

**Financial Access and Non-Cognitive Skills:
Evidence from a Randomized Experiment**

Preliminary and Incomplete

Do Not Circulate

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Abstract

We investigate whether access to savings accounts affects non-cognitive skills of poor households. A field experiment in Nepal randomized access to savings accounts among a largely unbanked population, generating random variation in savings behavior. We provide evidence showing that financial access improved households' perceived ability to manage their lives, as well as the educational aspirations and expectations for daughters of treatment households. Finally, there was a reduction in the gender gap in both educational aspirations and expectations.

Keywords: Financial access; non-cognitive skills; educational aspirations; educational expectations

JEL codes: D04, O15, O16

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1. Introduction

Cognitive and non-cognitive skills are important determinants in an individual's future success. None of these skills are evenly distributed across societies. In particular, there are wide gaps between the rich and the poor and between men and women. Cognitive skills get defined in the early stages of an individual's life, thus it is hard to change them once an individual reaches adulthood. Non-cognitive skills, on the other hand, evolve with time and can be altered even in adulthood. The aim of this paper is to show a possible channel through which the non-cognitive skills of adults may be changed.

A number of reasons may explain why gaps in non-cognitive skills between different segments of the population exist. One of them may be the fact that some individuals have access to a number of goods and services while others do not. When evident (and relevant), this differential access may create gaps in self-esteem, in the (perceived) ability to control one's own future, in aspirations and in expectations. In short, a marked lack of access to an important good or service, e.g. financial services, may negatively affect the non-cognitive abilities of those left out. This paper presents suggestive evidence that this may indeed be the case. In particular, we show that granting access to a simple savings account (i.e. a basic financial service unavailable to millions of poor individuals around the world, many of which are women) has positive effects on the non-cognitive abilities of a sample of poor women in Nepal.

Non-cognitive skills are psychological competencies that include esteem or shame (the way one feels about his or her own position), efficacy and ability to control outcomes (control over the future and one's ability to act), aspirations (one's dreams and desires), and expectations (what one thinks will happen given one's own tangible, e.g. monetary, physical, and non-tangible, e.g. mental, resource constraints). These competencies interact with and reinforce each other (Heckman 2006, Heckman 2007, and Heckman and Cunha 2007). Non-cognitive skills have an

important impact in determining one's future success. An individual that aspires to be successful and has the resources to achieve these aspirations will likely have high expectations for himself or herself. Furthermore, if this individual feels in control of his or her life and that his or her actions matter for his or her future, it is likely that he or she will have the motivation to achieve his or her goals in life.¹

Hence, while all the psychological competencies that shape an individual's non-cognitive skills are important, one's (perceived) self-efficacy and ability to control outcomes seem to be key.² The psychologist Albert Bandura (1986) describes four ways through which an individual may change his or her perceived self-efficacy and ability to control outcomes. The first source is *mastery experiences*. As individuals engage in tasks and activities, they judge the outcomes and incorporate this data into their self-beliefs. Successes breed higher perceived self-efficacy and ability to control outcomes, while failures do the opposite. The second source are *vicarious experiences*, whereby individuals can learn from the experiences of others. This source is generally weaker than mastery experiences but is strengthened the more closely and individual identifies with the model. The success or failure of those people that an individual identifies with can therefore raise or lower, respectively, their own perceived self-efficacy and ability to control outcomes. The third source are *social persuasions* where individuals receive feedback from others. To be effective, social persuasions generally must reach beyond praise for success or comfort for failure and instead reinforce positive beliefs about one's innate ability to succeed. Finally, perceived self-efficacy and ability to control outcomes can be determined by *somatic and emotional states*, or

¹ In fact, numerous studies in the field of psychology have demonstrated the impact of non-cognitive skills on dating, career choice and success, educational attainment, investment choices, and general happiness.

² The psychological literature on the importance of self-efficacy in a broad range of outcome areas is extensive. See for example: Bandura (1977, 1986, 1989, 1993, and 2001), Bandura et al. (2001), Bradley and Corwyn (2001), Breeding (2008), Christens and Peterson (2012), Creed, Bloxsome, and Johnston (2001), Hammond and Feinstein (2005), Hsieh et al. (2008), and Shunk and Gunn (2001).

by observing how one feels—stressed, anxious, calm, etc.—in various situations. The removal of fears and anxieties previously experienced when engaging in certain tasks, can increase perceived self-efficacy and ability to control outcomes.

In this study we exploit a unique field experiment to investigate whether perceived self-efficacy and ability to control outcomes, aspirations and expectations are affected by the act of being offered a simple savings account and actually using it to save. Prina (2013) reports the results of a field experiment in Nepal, which randomized 1,236 poor households into either a control group or a treatment group that gained access to formal savings accounts. For most of the sample this account represented their first access to a formal savings product. Prina (2013) shows that the treatment group used these new accounts at high rates and in their first year with the accounts accumulated significant assets relative to the control group. As such, this experiment gives access to a widely known and relevant basic service previously unavailable to the sampled population. Furthermore, as the accounts were actually used and allowed the treatment households to increase their wealth, the experiment possibly increased the perceived (and *actual*) self-efficacy and ability to control outcomes of the treatment group and (perhaps, as a consequence) their aspirations and expectations.

To assess whether access to the savings accounts impacted the individual's non-cognitive skills, we use a sample of 456 households with children 11-16 years old for which we have information on their perceived ability to manage their financial lives and the educational aspirations and expectations they have for their children. First, we check whether for this specific subsample the results reported in Prina (2013) regarding take-up, usage and wealth accumulation hold. Then, we check whether there are any differences between the treatment and control households one year after the intervention regarding their perceived ability to manage their financial lives. Finally, we compare the educational aspirations and expectations households have for their children.

Our first set of results are in line with the findings of Prina (2013): the take-up rate of the accounts for our sample of households is 85%; 80% of those who took-up the account, actively used it; treated households have a higher net worth and accumulated more assets than the control households. Then, we document that treatment households perceive to be better able to control their financial lives than control households. We interpret this result as evidence that getting access to the financial system, using it, and actually getting good results out of it has increased the households' perceived self-efficacy and ability to control outcomes. Afterwards, we show that treatment households have higher educational aspirations and expectations for their daughters, but not their sons. In fact, we are able to show that the gap in educational aspirations and expectations towards sons and daughters has been reduced significantly. This may be due to the fact that the savings accounts were offered to the mothers and not the fathers. Overall, we interpret our findings as suggestive evidence that getting access to the financial system has allowed treatment households to increase their non-cognitive skills.

Our study contributes to a number of different streams of literature. First, it joins a growing literature studying self-efficacy, aspirations and expectations both from a theoretical and an empirical standpoint (Ray 2006, Bernard, Dercon, and Taffesse, 2011, Macours and Vakis, 2009 Chiapa, Garrido, and Prina, 2012, Beaman, Duflo, Pande, and Topalova, 2012, Wydick, Glewwe, and Rutledge 2013). Concerning empirical studies, most of the interventions studied thus far have focused on the effect of role models. Macours and Vakis (2009) show how interactions with local leaders who are motivated, successful, and proximate can increase aspirations by providing role models. Chiapa, Garrido, and Prina (2012) use data from PROGRESA in Mexico to show that exposure to role models drives higher educational aspirations, particularly for low-income girls. Beaman et al. (2012) show how the quota system of reserving village council seats for women led to higher educational aspirations both by adolescent girls for themselves and by

their parents. Similarly, Wydick, Glewwe, and Rutledge (2013) find that child sponsorship programs can increase aspirations and self-expectations. Finally, this study adds to a growing literature in development economics that studies how access to financial products shapes the lives of the poor (e.g., Bruhn and Love 2009, Burgess and Pande 2005, Dupas and Robinson 2013, Kaboski and Townsend 2005, Karlan and Zinman 2010a and 2010b, Prina 2013). We take a new approach exploring whether access to financial products might have spillovers into changing non-cognitive skills.

The remainder of the paper is organized as follows. Section 2 describes the background of the savings experiment conducted by Prina (2013), the education system in Nepal, the data we use in our analysis. Section 3 outlines the empirical strategy and presents the results. Section 4 discusses the results and concludes.

2. Background and Experimental Design

2.1 The Savings Accounts Field Experiment

Formal financial access in Nepal is very limited: only 20% of households have a bank account (Ferrari et al. 2007). Access is concentrated in urban areas and among the wealthy. In the randomized field experiment run by Prina (2013), GONESA bank gave access to savings accounts to a random sample of poor households in 17 slums surrounding Pokhara, Nepal's second largest city. In May 2010, before the introduction of the savings accounts, a household baseline survey was conducted with a female head aged 18-55.³ In total, 1,236 households were surveyed at baseline. Separate public lotteries were held in each slum to assign the 1,236 female household heads randomly to treatment and control groups: 626 were randomly assigned to the treatment group and were offered the option to open a savings

³Female household head is defined here as the female member taking care of the household. Based on this definition, 99% of the households living in the 17 slums were surveyed by the enumerators.

account at the local bank-branch office; the rest were assigned to the control group and were not given this option. After completion of the baseline survey, GONESA bank progressively began operating in the slums between the last two weeks of May and the first week of June 2010.

The accounts have all the characteristics of any formal savings account. The bank does not charge any opening, maintenance, or withdrawal fees and pays a 6% nominal yearly interest, similar to the average alternative available in the Nepalese market (Nepal Rastra Bank, 2011).⁴ In addition, the savings account does not have a minimum balance requirement.⁵ Customers can make transactions at the local bank-branch offices in the slums, open twice a week for three hours, or at the bank's main office, located in downtown Pokhara, during regular business hours.

2.2 The Education System in Nepal

The education system in Nepal in many ways mirrors that familiar to most people in the United States. The school year runs from the end of April to the end of March. There are ten days of vacation in June and another ten in January, with numerous festivals in between (particularly in October). Children begin school at the age of six, entering the 1st grade. Primary education is considered to be from grades 1–5, lower secondary education from grades 6–8, and secondary education from grades 9–10. Upon completing the 10th grade, students take a national exam to obtain their School Leaving Certificate (SLC).

After completing the 10th grade, students may take two different educational paths. The first is to go to a technical college. Some of these schools require students to have obtained their SLC, while some simply require the completion of the 10th grade. Technical degrees can range in duration from 6 months to 3 years.

⁴ The International Monetary Fund Country Report for Nepal (2011) indicates a 10.5% rate of inflation during the study period.

⁵ The money deposited in the savings account is fully liquid for withdrawal; the savings account operates without any commitment to save a given amount or to save for a specific purpose.

The second educational path is very similar to the model familiar to the United States. Students can continue into the higher secondary or intermediate level for an additional two years, completing the equivalent of high school. From there students can apply to a university to obtain a bachelor's degree and can potentially proceed to graduate level studies to obtain a master's degree or a PhD.

2.3 Data

We use data from two household survey rounds: the baseline survey and one follow-up survey. The baseline survey was conducted right before the start of the intervention. This survey collected information on household composition, education, income, income shocks, monetary and non-monetary asset ownership, borrowing, and expenditures on durables and non-durables. The follow-up survey, conducted one year after the beginning of the intervention, included questions on the household perceptions of their ability to manage better their financial daily lives. It also surveyed parents about their aspirations and expectations regarding each of their children's education. Additionally, the follow-up survey repeated the modules that were part of the baseline survey and collected additional information on household expenditures.

2.4 Sample Characteristics and Balance Check

The main sample we use in this paper consists of those 456 households reporting to have children 11-16 years of age at the follow-up survey. Tables 1A and 1B show the summary statistics of baseline characteristics for our main sample. The last column in the table shows T-statistics of a test of equality of means between the treatment and control groups and reveals that randomization led to balance along background characteristics. The male and female head of households in the sample on average are 43 and 38 years old, and have 4.6 and 2.3 years of schooling,

respectively. Households have on average 4.5 members with 2 children 16 years old or less.

As shown in Table 1B, households have a weekly average income of Nepalese Rs. 1,700 (~\$24) and Rs. 48,000 (~\$685) in total assets. Only 16% of households had a bank account at baseline. Most households save informally, via microfinance institutions (MFIs), and savings and credit cooperatives, storing cash at home, and participating in Rotating Savings and Credit Associations (ROSCAs).⁶ Finally, 88% of them had at least one outstanding loan (most loans are taken from ROSCAs, MFIs, and family and friends). Finally, the sample population seems highly vulnerable to shocks: 43% of the households indicated having experienced a negative external income shock during the month previous to the baseline survey.⁷

As Table 1B shows, at baseline roughly 16% of the control and treatment groups had a bank account. Appendix Table 1 shows take-up and usage rates, as well as usage statistics for the households in the treatment group in our sample, i.e. households with children 11-16 years old at baseline. A year later, 85% of the treatment group had a savings account offered by the intervention.⁸ The treatment group used the savings account actively, with 80% making at least two deposits within the first year. Over this one-year period account holders made on average 46 transactions: 3 withdrawals and 43 deposits (or 0.8 deposits per week). The average deposit was of Rs. 136, roughly 8% of the average weekly household income at baseline. The average weekly balance steadily increased reaching an average of Rs. 2,483 (~1.5 weeks of income) a year after the start of the intervention.⁹

⁶A ROSCA is a savings group formed by individuals who decide to make regular cyclical contributions to a fund in order to build together a pool of money, which then rotates among group members, being given as a lump sum to one member in each cycle.

⁷ Shocks include health shocks, lost job, livestock loss, broken/damaged/stolen goods or equipment, low demand for business, decrease in the wage rate, and death of a household member.

⁸ The percentage of control households with a bank account remained at 15%.

⁹ Take-up and usage rates, and usage statistics are extremely similar to the one shown by Prina (2013, Table 2) for the entire sample of households.

3. Empirical Strategy and Results

This section is divided into three parts. First, we study the effect of access to a savings account on asset accumulation. Second, we analyze the impact on the household's perceived ability to manage its financial life. Then, we investigate the effects on the educational aspirations and expectations of the poor. Finally, assess the impact on the gender gap in both educational aspirations and expectations.

In order to quantify the effects of the intervention, we estimate the average effect of having been assigned to the treatment group, or intent-to-treat effect (ITT), on each outcome variable Y a year after the launch of the savings account.¹⁰ Specifically, we use the following regression specification:

$$Y_i = \alpha_0 + \alpha_1 ITT_i + \alpha_2 X_i + \lambda_s + \varepsilon_i \quad (1)$$

where ITT is an indicator variable for assignment into the treatment group, X_i is a vector of baseline characteristics (age and years of education of the account holder; number of children 16 years old or less; number of household members; and most relevant source of household income dummies). We also include slum fixed effects λ_s because the randomization was done within slum. Finally, ε_i is an error term for household i . In all specifications standard errors are clustered at the slum level. In the tables, we report the regression results both with and without controls and village fixed effects. The coefficient of interest is α_1 , which estimates the intent-to-treat effect.¹¹

¹⁰ We do not analyze the average effect for those who actively used the account because, among those who opened an account, only 5% did not actively use it.

¹¹ Assuming that being offered the savings account does not have any other direct effect on savings other than motivating an individual to use the account, it is possible to estimate the treatment-on-the-treated effect by dividing the ITT by the take-up rate.

3.1. Asset Accumulation

The estimates of regression (1) are reported in Table 2. As Table 2 shows, access to the savings account increased both total assets—which include monetary assets, consumer durables and livestock—and net worth—calculated as total assets minus amount borrowed. In particular, a year after the start of the intervention, treatment households have on average Rs. 30,000 more than control households in terms of net worth. Likewise, they have on average Rs. 13,400 more in total assets than control households. This corresponds to a 25% increase in total assets.¹² Though the intent-to-treat coefficient is negative, suggesting that treatment households borrow less money, there are no statistically significant differences between the treatment and the control group regarding the amount borrowed. The results are robust to the inclusion of controls.

3.2. Household Perceived Ability to Manage Its Financial Life

An increase in net worth and total assets for treatment households might cause them to feel more in control of their lives, and, in particular of their financial situation. As the follow-up survey a year after the start of the intervention contained three questions aimed at measuring the household’s perceived financial situation, we are able to test this hypothesis.

Table 3 presents the average effects of access to a savings account on the households’ self-assessed financial situations. The results confirm this hypothesis: a year after the intervention, treatment households perceive themselves to be more in control of their financial lives. As shown in columns 1-2, households offered the savings account are 9% more likely to describe their financial situation as “living comfortably” or “having a little left for extras.” In addition, estimates from columns 3-4 indicate that treatment households are also 7% more likely not to feel very or at

¹² These results are similar to the ones documented in Prina (2013).

all financially stretched month to month. The effects shown in columns 1 and 3 are non-negligible, as they correspond to a 32 and 35% increase, respectively. This would suggest that access to a savings account appears to change households' perceptions of their ability to control/manage better their financial daily lives. Access to a savings account, however, does not improve households' sense of financial security, as presented in columns 5-6.

3.3. Educational Aspirations and Expectations

The results in Tables 2 and 3 tend to suggest that access to savings accounts improved the household financial situation, by increasing their net worth and total assets, and improved the households' perception of their ability to manage their financial lives. These effects could spillover on the aspirations and expectations parents have regarding the education of their children. In particular, do households that are offered a savings account start aspiring for a higher level of education for their children? Do they expect that their children will be able to achieve a higher level of education, now that their financial situation has improved and that they feel they are more in control of their financial lives?

Having information on the parents' aspirations and expectations for their children's education in the follow-up survey allows us to estimate the impact after one year from the start of the intervention.

The estimates of regression (1) are reported in Table 4. In Panel A, we analyze the effect of financial access on the aspirations of parents toward all their children education considering all children 11-16 (columns (1)–(3)), and toward their sons (columns (4)–(6)) and their daughters (columns (7)–(9)) separately. We estimate the ITT effects without controls in columns (1), (4), and (7), and including controls in columns (2), (5), and (8). Finally, in columns (3), (6), and (9) we include the mother's educational level in years. In all specifications standard errors are clustered at the slum level.

As the table shows there are data for aspirations for 664 children, of which 314 are boys and 350 are girls. Parents in the control group aspire for their children to complete on average 14.7 years of schooling (column (1)).

Access to a savings account does not appear to have any statistically significant effect on parental aspirations when considering all children 11-16 years old and sons only. However, financial access is associated with an increase in educational aspirations of more than one year of schooling for daughters. This effect is statistically significant at the 5% level. Including the control variables increases the precision of the coefficient of interest and the ITT coefficient becomes statistically significant at the 1% level.

The magnitude of the coefficients for daughters in column (9) indicates that, *ceteris paribus*, the effect of the intervention on aspirations for daughters is comparable to that associated with mothers having seven extra years of schooling (considering column (9): $1.055/0.147=7.18$). As the average education of mothers in our sample is 2.5 years (as shown in Table 1A), this is quite relevant.

In Panel B, we analyze the effect of financial access on the expectations of parents toward all their children education considering all children 11-16 (columns (10)–(12)), and toward their sons (columns (13)–(15)) and their daughters (columns (16)–(18)) separately. As in Panel A, we estimate the ITT effects without controls, including controls, and including the mother’s educational level in years. In all specifications standard errors are clustered at the slum level.

As the table shows there are data on expectations for 667 children, of which 314 are boys and 353 are girls. Parents in the control group expect their children to complete on average 13.5 years of schooling (column (10)). Expectations are in generally lower than aspirations.

Access to a savings account does not appear to have any statistically significant effect on parental expectations when considering all children 11-16 years old and sons only. However, financial access is associated with an increase in educational

expectations of more than half a year of schooling for daughters. This effect is statistically significant at the 5% level. Including the control variables does not alter the precision of the coefficient of interest.

The magnitude of the coefficients for daughters in column (9) indicates that, *ceteris paribus*, the effect of the intervention on expectations for daughters is comparable to that associated with mothers having three extra years of schooling (considering column (18): $0.783/0.235=3.33$). Again, considering that the average education of mothers in our sample is 2.5 years (as shown in Table 1A), this is quite relevant.

These results are relevant, not only because they show that the intervention have a spillover effect on aspirations and expectations for daughters' education, but also because this positive effect helps closing the gender gap on both outcome variable. In fact, as Table 4 shows, parents' educational aspirations for their sons in the control group are of 15.3 years of schooling (column (3)), while for their daughters are of 14.1 years of schooling (column (5)). Hence, there is a gender gap in aspirations of more than one year of schooling. Likewise, when considering expectations, there is a gender gap of more than 1.5 years of schooling. Parents' educational expectations for their sons in the control group are of 14.2 years of schooling (column (9)), while for their daughters are of 12.8 years of schooling (column (11)). Next, we explore the impact of access to a savings account on the gender gap in aspirations and expectations.

3.4 Gender Gap in Aspirations and Expectations

In order to quantify the effects of the intervention on the gender gap in aspirations and expectations, we estimate the following regression specification:

$$Y_i = \beta_0 + \beta_1 ITT_i + \beta_2 GENDER_i + \beta_3 GENDER_i * ITT_i + \beta_4 X_i + \lambda_s + \varepsilon_i \quad (2)$$

where *GENDER* is an indicator variable equal one if the child is female and zero if the child is male and *GENDER*ITT* represents the interaction between the gender dummy and the treatment status dummy, *ITT*. As for equation (1) X_i is a vector of baseline characteristics (age and years of education of the account holder; number of children 16 years old or less; number of household members; and most relevant source of household income dummies), and ε_i is an error term for household i . We also include slum fixed effects λ_s because the randomization was done within slum. In the tables, we report the regression results both with and without controls and village fixed effects. The coefficient of interest is β_3 , which estimates the intent-to-treat effect for daughters.

The estimates of regression (2) are reported in Table 5. Column (1) shows that parental aspirations are 1.2 years of schooling lower for daughters than for sons. Similarly, column (3) shows that parental expectations are 1.4 years of schooling lower for daughters than for sons. These gender differences are statistically significant at the 1% level. However, as the interaction coefficient between gender and treatment status shows, financial access appears to help closing the gender gap in both educational aspirations and expectations. In treatment households, parental aspirations and expectations for daughters' education increase of 1.4 years. The coefficients are statistically significant at the 1% level and including the control variables does not change the results.

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Table 1A: Descriptive Statistics by Treatment Status

	Obs.	Mean		T-stat	
		Sample	Control		Treatment
Characteristics of the head of the household					
Age	456	42.94 (8.27)	42.79 (8.10)	43.10 (8.46)	0.39
Years of education	407	4.64 (3.35)	4.62 (3.20)	4.66 (3.51)	0.11
Characteristics of the spouse of the head of the household					
Age	456	37.79 (6.70)	37.76 (6.86)	37.81 (6.54)	0.08
Years of education	366	2.25 (2.46)	2.26 (2.42)	2.23 (2.49)	-0.12
Household demographic characteristics					
Household size	456	5.11 (1.63)	5.11 (1.57)	5.11 (1.68)	-0.06
Number of children 16 years old or less	456	2.29 (1.01)	2.28 (0.97)	2.30 (1.05)	0.23
Number of female children 16 years old or less	456	1.16 (0.96)	1.19 (0.94)	1.13 (0.97)	-0.73
Number of male children 16 years old or less	456	1.13 (0.85)	1.09 (0.84)	1.18 (0.87)	1.10
Average age of children 16 years old or less	456	11.00 (2.30)	11.02 (2.25)	10.99 (2.35)	-0.13
Average age of female children 16 years old or less	340	10.89 (3.12)	10.87 (3.07)	10.91 (3.18)	0.11
Average age of male children 16 years old or less	354	10.47 (3.03)	10.50 (2.89)	10.44 (3.17)	-0.18
Average level of education of children 16 years old or less	455	5.11 (2.25)	5.12 (2.26)	5.10 (2.25)	-0.12
Average level of education of female children 16 years old or less	340	5.30 (2.73)	5.14 (2.63)	5.46 (2.83)	1.08
Average level of education of male children 16 years old or less	352	4.48 (2.50)	4.54 (2.57)	4.41 (2.45)	-0.50
Number of children 11-16 years old	456	1.34 (0.54)	1.35 (0.55)	1.34 (0.53)	-0.17
Number of female children 11-16 years old	456	0.70 (0.67)	0.73 (0.69)	0.67 (0.65)	-0.99
Number of male children 11-16 years old	456	0.64 (0.62)	0.61 (0.62)	0.67 (0.62)	0.91
Average age of children 11-16 years old	456	12.96 (1.21)	12.94 (1.22)	12.99 (1.20)	0.45
Average age of female children 11-16 years old	269	13.08 (1.33)	13.01 (1.36)	13.15 (1.31)	0.87
Average age of male children 11-16 years old	259	12.87 (1.27)	12.84 (1.25)	12.91 (1.30)	0.45
Average level of education of children 11-16 years old	453	6.44 (2.01)	6.46 (2.00)	6.42 (2.03)	-0.20
Average level of education of female children 11-16 years old	268	6.92 (1.90)	6.74 (1.84)	7.11 (1.94)	1.62
Average level of education of male children 11-16 years old	255	6.04 (2.19)	6.16 (2.18)	5.93 (2.20)	-0.84

Note: Standard deviations reported in parenthesis.

Table 1B: Descriptive Statistics by Treatment Status

	Obs.	Mean		T-stat	
		Sample	Control		Treatment
Household financial characteristics					
Total income last week ¹	456	1,689.15 (5,782.91)	1,941.23 (6,340.03)	1,437.08 (5,167.96)	-0.93
Proportion of households owning the house	454	0.87 (0.34)	0.85 (0.36)	0.89 (0.32)	1.07
Experienced a negative income shock	456	0.43 (0.50)	0.43 (0.50)	0.43 (0.50)	-0.09
Total net worth (assets - liabilities)¹	456	7,970.58 (143,736.50)	7,509.05 (156,218.20)	8,432.11 (130,410.20)	0.07
Assets					
Proportion of households with money in a bank	456	0.16 (0.37)	0.17 (0.37)	0.16 (0.37)	-0.25
Total money in bank accounts ¹	456	4,677.41 (31,954.3)	2,602.63 (11,754.23)	6,752.19 (43,587.20)	1.39
Proportion of households with money in a ROSCA	456	0.21 (0.41)	0.21 (0.41)	0.22 (0.41)	0.23
Total money in ROSCA ¹	456	3,727.11 (18,337.60)	2,473.07 (9,106.52)	4,981.14 (24,247.24)	1.46
Proportion of households with money in an MFI	456	0.56 (0.50)	0.58 (0.49)	0.54 (0.50)	-0.85
Total money in MFIs ¹	456	4,852.69 (21,848.14)	5,126.57 (26,992.54)	4,578.81 (15,100.91)	-0.27
Total amount of cash at home ¹	456	2,144.73 (6,010.31)	1,779.30 (2,975.15)	2,510.15 (7,955.32)	1.30
Total amount of given to someone trusted to safekeep ¹	456	1,091.01 (11,098.80)	396.93 (3,871.46)	1,785.09 (15,197.16)	1.34
Non-monetary assets from consumer durables ¹	456	26,827.30 (25,340.84)	26,046.49 (26,144.65)	27,608.11 (24,543.40)	0.66
Non-monetary assets from livestock ¹	456	5,508.67 (13,739.26)	4,878.56 (12,550.13)	6,138.77 (14,834.52)	0.98
Liabilities					
Total amount owed by the household ¹	456	40,858.33 (126,658.50)	35,794.51 (141,396.40)	45,922.15 (110,050)	0.85
Proportion of households with outstanding loans	456	0.91 (0.29)	0.91 (0.29)	0.91 (0.29)	-0.00

Note: Standard deviations reported in parenthesis. ¹Variables expressed in Nepalese rupees (the exchange rate was roughly Rs. 70 to USD 1 during the study period).

Table 2: Effects on Net Worth, Assets, and Amount Borrowed

	Net Worth (Assets - Amount Borrowed)		Total Assets		Total Amount Borrowed	
	(1)	(2)	(3)	(4)	(5)	(6)
ITT: Offered the Savings Account	29,988.4*** (10,887.97)	27,536.39*** (9,971.22)	13,403.17* (7,723.31)	12,702.47** (6,106.43)	-16,585.23 (11,760.09)	-14,833.92 (11,603.17)
Controls	No	Yes	No	Yes	No	Yes
Constant	-5,554.94 (8,044.43)	-46,378.32 (88,467.48)	53,484.15*** (4,692.71)	19,344.21 (43,974.80)	59,039.09*** (6,781.65)	65,722.53 (57,587.97)
Obs.	456	456	456	456	456	456
R ² (overall)	0.010	0.091	0.007	0.172	0.005	0.101

Note: Robust standard errors, clustered at the slum level, reported in parenthesis. Dependent variables expressed in Nepalese rupees (the exchange rate was roughly Rs. 70 to USD 1 during the study period). Controls include age and years of education of the female head of the household, number of children 16 years old or younger living in the household, number of household members, main source of income dummies, slum dummies. The dummies for the main source of household income are: sales of agricultural production, agricultural labor, sales of livestock and poultry, sand and stone collection labor, construction labor, driver, bus fare collector, helper, small shop, garment and wool spinning, jewelry, government job, teacher, pension, rent, remittances, alcohol making, other full time job, other part-time job, other income source. Statistically significant coefficients are indicated as follows: *10%; **5%; ***1%.

Table 3: Effects on the Household Self-Reported Financial Situation

	How would you describe your household's financial situation?		How financially stretched your household is, month to month?		On the whole, I feel secure with the financial situation of my household	
	1 if “live comfortably,” or “meet basic expenses with little left for extras.”		1 if “not very stretched” or “not at all stretched.”		1 if “strongly agree,” or “agree.”	
	0 if “just meet basic expenses,” or “don't even have enough to meet basic expenses.”		0 if “stretched to the absolute limit,” “very stretched,” or “somewhat stretched.”		0 if “feel neutral,” “disagree,” or “strongly disagree.”	
	(1)	(2)	(3)	(4)	(5)	(6)
ITT: Offered the Savings Account	0.092** (0.044)	0.088* (0.034)	0.088** (0.038)	0.073** (0.034)	0.040 (0.042)	0.023 (0.039)
Constant	0.290*** (0.039)	0.691*** (0.235)	0.250*** (0.050)	0.244* (0.143)	0.206*** (0.033)	0.286* (0.155)
Controls	No	Yes	No	Yes	No	Yes
Obs.	456	456	456	456	456	456
R ² (overall)	0.010	0.273	0.009	0.301	0.002	0.188

Note: Robust standard errors, clustered at the slum level, reported in parenthesis. Dependent variables expressed in Nepalese rupees (the exchange rate was roughly Rs. 70 to USD 1 during the study period). Controls include age and years of education of the female head of the household, number of children 16 years old or younger living in the household, number of household members, main source of income dummies, slum dummies. The dummies for the main source of household income are: sales of agricultural production, agricultural labor, sales of livestock and poultry, sand and stone collection labor, construction labor, driver, bus fare collector, helper, small shop, garment and wool spinning, jewelry, government job, teacher, pension, rent, remittances, alcohol making, other full time job, other part-time job, other income source. Statistically significant coefficients are indicated as follows: *10%; **5%; ***1%.

Table 4: Aspirations and Expectations

Panel A									
Aspirations									
	All Children			Sons			Daughters		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ITT: Offered the Savings Account	0.389 (0.339)	0.453 (0.304)	0.374 (0.331)	-0.372 (0.427)	-0.179 (0.403)	-0.384 (0.386)	1.072** (0.448)	1.181*** (0.356)	1.055*** (0.389)
Mother's Education			0.158*** (0.056)			0.159* (0.085)			0.147 (0.090)
Controls	No	Yes	No	No	Yes	No	No	Yes	No
Constant	14.656*** (0.245)	16.564*** (2.078)	14.542*** (0.561)	15.306*** (0.302)	14.431*** (2.875)	15.173*** (0.590)	14.073*** (0.333)	17.670*** (1.698)	13.972*** (0.906)
Obs.	664	664	664	314	314	314	350	350	350
R ² (overall)	0.003	0.260	0.013	0.003	0.291	0.015	0.021	0.347	0.029
Panel B									
Expectations									
	All Children			Sons			Daughters		
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
ITT: Offered the Savings Account	0.150 (0.325)	0.093 (0.271)	0.121 (0.285)	-0.614 (0.434)	-0.520 (0.400)	-0.644 (0.368)	0.828** (0.412)	0.663** (0.313)	0.783** (0.367)
Mother's Education			0.238*** (0.072)			0.232** (0.115)			0.235*** (0.070)
Controls	No	Yes	No	No	Yes	No	No	Yes	No
Constant	13.489*** (0.242)	14.760*** (1.618)	13.472*** (0.528)	14.216*** (0.321)	16.472*** (2.743)	14.353*** (0.614)	12.844*** (0.306)	12.610*** (1.391)	12.648*** (0.721)
Obs.	667	667	667	314	314	314	353	353	353
R ² (overall)	0.001	0.179	0.027	0.008	0.256	0.036	0.015	0.243	0.038

Note: Robust standard errors, clustered at the slum level, reported in parenthesis. Dependent variables expressed in Nepalese rupees (the exchange rate was roughly Rs. 70 to USD 1 during the study period). Controls include age and years of education of the female head of the household, number of children 16 years old or younger living in the household, number of household members, main source of income dummies, slum dummies. The dummies for the main source of household income are: sales of agricultural production, agricultural labor, sales of livestock and poultry, sand and stone collection labor, construction labor, driver, bus fare collector, helper, small shop, garment and wool spinning, jewelry, government job, teacher, pension, rent, remittances, alcohol making, other full time job, other part-time job, other income source. Statistically significant coefficients are indicated as follows: *10%; **5%; ***1%.

Table 5: Gender Gap in Aspirations and Expectations

	Gender Gap in Aspirations		Gender Gap in Expectations	
	(1)	(2)	(3)	(4)
ITT: Offered the Savings Account	-0.372 (0.427)	-0.253 (0.357)	-0.614 (0.434)	-0.571 (0.390)
Female	-1.233*** (0.419)	-1.130** (0.463)	-1.372*** (0.411)	-1.282** (0.511)
ITT*Female	1.444*** (0.563)	1.335*** (0.391)	1.442*** (0.551)	1.246** (0.507)
Controls	No	Yes	No	Yes
Constant	15.306*** (0.302)	16.966*** (1.993)	14.216*** (0.321)	15.125*** (1.543)
Obs.	664	664	667	667
R ² (overall)	0.017	0.271	0.019	0.194

Note: Robust standard errors, clustered at the slum level, reported in parenthesis. Dependent variables expressed in Nepalese rupees (the exchange rate was roughly Rs. 70 to USD 1 during the study period). Controls include age and years of education of the female head of the household, number of children 16 years old or younger living in the household, number of household members, main source of income dummies, slum dummies. The dummies for the main source of household income are: sales of agricultural production, agricultural labor, sales of livestock and poultry, sand and stone collection labor, construction labor, driver, bus fare collector, helper, small shop, garment and wool spinning, jewelry, government job, teacher, pension, rent, remittances, alcohol making, other full time job, other part-time job, other income source. Statistically significant coefficients are indicated as follows: *10%; **5%; ***1%.

Appendix Table 1: Account Usage

	Obs.	Mean	Std. Dev.	Median	Min	Max
Take-up rate	228	0.85	0.36	-	0	1
Proportion actively using the account ¹	228	0.80	0.23	-	0	1
Weeks savings product has been in operation (by slum)	19	53.44	2.11	54	52	55
Total number of transactions made	182	46.24	28.91	44.00	2.00	105.00
Total number of deposits made	182	43.21	27.21	41.00	2.00	98.00
Number of deposits per week	182	0.81	0.51	0.77	0.04	1.81
Weekly amount deposited	182	136.40	219.78	62.90	0.83	1,649.44
Average size of deposits per week	182	301.38	522.48	126.20	14.38	3,678.57
% of times deposits made in the 1 st open day of the week	182	0.46	0.30	0.45	0.00	1.00
Amount deposited in the 1 st open day of the week	182	75.42	124.12	36.59	0.00	969.69
% of times deposits made in the 2 nd open day of the week	182	0.45	0.29	0.43	0.00	1.00
Amount deposited in the 2 nd open day of the week	182	78.59	134.26	31.84	0.00	924.46
Total number of withdrawals made	182	3.03	2.88	2.00	0.00	15.00
Average amount withdrawn	150	2,094.66	4,349.60	1,000.00	188.00	35,000.00
Total amount withdrawn	182	5,251.15	9,609.04	2,000.00	0.00	70,000.00
Average Balance After 55 Weeks	182	2,482.69	5,502.39	609.90	7.86	41,683.96

Source: Bank administrative data. ¹Made at least two deposits within the first year of being offered the account.