Oxford Policy Management

Benazir Income Support Programme

Evaluation of the Waseela-e-Taleem Conditional Cash Transfer

Iftikhar Cheema, Martina Garcia Asia, Simon Hunt, Sarah Javeed, Tanya Lone, Sean O'Leary

July 2016

Executive summary

This report presents the findings from the **quantitative and qualitative research conducted for the impact evaluation of the Waseela-e-Taleem (WET) programme** a conditional cash transfer complementary programme provided to a sub-set of Benazir Income Support Programme (BISP) beneficiaries.

The impact evaluation has both a quantitative and qualitative component and this research is based on a set of fieldwork that was conducted in the period February to May 2016.

The evaluation is based on a **mixed methods approach**. The core of the evaluation is based on a household survey targeted at beneficiary households and a sub-set of non-beneficiary households with BISP poverty scores just above the programme's eligibility threshold, which will provide statistically robust estimates of impact of the WET on its beneficiaries. This is combined with a qualitative research component that will provide a broader understanding of the context in which the programme is operating and inform an understanding of potential impacts that are difficult to cover comprehensively and sensitively using only a quantitative survey, as well as providing more nuanced data to help explain the quantitative findings

Benazir Income Support Programme

The BISP is the main social assistance programme in Pakistan and one of the largest in South Asia, serving 5.29 million beneficiaries. The Government of Pakistan launched the BISP in 2008 as its flagship national social safety net initiative, in recognition that the existing instruments (Pakistan Bait-ul-Mal and Zakat) had limited coverage and were poorly targeted.

The BISP was launched with two main objectives: **to cushion the adverse impact of the food, fuel and financial crisis on the poor**; and a longer term objective of **providing a minimum income support package to the poorest and to those most vulnerable to future shocks**.

The programme provides eligible families with unconditional cash transfers (UCT), originally set at a monthly value of PKR 1,000, raised to PKR 1,200 in July 2013, PKR 1,500 in July 2014 and PKR 1,566 in July 2015. The transfer is delivered quarterly, with the vast majority of beneficiaries receiving cash through the BISP Debit Card.

The **programme established a National Socio-Economic Registry (NSER) through the use of an objective targeting system**, with households targeted based on a Proxy Means Test (PMT) that attempts to provide an objective estimation of the level of income and welfare in all households in Pakistan and is summarised by the BISP poverty score. The NSER is now a database of more than 27 million households across Pakistan. The cash transfer is targeted at the poorest 25% of the population with a specific eligibility threshold set on the BISP poverty score to assign households as eligible for the BISP cash transfer.

Waseela-e-Taleem Conditional Cash Transfer Programme

In addition to the main unconditional cash transfer component, the BISP also implements a range of complementary programmes. This includes the **Waseela-e-Taleem (WET) programme a conditional cash transfer (CCT) programme for education**. This report focusses on the impact of the WET on access to education of 5 – 12 year old children in BISP beneficiary households.

The WET programme provides **a top up cash transfer of PKR 750 in each quarter per eligible child** in the household, with no upper limit on the number of children per household who are

eligible for the programme. Receipt of the WET transfer is **conditional on maintaining a minimum 70% attendance rate** that is monitored on a quarterly basis, and children will be removed from the programme if they fail to fulfil the attendance conditions in three consecutive quarters.

The evaluation

The BISP includes an evaluation component and the Government of Pakistan has contracted Oxford Policy Management (OPM) to undertake a rigorous evaluation of programme impact. The evaluation component will help to determine the effectiveness of the programme in delivering its broad aims. The evaluation component will also help to inform stakeholders of the programme's performance and enable lessons to be drawn to improve future practice and policy.

This report presents the impact of the WET programme on access to education. The report attempts to understand whether any impact observed is derived from the base unconditional cash transfer component that all BISP beneficiaries receive, or whether the additional conditional cash component is necessary for an impact on education.

To evaluation focusses on two measures of impact.

1. **Total impact of receiving the BISP UCT and the WET CCT**: by comparing beneficiary households in WET districts with BISP poverty scores in close proximity to the BISP poverty score eligibility threshold score, with a set of a set of non-beneficiary households with BISP poverty scores with the same proximity to the eligibility threshold score. The situation of these households is compared using the quasi-experimental approach known as the Regression Discontinuity (RD) design.

2. **Marginal impact of receiving the WET CCT on top of the BISP UCT**: by comparing beneficiary households in WET districts with beneficiary households in non-WET districts. This is done to isolate the marginal impact of receiving the WET programme package above and beyond that of receiving the just the BISP UCT. The situation of these household sis compared using the quasi-experimental approach known as Propensity Score Matching (PSM).

Overview of the Waseela-e-Taleem programme processes

To date the BISP has identified 3.3 million children aged between 5 and 12 years in BISP beneficiary households in districts where the WET programme is operating. Of these, **1.3 million children have been enrolled into the WET programme** and in school. An estimated further 977,000 children aged 5 to 12 years in the 32 districts in BISP households are currently enrolled in school, though are not currently beneficiaries of the WET programme.

Therefore an **estimated 1 million children in BISP households in the 32 districts remain out of school**. A range of demand and supply factors as reported by evaluation respondents lead to out of school children. On the demand side respondents to the evaluation cite the expense of school and lack of parental approval for education as the main contributing factors. On the supply side the distance to the school and that the child is not willing[1] are the main factors given for non-enrolment.

[1] Child not being willing to attend school is often a reflection of failures in the education system (*Jamal, 2014*), whether through deficiencies in quality or the prevalence of corporal punishment

The main implementation activities of the WET programme include:

- **Supply capacity assessment:** conducted in each potential WET district to determine that the supply of education in that district will be sufficient to meet the demand generated by the WET programme;

- **Social mobilisation:** delivered through BISP Beneficiary Committees (BBCs) and in which beneficiaries are provided information on: how to register for the WET programme; the conditions attached to participation in the WET programme; and how to lodge a grievance should the need arise;

- **Registration and admission:** supported by the BBCs, which is used as a platform for informing BISP beneficiaries about the registration process. Parents of potential beneficiary children are invited to registration centres, usually at Union Council level. The registration process involves a screening to verify beneficiary status and to verify the status of children.

- **Compliance monitoring:** once enrolled in a school, the attendance of a child is monitored on a quarterly basis by the WET compliance team. Monitoring services are currently provided for the BISP by the Aurat Foundation who visit schools on a quarterly basis to verify that the child's attendance has reached at least 70% in the preceding quarter. Failure to meet this condition in three consecutive quarters will lead to the removal of the child from the programme; and

- **Payments:** payments are made directly to the BISP beneficiary (the female head of the family) once a quarter through the existing payment mechanisms maintained for the base BISP transfer. For the vast majority of beneficiaries this will be the BISP Debit Card (BDC), a magstripe card that can be used in any ATM in Pakistan. A quarterly top-up payment of PKR 750 per child per quarter is made.

Impact on school enrolment

The impact of school enrolment is discussed in Section 4. We find that the **WET programme has a positive and significant impact on increasing the proportion of children aged 5 to 12 years currently enrolled in school**. The findings detailed in this report suggest that this impact holds for both boys and girls, with similar levels of magnitude.

We find that the **total impact of the WET** (i.e. comparing children who are treated by both the BISP UCT and the WET CCT with children in non-beneficiary households) is to **increase the proportion of children aged between 5 and 12 years currently enrolled by 10% points**.

Furthermore, we find that the **marginal impact of the WET** (i.e. comparing children who are treated by both the BISP UCT and the WET CCT with children who are treated only by the BISP UCT) is to **increase the enrolment rate by 9% points**.

The magnitude of the total impact compares well to the impact on primary enrolment observed in other CCTs globally. For example *Saavedra and Garcia (2012)* in a Meta review of the impact of eight CCTs on education[2] reports an average effect of 6% points on primary school enrolment. That the impact of the WET CCT is slightly higher than the average impact observed by the Meta

[2] Bolsa Escola (Brazil), Familias en Accion (Columbia), Bono De Desarrollo Humano (Ecuador), PRAF II (Honduras), JPS (Indonesia), Oportunidades/Progresa (Mexico), Red de Proteccion Social (Nicaragua) and SRMP (Turkey)

review should be expected given that the average baseline enrolment rates of children treated by the evaluated CCTs were significantly higher (84%).

To understand whether the observed impact on school enrolment derives from the BISP UCT or the WET CCT, it useful to consider the following observations:

1) The positive impact on enrolment on children who are exposed to both the BISP UCT and WET programme;

2) A similar positive impact on enrolment when comparing BISP beneficiaries who are exposed to the WET programme to those BISP beneficiaries who are not (marginal impact); and

3) That in a separate and accompanying report that investigates the impact of the BISP UCT in isolation, we find no impact of the base cash transfer on enrolment.

This strongly suggests that the **impact on enrolment presented in this report derives from the package of interventions offered by the WET package**, and that the BISP UCT by itself does not lead to improvements in access to education for beneficiary households.

We find that the **magnitude of the impact of the WET programme on school enrolment is affected by a number of factors**. In particular the magnitude of the impact on school enrolment is larger for:

- Children whose father has completed primary education;
- Children who live in relatively poorer households; and
- Children who have fewer siblings.

Impact on child labour

Engagement in child labour harms a child's ability to enter and survive in the school system and makes it more difficult for children to derive educational benefit from schooling once in the system. Child labour remains relatively common amongst children in BISP beneficiary households, with 9% of children aged 5 to 12 years in WET districts currently engaged in some form of child labour.

A conditional cash transfer, by reducing the opportunity cost of education relative to work, may be expected to reduce the prevalence of child labour. However, we do **not find that the WET programme has any impact, positive or negative, on the proportion of children engaged in some form of child labour**.

Table of contents

List of tables and figures

List of abbreviations

BBC	BISP Beneficiary Committee
BDC	BISP Debit Card
BISP	Benazir Income Support Programme
CCT	Conditional Cash Transfer
CNIC	Computerised National Identity Card
LATE	Local Average Treatment Effect
MDE	Minimum Detectable Effect
MDGs	Millennium Development Goals
MNA	Member of the National Assembly
OPM	Oxford Policy Management
PMT	Proxy Means Test
PSLM	Pakistan Social and Living Standards Measurement Survey
PRSP	Poverty Reduction Strategy Paper
PSM	Propensity Score Matching
PSU	Primary Sampling Unit
RD	Regression Discontinuity
SRS	Simple Random Sampling
UCT	Unconditional Cash Transfer
WET	Waseela-e-Taleem

1 Introduction

This report presents the findings from the quantitative and qualitative research conducted for the independent impact evaluation of the Conditional Cash Transfer (CCT) component on the Benazir Income Support Programme (BISP), known as the Waseela-e-Taleem (WET). Its purpose is to provide an analysis of the impact of exposure to the WET programme on access to education for BISP beneficiary households.

The impact evaluation has both quantitative and qualitative components and the research in this report reflects the findings from a round of fieldwork undertaken in February to May 2016.

The evaluation is based on a household survey, targeted at households that contain children aged 5 to 12 years old. The survey is targeted at three groups of households: BISP beneficiaries who live in districts exposed to the WET programme; (2) BISP beneficiaries who live in districts not exposed to the WET programme; (3) non-beneficiaries living in districts exposed to the WET programme.

The quantitative household survey is combined with qualitative research that provides a broader understanding of the context in which the WET programme is operating.

1.1 Overview of the BISP

The BISP was originally launched in 2008 as the Government of Pakistan's (GoP) main national social safety net programme and is the largest and most systematic social protection initiative to be launched in Pakistan. The immediate objective of the programme was to cushion the negative effects of the food, fuel and financial crises on the poor, with the longer term objective to provide a minimum income package to the poor, to protect vulnerable households against chronic and transient poverty.

The BISP was originally conceived as an Unconditional Cash Transfer (UCT) that is targeted at the poorest 20% of households in Pakistan through the use of a Proxy Means Test (PMT), which was applied to entire population of Pakistan in a comprehensive national poverty census. The PMT seeks to provide an objective method of approximating a household's level of welfare and poverty using a sub-set of indicators correlated with measures of monetary poverty. This is combined into a unique index to identify poor and non-poor households.

The programme provides eligible families with regular cash payments, paid directly to the female head of the family, where the female head is defined as every ever-married woman in the household in possession of a valid CNIC.

Beneficiaries of the UCT component of BISP are paid quarterly transfers of PKR 4.500, with the vast majority of BISP beneficiaries receiving their payments through the BISP Debit Card (BDC), a magstripe card that can be used in any ATM in Pakistan or at any of the network of Point of Sale (POS) machines maintained by banking agents. A small portion of BISP beneficiaries, particularly those in remote communities with limited financial system access, continue to receive the transfer via money orders delivered directly to the doorstep by Pakistan Post.

1.2 Overview of the Waseela-e-Taleem programme

In response to the challenge of achieving universal primary education BISP launched the WET programme a CCT for education in 2012, starting with five pilot districts. By the end of 2015 the WET programme had been extended to 32 districts across Pakistan. The WET programme aims to

support children aged 5 to 12 years in BISP beneficiary households to complete primary education. In particular the stated goals for the WET programme are to:

- Create long term awareness on the importance of primary education among BISP beneficiary families;
- Increase enrolment of children in schools for primary education;
- Improve school attendance; and
- Decrease drop-outs.

The WET programme provides an **additional top-up of PKR 750 per quarter per beneficiary child aged 5 to 12 years** living in BISP beneficiary households, that is paid to directly to the female head of the family using the same mechanism as the UCT component of the BISP.

Children are identified as WET beneficiaries in two stages. The existing national register of BISP households is used to identify families with potentially eligible children for registration, which is then verified by the implementing partner (Aurat Foundation) at the grass roots level.

In addition BISP has **established almost 50,000 BISP Beneficiary Committees** (BBC) in the 32 WET districts. The BBCs have been established to play a social mobilisation role and to generate engagement in the BISP programme in general as well as the WET component specifically.

Inclusion in the WET programme is **conditional on the child achieving at least 70% attendance at school**, with the child being excluded from the programme if she fails to achieve this condition in three consecutive quarters. Compliance is monitored by third party programme implementation partners, currently the Aurat Foundation.

1.3 Theory of change for a Conditional Cash Transfer

The key difference between a UCT and a CCT in terms of their potential for impact on education is that UCTs will act solely through an income effect, whilst CCTs for education both alter the income of beneficiary households but also change the relative price of schooling and thus work through a substitution effect. For an UCT to have an impact on education, one assumes that the key constraint for beneficiaries is simply lack of money and not a lack of knowledge (*Hanlon, Barrientos and Hulme, 2010*), assuming that the value of the transfer is sufficient to alleviate credit constraints faced by beneficiaries.

Alternatively, there are three main arguments for attaching conditions to cash transfers (*Fiszbein and Schady, 2009*).

- **Parent's investment in the human capital of the children is too low**, even from a private point of view. This may be because of a lack of information, difference in discount rates or distortions in intra-household bargaining power;

- **Investments in education are below the socially optimal level** even if they are privately optimal; and

- **Redistribution of additional benefits is more politically feasible** when conditioned on good behaviour.

In essence the argument for the including conditions is that human capital is an important social good and conditions are necessary because policymakers determine that there is an underinvestment in education. Furthermore a CCT is necessary if policymakers determine that there is an underinvestment in education not only because of credit constraints faced by targeted

beneficiaries, but also that targeted beneficiaries do not value education at the "socially optimal" level and need an incentive attached (in the form of conditions) to encourage the consumption of this "merit good" (*Fizsbein and Schady, 2009*).

Figure 1 Conditional Cash Transfer Theory of Change[3]

Figure 1 presents a theory of change that includes three separate policy level inputs: (1) the base UCT component of the BISP that all beneficiaries receive; (2) the WET CCT component including the top-up transfer and related activities; and (3) a set of education policies outside the control of the BISP which directly influence the supply and quality of public education.

Both an UCT and a CCT can be expected to have an impact on education: the UCT can be expected to increase the demand for education by raising the incomes of beneficiary households; the CCT component on the other hand has both an income effect, raising the incomes of beneficiary households, but also lowers the opportunity cost (i.e. the price) of schooling by including an additional top-up conditional on school attendance.

This increase in the demand for education, whether delivered through the income or price effects, can be expected to increase both school enrolment and school attendance assuming that there is adequate capacity to absorb WET beneficiaries from the public education system.

In the long term this can be expected to improve child learning assuming that the public education system provides sufficient quality of schools and teaching. Child learning is not a focus of this evaluation.

1.4 Overview of the evaluation

The BISP includes an evaluation component and the GoP has contracted Oxford Policy Management (OPM) to undertake a rigorous evaluation of the WET programme's impact. The evaluation component will help to determine the relevance and effectiveness of the programme in delivering to its broad aims of **increasing school enrolment and improving school attendance**.

[3] Adapted by the authors from *Baird, Ferreira, Ozler and Woolcock (2012)*

The evaluation component will also help to inform key stakeholders of the programme's performance and enable lessons to be drawn to improve future policy and practice.

Also included in the evaluation component was an independent impact evaluation of the main UCT component of the BISP. The results of this evaluation are presented in a separate accompanying report.

In order to assess the impact of the WET programme on improved school attendance and school enrolment the evaluation collects quantitative and qualitative information on a range of key indicators and supporting data. The impact analysis is conducted using a mixed methods approach, combining qualitative research with a quasi-experimental quantitative survey design.

The quantitative survey is implemented in 100 clusters (villages & neighbourhoods) across the four provinces in Pakistan. In total a randomly selected sample of 2,328 households containing children aged 5-12 years were interviewed, of which 1,468 were BISP beneficiary households. The fieldwork was conducted in the period February – April 2016.

Qualitative research was conducted in three WET pilot districts, purposively selected from the four evaluation provinces to provide a range of different contexts. Data collection for the qualitative research was conducted in March and April 2016.

The evaluation focusses on two measures of impact.

1. **Total impact of receiving the BISP UCT and the WET CCT**: by comparing beneficiary households in WET districts with BISP poverty scores in close proximity to the BISP poverty score eligibility threshold score, with a set of a set of non-beneficiary households with BISP poverty scores with the same proximity to the eligibility threshold score. The situation of these households is compared using the quasi-experimental approach known as the Regression Discontinuity (RD) design.

2. **Marginal impact of receiving the WET CCT on top of the BISP UCT**: by comparing beneficiary households in WET districts with beneficiary households in non-WET districts. This is done to isolate the marginal impact of receiving the WET programme package above and beyond that of receiving the just the BISP UCT. The situation of these households is compared using the quasi-experimental approach known as Propensity Score Matching (PSM).

1.5 Structure of the report

The report is structured as follows:

Section 2 describes the evaluation methodology. Section 3 provides an overview of the WET programme and its beneficiaries.

Section 4 provides the results of the evaluation and determines the impact of the WET programme.

Section 5 provides conclusion.

A technical annexure is provided giving details of the evaluation methodology.

2 Evaluation methods

The evaluation adopts a mixed methods approach to provide an assessment of the impact of the impact of the WET programme on its beneficiaries. The particular methods employed in the evaluation were identified in coordination with BISP and its stakeholders during the inception phase of the evaluation.

The evaluation **focusses on the impact of the WET programme on school enrolment and dropout of its target population**: children aged 5 to 12 years. The evaluation also considers the impact of the WET programme on child labour which is often correlated with education access outcomes.

In this section we summarise the quantitative and qualitative methods used to determine the impact of the WET programme on its beneficiaries.

2.1 Quantitative evaluation methods

A key challenge for any impact evaluation is the **identification of a suitable counterfactual** or control group against which to compare impact of a programme on beneficiary households or the treatment group. A valid control group should satisfy three conditions, *Gertler et. al. (2011)*:

- The treatment and control group should share on average the same characteristics;
- Treatment and control groups should react to the programme in the same way if it was indeed offered to both groups; and
- Treatment and control groups should not be differentially exposed to other interventions during the period of the evaluation.

2.1.1 Regression Discontinuity

Regression Discontinuity (RD) design will be employed to **assess total combined impact of receiving both the base BISP UCT and the WET CCT programme** components of the BISP. It exploits one of the key design features of the BISP, its beneficiary targeting through the BISP poverty scorecard, to achieve this. BISP beneficiaries have their programme eligibility determined by the BISP poverty score such that treatment will be offered only to households with a score of 16.17 or less. Households with a BISP poverty score above 16.17 are ineligible.

Under the assumption of a continuous relationship between the eligibility score (BISP poverty score) and the outcome variable we exploit the eligibility cut-off to define valid treatment and control groups. Figure 2 graphically presents the logic behind this approach. We compare **households just below the eligibility threshold (treatment households) who are also eligible for the WET programme with households just above the eligibility threshold (control) who are not eligible for either the BISP cash transfer or the WET programme**.

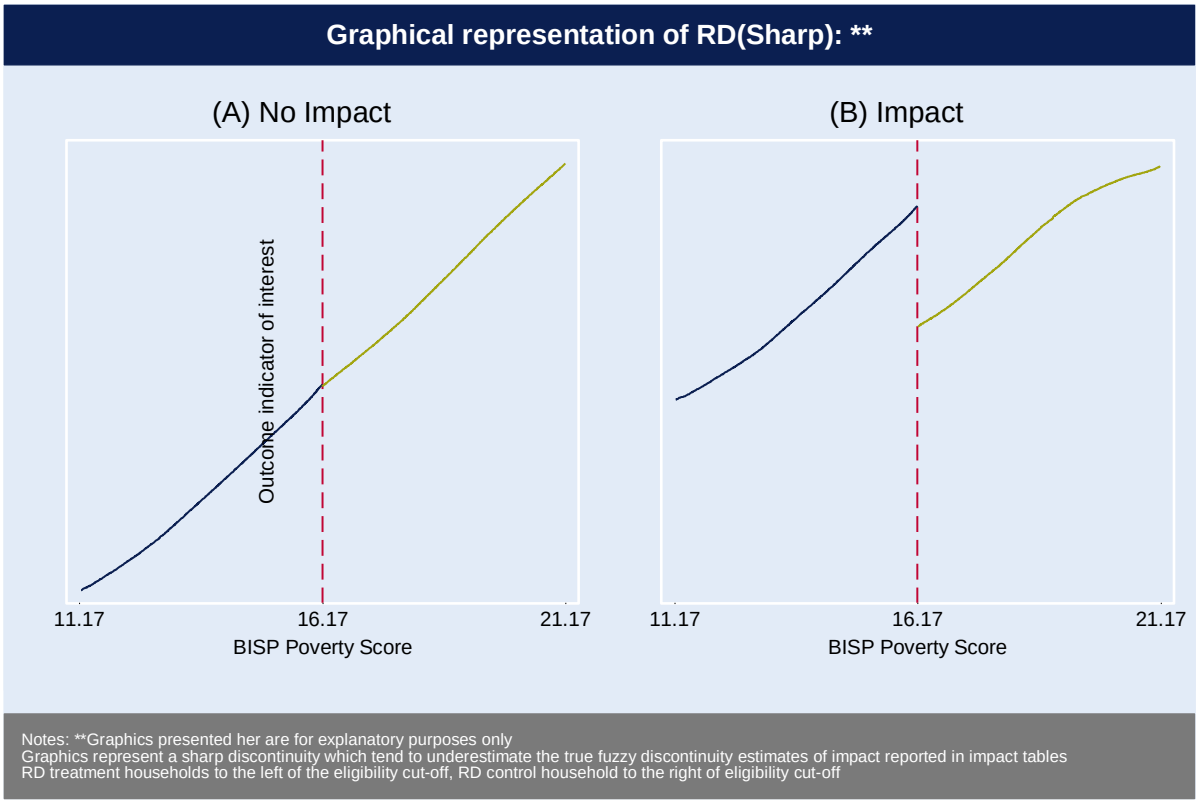
For indicators on which the BISP does not have an impact we would expect no difference in the outcome indicator of interest between treatment and control households. In terms of the RD approach, for such outcome indicators we would find no discontinuity in the outcome variable at the eligibility threshold.

Alternatively, for indicators on which the BISP has an impact and assuming that only households below the eligibility threshold receive the transfer, we would expect to find a **discontinuity in the**

outcome variable at the eligibility threshold. Such a discontinuity, should it be statistically significant, will represent the impact of the BISP cash transfer on that outcome variable.

A full description of the RD approach and various tests of the validity of the approach for this evaluation can be found in the annexure.

Figure 2 Graphical representation of Regression Discontinuity



2.1.2 Propensity Score Matching

Propensity Score Matching will be employed to **assess the marginal impact of receiving the WET CCT programme on-top of the base BISP UCT**. PSM methods create an appropriate counterfactual to treatment groups by matching and comparing outcomes for units in the treatment group with control units that are as similar as possible to each other along a set of relevant observable characteristics.

In this report to analyse the marginal impact of exposure to the WET programme we compare two groups of households:

- A treatment group of BISP beneficiaries with children aged 5 to 12 years that live in WET districts; with

- A control group of BISP beneficiaries with children aged 5 to 12 years that live in districts where the WET programme is not operating.

PSM is a two-stage analysis that employs the propensity score as a ‘comparator metric’. Hence, the first stage of any PSM analysis is to compute a valid propensity score for each unit of observation. The second stage is to then compare outcomes across units with similar scores – with the option of using several different comparison algorithms. The annexure describes in detail the

design and implementation of the first and second stages in the PSM analytical setting for the current evaluation.

It is important to note that, for PSM to work appropriately, the comparator metric constructed in the first stage needs to be valid. For that to be the case, it needs to be calculated using variables that are not influenced by the intervention. The intuition behind this is as follows: as described above, PSM aims at reducing bias by controlling for background characteristics that are correlated with both treatment measures. In effect, the aim is to account for any differences in outcome between treatment and control groups that are not due to the treatment but due to some other systematic dissimilarities between the groups. Using variables that are themselves influenced by the treatment to do this would mean that one would compare units that are similar to each other after receiving the treatment, hence mistaking dissimilarities between groups that are due to the intervention for structural dissimilarities. We address this problem here by constructing the propensity score using variables that are uncorrelated with treatment which means that no data are influenced by the programme.

2.2 Sampling strategy

The original design of the evaluation of the WET programme was envisaged as a panel survey, whereby the same group of children in treatment and control groups would be compare over time. As such as baseline survey for the WET programme was conducted in 2013, and it was expected that two further rounds of research would be conducted in 2014 and 2015.

However, in the event the rollout of the WET programme in the evaluation districts was delayed until late 2015, and as such the follow-up survey was not conducted until early 2016. This delay meant that the original panelled design for the WET evaluation programme was no longer possible. This is because a panel design would rely on a comparison of the same group of children aged 5 to 12 years old over time, i.e. between 2013 and 2016. Thus in order to use a panel design would imply a greatly reduced sample size of children aged 5 to 12 years old who appeared in both the 2013 baseline and the 2016 follow-up surveys.

As a result the evaluation adopts a cross-section approach, i.e. comparing the educational outcomes of treatment and control children at one time period – in the 2016 follow-up survey.

2.2.1 Sampling for the regression discontinuity

Table 1 reports the final sample size for the Waseela-e-Taleem endline evaluation of 2,348 households and 4,978 children for the regression discontinuity (RD) estimates of impact. The RD design of the evaluation requires comparison of households in a narrow bandwidth just above and just below the BISP eligibility cut-off score of 16.17. Taking this into account in development of the baseline sampling strategy, the sample was classified into three types of households:

- **Type 1** – beneficiaries with poverty scores in the range of 0 to 12.17;
- **Type 2** – beneficiaries with poverty scores in the range of 12.17 to 16.17; and
- **Type 3** – non-beneficiaries with poverty scores above 16.17 and up to 20.17.

Type 2 and Type 3 households form the treatment and control groups respectively for the RD estimates of impact presented in Section 4. Type 1 and Type 2 households together form the treatment group of households for the PSM estimates of impact presented in Section 4, which are

compared to a control group of BISP beneficiary households in non-WET districts (see Section 2.2.3 below for the construction of the control group for the PSM analysis).

100 clusters were visited across the four districts covered by the evaluation, namely; Rahim Yar Khan, Nawabshah, Mansehra and Jhal Magsi. The breakdown of this sample by district can be found in Annex C.

Table 1 Sample size

	Number of households	Number of children aged 5-12 years	Number of clusters
Type 1: treatment 0≤score<12.17	529	1,290	100
Type 2: treatment 12.17≤score≤16.17	950	1,986	
Type 3: control 16.17<score≤20.17	869	1,702	
Total	***2,348***	***4,978***	***100***

Evaluation households were selected randomly directly from the master sample frame which was a list of all households containing children aged 5-12 years provided directly from the BISP MIS. To support the RD design, (which requires comparison of households in a narrow bandwidth just above and just below the eligibility threshold) rather than sampling from the full list of all potential treatment and control households contained in the BISP MIS, we oversampled such that the majority of evaluation households were selected from a narrow bandwidth (=/- 5 points) around the eligibility threshold.

Given the resources available for the evaluation of the WET component of the BISP, it was not possible to generate a sufficient enough sample at provincial level to provide provincial estimates of the impact of the WET programme. This was discussed and agreed with BISP during the design phase of this evaluation.

2.2.2 Sampling procedure

The following multistage sampling approach was used to select the evaluation sample:

- ***Stage 1:*** a set of 100 evaluation Primary Sampling Units[4] (PSUs) were selected using Probability Proportional to Size (PPS) technique.

- ***Stage 2:*** within each selected PSU a household listing was conducted of all BISP beneficiary households identified within the BISP MIS. This was implemented to confirm the presence of at least one child aged 5-12 years was present in the household.

- ***Stage 3:*** From the list of household confirmed to contain at least one child aged 5-12 years 24 households were randomly selected: six Type 1 households (treatment); nine Type 2 households (treatment); and nine Type 3 households (control).

2.2.3 Constructing a control group for the Propensity Score Matching

As described in Section 2.1.2 above a control group needed to be constructed to assess the marginal impact of receiving the WET CCT programme on-top of the base BISP UCT. This

[4] In the case of this evaluation the primary sampling unit is the village

required exploiting the companion evaluation of the UCT component of the BISP to identify suitable comparator group of children aged 5-12 years old who live in BISP beneficiary households, but in districts that are not exposed to the WET programme.

The approach to the identification of a suitable comparator group, as well as the details of how this group is statistically balanced to the treatment group is fully described in Annex B. This exercise yielded 11,121 children (5,828 boys and 5,293 girls) who could be used as a suitable counterfactual to assess the marginal impact of receiving the WET CCT programme on-top of the base BISP UCT. The district wise distribution of this sample can be found in Annex C.

2.3 Note on the interpretation of impact estimates tables

We present our estimates of WET impact in Section 4. The estimates of impact are presented using the same format as illustrated by Table 2 below. The following estimates are presented:

(1) Mean values of the outcome indicator for treatment and control groups within the relevant evaluation groups. These estimates have been weighted using a kernel weight which gives higher weight to observations closest to the BISP eligibility cut-off in the case of RD estimates and the means for the matched groups are presented for the PSM estimates.

(2) Relevant sample sizes for treatment and control groups

(3) The RD and PSM estimates which provides the measure of WET impact on key impact indicators.

Table 2 Interpretation of impact estimate tables

	Control Group		Treatment Group		RDD/PSM impact estimate(3)
	Mean(1)	N(2)	Mean(1)	N(2)	
Outcome indicator	RD weighted value for control group	RD control group sample size (size within relevant RD bandwidth)	RD weighted value for treatment group	RD treatment group sample size (size within relevant RD bandwidth)	Regression Discontinuity impact estimate conducted on households within RD bandwidth

Source: BISP impact evaluation survey 2016. Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%, ** = 95%, *=90%. (2) Point estimates are weighted using triangular weights (3) Sample sizes are based on the sample size of treatment or control households within +/- 5 points of the eligibility threshold

We also use stars (*) to present the statistical significance of a particular result. These can be applied to third, sixth, eighth and ninth columns. Three stars (***) will indicate a 99% level of significance in a particular estimate. This would mean that we are 99% sure that an observed difference in our sample (whether it is a change in an indicator over time or an estimate of impact) would actually be observed in reality (i.e. we are 99% sure that the estimate is not a *false positive*).

Therefore, if an estimate of programme impact (column 6) on a particular outcome indicator is not highlighted by a star (*) then the WET does not have a statistically significant impact on that outcome indicator.

2.3.1 Reporting means in RD impact tables

In all tables that include estimates of impact we report the sample means for both the control group and the treatment group. These are presented to provide a situational analysis of the current status against key indicators for both groups. However, caution should be taken in the analysis of means and their comparison to the final reported RD estimate of impact.

Consider Panel B in Figure 2 above. It is clear that in this case the WET has had a positive impact on the outcome indicator of interest, demonstrated by the positive discontinuity at the eligibility threshold. Despite this, it is also clear that the overall mean of the outcome indicator is lower for the treatment group (those with a BISP poverty score less than 16.17) than for the control group (those with a BISP poverty score of more than 16.17).

2.4 Qualitative research methods

2.4.1 Location sampling

The research focuses on 8 districts across four provinces, with two communities selected in each district. These were purposively selected from different districts that were selected for the quantitative survey, and were selected to reflect WET districts at different stages of implementation. Three districts were WET 2012 pilot districts: Noshki (Balochistan), Karachi (Sindh) and Malakand Protected Area (KPK). The remaining five districts are amongst those where WET was scaled up in 2015.

Table 3 Research districts

Province	District
Punjab	Khushab
	Bahawalnagar
Balochistan	Noshki*
	Ziarat
KP	Malakand Protected Area*
	Charsadda
Sindh	Karachi South*
	Sukkhur

*WET pilot districts (2012)

All twelve communities were those where the programme had started during its inception years from 2008 to 2010 (14 communities), with two (one in Sukkhur and one in Khushab) where the roll-out was during 2011-12. With the exception of the latter two areas, two or more rounds of selection had been conducted with the latest disbursement in 2015-16 in the selected villages.

2.4.2 Respondent sampling

The respondents for individual interviews were randomly sampled from BISP beneficiary lists for the selected districts, focusing on beneficiaries who received BISP from 2009-12. FGD participants were selected with the help of community key informant and snowballing, with the main criteria of covering various geographical localities of the community including any multi-ethnic/religious characteristics in the area. In regard to non-beneficiary respondents, we focused on people with similar socio-economic profiles as BISP beneficiaries (using community knowledge for initial identification, followed by screening by the field teams).

Table 4 Tools used per district

	Type of tools	Respondent	Number of tools
District (2 communities per district)	Household In-depth	Beneficiary household	- 3 men - 3 women
	FGD	Non-beneficiary men and women	- 1 male FGD - 1 female FGD
	FGD	Beneficiary men and women	- 1 male FGD - 1 female FGD
	Community key informant interviews	Community influe2tial	- 1 man - 1 woman

A total of 48 beneficiary IDIs, 32 community FGDs and 16 KIIs were conducted in the eight selected research districts.

2.4.3 Research tools

The research used a (semi) contextual inquiry approach using BISP as the context and its role in changes over time. Data was gathered at three levels that is community key informant interviews for an overview of the community, focus group discussions with beneficiary and non-beneficiary men and women for a community perspective on well-being and changes over-time and directed one-on-one interviews to gather information and understand the household members' attitudes and behaviour around consumption patterns, education of children and assets accumulation while economic mobility and women's empowerment will be cross-cutting themes.

Tools used for data gathering were as follows:

Data was collected using Focus Group Discussions (FGDs), Key Informant Interviews (KIIs) and In-depth interviews (IDIs) as well as selected participatory tools focusing on specific areas of the research.

1. Key informant interviews

KIIs were carried out with one male and one female community member who had good general knowledge about the community. This included the community pesh imam, school teacher, social or political activist, Landlord/owner, LHW, LHV, TBA or any other person who understood the area and could provide information. Key respondents were asked about the impact of WET (if any) on education within their communities and their experience in the WET processes.

2. Focus group discussions

FGDs were conducted with both men and women to gather community level data from BISP beneficiary and non-beneficiary households regarding the

- Impact of WET on education;
- Decision making in the context of education; and
- Processes to access the WET programme

3. In-depth interviews

In-depth interviews were carried out with BISP beneficiary women and men according to education levels[5] of the respondents to assess whether on the perceptions of education within evaluation communities. These interviews also gathered data on WET programme processes. IDIs were also carried out with female respondents belonging to vulnerable households to uncover potential differences in findings for women headed or minority households.

[5] Given the low educational attainment of BISP beneficiary women (on average), 'high education' represents women completing primary education and 'low education' represents women with no formal education.

3 Overview of the Waseela-e-Taleem implementation

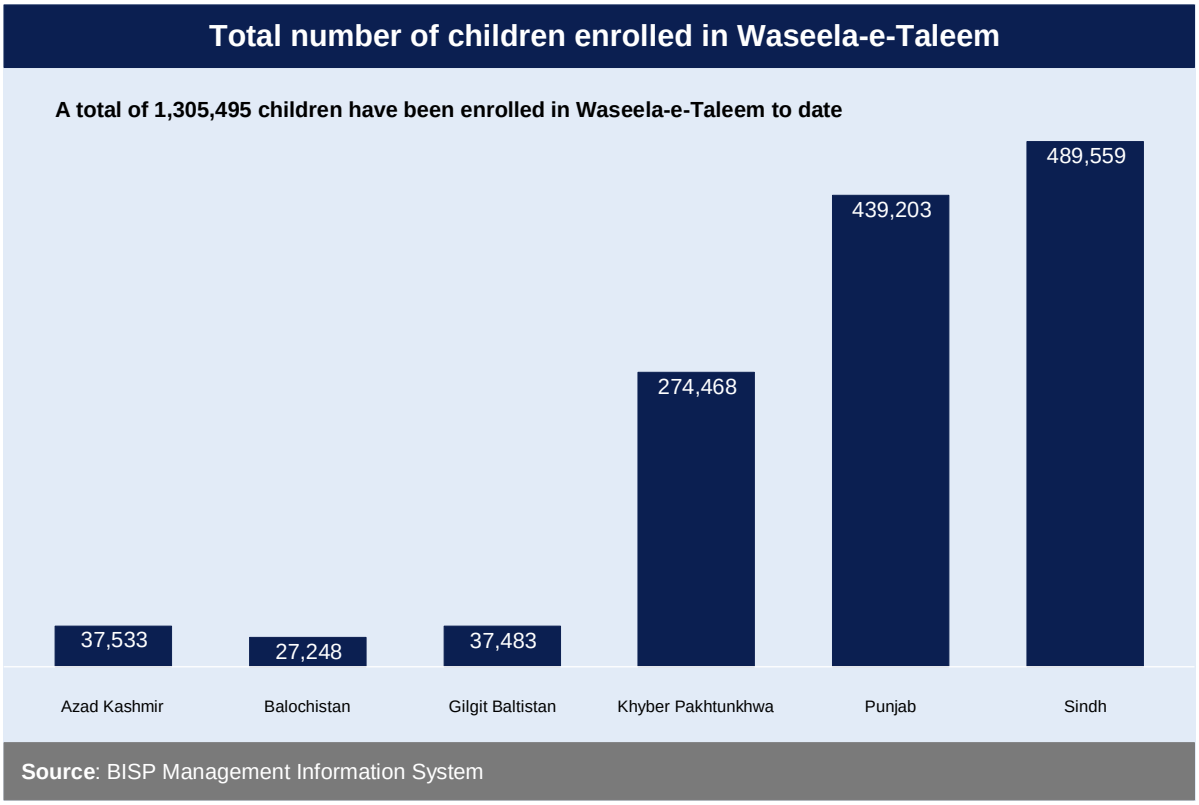
In this section we provide an overview of the Waseela-e-Taleem programme and its beneficiaries:

- To date BISP has enrolled just over 1.3 million children across the 32 WET districts
- An additional estimated 977,000 children in beneficiary households are attending school but are not WET beneficiaries
- An estimated 1 million children in beneficiary households remain out of school across the 32 WET districts
- BISP Beneficiary Committees have been formed at grassroots level to generate knowledge about the WET programme and to support beneficiaries in registration and admissions
- Both supply and demand side factors are cited as reasons for children not attending school, with the expense of education still a major issue for those with children out of school
- Some specific groups of children may have been missed by the WET programme, including orphans who were not deemed to be eligible, despite their main care giver being a BISP beneficiary
- Despite the large number of children enrolled in WET, penetration of the programme is relatively low, with just 42% of beneficiary households with children in the relevant age having successfully enrolled at least one child in the WET programme
- School enrolment rates of primary aged children in BISP households are significantly higher for those supported by the WET programme (81%) as compared to those who are not (60%)
- Attendance rates are relatively high, with WET supported children reporting being in school for 87% of time in the last two weeks
- However, 10% of WET supported children reported that they attended less than 70% of days in the last two weeks, with this proportion being higher for boys (12%) as compared to girls (8%)
- On average, households spend PKR 487 on a child's education per quarter, compared to the value of the WET top-up of PKR 750 per quarter

Originally rolled out to five pilot districts in October 2012, the WET programme has, since January 2015, been extending its reach to a total of 32 districts across the country. According to the BISP there are an estimated 3.3 million children between the ages of 5 and 12 years in 1.5 million beneficiary families.

To date the BISP has enrolled just over 1.3 million children across the four provinces of Pakistan and the regions of Gilgit-Balitstan and Azad Jammu and Kashmir. Figure 3 shows that the vast majority of these (93%) being enrolled in schools in Khyber Pakhtunkhwa, Punjab and Sindh.

Figure 3 Total number of Waseela-e-Taleem beneficiaries



3.1 Waseela-e-Taleem implementation process

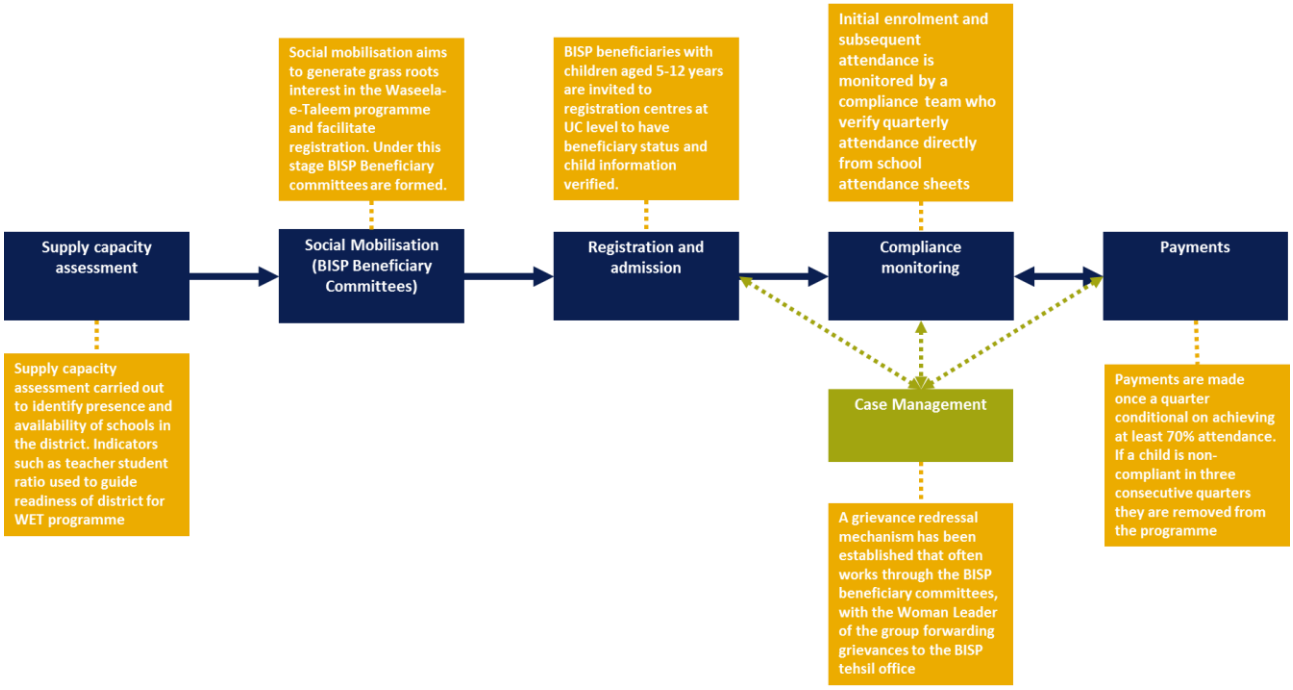
The BISP has contracted the Aurat Foundation[6], which is currently responsible for the entire implementation cycle of the WET programme in all 32 target districts. The Aurat's Foundation's contract is, however, expected to reach completion in July 2016. Models to continue the implementation of the WET programme are currently under discussion.

The main implementation activities of the WET are described in Figure 4 and include:

- Supply capacity assessment;
- Social mobilisation;
- Registration and admission;
- Compliance monitoring; and
- Payments.

[6] The Aurat Foundation is a Non-Governmental Organisation in Pakistan working for social change at community level.

Figure 4 Waseela-e-Taleem main processes



3.1.1 Supply capacity assessment

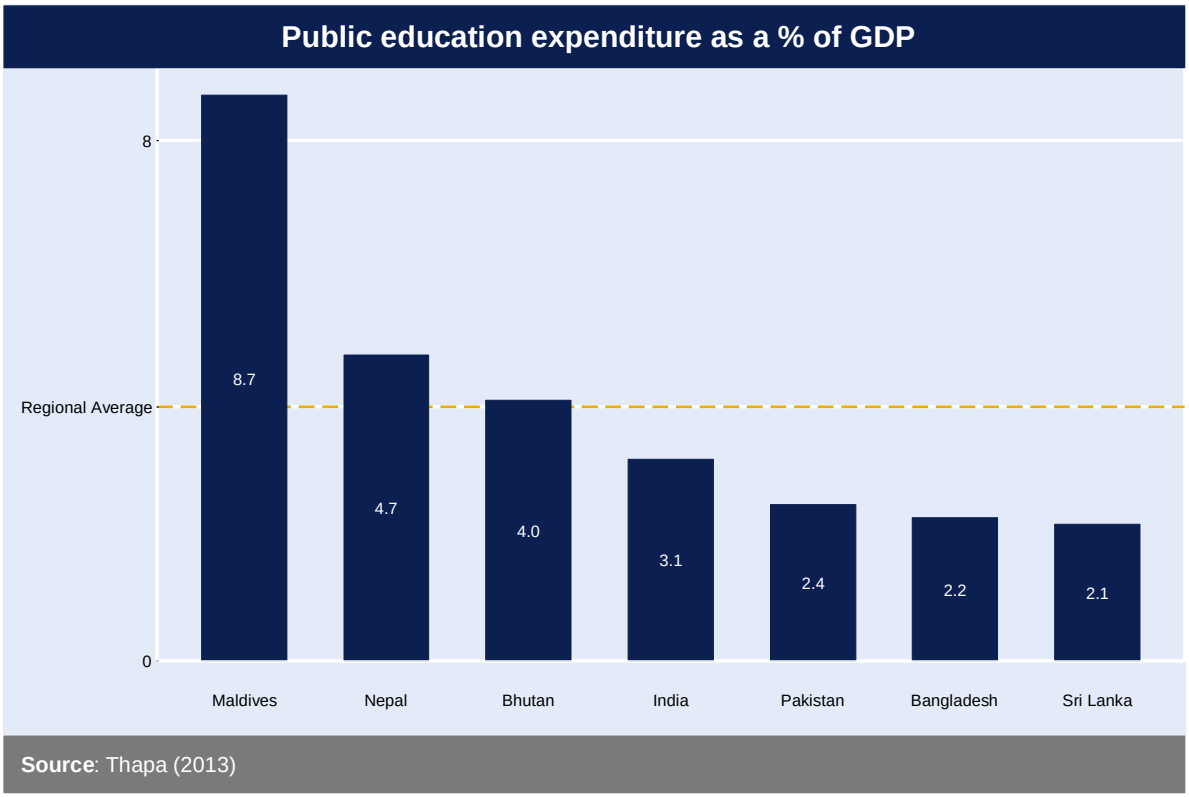
The success of a CCT such as the WET in improving access to education depends crucially on the supply of education that can meet any increase in demand. It is well documented that Pakistan has historically **allocated low levels of expenditure to the education sector**, with Figure 5 reporting that Pakistan has amongst the lowest level of education expenditure as a proportion of GDP in South Asia. This low level of spending has contributed to Pakistan having amongst the lowest levels of adult literacy, highest rates of school drop-outs and lowest levels of primary school enrolment in South Asia (*Human Development Report, 2013*).

The Pakistan Education for All Report (*GoP, 2015*) notes that the low levels of spending have led to a **range of supply side weaknesses** in the Pakistan education system:

- Shortage of schools especially for girls and in remote and far flung areas;
- Shortage and high absenteeism of teachers;
- A lack of qualified and trained teachers;
- Missing facilities such as water, toilets and boundary walls; and
- Weak supervision.

Thus before a district is selected into the WET programme a supply capacity assessment is conducted in two phases. The first phase, the **Macro supply capacity assessment**, is conducted for the purpose of identifying a list of districts for the WET programme and involves the assessment of public and private school capacity at the district level, using indicators like the teacher-student ratio. Guided by recommendation from provincial education departments, results of the mapping exercise are used to select districts for the inclusion in the WET programme.

Figure 5 Public education expenditure as a proportion of GDP



In the second phase a **Micro supply capacity assessment** is conducted for the identification of public and private primary schools that have the capacity to enrol WET beneficiaries. This is a more in-depth analysis and is primarily conducted by assessing the available teacher and school capacity, infrastructure and provision of basic resources in identified schools. This is also used to determine each school's catchment area, and supports the recommendation of schools to beneficiary parents.

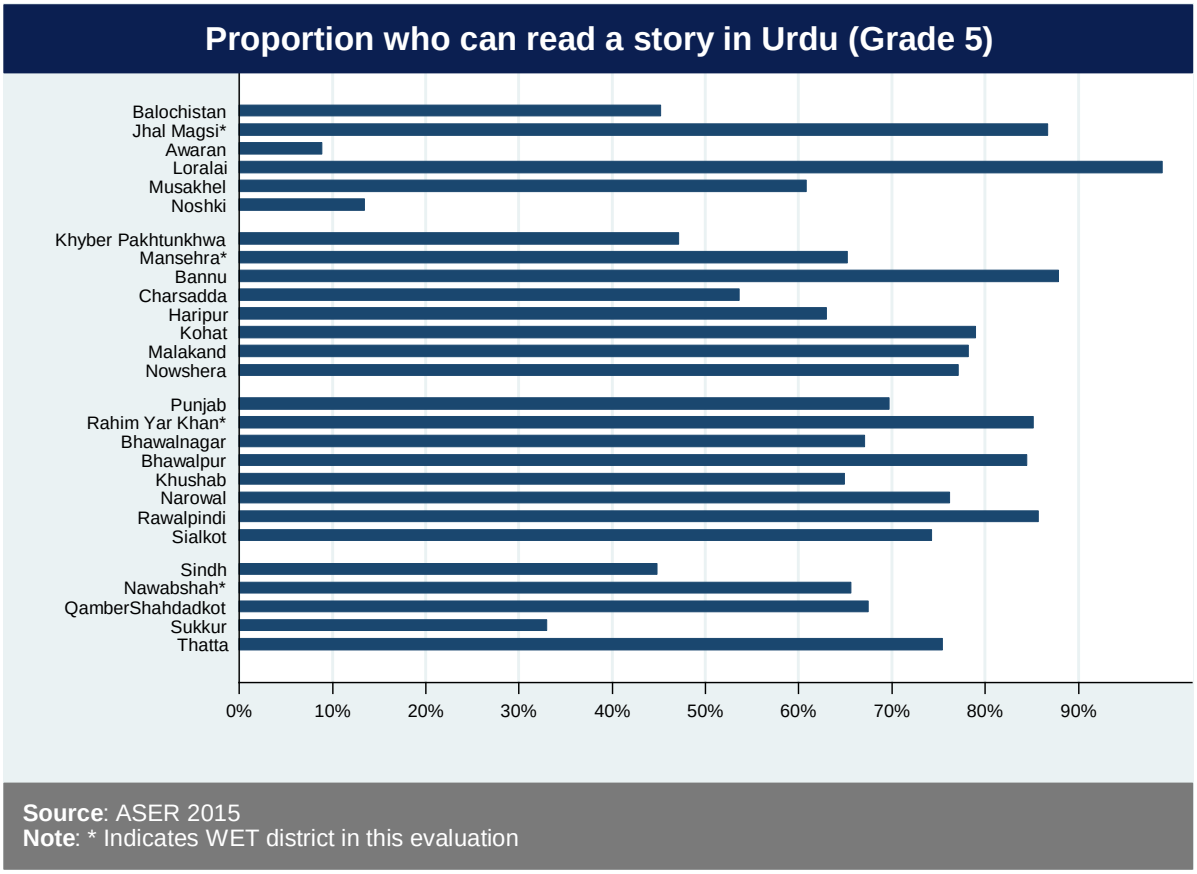
To understand the implications of this for the potential to further scale up the WET programme beyond the current WET districts it is useful to consider Figure 6 which presents learning outcomes reported in the *ASER*[7] *(2015)* report in districts in which the WET programme is operational.

Learning outcomes are an important indicator of the quality of schooling supply as to deliver performance on learning outcomes a range of conditions must be satisfied: the child must be attending school regularly; the school must have adequate infrastructure to facilitate the child's education; teachers must attend regularly; and teacher pedagogy must be of sufficient quality to successfully impart knowledge. Thus the child's learning as measured by learning outcomes is a good proxy for the overall quality of school supply.

Figure 6 demonstrates that the majority of WET districts perform better than provincial averages in terms of the proportion of children in Grade 5 who can read a story in Urdu. A similar pattern is observed when other learning outcome or enrolment indicators presented in the *ASER (2015)* report.

[7] Annual Status of education Report: http://aserpakistan.org/report

Figure 6 Learning outcomes in WET districts



Source: ASER 2015
Note: * Indicates WET district in this evaluation

3.1.2 Social mobilisation

Under this activity, **BISP Beneficiary Committees (BBCs)** have been formed at the grass root level. These committees are primarily composed of BISP beneficiaries and one internally elected woman leader. Capacity building activities are conducted for women leaders to orient them about the BISP in general and WET in particular.

BBCs are operational in all WET districts and 49,618 BBCs have been formed to date[8]. With regards to the WET programme the main purpose of the BBCs are to provide information about the programme; details of the registration process; the conditions for participation; and the details of the grievance process.

3.1.3 Registration and admission

The purpose of the registration and admissions process is to identify children aged between 5 and 12 years living in BISP beneficiary households. The programme is open to any child who meets these criteria, regardless of whether that child was previously out of school or not.

The BBCs provide BISP beneficiaries with information about the registration process. However, the third party implementer, the Aurat Foundation, then conduct door to door visits to identify potential children to be registered for the WET programme.

Beneficiaries are invited to register for the programme beneficiaries are required to visit registration centres usually at Union Council level in a designated school, though mobile registration centres

[8] Overview of Social Mobilization and BISP beneficiary committees, BISP

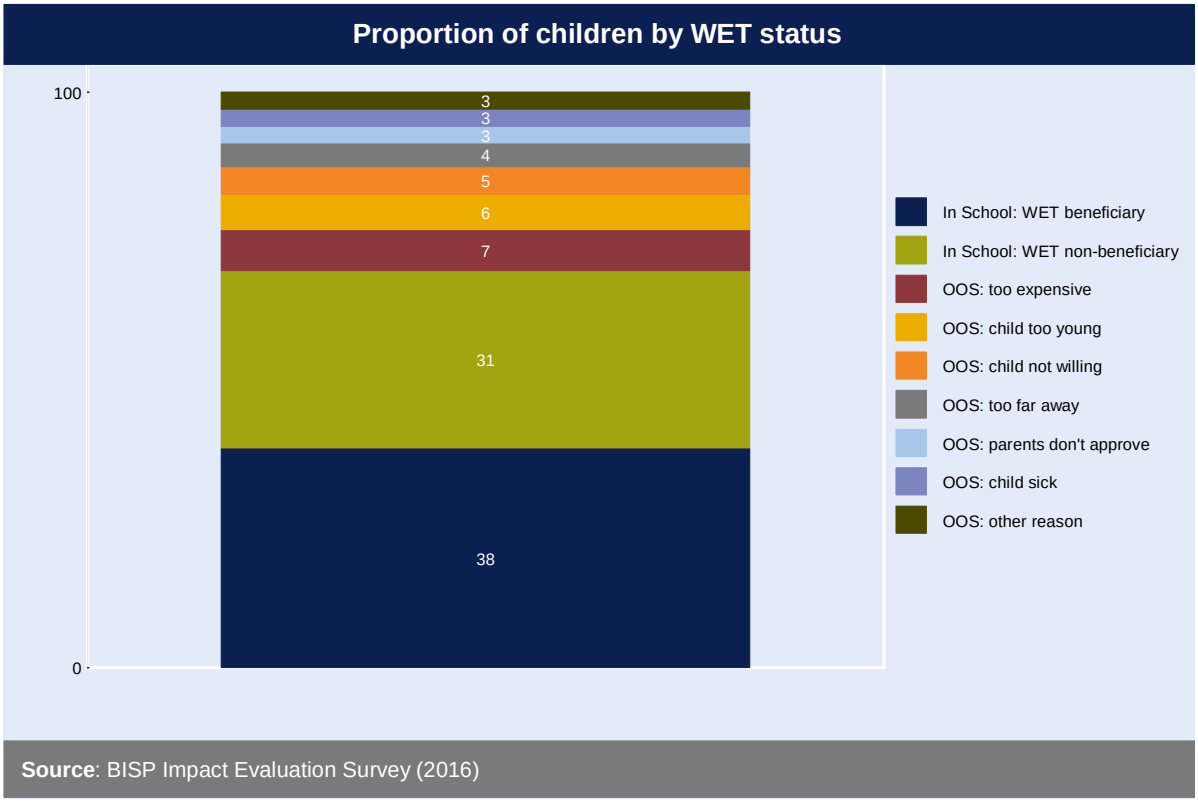
were set-up to service remote communities. Registration involved a screening process to verify beneficiary status, with the beneficiary presenting her CNIC and BISP cards and providing verification details of her children.

Once registered, parents were given flexibility over the choice of school that a child could attend. Parents were given advice on which school they should send their child to, based on the earlier supply capacity assessment which identified a list of schools that satisfied the minimum infrastructure conditions and which specified each school's catchment area[9].

Figure 7 presents the educational status of children aged 5-12 years old living in BISP beneficiary households in the WET evaluation districts, providing the reasons given by the parents of those children not currently attending school. So far the BISP has **enrolled just over 38% of these children into the WET programme**, and who are currently attending school.

A further **31% of these children in beneficiary households are attending school, although not being supported by the WET** programme.

Figure 7 Proportion of children in BISP households by WET status



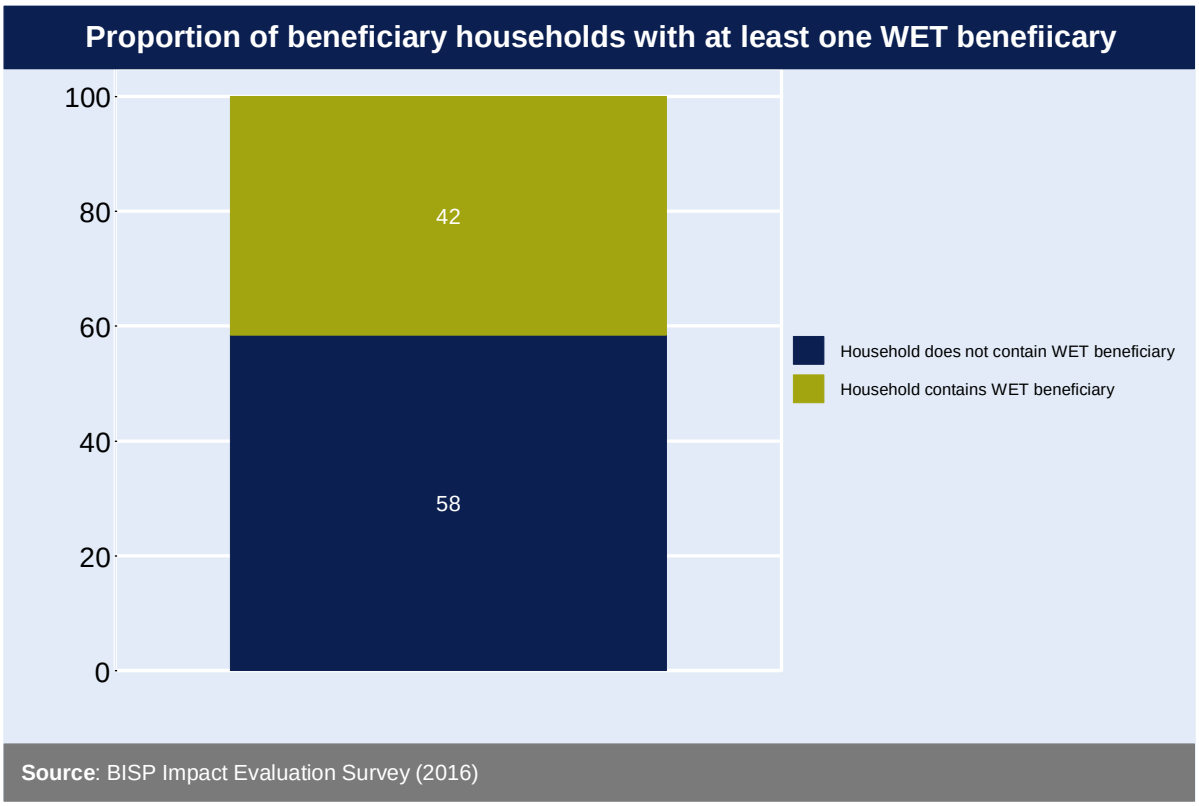
Demand side reasons for not attending school

However, there are still just over 31% of children who remain out of school in the WET evaluation districts. Figure 7 describes a range of demand and supply side reasons as to why this might be the case. The **parents or main care givers of an estimated 19% of children cite demand side reasons as the main factor** as to why their child is not attending school, including: the expense of education; that the child is currently too young; that they do not approve of education; or that the child is sick.

[9] The catchment area was set as within a 5km radius around each school

Despite the top-up provided by the WET, the most common reason given for a child not attending school was the **expense of education**. Despite the provision of free basic education in Pakistan government schools, there are still additional costs to education over and above school fees. These are discussed in Section 3.4 below.

Figure 8 Proportion of beneficiary households that contain a WET beneficiary



In addition there is relatively low level of penetration of the WET programme amongst beneficiary households. Figure 8 demonstrates that of the BISP beneficiary households in the WET evaluation sample, each containing a child 5 to 12 years old, **just 42% of these households had at least one WET beneficiary**. The qualitative research suggested that some children in beneficiary households could not access the programme, and the case of orphans was cited in particular.

"Waseela-e-Taleem support is not given to orphans if they are living with a beneficiary grandmother or some other guardian. My grandchildren live with me because their parents are not alive, but they were not selected for Waseela-e-Taleem" (Female Beneficiary, Focus Group Discussion, District Bahawalnagar, Punjab)

Some women expressed frustration about registering their children in the programme if they happened to miss the initial registration process, and complained of a lack of response from the BISP field offices.

"When I got to know that BISP women with school-going age children were being called over to the nearby school, I went and got two of my children's names included. My third son started going to school later and I tried get his name in as well, but so far nothing has happened. I have visited the BISP office twice, but they don't give a very clear reply". (Female In-Depth Interview, District Noshki, Balochistan)

Furthermore, in the districts of Sukkhur (Sindh), Charsadda (Khyber Pakhtunkhwa) and Bahawalnagar (Punjab) a significant number of respondents in the qualitative research indicated

that while their names had been registered some 5 months prior to the qualitative fieldwork they had not yet received the WET top-up. Despite attempts, they had not been able to receive any further information as to the status of their children.

Parental disapproval for education was another important reason given by parents for their child not to be currently attending school, relevant to 3% of children in the WET evaluation districts. This finding highlights the importance of the behavioural change role that is expected to be played by the BBCs. The BBCs are expected to provide beneficiary women with information regarding the importance of education.

Supply side reasons for not attending school

The parents or main care givers of **an estimated 9% of children cite supply side reasons** for not attending school, including: that the child is not willing; or that the school is too far away. The parents of an estimated **4% of children cited long distances to the nearest school** as the main reason, highlighting supply capacity constraints discussed earlier in this chapter, an issue currently outside of the area of influence of the WET programme.

The parents of an estimated **5% of children cited that their child was not willing to attend school** as the main reason for non-enrolment in school. This is often a reflection of failures in the education system (*Jamal, 2014*), either through deficiencies in quality or through the prevalence of corporal punishment in some public schools in Pakistan.

3.1.4 Compliance monitoring

The programme is **conditional upon achieving at least 70% school attendance** until the beneficiary child graduates from primary school or exits from the programme.

Once enrolled, a compliance monitoring team checks for compliance against school attendance on a quarterly basis. For this phase, the compliance team – currently consisting of focal persons from the Aurat Foundation – visit schools in order to monitor the last quarter's attendance records.

Those who do not comply do not receive the cash transfer and are contacted to improve compliance and BBCs provide extra support to beneficiaries who are facing difficulty in meeting the compliance conditions. Three consecutive non-compliance quarters would cause the child to exit the programme.

The qualitative research suggested that amongst BISP beneficiaries there was a good level of understanding of the WET programme and its compliance conditions and that this understanding had been supported by the BBCs at grassroots level.

"WET is an education support programme only for BISP beneficiaries. Children between the ages of 5 to 12 years are provided with extra support each month for school expenses. A team comes to check attendance of the children every two to three months and makes sure that every WET child has 70 percent attendance" (Female In-Depth Interview, District Karachi, Sindh)

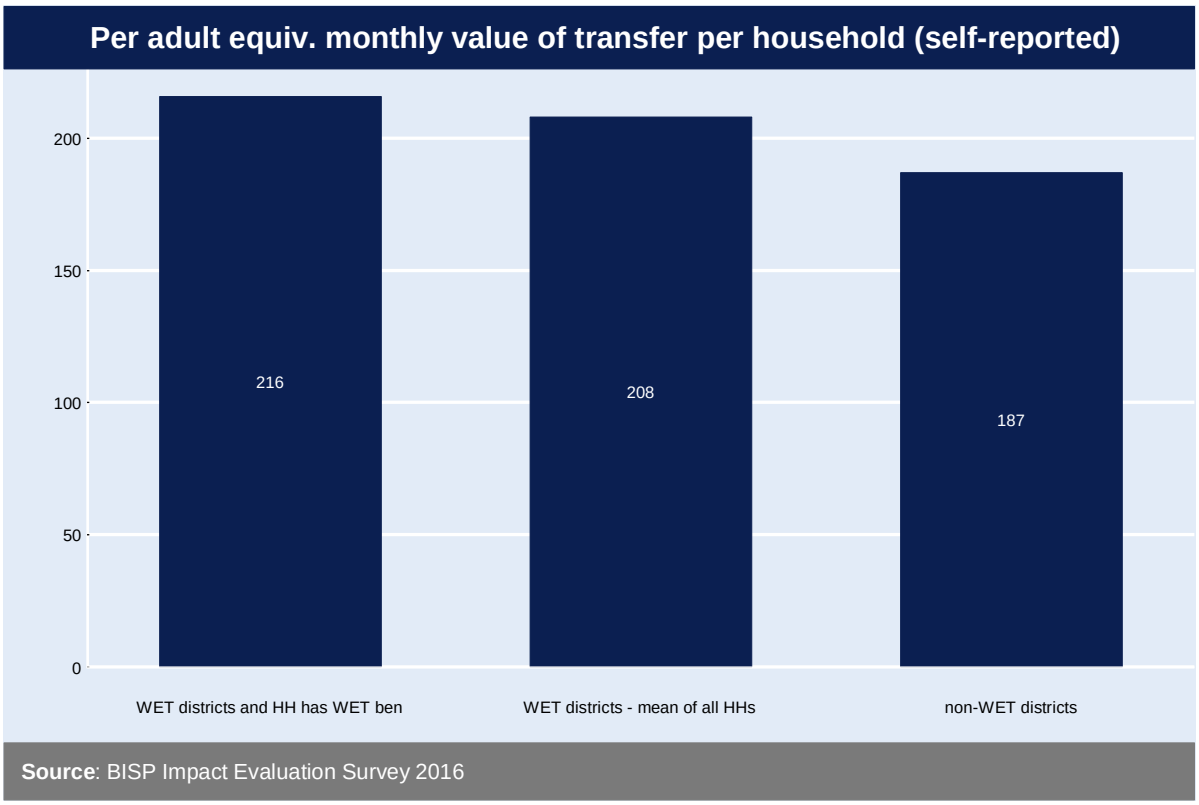
"Because of WET, the attendance of children in schools has improved in our area. Parents make sure that the child goes to school fearing that WET will stop if attendance is short" (Male Beneficiary Focus Group Discussion, District Noshki, Balochistan)

3.1.5 Payments

Payments against the WET component of BISP are made once a quarter through the standard BISP payment mechanism, which for the vast majority of BISP beneficiaries is the BISP Debit Card (BDC).

An additional top-up of **PKR 750 per child per quarter** is paid conditional on the child's attendance at school. Figure 9 shows the total per adult equivalent monthly value of the transfer, comparing BISP beneficiaries in non-WET districts with BISP beneficiary households in WET districts.

Figure 9 Per adult equivalent monthly value of the transfer



BISP beneficiary households, **containing at least one child who is a WET beneficiary, receive a transfer of per adult equivalent monthly value PKR 216**. As would be expected this is 15% higher than the base value of the transfer received by beneficiary households in non-WET districts who receive a per adult equivalent monthly value of PKR 187.

3.2 Enrolment rates of primary aged children

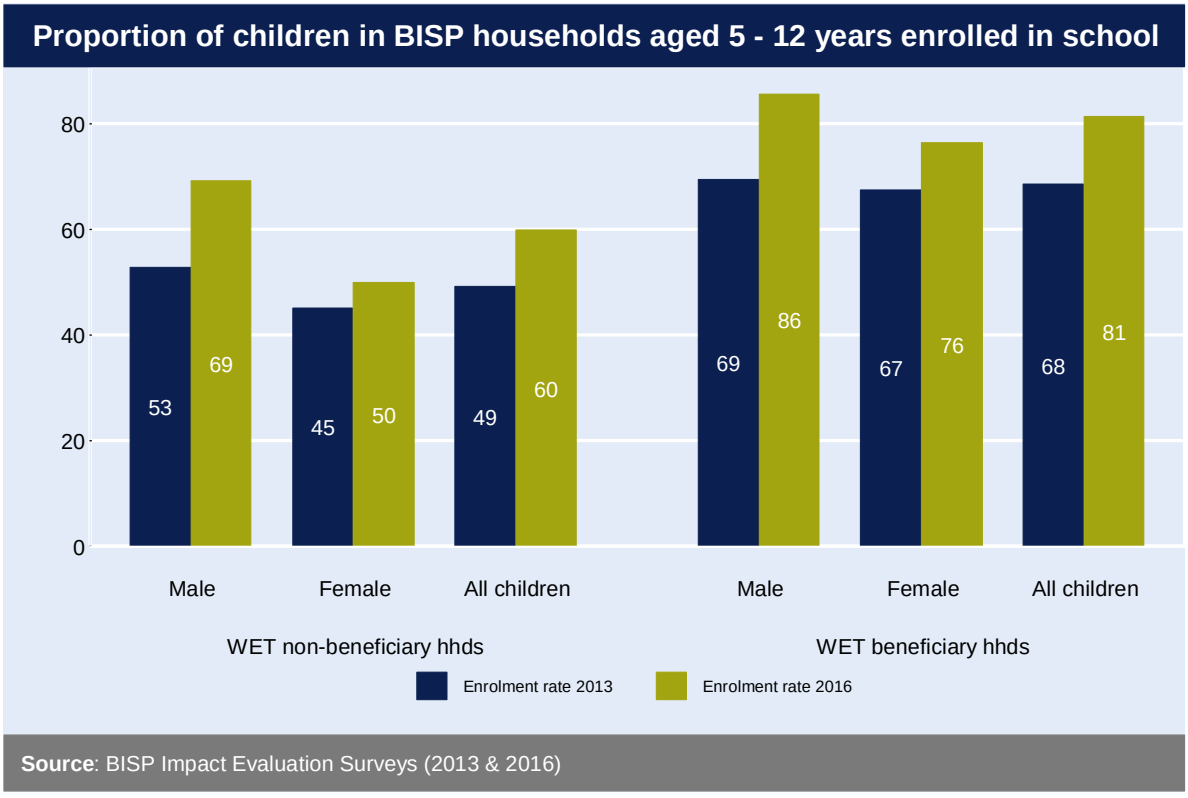
The qualitative research indicated that BISP beneficiaries in WET districts **place a high value on the education, including both boys and girls**. The majority of respondents reported that they wanted their children to receive an education.

"Now people are much more aware and almost everyone in the village sends their sons and daughters to school. We know that it is equally important to send daughters to school as well, otherwise they will just end up like us" (Female Non-beneficiary FGD, District Charsadda, Khyber Pakhtunkhwa)

Figure 10 presents the current enrolment rates of children who are living in households supported by the WET programme. It demonstrates marked differences between those who were supported by the WET programme and those who were not: **81% of BISP children also in households supported by the WET programme were currently enrolled in school, compared to just 60% of BISP children in households not supported by the WET programme**, suggesting that the programme is supporting an increase in school enrolment (as discussed in Section 4.1). However, we do find gender differences in enrolment, with enrolment rates for girls in households supported by the WET programme at 76% compared to 86% for boys.

To offer some insight into how enrolment rates have changed over time we also include the enrolment rates for children aged 5 to 12 years old at the time of the baseline survey in 2013[10]. With the caveats noted in *Footnote 11* below we find a general trend for increasing enrolment overtime for children in BISP beneficiary households, regardless of whether they are households that receive the WET programme or not. In particular the enrolment rate increased from 68% to 81% for children living in households supported by the WET programme and increased from 49% to 60% for children living households not supported by the WET programme.

Figure 10 Proportion of primary aged children currently enrolled in BISP beneficiary households[11]



Source: BISP Impact Evaluation Surveys (2013 & 2016)

Despite the stated desire for girls, as well as boys, to be educated the qualitative research indicated that there was still some preference for boys' education, particularly in situations of limited financial resources.

[10] Caution should be taken in the interpretation of these results. Whilst the 2013 figures represent children in the same households as visited in the 2016 survey, they are not the same children. In particular observed trends might also be reflective of different characteristics between the samples of children aged 5 to 12 years in 2013 and 2016, for example differences in the ability of children.

[11] WET beneficiary household denotes a household containing at least one child enrolled in the WET programme

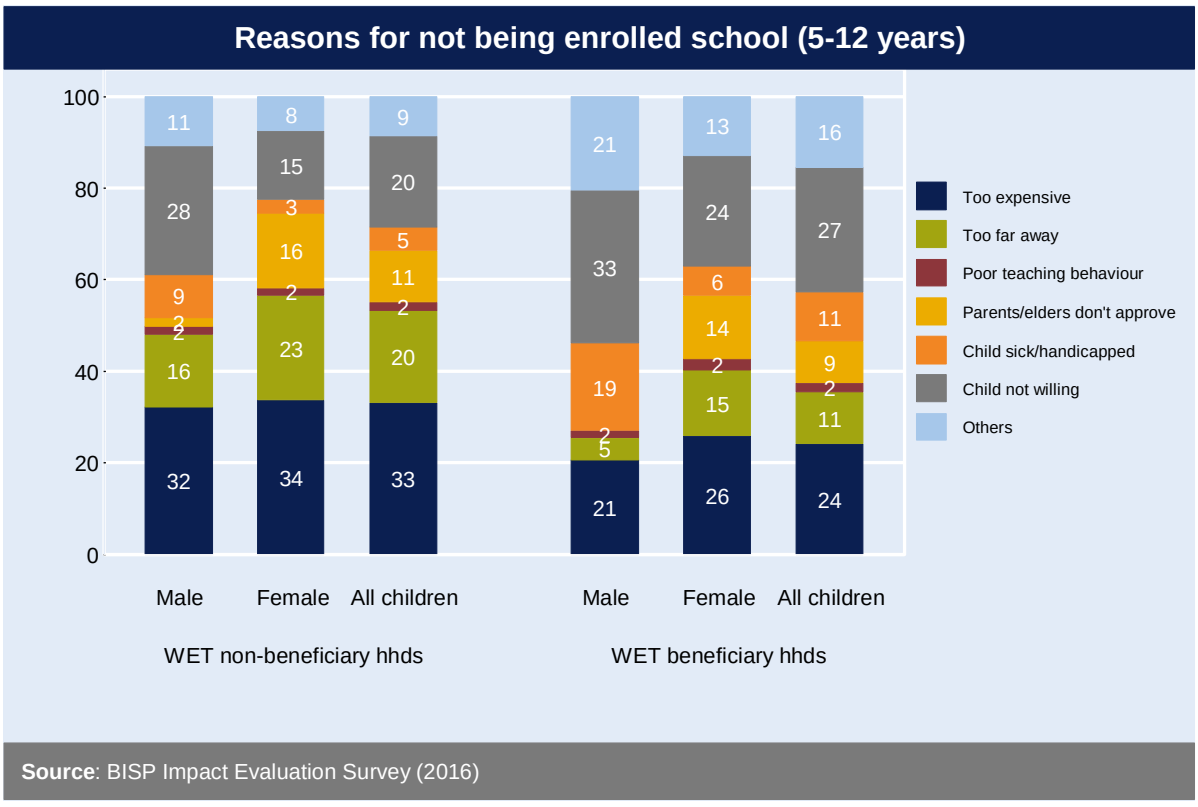
"Education of boys and girls is equally important and people also realise this, but parents still have a preference for educating their sons especially in the case of limited finances". (Teacher, Community Key Informant, District Sukkur, Sindh)

Figure 11 provides further insight into the differences across the genders in terms of non-enrolment in school. Two main differences stand out. **Girls are much more likely to not attend school because of parental disapproval**. Parental disapproval accounts for 14% of girls not currently enrolled, compared to less than 1% of boys, in households containing at least one WET beneficiary. Furthermore we find that significantly **more girls are not enrolled because the school is too far away**, reflecting both the more limited mobility of female students, but also the different opportunities available for girls' education.

"There is a primary school in the village where both boys and girls go. But after primary school then only a few girls continue their education because the middle school is 3 to 4 km away and people don't want their daughters to walk that far alone". (Teacher, Community Key Informant, District Sukkhur, Sindh)

Encouragingly for the programme significantly less children in households supported by the WET programme, i.e. containing at least one WET beneficiary, reported that the cost of education was the main barrier to enrolling in school. Just 24% of such children reported this as the main reason as compared to 33% in the households not supported by the WET programme.

Figure 11 Reasons for not being enrolled school



Source: BISP Impact Evaluation Survey (2016)

3.3 Attendance rates of primary aged children

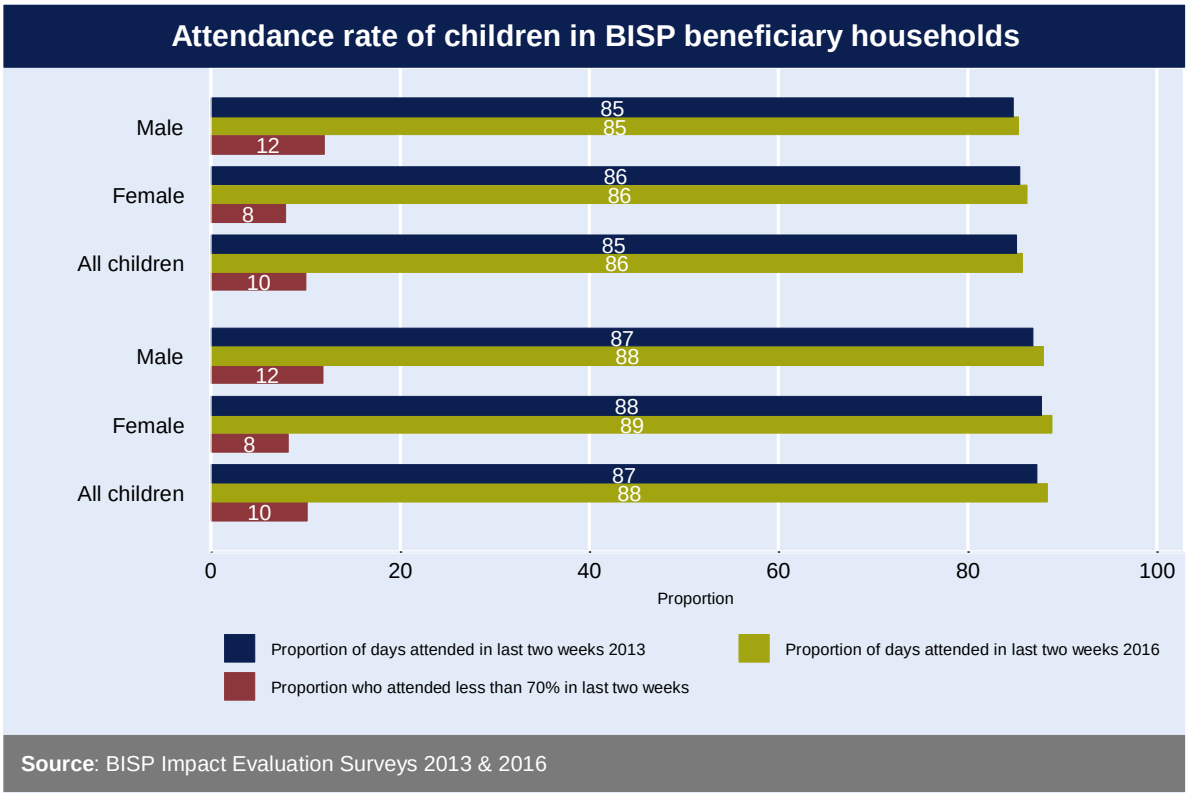
As noted in Section 3.1.4 above, receipt of the WET top-up is conditional on a child achieving at least 70% attendance and are removed from the programme after three consecutive quarters of non-compliance.

Figure 12 reports the proportion of days that a child in a BISP beneficiary households who is currently enrolled actually attended school in the last two weeks, for which the school was in session. We find **rates of attendance in the last two weeks of 88% for children receiving the WET top-up**, suggesting that a child misses just over a day of school every two weeks on average. We do not find that there are statistically significant differences between boys and girls, and find only marginal differences between children who were supported by the WET programme and those who were not.

Furthermore we do not find that the attendance rates conditional on a child being enrolled in school has changed over the period between the baseline survey conducted in 2013 and the follow-up survey conducted in 2016.

However, crucially to the WET programme we find that **10% of children supported by the WET programme attended school for less than 70%** of the days that the school was in session. In this case we do find statistically significant differences between boys and girls, with boys more likely to not have fulfilled the attendance requirement (12%) as compared to girls (8%).

Figure 12 Attendance rate of children in BISP beneficiary households

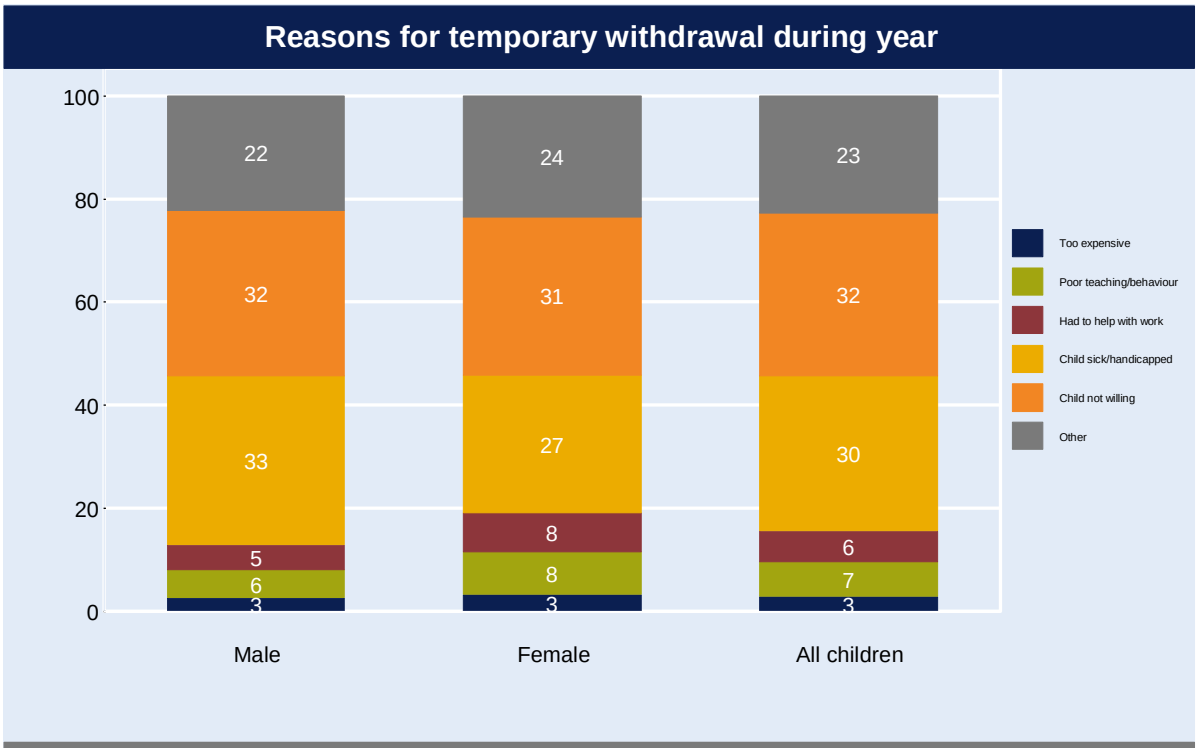


Source: BISP Impact Evaluation Surveys 2013 & 2016

In order to understand the primary factors that drive non-attendance at school when a child is enrolled the impact evaluation survey collected data on the main reason why a parent chose to temporarily remove their child from school during the last year. This information is presented in Figure 13, which demonstrates that the main reasons are either that the child was sick (30%) or that the child was not willing (32%).

That a child is not willing to attend school is often linked to the quality of education that is provided, whether it being that the facilities in schools are inadequate or non-performance of teachers in the classroom. Indeed the next most common reason for a temporary withdrawal from school was given as poor teaching behaviour (7%).

Figure 13 Reasons for temporary withdrawal from school



Source: BISP Impact Evaluation Survey (2016)

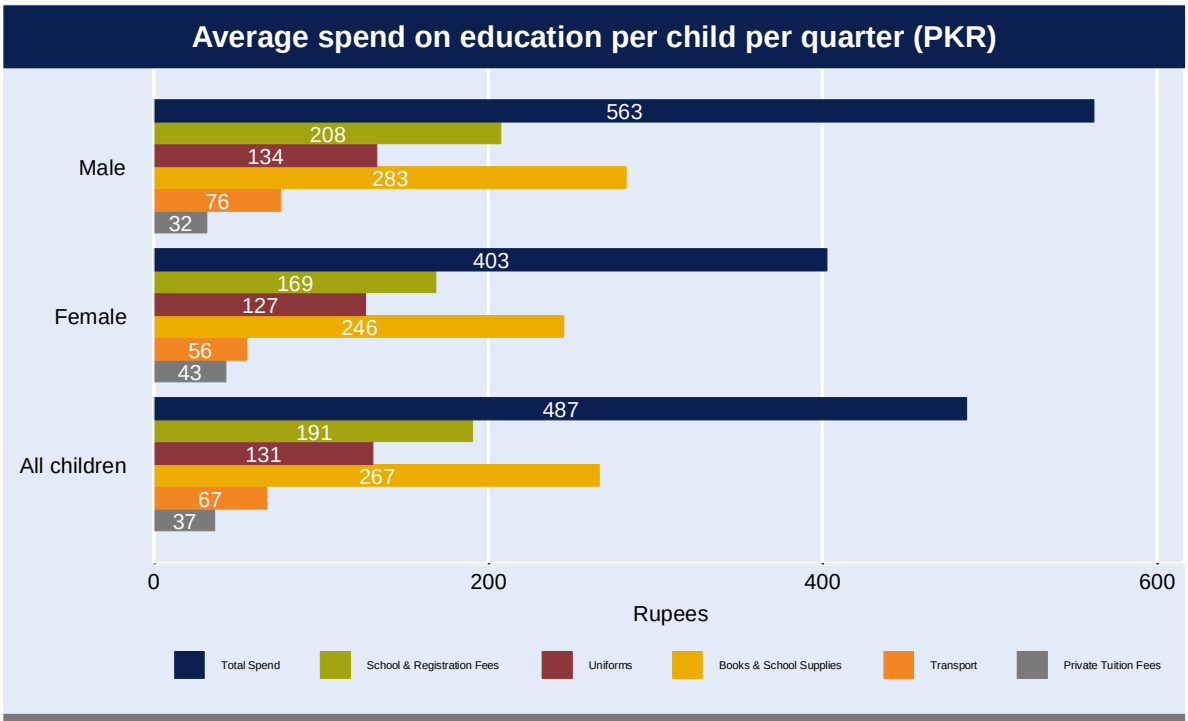
3.4 Average spend on education

The WET programme provides an additional PKR 750 per supported child per quarter conditional on achieving at least 70% attendance. Figure 14 provides the average spend on education for primary age children per quarter who are currently enrolled in school in the WET districts in the evaluation sample. On average **PKR 487 is spent on education per child per quarter for those currently enrolled in school**, with Figure 14 providing a breakdown of these expenses, suggesting that the majority of expenditure goes towards: *books & school supplies; school & registration fees; and school uniforms*.

This would suggest that the value of the WET top-up of PKR 750 is sufficient to cover the basic costs of education, with the caveat that the direct costs presented in Figure 14 do not include the opportunity costs of educating a child. These opportunity costs might include, for example, a reduction in income from child labour if a parent decides to educate a child instead of having them support the household. This also does not guarantee that parents will spend this money on the education of their children, though they are certainly incentivised to through the conditionality of the WET programme.

Figure 14 also demonstrates the remaining preferences for boys' education over girls' education discussed in Section 3.2, with the **average spend on boys' education 40% higher than for girls**, at PKR 563 per quarter for boys compared to PKR 487 for girls.

Figure 14 Average spend on education per child per quarter



Source: BISP Impact Evaluation Survey (2016)
Note: Average spend on education for those currently enrolled

The difference in expenditure on education between boys and girls of PKR 160 per quarter is driven mainly by statistically significant differences in expenditure on: *School & Registration fees* (PKR 39)*; Books & School Supplies* (PKR 37)*;* and *Transport* (PKR 20).

4 Impact of the Waseela-e-Taleem programme

In this section we present the key findings of the impact on the conditional cash transfer against two outcomes related to children, enrolment in education and child labour. The key findings are:

- A positive impact on school enrolment of receiving both the base BISP UCT and the WET programme top-up
- The impact on school enrolment derives mostly from the package of interventions offered by the WET programme, rather than the base BISP UCT
- The positive impact on enrolment holds for both girls as well as boys and is of similar magnitude across genders
- The impact on enrolment is stronger for children: whose father has completed primary education; live in relatively poorer households; and who have fewer siblings.
- The impact on enrolment can derive from a number of channels: increasing incomes; reduced opportunity cost of schooling; and behavioural change communication
- There is no impact, positive or negative, on the proportion of children engaged in child labour

4.1 Child enrolment

In this section we present the impact of the WET programme on the proportion of children aged 5-12 years old who are currently enrolled in school. We consider what is known as the **Intention to Treat**[12] (ITT) estimate of impact.

We also present two measures of impact of the WET programme on child enrolment in this section, both of which are estimated with the ITT estimate of impact:

- **Total impact** of receiving both the BISP UCT and the WET top-up, by comparing BISP beneficiaries in WET districts with non-beneficiaries in WET districts.
- **Marginal impact** of receiving the WET top-up in addition to the BISP UCT, by comparing BISP beneficiaries in WET districts with BISP beneficiaries in non-WET districts.

4.1.1 Total impact of receiving both the BISP UCT and the WET top-up

Table 5 reports that the **combination of receiving both the BISP UCT and the WET top-up has a positive and statistically significant impact on the proportion of children currently enrolled in school**, for children in the RD treatment sample as compared to non-beneficiaries of the BISP who receive neither the BISP UCT nor the WET top-up.

[12] In the case of the evaluation of the WET programme, BISP had intended to treat all children aged 5 to 12 years in BISP beneficiary households. The treatment group in the case of this evaluation refers to children aged 5 to 12 years in beneficiary households living in WET districts. This will more accurately reflect the actual impact of the WET programme, as it accounts for the programme's ability to identify and then enrol potentially eligible children into the programme.

Table 5 suggests that children aged 5 to 12 years living BISP beneficiary households in districts exposed to the WET programme **are 10% points more likely to be currently enrolled in school** than children in the same districts in non-beneficiary households. We find that the **results holds for both boys and girls**, with the magnitude of the impact being similar across the genders.

In other words this means that the BISP has induced an increase in the enrolment rate of primary aged children by 10% points by delivering both the BISP UCT and the WET top-up, as compared to households who are not exposed to either programme.

Table 5 School enrolment: total impact of BISP UCT and WET top-up on enrolment[13]

	Control		Treatment		RDD impact estimate
	Mean	N	Mean	N	
Proportion of children aged 5-12 years old currently enrolled in school					
All children	70	1,690	72	1,986	10***
Male	75	869	78	1,048	8*
Female	65	821	64	938	11**

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10. (2) NR – Not Robust: suggests that there is weak evidence of impact, as whilst we do not find statistically significant impact at bandwidth of +/- 5 we do find statistically significant impacts at other bandwidths (3) Samples sizes are given for bandwidth of +/- 5 points around the cut-off. (4) Point estimates are weighted using triangular weights based on a bandwidth of +/- 5 points around threshold

The magnitude of the impact compares well to the impact on primary enrolment observed in other CCTs globally. For example *Saavedra and Garcia (2012)* in a Meta review of the impact of eight CCTs on education[14] reports an average effect of 6% points on primary school enrolment. That the impact of the WET CCT is slightly higher than the average impact observed by the Meta review should be expected given that the average baseline enrolment rates of children treated by the evaluated CCTs were significantly higher (84%).

4.1.2 Marginal impact of receiving the WET on top of the BISP UCT

Table 6 compares two groups of households:

- BISP beneficiaries who live in WET districts and are thus exposed to the WET programme; with
- BISP beneficiaries who live in non-WET districts and are thus not exposed to the WET programme.

The purpose of the results presented in Table 6 is to understand whether the impact reported in Section 4.1.1 is a result simply from being a beneficiary of the BISP UCT, or whether the additional support of also receiving the WET top-up is required to induce an impact on enrolment. If we find that the marginal impact of receiving the WET in addition to the BISP UCT was zero, then we might expect that receiving the BISP UCT alone is sufficient to deliver an impact on enrolment

[13] Readers are requested to refer to Section 2.3 for the correct interpretation of tables, and in particular how reported means relate to reported estimates of impact given by the RD model

[14] Bolsa Escola (Brazil), Familias en Accion (Columbia), Bono De Desarrollo Humano (Ecuador), PRAF II (Honduras), JPS (Indonesia), Oportunidades/Progresa (Mexico), Red de Proteccion Social (Nicaragua) and SRMP (Turkey)

However, we do not find this to be the case. In fact when we compare children in BISP households who are also exposed to the WET, with children in BISP households not exposed to the WET programme we find that the **WET top-up alone provides a positive and significant impact on the proportion of children aged 5 – 12 years currently enrolled in school**.

In terms of the magnitude of the impact we find that the package offered by the WET programme leads to a 9% point increase in enrolment of children aged 5 to 12 years in WET districts, compared to those in beneficiary households in non-WET districts. Furthermore we also find that the **result holds for both boys and girls** with the magnitude of impact similar across the genders.

Table 6 School enrolment: marginal impact on enrolment of receiving WET on top of BISP UCT

	Control		Treatment		PSM impact estimate
	Mean	N	Mean	N	
Proportion of children aged 5-12 years old currently attending school					
All children	60	11,121	69	3,272	9***
Male	66	5,828	77	1,725	11***
Female	56	5,293	61	1,547	7***

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an PSM estimate is statistically significant: *** p < .01; ** p < .05; * p < .10. (2) Means for treatment and control are based on those post-matching

This result is consistent with three findings:

4) The positive impact on enrolment of the full BISP UCT and WET package;

5) A similar positive impact on enrolment when comparing BISP beneficiaries who are exposed to the WET programme to those BISP beneficiaries who are not (marginal impact); and

6) In a separate and accompanying report that investigates the impact of the BISP UCT in isolation, we find no impact of the base cash transfer on enrolment.

This strongly suggests that the **impact on enrolment presented in this report derives from the package of interventions offered by the WET package**, and that the BISP UCT by itself does not lead to improvements in enrolment in education for beneficiary households.

4.1.3 Interpreting the results on education enrolment

The results presented in this section strongly suggest that it is the package of interventions offered by the WET programme that are driving the observed impact on education enrolment of 5 to 12 years old children. However, it is not clear which elements of that package are most responsible for the observed impact. Neither is it possible to quantitatively determine which element of the package offered by the WET programme are most important in the observed impact, given that the WET programme was implemented uniformly across evaluation districts.

However, in this sub-section we offer a description of those elements, which include:

- **Additional cash top-up** of PKR 750 per child per quarter. The additional cash delivered through the WET programme increases per adult equivalent monthly value received by a beneficiary household by about 15%. This will support the observed impact on education enrolment through an **income effect**, i.e. the monthly income of the household has been raised by an average 15%, further reducing credit constraints faced by poor households and making schooling more affordable.

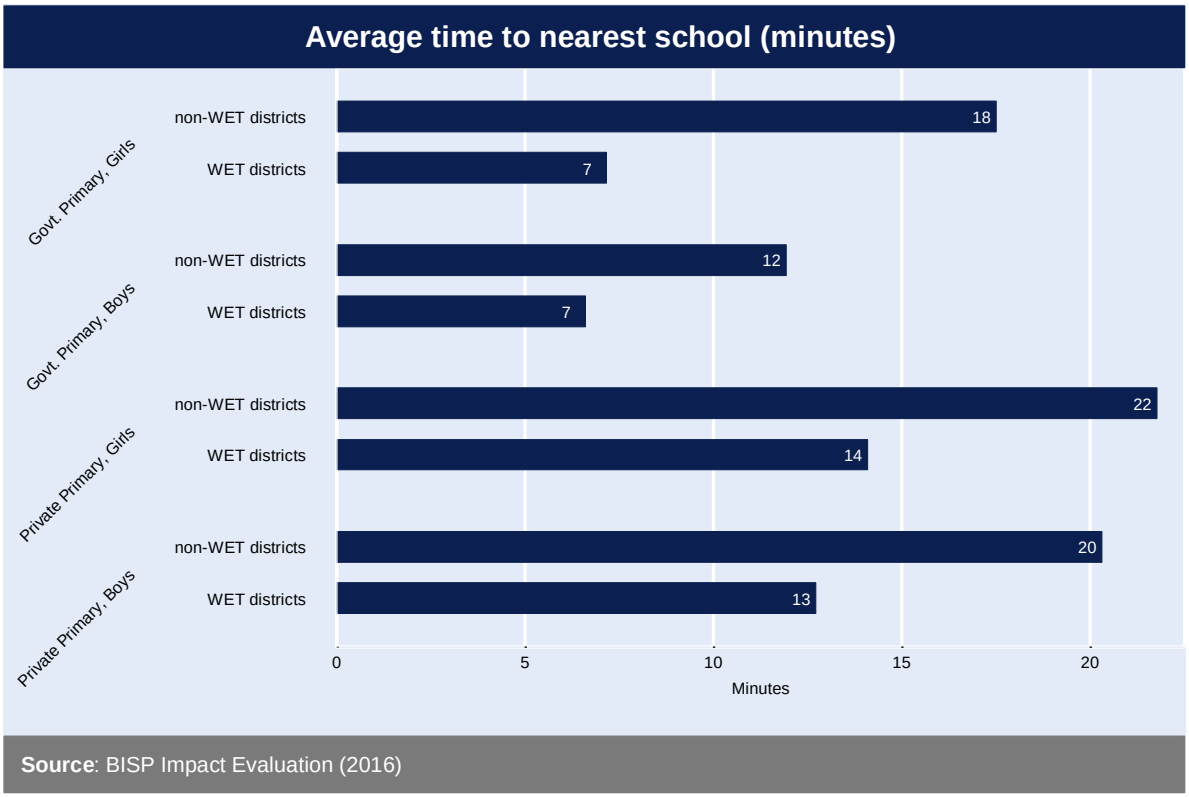
- **Conditions of the WET programme** where the top-up is received conditional on the beneficiary child achieving at least 70% attendance. Given that the cash is conditional on school attendance this will reduce the opportunity cost of schooling and thus support the observed impact on enrolment through a **substitution effect**.

- **Behavioural change communication** which is delivered through the BISP Beneficiary Committees, who provide information on the importance of schooling and how this is linked to long term outcomes. Despite the majority of respondents in the qualitative research reporting a high value placed on education, **parental disapproval was still a common reason for non-enrolment of girls**, highlighting the importance of the behavioural change component of the WET package to induce some parents to enrol their children. Furthermore we

- **Supply side capacity assessments** which are conducted prior to WET programme rollout in a district. Whilst the WET programme does not directly address the supply side, to date it has been rolled out in districts which the BISP has determined the education sector has sufficient capacity to absorb increased demand.

In the evaluation sample we observe differences in the supply side between WET and non-WET districts. For example, Figure 15 demonstrates that the nearest government primary girl or boy's school is approximately double the distance in non-WET districts as compared to WET districts. The results of this evaluation are thus conditional on the capacity of education supply to respond to the increased demand generated.

Figure 15 Average time taken to travel to nearest school



Source: BISP Impact Evaluation (2016)

4.1.4 Looking beyond primary education

The package of support provided by WET programme stops once the child has graduated from primary school and does not continue into secondary education. At this stage it is too early to determine whether children supported by the WET programme will continue their education beyond primary school as beneficiaries of the WET programme only began receiving payments in the evaluation districts in 2015. However, the qualitative research has indicated that some beneficiaries are already concerned about what will happen to their children once they have graduated from primary.

"Waseela-e-Taleem should not be limited to primary education only. In fact it should be provided for high school as well so that poor families can afford to continue their children's education. in many cases, poor people cannot continue their children's education because of poverty" (Male In-Depth Interview, District Malakand, Khyber Pakhunkhwa)

4.2 School attendance conditional on school enrolment

Table 7 presents, conditional on the child being enrolled in school, the impact of receiving both the BISP UCT and WET top-up on the attendance rate of children in school in the past two weeks. Overall we **do not find that the WET programme has a statistically significant impact on the rate of attendance**, despite the conditionality of the programme on attendance.

However, we do find some weak evidence that the WET programme is inducing an improvement in the attendance rates of girls, by 7% points, though no statistically significant impact is observed for boys.

Table 7 School attendance conditional on enrolment: impact estimates

	Control		Treatment		RDD impact estimate
	Mean	N	Mean	N	
Proportion of children aged 5-12 years old currently enrolled in school					
All children	89	1,183	86	1,425	0
Male	89	652	86	820	-5
Female	88	531	86	605	7 (NR)

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10. (2) NR – Not Robust: suggests that there is weak evidence of impact, as whilst we do not find statistically significant impact at bandwidth of +/- 5 we do find statistically significant impacts at other bandwidths (3) Samples sizes are given for bandwidth of +/- 5 points around the cut-off. (4) Point estimates are weighted using triangular weights based on a bandwidth of +/- 5 points around threshold

4.3 School dropout rates

The WET programme aims to reduce the number of children who are dropping out of school. In this report we define a school dropout as a child who has at any time previously been enrolled in school, but who is not enrolled in school in the current academic year. Table 8 reports that 7% of children living in BISP beneficiary households in the RD treatment sample had dropped out of school. The dropout rate for girls is double that for boys at 10%, perhaps reflective of the preference for boy's education noted in Section 3.2.

Table 8 School dropout: impact estimates

	Control		Treatment		RDD impact estimate
	Mean	N	Mean	N	
Proportion of children aged 5-12 years old who have dropped out of school					
All children	6	1,262	7	1,529	0
Male	5	693	5	859	-3
Female	6	569	10	670	3

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10. (2) NR – Not Robust: suggests that there is weak evidence of impact, as whilst we do not find statistically significant impact at bandwidth of +/- 5 we do find statistically significant impacts at other bandwidths (3) Samples sizes are given for bandwidth of +/- 5 points around the cut-off. (4) Point estimates are weighted using triangular weights based on a bandwidth of +/- 5 points around threshold

Despite the impressive impact on enrolment we **do not find that the WET programme to have a statistically significant impact on the rate of school dropouts** for either boys or girls. However, it must be noted that the WET programme in evaluation districts had only been in operation for less than an academic year when the evaluation survey was conducted. Thus it is likely to early to determine with certainty whether or not the WET programme will have an impact on the school dropout rate in the future. Given the impressive impact on school enrolment observed in Section 4.1 above it is likely that the WET programme will have an impact on school dropouts as children continue to receive the WET top-up payments.

4.4 Who is most likely to benefit from the WET programme?

It is important to understand which particular characteristics of children and their primary care givers are likely to effect the likely impact of the WET programme on school outcomes, in order to improve the performance of the WET programme. To do this we look at the impact of the full WET package, i.e. receipt of the base unconditional cash transfer plus the conditional cash transfer top-up, on school enrolment disaggregated by a variety of characteristics.

4.4.1 Impact of the WET programme on enrolment by educational achievement of primary caregivers

There is strong global evidence that the children of parents who have completed at least some education are more likely to be enrolled in school, as well as perform better once they are in school. For example *Case and Deaton (1999)* show that South African children whose parents had completed secondary school were more likely to be enrolled in school as well as performing better on learning assessments. In Pakistan *Berhman et. al. (1997)* show that children whose parents had completed junior secondary school achieved better on both numeracy and literacy tests.

To understand whether the WET programme has a different impact on enrolment of beneficiary children we present in Table 9 the impact of the WET programme for two groups of children: (1) those whose mother or father had completed primary education; (2) and those whose mother or father had not completed primary education.

Table 9 Impact of WET programme on enrolment by educational achievement of caregivers

	Control		Treatment		RDD impact estimate
	Mean	N	Mean	N	
Father of child has…					
Completed primary school	81	712	81	689	17***
Not completed primary school	62	973	67	1,294	6
Mother of child has…					
Completed primary school	87	227	90	170	8*
Not completed primary school	67	1,458	70	1,813	11***

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10. (2) NR – Not Robust: suggests that there is weak evidence of impact, as whilst we do not find statistically significant impact at bandwidth of +/- 5 we do find statistically significant impacts at other bandwidths (3) Samples sizes are given for bandwidth of +/- 5 points around the cut-off. (4) Point estimates are weighted using triangular weights based on a bandwidth of +/- 5 points around threshold

We find that there is a strong **positive impact of the WET programme on enrolment for children whose father had completed primary education, but no impact for children whose father had not completed primary education**. Furthermore, we find that the positive impact on enrolment for the sub-sample of children whose father had completed primary education was stronger than for the average beneficiary child (reported in Table 5).

This finding is likely driven by a number of factors, including that better educated fathers are more likely to have access to high return employment[15] which would increase the likelihood that they can afford to send their children to primary school, but are also better placed to understand the long

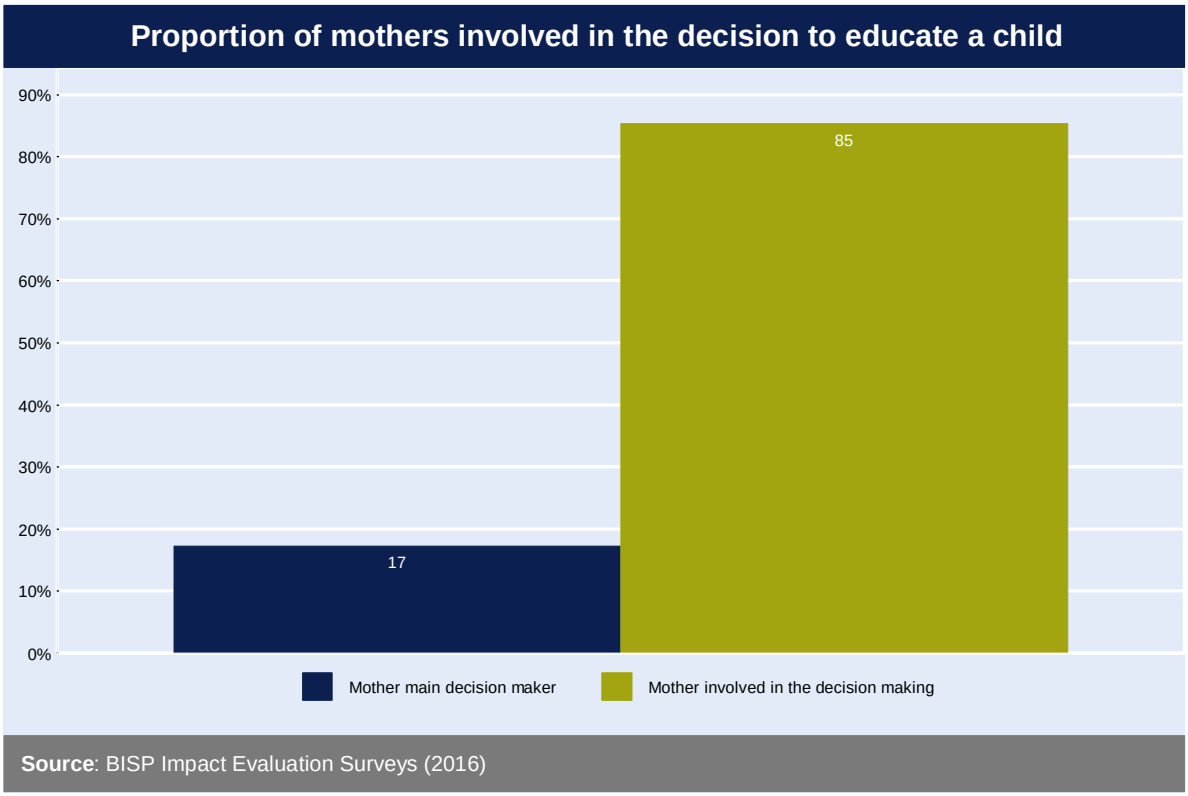
[15] Indeed we find that households with a household head that has completed primary education are less likely to be poor

term benefits of providing their children with a good education. Furthermore, it is often posited that a better educated father can provide the 'right environment' in the household for a child to attend and do well at school.

However, when considering the impact of the WET programme by whether or not the mother had completed primary education, we do not find any significant differences across the two groups of children. In other words we find that **the WET programme had a similar positive level of impact upon enrolment of children regardless of whether or not the mother had completed primary education or not**.

To understand this result it is useful to consider Figure 16 which demonstrates that whilst the majority of mothers are involved in decisions relating to the education of children, in only 17% of the cases were they the main decision maker[16]. This result is symptomatic of the relative bargaining power held by women within many Pakistani households for important decisions, including the education of children.

Figure 16 Proportion of mothers involved in decision to educate child



Source: BISP Impact Evaluation Surveys (2016)

The implication of this finding is that any outreach work to highlight the benefits of the WET programme or the benefits of educating their children that is conducted by BISP (either directly or through the BISP Beneficiary Committees) should involve some communication targeted at fathers of potential beneficiary children, given that they are the primary decision makers in the household regarding the education of children.

[16] And in the majority of cases were the mother was the main decision maker, this was in a female headed household.

4.4.2 Impact of the WET programme on enrolment conditional on household resources

We also report the impact of the WET programme on school enrolment conditional on household resources. Table 10 first examines whether the level of income in the household will influence the level of impact that the WET programme has on enrolment. To do this we compare: (1) the poorest one third of households[17] in the evaluation sample with; (2) the remaining two-thirds of households in the evaluation sample.

Table 10 reports, as might be expected, that the enrolment rates are lower for children in beneficiary households who are in the poorer third of the sample at 67% for the RD treatment group compared to 74% for the relatively better off. However, we find that the **impact of the WET programme on enrolment is higher at 18% points for children in the poorest households** in the evaluation sample, compared to just 8% points for children in relatively better off households.

To understand this result it useful to consider that in the absence of the WET programme relatively poorer households are more likely to not send their children to school because of financial constraints. In fact we find that for children who are not enrolled in school, in the poorest third of households, 29% reported that this was because school was too expensive. This compared to just 18% for those who lived in relatively better off households.

Table 10 Impact of the WET programme on enrolment conditional on household resources

	Control		Treatment		RDD impact estimate
	Mean	N	Mean	N	
Household is…					
Poorest third of households in sample	61	538	67	685	18***
Remaining two-thirds of households in sample	74	1,148	74	1,298	7**
Child has…					
More than 2 siblings	68	1,209	71	1,460	8**
2 or fewer siblings	75	476	74	523	16***
Child is…					
Engaged in child labour	63	137	59	179	10
Not engaged in child labour	71	1,548	73	1,804	10***

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10. (2) NR – Not Robust: suggests that there is weak evidence of impact, as whilst we do not find statistically significant impact at bandwidth of +/- 5 we do find statistically significant impacts at other bandwidths (3) Samples sizes are given for bandwidth of +/- 5 points around the cut-off. (4) Point estimates are weighted using triangular weights based on a bandwidth of +/- 5 points around threshold

Global literature suggests that fertility rate is negatively associated with educational achievement. For example *Rosenzweig and Zhang (2009)* highlighted a negative effect of fertility on human capital formation in China, whilst *Rosenzweig and Wolpin (1980)* report a similar result for children's school achievement in rural India. Table 10 also reports the impact of the WET programme separately for children: (1) who have more than 2 siblings; and (2) who have 2 or fewer siblings.

[17] Where a households wealth is measured by their per adult equivalent value of monthly consumption expenditure

We find that the **impact of the WET programme on school enrolment is higher for children who have 2 or fewer siblings at 16% points** compared to children who have more than 2 siblings (8% points). This finding reflects the competition for resources within a household increases with the fertility rate. In other words a child with more siblings is less likely to benefit from the WET programme.

Finally Table 10 examines the impact of the WET programme depending on whether the child is: (1) engaged in child labour; (2) not engaged in child labour. We find that that **magnitude of the impact of the WET programme on school enrolment is the same whether or not the child is engaged in child labour**. However, we do not find that the impact is statistically significant for children engaged in child labour, though this is likely to do with the relatively low size of the sub-sample of children engaged in child labour (i.e. just 179 treatment children and 137 control children). We discuss further the impact of the WET programme on child labour in the following section.

4.5 Child labour

Child labour and poverty are inextricably linked, with causal links travelling in both directions, with child labour often used as a livelihood strategy amongst poor families. This certainly seems to be the case for some beneficiary children, with **9% of children aged 5-12 years in beneficiary households engaged in child labour**, in WET districts in the RD evaluation sample.

In this study we follow the UNICEF definition of child labour for children aged 5 to 12 years of age:

Percentage of children aged 5 to 12 years of age involved in child labour activities at the moment of the survey. A child is considered to be involved in child labour activities under the following classification: (a) children 5 to 11 years of age that during the week preceding the survey did at least one hour of economic activity or at least 28 hours of domestic work, and (b) children 12 years of age that during the week preceding the survey did at least 14 hours of economic activity or at least 42 hours of economic activity and domestic work combined.

Furthermore the prevalence of child labour harms a child's ability to enter and survive in the school system and makes it more difficult for children to derive educational benefit from schooling once in the system. In addition this link is not limited to child's participation in economic activities but also to domestic work such as household chores (*Guarcello et. al., 2008*)

A conditional cash transfer may be expected to reduce child labour through a number of channels. The delivery of a regular and reliable top-up to income can cushion the effect of economic shocks on beneficiary households, reducing the reliance on child labour as a coping strategy (*de Hoop, 2013*). In addition by providing a top-up to the BISP transfer, that is conditional on school attendance, the opportunity cost of education is lowered.

Table 11 Child labour: impact estimates

	Control		Treatment		RDD impact estimate
	Mean	N	Mean	N	
Proportion of children aged 5-12 years old engaged in child labour					
All children	8	1,690	9	1,986	1
Male	10	869	10	1,048	-3
Female	6	821	8	938	6

	Control		Treatment		RDD impact estimate
	Mean	N	Mean	N	

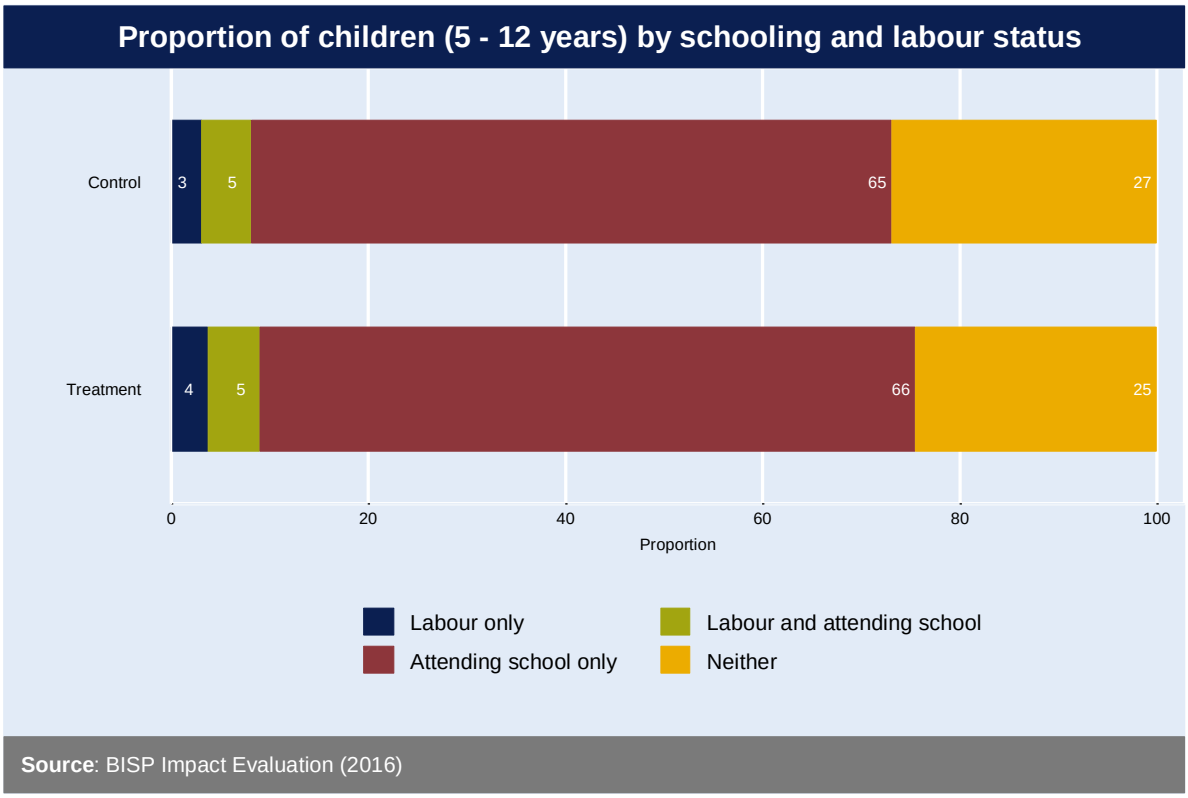
Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10. (2) NR – Not Robust: suggests that there is weak evidence of impact, as whilst we do not find statistically significant impact at bandwidth of +/- 5 we do find statistically significant impacts at other bandwidths (3) Samples sizes are given for bandwidth of +/- 5 points around the cut-off. (4) Point estimates are weighted using triangular weights based on a bandwidth of +/- 5 points around threshold

Table 11 reports that **we do not find a statistically significant impact of receiving the BISP cash transfer plus WET top-ups on child labour**, for either boys or girls in the RD treatment sample. However, it is worth noting that the children in the WET districts in the evaluation sample have only been receiving the WET top-ups since the end of 2015, and thus it may be too soon to see an impact on child labour at this stage. In addition we also investigated (though do not report) the impact on the proportion of children who do more than 28 hours of domestic chores, and do not find that the WET programme had a statistically significant impact on the likelihood of engaging in chores.

Furthermore we find that more than half of the children who are engaged in child labour, are also attending primary school at the same time (see Figure 17). Whilst those engaged in child labour make up only a small proportion of all children who are attending school it is worth noting that there is a strong and damaging relationship between child labour and learning achievement. For example *Guarcello et. al. (2008)* report[18] that children who never work outperformed children who often work by 22% in learning assessments to maths with similar results in language learning assessments.

[18] Based on the First International Comparative Study (FICS) of language, mathematics and associated factors in the third and fourth grade of primary school. Countries included Brazil, Chile, Columbia, Costa Rica, Cuba, Honduras, Mexico, Paraguay, Peru, the Dominican Republic and Venezuela

Figure 17 Proportion of children by schooling and labour status



Source: BISP Impact Evaluation (2016)

5 Conclusion

This report presents the evidence of the independent impact evaluation of the WET programme and provides findings as they relate to the implementation of the programme and potential impact on beneficiaries. Quantitative and qualitative data have been collected and analysed that relate to the impact of the WET programme on enrolment of children aged 5-12 years.

WET programme roll-out

To date the WET programme has **enrolled 1.3 million children across the 32 districts in which the programme is operational**. Despite this success we find that 31% of children aged 5-12 years in beneficiary households in WET evaluation districts are attending school, but not enrolled in the WET programme and a further 31% of children remain out-of-school.

The research suggests a **range of supply and demand side factors contribute to out of school children, some of which may or may not be addressed directly by the WET programme**. On the demand side the most common reasons for non-enrolment included the expense of education and parental disapproval (particularly for girls). The WET programme directly addresses both of these constraints: the expense of education by providing additional support to education that is conditional on school attendance; and parental disapproval through behaviour change communication that is delivered through the BISP Beneficiary Committees.

On the supply side the most common reasons were long distances to the nearest school and reasons often related to failure of the education system, including that the “child was not willing”. Furthermore, it is important to note that an explicit part of the WET programme processes is that a supply capacity assessment is conducted at district level before the WET programme is implemented to ensure that the supply of education can absorb additional demand generated. We demonstrate earlier in the report that this means that on aggregate WET districts tend to perform better on a range of education outcomes

The **WET programme in its current form cannot directly address supply side barriers to access** to education. Given the low levels of public expenditure on education in Pakistan, these barriers can be binding in some parts of Pakistan, including (according to the Government of Pakistan’s own *Pakistan Education for All Report*) a lack of qualified teachers and a shortage of schools, particularly for girls.

This highlights the importance of the BISP working with counterparts in the various Departments for Education to identify capacity of education supply as the WET programme scales up, as well as the need for greater investment in education through sector programmes such as those implemented by the Chief Minister’s Road Map for Education Punjab, which will help to alleviate supply side barriers.

Impact on education

We find that the WET programme has a **positive and statistically significant impact on the proportion of children currently enrolled in school**, with the full package of BISP and WET programme benefits increasing enrolment by 10% points. Furthermore, we find that this impact holds for **both boys and girls in the evaluation sample**, with the magnitude of impact similar across genders.

The results presented in this report **strongly suggest that this impact is derived from the WET programme component of the BISP, and not the BISP unconditional cash transfer by itself**.

The evaluation cannot disentangle which component of the overall WET package drives this result as the WET programme was implemented uniformly in evaluation districts.

Furthermore we find that that additional cash top-up of PKR 750 per child per quarter is greater than the average quarterly spend on education. However, it will be important for the WET programme to ensure that the value of the top-up is adequately scaled with general inflation to ensure that the value of the top-up does not erode over time which would reduce the observed impact.

This package included: an additional cash top-up of PKR 750 per child per quarter increasing the incomes of beneficiaries; conditions of school attendance to receive the cash top up which decreased the opportunity cost of schooling; and behavioural change communication to promote the benefits of child education.

References

ASER (2015) *Annual Status of Education Report: ASER- Pakistan 2015.*

Baird, S., Ferreira, F., Ozler, B. and Woolcock, M. (2012) *Relative effectiveness and cost-effectiveness of conditional and unconditional cash transfers for schooling outcomes in developing countiries: a systematic review.* Campbell Collaboration

Caliendo, M. and Kopeinig, S. (2005). 'Some practical guidance for the implantation of propensity score matching'. *IZA Discussion Papers*, No. 1588.

Calonico, S., Cattaneo, M. D. and Titiunik, R. (2013) *Robust nonparametric confidence intervals for regression discontinuity designs.* University of Michigan, Department of Economics.

Cohen, J. (1992) *A power primer*. Psychological bulletin. Vol 112. No 1

Cohen, J. (1998) *Statistical power analysis for behavioural sciences*. Hillside, NJ.

De Hoop, J. and Rosati, F. (2013) *Cash Transfers and Child Labour*. IZA Discussion Paper Series

Fiszbein, A. and Schady, N. (2009) *Conditional Cash Transfers: Reducing Present and Future Poverty*. The World Bank

Gerber, A. and Green D. (2012) *Field experiments: design, analysis and interpretation*. W.W. Norton and Company.

Gertler, P.J., Martinez, S., Premand, P., Rawlings, L. and Vermeersch, C. (2011) *"Impact Evaluation in Practice"* World Bank

Guarcello, L., Lyon, S. and Rosati, F.C. (2008) *Child labour and education for all: an issue paper.* Understanding Child's Work Project, University of Rome.

Jamal, H. (2014) *School participation in rural Pakistan: a situation analysis.* Social Policy and Development Centre. MPRA

Kish, L. (1965) *Survey Sampling.* New York. Wiley.

Rosenbaum, P.R. and Rubin, D.B. (1985) *Constructing a control group using multivariate matched sampling methods that incorporate the propensity score.* The American Statistician. 1985: 39:33–38.

Rubin, D. (2001) *Using Propensity Scores to Help Design Observational Studies: Application to the Tobacco Litigation.* Health Services & Outcome Research Methodology 2, 169 -189.

Saavedra, J. and Garcia S. (2012) *Impacts of Conditional Cash Transfers Programmes on Educational Outcomes in Developing Countries. A Meta Analysis*. RAND Working Papers, Labor and Population.

Schochet, P. (2008) *Technical methods report. Statistical power for regression discontinuity design in education evaluations.* Institute of Education Sciences. US Department of Education

Thapa, S. (2013) *Relationship between Education and Poverty in Nepal"* Economic Journal of Development Issues. Vol 14 & 16 No.1-2(2013) Combined Issue

Annex A Regression Discontinuity: technical appendix

Regression Discontinuity (RD) can be used to estimate the causal effect of a treatment on one or more outcomes of interest when the treatment is a deterministic function of an assignment variable and the threshold that determines the treatment is known. Under certain assumptions we can use observations close to the eligibility threshold and work with them as if treatment around this threshold were random. In the close neighbourhood of the threshold we can then identify causal impact of having receiving payments through the BISP on an outcome of interest *(y_i)* by taking the difference in outcomes for the treatment and control observations at the eligibility threshold.

$$Y(1) - Y(0) = E(Y_i|x_i, BISP_i = 1, BISPSCORE_i) - E(Y_i|x_i, BISP_i = 0, BISPSCORE_i)$$

We will use a non-parametric approach to estimate the impact of the BISP on its beneficiaries. This involves estimating the differences in intercepts (i.e. the discontinuity) of two local polynomial estimators, one from each side of the eligibility threshold c_0. Formally for a positive bandwidth *h*:

$$\min_{\beta} \sum_{i=1}^{n} \left(y_i - \sum_{j=0}^{p} \beta_j (BISPSCORE_i - c_0)^j \right)^2 K\left(\frac{BISPSCORE_i - c_0}{h}\right)$$

The key features of this approach are include the implementation of a local linear regression in some bandwidth *h* around the eligibility threshold. The estimation of impact is sensitive to the choice of the bandwidth. Thus whilst in the main body of the report we present the results of just one bandwidth (+/- 5 points around the cut-off) we present the estimates of the discontinuity observed with a variety of bandwidths.

A kernel weighting approach is also used, as determined by the kernel function *K(.)* such that the data is weighted according to its distance from the cut-off point. We implement a triangular kernel weight which gives greater weight to data points closer to the cut-off than those further away, with the weights falling off in a linear fashion.

A.1 Sensitivity testing

To be satisfied with the robustness of our findings we conduct the following sensitivity tests, the results of which can be found in Annex A3:

- We test sensitivity of results to the choice of bandwidth. Results reported in the main report are based on a bandwidth of +/- 5 points around the cut-off. In Annex A3 we also report estimates of the discontinuity at a variety of other bandwidths.

We find that our results presented in the main report are robust to the sensitivity tests applied.

A.2 Assumptions of RD

RD will identify the combined causal impact of being treated by the BISP UCT on the outcomes of interest if the only source of discontinuity in the outcomes at the eligibility threshold is the probability of receiving the BISP treatment. In order for this to hold we need to satisfy five assumptions, which are presented below:

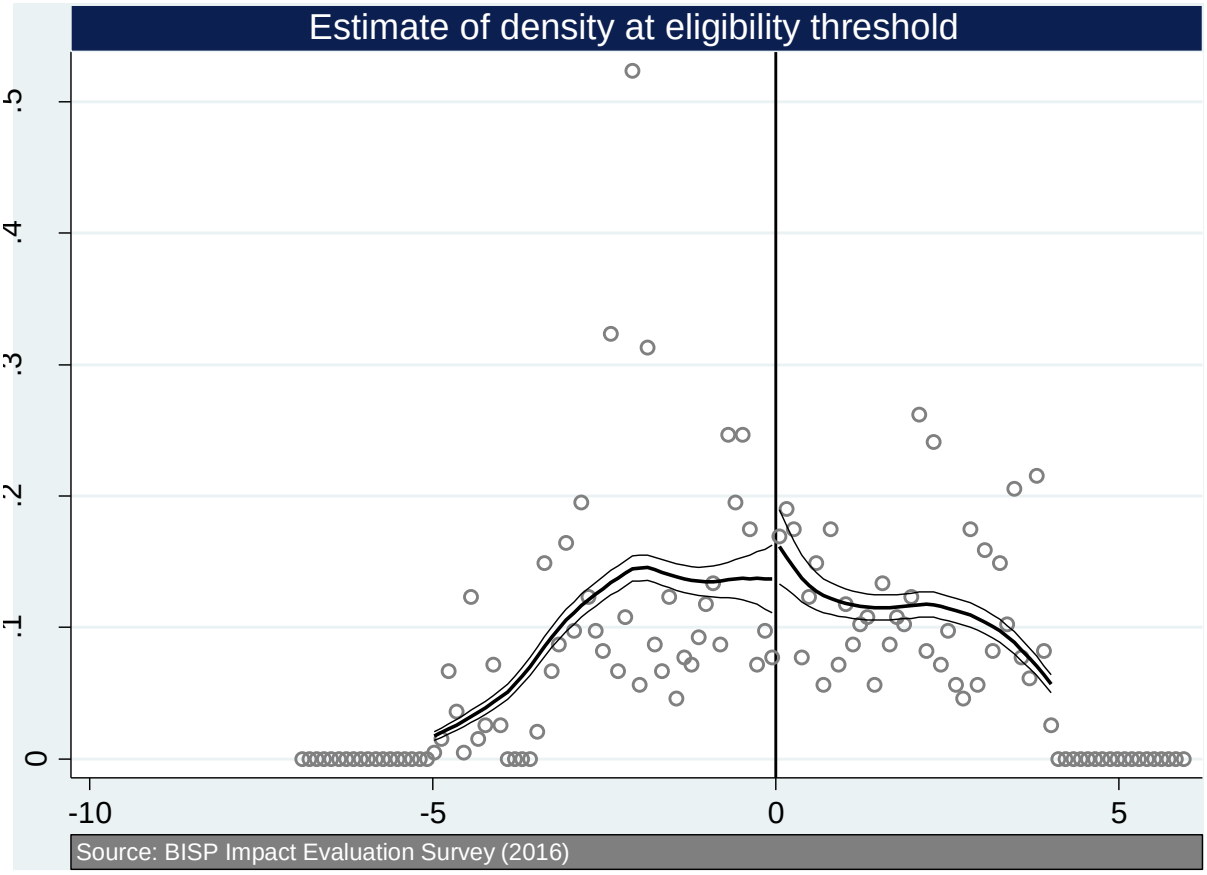
Assumption 1: *the assignment variable has a monotonic effect on the probability of being treated for everyone*. Whilst this assumption cannot be tested directly we can be reasonably confident that

the lower your poverty score the higher your probability of being targeted as eligible by the BISP and the higher your probability of receiving the BISP cash transfer.

Assumption 2: *the gains from treatment must be a function of the assignment variable at the eligibility threshold*. This assumption relates to worries about the ability of households to manipulate the assignment score and increase their probability of being BISP eligible.

This can be formally tested, and Figure 18 presents the results of a test of a discontinuity in the BISP poverty score at the eligibility threshold following *McCrary (2007)* which tests whether the marginal density of the BISP poverty score is continuous across the eligibility threshold.

Figure 18 Density of BISP poverty score at eligibility threshold (matched MIS scores)[19]



The results of this test reports that there is no statistically significant jump in the marginal density at the eligibility threshold

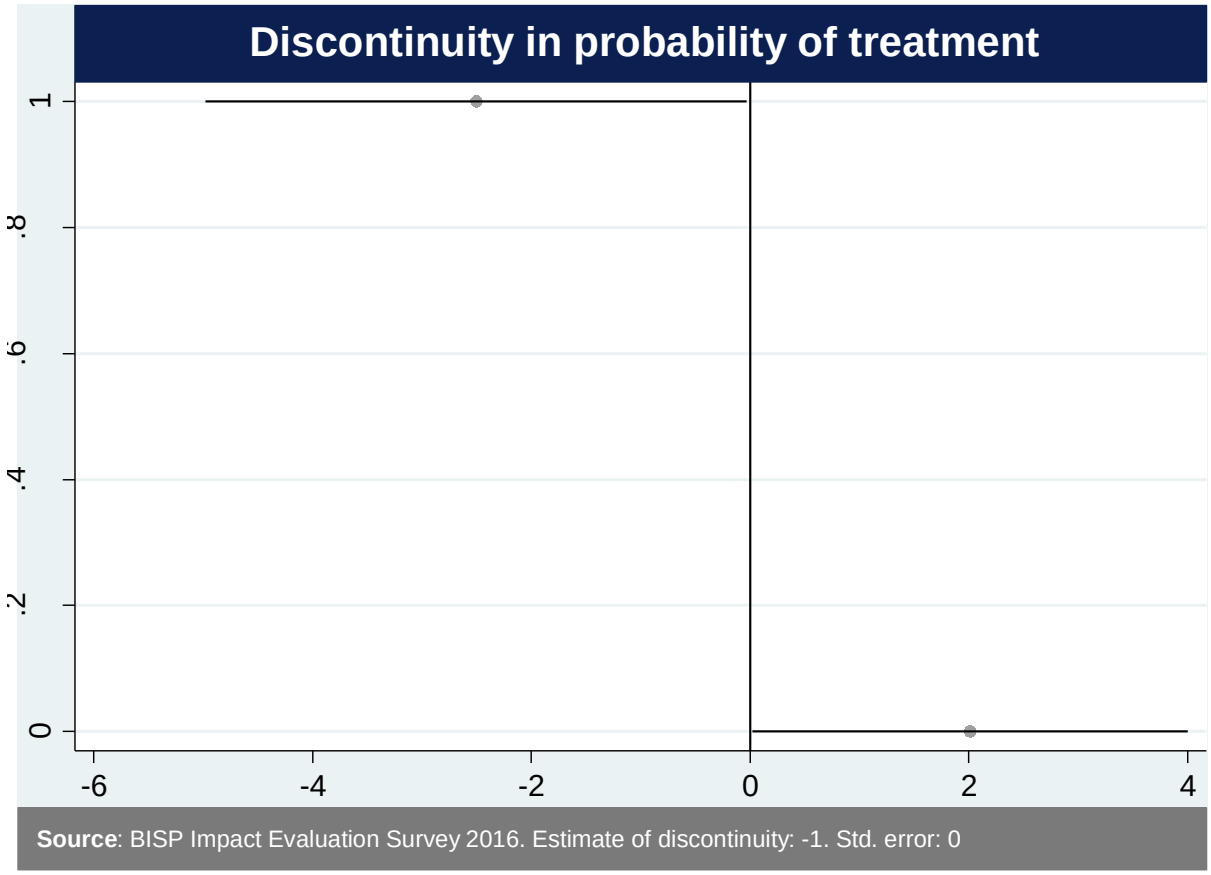
Assumption 3: *there must be a discontinuity in the probability of being treated by BISP around the eligibility threshold.* This requires that the BISP is sufficiently well implemented such that those who are determined to be eligible actually receive the BISP and those who are ineligible do not. Figure 19 presents this analysis.

The master sample frame for the evaluation was provided by BISP who provided a list of beneficiaries with poverty scores less than 16.17 and a list of non-beneficiaries with poverty scores greater than 16.17. As a result we have what is a known as a **sharp discontinuity**, where all

[19] BISP poverty score normalised so that eligibility threshold = 0

respondents below the eligibility threshold are beneficiaries and all respondents above the eligibility are non-beneficiaries.

Figure 19 Discontinuity in probability of treatment[20]



Assumption 4: *the observables must be a continuous function of the assignment score at the eligibility threshold.* In practice this assumption applies to both observable household characteristics that might affect our outcome variables of interest and requires that at least at baseline there is no discontinuity in observable characteristics and outcome variables at the eligibility threshold. If this assumption is violated we could not be sure whether any discontinuity observed at follow-up represents false impact due to a pre-existing discontinuity in that outcome variable, driven by a factor other than the BISP.

However, in the case of this round of the evaluation, this assumption cannot be directly as the majority of the child sample was freshly sampled for this round of the evaluation, meaning that for the majority of the evaluation sample we do not have baseline values of household characteristics. However, we can be confident that this assumption is satisfied given that this assumption was strongly satisfied for the sub-set of households for which there is baseline information. This analysis was provided in our previous follow-up reports, including for the 2nd follow-up impact evaluation report (*OPM, 2015*).

Assumption 5: *unobservables must be a continuous function of the assignment score at the eligibility threshold.* This assumption relates to concerns over the possibility of a discontinuity in unobservable variables (such as ability) that could affect the outcome variable of interest. If such a discontinuity existed, then one could not be sure if a discontinuity in the outcome indicator of

[20] BISP poverty score normalised so that eligibility threshold = 0

interest observed at follow-up is attributable to the BISP cash transfer or the unobservable variable.

By nature of unobservable indicators it is not possible to test this assumption. However, given that we are confident that we have satisfied *Assumption 4* at baseline it is likely that this assumption will also hold.

A.3 RD sensitivity tables

Table 12 Enrolment: total impact of BISP UCT and WET top-up: Sensitivity Tables

	Estimate at bandwidth					
	2.5	3	3.5	4	4.5	5
Proportion of children aged 5-12 years old currently enrolled in school						
All children	2.807	7.88**	10.984***	11.116***	10.404***	9.946***
Male	2.13	5.346	8.321*	8.7001**	8.0021*	7.543*
Female	3.936	10.334*	12.895**	12.588**	11.708**	11.132**

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10.

Table 13 School attendance: Sensitivity tables

	Estimate at bandwidth					
	2.5	3	3.5	4	4.5	5
Proportion of days school in session that children aged 5-12 years old attended						
All children	4.838	.964	.116	-.418	-.422	-.077
Male	-6.488	-8.8511*	-8.2011*	-7.559	-6.542	-5.429
Female	20.888***	14.844**	11.771**	9.461*	8.097	7.39801

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10.

Table 14 Child labour: Sensitivity tables

	Estimate at bandwidth					
	2.5	3	3.5	4	4.5	5
Proportion of children aged 5-12 years old currently engaged in child labour						
All children	.05**	.036	.025	.02	.016	.011
Male	-.039	-.043	-.04	-.04	-.038	-.038
Female	.15	.121	.095	.085	.074	.064

Source: BISP impact evaluation survey (2016). Notes: (1) Asterisks (*) indicate that an RD estimate is statistically significant: *** p < .01; ** p < .05; * p < .10.

Annex B Propensity Score Matching: technical appendix

In this technical annex we illustrate the analytical steps that have been implemented in this evaluation in order to achieve robust impact estimates using the PSM approach. Firstly, it was important to specify a correct estimation model of the propensity score in the first stage; secondly, a matching method was selected and implemented for the second stage. Finally, balance was assessed across treatment and control groups in order to gauge how well PSM was performing. These following sections separately discuss these different analytical stages.

B.1 First stage model selection

To estimate the propensity score in the first stage we followed the procedure suggested by Imbens and Rubin (2015, p. 281 ff.). The underlying model specification for this procedure is a logistic regression or probit specification for the first stage. This means that the propensity scores are estimated by first specifying treatment and control assignment as a binary variable that has the values 0 (for control) and 1 (for treatment). The estimated scores are then modelled as the fitted values that are derived from a logit or probit estimation, with the binary treatment variables as dependent variable and the covariates across which balance is supposed to be achieved as the regressors.

To be more concrete, in the case of a logistic regression specification, the binary response variable is modelled as follows:

$$\Pr(T = 1 \,|X_i) = \frac{e^{f(X_i)}}{1+e^{f(X_i)}}, \text{ (1)}$$

where $\Pr(T = 1 \,|X_i)$ is the probability of the treatment indicator (T) being equal to one, conditional on the covariates (X_i) for unit i. The function $f(X)$ is normally modelled linearly, i.e. is of the form $f(X) = X\beta$. The coefficients of this function (β) are estimated using maximum likelihood techniques. The fitted values, i.e. the predicted probabilities that follow from this procedure, are the propensity scores for each unit of observation.

The key question for the first stage is which covariates to include in $f(X)$ so that this procedure produces a valid estimate of the propensity score. Following the procedure described in Imbens and Rubin (2015) for selecting covariates, we implemented a three-step approach to make this decision in this evaluation:

1. **Select a set of basic covariates based on substantive grounds**:

   The starting point for the PSM analysis was to select a set of variables that were likely to be relevant for this analysis. 'Relevant' in this case meant that we had to select all variables that were theoretically expected to be correlated with treatment status and treatment effects, thereby introducing bias in a simple comparison of treatment outcomes between control and treatment groups. This requires a theoretically substantiated understanding of the relationships that are being analysed.

   In the present case, selecting these variables was difficult. Note that all households in our sample have the same theoretical treatment status – all households are BISP beneficiaries. The only difference is that we are comparing some households that are also WET beneficiaries with some who are not. Hence, the variables to be selected at this first step were variables that are important indicators of differences between the two groups in characteristics that are plausibly related to the way in which treatment effects materialise. We made such a selection for each of the outcomes we looked at.

2. **Increase the set of covariates based on algorithmic approaches:**

In addition, however, we employed variable selection algorithms to identify variables that vary significantly between control and treatment groups. There are a variety of methods available to do this. Our approach was to implement stepwise first stage regressions.

There are two stepwise regression approaches that can be employed for this: backward and forward stepwise regression. The underlying idea behind both approaches is to check each covariate, step-by-step, for significant correlation with the outcome and treatment assignment variable. We are looking for such a correlation because variables that possibly bias our impact estimates will have some relation to both the treatment status and the outcome we are looking at.

Backward selection starts with the full set of covariates, i.e. a regression including all variables, and then discards the term that is least significantly correlated with the dependent variable. It continues to do so until all variables that are uncorrelated with the dependent variable are discarded. Forward selection, instead, starts with an empty set of covariates, i.e. a regression on a constant, and then checks the significance of each covariate if it is included in the regression. It then adds the most significantly correlated variable to the model. This step is repeated until all significant covariates are included in the model.

Both for backward and forward estimation a threshold p-value for what is considered to be significant needs to be specified. For backward selection, this means setting the level for identifying whether all variables that are uncorrelated with the outcome variable have been discarded: if the p-value of the least significant variable remaining is under the threshold, i.e. all the variables still included in the model are even more significant, the procedure stops. For forward selection, this means setting the level for identifying whether all significant covariates have been included in the model: if the p-value of the most significant variable to be added is equal to the threshold, i.e. the significance level of all variables that have not yet been included in the model is equal or below the threshold, the procedure stops. Setting this threshold therefore influences the variables that are selected in stepwise regressions.

We implemented both backward and forward selection using different thresholds and selected variables based on whether they were selected in all of the different specifications or not.

3. **Increasing the set of covariates with polynomial and interaction terms using algorithmic selection**

   In a third step, we employed the same method of stepwise regressions to augment our set of covariates by quadratic terms or interactions of variables that had already been selected. The rationale behind this is the fact that balance might only be achieved if the propensity score is estimated using non-linear transformations of the variables selected above (Imbens and Rubin 2015, p. 287). Again, the stepwise regression approach helped to decide which of these non-linear terms were significant predictors of differences across control and treatment groups, and should therefore be controlled for.

The result of this process was the identification of an optimal selection model comprising a set of covariates that were included in the first stage estimation of the propensity score. This three-step approach was conducted for every estimation strategy for each of the outcome variable. Balance, however, also depends on the matching algorithm used in the second stage of the PSM analysis.

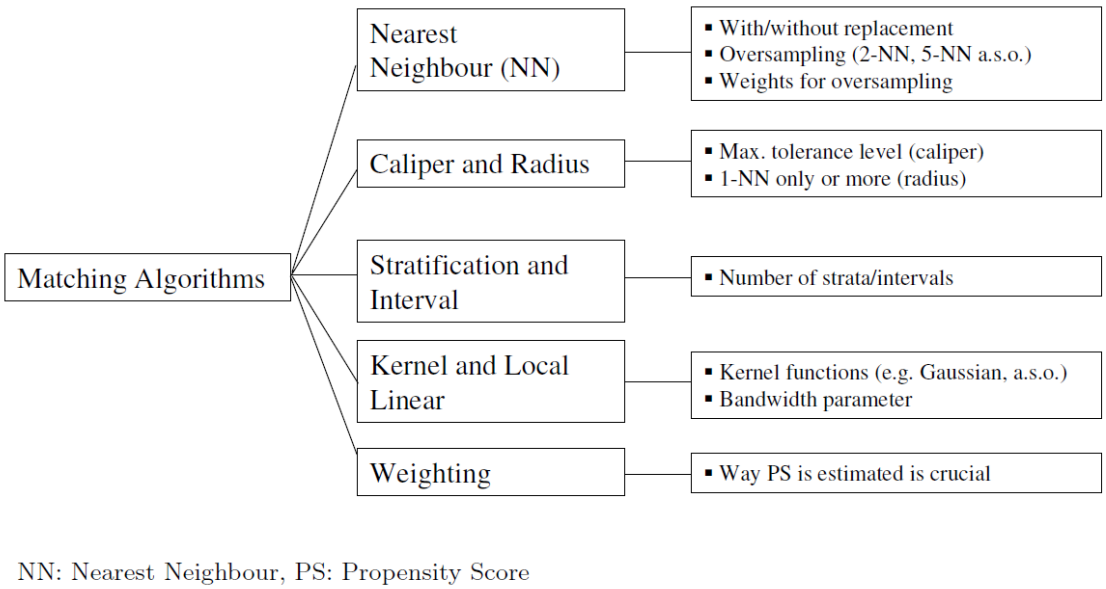
B.2 Second stage algorithm selection

There are a variety of algorithms available to implement the second stage of PSM, i.e. to match control and treatment units to each other based on the propensity score estimated in the first stage. Figure 20 below shows algorithm options and sub-options for each of these possibilities. It is

beyond the scope of this report to explain in detail the technicalities of each of these approaches.[21] For all approaches the goal is to find appropriate, i.e. sufficiently similar, control group members for treatment group members. Differences between these approaches can be defined along three main dimensions: first, which estimated propensity scores are considered to be valid for inclusion in the analysis? Second, what is the appropriate range of propensity scores that define control comparators for treatment units? Finally, how are these comparators used when estimating the treatment effects?

The first dimension relates to the fact that within both control and treatment groups there could be estimated propensity scores that lie either at the upper or lower bound of the distribution, i.e. close to 0 or 1. For such values, there might not be an appropriately similar propensity score in the respective comparison group. However, for matching to work appropriately, there must be comparable propensity scores in both control and treatment groups – the so-called common support condition. Hence, matching algorithms employ cut-offs or trimming procedures by which some proportion of observations with propensity scores that are not comparable are dropped from the analysis.

Figure 20 Matching algorithms selection



Note: Figure taken from Caliendo and Kopeinig (2005, p. 9).

The second dimension relates to how units in the control group with propensity scores close/similar to a treatment group observation are treated. For instance, kernel matching, as used in our main impact estimation for the PSM model, is a non-parametric matching estimator that uses the weighted averages of all individuals in the control groups to create the counterfactual outcome. The weights are determined by the distance between each individual from the control group and the participant observation for which the counterfactual is estimated. Therefore, higher weights are given to persons closer in terms of the propensity score of a treated individual (Caliendo and Kopeinig (2005), p.10–11). Alternatively, NN matching with just one unit looks for the one control observation that has the closest propensity score to a treatment unit and compares the outcome measure for those observations. NN matching with more than one neighbour looks for several control units with similar propensity scores and compares the treatment outcome to an average of these neighbours. Caliper matching is similar to NN matching but does not include a fixed number

[21] See Caliendo and Kopeinig (2005) for a summary overview.

of neighbours. Instead, the comparators are selected based on a maximum difference in propensity scores allowed.

Finally, the third dimension refers to how, once comparator units are found, the outcome measures are compared across treatment and control. For example, with NN matching and more than one neighbour simple averages are calculated. Similarly, with kernel functions a form of weighted averages are calculated to estimate treatment effects.

Selecting the appropriate matching algorithm for a PSM exercise is not straightforward and requires careful analysis of how well-balanced samples are after employing algorithms with certain sub-specifications. In general, however, our selection of models was based on the fact that discriminating between models poses a bias/variance trade-off in the estimated treatment effect. For instance, in the extreme case of NN matching with just one neighbour, it could be that the NN is actually quite far away in terms of propensity scores and hence a bad match. If this happens often, this could introduce bias into the estimation procedure. A solution to this could be to implement matching using several comparators in a caliper matching setting. However, this could decrease the number of available matches, which could increase the variance of the treatment estimate.

Kernel matching with appropriate trimming and enforcement of common support is a good compromise between these different approaches and was therefore selected as our main matching algorithm.[22] In order to find the optimal estimation model we used different kernel matching algorithms with different bandwidths and trimming levels. These different results were then compared with respect to the best balancing properties, with the best performing approach being selected as the optimal. This was again conducted for each estimation strategy for each of the outcome variables.

B.3 Assessing balance

In regard to selecting the appropriate models and matching algorithms it was key to assess how balanced samples were after matching. To do this, we compared matching models along a variety of dimensions. These dimensions included those related to: the child; the child's parents; the child's households; and the distance to schools.

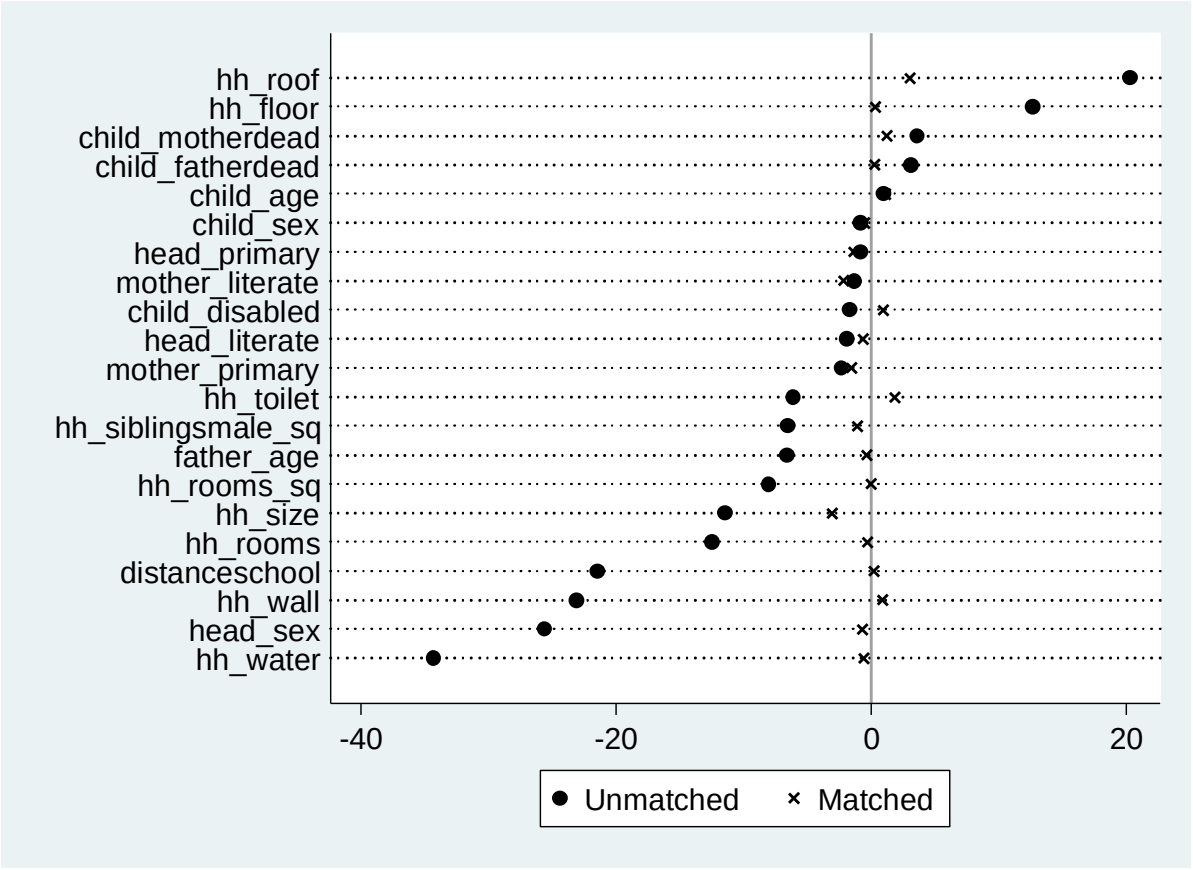
First, we assessed individual covariate balance across samples by looking at the standardised difference in means across treatment and control groups both before and after matching. This standardised difference is the difference in group averages over the square root of the average of the sample variances. If samples are balanced, this difference should be small and matching should reduce this standardised difference as compared to the unmatched samples.

In addition, we performed t-tests to assess whether differences across treatment and control groups were statistically significant. If balance is achieved with PSM, differences between treatment and control groups should be negligible and therefore should not be significantly different from zero.

The balance between treatment and control groups that was achieved is presented in Figure 21, which demonstrates a high degree of balance, once the first stage matching on covariates has been completed.

[22] See Caliendo and Kopeinig (2005, p. 10 f.) for a short summary of the pros and cons of different matching techniques.

Figure 21 Balancing across selected first stage matching covariates



We also looked at the variance ratios of covariates of treated over control measures. If there is perfect balance across samples, then covariates should be distributed equally and hence this ratio should be equal to one.

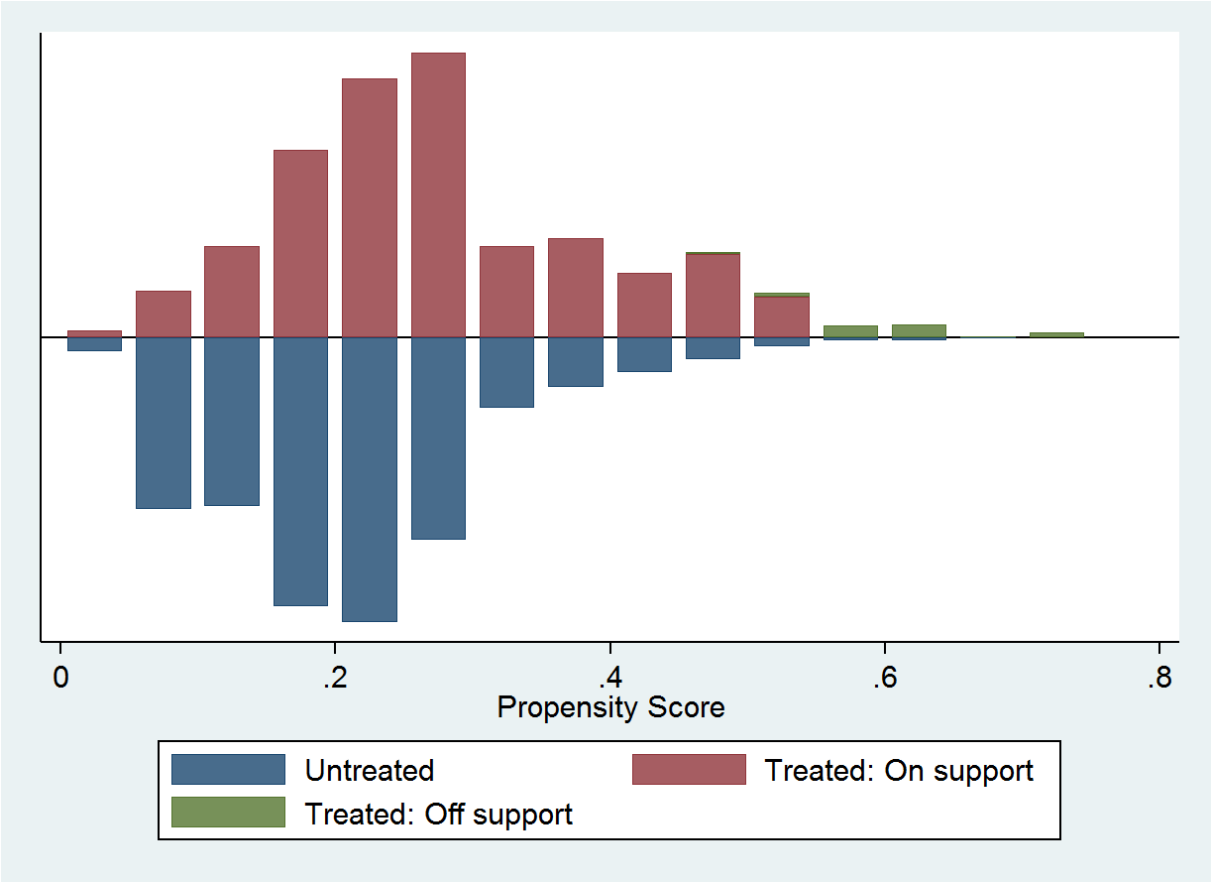
All of these measures give an indication of whether specific covariates are balanced across treatment and control groups. To assess overall variance we looked at two statistics that summarise covariate balance in the sample at hand: Rubin's B and Rubin's R. Rubin's B reflects the absolute standardised difference of the means of the propensity score in the treated and control groups (unmatched and matched). Rubin's R is the ratio of the treated to control variances of the propensity scores. Rubin (2001) suggests that the value of B should lie below 25 and that R should lie between .5 and 2 for overall balance to be sufficient. Together, Rubin's B and Rubin's R provide a reliable indication of the trade-off between bias and variance across the treatment and control groups, as it changes before and after the matching procedure. However, individual-level balance should always be assessed as the overall balance is only an approximation of goodness of fit.

Matching procedures were implemented using the psmatch2 package in Stata (14.1) and balancing tests were carried out using the pstest package, which provides the results for all of the statistics mentioned above[23].

Finally, we also looked at the distribution of propensity scores graphically. Ideally, propensity scores should be distributed equally across treatment and control groups. Very skewed/diverging distributions could be an indication that balance has not been achieved successfully. Figure 22 below provides a good example of evenly distributed propensity scores for both the treatment and control groups.

[23] See http://fmwww.bc.edu/repec/bocode/p/pstest.html for details.

Figure 22 Distribution of propensity scores for enrolment



Annex C District distribution of evaluation sample

C.1 Distribution of sample in WET districts

Table 15 presents the district wise sample for the regression discontinuity estimates.

Table 15 District Wise Sample of RD sample – number of children in evaluation households in WET districts

	Rahim Yar Khan	Nawabshah	Mansehra	Jhal Magsi	Total
Type 1: treatment 0≤score<12.17	627	374	268	21	1,290
Type 2: treatment 12.17≤score≤16.17	968	510	482	26	1,986
Type 3: control 16.17<score≤20.17	815	478	384	25	1,702
Total	***2,410***	***1,362***	***1,134***	***72***	***4,978***

C.2 Distribution of control sample (not-exposed to WET programme)

Table 16 provides the district wise sample for the control units used in the PSM methodology.

Table 16 Distribution of control sample for PSM methodology- number of children in evaluation households to be used as control group for PSM methodology

Province	District	Number of children
Punjab	ATTOCK	99
Punjab	BAHAWALNAGAR	96
Punjab	BHAKKAR	120
Punjab	BHAWALPUR	237
Punjab	CHAKWAL	105
Punjab	D.G.KHAN	81
Punjab	FAISALABAD	249
Punjab	GUJRANWALA	264
Punjab	GUJRAT	140
Punjab	HAFIZABAD	65
Punjab	ISLAMABAD	101
Punjab	JHANG	115
Punjab	JHELUM	63
Punjab	KASUR	138
Punjab	KHANEWAL	58
Punjab	KHUSHAB	111
Punjab	LAHORE	105
Punjab	LODHRAN	86
Punjab	MANDI BAHAUDDIN	64
Punjab	MUZAFFARGARH	178
Punjab	NAROWAL	44
Punjab	OKARA	148

Province	District	Number of children
Punjab	RAJANPUR	140
Punjab	RAWALPINDI	78
Punjab	SAHIWAL	150
Punjab	SARGODHA	188
Punjab	SHEIKHUPURA	149
Punjab	SIALKOT	94
Punjab	T.T.SINGH	74
Punjab	VEHARI	123
Sindh	BADIN	320
Sindh	DADU	450
Sindh	GHOTKI	157
Sindh	HYDERABAD	664
Sindh	JACOBABAD	406
Sindh	KARACHI CENTRAL	48
Sindh	KARACHI EAST	88
Sindh	KARACHI SOUTH	87
Sindh	KARACHI WEST	139
Sindh	KHAIRPUR	227
Sindh	LARKANA	256
Sindh	NAUSHAHRO FEROZE	317
Sindh	SHIKARPUR	332
Sindh	SUKKUR	214
Sindh	THATTA	147
Khyber Pakhtunkhwa	ABBOTTABAD	64
Khyber Pakhtunkhwa	BANNU	91
Khyber Pakhtunkhwa	BUNER	107
Khyber Pakhtunkhwa	CHARSADA	206
Khyber Pakhtunkhwa	CHITRAL	121
Khyber Pakhtunkhwa	D.I.KHAN	260
Khyber Pakhtunkhwa	HARIPUR	74
Khyber Pakhtunkhwa	KOHAT	139
Khyber Pakhtunkhwa	KOHISTAN	131
Khyber Pakhtunkhwa	LOWER DIR	113
Khyber Pakhtunkhwa	MALAKAND AGCY	147
Khyber Pakhtunkhwa	MARDAN	182
Khyber Pakhtunkhwa	NOWSHERA	125
Khyber Pakhtunkhwa	PESHAWAR	306
Khyber Pakhtunkhwa	SHANGLA	54
Khyber Pakhtunkhwa	SWABI	204

Province	District	Number of children
Khyber Pakhtunkhwa	SWAT	292
Khyber Pakhtunkhwa	UPPER DIR	63
Balochistan	BARKHAN	40
Balochistan	BOLAN/KACHHI	58
Balochistan	CHAGHI	65
Balochistan	JAFFARABAD	99
Balochistan	KALAT	22
Balochistan	KHARAN	15
Balochistan	KILLA ABDULLAH	16
Balochistan	KOHLU	19
Balochistan	LASBELA	83
Balochistan	LORALAI	81
Balochistan	MASTUNG	15
Balochistan	NASIRABAD/TUMBO	20
Balochistan	PISHIN	89
Balochistan	QUETTA	120
Balochistan	SIBI	78
Balochistan	ZHOB	52
Balochistan	ZIARAT	55
TOTAL		**11,121**