# What happens when women suddenly stop receiving cash transfers?\*

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October 2, 2025

#### Abstract

Female-targeted cash transfers are widely used as a policy tool to enhance women's empowerment. However, little is known about what happens when payments stop – whether due to budget cuts, program changes, or recipient graduation. We study how women are affected by program exit, and whether they experience backlash when they stop bringing cash home. Using a regression discontinuity-in-differences design around a revised eligibility threshold, we follow a panel of 2,333 women exiting Pakistan's largest cash transfer program. One year after exit, drawing on a comprehensive battery of empowerment, intimate partner violence, and well-being measures, we find no evidence of backlash. These results suggest that the gains experienced by women during the program are not undone by adverse reactions upon exit.

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## 1 Introduction

Large-scale cash transfer programs enjoy tremendous popularity in low and middle-income countries, reaching more than 1.9 billion people globally (World Bank, 2015). Beyond the goal of alleviating poverty, many programs are deliberately targeted toward women, seeking to increase their control over resources, strengthen their household bargaining power, and improve well-being. Indeed, in contexts with low female labor force participation, a female-targeted cash transfer may dramatically raise her share of household income, even when the absolute amount is modest. A large body of work has examined the impact of female-targeted transfers, with many studies finding evidence of improvements in women's decision-making power, empowerment, and reduced gender-based violence (see Bastagli *et al.* (2019); Buller *et al.* (2018); Banerjee *et al.* (2017); Diaz-Pardo and Rao (2024); Crosta *et al.* (2024) for reviews). Evidence also suggests that these transfers shift household spending patterns, increasing the share of expenditures on food and children's goods (Angelucci and Attanasio, 2013; Hidrobo *et al.*, 2016; Armand *et al.*, 2020).

However, a recipient may not receive cash transfer payments indefinitely. She may exit a transfer program due to changes in program design, funding reductions, or improvements in household economic conditions leading to program "graduation". The effects of exiting a cash transfer program on women's empowerment are ex ante ambiguous. If women's status improves merely through control over additional income, then the benefits could dissipate once a household exits the program – leading to a deterioration in female empowerment measures back to pre-transfer levels. Conversely, repeated cycles of receiving, withdrawing, and spending the transfer may serve as a learning process: as the woman and her relatives observe her consistent control over the funds, they gradually update their beliefs about her financial agency, leading to sustained empowerment over time. Of particular concern, there could be potential for backlash if other family members blame the recipient for the discontinuation of funds or suspect her of diverting the money received. In such cases, they may use violence to try to extract the expected funds (Haushofer *et al.*, 2019; Baranov *et al.*, 2021). Therefore, generating evidence on how female recipients are affected after cash transfers stop is crucial.

In this paper, we estimate the impact on female recipients of exiting one of the world's largest unconditional cash transfer programs: Pakistan's Benazir Income Support Programme (BISP). This cash transfer was

<sup>&</sup>lt;sup>1</sup>Some studies find that cash transfers lead to an increase in violence for certain sub-groups, potentially due to extractive violence (Angelucci, 2008; Hidrobo and Fernald, 2013; Heath *et al.*, 2020; Mahmud *et al.*, 2025). In our setting, we do not study the receipt of the cash transfer, but rather the fact that only some exit the program while others in the village continue to receive them. This could raise the suspicion that the money is being concealed, potentially triggering extractive violence.

delivered to the same group of recipients for over a decade, with documented positive impacts on women's empowerment outcomes including physical mobility, autonomy in decision-making, personal savings, political participation, and a reduction in some forms of gender based violence (Cheema *et al.*, 2016, 2020; Ambler and de Brauw, 2024). In 2022, BISP revised its eligibility cutoff based on a new census conducted to update the data in the Proxy Means Test used for targeting the transfer. These changes led to some previously eligible recipients becoming ineligible and exiting the program, while other beneficiaries around them who were below the updated cutoff continued to receive transfers. In this context, we use a regression discontinuity-in-difference approach to examine the impacts of program exit on recipients just above the new eligibility cutoff, who were thus discontinued, compared to recipients just below the cutoff, who continued to receive the transfers.

We drew our sample using a 3.5-point bandwidth around the revised eligibility cutoff defined by a Proxy Means Test, ensuring the two groups of recipients are similar at baseline. Within this bandwidth, we sampled 2,449 households from Layyah district in southern Punjab, Pakistan. Budgetary constraints determined our sample size, and the corresponding bandwidth. The use of administrative Proxy Means Test data allows us to draw a sample precisely selected to enable our identification strategy: those who were receiving transfers at baseline and who fell just above or just below the new cutoff. We coordinated with BISP and conducted a baseline in-person survey with these households before the newly exited beneficiaries stopped receiving transfers and - crucially - before they knew that they would stop receiving the transfers. About 78% of the respondents at baseline stated they expected to continue receiving payments in the future. Because our sample consists of women in households close to the cutoff for program exit, by definition, they are not the poorest of the poor in Pakistan. Thus, the transfer represents a relatively modest share of expenditures: approximately 15% at baseline. However, 88% of the women in our sample are not employed at baseline; thus the BISP transfer likely represents the entirety of income brought into the household by the vast majority of women in our sample.

We followed up with our sample with a survey in early 2023, about one yearafter the exit of newly ineligible beneficiaries. We anticipate potential negative consequences to be observable once households are fully aware that the cut has happened and beneficiaries have experienced the loss of personal income over the course of a year. We successfully re-surveyed 95% of the baseline respondents, resulting in a balanced panel

<sup>&</sup>lt;sup>2</sup>The new Proxy Means Test score ranges from 0.32 to 83.4 for the sample district. Approximately 46,000 households in Layyah were below the old cutoff. Of these, nearly 28% fall within this 3.5 bandwidth around the new cutoff.

of 2,333 observations. At this point, administrative data confirms that recipients who were no longer eligible had missed two payments of PKR 14,000 (PPP US\$ 315). At follow-up, 87% of respondents who had been removed from the rolls knew they were no longer beneficiaries, but 51% said they did not know *why*. Ex ante, this suggests a high potential for backlash effects, as a husband might blame his wife for her exit from the program, or even think that his wife is in fact continuing to receive the transfer but hiding it, leading to extractive violence.

We find that program exit had no detectable impact on a battery of detailed measures of women's empowerment and well-being. These include economic participation on the extensive and intensive margin; measures of physical mobility; an extensive set of measures of intimate partner violence, including Audio-Computer Assisted Self-Interview (ACASI) measures (Cullen, 2023); an extensive set of measures of decision-making power, following Jayachandran *et al.* (2023); stated willingness to pay to hide income from the respondent's spouse; a series of subjective well-being measures; and a standardized set of mental health (PHQ). We also see no change in the allocation of expenditure towards women- and children's-specific expenditure, including educational expenditure and enrollment and assignable expenditures on women's and children's clothing and high-quality food consumption.<sup>3</sup> Based on the confidence intervals of our estimates, we can rule out impacts larger than 0.12 SD on key indices of women's empowerment. Contrasted with the findings of previous well-identified studies finding positive impacts of the BISP cash transfer on a range of female empowerment outcomes (Cheema *et al.*, 2016, 2020; Ambler and de Brauw, 2024), these null results are striking. The results are not sensitive to specification or sample choices and also hold across a large number of subgroups for whom a stronger negative effect or backlash due to program exit might be expected.

Because we estimate a Local Average Treatment Effect for those who 'graduate' from the program based on the updated Proxy Means Test, the effects we estimate are the impact of program graduation for recipients at relatively higher wealth levels among the poor. This treatment effect is of central interest for policymakers considering program exit and graduation. However, it is important to note that it might be substantially different from the impact on the extremely poor if the program were fully discontinued; exit effects might be larger for women in much poorer households.

While a large literature examines the impacts of cash transfers on female empowerment, comparing recipients to non-recipients (see Bastagli *et al.* (2019); Buller *et al.* (2018); Banerjee *et al.* (2017); Diaz-Pardo

<sup>&</sup>lt;sup>3</sup>Our survey was not designed to capture impacts on overall household economic outcomes, which we expect to be more subtle than the gendered impacts because the transfer represents the entirety of female income in most cases, but only 7.3% of household consumption overall. We only observe crude expenditure measures, on which we find no significant impact of program exit.

and Rao (2024) for reviews), only a small fraction of this work examines the persistence of effects of cash transfers (Kondylis and Loeser, 2021; Crosta *et al.*, 2024; Grisolia, 2024), and in particular for past recipients of unconditional regular cash transfers, i.e., what Crosta *et al.* (2024) refer to as the effects of a "completed stream". The existing studies have limited coverage of gendered outcomes. For example, a review by Grisolia (2024) finds only two studies examining persistence of unconditional cash transfer impacts on IPV:<sup>4</sup> Haushofer and Shapiro (2016) document an insignificant decrease in IPV three years after lump-sum cash transfers in Kenya, while Roy *et al.* (2019) document a reduction in IPV for women who receive both transfers and behavior change communication 6 months after transfers end in Bangladesh.

Importantly, all these studies identify effects by comparing past recipients of transfers to never-recipients. Any such comparison between past recipients and never-recipients necessarily bundles any accumulated benefits from the program with possible backlash or unintended consequences from program exit. In contrast, we follow a panel of recipients, a subset of whom exit the program; this allows us to precisely capture the effects of program exit on women's empowerment and well-being. Importantly, we examine the case in which a recipient stops receiving transfers while others in the community continue to receive them, which ex ante could be expected to lead to backlash. This situation is common in practice, as beneficiary lists are periodically updated in many unconditional cash transfer programs. The effect of this kind of program exit is an object of interest in its own right, and to understanding both, how long-term effects may evolve after programs are discontinued or recipient rolls updated, as well as how beneficiary lists are updated and what complementary programs beneficiaries might require at program exit. Yet to our knowledge such a case has not yet been studied empirically, likely due to the difficulty of identifying the target sample and timing data collection appropriately. Bringing together linked administrative and survey data allows us to identify these effects empirically. We document precise null effects on a comprehensive set of measures of women's economic, social and psychological well-being, providing reassurance that the benefits women experience during the transfer are not countervailed by backlash at program exit.

<sup>&</sup>lt;sup>4</sup>A number of papers covered in Grisolia (2024) examine the effects of transfers targeting adolescents, such as conditional cash transfers for education, on recipients' outcomes later in life, quite distinct from the effect of program exit from unconditional cash transfers.

## 2 Context and Background

## 2.1 BISP Unconditional Cash Transfer Program

We study the Benazir Income Support Program (BISP), Pakistan's unconditional cash transfer program that was rolled out nationwide in 2008 as a PKR 3,000 quarterly payment. The amount was periodically increased, given high rates of inflation in the country, and was PKR 8,750 (PPP US\$ 189) quarterly in 2023. Transfers are made to low-income, ever-married women with a valid national identity card.

## 2.2 First Wave of Proxy Means Test

Program beneficiaries are identified using a Proxy Means Test (PMT). The initial round of the Proxy Means Test was based on a 2010-12 nationwide door-to-door census by the government, which gathered information on household assets and other characteristics for around 27 million households – 87% of all households in Pakistan (Haseeb and Vyborny, 2022; Guven *et al.*, 2024). A formula was developed with technical support from the World Bank to proxy for household consumption, which assigned households a score ranging from 0 to 100 based on 23 poverty indicators from three broad categories: household and individual characteristics, ownership of durable goods and housing characteristics, and ownership of productive assets, particularly landholding, livestock, and farm equipment (Churchill *et al.*, 2024). The formula was not known to field-level BISP officials, and the cutoff was selected *after* the census data collection was complete based on budgetary constraints. All households with scores less than or equal to 16.17 were deemed eligible for BISP transfers.

## 2.3 Updating the Proxy Means Test

In 2016, another nationwide door-to-door census was launched to update the data to be used as input in the new PMT (Guven *et al.*, 2024). The census was concluded in 2020 and covered nearly 35 million households – 93% of all households in Pakistan. The proxy means test formula was updated, again with the objective of predicting consumption based on more recent household consumption survey data, and re-calculated with the updated census data.

A new eligibility cutoff was established in November 2021. Thus, households fall into four groups (illustrated in Figure OA1): those who will continue to receive the transfers (*always eligible*), those who

<sup>&</sup>lt;sup>5</sup>USD values are calculated at purchasing power parity, using the World Bank PPP conversion factor for GDP for LCU/USD see World Bank (2024).

newly started receiving transfers, households who will continue to not receive transfers, and households who stopped receiving transfers (*newly ineligible*). This study focuses on the always eligible and newly ineligible households. The *newly ineligible* were not informed of their exit from the program and only found out about their new status when they did not receive the first cash transfer after this process, and contacted BISP to inquire about it. Figure OA2 shows a timeline of these events.

In both the original and revised targeting exercises, the cutoff was established on the basis of budgetary constraints. Given the government's limited budget, the eligibility threshold was determined post-data collection by finalizing the program's budget, identifying a target number of recipients, and setting the threshold to cover that target population. This approach is considered to minimize the potential for manipulation around the cutoff, allowing for a clean regression discontinuity estimate (Camacho and Conover, 2011).

### 3 Data

To identify the effects of being discontinued from receiving cash transfers, we collect panel data on BISP recipients before and after the reform. We sample households from district Layyah, in southern Punjab, one of the poorest districts in the province with about 46 percent of the households categorised as 'poor' by the government of Pakistan (Government of Pakistan, 2016). The census activities for updating the Proxy Means Test for BISP were completed in Layyah district in 2020. Our sample is primarily composed of rural areas that cover 11 Union Councils in Layyah.

To quantify the impact of discontinuation of the BISP cash transfer, we sample households from the new PMT census database after it had been updated. Our sample consisted of households that were (i) previously eligible for BISP given the old cutoff, and (ii) fell within a bandwidth of 3.5 points above and below the *new* cutoff. We screened out any recipients who reported not being BISP cash transfer beneficiaries in an initial screener question. This yields a sample of 2,449 recipients of whom 1,336 are always eligible and 1,113 are expected to become newly ineligible. We conduct a baseline survey with these recipients before any information about the discontinuation process had been released. In order to consistently measure intra-household bargaining and violence outcomes for women, we also screened out female recipients who were not partnered at that time.

The baseline survey was conducted in December 2021-January 2022, before the discontinuation of BISP

payments in March 2022. We conduct a follow-up survey in person in February-March 2023, about a year after discontinuation. At this time, the discontinued households had not received two bi-annual cash transfer tranches. Attrition in the follow-up survey was low, only 4.7%, and is balanced across the two groups of interest, the always eligible and the newly ineligible (Table OA1). As a result, we have a final analysis sample comprising a balanced panel of 2,333 households.

## 3.1 Sample Characteristics and Women's Outcomes

Table 1 presents descriptive statistics and baseline balance for our study sample of 2,449 households, of which 1,336 are classified as *always eligible* and 1,113 as *newly ineligible*. The two groups are largely similar in household observable characteristics. The average age of the respondents is 46 years. The rates of illiteracy are high in both groups, with 84% of the respondents being illiterate. Again the two groups are similar in terms of respondents' observable characteristics.

The average household has 6.5 members, reports a monthly expenditure of 16,289 PKR, and spends about 3,069 PKR on food (Panel A). Reported total expenditures are broadly in line with reported incomes<sup>6</sup>, translating to roughly \$2 PPP per capita per day. Because these figures exclude the value of the consumption of own food produced, we do not benchmark them directly against the World Bank's extreme or moderate poverty lines. Nevertheless, they suggest that households in the sample are relatively poor.

BISP transfers account for approximately 15% of household expenditures; because a large fraction of the consumption of rural households in our setting is from own production, transfers represent a smaller fraction of consumption. While we did not collect a consumption module, consumption in the latest round of Household Integrated Economic Survey (2018-19) for BISP recipients in rural Punjab averages PKR 273,820 per year, suggesting that BISP payments would be 7.3% of consumption. Thus, BISP cash transfers represent a modest source of support. However, over half the women in the sample (54%) say that they decide alone how the funds from the BISP transfer are spent. This is striking evidence of the importance of the transfer in recipients' agency over spending, since 88% of our sample do not work for pay and thus have no earnings of their own; and the prevailing norm is that Pakistani wives have limited or no say over how other household income is spent – with 47% of Pakistan DHS respondents indicating the husband alone decides how his

<sup>&</sup>lt;sup>6</sup>Since the focus of the surveys was to measure women's empowerment, we did not thoroughly measure income. For rural households, where income streams are noisy, it would have required several questions to measure income by activity. Instead, we asked the respondent to report the typical monthly income of the household directly.

<sup>&</sup>lt;sup>7</sup>A much larger fraction work unpaid, with nearly 4 hours spent on average on unpaid work on productive activities in the previous day.

earnings are spent (NIPS, 2019).

To examine women's empowerment-related outcomes, we generate a series of Anderson indices (Anderson, 2008) and these are reported along with their components in Table 1 Panel B. We measure women's say in household decision-making as the extent of the respondent's involvement in decisions related to personal health, small household purchases, and small personal purchases. The responses are on a Likert scale from "Not at all" (1) to "High extent" (4). The decision-making score is nearly identical across both groups, on all these dimensions, averaging around 2.7: respondents have a small to medium extent of say in these decisions.

We measure women's mobility, as BISP beneficiaries have to go to the market for biometric verification to collect the BISP payments (Clark *et al.*, 2022), and evaluations of the program have indicated an increase in women's independent mobility (Cheema *et al.*, 2016; Ambler and de Brauw, 2024). Forty-two percent of the women report being able to go alone to the market, and 54% can go with a friend. A similar proportion can go to a doctor without a family member. Reported mobility to go see family and friends is higher. Along all these dimensions of mobility, there are no significant differences at baseline between the two groups.

To capture potential backlash by partners who blame their wives for program exit or suspect them of hiding the funds, we capture measures of relationship quality, intimate partner violence and women's mental health outcomes. We ask women on a Likert scale of "Never" (1) to "Always" (4) whether the husband shows interest, respects them, and if they can talk to them about their problems. Along all these dimensions, women in both groups report that this happens often (values around 3), indicating a reasonable level of relationship quality with partners at baseline.

We measure the frequency of physical and sexual violence using the standard Demographic and Health Survey questions, and administer them using Audio Computer Assisted Self-Interviewing (ACASI) to protect the respondent's privacy.<sup>8</sup> Physical and sexual violence is measured as a response to 14 questions about the frequency of each form of violence by the husband over the last 6 months on a scale of "Never" (1), "Once or Twice" (2), to "More Than Thrice" (3).<sup>9</sup> We also ask about four types of injuries sustained as a result of something the partner did. We ask questions about emotional and controlling violence face-to-face.<sup>10</sup> We

<sup>&</sup>lt;sup>8</sup>ACASI is a self-interviewing method where women listen to audio recordings of questions in the local language on headphones, allowing them to privately respond to questions using a touch screen on a tablet. We developed an intuitive ACASI instrument with visual cues and piloted it extensively in our sample; we describe our data collection methodology in more detail in Iqbal *et al.* (2025).

<sup>&</sup>lt;sup>9</sup>These include getting pushed, slapped, arms twisted or hair pulled, punched, kicked or dragged, choked or burned, attacked, bruised, any dislocation or sprains, broken bones, forced to have sexual intercourse, forced to perform sexual acts, and facing violence in a state of intoxication from the husband.

<sup>&</sup>lt;sup>10</sup>Emotional violence includes 3 questions about the frequency of humiliation, threats, or insults by the husband over the same period. Controlling violence includes questions about the frequency of accusations of infidelity, limiting contact with family, jealousy or anger over interactions with other men, or insistence on knowing her whereabouts.

use their responses to construct an indicator variable for the woman experiencing any type of violence in the last 6 months. 34% of the women across the two groups report experiencing some form of IPV. About 18% of women experience physical and 12% experience sexual violence. The rates are higher for emotional (22%) and controlling (19%) violence. Six percent report experiencing an injury because of an action by their partner.

Finally, we measure mental health and subjective well-being using several questions. Mental health is assessed using the Patient Health Questionnaire (the PHQ-9 score), which inquires about depression symptoms experienced in the last two weeks. Responses range from "Not at all" (0) to "Nearly every day" (3) and are summed to form a score. The average respondent has a score of 10.26, which corresponds to moderate symptoms of depression (Kroenke *et al.*, 2001). Correspondingly, the average score for life satisfaction (around 5.9) and subjective happiness (around 3) on a Likert scale of 1 (low) to 10 (high) is quite low. Consistent with the low levels of reported expenditures and income, this indicates that the women had poor psychological well-being at baseline.

## 4 Empirical Strategy

Our main specification uses an RDD-in-differences approach to identify the effects of BISP program exit:

$$Y_{it} = \beta_0 + \beta_1 PMT2_i + \beta_2 Newly Ineligible_i + \beta_3 Newly Ineligible_i \times PMT2_i$$

$$+ \beta_4 Post_t + \beta_5 Newly Ineligible_i \times Post_t + \varepsilon_{it}$$

$$(1)$$

where  $Y_{it}$  is the outcome of interest for recipient i at time t. NewlyIneligible is an indicator variable for recipients who exited the program and stopped receiving transfers because they are above the new eligibility cutoff. PMT2 is the running variable, a score based on the revised PMT in administrative data; we allow  $Y_{it}$  to vary with the running variable ( $\beta_1$ ), to have a different level above and below the cutoff at baseline ( $\beta_2$ ), a different relationship with the running variable above and below the cutoff ( $\beta_3$ ), and to have a time trend independent of cash transfer status ( $\beta_4$ ). Our coefficient of interest is  $\beta_5$ : the effect of being above the new eligibility cutoff, after the cutoff was implemented, compared to those below the new cutoff who continued to receive the cash transfer.

<sup>&</sup>lt;sup>11</sup>These include interest in life, feelings of hopelessness, sleep issues, tiredness, appetite changes, feelings of failure, concentration problems, slow movement or speech, and thoughts of self-harm.

Because the sample only includes households within +/- 3.5 points around the new eligibility cutoff on the PMT, it inherently includes a bandwidth around the RD cutoff. We also examine robustness of results to a narrower bandwidth around the cutoff.

It is important to note that Equation 1 estimates a Local Average Treatment Effect for those who 'graduate' from the program based on the updated Proxy Means Test. This corresponds to the impact of program graduation for recipients at relatively higher wealth levels among the poor. This treatment effect is of interest for policymakers considering program graduation models. However, it might be substantially different from the impact on the extremely poor if the program were fully discontinued; exit effects might be larger for women in much poorer households.

## 4.1 First Stage and Validity Checks

Regression discontinuity designs rely on discontinuous changes in program eligibility at a discrete point in the distribution of a smooth-running variable. We observe smoothness of the running variable around the new Proxy Means Test eligibility cutoff using the Cattaneo *et al.* (2018) test, shown in Figure 1, Panel (a), which does not find evidence of manipulation around the cutoff (p-value = 0.256). We additionally augment our RD specification with a difference-in-differences approach using panel data on our sample. This allows us to account for any baseline differences in households across the two groups.

In principle, the receipt of the program should be driven by the Proxy Means Test score alone. This may not be the case for two reasons: first, some eligible women may not successfully sign up (non-compliance among eligible households). Second, women above the threshold can be exceptionally added to beneficiary list due to exceptions to the eligibility criteria, in particular based on the presence of individuals with disabilities in the household (Haseeb and Vyborny, 2022), leading to non-compliance among households that would be ineligible based on the PMT. Thus, Equation 1 is an Intent-to-Treat specification. Nonetheless, we find that the official PMT cutoffs strongly predict inclusion and exclusion in the cash transfer. Figure 1 shows that the PMT2 RD cutoff strongly predicts household eligibility at follow-up. In the BISP administrative data, 7% of the respondents above the new PMT cutoff (newly ineligible) receive BISP after the policy change, while 88% of those below the cutoff (always eligible) do.

## 5 Results

#### **5.1** Average Effects

We find that one year after exiting the BISP program, women faced no backlash or a decline in agency within the household compared to women who continued to receive the cash transfer (Tables 2-4). For simplicity of presentation, we only show  $\beta_5$  (Newly Ineligible  $\times$  Post) in the tables. This captures the effect of being exited from the cash transfer program, versus continuing to receive cash transfers. It is estimated using equation 1 for the panel of 2,333 households that we survey both at the baseline and at the follow-up.

Based on the 95 percent confidence intervals, we can rule out impacts larger than 0.12 SD on standardised indices used to capture women's empowerment described in section 3.1. The null results also hold for a narrower bandwidth around the new eligibility cutoff (Tables OA2 - OA4). Our findings are supported by women reporting not being blamed in our sample households for the program exit: we asked women "If BISP funds were late or less than expected, or no money came in the last 12 months, did your husband or in-laws blame you?" and nearly 94% of the women who have exited the program report never being blamed.

#### 5.1.1 Backlash

A key concern with exiting only a subset of women in the community from the cash transfer program is that recipients may be blamed for its termination or accused of concealing the funds, thereby leading to a risk of backlash or extractive violence. We find no evidence that program exit affected reported relationship quality with the spouse, including whether the husband shows interest or respects her (Table 2, Panel A).

If the husband thinks that the woman is still receiving the transfers and hiding the money, he may use violence to extract the resources. We measure different types of violence and find no impact on the incidence and frequency of any type of intimate partner violence or on injuries sustained as a result of violence (Table 2 Panel B).

We also examine whether potential backlash or the cessation of funds itself leads to a deterioration in women's mental health and subjective well-being. We find no effects: neither women's self-assessed well-being (happiness, life satisfaction, and level of stress) nor their mental health, measured using the validated 9-item Patient Health Questionnaire, shows significant changes (Table 2 Panel C).

#### **5.1.2** Erosion of Empowerment

Another concern with the cash transfer program exit is that the empowerment gains achieved through these transfers could be quickly reversed. For over a decade, women have received payments in their name, potentially strengthening their influence in household decision-making. However, we find no evidence of a change in a decision-making index that captures a woman's role in decisions regarding her own health care, small purchases for herself, and small purchases for others in the household a year after program exit (Table 3 Panel A).

Previous work on BISP recipients has documented positive impacts on women's mobility (Ambler and de Brauw, 2024; Cheema *et al.*, 2016). This is potentially driven by the requirement for in-person biometric verification at a payment agent to withdraw the transfer amount Clark *et al.* (2022). If this effect is simply a mechanical result of visiting the payment point to retrieve funds, program exit may erode mobility. Therefore, we measure women's mobility as being able to go to the market, doctor, friends, and family, alone or in a group, without a family member accompanying them. We do not find any changes in independent mobility outside the household one year after program exit on any of these dimensions (Table 3 Panel A).

We also examine women's willingness to conceal money from their spouse as a proxy for resource control. Respondents were presented with a series of choices: keep PKR 400 for themselves or transfer a larger specified amount (ranging from PKR 400 to 1,600) to their spouse. From these choices, we construct a measure which captures the amount of money for the household that a respondent is willing to give up to retain the funds personally. Our analysis shows no significant change in this measure in response to program exit.

Next, we examine how women adjust to no longer receiving the cash transfers. Specifically, we assess whether they increase their labor supply in an effort to generate additional personal income to compensate for the lost income stream. As shown in Table 3, Panel B, we find no evidence of such adjustments: women are not more likely to enter the labor force, increase their hours of work outside the home, or change the time allocated to household chores. This is consistent with Banerjee *et al.* (2017), who re-analyze evidence from multiple countries and find no systematic effect of transfers on labor supply.

The study was not designed to capture the impact on household economic outcomes; we only observe crude expenditure measures, on which we find no significant impact of program exit. Given that the transfer is the only income that most recipients bring into the household personally, the loss of transfers might change

the allocation of household expenditure. We examine expenditures on food and clothing – domains where women commonly make decisions – and find no effects on average. We take a more granular approach to test whether effects might be concentrated on expenditures for women or their children. Specifically, we analyze the frequency of consumption of higher-quality food items – meat, eggs, and fruit – over the past seven days, separately for the woman, her husband, and her children. As shown in Table 4, Panel A, we find no evidence of a change across any of these groups. Similarly, when examining clothing expenditures separately for women, husbands, and children, we again find no impact.

In a similar vein, the loss of income personally controlled by the woman could result in a household pulling children out of school and into work. However, we find no significant effects on labor supply among those under 16 or on school enrollment across all age groups using data at the household member level (Table 4, Panel B). Consistent with this, education expenditures remain unchanged.

#### **5.2** Heterogeneous Effects

Although the average impacts of the exit are small and insignificant on women's empowerment, they may mask variation across groups. We therefore examine treatment effects in subgroups of women with certain characteristics or coming from certain types of households that are likely to respond more strongly to exiting the cash transfer program. The results are presented in Figures OB1 - OB5 in appendix B.

We first look at household characteristics, including above median values of household size and the ratio of cash transfer to expenditures, as higher values of these may indicate a greater dependence on the cash transfer. As a result, these households might react more against the woman due to the program exit. We find no evidence to support this. Next, we examine subgroups of women with different levels of baseline empowerment – those with higher or lower say in decision-making, mobility, and economic participation – as well as those reporting higher or lower levels of spousal relationship quality. For these all these subgroups, the estimated impacts of program exit are still small and insignificant.

## 6 Conclusion

We study the impact on women of exiting long-running cash transfers, the Benazir Income Support Program (BISP), in Pakistan, comparing women from households below the revised eligibility criteria who continue to receive cash transfers to those who no longer receive them. One year after program exit, we find no significant

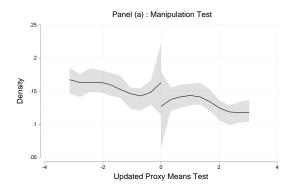
impacts on a range of outcomes capturing various dimensions of women's empowerment.

Since BISP cash transfers are directed to ever-married women, a potential concern is that program exit could trigger backlash against female recipients. However, we find no evidence of an increase in intimate partner violence, nor of any deterioration in women's self-reported mental health or overall well-being. Taken together, our results suggest that the immediate negative consequences of program exit for women may be less severe than commonly feared. These could potentially appear later but we only follow up one year after program exit.

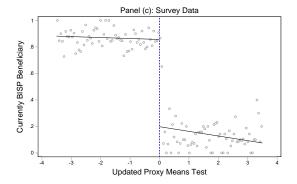
Table 1: Baseline descriptive Statistics and balance by BISP Eligibility Status

	All	always eligible	newly ineligible	p-value
Panel A: Household & Respondent Characteristics		, ,	, o	1
Household Size	6.54	6.73	6.31	0.94
Monthly Expenditure (PKR)	16289.24	16271.39	16310.67	0.11
Total Food Expenditure (PKR/Week)	3069.88	3088.05	3048.06	0.11
Any Salaried Member	0.13	0.14	0.13	0.16
Respondent's Age	45.75	45.35	46.22	0.30
Respondent Slage Respondent Illiterate	0.84	0.85	0.84	0.30
	0.04	0.65	0.04	0.71
Panel B: Women's Outcomes	0.01	0.00	0.01	0.40
Decision Making Index	0.01	0.00	0.01	0.49
Personal Healthcare (1-4)	2.78	2.77	2.78	0.37
Personal Small Purchases (1-4)	2.74	2.74	2.74	0.50
Household Small Purchases (1-4)	2.72	2.71	2.72	0.72
Mobility Index	-0.02	0.00	-0.05	0.30
Market Alone (Indicator)	0.42	0.43	0.41	0.28
Market Alone/Group (Indicator)	0.54	0.55	0.53	0.59
Doctor Alone (Indicator)	0.48	0.49	0.47	0.52
Doctor Alone/Group (Indicator)	0.57	0.58	0.56	0.73
Friends Alone (Indicator)	0.82	0.83	0.82	0.51
Friends Alone/Group (Indicator)	0.91	0.91	0.90	0.95
Family Alone (Indicator)	0.67	0.67	0.67	0.08
Family Alone/Group (Indicator)	0.74	0.75	0.73	0.12
Economic Participation Index	-0.04	-0.00	-0.09	0.85
Employed (Indicator)	0.12	0.13	0.11	0.79
Hours Worked (Per Week)	5.39	5.78	4.92	0.80
Hours of Unpaid Work (Yesterday)	3.85	3.93	3.76	0.55
Relationship Quality Index	-0.01	0.00	-0.02	1.00
Husband Shows Interest (1-4)	2.75	2.76	2.75	0.92
Husband Respects(1-4)	2.97	2.98	2.97	0.98
Can Talk About My Problems With Husband (1-4)	2.93	2.94	2.91	0.95
IPV Index	0.02	0.00	0.04	0.19
Physical Frequency (1-3)	1.17	1.04	1.33	0.26
Sexual Frequency (1-3)	0.44	0.41	0.49	0.46
Emotional Frequency (1-3)	0.80	0.76	0.85	0.70
Controlling Frequency (1-3)	0.86	0.81	0.91	0.01
Injuries Frequency (1-3)	0.30	0.29	0.31	0.02
IPV Indicator	0.34	0.33	0.35	0.25
Physical Indicator	0.18	0.17	0.19	0.23
Sexual Indicator	0.12	0.11	0.13	0.92
Emotional Indicator	0.22	0.22	0.22	0.65
Controlling Indicator	0.19	0.19	0.20	0.03
Injuries Indicator	0.06	0.06	0.06	0.02
Patient Health Questionnaire (0-27)	10.24	10.24	10.24	0.15
Life Satisfaction (1-10)	5.89	5.95	5.82	0.03
Subjective Happiness (1-10)	3.06	3.10	3.02	0.18
Stress Index	-0.01	-0.00	-0.03	0.32
Able To Control Things (1-4)	2.79	2.79	2.78	0.23
Confident In Handling Personal Problems (1-4)	2.21	2.22	2.20	0.16
Things Going Your Way (1-4)	2.15	2.16	2.14	0.38
Able To Cope With Difficulties (1-4)	2.75	2.74	2.75	0.01
Observations	2449	1336	1113	

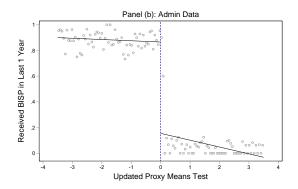
Note: The table reports the household and respondent characteristics at baseline for the full sample, as well as separately for those who were discontinued (newly ineligible) and those who were not (always eligible). See appendix table OA1 for variable definitions. The reported p-values are for the newly ineligible indicator coefficient estimated using a regression of the baseline variable on the newly ineligible indicator, the revisted proxy means test score and their interaction. The F-statistic from the joint test of significance is  $F_{42,1921} = 0.923$ , p = 0.613.



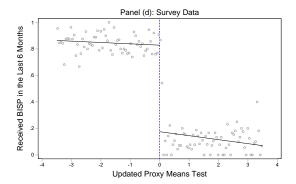
Sample below cutoff: 1278; Sample above cutoff: 1055; p-value = 0.256.



Sample below cutoff: 1278; Sample above cutoff: 1055; Bins below cutoff: 62; Bins above cutoff: 67.



Sample below cutoff: 1278; Sample above cutoff: 1055; Bins below cutoff: 62; Bins above cutoff: 61.



Sample below cutoff: 1278; Sample above cutoff: 1055; Bins below cutoff: 62; Bins above cutoff: 66.

Figure 1: RDD Validity Checks

Notes: The figure in Panel (a) shows the Local Polynomial Density Estimator proposed in Cattaneo et al. (2020) for our analysis sample of 2,333 households. The local polynomial density estimate (solid black) and robust bias-corrected confidence intervals (shaded grey) are computed using the Stata package described in Cattaneo et al. (2018). The figures in Panel (b), Panel (c), and Panel (d) are generated using the rdplot command in Stata, as described in Calonico et al. (2014) to visualize the regression discontinuity design (RDD) with PMT as the running variable. The rdplot command uses evenly spaced bins to mimic the underlying variability of the data i.e. PMT is divided into bins of equal width, and each scatter-point represents the mean outcome variable in each of the bins, ensuring that the visual representation accurately reflects the distribution of the observations around the cutoff. The outcome variable in panel (b) "Received BISP in last 1 year" is an indicator variable for the woman having received BISP payments in the last 1 year, constructed using BISP admin data. The outcome variable in panel (c) "Current BISP beneficiary" is an indicator variable for the respondent reporting being a current BISP beneficiary at the follow-up survey round. The outcome variable in panel (d) "Received BISP In The Last 6 Months" is an indicator variable for the respondent reporting having received BISP in the last 6 months at the follow-up survey round. PMT2, the running variable is the Proxy Means Test assigned to each household. The PMT2 score has been standardised relative to the eligibility cutoff level, and the vertical dotted line at 0 indicates the eligibility cutoff. All households on the left side of this vertical line are considered BISP eligible, and all households on the right side are considered newly ineligible. The sample for all figures is 2,333 recipients that we successfully followed up with a year after the baseline. The solid black lines in both figures depict the first-order polynomial fit used to approximate the conditional expectations on both sides of the cutoff.

Table 2: Impact on Relationship Quality, IPV, and Well-Being

	(1)	(2)	(3)	(4)	(5)
	Newly Ineligible x Post	SE	Control Mean	Obs	HHs
Panel A: Relationship Quality					
Relationship Quality Index	-0.026	0.059	-0.000	4546	2332
Husband Shows Interest (1-4)	-0.031	0.052	2.698	4537	2330
Husband Respects (1-4)	-0.042	0.050	3.015	4537	2331
Can Talk About My Problems With Husband (1-4)	0.027	0.052	2.829	4528	2329
Panel B: Intimate Partner Violence (Last 6 Months)					
IPV Index	-0.053	0.061	0.000	4653	2328
Physical Frequency (1-3)	-0.188	0.160	0.555	4652	2328
Sexual Frequency (1-3)	-0.013	0.071	0.174	4641	2327
Emotional Frequency (1-3)	-0.036	0.110	0.687	4646	2328
Controlling Frequency (1-3)	-0.147	0.115	0.613	4646	2328
Injuries Frequency (1-3)	-0.032	0.069	0.136	4652	2328
IPV Indicator	-0.031	0.020	1.000	4653	2328
Physical Indicator	0.004	0.019	0.085	4652	2328
Sexual Indicator	0.007	0.016	0.045	4642	2328
Emotional Indicator	-0.002	0.022	0.144	4646	2328
Controlling Indicator	-0.021	0.022	0.149	4646	2328
Injuries Indicator	-0.010	0.012	0.031	4652	2328
Panel C: Mental Health And Subjective Well-Being					
Patient Health Questionnaire (0-27)	0.060	0.355	10.617	4666	2333
Life Satisfaction (1-10)	0.010	0.114	5.498	4661	2333
Subjective Happiness (1-10)	0.019	0.051	3.273	4658	2333
Stress Index	0.055	0.060	-0.000	4651	2329
Able To Control Things (1-4)	0.037	0.048	2.907	4647	2333
Confident In Handling Personal Problems (1-4)	0.022	0.045	1.936	4638	2333
Things Going Your Way (1-4)	0.010	0.045	1.839	4635	2333
Able to Cope with Difficulties (1–4)	-0.006	0.049	2.788	4644	2333

Note: The table reports results estimated using equation 1 for the panel of 2,333 households that we survey both at baseline and at the follow-up. We report the Newly Ineligible x Post ( $\beta_5$ ) coefficient in column 1. Standard errors (SE) are reported in column 2. The mean for the dependent variable at follow-up for the control group (*always eligible*) is in column 3. See appendix OA1 for variable definitions. The number of observations varies because some respondents either declined to answer or reported not knowing. \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01.

Table 3: Impact on Agency and Economic Participation

	(1)	(2)	(3)	(4)	(5)
	Newly Ineligible x Post	SE	Control Mean	Obs	HHs
Panel A: Agency					
Decision Making Index	-0.007	0.059	-0.000	4666	2333
Personal Healthcare (1-4)	0.007	0.048	2.769	4664	2333
Personal Small Purchases (1-4)	-0.000	0.049	2.775	4635	2333
Household Small Purchases (1-4)	-0.032	0.049	2.822	4624	2333
Mobility Index	0.026	0.059	-0.000	4666	2333
Market Alone (Indicator)	0.009	0.027	0.293	4665	2333
Market Alone/Group (Indicator)	-0.010	0.028	0.409	4665	2333
Doctor Alone (Indicator)	0.017	0.029	0.358	4666	2333
Doctor Alone/Group (Indicator)	0.005	0.029	0.465	4666	2333
Friends Alone (Indicator)	0.020	0.023	0.829	4662	2333
Friends Alone/Group (Indicator)	0.013	0.017	0.912	4662	2333
Family Alone (Indicator)	0.003	0.028	0.588	4647	2333
Family Alone/Group (Indicator)	0.003	0.026	0.655	4647	2333
WTP To Hide Income From Spouse (PKR)	11.021	18.446	233.925	4570	2293
<b>Panel B: Economic Participation and Time Use</b>					
Economic Participation Index	0.060	0.054	0.000	4666	2333
Employed (Indicator)	0.025	0.019	0.130	4666	2333
Hours Worked (Per Week)	0.594	0.769	10.018	4666	2333
Hours Of Unpaid Work (Yesterday)	0.045	0.128	2.659	4666	2333
Hours Chores (Yesterday)	-0.197	0.148	4.897	4666	2333

Note: The table reports results estimated using equation 1 for the panel of 2,333 households that we survey both at baseline and at the follow-up. We report the Newly Ineligible x Post ( $\beta_5$ ) coefficient in column 1. Standard errors (SE) are reported in column 2. The mean for the dependent variable at follow-up for the control group (*always eligible*) is in column 3. See appendix OA1 for variable definitions. \* p < 0.1, \*\*\* p < 0.05, \*\*\*\* p < 0.01.

Table 4: Impact on Consumption and Child Outcomes

	(1)	(2)	(3)	(4)	(5)
	Newly Ineligible x Post	SE	Control Mean	Obs	HHs
Panel A: Intrahousehold Consumption Allocation					
Total Food Expenditure (PKR/Week)	100.003	106.330	4250.354	4646	2323
Husband High Quality Food Index	-0.032	0.056	-0.000	4650	2326
Eats Meat (Times/Week)	-0.019	0.046	0.765	4643	2328
Eats Eggs (Times/Week)	-0.017	0.046	0.699	4646	2328
Eats Fruits (Times/Week)	-0.021	0.047	0.703	4645	2328
Respondent High Quality Food Index	-0.032	0.055	0.000	4654	2328
Eats Meat (Times/Week)	-0.026	0.045	0.764	4651	2328
Eats Eggs (Times/Week)	-0.004	0.045	0.684	4652	2328
Eats Fruits (Times/Week)	-0.027	0.047	0.704	4651	2328
Child High Quality Food Index	-0.118	0.075	0.000	2874	1828
Eats Meat (Times/Week)	-0.092	0.060	0.784	2868	1826
Eats Eggs (Times/Week)	-0.083	0.064	0.749	2866	1826
Eats Fruits (Times/Week)	-0.064	0.065	0.744	2867	1826
Total Clothing Expenditure (PKR/6 Months)	-163.149	234.228	3520.194	4648	2333
Husband	-54.068	40.843	488.772	4649	2333
Respondent	43.537	51.820	532.355	4648	2333
Child	-82.107	161.464	2513.459	4648	2333
Panel B: Children's Education And Child Labour					
Enrolled (Ages 3-24)	-0.005	0.010	0.427	16800	2267
Primary (Ages 3-10)	0.007	0.029	0.690	3059	901
Secondary (Ages 11-13)	0.013	0.026	0.408	2788	1102
Higher Secondary (Ages 14-24)	-0.002	0.007	0.069	10953	2108
Educational Expenditure (PKR/Year)	42.852	450.848	10411.003	15106	2267
Primary (Ages 3-10)	-382.892	769.916	9355.538	2373	901
Secondary (Ages 11-13)	1081.007	966.387	8637.677	1967	1102
Higher Secondary (Ages 14-24)	-19.045	328.283	3346.753	9116	2108
Child Labour (Ages 10-15)	-0.016	0.021	0.272	6174	1686

Note: The table reports results estimated using equation 1 for the panel of 2,333 households that we survey both at baseline and at the follow-up. We report the Newly Ineligible x Post ( $\beta_5$ ) coefficient in column 1. Standard errors (SE) are reported in column 2. The mean for the dependent variable at follow-up for the control group (*always eligible*) is in column 3. See appendix OA1 for variable definitions. The number of observations varies because some respondents declined to answer, reported not knowing, or were not asked the question if they did not have children. In Panel B, the unit of analysis is the child, with sample sizes differing across age ranges. \* p < 0.1, \*\*\* p < 0.05, \*\*\*\* p < 0.01.

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# **Supplemental Appendix**

# A Additional Tables and Figures

Table OA1: Attrition

	(1) Surveyed At Followup
Above New Proxy Means Test Cutoff	-0.00870
	(0.00869)
Control Mean	0.957
Households	2449

*Notes:* The table reports results for differential attrition from a regression that includes all surveyed households at baseline within a +/- 3.5 bandwidth of the PMT2 score. The dependent variable is an indicator variable for the household being surveyed at the follow-up. The regression coefficient indicates the probability of a completed survey for households above the PMT2 Cutoff, i.e., the newly ineligible group at each stage. The mean outcome value for the always eligible group is also reported. Standard errors are in parentheses. \* p < 0.1, \*\*\* p < 0.05, \*\*\*\* p < 0.01.

Table OA2: Impact on Relationship Quality, IPV, and Well-Being For Narrower Bandwidth (+/- 3 points on PMT)

	(1)	(2)	(3)	(4)	(5)
	Newly Ineligible x Post	SE	Control Mean	Obs	HHs
Panel A: Relationship Quality					
Relationship Quality Index	-0.055	0.064	0.000	3884	1992
Husband Shows Interest (1-4)	-0.043	0.056	2.692	3876	1990
Husband Respects (1-4)	-0.054	0.054	3.012	3876	1991
Can Talk About My Problems With Husband (1-4)	-0.016	0.056	2.833	3868	1989
Panel B: Intimate Partner Violence (Last 6 Months)					
IPV Index	0.008	0.064	-0.000	3973	1988
Physical Frequency (1-3)	-0.206	0.170	0.565	3972	1988
Sexual Frequency (1-3)	-0.034	0.077	0.179	3961	1987
Emotional Frequency (1-3)	-0.047	0.118	0.698	3969	1988
Controlling Frequency (1-3)	-0.119	0.122	0.590	3969	1988
Injuries Frequency (1-3)	-0.060	0.074	0.146	3972	1988
IPV Indicator	-0.020	0.021	1.000	3973	1988
Physical Indicator	0.003	0.020	0.087	3972	1988
Sexual Indicator	-0.001	0.018	0.047	3962	1988
Emotional Indicator	0.005	0.024	0.141	3969	1988
Controlling Indicator	-0.019	0.024	0.148	3969	1988
Injuries Indicator	-0.012	0.013	0.032	3972	1988
Panel C: Mental Health And Subjective Well-Being					
Patient Health Questionnaire (0-27)	0.237	0.382	10.718	3986	1993
Life Satisfaction (1-10)	-0.006	0.123	5.514	3982	1993
Subjective Happiness (1-10)	0.090	0.056	3.253	3980	1993
Stress Index	0.057	0.064	0.000	3971	1989
Able To Control Things (1-4)	0.025	0.051	2.916	3968	1993
Confident In Handling Personal Problems (1-4)	0.028	0.048	1.928	3962	1993
Things Going Your Way (1-4)	0.034	0.049	1.836	3959	1993
Able to Cope with Difficulties (1–4)	-0.017	0.053	2.793	3966	1993

Notes: The table reports results estimated using equation 1 for the panel of 1,993 households that we survey both at baseline and at the follow-up within +/- 3 bandwidth. We report the Newly Ineligible x Post ( $\beta_5$ ) coefficient in column 1. Standard errors (SE) are reported in column 2. The mean for the dependent variable at follow-up for the control group (*always eligible*) is in column 3. See appendix OA1 for variable definitions. \* p < 0.1, \*\*\* p < 0.05, \*\*\*\* p < 0.01

Table OA3: Impact on Agency and Economic Participation for Narrower Bandwidth (+/- 3 points on PMT

	(1) Newly Ineligible x	(2)	(3)	(4)	(5)
	Post	SE	Control Mean	Obs	HHs
Panel A: Agency					
Decision Making Index	-0.014	0.064	0.000	3986	1993
Personal Healthcare (1-4)	0.003	0.052	2.773	3984	1993
Personal Small Purchases (1-4)	-0.011	0.053	2.777	3958	1993
Household Small Purchases (1-4)	-0.037	0.053	2.835	3949	1993
Mobility Index	0.030	0.063	0.000	3986	1993
Market Alone (Indicator)	0.017	0.030	0.291	3985	1993
Market Alone/Group (Indicator)	0.006	0.031	0.402	3985	1993
Doctor Alone (Indicator)	0.014	0.032	0.356	3986	1993
Doctor Alone/Group (Indicator)	0.011	0.031	0.458	3986	1993
Friends Alone (Indicator)	0.013	0.024	0.829	3982	1993
Friends Alone/Group (Indicator)	0.013	0.019	0.907	3982	1993
Family Alone (Indicator)	-0.009	0.030	0.587	3972	1993
Family Alone/Group (Indicator)	-0.006	0.028	0.652	3972	1993
WTP To Hide Income From Spouse (PKR)	30.857	19.926	222.822	3905	1957
<b>Panel B: Economic Participation and Time Use</b>					
Economic Participation Index	0.039	0.058	0.000	3986	1993
Employed (Indicator)	0.021	0.020	0.126	3986	1993
Hours Worked (Per Week)	0.422	0.827	10.037	3986	1993
Hours Of Unpaid Work (Yesterday)	-0.012	0.140	2.692	3986	1993
Hours Chores (Yesterday)	-0.162	0.159	4.902	3986	1993

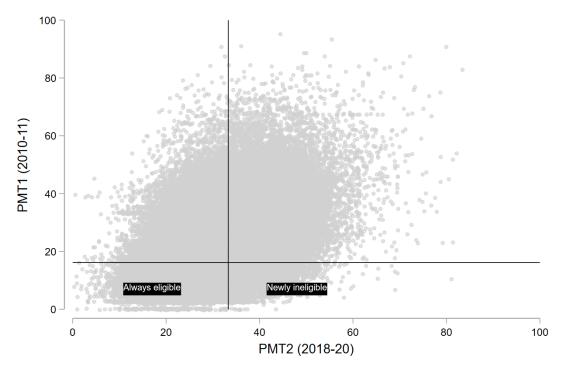
Notes: The table reports results estimated using equation 1 for the panel of 1,993 households that we survey both at baseline and at the follow-up within +/- 3 bandwidth. We report the Newly Ineligible x Post ( $\beta_5$ ) coefficient in column 1. Standard errors (SE) are reported in column 2. The mean for the dependent variable at follow-up for the control group (*always eligible*) is in column 3. See appendix OA1 for variable definitions. \* p < 0.1, \*\*\* p < 0.05, \*\*\*\* p < 0.01

Table OA4: Impact on Consumption and Child Labour for Narrower Bandwidth (+/- 3 points on PMT

	(1) Newly Ineligible x	(2)	(3) Control	(4)	(5)
	Post	SE	Mean	Obs	HHs
Panel A: Intrahousehold Consumption Allocation					
Total Food Expenditure (PKR/Week)	127.725	115.320	4238.988	3968	1984
Husband High Quality Food Index	-0.037	0.061	-0.000	3972	1987
Eats Meat (Times/Week)	-0.006	0.050	0.756	3965	1988
Eats Eggs (Times/Week)	-0.037	0.050	0.700	3967	1988
Eats Fruits (Times/Week)	-0.019	0.051	0.684	3967	1988
Respondent High Quality Food Index	-0.026	0.059	-0.000	3974	1988
Eats Meat (Times/Week)	-0.007	0.049	0.756	3971	1988
Eats Eggs (Times/Week)	-0.012	0.048	0.681	3973	1988
Eats Fruits (Times/Week)	-0.022	0.051	0.681	3971	1988
Child High Quality Food Index	-0.159*	0.082	0.000	2455	1562
Eats Meat (Times/Week)	-0.106	0.065	0.779	2449	1560
Eats Eggs (Times/Week)	-0.116*	0.068	0.759	2449	1561
Eats Fruits (Times/Week)	-0.094	0.070	0.731	2448	1560
Total Clothing Expenditure (PKR/6 Months)	-184.276	254.224	3472.794	3975	1993
Husband	-64.765	44.162	483.830	3975	1993
Respondent	38.443	56.018	527.353	3975	1993
Child	-77.790	175.288	2471.948	3975	1993
Panel B: Children's Education And Child Labour					
Enrolled (Ages 3-24)	-0.005	0.011	0.421	14340	1940
Primary (Ages 3-10)	-0.007	0.031	0.695	2615	768
Secondary (Ages 11-13)	0.009	0.029	0.401	2354	937
Higher Secondary (Ages 14-24)	-0.001	0.008	0.066	9371	1804
Educational Expenditure (PKR/Year)	215.219	482.625	10313.891	12875	1940
Primary (Ages 3-10)	-755.923	812.675	9578.569	2020	768
Secondary (Ages 11-13)	598.787	1045.581	8479.531	1658	937
Higher Secondary (Ages 14-24)	128.016	380.863	3423.570	7804	1804
Child Labour (Ages 10-15)	-0.011	0.023	0.270	5230	1435

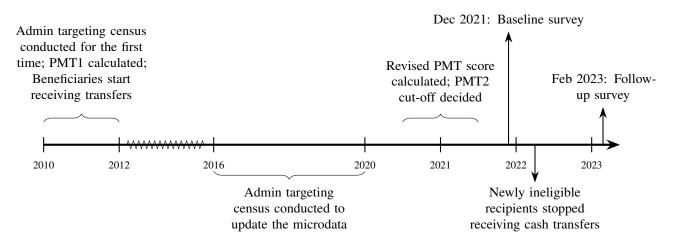
Notes: The table reports results estimated using equation 1 for the panel of 1,993 households that we survey both at baseline and at the follow-up within +/- 3 bandwidth. We report the Newly Ineligible x Post ( $\beta_5$ ) coefficient in column 1. Standard errors (SE) are reported in column 2. The mean for the dependent variable at follow-up for the control group (*always eligible*) is in column 3. See appendix OA1 for variable definitions. \* p < 0.1, \*\*\* p < 0.05, \*\*\*\* p < 0.01

Figure OA1: Scatter plot of households based on Proxy Means Test I and Proxy Means Test II scores



*Notes*: The twoway scatterplot shows proxy mean test scores (PMT) for households in Layyah calculated using 2010-11 (PMT1) and 2018-20 (PMT2) nationwide surveys. Each point on the scatterplot represents a household with corresponding PMT1 on the y-axis and PMT2 on the x-axis. The vertical line shows the PMT2 cutoff level and the horizontal line shows the PMT1 cutoff level. Consequently, four groups emerge. The two groups of interest for the paper are: households which are below the PMT1 and PMT2 cutoff i.e. *the always eligible* group, and households which are below PMT1 but above PMT2 i.e. *the newly ineligible* group

Figure OA2: Study Timeline



## **B Heterogenous Treatment Effects**

To estimate the heterogeneous impact of program exit, we augment equation 1 with H, the baseline dimension of interest:

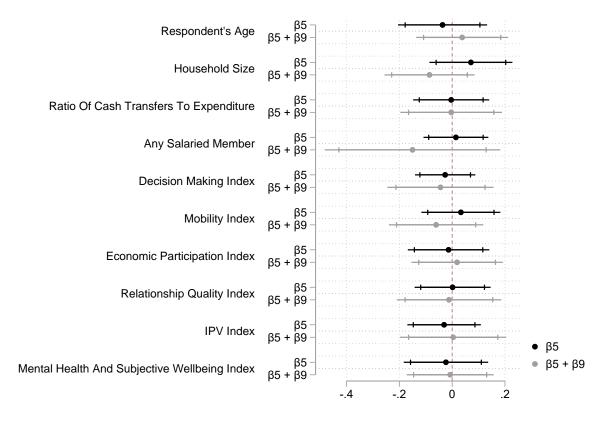
$$Y_{it} = \beta_0 + \beta_1 PMT2_i + \beta_2 Newly Ineligible_i + \beta_3 Newly Ineligible_i \times PMT2_i$$

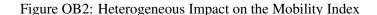
$$+ \beta_4 Post_t + \beta_5 Newly Ineligible_i \times Post_t + \beta_6 H + \beta_7 Newly Ineligible_i \times H$$

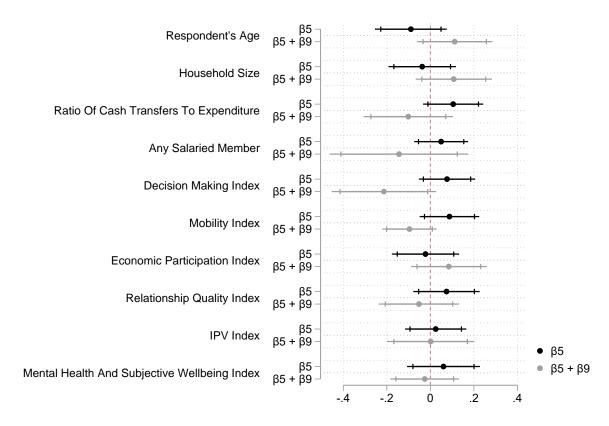
$$+ \beta_8 Post_t \times H + \beta_9 Newly Ineligible_i \times Post_t \times H + \varepsilon_{it}$$
(2)

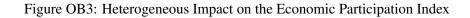
The coefficient of interest is  $\beta_9$  which captures the differential impact of program exit for households on the dimension H at baseline. We convert all continuous measures into indicator variables equal to one for the above median value for the dimension at baseline. In Figures OB1 - OB5, for each dimension, we show both  $\beta_5$ , the average effect on the newly ineligible and  $\beta_5 + \beta_9$ , which is the total effect on the newly ineligible with above median values at baseline.

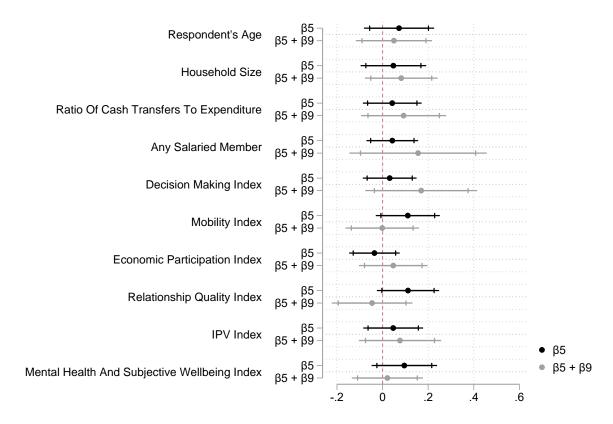
Figure OB1: Heterogeneous Impact on the Decision Making Index

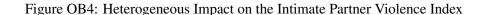












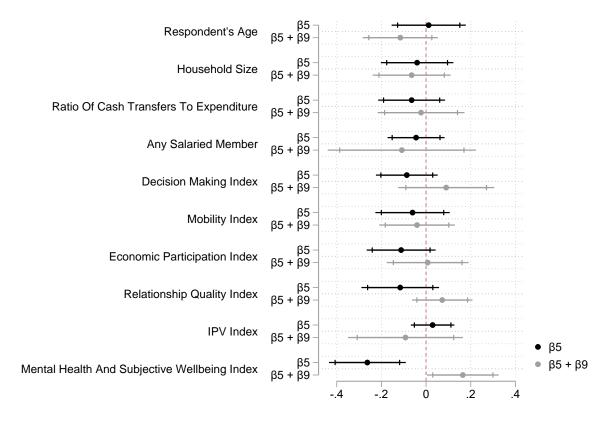
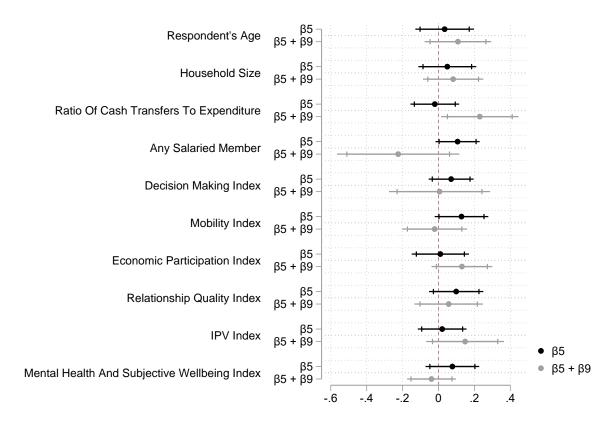


Figure OB5: Heterogeneous Impact on the Mental Health and Subjective Wellbeing Index



# **B Variable Definitions**

Table OA1: Variable Definitions

Variable	Definition
Panel A: Household & Responden	nt Characteristics
Household Size	Total number of household members who eat together.
Monthly Expenditure (PKR)	Total household monthly expenditure.
Any Salaried Member	Indicator variable equal to 1 if any household member is salaried; 0 otherwise.
Respondent's Age	Age of the respondent in years.
Respondent Illiterate	Indicator variable equal to 1 if the respondent cannot read or write; 0 otherwise.

Note: All indices are constructed using the swindex command in Stata suggested in (Schwab et al., 2021), following (Anderson, 2008). The indices are normalized with reference to the control group, i.e always eligible group.

Relationship Quality Index

Anderson index capturing the respondent's perception of relationship quality with the following questions. All response

Relationship Quality Index	Anderson index capturing the respondent's perception of relationship quality with the following questions. All responses coded as "Never" (1), "Sometimes" (2), "Often" (3), "Always" (4).
a. Husband Shows Interest (1–4).	Based on the question: "My husband shows interest in things that are important to me." Higher value means more frequent interest shown.
b. Husband Respects (1–4).	Based on the question: "My husband respects me." Higher value means more frequent respect shown.
c. Can Talk About Problems (1–4).	Based on the question: "I can talk about my problems with my husband." A higher value means a greater ability to discuss problems openly.
IPV Index	Anderson index constructed from 14 questions on physical, sexual, emotional, controlling, and injury-related violence experienced in the last 6 months. All responses are recoded as "Never" (1), "Once or Twice" (1.5), "More Than Thrice" (3).
a. Physical Frequency (1-3)	Frequency of physical violence faced by the respondent in the last 6 months, including getting pushed, slapped, arms twisted or hair pulled, punched, kicked/dragged, choked/burned, or attacked.
b. Sexual Frequency (1-3)	Frequency of sexual violence in the last 6 months, including whether the husband forced the respondent to have sexual intercourse, forced her to perform sexual acts, or threatened her with violence to perform sexual acts that she did not want to.
c. Emotional Frequency (1-3)	Frequency of emotional abuse faced by the respondent including getting humiliated in front of others, being threatened to hurt or harm someone close to her, or getting insulted by the husband in the last 6 months.
d. Controlling Frequency (1-3)	Frequency of instances when the husband accused the respondent of being unfaithful, tried to limit her contact with her family, was jealous or angry over interaction with other men, or insisted on knowing about her whereabouts in the last 6 months.
e. Injuries Frequency (1-3)	Frequency of instances where the respondent ever got any injuries like cuts, bruises, aches, burns, dislocations, deep wounds, broken bones, intoxicated, violent behaviour from her husband in the last 6 months.
IPV Indicator	Binary variable equal to 1 if the respondent reports any instance of IPV in the last 6 months.
a. Physical Indicator	Binary variable equal to 1 if the respondent reports any instance of physical violence in the last 6 months.
b. Sexual Indicator	Binary variable equal to 1 if the respondent reports any instance of sexual violence in the last 6 months.
c. Emotional Indicator	Binary variable equal to 1 if the respondent reports any instance of emotional abuse in the last 6 months.
d. Controlling Indicator	Binary variable equal to 1 if the respondent reports any instance of controlling behaviour in the last 6 months.

Continued on next page

## Table OA1 – continued from previous page

Variable	Definition
e. Injuries Indicator	Binary variable equal to 1 if the respondent reports any injury resulting from IPV in the last 6 months.
Patient Health Questionnaire (0-27)	Sum of responses to nine depression-related questions over the last 2 weeks. Questions include having little interest in things, feeling hopeless, trouble falling asleep, having little energy, poor appetite or excessive eating, feeling bad about self, having trouble concentrating on things, moving or speaking slowly, and thoughts of self-harm. Responses coded "Not at all" (0) to "Nearly every day" (3). A higher value corresponds to worsening of mental health
Life Satisfaction (1-10)	Self-reported satisfaction with life, on a scale from "Completely dissatisfied" (1) to "Completely satisfied" (10).
Subjective Happiness (1-5)	Self-reported happiness in the last month, coded as "Unhappy" (1) to "Very happy" (5).
Stress Index	Anderson index constructed from the following four questions, capturing perceived stress. All responses coded as "Never"
	(1) to "Very Often" (4). A higher value corresponds to better outcome.
a. Able to Control Things (1–4)	Self-reported frequency of feeling able to control important things in life.
b. Confident in Handling Personal	Self-reported confidence in ability to handle your personal problems.
Problems (1–4)	
c. Things Going Your Way (1–4)	Self-reported perception that things are going their way.
d. Able to Cope with Difficulties (1–4)	Self-reported frequency of feeling that difficulties were piling up beyond the ability to cope.
Decision-making Index	Anderson index capturing the respondent's self-reported say in household decision-making across the following domains. All responses are on a scale of "Not at all" (1) to "High extent" (4).
a. Personal Healthcare (1–4)	Respondent's reported say in decisions regarding her own health.
b. Personal Small Purchases (1–4)	Respondent's reported say in decisions regarding small personal purchases, such as clothing for herself.
c. Household Small Purchases (1–4)	Respondent's reported say in decisions regarding small household purchases, such as kitchen utensils for other members of the household.
Mobility Index	Anderson index constructed using the six components as follows. All responses take value 1 if the respondent says she is allowed to go; 0 otherwise.
a. Market Alone (Indicator)	Binary indicator for the respondent allowed to go to the local market to buy things alone.
b. Market Alone/Group (Indicator)	Binary indicator for the respondent allowed to go to the local market to buy things alone or in a group.
c. Doctor Alone (Indicator)	Binary indicator for the respondent allowed to go to the local health facility or doctor alone.
d. Doctor Alone/Group (Indicator)	Binary indicator for the respondent allowed to go to the local health facility or doctor alone or in a group.
e. Friends Alone (Indicator)	Binary indicator for the respondent allowed to go to homes of friends in the neighbourhood alone.
f. Friends Alone/Group (Indicator)	Binary indicator for the respondent allowed to go to homes of friends in the neighbourhood alone or in a group.
g. Family Alone (Indicator)	Binary indicator for the respondent allowed to visit family alone.
h. Family Alone/Group (Indicator)	Binary indicator for the respondent allowed to visit family alone or in a group.
WTP to Hide Income from Spouse (PKR)	The monetary gap at which a respondent is willing to forgo money for herself to benefit her spouse. A higher value indicates a propensity to keep money for herself.
Economic Participation Index	Anderson index containing information on the following components:
a. Employed (Indicator)	Binary variable equal to 1 if the respondent reported working in the last month.
b. Hours Worked (Per Week)	Number of hours the respondent spends in a week on any kind of work with or without pay.
c. Hours of Unpaid Work (Yesterday)	Number of hours spent by the respondent in the last 24 hours on income-generating activities without pay.

## **Table OA1 – continued from previous page**

Variable	Definition
Hours Chores (Yesterday)	Number of hours the respondent spent in the last 24 hours on household chores.
Total Food Expenditure (PKR/Week)	Value of food items consumed by the household in the last 7 days (95 percent winsorized).
Husband High Quality Food Index	Anderson index constructed from the following components for the husband. All responses coded as "Never" (0), "Once or
	Twice" (1.5), and "More Than Thrice" (3).
a. (Husband) Eats Meat (Times/Week)	The frequency of meat consumed by the husband over the last 7 days.
b. (Husband) Eats Eggs (Times/Week)	The frequency of eggs consumed by the husband over the last 7 days.
c. (Husband) Eats Fruits (Times/Week)	The frequency of fruits consumed by the husband over the last 7 days.
Respondent High Quality Food Index	Anderson index constructed from the following components for the respondent. All responses coded as "Never" (0), "Once
	or Twice" (1.5), and "More Than Thrice" (3).
a. (Respondent) Eats Meat	The frequency of meat consumed by the respondent over the last 7 days.
(Times/Week)	
b. (Respondent) Eats Eggs	The frequency of eggs consumed by the respondent over the last 7 days.
(Times/Week)	
c. (Respondent) Eats Fruits	The frequency of fruits consumed by the respondent over the last 7 days.
(Times/Week)	
Child High Quality Food Index	Anderson index constructed from the following components for the children. All responses coded as "Never" (0), "Once or
	Twice" (1.5), and "More Than Thrice" (3).
a. (Child) Eats Meat (Times/Week)	The frequency of meat consumed by the respondent over the last 7 days.
b. (Child) Eats Eggs (Times/Week)	The frequency of eggs consumed by the respondent over the last 7 days.
c. (Child) Eats Fruits (Times/Week)	The frequency of fruits consumed by the respondent over the last 7 days.
Total Clothing Expenditure (PKR/6	Household spending on clothing for the respondent, her husband, and children in the last 6 months (95 percent winsorized).
Months)	
a. Husband (Clothing)	Total household spending on the husband's clothing in the last 6 months (95 percent winsorized).
a. Respondent (Clothing)	Total household spending on the respondent's clothing in the last 6 months (95 percent winsorized).
a. Child (Clothing)	Total household spending on the child's clothing in the last 6 months (95 percent winsorized).
Enrolled (Ages 3-24)	Binary variable for all individuals in a household aged 3–24 years enrolled in private or public education institutions.
a. Primary (Ages 3-10)	Binary variable for individuals aged 3–10 years enrolled in grades 1–5.
b. Secondary (Ages 11-13)	Binary variable for individuals aged 11–13 years enrolled in grades 6–10.
c. Higher Secondary (Ages 14-24)	Binary variable for individuals aged 14–24 years enrolled in grades 11–12.
Educational Expenditure (PKR/Year)	Member-level yearly educational expenditure for all individuals aged 3–24 years enrolled in grades 1–12. Constructed by
. Drives v. (A 2, 10)	summing the following outcomes for all members of the household:
a. Primary (Ages 3-10)	Member-level yearly educational expenditure for individuals aged 3–10 years enrolled in grades 1–5.
b. Secondary (Ages 11-13)	Member-level yearly educational expenditure for individuals aged 11–13 years enrolled in grades 6–10.
c. Higher Secondary (Ages 14-24)	Member-level yearly educational expenditure for individuals aged 14–24 years enrolled in grades 11–12.
Child Labor (Ages 10-15)	Binary variable for all household members aged 10–15 years; equal to 1 if employed or seeking employment and 0 otherwise.

#### Table OA1 – continued from previous page

Variable	Definition

#### Panel C: Heterogeneous Treatment Effect (HTE) Variables

Note: All variables in this panel are constructed as binary indicators equal to 1 if above the sample median, and 0 otherwise.

Respondent's Age Indicator for whether the respondent's age is above the median. Household Size Indicator for whether household size is above the median.

Ratio of Cash Transfers to Expenditure 
Indicator for whether the ratio of BISP cash transfers to household consumption (excluding value of own production

consumed) is above the median.

Any Salaried Member Indicator for whether the household has at least one salaried member.

Decision Making Index Indicator for whether the Decision Making Index is above the median.

Mobility Index Indicator for whether the Mobility Index is above the median.

Economic Participation Index Indicator for whether the Economic Participation Index is above the median.

Relationship Quality Index Indicator for whether the Relationship Quality Index is above the median.

IPV Index Indicator for whether the IPV Index is above the median.

Mental Health and Subjective Well-Being

Index

Indicator for whether the Mental Health and Subjective Well-Being Index is above the median.