graduate labour market outcomes (Education-Job Match)*: An analysis of three graduate cohorts in Catalonia. Barcelona

Durrant, V. (1998). Community Influences on Schooling and Work Activities of Youth in Pakistan. The Pakistan Development Review, Vol. 37(4), part II, pp. 915-937.

Hanushek, Eric A. (1986). *The Economics of Schooling: Production and Efficiency in Public Schools.* Journal of Economic Literature 24, 1141-77.

Hedges, Larry V. and W. Stock. (1983). *The Effects of Class Size: An Examination of Rival Hypotheses*. American Educational Research Journal, 20, 63-65.

Hedges, Larry V., Richard Laine, and Greenwald R. (1994). *Does Money Matter: A Meta-Analysis of Studies of the Effects of Differential School Inputs on Student Outcomes*.Educational Researcher, 23: 5-14.

Jamal, H, Toor, I. Ashraf and Khan F. Sami. (2003). *Private Returns to Education: Evidence for Pakistan.* Research Report No.50, Social Policy and Development centre, Karachi

Khan, A. J. (2008). *Pay Offs to Schooling and Returns to Credentials.* Social Policy and Development centre, Karachi Research Report No.75.

Khan, F. S. and Toor, I. A. (2003). *Changes in Returns to Education in Pakistan: 1990-2002.* The Lahore Journal of Economics, Vol. 8 (2)

Kingdon, G.G. & Söderbom, M. (2007). Education, Skills and Labor Market Outcomes: Evidence from Pakistan, University of Oxford (Mimeo).

Labour Force Survey (2014-15), Pakistan Bureau of Statistics, Statistics Division, Government of Pakistan, Islamabad

Lange, F. and Robert T. (2006). *The Social Returns to Education and Human Capital.* In Handbook of the Economics of Education, Volume 1, ed. Eric Hanushek and Finis Welch. Amsterdam: North-Holland.

Miller, L. T., Middaugh, C., & Broniewicz, T. (2014). *Outcomes of Doctoral Program Graduates: Pilot Test of a Strategy to Measure Outcomes Using Exit and Alumni Surveys*. Toronto: Higher Education Quality Council of Ontario.

Nasir, Zafar M. (1998). *Determinants of Personal Earnings in Pakistan, Findings from the Labour Force Survey 1993-94*. The Pakistan Development Review, Vol. 37 (3), pp. 251-274.

Nasir, Z. and Nazli, H. (2000). *Education and Earnings in Pakistan*. Pakistan Institute of Development Economics. Research Report No. 177.

National Education Census. (2005). Pakistan Bureau of Statistics. Statistics House, 21-Mauve Area, G-9/1, Islamabad, Pakistan

Nazli, H. (2004). *The Effect of Education, Experience and Occupation on Earnings: Evidence from Pakistan*. The Lahore Journal of Economics Vol. 9 (2)

Pakistan Social and Living Standards Measurement Survey (PSLMS). (2013-14). Pakistan Bureau of Statistics, Government of Pakistan. Islamabad.

Pakistan Employment Trends. (2013). Pakistan Bureau of Statistics, Statistics Division, Government of Pakistan

Punjab Education and English Language Initiative (PEELI). (2013). *Can English Medium Education Work in Pakistan? Lessons from Punjab* British Council: Pakistan.

Psacharopoulos, G. and H. A. Patrinos. (2004). *Returns to Investment in Education: A Further Update*. Education Economics, Vol. 12(2).

Qureshi, Madeeha G. (2012). *The Gender Differences in School Enrolment and Returns to Education in Pakistan*. Pakistan Institute of Development Economics, Islamabad PIDE Working Paper No. 84.

Rahman, T. (2004). *Denizens of Alien Worlds: A Study of Education, Inequality and Polarization in Pakistan.* Oxford University Press.

Shabbir, T. and Khan, H. Aliya (1991). *Mincerian Earning Function for Pakistan: A Regional Analysis.* Pakistan Economic and Social Review, Vol. 29 (1), pp. 1-18.

Society for the Advancement of Education (SAHE). (2013). *Policy & Practice: Teaching and Learning in English in Punjab Schools. Lahore: SAHE.*

Society for the Advancement of Education (SAHE). (2015). Assessment Systems in Pakistan *Considerations of quality, effectiveness and use. Education Monitor. Lahore: SAHE.*

Spence, M. (1973). *Job Market Signaling.* Quarterly Journal of Economics 87: 355-374.

Stiglitz, Joseph E. (1975). *The Theory of 'Screening,' Education, and the Distribution of Income.* American Economic Review 65: 283-300.

Weiss, A. (1983). *A Sorting-cum-Learning Model of Education.* Journal of Political Economy 91: 420-442.

ANNEX 1: Working group

Name	Designation and organisation
Abbas Rashid	Executive Director, Society for the Advancement of Education (SAHE)
Abdus Sami Khan	SRS
Faisal Bari	Director and Senior Research Fellow, Institute of Development and Economic Alternatives (IDEAS)
Minhaj ul Haque	Director, Evidology Pvt. Limited
Muhammad Azhar	Program Manager, Society for the Advancement of Education (SAHE)
Ayesha A. Awan	Senior Education Advisor, Campaign for Quality Education
Ali Khizar Aslam	Social Development Consultant

ANNEX 2: List of organisations by city

S. No.	Name of organisation	City
1	Army Welfare Trust (AWT)	Islamabad
2	Asian Development Bank	Islamabad
3	Askari Bank Limited	Islamabad
4	Askari Cement Limited	Islamabad
5	Attock Petroleum Limited	Islamabad
6	Attock Refinery Limited	Islamabad
7	Bank Alfalah Limited	Islamabad
8	Celeros Networks Pakistan	Islamabad
9	CITE Architecture planning and design group	Islamabad
10	Etimad (Pvt.) Ltd	Islamabad
11	Fauji Cement Company Limited	Islamabad
12	Fauji Fertilizer Company Limited	Islamabad
13	IB Employees Cooperative Housing Society (IBECHS)	Islamabad
14	Imperial Construction Company (ICC)	Islamabad
15	IGI Insurance Limited	Islamabad
16	International Microsoft Telecommunication Company Limited (IMTCL)	Islamabad
17	LMKT Software Solutions	Islamabad
18	Meezan Bank Limited	Islamabad
19	Multilynx Softwares	Islamabad
20	NIB Bank Limited	Islamabad
21	National University of Science and Technology (NUST)	Islamabad
22	Oil and Gas Development Company, Pakistan	Islamabad
23	Osterreichische Mineral Verwalting (OMV) Group	Islamabad
24	Pakistan Telecommunication Company Limited	Islamabad
25	Searle Pharmaceutical Pakistan	Islamabad
26	Technical Associates	Islamabad
27	Telenor Pakistan	Islamabad
28	Al Raheem Textiles	Karachi
29	Arif Habib Corporation	Karachi
30	Artistic Millionaire	Karachi
31	Bank Al Habib Limited	Karachi
32	Dr. Essa Laboratory and Diagnostic Centre	Karachi

S. No.	Name of organisation	City
33	Engro Fertilizer Pakistan	Karachi
34	Faisal Asset Management	Karachi
35	Genix Pharma Pakistan	Karachi
36	Getz Pharma International	Karachi
37	Habib Metropolitan Bank Limited	Karachi
38	Inbox Business Technology	Karachi
39	Indus Motors Pakistan	Karachi
40	International Steel Company Pakistan	Karachi
41	J. Walter Thompson Pakistan	Karachi
42	Karachi Electric Supply Company (KESC)	Karachi
43	Kaymu Pakistan	Karachi
44	Lucky Cement Pakistan	Karachi
45	Mobilink Pakistan	Karachi
46	Mobitizing Advertising Pakistan	Karachi
47	National Bank of Pakistan	Karachi
48	Naveena Exports	Karachi
49	Qubee Internet	Karachi
50	Rhoed and Shwarz Pakistan	Karachi
51	Shah Medical Centres	Karachi
52	Standard Chartered Bank Pakistan	Karachi
53	Supernet Pakistan	Karachi
54	TNT Express Shipping Pakistan	Karachi
55	The Resource Group (TRG) Pakistan	Karachi
56	Ufone Pakistan	Karachi
57	Zeeshan Trading Co. Pakistan	Karachi
58	Ziauddin Medical University	Karachi
59	Zong Telecom Pakistan	Karachi
60	Adsells group Pakistan	Lahore
61	Aero Global Travels Pakistan	Lahore
62	Allied Bank Limited Pakistan	Lahore
63	Appify Tech Solutions Pakistan	Lahore
64	Honda Atlas Cars Pakistan	Lahore
65	Auto Soft Dynamics Pakistan	Lahore
66	Barqaab consultancy services Pvt. Limited	Lahore
67	Clustox Mobil Application Development	Lahore
68	Comfort Knit wears, Textile Manufacturers and Exporters.	Lahore

S. No.	Name of organisation	City
69	Confiz Technology Solutions and Services	Lahore
70	Cross Stitch Textile mills Limited	Lahore
71	D.G Khan Cement Company Limited	Lahore
72	EFU General Insurance Limited	Lahore
73	Faisal Bank Limited	Lahore
74	Falletti's Hotel	Lahore
75	Haleeb Foods Limited	Lahore
76	Habib Bank Limited	Lahore
77	Hotel Hospitality Inn.	Lahore
78	ICC Textiles Limited, Fabric Manufacturer	Lahore
79	Interflow Communications	Lahore
80	JS Bank Limited	Lahore
81	Jubilee General Life Insurance	Lahore
82	Kot Addu Power Company	Lahore
83	Lahore University of Management Sciences (LUMS) Administration	Lahore
84	Kohinoor Maple Leaf Group-Cement Company	Lahore
85	National Engineering Services Pakistan (Pvt) Limited (NESPAK)	Lahore
86	Nestle Pakistan	Lahore
87	Pakistan Television Corporation (PTV)	Lahore
88	QBXNet - Fast Idea Factory	Lahore
89	Research Consultants (R. Cons.)	Lahore
90	Rudolf Group Pakistan	Lahore
91	Saphire Fibres	Lahore
92	Services Sales Corporation Limited	Lahore
93	Shafi Texcel Limited.	Lahore
94	Side Works-Compliance and Certification Company	Lahore
95	The Bank of Punjab Limited	Lahore
96	The City School Administration	Lahore
97	Treet Corporation Limited	Lahore
98	United Bank Limited	Lahore
99	The Urban Unit	Lahore
100	Faysal Bank Limited	Lahore, Islamabad
101	Gerry's International	Lahore, Karachi
102	Utility Stores Corporation of Pakistan	Lahore, Karachi, Islamabad
103	Warid Telecom, Pakistan	Lahore, Karachi, Islamabad

ANNEX 3: Research instrument/questionnaire

Employee Questionnaire

Tracer Study to Link School Learning to Employment-related Outcomes

A1. Processing Code A2. City/Dist. A3. Organisation A4. Employee level

My name is _____ and I am working with _____. We are conducting a study to generate evidence about the link between types of schooling and market outcomes in urban centers of Pakistan and impact of different type of education in improving life chances of individuals connected to senior and middle level positions. In light of this objective, the study expects to explore a broad research question: what kind of education does it take to produce robust economic opportunities for the individual? All the information provided by you will be kept confidential and anonymous. Have you understood, what I explained? Are you willing to participate in the interview?

Yes _____ No. _____

Section A: Organisation Information

[To be filled prior to the start of the interview with the employee]

Q. No.	Question	Responses	Instructions
A5	Organisation Name		
A6	Organisation Address		Write complete address
A7	Number of employees in this organisation	☐☐☐☐ _____	Full-time and part-time
A8	Industry/Sector	☐☐	01.Cement, 02. Commercial Banks, 03. Fertiliser, 04. Food & Personal Care Products 05. Textile, 06. Oil & Gas, 07. Pharmaceutical, 08. Insurance, 09. Power Generation, 10. Telecom, 77. Other [specify]

Section B: Field Operation and Data Entry (DE)

SR NO.		Response	SR NO.		Response
B1	Interviewer name		B2	Interview Date [dd—mm—yy]	☐☐-☐☐-☐☐
B3	Interviewer's phone no.		B4	Result of interview 1. Completely Filled 2. Partly Filled	☐
B5	Name of DE person		B6	Date of DE [dd—mm—yy]	☐☐-☐☐-☐☐

Section C: Employee Individual Information

Instructions: The enumerator will interview employee who fulfil the following criteria:

(1) Employee is identified by the human resource department or relevant senior management of selected organisation
(2) Employee should not be a temporary hire/consultant or working on probation, and
(3) Age for mid-level employee should be 20 to 35 years and senior level 35 to 45 years.

SRNO.	Questions	Answers	Coding instructions
C1	What is your full name?		Respondent's name
C2	What is your age?	☐☐	Age in completed years
C3	Gender	☐	1. Male | 2.Female
C4	Marital Status	☐	1. Single | 2.Ever Married
C5	What is your current position in this organisation?	☐☐ _____	1. Junior-level 2. Mid-level 3. Senior level 77. Other [specify]
C6	What is your contact number [respondent's number]?	_____	Landline or Mobile Number
C7	What is your hometown, district, city?	a. District/City: _____ b. Province: _____ c. Country: _____	Name of District/City and Country
C8	Have you ever been to any other country?	☐	1. Yes 2. No [Go to Q. No. C10]
C9	If yes, which country	_____	
C10	What is the highest level of education completed so far?	☐☐ _____	01. 10 years of education 02. 12 years of education 03. 14 years of education 04. 15 years of education 05. 16 years of education 06. 17 years of education 07. 18 years of education 08. Above 18 yrs of education 77. Other [specify]
C11	Type of Qualification (Certificate/Degree Type)	☐☐	01. Primary 02. Elementary 03. Matriculation 04. Intermediate 05. Bachelors 06. Masters 07. M.Phil. 08. PhD 77. Other [specify]

Section D: School Switching Information

[Read] Now I am going to ask you to please tell, how many schools until grade 10 you have attended. Please include play group if attended.

D1	How many schools have you attended till Grade-10?	☐	Mention number of school attended, including play group if attended

[Instruction: Ask following details for each school attended, starting from lowest grade.]

D2	D3	D4	D5	D6	D7
School	Starting from lowest grade please tell the names of school and education institute you have attended?	Type of Institution/ School? 1. Government low tier 2. Government top tier 3. Private low tier 4. Private mid tier 5. Private top tier 6. Not for profit 77. Other [specify] 88. Not applicable	Level of Schooling attended 1. Pre-primary 2. Primary (1-5) 3. Elementary (1-8/6-8) 4. Secondary (1-10/6-10/9-10)	Time Spent (In years) 00. Less than 1 year	School leaving year
a.		☐☐ _____	☐	☐☐	☐☐☐☐
b		☐☐ _____	☐	☐☐	☐☐☐☐
c		☐☐ _____	☐	☐☐	☐☐☐☐
d		☐☐ _____	☐	☐☐	☐☐☐☐
e		☐☐ _____	☐	☐☐	☐☐☐☐
f		☐☐ _____	☐	☐☐	☐☐☐☐

Section E: Pre-Primary School

E1	Did you attend pre-primary grades?	☐	1. Yes, 2. No [Go to next section]
E2	Year when you entered in a school?	Year: ☐☐☐☐	
E3	Age when you entered in a school?	Age: ☐☐	Age in completed years
E4	a. What was the name of name of School b. Mention city/ district c. Mention country	a. b. c.	

Instruction: If attended more than one school, give information about school where most of the time was spent.

E5	E6	E7	E8	E9	E10	E11	E12
Years Spent	Nomenclature of the grade 1.Katchi 2.Play group 3.Nursery 4.Kindergar-ten 5.Montessori 77. Other [specify]	Type of Institution/ School 1. Govt. low tier 2. Govt. top tier 3. Private low tier 4. Private mid tier 5. Private top tier 6. Not for profit 77. Other [specify]	Can you recall about monthly fee charged by school? 1. Yes 2. No 3. No Idea	If yes, how much was the school fee per month? [Amount in PKR]	Which language was primarily used in the classroom for communication? [Single most commonly used Language] 01. Urdu 02. English 03. Punjabi 04. Sindhi 05. Balochi 06. Pushto 07. Seraiki 77. Other [specify]	Which language was used to explain difficult concepts? 01. Urdu 02. English 03. Punjabi 04. Sindhi 05. Balochi 06. Pushto 07. Seraiki 77. Other [specify]	School Location 1. Urban 2. Rural 77.Other [specify]
☐☐	☐☐ _____	☐☐ _____	☐	☐☐☐	☐☐ _____	☐☐ _____	☐☐ _____

Section F: Primary School (Grade 1 to 5)

Instructions: Information about school/institution attended at the primary level where respondent spend most years and have observed impact on life chances as well.			
F1	a. What was the name of School b. Mention city/ district c. Mention Country	a. b. c.	01 = Parents and family advice, 02 = Advice from friends, 03 = Family position, 04 = Personal traits, 05 = School distance, 06 = School repute, 07 = School fee, 77 = Other [specify]
F2	Why selected this school?	☐☐ _____	
F3	Was this school good?	☐	1. Yes 2. No (Go to Q. No. F4)
F4	If yes, ask for reasons		

F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	F16
Grades Attended	Time Spent (In years)	Type of Institution/ School 01. Govt. low tier 02. Govt. top tier 03. Private low tier 04. Private mid tier 05. Private top tier 06. Not for profit 77. Other [specify]	Language of Text books 1. Urdu 2. English 3. Both 99. Don't know	Can you recall about monthly fee charged by school? 1. Yes 2. No 3. No Idea	If yes, how much was the school fee per month? [Amount in PKR]	Which language was primarily used in the classroom for communication? [Single most commonly used Language] 01. Urdu 02. English 03. Punjabi 04. Sindhi 05. Balochi 06. Pushto 07. Seraiki 77. Other [specify]	Which language was used to explain difficult concepts? 01. Urdu 02. English 03. Punjabi 04. Sindhi 05. Balochi 06. Pushto 07. Seraiki 77. Other [specify]	Did school have separate teacher for each grade? 1. Yes 2. No 99. Don't know	School Location 1.Urban 2.Rural 77. Other [specify]	Were you a resident student/ scholar? 1. Yes 2. No	Did your school have: [Ask one by one] 1. Yes, Functioning 2. No
☐☐	☐☐	☐☐ _____	☐☐ _____	☐☐		☐☐ _____	☐☐ _____	☐☐	☐	☐	a. Electricity b. Washroom c. Boundary Wall d. Drinking Water e. Laboratory f. Library g. IT Facilities h. Playground

Section G: Secondary School (Grade 6 to 10/O-Levels)

Instruction: Information about school/institution attended at the secondary level where respondent spend most years and have observed impact on life chances as well.

G1	Have you taken Board exam/ O-level Privately or as a Regular candidate?	▢	1. Regular[If attend regular school, ask the following questions] 2. Private[If private, ask Q. No. G8, G10, G15, G 18 only]
G2	a. What was the name of School b. Mention city/ district c. Mention Country	a. b. c.	
G3	Why selected this school? [Ask for reasons]	▢▢ ____	01—Parents and family advice 02—Advice from friends 03—Family position 04—Personal traits 05—School distance 06—School repute 07—School fee 77—Other [specify]
G4	Was this school good?	▢	1. Yes 2. No
G5	If yes, why? [Take notes]		
G6	Grades attended at this school		

[Instruction: If attended regular institution, ask the following questions]

G7	G8	G9	G10	G11	G12	G13	G14	G15	G16	G17	G18	G19	G20	G21
Type of Institution/ School 1. Govt. low tier 2. Govt. top tier 3. Private low tier 4. Private mid tier 5. Private top tier 6. Not for profit 77. Other [specify]	Certificate/ Course Type 1. Matric 2. O-Level 3. Other [specify)	Time Spent (In years)	Language of Textbooks 1. Urdu 2. English 3. Mix of English & Urdu 77. Other [specify]	Can you recall about monthly fee charged by school? 1. Yes 2. No 3. No Idea	If yes, how much was the school fee per month? [Amount in PKR]	Which language was primarily used in the classroom for communica-tion? 01. Urdu 02. English 03. Punjabi 04. Sindhi 05. Balochi 06. Pushto 07. Seraiki 77. Other [specify]	Which language was used to explain difficult concepts? 1. Urdu 2. English 3. Punjabi 4. Sindhi 5. Balochi 6. Pushto 7. Seraiki 77. Other [specify]	Was this science or an arts discipline? 1. Science 2. Arts 77. Other [specify]	How many students were there per class? [Ask for av-erage class strength]	Did school have separate teacher for each grade? 1. Yes 2. No 99. Don't know	What was your score/ grades/ division at higher secondary level/ college level?	School Location 1. Urban 2. Rural	Were you a resident student/ scholar? 1. Yes 2. No	Did your school have: [Ask one by one] 1. Yes, Functioning 2. No
▢▢ ____	▢▢ ____		▢▢ ____	▢	____	▢▢ ____	▢▢ ____		▢▢	▢▢	▢▢	▢	▢	a. Electricity b. Washroom c. Boundary Wall d. Drinking Water e. Laboratory f. Library g. IT Facilities h. Playground

Section H: Higher Secondary School/College/ (Intermediate/A-Level)

H1	How did you complete your higher secondary schooling?	▢	1. Regular Institution 2. Private [If Private, ask Q. No. H6, H8, H9, H10, H14 only]
H2	a. What was the name of name of School/ College? b. Mention city/ district c. Mention Country	a. b. c.	
H3	Why selected this school/ college?	▢▢ _____	01—Parents and family advice 02—Advice from friends 03—Family position 04—Personal traits 05—School distance 06—School repute 07—School fee 77—Other [specify]
H4	Was this school/college good?	▢	1. Yes 2. No
H5	If yes, why? [Take notes]		

[Instruction: If attended regular institution, ask the following questions]								
H6	H7	H8	H9	H10	H11	H12	H13	H14
Institute leaving year	Time Spent (In years)	Certificate type 1. Intermediate 2. A-levels 77. Other [specify]	Courses/ Discipline 1. Sciences 2. Arts 3. Com-merce 77. Other [specify]	Language of Textbooks 1. Urdu 2. English 3. Both 77. Other [specify]	Type of Institution/ School 01. Govt. low tier 02. Govt. top tier 03. Private low tier 04. Private mid tier 05. Private top tier 06. Not for profit 77. Other [specify]	Can you recall about monthly fee charged by school? 1. Yes 2. No 99. Don't Know	If yes, how much was the school fee per month? [Amount in PKR]	Grade/ Percentage/ Division
	▢▢	▢▢ _____	▢▢ _____	▢▢ _____	▢▢ _____	▢▢	_____	▢▢

Section I: Graduation

I1	How did you complete your graduation?	▢	1. Attended regular institution 2. As a private candidate [If private, ask Q. No. I4, I5, I6, I7 only]
I2	a. What was the name of name of institute? b. Mention city/ district c. Mention Country	a. b. c.	
I3	To what extent, are factors linked to college/ university choice	▢▢ _____	01—Parents and family advice 02—Advice from friends 03—Family position 04—Personal traits 05—School distance 06—School repute 07—School fee 77—Other [specify]

[Instruction: If attended regular institution, ask the following questions]								
I4	I5	I6	I7	I8	I9	I10	I11	I12
Exam passing year	Years spent	Degree type 1. Bachelors (14 years) 2. Bachelors (16 years) 77. Other [specify]	Major Subject(s) [Write Name]	Type of Institution 1. Govt. 2. Private 77. Other [specify]	Can you recall about monthly fee charged by institution? 1. Yes 2. No 99. Don't Know	If yes, how much was the school fee per month? [Amount in PKR]	Which language was primarily used in the classroom for communication? 01. Urdu 02. English 03. Punjabi 04. Sindhi 05. Balochi 06. Pushto 07. Seraiki 77. Other [specify]	Which language was used to explain difficult concepts? 1. Urdu 2. English 3. Punjabi 4. Sindhi 5. Balochi 6. Pushto 7. Seraiki 77. Other [specify]
▢▢▢▢	▢▢	▢▢ _____	▢▢ _____	▢▢ _____	▢▢	_____	▢▢ _____	▢▢

Section J: Post-Graduation or above

J1	How did you complete your post-graduation?	▢	3. Regular Institution 4. Private [If private, ask Q. No. J4, J5, J6, J7 only]
J2	To what extent, are factors linked to college/ university choice	▢▢	01—Parents and family advice 02—Advice from friends 03—Family position 04—Personal traits 05—School distance 06—School repute 07—School fee 77—Other [specify]
J3	a. What was the name of name of institute? b. Mention city/ district c. Mention country	a. b. c.	

[Instruction: If attended regular institution, ask the following questions]							
J4	J5	J6	J7	J8	J9	J10	J11
Exam passing year	Years spent	Degree type 1.Masters 2. M.Phil 77. Other [specify]	Major Subject(s) [Write Name]	Type of Institution 1.Govt. 2.Private 77. Other [specify]	Fees per month [Amount in PKR]	Which language was primarily used in the classroom for communication? 01. Urdu 02. English 03. Punjabi 04. Sindhi 05. Balochi 06. Pushto 07. Seraiki 77. Other [specify]	Which language was used to explain difficult concepts? 1. Urdu 2. English 3. Punjabi 4. Sindhi 5. Balochi 6. Pushto 7. Seraiki 77. Other [specify]
▢▢▢▢	▢▢	▢▢		▢▢		▢▢	▢▢

Section K: Vocational/Technical/Apprenticeship Training Information

K1	Have you ever attended/ received any vocational/ technical/apprenticeship training such as auto or engine mechanics, carpentry, typing, computer, tailoring etc that was relevant to your job?	▢	1. Yes 2. No [Go to next section]
K2	If so, when did you attend?	▢▢	1. Pre-service 2. In-service 3. Off job 77. Other [specify]

If attended, ask about three (03) job related training courses ever attended:				
K3	K4	K5	K6	K7
Name of Training Course	Type of training 1. Vocational 2. Technical 3. Apprenticeship 77. Other [specify] 88. Not applicable	Did you attend this vocation-al/ technical/ apprenticeship training on full time or part-time basis? 1. Full-time 2. Part-time	Provider of train-ing? 1. Employer 2. Private training provider 3. Public/Govt. Training provider 4. Non-government Organisation 77. Other [specify]	Duration of the training course 1. 01 month 2. 02 to 06 months 3. 07 to 12 months 4. 02 years 5. 03 years 6. 04 years 77. Other [specify]
a.	▢▢ _____	▢	▢▢ _____	▢▢ _____
b.	▢▢ _____	▢	▢▢ _____	▢▢ _____
c.	▢▢ _____	▢	▢▢ _____	▢▢ _____

Section L: Parents Information

L1	L2	L3	L4	L5	L6	L7	L8
Father's highest academic qualification 1. Illiterate 2. Primary 3. Matric 4. Intermediate 5. Graduation 6. Masters 77. Other [specify]	Name of institution if known (college/ university) from which the highest degree received? 99. Don't Know	Type of institution 1. Govt. 2. Private 77. Other [specify]	Mother's highest qualification 1. Illiterate 2. Primary 3. Matric 4. Intermediate 5. Graduation 6. Masters 77. Other [specify]	Name of institution if known (college/ university) from which the highest degree received? 99. Don't Know	Type of institution 1. Govt. 2. Private 77. Other [specify]	Father's primary occupation 01. Agriculture Labour/ daily wage 02. Non-Agri. Labour/ daily wage 03. Agriculture – Landlord 04. Agriculture – sharecropper 05. Govt. Job – BPS 17 or above 06. Govt. Job – BPS 16 or below 07. Private sector– permanent job 08. Private sector– temporary job 09. Domestic worker 10. Own business/ self employed 11. House wife/ house work 12. Skilled worker 13. Unemployed 14. Retired 77. Others [specify]	Mother's primary occupation 01. Agriculture Labour/daily wage 02. Non-Agri. Labour/daily wage 03. Agriculture– Landlord 04. Agriculture– sharecropper 05. Govt. Job – BPS 17 or above 06. Govt. Job– BPS 16 or below 07. Private sector– permanent job 08. Private sector– temporary job 09. Domestic worker 10. Own business/ self employed 11. House wife/ house work 12. Skilled worker 13. Unemployed 14. Retired 77. Others [specify]
☐☐☐☐	☐☐	☐☐	☐☐	☐☐ _____	☐☐	☐☐ _____	☐☐ _____

Section M: Siblings Information

M1	In what type of family structure have you studied during your education?	☐	1. Extended Family 2. Nuclear Family
M2	Number of Siblings	a. Brothers: b. Sisters: c. Not applicable	☐☐ ☐☐ ☐☐
M3	Position in Siblings		[Write number]

[Instructions: Use Sibling 1, Singling 2, Sibling 3…instead of actual names]			
M4	M5	M6	M7
Siblings Names	Relation 1. Brother 2. Sister	Highest Academic Qualification [See Codes]	Type of Institution attended where highest qualification was obtained. 1. Govt. 2. Private
a.	☐	☐☐ _____	
b.	☐	☐☐ _____	
c.	☐	☐☐ _____	
d.	☐	☐☐ _____	
e.	☐	☐☐ _____	
f.	☐	☐☐ _____	
g.	☐	☐☐ _____	
h.	☐	☐☐ _____	
i.	☐	☐☐ _____	
j.	☐	☐☐ _____	

Codes for M6 Highest Academic Qualification:
01—Never attended school | 02— Dropped out before completion of primary | 03—Completed primary but dropped out before secondary. | 04—Secondary Higher secondary/intermediate | 05—02 Years Bachelor | 06—04 Years Bachelor | 07—Masters | 08—M. Phil | 09—PhD | 77—Other [specify]

Section N: Support from Home

N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
What kind of academic support was available from home during education? See Codes	If support was available, then who was primarily supporting you at home? 1. Father 2. Mother 3. Sibling 4. Grandparent 5. Uncle 88. Not applicable 77. Other [specify]	Did you read any of the materials during your schooling years other than textbooks? 1. Yes 2. No [If not, go to Q. No. N8]	At what stage did you start reading material? 1. Primary 2. Secondary 3. Tertiary 4. University 77. Other [specify]	What kind of reading material was read the most? 1. Story books 2. Newspaper 3. Magazines 4. Books 5. All of the above 77. Other [specify]	How frequently, did you read the material other than textbooks? 1. Never 2. Often 3. Always	Language of reading material 1. Urdu 2. English 3. Both 77. Other [specify]	Did you take any paid private tuition? (at home/tuitioncentre/coaching centre) 1. Yes 2. No	If yes, what level did you take tuition for? [Multiple response] 1. Primary level only 2. Secondary level only 3. Higher Secondary level only 4. Graduation level only 5. Post-Graduation 6. All of the above	For which subjects, private tuition was taken… [Multiple response] 1. Maths 2. English 3. Science 4. Urdu 5. Social Studies 6. All of the above 7. Other [Specify]
☐☐ _____	☐☐ _____	☐	☐☐ _____	☐☐ _____	☐	☐☐ _____	☐	a. ☐☐ _____ b. ☐☐ _____ c. ☐☐ _____	d. ☐☐ _____ e. ☐☐ _____ f. ☐☐ _____

Codes for N1, Type of Support:
01—No support | 02—Assisting in homework | 03—generally helpful interaction with parents/siblings | 04—Parent Teacher Meeting (PTM) | 05—Supplementary reading material | 77—Other [specify]

Section O: Access to Media and Games

O1	O2	O3	O4	O5
Did you watch television during your schooling years? 1. Yes 2. No	What did you watch the most on television? 1. Cartoon TV Channels 2. Animated Films 3. News 4. English Movies 5. Urdu Movies 6. Sports 77. Other [specify]	At what educational level did you have internet access 1. Primary 2. Secondary 3. Higher secondary 4. Graduation 5. Post-Graduation 77. Other [specify]	Were you encouraged to play any sports by family or school 1. Yes 2. No	If so, who encouraged you …. 1. by parents 2. by school 77. Other [specify]
☐	☐☐ _____	☐☐ _____	☐	☐☐ _____

Section P: Employment (First Job) Information

P1	Overall professional/employment experience	☐☐	Number of Years
P2	Number of jobs held during your professional career	☐☐	Numbers
P3	At start or after completing your education, what kind of job/employment opportunities were available to you? [Please elaborate]		[Take notes]

				Contribution of the following in getting first job									
P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
Name of Organi-sation	How did you find your first job? See Codes	What was the recruitment criteria? 1. Written Test only 2. Interview only 3. Written Test and Interview 4. Group Discussion 5. Other [specify]	If inter-view, then how many interviews	Competen-cies acquired in schools 1. To a Great Extent 2. Somewhat 3. Very Little 4. Not at All	Compe-tencies acquired in tertiary education 1. To a Great Extent 2. Somewhat 3. Very Little 4. Not at All	Relations with friends and peers 1. To a Great Extent 2. Somewhat 3. Very Little 4. Not at All	Relations of parents, siblings, rel-atives, ethnic community (Biradari, religio-sec-tarian) 1. To a Great Extent 2. Somewhat 3. Very Little 4. Not at All	Year when you entered in first job	Time it took to find a first job Months	Was your first job related to your field of study? 1. Very relat-ed 2. Somewhat related 3. Not at all related 99. Don't know	What sec-tor was job in? 1. Public 2. Private	Type of Em-ployment 1. Full-time permanent 2. Contract	Starting Salary Range (Per Month in PKR)
	☐	☐☐ ____	☐☐	☐	☐	☐	☐	☐☐☐☐	☐☐	☐☐	☐	☐	

Codes for P5. Finding out first job:
01—college/university recruitment drive or career placement service | 02—Direct application to employers | 03—from friends, relatives and colleagues | 04—through relation with influential people | 05—through print -media/social media | 77—other[specify]

Section Q: Employment (Current Job) Information

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Name of organisation	How long, have you been working with this employer/at this job? [Number of years]	What sector is job in? 1. Public 2. Private	Type of Employment 1. Permanent 2. Contractual	Net Salary including all additional benefits (Per Month in PKR) 1. Below 50k 2. 50k—100k 3.100k—150k 4. 150k—200k 5. 200k—300k 6. 300k—400k 7. 400k—500k 8. 500k & above	How many persons report to you? [Write number]	To what extent does your current job relate to your field/major of study? 1. Very related 2. Somewhat related 3. Not at all related	All things considered with respect to your job potential, how satisfied are you with your current work/ job? 1. Highly satisfied 2. Satisfied 3. Neutral 4. Unsatisfied 5. Highly Unsatisfied
	☐☐	☐	☐	☐	☐☐☐	☐	☐

Section R: Language and Communication

					How would you rate your proficiency in English Language?		
R1	R2	R3	R4	R5	R6	R7	R8
What is your mother tongue 1. Urdu 2. English 3. Punjabi 4. Sindhi 5. Balochi 6. Pushto 7.Seraiki 77. Other [specify]	Single most commonly used Language at home with parents 1. Urdu 2. English 3. Punjabi 4. Sindhi 5. Balochi 6. Pushto 7. Seraiki 77. Other [specify]	Single most commonly used language with friends and community 1. Urdu 2. English 3. Punjabi 4. Sindhi 5. Balochi 6. Pushto 7. Seraiki 77. Other [specify]	Single most commonly used Language of communication at job 01. Urdu 02. English 03. Punjabi 04. Sindhi 05. Balochi 06. Pushto 07. Seraiki 77. Other [specify]	Does your job require a relatively high level of English Language Proficiency?	Speaking 1. very good/ fluent 2. good 3. satisfactory/ simple/basic knowledge/conversation 4. without knowledge	Writing 1. very good/ fluent 2. good 3. satisfactory/ simple/basic knowledge/conversation 4. without knowledge	Reading 1. very good/ fluent 2. good 3. satisfactory/ simple/basic knowledge/conversation 4. without knowledge
☐☐	☐☐	☐☐	☐☐	☐	☐	☐	☐

Section S: A good or Favourite Teacher

[Instruction to interviewers: Probe for qualities in a teacher that impacted both your learning and your development as a person. Qualities that inspired you to be a better student, better person, got you on the way to being who you are and set standards for you]

S1	S2	S3	S4	S5
Can you recall two (02) teachers, who has made significant contribution in developing your learning abilities, skills and qualities that inspired you and what you consider to be professionally relevant 1. Yes 2. No	Teacher Name [if respondent can recall]	At what level [If one teacher has taught at multiple levels, then ask for highest level] 1. Primary (1-5) 2. Elementary (1-8/6-8) 3. Secondary (1-10/6-10/9-10) 4. Higher Secondary (11-12) 5. Graduation (11-14/13-14) 6. Post-graduation (15-16) 77. Other [specify]	Teacher gender 1. Male 2. Female	Specific qualities of the teacher Multiple response, See codes below Also take notes in T6
☐	a.	☐☐	☐	☐☐, ☐☐, ☐☐
☐	b.	☐☐	☐	☐☐, ☐☐, ☐☐
T6. Teacher Qualities:				
Codes for S5. Specific qualities of the teacher: 01—Adaptability/ Cooperative | 02—Creative | 03—Dedicated | 04—Determined | 05—Empathetic | 06—Engaging and reflective | 07—Evolving | 08—Generous | 09—Joyful | 10—Passionate | 11—Forgiving | 12—Inspirational | 13—High Standards | 14—Organsed | 15—Resourceful | 16—Intuitiveness | 17—Respectful | 77—other [specify]				

Check for completion before leaving the respondent, and say thanks to the respondent

ANNEX 4: Mean starting real salary by school level and type

	School level							
School type	Pre-primary	N	Primary	N	Secondary	N	Higher secondary	N
Government low tier	24,642	108	25,653	269	25,615	314	27,720	435
Government top tier	34,867	48	30,412	78	31,156	93	33,819	102
Private low tier	26,591	44	27,609	55	28,419	20	32,549	9
Private mid tier	28,741	179	30,958	233	30,543	210	33,110	104
Private top tier	50,090	100	48,906	134	49,332	136	55,880	84

ANNEX 5: Sample profile

Introduction

This chapter explores the profile of employees working in the formal sector in major cities of Pakistan. First it describes personal characteristics and the profiles of employees who are working in the selected formal sector organisation. Second, this chapter looks at the type of school attended at different levels of education. Finally, it explores parents' and siblings' education and parents' occupation.

Personal and family characteristics

Family characteristics

Overall, 64% employees surveyed have up to four siblings in their household. With regards to family structure during their academic career, nearly half of the employees lived with an extended family while the other half lived in a nuclear family type situation. In terms of position amongst siblings, nearly one-fourth (25%) of employees reported being the eldest child in their family, while nearly 20% the second, 15% third and 9% the youngest.

Respondents' age

Table A1 below shows summary statistics for selected variables used in the analysis, for the full sample. Our sample primarily consists of individuals aged between 20 to 35 years for employees working in the middle and senior positions category. The average age for male and female employees is 34 and 23 years respectively. Conversely, the proportion of employees over the age of 36 years and above is greater for male employees as it makes up one third of the overall sample distribution. Only 16% of female employees are over 60 years old.

Table A1: Age of employees by gender

Age (in years)	Male	Female	Total
20 to 25	6%	26%	9%
26 to 30	31%	38%	32%
31 to 35	30%	20%	29%
Above 36	33%	16%	30%
Mean	33.8	23.3	32.5

Gender

In terms of labour force participation by gender, female labour force participation rate is 24.13%, share of female labour force in the services sector in total employment is 13.8% and share of female wage and salaried workers in industrial sector is 11.3% (Pakistan Employment Trends, 2013 and Labour Force Survey 2014-15). In terms of coverage of employees by gender and cities, the study observed the highest ratio for female in Karachi with 19.1% followed by Lahore with 13.5% and Islamabad with 13.0 % respectively.

Home district

Table A2 shows that 10 districts cover 75% of employee's hometown or cities of origin. Nearly 50% of employees belong to Karachi (26%) and Lahore (24%) only. It is interesting to note among the top 10 districts of employees hometown, eight districts or regions are from the Punjab.

Table A2: Representation of employees by hometown districts or cities of origin (top 10 districts)

Rank	Hometown district / city of origin	Percentage
1.	Karachi	26%
2.	Lahore	24%
3.	Rawalpindi	10%
4.	Islamabad	4%
5.	Faisalabad	3%
6.	Sargodha	2%
7.	Gujranwala	2%
8.	Attock	1%
9.	Sahiwal	1%
10.	Multan	1%
	Total Employee (%)	75%

Urbanisation is one of the emerging global problems. Pakistan, too, is faced with rapid growth of urbanisation. In this study, the aspect of urbanisation is quantified by asking details about hometown district or region. Since, the study has focused on the most populous cities of Pakistan, where a major part of the total urban population resides, the majority of employees report working in their hometown (Table A3). Overall, Islamabad is the only region where only a small fraction of employees (13%) have reported Islamabad as their hometown district/region. In Lahore, nearly 40% employees do not belong to Lahore. Similarly, one-fourth of all employees surveyed in Karachi are from outside Karachi.

Table A3: Regional distribution of employees by survey region and hometown district

Survey region: Islamabad			Survey region: Lahore			Survey region: Karachi		
Hometown district/region	Number	Percentage	Hometown district/region	Number	Percentage	Hometown district/region	Number	Percentage
Rawalpindi	68	27	Lahore	183	62	Karachi	212	77
Islamabad	33	13	Faisalabad	15	5	Rawalpindi	9	3
Attock	11	4	Gujranwala	10	3	Lahore	7	3
Sargodha	7	3	Sahiwal	7	2	Sukkur	7	3
Faisalabad	6	2	Sargodha	7	2	Hyderabad	5	2
Others	127	50	Others	74	25	Others	35	13

This study specifically asks about employees' location of the school during the academic career. According to the survey finding, a majority of female employees have attended pre-primary, primary and secondary schools, located in the urban regions compared to their male counterparts (Table A4).

Table A4: Location of school attended by gender of employees and school level

School level	School location	Male	Female	Total
Pre-primary	Urban	89.6%	93.5%	90.3%
	Rural	9.7%	6.5%	9.1%
Primary	Urban	87.9%	95.9%	89.1%
	Rural	12.1%	4.1%	10.9%
Secondary	Urban	92.1%	98.4%	93.1%
	Rural	7.9%	1.6%	6.9%

The study finds that a higher percentage of employees have attended government low tier schools located in rural location at the primary level compared to the secondary level (Table A5).

Table A5: Location of school attended by type and school level

School level	School location	School type					
		Government low tier	Government top tier	Private low tier	Private mid tier	Private top tier	Total
Primary	Urban	74.6%	96.4%	93.5%	96.7%	98.6%	89.0%
	Rural	25.4%	3.6%	6.5%	3.3%	1.4%	11.0%
Secondary	Urban	85.1%	98.0%	87.0%	98.6%	100%	93.0%
	Rural	14.9%	2.0%	13.0%	1.4%	0.0%	7.0%

Marital status

Employees were asked about their marital status. A higher percentage of female employees report they are unmarried compared to male employees (Table A6). Among male employees, the overwhelming majority (71%) report being married.

Table A6: Marital status of employees surveyed (all three cities)

Gender	Single	Ever married
Male	29%	71%
Female	68%	32%

Work experience

The average experience for all employees is 10.5 years, and for male and female employees it is 11.2 and 6.6 years respectively (Table A7). Overall, the majority of female employees (54%) report having less than five years of experience while the majority of male employees (32%) have six to ten years of experience. This indicates that employers recruit fresh female graduates. Intuitively, employees with more experience should have greater ability but this study cannot make any conclusions about the correlation.

The majority of employees have held three jobs prior to taking up their current position. Interestingly, mean years of working with current employer for male employees is 11.2 years and 6.6 years for female employees.

Table A7: Professional experience of employees

Experience (in years)	Male	Female	Total
Below 5	25%	54%	29%
6—10	32%	29%	32%
11—15	20%	10%	19%
16—20	12%	3%	10%
Above 20	11%	4%	10%
Mean years of experiences	11.2 (695)	6.6 (125)	10.5 (820)
Mean years of working with the current employer	6.30 (699)	4.85 (125)	6.08 (824)
Mean jobs held during professional experience	2.87 (692)	2.51 (124)	2.81 (816)

Note: Figures in parenthesis are number of responses.

Type of school attended from pre-primary to higher secondary

As mentioned in the methodology chapter, schools attended by employees working in the formal sector are divided into five categories i.e. government low tier, government top tier, private low tier, private mid tier and private top tier. In this sample, the government low tier and private mid tier remain the two highest attended schools by employees (Table A8).

Nearly 70% of the employees or more than two-thirds attended government low tier schools. Of these, 71% were male and a much lower percentage comprised females (56%). Conversely, only 11% have attended private low tier schools and of these 12% were male and only 3% were female. Just over half the respondents i.e. 48% attended private mid tier schools. Of these a higher percentage 54% was female and 46% were male.

Similarly, a higher number of females (38%) attended private top tier schools compared to only 24% among males, the overall percentage attending private top tier schools being 26%.

Table A8: Employees by type of school and gender from pre-primary to higher secondary level

Type of school	Level	Gender				Total	
		Male		Female		%	N
		%	N	%	N		
Government low tier	Never attended	29.1	203	44.4	56	31.4	259
	Ever attended	70.9	495	55.6	70	68.6	565
Government top tier	Never attended	75.9	530	77	97	76.1	627
	Ever attended	24.1	168	23	29	23.9	197
Private low tier	Never attended	88.1	615	96.8	122	89.4	737
	Ever attended	11.9	83	3.2	4	10.6	87
Private mid tier	Never attended	54.4	380	42.1	53	52.5	433
	Ever attended	45.6	32	57.9	73	47.5	391
Private top tier	Never attended	76.4	533	61.9	78	74.2	611
	Ever attended	23.6	165	38.1	48	25.8	213
Total		100	698	100	126	100	824

The private sector is rapidly expanding: enrolments in private schools have increased significantly in the past decade. The share of private school enrolments has increased from 26% in year 2003 to 39% in year 2014 (PSLMS, 2013-14). As compared to this, enrolment in government schools has decreased to 59% in 2013-14 from 61% in 2011-12 (PSLMS 2013-14). The enrolment mix of government and private schools vary across regions, with the highest private school enrolments in the Punjab followed by Sindh. Given that the employees surveyed are success stories of the education system, a significant proportion of employees (68.7%) have attended government low tier schools at some point during their academic career. On the other hand, a large proportion of employees (nearly 50%) have reported attending private mid tier schools at some point during their academic career. As such there is marginal difference in terms of attending governmnet top tier and private top tier schools across four levels.

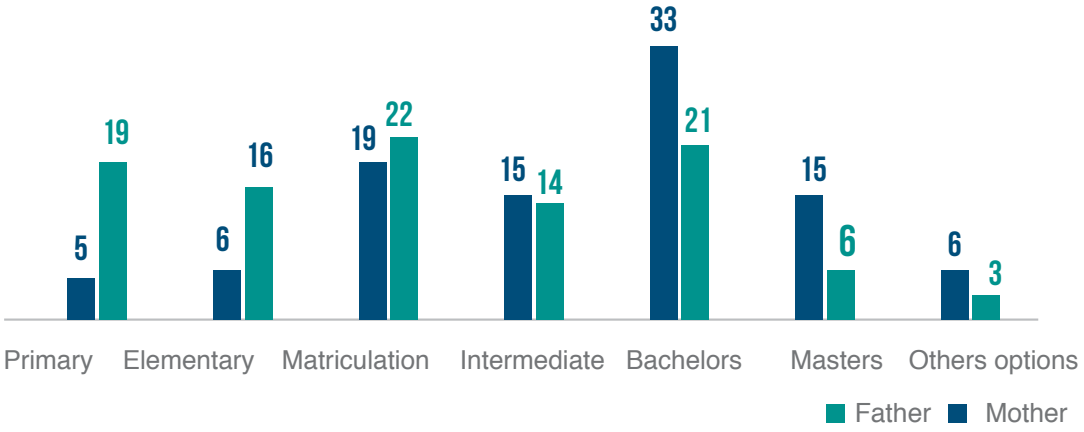
Family characteristics

Education status of parents

Generally employees report relatively better levels of education for parents (Figure A1). The study finds that roughly an equal number of fathers (19% and 22%) and mothers (15% and 14%) have completed Matriculation and Intermediate certification levels, respectively. However, percentage of the fathers with a Bachelor's (33%) and Masters (15%) degrees is relatively higher than the mothers with a Bachelor's (21%) and Masters (6%) degrees.

Among the parents who have attended any type of academic institution, 89% of the fathers and mothers have received their highest academic education from a government sector institute and only 10% from counterpart private sector.

Figure A1: Parent level of education (%)



Siblings' education status

In terms of education status of employees' siblings, only 1% have never attended any sort of educational institution and 1% have dropped out before completion of primary (Table A9). Nearly over one-fourth of the siblings have acquired Master's degree qualification. Similarly, the proportion of siblings with Bachelor's degree and higher secondary qualification is quite high. This indicates a trend towards better educated households and further indicates their awareness of educational importance and/or a preference to send children to school.

Table A9: Education qualification of siblings of employees (percentage of responses for siblings)

Education qualification	Percentage of siblings	Number of siblings
Never attended school	1.3%	40
Dropped out before completion of primary	1.0%	29
Completed primary but dropped out before secondary	4.0%	121
Secondary higher secondary / Intermediate	22.8%	690
02 years Bachelor	23.5%	710
04 years Bachelor	12.3%	373
Masters	26.6%	803
M. Phil	2.2%	65
PhD	0.4%	12
Others	6.0%	3023

Parents' occupation

Nearly 15% of the mothers are equally contributing to the family income. Most of the mothers (over 80%) are housewives (Table A10). Among others, nearly 4% are engaged in government job BPS-17 or above and 3% are working on a government job corresponding to BPS 16 or below.

There are variations in fathers' occupation. It is evident that most fathers are associated with services sector including both low and high income jobs. Nearly one-fourth of fathers are engaged with government jobs (BPS 17 or above) and almost 12% of them have government jobs corresponding to BPS 17 or below. A significant majority (nearly one-fourth) of fathers are associated with agriculture-sharecropper, which shows that some employees have rural background yet still managed to reach the formal sector employment. It is interesting to note that a large majority of employees have reported that their fathers works with the private sector on permanent job type setting.

Table A10: Parents' occupation

Occupation	Father (%)	Mother (%)
Agriculture labour/daily wage	1.70	0.36
Agriculture – landlord	5.31	0.12
Agriculture – sharecropper	0.24	0.12
Government job – BPS 17 or above	24.28	3.38
Government job – BPS 16 or below	12.32	3.14
Private sector–permanent job	17.75	1.93
Private sector–temporary job	1.09	0.85
Domestic worker	1.45	0.48
Own business/self employed	24.52	0.72
House wife/house work	-	85.63
Skilled worker	0.60	0.36
Unemployed	0.12	0.12
Retired	5.56	0.97
Others*	4.35*	1.09

* In the others category, employees reported that their father had passed away during academic career.

Residence and language

This study has covered the major cities of Pakistan to examine the formal sector. Thus, to assess whether employees are currently working in their home district or region, an overwhelming majority of employees in the three regions report that they are working in their home district or region (Table A11).

A sizeable majority of employees working in Islamabad have migrated for multiple reasons from different districts of the Punjab. Only 13% of the employees reported that they are from Islamabad. In the Punjab, the study observes employees from outside the region are lowest compared to Islamabad and Karachi, where more than 15% employees have their home district outside of Islamabad or Sindh.

Table A11: Employees hometown by region

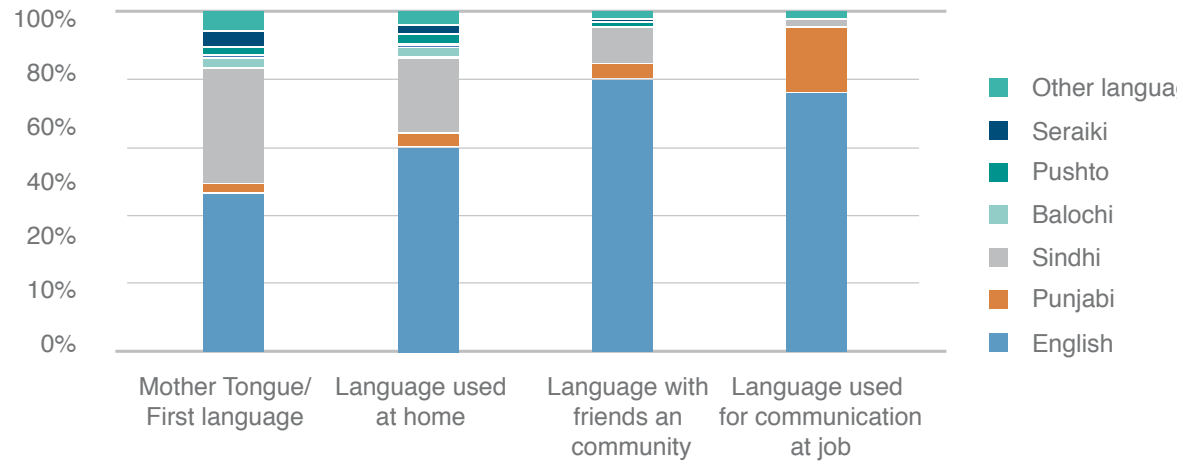
Province/region	Islamabad (%)	Lahore (%)	Karachi (%)
Azad Jammu & Kashmir (AJK)	2.0	-	-
Balochistan	-	0.3	0.7
Federally Administered Tribal Areas (FATA)	0.8	-	-
Gilgit-Baltistan (GB)	0.4	0.3	-
Islamabad Capital Territory (ICT)	13.0	0.7	0.4
Khyber Pakhtunkhwa (KP)	12.2	0.7	2.9
Punjab	68.1	96.6	10.4
Sindh	3.1	1.4	84.9
Total	100.0	100.0	100.0

Overall 47% of employees have reported Urdu as their mother tongue, whereas 61% of respondents have reported communicating in Urdu at home. Over 30% respondents, a vast majority in the cities do not use regional languages at home. With regard to communication at work, Urdu appears to be the single most commonly used language (76%) followed by 20% who used English. Among regional languages, Punjabi is the mostly commonly used language at home as well as with friends.

Employees reporting English as their mother tongue/first language, have studied in private top tier schools or those who have spent initial years of age abroad (respondents used the mother tongue/ first language concepts interchangeably).

With respect to mother tongue, the other language category includes regional languages such as Pahari/Potohari, Hindko, Chitrali/Khowar, Shina, Balti etc.

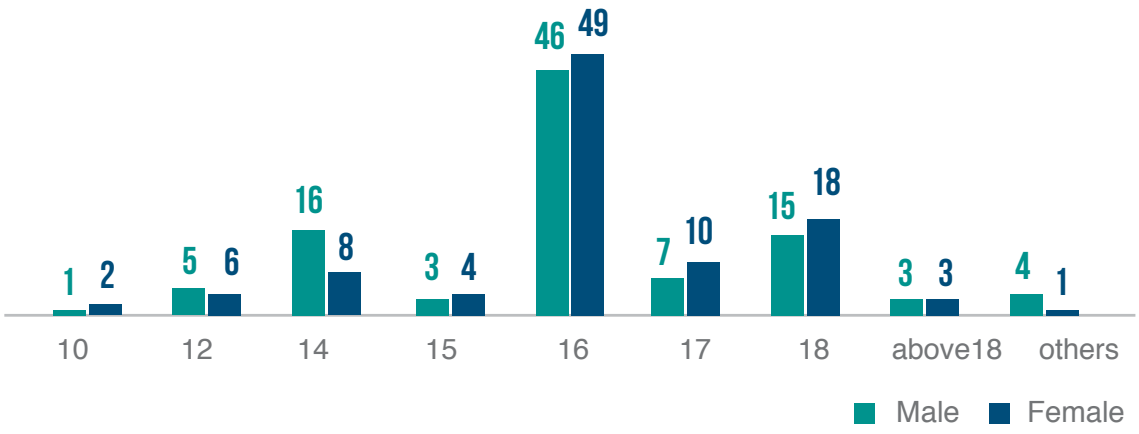
Figure A2: Language use inside and outside school



Academic qualification of employees

The findings reflect that nearly 50% of all employees report completing 16 years of education. A significant percentage of employees (15% for male and 18% for female) report completing 18 years of education. However more male employees, 16% have completed 14 years of education compared to their female counterparts with 8%.

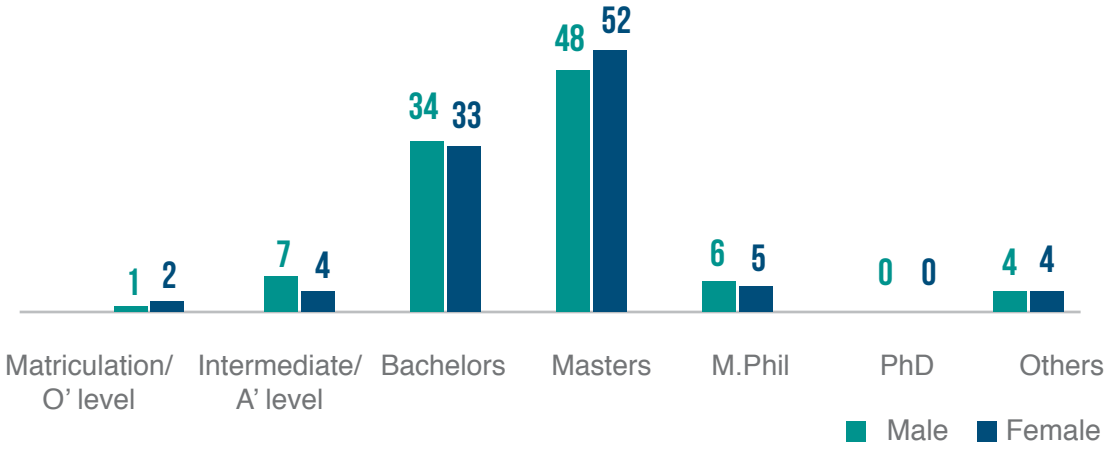
Figure A3: Employees highest years of education by gender (%)



On the high end of academic qualification by gender, female employees top the list for having completed Master's degrees (52%), followed by male employees (48%). Only 6% of males and 5% of females report holding a Master of Philosophy (M. Phil) degree.

On the slightly low end of academic qualifications, nearly one-third of male and female employees reported that they hold a Bachelor's degree. Less than 10% of employees reported the lowest end of academic qualification such as Intermediate or lower.

Figure A4: Employees highest level of academic qualification by gender (%)



ANNEX 6: OLS regression models

Model 1: Exploring the private top tier school advantage

R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.242[a]	0.059	0.051	41,310.121		
	Unstandardised Coefficients	Standardised Coefficients		t-statistic	Sig.
	B	Std. Error	Beta		
(Constant)	11009.362	10797.302		1.020	0.308
Household characteristics	-23.582	108.836	-0.008	-0.217	0.829
School support	132.646	121.156	0.051	1.095	0.274
Mother tongue	137.246	148.796	0.036	0.922	0.357
English language	229.456	251.534	0.062	0.912	0.362
Urdu language	-8.278	227.749	-0.002	-0.036	0.971
Private top tier	6528.078	1652.458	0.173	3.951	0.000

a. Dependent variable: starting salary (Rs /month), adjusted for 2015 prices using GDP deflator
b. Independent variable: school support, home support, exposure to language(s) and school type (private top tier)

Models 2 & 3: Exploring government and private low tier school disadvantage

R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.204[a]	0.042	0.034	41,681.432		
	Unstandardised Coefficients	Standardised Coefficients		t-statistic	Sig.
	B	Std. Error	Beta		
(Constant)	8885.806	11992.260		0.741	0.459
Household characteristics	-22.894	111.040	-0.008	-0.206	0.837
School support	205.986	120.826	0.080	1.705	0.089
Mother tongue	187.417	149.581	0.050	1.253	0.211
English language	400.230	255.557	0.108	1.566	0.118
Urdu language	-97.346	230.065	-0.025	-0.423	0.672
Government low tier	-1696.124	1355.503	-0.053	-1.251	0.211

a. Dependent variable: starting salary (Rs /month), adjusted for 2015 prices using GDP deflator
b. Independent variable: school support, home characteristics, exposure to language(s) and school type (government low tier)

R	R Square	Adjusted R Square	Std. Error of the Estimate		
0.200[a]	0.040	0.033	41,714.462		
	Unstandardised Coefficients	Standardised Coefficients		t-statistic	Sig.
	B	Std. Error	Beta		
(Constant)	1874.512	10657.612		0.176	0.860
Household characteristics	-3.774	109.849	-0.001	-0.034	0.973
School support	226.043	120.224	0.088	1.880	0.060
Mother tongue	190.405	149.774	0.050	1.271	0.204
English language	490.414	244.977	0.132	2.002	0.046
Urdu language	-63.977	229.868	-0.016	-0.278	0.781
Private low tier	-1641.366	2836.586	-0.021	-0.579	0.563

a. Dependent variable: starting salary (Rs /month), adjusted for 2015 prices using GDP deflator
b. Independent variable: school support, home characteristics, exposure to language(s) and school type (private low tier)

The Alif Ailaan Campaign is funded by the UK Department for International Development.

alifailaan.pk I @alifailaan I facebook.com/alifailaan

الف اعلان Alif Ailaan

sahe