Unconditional Cash Transfers: Do They Impact Aspirations of the Poor?

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Abstract

Unconditional cash transfers are the key social protection strategy in low- and middle-income countries. However, the amount of unconditional cash transfers is too small to pull the poor out of poverty cycle, yet if they positively affect their aspirations – desire to achieve something – it can have a long run impact. In this paper, I employ propensity score weighting and regression adjustment, to examine the impact of unconditional cash transfers (Benazir Income Support Program (BISP)) on aspirations of the adults in Pakistan. Using Pakistan Rural Household Panel Survey 2012-2013, I construct the aspirations index by weighting and aggregating on three dimensions; income, assets and social status. I find BISP cash transfers to increase aspirations if adults, yet it has differential impact based on gender and income quartile of the household.

Key Words: Unconditional Cash Transfers, Aspirations, BISP

JEL: D90, I31, O12

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Introduction

In the developing world, cash transfer programs are seen as a key element within the national social protection strategy. Cash transfer programs have become increasingly popular in the last twenty years, demonstrating significant positive impact on education, health, nutrition, savings, investment, employment and empowerment indicators[1]. While some recent papers delve into the impact of cash transfers (mostly conditional) on the parents' and children's educational aspirations (Cirillo, 2019; Contreras Suarez & Cameron, 2016; García, Harker, & Cuartas, 2019; Gebremariam, Lodigiani, & Pasini, 2017), none of them specifically examine the impact of unconditional cash transfers on aspirations of the adults regarding their own income, asset ownership and social status within the society.

Pakistan runs one of the largest unconditional cash transfer programs under the name of Benazir Income Support Program (BISP). Its annual disbursements rose from US$ 95.5 million in 2008-09 to US$ 576 million in 2015-16, disbursing a total amount of US$ 2.5 billion that it received from World Bank and other donor agencies (Government of Pakistan). The primary aim of BISP cash transfer is to provide assistance to chronically poor households to meet their basic needs with a supplementary goal of empowering women. Currently, the impact evaluations of BISP cash transfer focuses on household welfare and women's empowerment indicators (Ambler & De Brauw, 2017; Iftikhar Cheema et al., 2014; I Cheema, Hunt, Javeed, Lone, & O'Leary, 2016; Jalal, 2017). Moreover, Ghorpade and Justino (2019) examines the impact of BISP cash transfers – a foreign-funded aid – on political attitudes. Nonetheless, so far, there is no study

[1] See (Bastagli et al., 2016),(Molina Millan, Barham, Macours, Maluccio, & Stampini, 2016) and (Kabeer & Waddington, 2015) for detailed review of impact evaluations of the conditional and unconditional cash transfer programs.

examining the impact of BISP cash transfers on the aspirations of the individual belonging to beneficiary households.

It is important to study the effect on aspirations – desire to achieve something – as it is associated with forward-looking behaviour of an individual. Higher aspirations (or lack thereof) determine the aims and goals, an individual wants to achieve. This implies that aspirations are a signficiant determinant of one's efforts to change his/her conditions and work for a better future while making the right decision. Kosec & Mo (2017) run simple OLS regression to show a positive association between aspirations index and behaviors that reflect underlying efforts on part of the individual to improve future livelihood. Hence, it is imperative to study the effect of uncondtional cash transfer programs – targeting the poorest – on the aspirations of the beneficiaries to assess its long term impact.

The objective of this paper is to examine the impact of unconditional cash transfer (BISP) on aspirations of adults using Pakistan Rural Household Panel Survey (2012-2013)[2], employing the inverse probability of treatment weights with regression adjustment methodology. A composite aspirations index is constructed by aggregating weighted average of aspirations on three dimensions; income, assets and social status. Further, the results are disaggregated by gender and household's income quartile. The identification comes by comparing the individuals across households with varying treatment status, conditioned on the covariates and controlling for individual characteristics.

In this paper, I hypothesize that the unconditional cash transfer program could lead to an improvement in aspirations for two reasons; First, it attenuates the economic constraint that could reduce their stress levels and give them mental and psychological space to make strategic

[2] Collected by International Food Policy Research Institute (IFPRI).

decisions. Second, it increases their trust in the government, assuring them of a safety net to fall back in case of an adverse economic shock. Aspirations failure or fatalism – lack of proactive and systematic effort to improves one's own life – leads the less fortunate into behavioral poverty trap (Bernard, Taffesse, & Dercon, 2008; Dalton, Ghosal, & Mani, 2016). Higher aspirations make the beneficiaries forward-looking – willing to make an effort to change their conditions in the long run. In addition, the effect of BISP cash transfer is expected to vary based on gender and households' income quartile. Since aspirations are shaped by life experiences, self-perception and is relative to your surrondings, women face extremely different opportunites (constraints) than men. Also, the worth of the cash transfer varies across each income quartile on the bases of their current position and relative to their surroundings. Therefore, a heterogenous effect is hypthesized based on gender and households' income quartile.

The findings indicate that BISP cash transfer has a positive and signficant impact on the men belonging to beneficiary households, increasing their aspirations by 0.133 units, that is, 0.24 standard deviations. Amongst women, the impact is only significant for those belonging to the lowest income quartile increasing their aspirations by 0.117 units, that is, 0.25 standard deviations. While the impact is significant for full sample of men, for women it is restricted to the lowest quartile. This could reflect the weaker social restrictions in this economic class as otherwise women have a subordinate position in Pakistan where they experience mobility and labor force participation constraints (Kosec & Khan, 2016). However, the asset aspirations of working age women is signfiicantly boosted with cash transfer indicating that women see this lump-sum quarterly amount as a source of saving which they can use to buy inexpensive durable assets like bicycle.

These findings should inform the government and aid organizations of the potential long term benefits of the unconditional cash transfer programs. The chapter is organized as follows: The next section gives a brief context of the BISP cash transfer program followed by the literature review. Section 4 lays out the analytical framework illustrating the channels through which BISP cash transfer may effect aspirations, section 5 and 6 give the data & measure and empirical strategy, repectively. Section 7 discuss the findings of the paper and the final section concludes.

Context

While the cash transfers are rare in South Asia, Pakistan hosts a large unconditional cash transfer program under the name of Benazir Income Support Program (BISP). The annual disbursements rose from US$ 95.5 million in 2008-09 to US$ 576 million in 2015-16, disbursing a total amount of US $2.5 billion (Government of Pakistan). Based on the World bank report, 48 percent of the BISP beneficiaries come from the poorest quintile (World Bank, 2015). It was developed and implemented as part of the Social Protection Strategy in 2008 in response to rapid food inflation, fuel prices at a 30-year high, and economic downturn (Government of Pakistan). In the short run, the main objective of BISP is to provide support to chronically poor households to meet their basic needs. In the long run, it aims to motivate households to invest in human capital (education, health and productive assets) that may assist them to graduate out of poverty (Ambler & De Brauw, 2017; Iftikhar Cheema et al., 2014; Government of Pakistan). In addition, BISP has a supplementary aim of empowering women. In order to achieve this, the cash transfers to the eligible households are made through ever-married women holding a valid National Identity Card. This policy had a twofold impact; first it made women the focal person within the

household, and second, it encouraged them to register in the national database in order to avail the social safety benefits.

The eligible households received a monthly unconditional cash transfer of PKR 1,000 ($15)[3] in a quarterly tranche (Gazdar, 2011). The monthly transfer under BISP represented 6.3 percent of the total household expenditure for the households receiving BISP payments and 5.9 percent for the full sample (Ghorpade & Justino, 2019). Initially, eligibility is determined through political representatives who were responsible for choosing households within their respective constituencies (Khan & Qutub, 2010). Pakistan Institute of Development Economics (PIDE), using the Pakistan Panel Household Survey (2010), found that 16.1 percent of the beneficiaries were ineligible for the program (Farooq, 2014).

In 2009, the Government of Pakistan - in collaboration with the World Bank – employed a Proxy Means Test (PMT) to identify BISP recipients through a poverty scorecard estimated using 23-indicators[4] (Hou, 2009). The poverty scorecard identified 16.17 as the eligibility cutoff which includes the bottom 25 percent of the population. All households with a score lower than and equal to 16.17 were eligible for BISP cash transfer and vice versa (Iftikhar Cheema et al., 2014). However, a few exceptions were allowed for households lying between the scores of 16.17 and 21.17; 1) at least one disabled member within the household, 2) at least one senior citizen (65+ years) in the household with fewer than three household members, 3) at least four or more children under the age of 12 (Ambler & De Brauw, 2017). From 2011 onwards, the eligibility of a household was determined through the PMT poverty scorecard. While all the beneficiaries under the previous system were claimed to have been re-vetted, Jalal (2017) found

[3] Using the US dollar to Pak Rs exchange rate of 2008; US $ 1 = PKR 67
[4] Refer to Appendix B, Table B1 for the list of Indicators.

an alarming rate of error in targeting on both sides of the spectrum - 53.1 percent of under coverage (or exclusion of those who should have been eligible) and 73.6 percent of over-coverage (or inclusion ineligible households that end up as beneficiaries of BISP cash transfer).

Literature Review

In the developing world, cash transfers are being increasingly adopted as a key element within the national social protection strategy. While their short-term impact on educational and health outcomes is established through various studies, there is a dearth of literature examining the impact on the aspirations of the poor. A few studies that do look into the aspirations solely focus on the educational aspirations of parents and children. Gebremariam et. al. (2017) find a positive impact of Ethiopian Productive Safety-Net program, employing Young Lives longitudinal data (2002-2013), on children's own educational aspirations (Gebremariam et al., 2017).

The conditional cash transfer (CCT), *Familias en Accion,* in Columbia, finds short run positive impact on parent's educational aspirations of their children (García et al., 2019), while in the long run, there is no significant change in them (Contreras Suarez & Cameron, 2016). Whereas, in Peru, using Young Lives four waves (2002 -2013) data with inverse probability weighting methodology, a positive impact is estimated on parents' educational aspirations of their children, both, in the short run and long run (Cirillo, 2019). However, none of these studies specifically examine the aspirations of adults regarding their income, asset ownership and status within the society.

Kosec & Mo (2017) make an exception by studying a comprehensive index of aspirations of adults, constructed by weighting and aggregating with four dimensions; income, assets, social status and education. They use instrumental variables methodology to find that social protection

(Watan Card) mitigates the negative impact of natural disasters on individual aspirations index using IFPRI's Pakistan Panel Rural Household Survey (2012-2013). Unconditional Cash Transfer (UST) programs provide assistance in terms of cash, giving the household an exogenous income boost. A study in Oaxaca, Mexico finds microfinance (exogenous cash) to have a positive impact on aspirations of participating adult women (Lybbert & Wydick, 2016), even though their measure of aspirations is not as comprehensive as of Kosec & Mo (2017).

The BISP cash transfer evaluations primarily focus on women's economic empowerment indicators and other welfare measures (health, education, consumption). The first impact evaluation finds a positive and significant local average treatment effect (LATE) on per adult monthly consumption expenditure using regression discontinuity design (RDD), within a bandwidth of 5 points (Iftikhar Cheema et al., 2014). In addition, they find a significant reduction in malnutrition of girls aged 0-5 years and a decrease in child labor within boys. They also find improved women empowerment indicators measured by – increased control over cash transfer, a sense of elevation by contributing to the household budget and reduced dependency on their husbands. However, the results showed no effect on the school enrollment of children nor on the household's likelihood of owning assets.

In the final impact evaluation, the authors, in addition to confirming the previous results, find (1) improvements in the living standards measured by an improved quality of flooring and the cooking fuel being used (2) increased investment in livestock ownership (I Cheema et al., 2016). Jalal (2017), in her senior year thesis, focused on three areas; revisiting targeting efficiency, validation of PMT scorecard weights, and examining the BISP cash transfer impact on welfare measures using the difference-in-discontinuity methodology. She finds no impact of BISP cash transfer on household consumption, savings, debt or children's welfare indicators.

Yet, there is an increased expenditure on inexpensive, durable items such as apparel and kitchen equipment. However, none of the impact evaluations examine the effect of BISP cash transfer on the aspirations of the beneficiaries.

Ambler & De Brauw (2017) use the baseline and midline (2011-2013) impact evaluation data to assess the effect of BISP cash transfer on women's empowerment indicators using RDD. They find improvement in various women's economic empowerment indicators and in the measures capturing the perception of scocial norms such as women tolerating being beaten or men agreeing to help in the houshold work. Ghorpade and Justino (2019) examine the impact of BISP cash transfers – a foreign-funded aid – on political attitudes. They employ the IFPRI Pakistan Panel Rural Household Survey (2012-13), exploiting the stochastic eligibility cut-off for BISP cash transfer as an instrumental variable. Their findings indicate no substantive improvement in political attitudes of the participants in 'nation-building' districts – district lagging in development indicators, deemed as breeding grounds of alienation and conflict. Thereof, so far, there is no study examining the impact of BISP cash transfers on the aspirations of the beneficiary households.

It is important to study the effect on aspirations – desire to achive something – as it is associated with forward-looking behaviour of an individual. Higher aspirations (or lack thereof) determine the aims and goals an individual wants to achieve. Low aspirations or 'aspirations failure' are equated with fatalism – a state when one does not dream of the future or aspire to one's potential– leading to behavioral poverty trap (Bernard et al., 2008; Dalton et al., 2016). Aspirations are correlated with individual's, economic, political and social investment in one's self and surroundings (Kosec & Khan, 2016; Mo, 2012). Kosec & Mo (2017) run simple OLS regression to show a positive association between aspirations index and behaviors that reflect

underlying efforts on the part of the individual to improve future livelihood. Coleman & DeLeire (2003) find a greater sense of control over one's life – believing that one's action can affect outcomes – leading to higher high school graduation and school attendance rates. This implies that aspirations are a signficiant determinant of one's efforts to change their conditions and work for a better future while making the right decision. Hence, it is imperative to study the effect of unconditional cash transfer programs – targeting the poorest – on the aspirations of the beneficiaries to assess its long term impact.

Analytical Framework

Aspirations are deemed as ideal futuristic hopes which are shaped by life experiences, social interaction, economic changes and personality – all of which will affect how one perceives their own life (Appadurai, 2004; Ray, 2006). However, in this paper, I will be focusing on the determinants related to the economic context of the individual and his surroundings. Income and wealth indicators are demonstrated to be positively related with aspirations. Literature indicates that the households located in slums are found to have lower educational aspirations for their children, compared to households located in non-slum areas in Kenya (Oketch, Mutisya, & Sagwe, 2012). Similarly, in China, the individuals who themselves or their peers have higher income are observed to have greater aspirations (Knight & Gunatilaka, 2012).

Poverty lowers the aspirations of the poor, so they fail to reach their potential – this state is termed as 'aspiration failure'(Bernard et al., 2008; Dalton et al., 2016). Kosec & Khan (2016) find that the aspirations of individuals belonging to lowest two income quintiles are 0.4 standard deviations lower than the individuals within the top three income quintiles in rural Pakistan. Credit constraints and lack of insurance become a source of stress due to higher uncertainty. Recent psychological evidence suggests that mental resources like motivation/attention are easily

depleted under stress (Haushofer & Fehr, 2014; Inzlicht & Schmeichel, 2012). Various experiment-based studies show that stressed individuals indulge in short-sighted and risk-averse decision making (Cohn, Engelmann, Fehr, & Maréchal, 2015; Guiso, Sapienza, & Zingales, 2013). It also leads to an increase in time discounting, that is, they prefer a smaller amount available immediately rather than a larger amount available in the future (Cornelisse, Van Ast, Haushofer, Seinstra, & Joels, 2013; Lerner, Li, & Weber, 2013). Bernard, Taffesse and Dercon (2011) find that fatalism – lack of proactive and systematic effort to improves one's own life - reduces the demand of long-term loans and use of these loans for productive purpose in Ethiopia.

Therefore, poverty may self-perpetuate, as aspiration's failure hinder individuals from investing in small and feasible steps which have potentially substantial benefits in terms of improved life experiences (Bernheim, Ray, & Yeltekin, 2015; Ray, 2006). Social protection programs like unconditional cash transfers give poor people a reliable source of supplementary income for adverse situations. Cash transfers also directly affect the economic constraints of a household. These individuals who are already under stress due to tight economic conditions are provided with budgetary space. A randomized control study in Kenya shows that unconditional cash transfer improved psychological well-being and happiness of the participants (Haushofer & Shapiro, 2018). Several other studies find that unconditional cash transfers reduce signs of depression and stress (Baird, De Hoop, & Özler, 2013; Fernald, Hamad, Karlan, Ozer, & Zinman, 2008; Ssewamala, Neilands, Waldfogel, & Ismayilova, 2012). Kosec and Mo (2017) find that social safety net programs attenuate the negative impact of natural disaster (like floods) on adults' aspirations in Pakistan.

Aspirations are socially determined, through a group-based mechanism where the income and wealth of people around enters one's aspirations function (Genicot & Ray, 2017; Suls &

Wheeler, 2013). The individual's own income helps position one's self within the social environment based on his perception of 'similar' and 'attainable' individuals (Genicot & Ray, 2017; Ray, 2006). Social interactions with these comparable individuals or gaining information about them is demonstrated to have a positive influence on one's aspirations. Experiments incorporating inspirational, leadership stories and interactions have proved to increase aspirations, especially for women (Beaman, Duflo, Pande, & Topalova, 2012; Bernard, Dercon, Orkin, & Taffesse, 2019; Macours & Vakis, 2014; Tanguy, Dercon, Orkin, & Taffesse, 2014).

These social safety programs are aimed to help the severely poor households and so in general, the amount given out in these programs is extremely small, regardless of the context. The minimalist amount offered by BISP cash transfer is valued far more by the severely poor, compared to the borderline poor or non-poor households. The cash transfer, though a small amount, improves one's position of these individuals within their group of severely poor households. However, the minute injection in income through cash transfer will not elevate the position of the individuals in the group of borderline poor or non-poor households. For instance, an amount of $30, received as an exogenous income, adds much higher value for the households whose monthly consumption is $100, instead would have little worth for the households whose monthly consumption is $1000. Therefore, the effect of the cash transfer depends on the value of the amount given relative to one's current income level. Moreover, the severely poor people who are on the brink of starvation have elementary aspirations like, having two meals a day or wearing reasonable clothes out in public (Nathan, 2005). Hence, even a small cash transfer amount can improve their aspirations while it will not help borderline poor or non-poor households achieve anything tangible.

Apart from income and wealth, aspirations vary by gender and age. In rural Pakistan, on average the aspirations for women are found to be lower as compared to men (Kosec & Khan, 2016). Kosec & Khan (2016) find that median aspired income of women is one-fifth of men, reflecting the lack of participation in paid labor market work. The authors suggest that women's lower aspirations are driven by differences in perception of *individual's* ability to achieve, due to unequal opportunities in education and paid work for them in the context of Pakistan. The psychological literature argues that the individual's biased perceptions of their competence, built upon cultural beliefs, lead to gender differences in career choices (Correll, 2001; Ridgeway & Correll, 2004). Literature from India indicates that the patriarchal social structures constraints the aspirations of women compared to men, because even if they dare to aspire, they do not know if they will be permitted to achieve those aspirations (Shu & Marini, 1998). Therefore, women are observed to have flexible and fluid aspirations as they change, given the life circumstances. Their aspirations adapt to the patriarchal norms and limited opportunities as their life changes (Vijayakumar, 2013). For instance, marriage and husbands' perceptions have a significant influence on women's aspirations and therefore, an educated girl may not aspire as high as an equally qualified boy might, knowing her future depends on when and whom she will get married to. Women in Pakistan face similar constraints on mobility, labor force participation and lack the autonomy to make their own decisions that restricts their capacity to aspirations. However, the constrains vary by social and economic class women belong it. Women belonging to poorest households in Pakistan have least mobility constraint and higher female labor force participation, compared to women from affluent households. Thus, an exogenous income is expected to improve aspirations of severely poor women for two reasons; first, the relative value of the cash transfer with respect to the income level is highest for women belonging to poorest

income quartile, second, poor women face less stringent social constraints and they have higher labor force participation, a boost in exogenous income will make them forward looking.

Moreover, aspirations are thought to be nurtured young and that is why a large amount of literature focuses on the educational and career aspirations of high school and university graduates (Al-Bahrani, Allawati, Abu Shindi, & Bakkar, 2020; Hafsyan, 2015; Khattab, 2015). This is the case because, then these individuals have a whole life in front of them and they can aspire and invest accordingly to shape their future. However, as people get old, it becomes difficult to change their perceptions based on their life-long experiences and they lack the will to drastically change their trajectory. Therefore, it is expected that the cash transfers will have a greater effect on younger individuals.

In this paper, I hypothesize that the unconditional cash transfer program could lead to an improvement in aspirations for two reasons. First, it attenuates the economic constraint that could reduce their stress levels and give them mental and psychological space to make strategic decisions. Second, it increases their trust in the government, assuring them of a safety net to fall back in case of an adverse economic shock. I expect the impact of BISP cash transfer on the aspirations to vary by gender and income quartile of the household.

Data and Measures

Data

I am using Pakistan Rural Household Panel Survey (PRHPS) 2012-2014 collected by International Food Policy Research Institute (IFPRI) (International Food Policy Research

Institute & Innovative Development Strategies, 2014, 2016)[5]. In this paper primarily, the first two rounds are utilized; March – April 2012 (Round 1) and April – May 2013 (Round 2).

Table 1: Descriptive Statistics – Individual and Household Level Characteristics by Household's Beneficiary Status.

	Full Sample		Beneficiary Households		Non-Beneficiary Households			
	Mean	SD	Mean	SD	Mean	SD	Diff	T-Stats
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Individual Level Characteristics								
Average Age (in years)	38.88	13.74	38.18	15.29	37.78	15.84	2.03***	(6.63)
Female	0.65	0.48	0.50	0.50	0.48	0.50	-0.02*	(-2.46)
Currently Married	0.85	0.36	0.69	0.46	0.71	0.45	0.07***	(9.17)
Never Married	0.11	0.32	0.25	0.43	0.23	0.42	-0.07***	(-9.26)
Widow/Divorced	0.04	0.18	0.06	0.25	0.06	0.24	0.00	(0.75)
Literate	0.27	0.44	0.22	0.42	0.38	0.49	0.13***	(18.47)
Observations	6,677	6,677	959	959	5,697	5,697		
Pabel B: Household Level Characteristics								
Female Headed Households	0.02	0.14	0.03	0.16	0.02	0.13	0.01	(0.71)
Household Heads ever attended school	0.51	0.50	0.41	0.49	0.53	0.50	0.10***	(12.38)
Proportion of Household with Children (5-16 Years) Attending School	0.38	0.43	0.28	0.38	0.40	0.44	0.16***	(25.35)
Household Composition:								
Average Household Size	6.49	3.00	7.27	2.84	6.35	3.00	-0.59***	(-10.66)
Number of Children (0-7 Years)	2.65	2.67	2.95	2.63	2.59	2.67	-0.11*	(-2.23)
Number of Employed Household Members	2.62	1.71	2.67	1.71	2.62	1.71	-0.05	(-1.35)
Number of Elderly (65+ Years)	0.19	0.47	0.21	0.50	0.19	0.46	0.04***	(5.36)
Household with Disabled Members	0.05	0.23	0.06	0.24	0.05	0.22	0.00	(1.12)
Income/Wealth Indicators								
Per Adult Equivalent Monthly Consumption Expenditure on Non-Durable (PKR)	1725.3	840.5	1448.4	722.2	1775.6	850.6	261.8***	(24.37)
Number of rooms per household member	0.41	0.27	0.30	0.22	0.43	0.27	0.11***	(26.39)
No toilet in the household	0.35	0.48	0.42	0.49	0.33	0.47	-0.11***	(-13.13)
Dry pit latrine	0.20	0.40	0.22	0.42	0.20	0.40	-0.03***	(-4.33)
Flush, connected to public sewerage or pit	0.45	0.50	0.35	0.48	0.47	0.50	0.14***	(17.29)
Average Agricultural Land Owned (Acres)	1.83	5.41	1.17	3.23	1.95	5.71	1.04***	(12.84)
Households that own Fridge/Freezer/Cooler	0.30	0.46	0.14	0.35	0.33	0.47	0.20***	(32.24)
Households that own AC/Air Cooler/Geyser/Heater	0.04	0.20	0.01	0.08	0.05	0.21	0.02***	(11.86)

[5] This dataset has been used in several academic papers including (Kosec & Mo, 2017), (Ghorpade & Justino, 2019) and (Saleemi & Kofol, 2020).

Households that have that own Stove/Cooking Range/Oven	0.61	0.49	0.56	0.50	0.62	0.49	0.05***	(5.65)
Households that own Television	0.43	0.49	0.32	0.47	0.45	0.50	0.13***	(16.89)
Households that own Car	0.02	0.13	0.02	0.13	0.02	0.13	-0.00	(-0.06)
Households that own Motorbike	0.24	0.43	0.17	0.37	0.25	0.43	0.08***	(8.70)
Households that owns Livestock	0.57	0.50	0.56	0.50	0.57	0.50	0.01	(1.58)
Observations	2,090	2,090	303	303	1,787	1,787		

Note: Household survey weights are used; *p < 0.10, **p < 0.05, ***p < 0.01

PRHPS is an extensive survey covering various topics. It encompasses data from 76 rural villages from all four provinces (Punjab, Sindh, KPK, and Baluchistan) of Pakistan and a total of 2,090 households (Nazli & Haider, 2012). The information on access to social protection programs is available in both rounds. The data collection on aspirations targets the household head, spouse and the youngest member in the household between the age of 18 and 35 (if any). The sample includes data on 2,325 men and 2,411 women, aged 18 and above, who responded to the aspiration's questionnaire in the first wave. Of these 2,411 women, a panel data is available for 1,819 women, in addition to cross-sectional data of 592 women in round 1 (year 2012) and 124 women in round 2 (year 2013).

Table 1 provides the descriptive statistics of the individual and household-level characteristics. Panel A reports the individual-level characteristics. Of the full sample, the respondents on average are 39 years old, 65 percent are females, 11 percent are never married, 85 percent are currently married, and 27 percent are literate. Panel B reports the household characteristics. The household heads on average are 99.8 percent males and 51 percent have attended school. A typical household comprises 6 household members including 2 children aged 0 – 7 years and two employed household members. Their per adult equivalent monthly consumption expenditure[6] is PKR 1,725 ($18)[7] and on average own 1.83 acres of land. Of the

[6] The Ault Equivalence used for BISP is followed here. It used the following formula = 0.8* (Under 18) + 1*(Over 18) (Cheema et al., 2014).

[7] Converted according to 2012 Exchange rate when $1=PKR 95.

total sample, 35 percent of the households do not have access to any toilet, 30 percent own a refrigerator, cooler or freezer, 61 percent own a cooking stove or oven, 43 percent own a television, 57 percent own some kind of livestock[8], and 24 percent own a motorbike.

Table 1 gives the average individual and household level characteristics of beneficiary households in columns 3 and 4, and of non-beneficiary households in columns 5 and 6. The difference in means of the two groups and their t-statistics is given in columns 7 and 8. While comparing the characteristics of beneficiary and non-beneficiary households, their averages are significantly different as indicated by the t-statistics in table 1.

Measures

The primary outcome variable is the individual's aspiration level. Aspiration data encompasses three aspects; income, assets and social status. Since an individual's aspirations are affected by the social environment and other individuals in it (Suls & Wheeler, 2013), the index is normalized at the district level. I construct an index, following (Beaman et al., 2012; Bernard & Taffesse, 2012; Kosec & Mo, 2017) that sums up the weighted averages of normalized aspiration level. The respondents were explicitly asked to report the aspired level of personal income, value of assets and the level of social status (on a 10 – step ladder of possibilities)[9]. First, the aspiration level on each dimension is normalized by subtracting the district-level average and then dividing it by the standard deviation for individuals within the same district. Therefore, the respondents with aspiration levels above (below) the district average have a positive (negative) value for the normalized outcome. Each individual was asked to allocate 20

[8] It may include sheep, goat, cow, buffalo etc.
[9] The detailed questions on aspirations are given in Appendix B.

beans across each dimension, based on their relative importance. The index is weighted by the share of beans[10] placed by the individual and is formalized as follows:

$$Composite\ Aspiration\ Index = \sum_{n=1}^{3} \left(\frac{a_n^i - u_n^d}{\sigma_n^d} \right) w_n^i$$

where a_n^i is the aspiration level of dimension n by individual i living in district d, u_n^d is the district level average of aspiration and σ_n^d is the standard deviation of the aspirations for dimension n in district d. The weight assigned by each individual i to the dimension n of the aspirations is given by w_n^i.[11] Table 2 (column 1), Panel A, provides the summary statistics for composite aspirations index and normalized aspiration level for each dimension. An average individual has an aspiration level of 0.003 with a standard deviation of 0.494. Since the measure of aspirations is normalized at the district level, the positive aspirations indicate that the individual's aspirations level are above the district average. It is interesting to note that disaggregating the aspiration by gender exhibits, on average, negative aspirations for women compared to positive aspirations for men, in each of the dimensions. The negative aspirations of women in all three dimensions reflects the status of women in Pakistan's society – subordinate to men in the household as per the social norms leading to lack of asset ownership and trivial labor force participation rates, especially paid work and hence lower aspirations. Furthermore, the average disaggregated by income quartile, proxied by per adult monthly consumption expenditure, indicates lower aspirations (negative) in lower quartiles and higher aspirations (positive) in the top two quartiles. Panel B gives the actual aspiration levels, indicating that an average person aspires for a monthly income of PKR 192,673 ($1,147), average assets of PKR

[10] The share of beans is calculated by dividing the number of beans assigned to the given dimension by 20.
[11] Note that the index is a weighted average of three normally distributed variables with mean 0 and standard deviation 1 (the normalized aspiration level of each dimension). However, the composite index itself is not distributed normally with mean 0 and standard deviation 1.

350,770 ($2,088), and social status of 7.12 on a ladder of 1 to 10 - 10 being the highest. Columns (2) and (3) provide the means by treatment – beneficiary and non-beneficiary households. Hence, the poorer individual and women have lower aspirations as indicated by negative aspirations index and is true for all three dimensions.

Table 2: Descriptive Statistics of Normalized Aspirations, by Gender and Consumption Quartile

	Mean	SD	N
Panel A: Normalized Aspiration Level			
Full Sample			
Composite Aspirations Index	0.003	0.494	6677
Normalized Aspirations: Income	-0.003	0.355	4984
Normalized Aspirations: Assets	-0.001	0.226	6512
Normalized Aspirations: Social Status	0.006	0.233	6671
Males			
Composite Aspirations Index	0.118	0.560	2323.00
Normalized Aspirations: Income	0.082	0.394	2254.00
Normalized Aspirations: Assets	0.006	0.215	2289.00
Normalized Aspirations: Social Status	0.032	0.215	2320.00
Females			
Composite Aspirations Index	-0.058	0.442	4354.00
Normalized Aspirations: Income	-0.074	0.301	2730.00
Normalized Aspirations: Assets	-0.004	0.232	4223.00
Normalized Aspirations: Social Status	-0.007	0.241	4351.00
By Income Quartile			
1st Quartile (Lowest)			
Composite Aspirations Index	-0.051	0.473	1327.00
Normalized Aspirations: Income	-0.032	0.348	1033.00
Normalized Aspirations: Assets	-0.012	0.200	1301.00
Normalized Aspirations: Social Status	-0.014	0.227	1325.00
2nd Quartile			
Composite Aspirations Index	-0.036	0.426	1517.00
Normalized Aspirations: Income	-0.018	0.288	1129.00
Normalized Aspirations: Assets	-0.014	0.179	1495.00
Normalized Aspirations: Social Status	-0.009	0.226	1515.00
3rd Quartile			
Composite Aspirations Index	0.014	0.520	1684.00
Normalized Aspirations: Income	-0.002	0.389	1244.00
Normalized Aspirations: Assets	0.005	0.244	1647.00
Normalized Aspirations: Social Status	0.011	0.228	1684.00
4th Quartile			
Composite Aspirations Index	0.055	0.524	2128.00
Normalized Aspirations: Income	0.024	0.372	1566.00
Normalized Aspirations: Assets	0.012	0.254	2048.00
Normalized Aspirations: Social Status	0.026	0.244	2126.00
Panel B: Actual Aspiration Level[1]			
Average Aspirations: Monthly Income (PKR)	192,673	869,124	3854
Average Aspirations: Assets (PKR)	350,770	2,173,889	6683
Average Aspirations: Social Status	7.717	1.935	6743

Note: Non-weighted averages are given in the table.

1: Exact Survey questions to capture aspirations: (a) What is the level of personal income you would like to achieve? (b) What is the level of assets that you would like to achieve? (c) On a scale of 1 to 10, 1 being the lowest and 10 being the highest level of social status one has, answer the following section: What is the level of social status that you would like to achieve?

Empirical Strategy

Identification

There is a potential endogeneity issue when assessing the impact of unconditional cash transfer on aspirations of the beneficiary households. The eligible households for unconditional cash transfer are chronically poor households who may already suffer from lower aspirations compared to the non-eligible households. The data described above illustrate that the aspirations are negative for individuals in the first income quartile, implying their aspirations are lower than the district level average, while the aspirations are positive for individuals in the fourth quartile, implying the aspirations are higher than the district level average.

In the absence of a randomized selection process of the BISP beneficiary households and data collection after the program had started, there is a need to find an appropriate counterfactual in order to identify the causal effect. A propensity score is created to match a household based on covariates (X), which predicts the probability of the household to receive treatment. Note that this paper is mainly measuring the household level impact of BISP cash transfers – the level at which the treatment covariates are matched – on the aspirations of the household members. The identification comes through the comparison of individuals across households, that vary by the treatment status, while conditioned on the covariates and controlled for individual characteristics. For each household h in the sample, let T_h indicate the treatment status, where $T_h = 1$ if the household received the unconditional cash transfer (BISP) [treated household] and $T_h = 0$ if the household did not receive unconditional cash transfer (BISP) [control household]. The propensity score is formally defined as:

$$e(x) = \Pr(T = 1|X = x), \quad (1)$$

assuming,

$$0 < e(x) < 1, \ \forall \ x \in X$$

To select the covariates for propensity score matching, it is suggested to choose variables that affect the treatment selection process (Austin & Stuart, 2015). Since BISP eligibility is determined through PMT poverty scorecard – targeting the chronically poor households – I include the following conditional covariates to predict the treatment status: reconstructed poverty scorecard, wealth [house owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of adult men and women in the household (18-65 years) and the social status indicators (household's years of schooling and employment status)]. The data has two types of non-compliers; first, household that are eligible based on their poverty scorecard, yet are do not receive the cash transfer and second, those who are not eligible but receive the cash transfers. In the case of former, I posit that the lack of computerized national identity card (CNIC) may result in eligible households not receiving the BISP cash transfer since it is one of the requirements, while, the latter households may be the ones who use their social and political influence to receive cash transfers. Therefore, to capture the characteristics of non-compliers, I control if the married woman in the household has a national identity card and if the household has religious, political or administrative connections.

The most significant covariate, PMT scorecard, is not directly observed in this data set. As a next best alternative, I reconstruct the poverty scorecard based on the survey data collected in 2012 (first round of PRHPS) using the same formula as used in the 2008-09 Poverty Census of

the BISP (Hou, 2009; Vashwanath, Hou, & Yoshida, 2009)[12]. Despite the fact that the weights used to construct the PMT scorecard are based on 2007-08 data, they are assumed to be valid for 2012 dataset since the poverty scorecard indicators are correlates of chronic poverty (Ghorpade & Justino, 2019).

I am using Inverse Propensity Weighting (IPW) to match the treatment and control groups. The inverse probability of treatment weighting assigns each unit a weight equivalent to the inverse probability of receiving the treatment. The advantage of IPW in comparison to the other techniques of matching is that the whole sample is utilized. Weighting is done to remove the correlation between the treatment status and the covariates (X). As per the potential outcome notation, $Y_i(0)$ denotes the outcome of individual i belonging to a control household and $Y_i(1)$ is outcome of an individual i belonging to a treated household. While the treatment effect may be given by:

$$Y_i(1) - Y_i(0)$$

I am interested in the average treatment effect on the treated,

$$\tau_{ih} = E[Y_{ih}(1) - Y_{ih}(0)|T_h = 1] \qquad (2)$$

that evaluates the effect of the treatment on the subpopulation that is likely to take up the treatment. In reality, we only observe either of the events, $Y_i(0)$ or $Y_i(1)$, that is if a household may be treated or controlled, it cannot be both simultaneously. Since I am interested in the average treatment effect on the treated, the treated households are assigned a weight of unity and control household $\frac{e(x)}{1-e(x)}$:

[12] Appendix B, Table B1 lays out in detail the 23 indicators used to predict weights for PMT scorecard. (Ghorpade & Justino, 2019) also reconstructed PMT scorecard using the same dataset. The indicators are assigned the scores pre-determined by Hou (2009). These scores are aggregated to calculate the PMT Score card.

$$\omega\ (t,x) = \ t + (1-t).\frac{\hat{e}\,(x)}{1-\hat{e}\,(x)} \qquad (3)$$

Before a causal effect can be drawn by comparing the treatment and control household in the matched sample, three critical assumptions need to be met; 1) Conditional Independence, 2) Common Support, 3) Stable Unit Treatment Value Assumption (SUTVA). Now I will examine if all three assumptions hold for the sample matched using Inverse Probability Weighting.

Unconfoundedness or conditional independence implies that, conditional on the covariates, the treatment indicator is independent of the potential outcome:

$$\mathrm{T} \perp Y(0), Y(1)|X$$

It suggests that the best match of the units will be one that only differs in the treatment assigned, which otherwise, are identical in terms of covariates (Hirano & Imbens, 2001; Rosenbaum & Rubin, 1983; Rubin, 1978). This assumption validates the comparison of treatment and control groups with the same value of covariates. It may be violated if the covariate vector (X_h) includes variables that may themselves be affected by the treatment.

Table 3: Assessing Conditional Independence Assumption: Average Treatment Effect of Non-Beneficiary Eligible Households Vs Non-Beneficiary Ineligible Households.

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A: Full Sample				
BISP Beneficiary	0.032	0.071	0.036	-0.017
	(0.078)	(0.047)	(0.034)	(0.026)
Observations	4,620	3,361	4,515	4,630
Panel B: Women				
BISP Beneficiary	-0.039	0.007	0.004	0.021
	(0.046)	(0.028)	(0.019)	(0.030)
Observations	3,008	1,794	2,924	3,020
Panel C: Men				
BISP Beneficiary	-0.021	0.013	0.026	-0.068
	(0.084)	(0.044)	(0.021)	(0.045)
Observations	1,612	1,567	1,591	1,610

Note: Robust standard errors ; *p<0.1, ** p<0.05, ***p<0.01

Regression Covariates: Individual Level Characteristics (Age, age squared, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

It is impossible to test this assumption directly, therefore, to check conditional independence, I test for the 'pseudo' treatment effect between two control groups as suggested by Imbens & Wooldridge (2009). I take the non-beneficiary, eligible[13] households as the treatment group, and the non-beneficiary, ineligible households as the control group. Table 3 provides the 'pseudo' average treatment effect on the treated that is statistically insignificant for the full sample and by gender for all individuals above 18 years old. It strengthens our faith in the conditional independence assumption which forms the basis of my results.

Table 4: Covariate Balance in Raw and Weighted Data Samples.

	Standardized Differences		Variance Ratio	
	Raw	Weighted	Raw	Weighted
PMT Score	-0.786	-0.019	0.769	1.072
Household Head's Years of Schooling	-0.243	-0.015	0.782	1.009
Household Head is Employed	0.048	0.002	0.867	0.990
Wealth Indicators				
House Owned	0.026	-0.021	0.949	1.047
Property Owned	0.014	0.006	.971	1.016
Mud Walls	0.368	-0.014	1.027	1.004
Brick Walls	-0.465	0.006	0.821	1.005
Drinking Water Source				
Hand Pump	0.011	-0.032	0.979	1.070
Piped Water	0.056	0.050	1.198	1.172
Remittances Received	-0.002	0.011	0.986	1.075
Household Composition				
Household Size	0.386	-0.000	0.926	0.881
Number of Children (0-7 years)	0.122	-0.003	0.929	0.926
Number of Employed Members	0 .082	0.003	1.105	1.042
Number of Observations	1,866	1,866	1,866	1,866
Beneficiary Households [Treated]	282	936.9	282	936.9
Non-Beneficiary Households [Control]	1,584	929.1	1,584	929.1
Over-Identification Test (Prob >Chi2)		0.8596		

The second assumption is of common support or '*overlap*'. This regards to the existence of both control and treatment households over a common covariate distribution. The first two

[13] The eligible households are the ones who has their poverty scorecard less than 21 and ineligible households are the ones with poverty scorecard greater than 21. Due to the exception cases between the range of 16.17 to 21.17, I take the eligibility cut-off to 21.

assumptions together are known as the assumption of *strong ignorability* (Rosenbaum & Rubin, 1983). The covariate balance for the treatment regression is tested in table 4 that provides the mean standardized differences and variance ratio for the raw and weighted data samples[14]. The standardized differences should ideally be 0 and variance ratio should be 1. It is noted that the standardized differences for all covariates are much closer to zero in the weighted sample compared to the raw sample. The greatest absolute standardized difference in means of treatment and control households is 0.05 for a piped water source for drinking. Similarly, the variance ratio is closer to 1 for weighted data compared to raw data, and piped water remains the one which is off target by 0.17. The overidentification test has a null hypothesis that the covariates are balances for treatment and control groups (Imai & Ratkovic, 2014). A formal chi-square test is developed by Imai & Ratkovic (2014) to check the covariate balance. The p-value for this test is estimated to be 0.8569, failing to reject the null hypothesis and hence confirming that the treatment covariates are balanced in weighted beneficiary and non-beneficiary households. Therefore, I can confidently claim that the assumption of common support holds true in the weighted sample. Besides, figure 2, exhibits the kernel density curves for the primary covariate, PMT scorecard, whose overlap between treatment and control group improves significantly in weighted data.

[14] See (Austin, 2009)for details on covariate balance diagnostics.

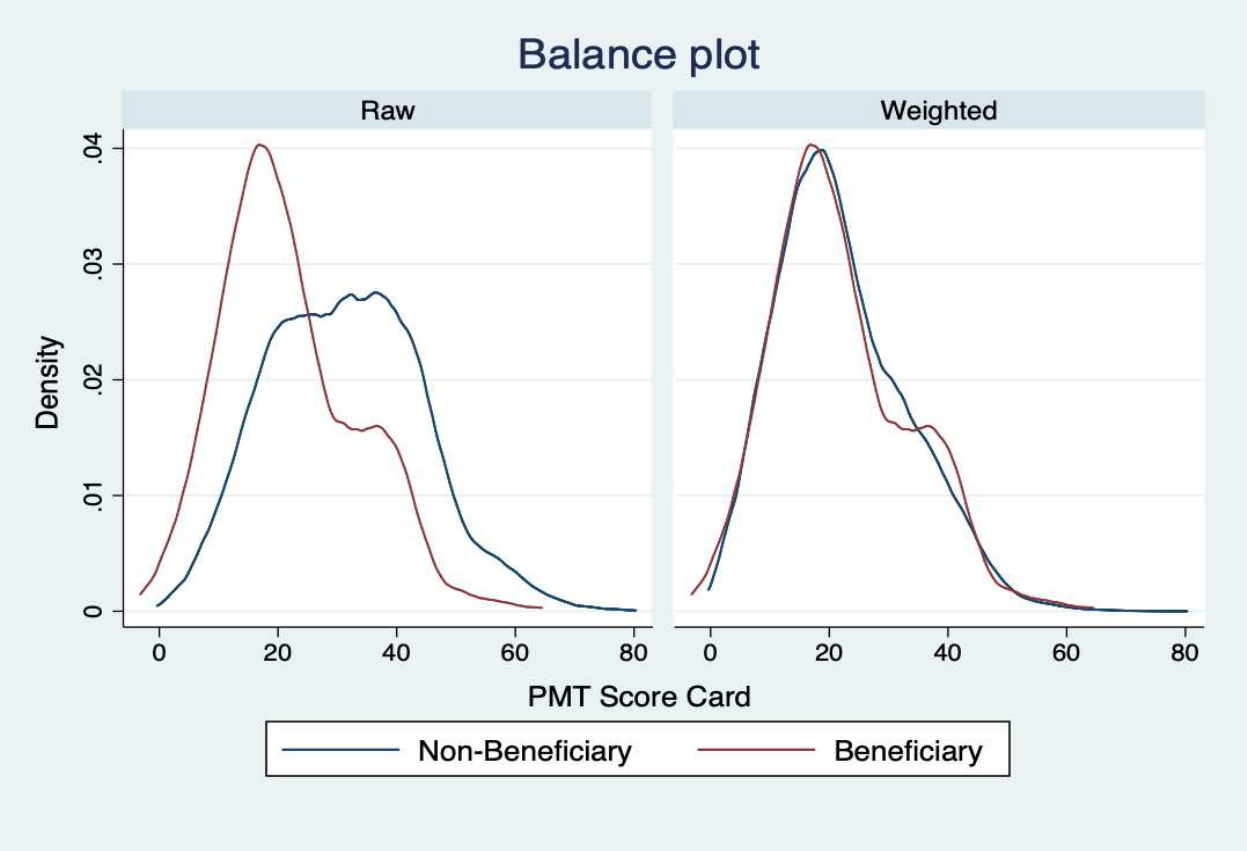

Figure 1: Kernel Density of PMT Score Card for the Beneficiary and Non-Beneficiary Households.

The third assumption is called the Stable Unit Treatment Value Assumption (SUTVA), stating that the outcome on one unit is not affected by the treatment of other units. That is, the beneficiary household receiving the cash transfer will not affect the aspirations of individual i belonging to household h.

Furthermore, the BISP targeting has demonstrated poor performance including many errors of exclusion and inclusion (Jalal, 2017). Jalal (2017) finds that there is 53.1% of under-coverage (exclusion), that is eligible households which do not receive BISP cash transfer and 73.6% rate of over-coverage (inclusion), that is ineligible households who benefit from BISP cash transfer. This gives me an opportunity to examines the heterogenous effect of BISP cash transfer across the income quartiles not limiting the analysis to local treatment effect, comparing the eligible and non-eligible households around the cut-off point. However, this may also result

in spillover effects, that is, if treatment status differs between two eligible households in the same community, the cash transfer may negatively affect the aspirations of the non-beneficiary households within the same village. To isolate the pure treatment effect, I also examine the effect across villages, that is, comparing the outcomes of treated households in treated villages and control households in control villages, where no other household got cash transfer.

Empirical Methodology

To examine the impact of unconditional cash transfer (BISP) on aspirations of adults, I employ the inverse probability of treatment weights with regression adjustment, first developed by Robins & Rotnizky (1995). Combining the propensity score and regression methods help achieve some robustness to misspecification. While weighting removes the correlation between T_h and X_{ih}, the regression adjustment removes the direct effect of X_{ih} (Imbens & Wooldridge, 2009). In this estimator, the weights are normalized, so they add up to one in each treatment group (Hirano & Imbens, 2001). In the first step, the sample is matched to create counterfactual using Inverse Probability Weighting, as discussed in the previous section. Regression adjustment, in the second step, estimates two conditional means by linear function using weighted least squares method applied separately to the treatment and control group. The difference between the two conditional-means of different group gives us the treatment effect. The average treatment effect of the treated can formally be written as: using the full sample:

$$Y_{ih} = \gamma + \tau.T_h + \delta X_{ih} + \theta(X_{ih} - \bar{X})T_h + \varepsilon_{ih} \qquad (4)$$

where Y_{ih} (outcome variable) is the aspiration measures (composite index and individual dimensions) of individual i belonging to household h, $\bar{X}$ is the sample average of X_{ih} for the sub-sample of treated households using the weights given in equation (2); X_{ih} is the covariate

vector that includes variables for both treatment and outcome equation. The term $(X_{ih} - \bar{X})T_h$ captures the non-parallel effect of the treatment on the treated and control groups.

This method is called 'double-robust' estimator as it requires a propensity score and the outcome model in the same estimator. The results would be unbiased if any one of them is correctly specified (Emsley, Lunt, Pickles, & Dunn, 2008; Imbens & Wooldridge, 2009; Rotnitzky & Robins, 1995). Moreover, it is a beneficial model when estimating individual outcomes instead of household-level as it allows to control for individual-level covariates in the regression besides household-level covariates employed for propensity score weighting (Veras Soares, Perez Ribas, & Issamu Hirata, 2010).

The two estimation techniques – IPW and regression adjustment – allows for different set of covariates in the treatment equation and the outcome equation (Hirano & Imbens, 2001). Treatment covariates include reconstructed poverty scorecard, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed individuals in the household] and social status indicators (the household head's years of schooling and employment status). The regression covariates in the outcome equation include the age and age squared to capture the life cycle stage, gender, marital status, highest level of education achieved, employment status, household's per adult equivalent consumption expenditure besides PMT Scorecard and social status indicators that are already included in the treatment regression. While the treatment balances the covariates at the household level, the outcome variables control for individual-level aspirations. Thereof, it captures the effect of unconditional cash transfer on aspirations after considering an individual's demographics, economic, and social status (Kosec & Mo, 2017).

Results

Table 5 provides the average treatment effect on the treated (ATET) of BISP cash transfers on the aspirations of adults aged 18+ years by gender. Here, the outcome is compared between beneficiary households and non-beneficiary households regardless of their eligibility. Panel A shows the results of the full sample, indicating BISP cash transfer has a positive impact on normalized composite aspirations index (column 1) of 0.06 units. This implies that the BISP cash transfer boosts the aspirations by 0.12 standard deviations[15]. To put this in perspective, as a percentage of the average potential outcome of non-beneficiary households, there is an increase of 115 percent in adult aspirations belonging to beneficiary households. Decomposing the index of aspirations, the most significant impact is on income aspirations (0.039) followed by social status (0.017) and assets (0.012).

Table 5: Average Treatment Effect on the Treated of BISP Cash Transfer on Aspirations of adults (18+ years), by gender

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A: Full Sample				
BISP Beneficiary	0.060***	0.039**	0.012*	0.017*
	(0.019)	(0.017)	(0.006)	(0.009)
Ratio to Control Group Average Outcome	1.152	1.612	0.611	1.280
Observations	6,610	4,950	6,498	6,660
Panel B: Women				
BISP Beneficiary	0.019	0.007	0.008	0.011
	(0.020)	(0.018)	(0.008)	(0.011)
Ratio to Control Group Average Outcome	0.164	0.073	0.326	0.391
Observations	4,296	2,704	4,218	4,348
Panel C: Men				
BISP Beneficiary	0.133***	0.084***	0.019*	0.031**
	(0.039)	(0.032)	(0.011)	(0.014)
Ratio to Control Group Average Outcome	1.707	1.165	2.318	2.277
Observations	2,314	2,246	2,280	2,312

[15] This is calculated by dividing the coefficient of BISP Beneficiary (0.06) with the standard deviation of aspirations composite index (0.494) given in table 2. The effect on aspirations is comparable with literature using same data. Kosec & Mo (2017) find that natural disasters like floods reduce the aspirations of the individuals in the affected households by 0.15 standard deviations.

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

However, when the sample is disaggregated by gender, as shown in Table 5 Panel B, there is statistically insignificant impact on women, on the composite index of aspirations and each of the individual dimensions. In contrast, the impact on men is statistically significant and far more magnified. The aspiration of the men in beneficiary households increases by 0.133 units, that is, 0.24 standard deviation[16] increase in aspirations index and 170 percent higher than the potential aspirations of men belonging to non-beneficiary households. It is noteworthy that the actual recipients of the cash transfer (ever-married women) are the ones who don't experience an impact on their aspirations, while men do. Based on literature, various reasons can be identified to explain the difference in the impact of increased exogenous income on aspirations of men and women. In Pakistan, men are relegated with the financial responsibility of the households while women are responsible only for unpaid reproductive work (Quisumbing & Maluccio, 2000). The exogenous income helps the men to meet their financial targets, improving their status in the society and income aspirations while women remain unaffected. In addition, the patriarchal social structures shape the aspirations differently for women compared to men. While it leads women to have biased self-perceptions (Kosec & Khan, 2016) it also constraints their aspirations because if they dare to aspire, they do not know if they will be permitted to achieve those aspirations (Shu & Marini, 1998).

[16] This is calculated by dividing the coefficient of BISP Beneficiary (0.133) with the standard deviation of aspirations composite index for men (0.560) given in table 2.

Further, the results are disaggregated by income quartile proxied by per adult monthly consumption expenditure. Tables 6,7 and 8 give average treatment effect on the treated by income quartiles for the full sample, women and men, respectively. Note that BISP cash transfers increase the aspirations of individuals belonging to the poorest households. The composite aspirations index is 0.117 units higher, that is 0.19 standard deviations[17], for the beneficiary households compared to the average aspirations index in non-beneficiary households. BISP cash transfer increases the aspirations for income, assets, and social status of individuals in treated households. Nonetheless, the cash transfers have statistically insignificant impact on the

Table 6: Average Treatment Impact of BISP Cash Transfer on Aspirations of adults (18+ years), By Income Quartile

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A: First Quartile				
BISP Beneficiary	0.117***	0.065**	0.032***	0.036**
	(0.032)	(0.028)	(0.011)	(0.015)
Ratio to Control Group Average Outcome	1.278	1.245	1.037	1.567
Observations	1,709	1,332	1,679	1,711
Panel B: Second Quartile				
BISP Beneficiary	0.071	0.051	0.019	0.008
	(0.043)	(0.043)	(0.012)	(0.018)
Observations	1,687	1,250	1,670	1,697
Panel C: Third Quartile				
BISP Beneficiary	0.040	0.039	-0.016	0.028
	(0.039)	(0.035)	(0.016)	(0.018)
Observations	1,633	1,201	1,617	1,652
Panel D: Fourth Quartile				
BISP Beneficiary	-0.053	-0.027	-0.004	-0.028
	(0.039)	(0.027)	(0.012)	(0.023)
Observations	1,581	1,167	1,532	1,600

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent

[17] This is calculated by dividing the coefficient of BISP Beneficiary (0.117) with the standard deviation of aspirations composite index for first quartile (0.607) given in table 2. Similar calculations are made in the rest of the paper.

consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

aspirations of the individuals belonging to remaining three income quartiles.

Disaggregating the results by gender, Table 7 provides the results for women for each of the income quartile. The BISP cash transfers have positive impact on the composite aspirations index for women belonging to the poorest household quartile (results reported in Table 7, Panel

Table 7: Average Treatment Impact of BISP Cash Transfer on Aspirations of Women (18+ years), By Income Quartile

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A: First Quartile				
BISP Beneficiary	0.080**	0.059	0.025*	0.028
	(0.038)	(0.036)	(0.014)	(0.019)
Ratio to Control Group Average Outcome	0.525	0.459	0.774	0.740
Observations	1,124	767	1,101	1,127
Panel B: Second Quartile				
BISP Beneficiary	0.011	-0.017	0.020	0.010
	(0.037)	(0.025)	(0.016)	(0.023)
Ratio to Control Group Average Outcome	0.107	-0.228	0.709	0.299
Observations	1,107	685	1,094	1,117
Panel C: Third Quartile				
BISP Beneficiary	0.020	0.008	-0.011	0.030
	(0.034)	(0.023)	(0.018)	(0.023)
Ratio to Control Group Average Outcome	0.191	0.073	-0.483	1.551
Observations	1,056	641	1,045	1,074
Panel D: Fourth Quartile				
BISP Beneficiary	-0.106***	-0.080**	-0.013	-0.048*
	(0.040)	(0.024)	(0.014)	(0.029)
Ratio to Control Group Average Outcome	-1.254	-1.584	-0.610	-2.168
Observations	1,009	611	978	1,030

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

A). It raises the aspirations by 0.08 units, that is, 0.18 standard deviations and 52.5 percent higher than the average of non-beneficiary households. It is interesting to note that treated women, belonging to the lowest income-quartile, indicate improved asset aspirations of 0.025 units, that is, 0.05 standard deviations yet they do not have a significant impact on income or social status aspirations. This is 77.4 percent higher than the average asset aspirations in the control group. The quarterly BISP cash transfers are deemed as an opportunity to buy inexpensive assets like bicycles etc. since the poor do not have the luxury to save otherwise. This finding is supported by Cheema et. al. (2016) who finds increased ownership of inexpensive durable goods in the final impact evaluation of BISP cash transfer program. The exogenous income is expected to improve aspirations of severely poor women for two reasons: first, the relative value of the cash transfer with respect to the income level is highest for women belonging to poorest income quartile; second, poor women face less stringent social constraints and they have higher labor force participation. Therefore, in Pakistan the BISP cash transfer improves the aspirations of the severely poor women and does not affect the others.

It is noteworthy that women in highest income quartile or affluent background, receiving the BISP cash transfer experience a negative impact on their aspirations of 0.106 units, that is, 0.17 standard deviations and 125 percent lower than the non-beneficiary households in the same income quartile. Due to the inclusion error, there are women receiving BISP cash transfer while belonging to the wealthy households. The descriptive statistics indicate that the aspirations are higher for individuals belonging to the fourth income quartile whereas they are negative for the individuals belonging to the bottom two quartiles. This result indicates that since the aspirations of the individuals, in general, are higher in fourth quartile, a miniscule amount of money (relative to their own household income and individuals in the same group) does not have

any worth. Instead, since BISP cash has to be collected by the woman herself, she might be socially embarrassed as she publicly accepts benefiting from a program that is meant for severely poor households.

Table 8: Average Treatment Impact of BISP Cash Transfer on Aspirations of Men (18+ years), By Income Quartile

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A: First Quartile				
BISP Beneficiary	0.196***	0.099**	0.046**	0.055**
	(0.058)	(0.040)	(0.019)	(0.024)
Ratio to Control Group Average Outcome	9.319	2.210	1.624	17.16
Observations	585	565	578	584
Panel B: Second Quartile				
BISP Beneficiary	0.188*	0.163*	0.023	0.006
	(0.102)	(0.094)	(0.019)	(0.029)
Ratio to Control Group Average Outcome	3.422	2.846	1.195	0.360
Observations	580	565	576	580
Panel C: Third Quartile				
BISP Beneficiary	0.076	0.078	-0.024	0.024
	(0.092)	(0.067)	(0.032)	(0.027)
Ratio to Control Group Average Outcome	0.648	1.212	-0.935	0.886
Observations	577	560	572	578
Panel D: Fourth Quartile				
BISP Beneficiary	0.047	0.021	0.015	0.008
	(0.080)	(0.049)	(0.023)	(0.039)
Ratio to Control Group Average Outcome	0.401	0.240	13.11	0.286
Observations	572	556	554	570

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

Table 8 reports the ATET of BISP cash transfer for men by income quartile. Similar to women, the cash transfer also has the greatest impact on men belonging to the lowest income quartiles (poorer households). BISP cash transfers have a positive and statistically significant

impact on the aspirations of men in first- and second-income quartile. Men in the first income quartile experience 0.196 units increase in aspirations index, that is, 0.41 standard deviations higher than the non-beneficiary households in the same income quartile. It also has a positive impact on income, assets, and social status aspirations. Men have a similar positive impact in second income quartile, with a boost in aspiration index of 0.188 points, that is, 0.44 standard deviations higher than that of the control group in the same quartile. Note that in the second quartile, the effect on men's aspirations largely stems from income aspirations and not assets or social status. This validates my hypothesis, that the BISP cash transfer will affect the poor households. The men within the second income quartile also face financial constraints and BISP cash transfer helps them meet their necessities. Yet, it does not improve their aspirations for assets of social status. It is promising to see a positive effect of cash transfers on the aspirations of the poorest households (lowest two quartile) as it assures a long-term effect of BISP cash transfer on the life perceptions, pulling them out of the behavioral poverty trap.

Next, I check if the impact of BISP cash transfer is larger among the younger population compared to older adults. I examine how aspirations vary by age within the first income quartile as I divide the sample in two groups, young adults (18-25 years) and working age adults (26-60 years). Table 9 reports the ATET of BISP cash transfer on the individuals within the first income quartile, by gender and age group. It is interesting to see that the magnitude of the impact on aspirations index multiplies for women when the sample is restricted to young adults within the first quartile. BISP cash transfer boosts their aspirations index by 0.235 units, that is an increase of 107 percent on the potential aspirations of the non-beneficiary households, primarily driven by income aspirations. On the other hand, for working age women, there is significant effect on the assets aspirations that rise by 0.03 units, that is 85.9 percent above the aspirations of the women

in the same age bracket and income quartile belonging to non-beneficiary households. It is interesting to note that since women are the ones who save and try to make small assets for the

Table 9: Average Treatment Impact of BISP Cash Transfer on Aspirations of Individuals in First Income Quartile, By Age

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A : Women				
I: Young Adults (18-25 Years)				
BISP Beneficiary	0.235*	0.223**	-0.023	0.069
	(0.130)	(0.091)	(0.041)	(0.056)
Ratio to Control Group Average Outcome	1.077	1.089	-9.746	1.474
Observations	192	124	183	193
II: Working Age Adults (26-60 Years)				
BISP Beneficiary	0.063	0.039	0.030*	0.022
	(0.041)	(0.040)	(0.016)	(0.021)
Ratio to Control Group Average Outcome	0.445	2.846	0.859	0.680
Observations	871	604	859	873
Panel B: Men				
I: Young Adults (18-25 Years)				
BISP Beneficiary	0.275**	0.126*	0.047	0.091
	(0.130)	(0.069)	(0.030)	(0.073)
Ratio to Control Group Average Outcome	1.165	1.260	0.848	1.243
Observations	79	75	78	79
II: Working Age Adults (26-60 Years)				
BISP Beneficiary	0.224***	0.102**	0.058**	0.062**
	(0.060)	(0.041)	(0.023)	(0.025)
Ratio to Control Group Average Outcome	10.28	2.020	1.878	14.21
Observations	428	423	424	427

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

household, especially later in their lives, BISP cash transfer has positive effect of asset aspirations of working age women. For men, the results are reported in Table 9, panel B, where both young and old adults have improved aspirations compared to the control group. However,

the increased aspirations of young men are solely driven by income aspirations while for older men it is driven through all three dimensions, income, assets and social status. Therefore, to align their actions with their aspirations, young adults from beneficiary households might strive to improve their income while older adults will focus on assets collection.

Thus, unconditional cash transfers have a positive impact on the aspirations of the beneficiaries, especially for men. For women, it only effects aspirations index of those within the first income quartile with a magnified impact on younger adults (18-25 years) while working-age women receiving cash transfer has increased asset aspirations.

Limitations

Since there are loopholes in implementation of the BISP cash transfer, it is expected that there might be some spillover effect on non-beneficiary households with otherwise similar poverty scorecard. To examine the pure treatment effect (or measure the magnitude of spillover effects) I analyze the ATET of beneficiary households in treated villages compared to non-beneficiary households in control villages. Control villages are those villages who do not have a single household receiving BISP cash transfer. Since the assignment of control and treatment villages is not random, there may be observable or unobservable factors leading to their selection. While there are certain community level characteristics such as village's distance to nearest market and city, and village's distance to post office that I control for, yet there may be unobservable factors that may result in villages not receiving cash transfers at all.

The results are reported in table A4, Appendix A and indicate that largely the significance of the results remains the same, however ,the magnitude of the ATET has increased for the full sample and men and for women they have significant impact on the asset aspirations that were earlier statistically insignificant. This implies there may be some negative spillover

effects within the village that dampens the overall treatment effect in my results. Further analysis is required to examine the magnitude of spillover effects that is left for future work.

Sensitivity Analysis

These results are robust to i) alternative matching methodologies; Inverse Probability Weighting, Nearest Neighbor Matching and Propensity Score Matching ii) alternative control groups; a) eligible, beneficiary households vs. eligible, non-beneficiary households, b) ineligible, beneficiary households vs. ineligible, non-beneficiary households, c) beneficiary households in treated[18] villages vs. non-beneficiary households in non-treated villages. The results are provided in Appendix A. Table A1 gives the results for alternative matching methods indicating that the impact of BISP cash transfer is robust to all three variations. Panel A reports the ATET, using Inverse Probability Weights, to find the impact of 0.063 units BISP cash transfer on aspirations index. Panel B provides results for propensity score matching with one-to-one nearest neighbor matching of treated and control households. It finds BISP cash transfers to have a positive impact of 0.047 units on the composite aspirations index. Panel C gives the results of propensity score matching, finding an impact of 0.053 units. The original results using Inverse Probability Weighting with Regression Adjustment are robust to the alternative methodologies of matching the control and treatment groups.

Further, the findings are robust to alternative control groups for which the results are reported in Appendix A, tables A2 and A3. Table A2 reports ATET on the beneficiary, eligible households while the control group is taken to be the non-beneficiary, eligible households. The impact is positive for the pooled sample and for men, yet statistically

[18] Treated villages are those villages where BISP cash transfer is available by some households while control villages are those where not a single household is benefiting from BISP cash transfer.

insignificant for the sample of women. However, it finds a positive effect on social status aspirations of 0.038 units, that is 72 percent higher than that of women from eligible non-beneficiary households. Table A3 gives the results of ATET on beneficiary, ineligible households while the control group is taken to be non-beneficiary, ineligible households. The impact on composite aspirations index is robust, yet there is a positive impact on women's income aspiration of beneficiary, ineligible households.

Hence, it is safe to say that the impact on composite aspirations index is robust to alternative control groups, yet the findings about the impact on individual dimensions are sensitive to the control groups.

Conclusion

While the impact of unconditional cash transfer (UCT) on various welfare indicators (education, health, employment, women's empowerment, saving) is extensively studied, there is paucity of work done examining the effect of UCTs on adult's aspirations regarding their income, assets and social status. Aspirations are deemed salient for forward-looking behavior, inspiring individuals to proactively make efforts and appropriate investment to change their condition in the long run.

This chapter contribues to the literature of cash transfers by identifying a channel through which unconditional cash transfers may have a long-term impact on the beneficiary households. Using inverse probability to treatment weighting to construct a counterfactual, and combining it with regression adjustment, I show that Benezir Income Support Program (BISP) uncondtional cash transfer have a positive impact on the composite aspirations index of adults aged 18+ years in rural Pakistan. The data employed is Pakistan Rural Household Survey (2012-2013), collected by International Food and Policy Research Institute. Additionally, I demonstrate heterogenous

effect by gender and household's income quartile. The BISP cash transfer only has a significant impact on women belonging to the poorest income quartile while for men it is statistically significant for their whole sample. Of the women belonging to severely poor households, the young women receiving cash transfer aspire for higher income while working age women aspire for more assets. Senstivity analysis indicate the results are robust to various matching techniques and alternative control groups.

The findings are particularly relevant to the developing countries, implementing cash transfer schemes in their social protection programs and to the international aid organizations. The net impact of cash transfer programs may be underestimated unless the benefit of improved aspirations are incorporated in it. While the results suggest that cultural and social beliefs may result in biased perception of women's own capabilities, it has not been empirically proven. Future work may examine the channels through which unconditional cash transfers effect aspirations and why women have a weaker impact.

Appendix A

Unconditional Cash Transfers and Aspirations

Table A1: Average Treatment Effect on the Treated of BISP Cash Transfer on Aspirations of adults (18+ years), other Propensity Score Methods.

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A: Inverse Probability Weights				
BISP Beneficiary	0.063***	0.038**	0.012**	0.018**
	(0.019)	(0.017)	(0.006)	(0.008)
Observations	6,643	4,973	6,529	6,693
Panel B: Nearest Neighbor Matching				
BISP Beneficiary	0.047**	0.033	0.016**	0.010
	(0.023)	(0.021)	(0.008)	(0.011)
Observations	6,643	4,973	6,529	6,693
Panel C: Propensity Score Matching				
BISP Beneficiary	0.053***	0.031	0.014*	0.022*
	(0.025)	(0.021)	(0.08)	(0.013)
Observations	6,643	4,973	6,529	6,693

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

Table A2: Average Treatment Effect on the Treated of BISP Cash Transfer on Aspirations of adults (18+ years), Beneficiary, Eligible Households Vs. Non-Beneficiary, Eligible Households.

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A: Full Sample				
BISP Beneficiary	0.049*	-0.004	0.021**	0.036**
	(0.024)	(0.017)	(0.010)	(0.015)
Ratio to Control Group Average Outcome	0.566	-0.159	0.662	1.037
Observations	1,485	1,187	1,469	1,491
Panel B: Women				
BISP Beneficiary	0.030	-0.026	0.020	0.038**
	(0.028)	(0.018)	(0.013)	(0.018)
Ratio to Control Group Average Outcome	0.196	-0.266	0.574	0.715
Observations	969	677	958	975
Panel C: Men				
BISP Beneficiary	0.107**	0.020	0.018	0.040
	(0.053)	(0.032)	(0.014)	(0.024)
Ratio to Control Group Average Outcome	0.951	0.274	0.871	5.508
Observations	516	510	511	516

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

Table A3: Average Treatment Effect on the Treated of BISP Cash Transfer on Aspirations of adults (18+ years), Beneficiary, Ineligible Households Vs. Non-Beneficiary, Ineligible Households.

	Composite Aspirations Index (1)	Normalized Income's Aspirations (2)	Normalized Assets' Aspirations (3)	Normalized Social Status Aspirations (4)
Panel A: Full Sample				
BISP Beneficiary	0.100**	0.083***	0.023*	0.023
	(0.043)	(0.029)	(0.012)	(0.020)
Ratio to Control Group Average Outcome	2.133	2.038	0.915	3.498
Observations	1,485	1,176	1,468	1,486
Panel B: Women				
BISP Beneficiary	0.058	0.021	0.025*	0.025
	(0.050)	(0.030)	(0.013)	(0.028)
Ratio to Control Group Average Outcome	0.315	0.229	0.646	0.611
Observations	977	687	965	978
Panel C: Men				
BISP Beneficiary	0.171**	0.149***	0.025	0.031
	(0.074)	(0.056)	(0.022)	(0.022)
Ratio to Control Group Average Outcome	0.772	3.446	5.169	0.658
Observations	508	489	503	508

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

Table A4: Average Treatment Effect on the Treated of BISP Cash Transfer on Aspirations of adults (18+ years), Beneficiary Households in Treated Villages Vs. Non-Beneficiary Households in Control Villages.

	Composite Aspirations Index (1)	**Normalized Income's Aspirations (2)**	**Normalized Assets' Aspirations (3)**	**Normalized Social Status Aspirations (4)**
Panel A: Full Sample				
BISP Beneficiary	0.102***	0.065***	0.032***	0.011
	(0.040)	(0.023)	(0.010)	(0.020)
Ratio to Control Group Average Outcome	1.015	1.287	0.807	1.471
Observations	1,825	1,454	1,804	1,825
Panel B: Women				
BISP Beneficiary	0.061	-0.004	0.028**	0.028
	(0.048)	(0.026)	(0.011)	(0.028)
Ratio to Control Group Average Outcome	0.277	-0.048	0.619	0.611
Observations	1,202	851	1,187	1,202
Panel C: Men				
BISP Beneficiary	0.159**	0.132***	0.034**	0.008
	(0.064)	(0.042)	(0.016)	(0.022)
Ratio to Control Group Average Outcome	1.034	5.181	1.453	0.243
Observations	623	603	617	623

Note: Robust standard errors; *p<0.1, ** p<0.05, ***p<0.01

1: Regression Covariates: Individual Level Characteristics (Age, marital status, Highest level of education attained, binary variable for being employed) and Household Characteristics (PMT Score Cards, per adult equivalent consumption expenditure, if the household faced no food insecurity in last 30 days)

2: Treatment Covariates: poverty score card, wealth [house owned, property owned, drinking water source, walls construction material (mud/bricks), remittances received], household composition [household size, number of children (0-7 years), number of employed household members] and social status indicators (the head's years of schooling and employment status).

Appendix B

Table B1: Variables used to Re-construct Proxy Means Test Poverty Scorecard.

Variables	Definition
Demographics	
Number of Dependents	Number of household members less than 18 years and greater than 65 years old.
0-2	
3-4	
5-6	
7+	
Education	
Household Head's Education	Number of years of education completed by the household head
No Formal Education	
Class 1-5 (Inclusive)	
Class 6-10 (Inclusive)	
Class 11, college or beyond	
Children Attending School	Number of Children, age 5-16 years, in the Household Currently attending School
Zero children in the household	
All children attend school	
No all children attend school	
None of the children attend school	
House Characteristics	
Rooms per person in the household	Calculated the rooms perperson ration by dividing the number of rooms with number of household members.
$0 \leq$Rooms/Person≤ 0.2	
$0.2 <$Rooms/Person≤ 0.3	
$0.3 <$Rooms/Person≤ 0.4	
$0.4 <$Rooms/Person	
Kind of Toilet Used	
Flush	Flush connected to public sewerage, to a put or to an open drain
Dry Latrine	Dry raised latrine or dry pit latrine
No toilet	No toilet
Assets	
Owns :Refrigerator/Freezer/Washing Machine	Owns AT LEAST one of the following: Refrigerator Freezer Washing Machine
Yes	
No	
Owns :Air Conditioner/Air Cooler/Geyser/Heater	Owns AT LEAST one of the following: Air Conditioner Air Cooler Geyser Heater
Yes	
No	
Owns :Cooking stove/ Cooking Range/ Microwave Oven	Owns AT LEAST one of the following: Cooking stove Cooking Range Microwave Oven
Yes	
No	
Owns and Engine Driven Vehicle	Household owns the following engine vehicle?
One Car/Tractor or One Motorcycle	
No Car/Tractor but One Motorcycle	
Neither Car/Tractor or Motorcycle	
Owns a Television	Household owns a Television?
Yes	
No	
Owns Livestock	Household owns the following livestock?

One buffalo/bullock OR one cow/goat/sheep	
No buffalo/bullock but one cow/goat/sheep	
Neither buffalo/bullock nor cow/goat/sheep	
Agricultural Land Owned	How much agricultural land is owned by the household?
None	
$0<\text{Agricultural Land} \leq 12.5$	
12.5<Agricultural Land	

Aspirations Questions:

I) Annual income: Annual income is the amount of CASH income you earn from all agricultural and non-agricultural activities, and money from BISP or other programs.

A.1.2 What is the level of personal income you would like to achieve?

II) Assets: In section A.2, \you" implies \your household." Example of assets are vehicle, furniture, tv, cellphone. Please DO NOT include land and livestock, since these questions are aimed at non-productive assets (standard of living).

A.2.2 What is the level of assets that you would like to achieve?

III) Social Status: On a scale of 1 to 10, 1 being the lowest and 10 being the highest level of social status one has, answer the following section.

A.3.2 What is the level of social status that you would like to achieve?

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