

Financial Education and Financial Access for Transnational Households: Field Experimental Evidence from the Philippines

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I. Introduction

In 2015, international migrants numbered 244 million worldwide, 190 million of which were born in middle- and low-income countries (United Nations 2015, 2016). The remittances that these migrants send to origin countries are an important but relatively poorly understood type of international financial flow. In 2015, migrant remittances sent to developing countries amounted to US\$432 billion, roughly three times official development aid (World Bank 2015). However, we are still learning what development policies might increase the development impact of remittances (McKenzie and Yang 2015). While migrant remittance flows are large in magnitude, they amount to only a minority of the total developed-country earnings of migrant workers from developing countries (Clemens 2011; Yang 2011; Clemens, Montenegro, and Pritchett 2019). The prospect that migrants might be encouraged to send even more remittances and that these remittances might be better leveraged for the economic development of migrant origin countries has led to substantial interest among academic and policy circles in development policies related to migrant remittances (e.g., World Bank 2006; Fajnzylber and Lopez 2007).

Recent research in the economics of migration has documented several beneficial impacts of remittance flows on household well-being and investments. Households in the Philippines experiencing exogenous increases in remittances

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become more likely to leave poverty status, send their children to school, and invest in entrepreneurial enterprises (Yang and Martinez 2005; Yang 2006, 2008b). In El Salvador, households receiving more remittances have higher rates of child schooling (Edwards and Ureta 2003). In Mexico, households with migrants invest more in small businesses than households without migrants (Woodruff and Zenteno 2007). In addition, remittances appear to serve as insurance, rising in the wake of negative shocks (Yang and Choi 2007; Yang 2008a). However, formal instruments of remitting and receiving money are costly and involve complex paperwork and administrative difficulties. In addition, the lack of financial knowledge among migrants and their families can create barriers to poverty reduction and household well-being.

In this paper, we seek to shed light on the potential interaction between two types of interventions that are commonly carried out with transnational households by governments and nongovernmental organizations (NGOs). The first type of intervention is financial education for transnational household members. Theoretically, this is motivated by market failures caused by imperfect information: households may have incomplete knowledge about financial services availability; how to use financial services; or financial planning, budgeting, and financial decision-making more generally. Empirically, financial education has been shown to be associated with the quality of financial decision-making in both observational and randomized experimental studies in developed-country contexts.¹ Randomized studies of the impact of financial education interventions have been carried out in developing-country populations, and several find impacts on the business practices of microentrepreneurs, while impacts on household and individual decision-making are typically more muted.² Recent studies have examined impacts on transnational households. Gibson, McKenzie, and Zia (2014) found limited impacts of migrant financial education training aimed at improving remittance decision-making. Doi, McKenzie, and Zia (2014) examined the impact of predeparture financial education training in Indonesia, finding that training has positive impacts on financial practices and on savings when migrants and family members are trained together. Seshan and Yang (2014)

¹ See, among others, Bernheim, Garrett, and Maki (2001); Bernheim and Garrett (2003); Duflo and Saez (2003); Lusardi (2004); Lusardi and Mitchell (2007a, 2007b); van Rooij, Lusardi, and Alessie (2007); Lusardi and Tufano (2009); Stango and Zinman (2009); Bertrand and Morse (2011); and Cole, Paulson, and Shastry (2014).

² Bjorvatn and Tungodden (2010); Field, Jayachandran, and Pande (2010); Karlan and Valdivia (2011); Drexler, Fischer, and Schoar (2014); and Berge, Bjorvatn, and Tungodden (2015) examine impacts of financial education training on microentrepreneurs, while studies of impacts on individuals include Cole, Sampson, and Zia (2011) and Carpena et al. (2019). Also see review articles by World Bank (2009), Miller et al. (2015), and Kaiser and Menkhoff (2016).

find that a motivational financial seminar provided to migrant Indian workers in Qatar has positive impacts on transnational households that have low pretreatment savings levels, raising savings and remittances and leading to increases in joint decision-making between migrant husbands and wives left behind in India.

The second type of intervention involves improving financial access. Motivated by concerns about incompleteness or failures in financial services markets, a number of studies in a wide range of developing countries have examined the impacts of providing or facilitating access to financial services, such as credit (e.g., Karlan and Zinman 2011; Banerjee et al. 2015), savings (e.g., Dupas and Robinson 2013a, 2013b; Brune et al. 2016; Carter et al., forthcoming), and insurance (Karlan et al. 2014; Cole, Gine, and Vickery 2017; Elabed and Carter 2018). There has also been recent work examining the impact of providing new types of financial services targeted at transnational households, for which financial remittance services are additionally relevant. Ashraf et al. (2015) find in a randomized study among migrants from El Salvador that improving monitoring and control over savings (by providing new types of savings accounts that allow migrant joint or sole ownership) leads to higher savings in the home country. Ambler et al. (2015) and De Arcangelis et al. (2015) examine, among El Salvador and Philippine transnational households, respectively, the impact of novel remittance products that channel funds toward education in the home country. Jack and Suri (2014) and Blumenstock (2016) find that internal remittances via mobile (cell phone) money systems contribute to risk sharing within Kenya and Rwanda, respectively.

Our contribution is to examine the impact of financial education and financial access interventions simultaneously in the same study. We implemented a randomized controlled trial among transnational households in the Philippines, specifically targeting members of the household who remain in the home country. We considered households in and around Cabanatuan City (in central Luzon) with one or more members working overseas. Households were randomly assigned to a control group, a financial education treatment, a financial access treatment, or a treatment that combined financial education and financial access. The financial education treatment involved an invitation to a 1-day workshop that covered topics such as financial goal setting, budgeting and planning, savings, credit, insurance, and small-enterprise investment.³ The financial access treatment involved offering formal credit (group microloans), savings, and insurance products in partnership with local financial institutions.

We are most interested in shedding light on how the impact of offering both financial education and financial access differs from the sum of impacts when

³ Appendix A (apps. A and B are available online) provides more information regarding the treatments offered.

simply offering one or the other (in other words, on whether the two are complementary or substitutes for each other.) The two types of interventions may be complementary, leading to higher impacts than the sum of the two offered separately. Financial education, by improving knowledge about financial services and suggesting strategies and planning approaches, could lead to higher demand for (take-up of) financial services. Offers of financial services could also lead to higher demand for financial education if individuals realize that financial education could help them make better use of the offered services. However, it is also possible that the two could be substitutes, so that the impact of offering both is less than the sum of the impacts of offering each separately. Theoretically, this could arise if, for example, financial education teaches households how to achieve their objectives by using the financial services they already have or by using informal means that do not require new demand for formal financial services. In this case, financial education could dampen demand for financial services, leading a concurrently offered financial access intervention to have less impact than if the financial access intervention had been offered alone.

To our knowledge, only one other study has explored the independent and combined effects of these two interventions. Jamison et al. (2014) randomized financial education and access, in the form of group savings accounts, among 250 Ugandan youth clubs and do not find any evidence of complementarities between the two types of interventions. Our study would be the first to see the combined effect of these interventions among transnational households. Moreover, no other study has evaluated the effect of financial education and financial access given to migrant families after the migrants have departed overseas. Our study would also be the first to simultaneously offer access to formal credit (group microloans), savings, and insurance products. This innovation allows us to estimate whether the two types of interventions are complementary or substitutes and whether this differs by type of financial product offered.

Our population of interest, transnational households, and the financial sector intervention are policy relevant for at least three reasons. First, transnational households are characterized by information asymmetries arising from the geographical distance separating family members. For example, Seshan and Yang (2014) find among Indian migrants in Qatar that migrants underestimate how much their wives are saving back home. For the same migrant population, Seshan and Zubrickas (2017) show that the underreporting of husbands' income abroad by wives is correlated with lower remittances. De Laat (2014) shows that male Kenyan migrants spend significant resources to monitor their rural wives, consistent with the existence of moral hazard. Chen (2013) finds that non-cooperation by wives when husbands in China have migrated is greater for

behaviors that are more difficult to monitor. Barua, Shastry, and Yang (forthcoming) find evidence of information asymmetries among female migrant domestic workers in Singapore and their families back in the Philippines. Moreover, they find that a financial literacy workshop urges women to seek more information on how their remittances are spent or saved, suggesting that promoting financial education may reduce information asymmetries. Second, international organizations and developing-country governments are interested in identifying policies that can enhance the development impacts of international migration and remittances (Hall 2010). Several migration policies have been recommended across different sectors, including the financial, employment, human rights, and social sectors. These policies can also be implemented across different stages of the migration process (i.e., predeparture, during the migrant's stay abroad, and upon return to the home country). However, there is limited empirical evidence that can help guide policy (McKenzie and Yang 2015). In this paper, we focus on a particular intervention in the financial sector that is implemented after the migrant's departure. Third, transnational households often prefer informal methods of remitting and receiving money. This could be driven by factors such as risks of exchange rate fluctuations, lack of financial knowledge, and/or lack of access to banking facilities in the remittance-receiving country. Furthermore, migrant families end up relying on remittances in times of financial need, as the migrant becomes a substitute for bank credit (Ambrosius 2013). Thus, providing financial education and exposure to the formal financial sector may be a policy-relevant way to encourage transnational households to use formal methods of saving, borrowing, and investing and to leverage remittance funds into larger amounts via credit, as well as encouraging financial deepening (Demirguc-Kunt et al. 2011).

We find no evidence of either complementarity or substitutability of our interventions. Take-up of the financial products we offered was not affected by whether study participants received the financial education treatment. And the reverse is also true: take-up of the financial education treatment was not affected by whether we made financial product offers to the study participants. This result, suggesting that there might not be substantial interaction between financial education and financial access interventions, provides guidance to organizations designing financial interventions in similar populations. Although our findings may be specific to the features of the interventions and products we offered, decisions regarding whether to provide financial education and access interventions can consider the costs and benefits of these interventions singly, without having to consider potential interactions between them in circumstances where they might be implemented simultaneously.

Other patterns in our results are suggestive of the underlying constraints households face. We find little evidence of constraints in access to certain financial services, in particular, formal credit and savings. When we offered these products to study participants, take-up was zero or very low. In addition, treatments involving financial education led to changes—and, in some cases, reductions—in usage of credit and savings products that were not related to our product offers. Both of these findings are inconsistent with binding constraints on access to these types of financial services. However, we do find substantial take-up of the formal insurance product that we offered to study participants. This finding suggests that households do face constraints on access to formal insurance.

The impact of financial education on financial decision-making also points to *prima facie* evidence of the importance of information constraints. In response to the financial education treatment (whether alone or in combination with financial access), study participants appeared to change their borrowing decisions: they borrowed lower amounts on average and (conditional on borrowing) shifted their borrowing from sources of credit that are informal (family and friends) to formal ones (e.g., banks and microfinance institutions).

That said, we examine the impact of financial education and access interventions, separately and together, on broader measures of well-being, such as consumption, mental health, and self-reported life satisfaction. We also estimate aggregate impacts on financial decision-making, savings goals, remittances, and a variety of other outcomes. Outcome variables come from a follow-up survey that we implemented. We find little evidence of the impact of treatments (either separately or together) on these measures of broader household well-being. While effects on individual variables are sometimes statistically significantly different from zero, we examine a large number of outcome variables, and when we make corrections for multiple inference, we cannot reject the hypothesis of no effect on broader measures of household well-being.

The remainder of this paper is structured as follows: Section II presents the experimental design. Summary statistics are described in Section III, and we present the empirical analysis in Section IV. Section V concludes.

II. Experimental Design

A. Partners and Study Sample

The project was a collaboration between a number of institutions that were brought together by us. Alalay sa Kaunlaran (ASKI) is a large and well-known microfinance institution based in Cabanatuan City. The institution has a good reputation for delivering quality service: since 2005, the organization has received yearly recognition for its work related to microfinance and training

programs.⁴ The Overseas Workers Welfare Association (OWWA) is the lead government agency tasked with promoting the well-being of overseas Filipino workers (OFWs). The Bank of the Philippine Islands (BPI) is the oldest, second-largest, and most profitable bank in the country. OWWA was instrumental in endorsing the study and providing links to some study participants. The savings accounts offered were from BPI. ASKI delivered the financial literacy training and offered microloan and microinsurance services to study participants. Both ASKI and BPI provided administrative data on take-up of financial products by study participants. Innovations for Poverty Action conducted the fieldwork, which involved offering assigned treatments and collecting survey and administrative data.

The study sample consists of 1,808 transnational households residing in Cabanatuan City and surrounding localities. Transnational households were defined as those with at least one household member who had gone abroad in the past 3 years. OWWA provided the contact details of households with OFWs in our study location from its database of workers who had attended a predeparture orientation seminar.⁵ Because a portion of these contact details was unusable, our survey team simultaneously conducted a door-to-door campaign in Cabanatuan and surrounding areas to locate other migrant households and ask them to participate in our study if they fit our criteria. Fieldwork progressed from areas closest to the ASKI headquarters in Cabanatuan City to surrounding localities: Santa Rosa, Talavera, and Palayan City. Figure 1 displays a map of the study area. Although we were unable to record refusals at this stage of sampling, OWWA provided a letter endorsing participation in the study, which should have minimized bias due to selective nonparticipation. These activities were carried out until the target number of 1,800 households was achieved. Figure 2 provides a brief time line of activities.

B. Baseline Survey and Allocation of Treatment

We began by administering a baseline survey to consenting migrant households between September 2014 and April 2015. We interviewed the person considered to be the household head among remaining household members.

⁴ Among the organization's citations are awards from the Association of Development Financing Institutions in Asia and the Pacific, the Technical Education and Skills Development Authority of the government, and the European Organization for Sustainable Development. For a full list, see <http://aski.com.ph/about?page=awards>.

⁵ The predeparture orientation seminar is a mandatory 1-day event conducted for all departing OFWs to prepare them for life abroad. It teaches basic things such as how to board a plane and how to conduct oneself while in a foreign country. The predeparture orientation seminar is typically administered by the Philippine government through OWWA, but accredited recruitment agencies may also administer it, so not all departing workers go through OWWA.

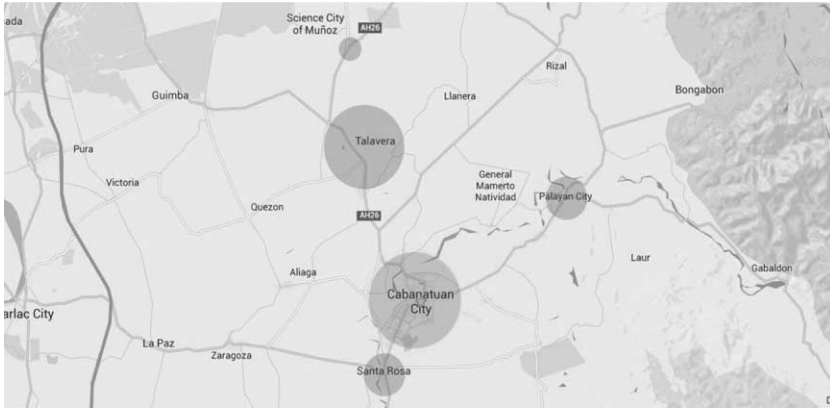


Figure 1. Map of Cabanatuan City and the surrounding localities.

The survey took approximately 45 minutes and covered information about household members, including education level, household income, expenditures, savings, remittances, and work abroad of OFW members of the family. Survey data were collected electronically via tablet devices.

Random treatment assignment was conducted via tablet computers. At the end of each survey, the survey program automatically generated a random number, which determined assignment to treatment for each household.

There were four treatment and control groups. We present the four groups in table 1. First, households were randomized into either a group that receives financial education treatment or a group that receives no financial education. Then households were independently cross-randomized into a group offered access to formal credit and savings products or a group not offered access. This

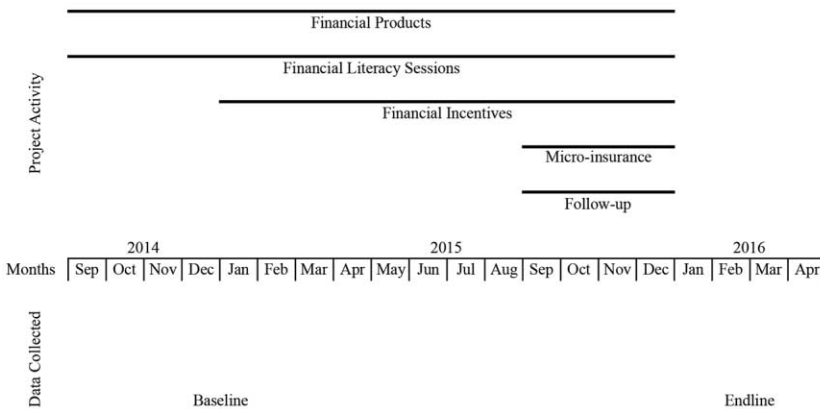


Figure 2. Project time line.

TABLE 1
TREATMENT AND CONTROL GROUPS

Group	Description
Control (N = 434)	Not made offers of financial education or products
T1: financial education only (N = 517)	Invited to attend one-time, 6–8-hour financial education workshop
T2: financial products only (N = 369)	Given access to ASKI microloans, ASKI microinsurance (life or accident), and BPI savings account
T3: combined financial education and financial product access (N = 488)	Given combined access to both financial education workshop and full set of financial products

Note. T1–T3 refer to treatments 1–3, respectively. ASKI = Alalay sa Kaunlaran; BPI = Bank of the Philippine Islands.

generated four groups with approximately 450 households each. The offer to attend a financial education program and to avail of financial products constitutes an encouragement design, since in practice, we could not require households to use these services.

Below, we describe each of the treatment and control groups in detail.

Control group. No offer of financial education program and/or financial services was made to this group.

Treatment 1: invitation to attend a financial education program. The household head was invited to attend a short workshop on financial education at ASKI's training center. OWWA provided a letter endorsing participation in the program. The workshop covered topics ranging from financial planning, budgeting, and savings to investment in an enterprise, insurance, and credit management (app. A contains a full list of topics discussed in the financial education workshop). It was not, however, intended to promote any specific product, including products offered in the financial access treatment. The program was designed by ASKI's Skills and Knowledge Institute, one of the organization's business units. The institute offers government-accredited courses on microfinance management, microinsurance, and financial management. Skilled facilitators from the institute conducted our financial education sessions. The facilitators were highly trained and had an average of more than 15 years of experience in financial management. The sessions were free and scheduled on Saturdays. They lasted 6–8 hours and were completed in a day. To facilitate take-up, the household head was allowed to bring a companion. Figure 3 provides some snapshots of these sessions.

Treatment 2: access to savings account and microloan products. This treatment group was provided only access to financial services and not financial literacy training. In particular, enumerators invited respondents to open a BPI savings and remittance account; they specified requirements and indicated nearby branch offices and BPI representatives from whom they could obtain assistance.



Figure 3. Financial education sessions.

The BPI savings account is an established BPI product offered nationwide. One of its appealing features is that it allows clients to receive remittances from any of its 800 branches and 2,500 outlets of partner institutions nationwide. In addition, migrant families were also invited to avail of ASKI's microloan products for small-enterprise development, the same product that is offered to general clients but tailored to migrant households. The loans could be anywhere from P 3,000

to P 300,000 (approximately US\$660–\$6,600) with a term of 2–24 months.⁶ Our enumerators provided a letter on how respondents could avail of such products and supplied contact information for loan officers from ASKI for more details. At a later stage, we also invited this treatment group to avail of ASKI's life and accident microinsurance products, which were new offerings by ASKI at that time. We explain in the next section the reason for adding this product during the course of the experiment.

Treatment 3: invitation to a financial education program and access to financial products. This treatment group was invited to attend both a financial education workshop and given access to financial services offered by ASKI and BPI, as in households in treatment groups 1 and 2.

Again, we note that these interventions were targeted not toward the migrants but toward their household members remaining in the Philippines. In principle, the results of these interventions could differ if one or both of the interventions had been offered to the migrants themselves. Appendix A displays the written invitations and marketing materials we supplied to each treatment group.

C. Financial Incentives, Microinsurance, and Follow-Up

The biggest challenge to the project was the low take-up of our offered treatments. We began field activities in September 2014. Four months into the project, only 36 households had participated in our financial education sessions out of the 487 invited. In the same period, only four individuals had availed of the BPI savings account following our invitations, while only one person had obtained an ASKI microloan out of 438 respondents invited. We thus decided to more aggressively market our treatments.

Starting in January 2015, we provided financial incentives to encourage households to take up the treatments. The incentives were presented as compensating for time and transportation costs. We offered household heads in treatment group 1 (financial education) P 500 (approximately US\$11) to attend the financial education session.⁷ For context, this amount is almost equivalent to the daily average wage for a nonagricultural worker in central Luzon, which was P 556 in 2014.⁸ For treatment group 2 (financial access), we provided P 100 (approximately US\$2) per respondent to avail of the microloan or bank account. Treatment group 3 (both financial education and access)

⁶ On average, in 2015, US\$1 was equal to P 45.45.

⁷ We initially set the incentive at P 250 for treatment group 1 but changed it to P 500 a few weeks after implementation after initial responses remained lukewarm.

⁸ Data on wages are provided by the Philippine Statistics Authority's (2014) Occupational Wages Survey. Data are available at <http://psa.gov.ph/occupational-wages-survey/statistical-tables/2014>.

respondents were provided both P 500 and P 100 incentives if they availed of both the financial education seminar and any of the financial products. These incentives applied to all households that had yet to be interviewed at that time and to respondents who had not taken up our offers.

Starting in September 2015, we also offered a new product in the form of microinsurance from ASKI to treatment groups 2 and 3, given that take-up rates for the financial products continued to be low. ASKI microinsurance consisted of either life or accident insurance. These products covered losses caused by accidental death or bodily injury due to an accident occurring in any country in the world. Appendix A provides product details.

We revisited households in the financial education and product treatment groups between September and December 2015 to inform them of the incentives and the new products in addition to encouraging them to take up the original products and services we offered if they still had not done so. For those in treatment groups 2 and 3 who still had not taken up any of our offered products at that point, we also conducted a short follow-up survey to get reasons for lack of interest. The revisits and incentives were relatively effective, as evidenced by positive and nontrivial take-up rates (presented below in table 4).

III. Summary Statistics

We provide descriptive statistics for our study sample in table 2. The average age of the household head is 42, with only one-third of the household heads being males. On average, migrant members of the household have been abroad for 4 years. A total of 42% of the sample report being satisfied with their savings at baseline. Although average education levels are quite high (approximately 16 years of education), financial literacy scores at baseline are low. We calculate the financial literacy score as the fraction of household heads who answer two financial literacy questions correctly during our survey.⁹ Only 20% of the sample answer both financial literacy questions correctly, suggesting a possible benefit of financial education. The rest of the table presents summary statistics for our main set of outcome variables on financial behavior.

Because our sampling approach was not designed to generate a representative sample of migrant households in central Luzon, we also present our summary

⁹ The first question was relatively simple and asked household heads to compute the simple interest they would earn from a bank account deposit after 1 month, while the second question was relatively sophisticated and asked household heads to compute compound interest from a deposit and to select the correct answer from five choices. The exact questions are presented in table B1. Although far from exhaustive, the questions were designed to capture different levels of financial literacy. The endline survey repeated these questions.

TABLE 2
SUMMARY STATISTICS OF KEY BASELINE AND OUTCOME VARIABLES

	Study Sample			Labor Force Survey 2015	
	Mean	Standard Deviation	Count	Mean	Standard Deviation
A. Baseline Variables					
Gender of household head (1 = male)	.259	.438	1,808	.501	.501
Age of household head	42.35	12.91	1,808	48.79	13.55
Years of education completed	15.63	2.850	1,808	15.67	3.921
Financial literacy (percentage answering two questions correctly)	.206	.404	1,808		
Percentage answering Q1 correctly	.529	.499	1,808		
Percentage answering Q2 correctly	.371	.483	1,808		
Household size	5.768	2.163	1,808	5.350	2.112
Migrant duration abroad (years)	3.936	5.243	1,808		
Log household income (monthly)	5.745	4.398	1,808		
Log remittances received in past 12 months	10.34	3.295	1,808		
Log household expenses in past 12 months	9.116	.985	1,808		
Asset index	0	1	1,808		
Log household savings	1.547	3.48	1,808		
Satisfaction with savings (dummy = 1 if satisfied)	.424	.494	1,808		
Log of borrowing amount outstanding	3.069	4.399	1,808		
Log of loan amounts to others outstanding	1.920	3.739	1,808		
B. Key Outcome Variables					
Borrowing:					
Household head borrowed from somewhere in past 3 months	.309	.462	1,553		
Total amount borrowed in past 3 months (P)	4,457	16,627	1,503		
Log of amount borrowed in past 3 months	2.542	4.074	1,503		
Borrowed from a formal source in past 3 months	.373	.484	480		
Borrowed from an informal source in past 3 months	.533	.499	480		
Borrowed from other sources in past 3 months	.098	.298	480		
Saving:					
Total number of bank accounts	.426	.785	1,386		
Total savings in past 3 months (P)	3,434	27,074	1,248		
Log total savings in past 3 months	1.624	3.328	1,248		

Note. Formal sources of credit include banks, microfinance lenders, and private lenders, while informal sources include immediate and extended family, friends, and neighbors. The respondent noted when credit did not come from any of these sources (other). Monetary amounts are quoted in Philippine pesos. In 2015, US\$1 was equivalent to P 45.45, on average. Financial literacy is measured as the fraction of household heads who answer two questions on financial literacy correctly. The first question (Q1) asked household heads to compute the simple interest they would earn from a bank account deposit after 1 month, while the second question (Q2) asked household heads to compute compound interest from a deposit and to select the correct answer from five choices. In table B1, we provide a more detailed description of these baseline variables.

statistics in table 2 alongside similar variables gathered by another survey, the 2015 Labor Force Survey (LFS), to gauge how the study sample compares with typical migrant households in the region. Although we can compare only a few variables on household characteristics that were collected in both surveys, the

LFS is nationally representative and identifies households with OFWs. We find that household heads in our study sample are more likely to be female than household heads of typical migrant households in central Luzon. They are also more likely to be younger, but this could be because we targeted households that had sent a member abroad within the past 3 years, whereas the LFS identifies migrant households in general, including those with members who have spent years abroad. With respect to education of the household head and household size, our sample is similar to the typical migrant household in central Luzon.

IV. Empirical Results

A. Test for Balance of Baseline Characteristics and Attrition

We first test for balance along baseline characteristics between control and treatment groups. Randomization achieves its goal of balance in terms of these pretreatment variables if the number of statistically different means between groups is not more than what is expected by chance.

We regress baseline characteristics on each of the treatment indicator variables in table 3. None of the baseline characteristics are statistically predicted by treatment group assignment, which is as expected, except for gender. Respondents from treatment groups 1 and 3 are more likely to be female than those in the control group, although we have no reason to believe this is due to anything but chance. In the proceeding analysis, we correct for this apparent imbalance by controlling for gender and other baseline characteristics.

We next test for balance of attrition at endline. Overall attrition is relatively low; the endline survey success rate was 86%. To check whether attrition varied by treatment status, we regress a survey completion indicator on each of the treatment indicator variables. The results are shown in table B2 (tables B1–B4 are available online). The sample appears balanced in terms of attrition; attrition is not predicted by treatment assignment.

We proceed with two types of analyses that are of interest: (1) an analysis of the relative effects of our two interventions on behaviors related to credit, savings, and insurance utilization and (2) estimation of the impact of treatments on individual outcomes, such as income, remittances, educational expenditures, housing investments, and the like.

B. Effects of Financial Education and Financial Access on Credit, Savings, and Insurance

The treatments investigated in this study are all related to financial decision-making, so our primary outcomes of interest are related to take-up and usage

TABLE 3
BALANCE ON BASELINE CHARACTERISTICS

	Gender	Age	Education	Financial Literacy	Household Size	Migration Duration	Household Income
T1	-.085*** (.029)	.038 (.855)	.212 (.189)	.009 (.026)	-.158 (.140)	.183 (.350)	-.422 (.284)
T2	-.042 (.032)	.356 (.931)	.248 (.203)	.005 (.028)	.012 (.155)	.224 (.367)	-.027 (.307)
T3	-.088*** (.029)	.808 (.851)	-.095 (.188)	.023 (.027)	-.103 (.141)	-.281 (.340)	-.390 (.290)
Control group mean	.316	42.053	15.546	.196	5.839	3.914	5.977
N	1,808	1,808	1,808	1,808	1,808	1,808	1,808
R ²	.007	.001	.003	.000	.001	.001	.002
F-statistic	3.972	.416	1.556	.284	.647	.932	1.211
Probability > F	.001	.741	.198	.837	.585	.424	.304

	Remittances	Expenses	Assets	Savings	Satisfaction with Savings	Borrowing	Lending
T1	-.263 (.212)	.054 (.065)	.038 (.067)	-.041 (.220)	.009 (.032)	.264 (.285)	.161 (.241)
T2	-.206 (.226)	.015 (.076)	.077 (.072)	.028 (.243)	.018 (.035)	.132 (.309)	-.093 (.259)
T3	-.191 (.211)	.037 (.070)	.010 (.068)	.344 (.235)	-.033 (.032)	.178 (.287)	.345 (.248)
Control group mean	10.507	9.088	-.029	1.461	.426	2.919	1.799
N	1,808	1,808	1,808	1,808	1,808	1,808	1,808
R ²	.001	.000	.001	.002	.002	.000	.002
F-statistic	.582	.275	.482	1.152	.933	.298	1.147
Probability > F	.627	.843	.695	.327	.424	.827	.329

Note. Values are regression results of baseline characteristics on treatment indicator variables. Each column is a separate regression. Robust standard errors are in parentheses. See table B1 for more information on baseline characteristics. T1–T3 refer to treatments 1–3, respectively.
*** $p < .01$.

of financial products and take-up of financial education. We first examine impacts of the treatments on take-up of the financial education and financial products we offered (all of which are measured in our administrative data). We then turn to examining self-reported financial behaviors from our follow-up survey.

To measure impacts of our various treatments, we estimate the following regression equation:

$$Y_{it} = a + b_1\text{Treat}_{1it} + b_2\text{Treat}_{2it} + b_3\text{Treat}_{3it} + b_4X_{it-1} + e_{it}. \quad (1)$$

The dependent variable is some financial behavior in the posttreatment period (y). Here, Treat_{1it} , Treat_{2it} , and Treat_{3it} are dummy variables indicating assignment to treatments 1 (financial education), 2 (financial access), and 3 (financial

education and access), respectively. The term e_{it} is a mean zero error term. The coefficients b_1 and b_2 provide the impact of the financial education program and financial services access, respectively, on take-up, while the coefficient b_3 measures the impact of providing both financial education and services simultaneously to the household. The term X_{it-1} is the vector of baseline/pretreatment ($t - 1$) characteristics.

1. Take-Up of Interventions

We first examine take-up of the offered interventions (either financial education or financial products). Regression results from estimation of equation (1) are in table 4. Dependent variables are indicators for take-up of financial education or the different financial products. In the latter case, we examine an indicator for taking up any of the financial products (the row “Take-up of financial services”), as well as for take-up of each type of financial service (savings, credit, and insurance) separately. We use administrative data from our partner institutions to measure take-up.

There is positive take-up of financial education: treatments 1 (financial education) and 3 (both education and access) both lead to substantial increases in attendance of the ASKI financial education sessions, amounting to roughly 39–41 percentage points. These impacts are relative to a take-up rate in the control group of 3.7%.¹⁰ In addition, participants appeared satisfied with the training. At endline, we asked participants about the topics in our financial education sessions that were useful to them. A total of 72% named one or several topics. A majority agreed that the modules on budgeting and planning as well as those on savings were most useful.

Examining take-up of financial services helps reveal whether our interventions helped remove or loosen any constraints on financial access. As background, rates of financial services usage are relevant. Nontrivial fractions of households do use financial services in general, but usage is far from universal. In the baseline survey, 52% of households in the sample have formal bank accounts, and 9% have a bank account with BPI. A total of 31% have some form of formal credit (from banks, microfinance lenders, or private lenders), and 29% have some form of informal credit (from immediate and extended family, friends, and neighbors). A total of 58% have some form of credit (formal, informal, or a combination). These access rates are relatively high compared with financial inclusion indicators nationally. A national survey by the

¹⁰ There is some take-up in the control group because household heads were allowed to bring a companion to the financial education seminar; in some cases, the companion was a household head from the control group.

TABLE 4
DETERMINANTS OF FINANCIAL SERVICE TAKE-UP IN POSTTREATMENT PERIOD
ACROSS TREATMENT GROUPS (ADMINISTRATIVE DATA)

	T1	T2	T3	Mean in Control Group	N	R ²	Joint Tests of Treatment Groups on Outcomes			
							(1)	(2)	(3)	(4)
Take-up of financial education	.414*** (.024)	-.009 (.013)	.389*** (.024)	.037	1,808	.227	0	.431	0	.647
Take-up of financial services	.010 (.006)	.256*** (.023)	.288*** (.021)	0	1,808	.177	0	0	.302	.485
Take-up of BPI savings product	-.001 (.001)	.011* (.005)	.010** (.004)	0	1,808	.019	.040	.023	.885	.984
Take-up of ASKI credit product	.004 (.003)	.003 (.003)	.002 (.002)	0	1,808	.015	.755	.606	.876	.319
Take-up of ASKI insurance product	.007 (.005)	.251*** (.023)	.280*** (.020)	0	1,808	.177	0	0	.348	.474

Source. Administrative data from partner institutions.

Note. Each row is a separate regression. All regressions include baseline control variables. Regressions also include indicators for missing baseline covariates. Observations with a missing baseline covariate are set to 0 for that variable. See table B1 for further details on baseline control variables. T1–T3 refer to treatments 1–3, respectively. ASKI = Alalay sa Kaunlaran; BPI = Bank of the Philippine Islands.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

Central Bank of the Philippines (BSP 2015) finds that 32.7% of Filipino adults have bank accounts, and 47.1% have access to formal and informal sources of credit.

Take-up of the savings and credit products that we offered study participants was very low. Only nine individuals ended up opening BPI savings accounts, and only two took up the ASKI credit product. Regression coefficients in the credit regression are all very small in magnitude and not statistically significantly different from zero. For the savings regressions, the coefficients actually are statistically significantly different from zero for treatments 2 (financial access) and 3 (both interventions), but the magnitudes are very small at only about 1 percentage point in both cases.¹¹ The low demand for savings and credit that we observed suggests that constraints on access to these financial services are not binding for our study households or at least were not loosened by our interventions.¹²

In contrast, there was substantial take-up of the insurance product we offered as part of the financial access treatment. Impacts of treatments 2 (financial access) and 3 (both interventions) amount to 25.1 and 28.0 percentage points, respectively, and are statistically significant at the 1% level. (These impacts are relative to a take-up rate in the control group of zero.) We conclude from this result that our intervention loosened constraints on access in the insurance market.

One reason constraints to microinsurance, as opposed to credit and savings products, may bind is because it is still a relatively uncommon and novel product. Although we cannot provide baseline access rates to insurance for our study sample,¹³ the Central Bank's national survey on financial inclusion (BSP 2015) shows that access to nonhealth insurance is quite low for Filipino adults: only 3.2% of Filipino adults have microinsurance, 13.9% have life insurance, and 11.6% have accident insurance. It was also only at the time of our study that ASKI started offering microinsurance to its clients in general.

Driven by take-up of the insurance product, take-up of any financial service is also positive; impacts of treatments 2 and 3 each amount to 26–29 percentage points (both coefficients are statistically significantly different from zero at the 1% level).

¹¹ Take-up rates of the offered financial products are zero in the control group, which is sensible since we did not offer them these products in the course of fieldwork.

¹² In the follow-up survey, we asked households who did not take up the savings product why they failed to do so. The dominant response by far (given by 46.9% of respondents) was that they preferred other establishments instead of BPI for savings products. (The next most common response was "just not interested," given by 18.1%. Table B3 provides a complete tabulation of responses.) That households felt that they had better products to avail of in the market also helps support the conclusion that households are not constrained in their access to savings products.

¹³ Again, we did not expect to change our study design to include an insurance product.

2. Are the Two Interventions Complements or Substitutes? The Interaction between Financial Education and Financial Access

A key question our study is designed to answer is whether financial education and access turn out to be complements or substitutes for each other. Theoretically, offering financial education may bolster the effects of financial access over and above the effects of providing each intervention separately if improved knowledge makes households demand more services because they can better utilize such services. Alternatively, financial education may dampen demand for services if it teaches alternate strategies for households to achieve goals apart from formal financial services, in which case the impact of financial access would be less than if it had been offered alone.

Answering this question involves seeking evidence for any interaction between the financial education and financial access treatments in terms of affecting take-up rates for the other intervention. Does financial education affect take-up of offered financial products? Does access to financial products affect take-up of financial education?

Comparison of regression coefficients in table 4 helps answer these questions. We divide our analysis into two sections. First, we investigate the interaction between financial education and the savings and credit component of financial access, reflecting the original design of the study. Financial education may interact with financial access in the sense of generating demand for our partner organizations' savings and credit products, even though overall demand for these products was low to begin with. We acknowledge, however, that it may be difficult to expect substitution or complementarity between our treatments in an environment where access to financial services is widespread. Second, we examine whether interaction effects exist between financial education and the insurance component of financial access, which we later decided to include as part of our intervention. Our financial education sessions covered the definition and importance of insurance, as well as introduced attendees to different types of insurance products, including life, home, property, automobile, health/medical, accident/disability, education, and retirement. Thus, theoretically, financial education may influence insurance take-up, although we note that our insurance offer came a bit later than financial education, which may partially explain the lack of interaction effects.¹⁴

It does not appear that financial education increased take-up of BPI savings accounts or ASKI microloans. The coefficients in the BPI savings and ASKI

¹⁴ Note, however, that while the offer for insurance came later, we continually informed study participants of upcoming financial education sessions if they had not yet availed of our offer to participate. We kept in touch with household heads through short message service (SMS). In addition, we

credit take-up regressions are very similar to one another across columns 2 (impact of financial access) and 3 (impact of both financial education and financial), and the differences between coefficients are not statistically significantly different from zero (as can be seen in the p -values for the comparison between coefficients for treatments 2 and 3 in col. 9). It helps that the coefficient estimates are fairly precise across regressions; that is, standard errors are small. We conclude from this that combining financial education with financial access for savings and credit has no additional impact on take-up of financial services over and above offering financial access alone.

Financial education also does not appear to interact with the offer of microinsurance. The take-up of ASKI insurance is statistically the same between the group offered insurance and those offered insurance and financial education. Columns 2 and 3 of the ASKI microinsurance take-up regression show that the effects associated with these offers are of the same magnitude (p -value, .348). Financial education has no additional impact on take-up of microinsurance over and above the offer of insurance alone.

We can also examine whether our financial access interventions affect take-up of the financial education program. This involves comparing coefficients on take-up of financial education (“Take-up of financial education”) in columns 1 and 3. Again, the coefficients are very similar in columns 1 and 3, and the difference between the coefficients is not statistically significantly different from zero (p -value, .431). The conclusion here is similar: combining financial education with financial access has no additional impact on take-up of financial education over and above offering financial education alone.

A highly related comparison of coefficients in table 4 yields the same conclusion. Another way to view complementarity or substitutability is to ask whether the coefficient on the combined treatment (in col. 3) is different from the sum of coefficients on the treatments offered separately (cols. 1 and 2). The p -value of this test is presented in column 10 of table 4. For no outcome in the table do we find that the impact of the combined treatment is different from the sum of impacts when the treatments are offered separately (no p -value indicates statistical significance at conventional levels).

In sum, financial education and financial access appear to be neither complements nor substitutes for each other. These findings are relevant for the design of programs that might consider combining financial education with financial access interventions. Notwithstanding theoretical reasons why interactions

reinvited relevant households to attend our financial education session during revisits to households between September and December 2015, when we started offering the microinsurance product.

might exist, it does not appear that, in this study population, providing one of the interventions (either financial education or access) affects demand for the other type of intervention, whether financial access refers to offering credit and savings or insurance.

3. Impacts on Other Financial Decisions

We now examine the impact of the treatments on other financial decisions using outcomes reported in the endline survey. Patterns of impacts can provide additional insight into the likely constraints or barriers that are operating in financial services markets.

In table 5, we examine impacts on savings and borrowing. Regressions use the specification of equation (1) but with different dependent variables. There is suggestive evidence of impacts on bank account ownership due to the treatments involving financial education (whether alone or in combination with financial access). The financial education treatment alone (treatment 1) leads households to hold more bank accounts (statistically significant at the 10% level). The coefficient on the financial education and financial access treatment (treatment 3) is also positive but slightly smaller in magnitude and not statistically significantly different from zero at conventional levels. When it comes to the total amount of savings (in pesos or in log of 1 plus pesos), coefficients on the treatments involving financial education are positive but not statistically significantly different from zero. (Impacts of the financial access treatment are small in magnitude and not statistically significant.)

There is no large or statistically significant impact of any of the treatments on the extensive margin of borrowing (whether the respondent borrowed from any source in the past 3 months). That said, when examining amount borrowed in pesos (where those not borrowing are coded as zeros), treatments 1 and 3 (the two treatments that involve financial education either alone or in combination with financial access) lead to reductions in borrowing.¹⁵ The financial education treatment does not appear to affect the extensive margin of borrowing, but it does appear to affect the amount borrowed (conditional on borrowing).

It is also of interest to examine impacts on the composition or sources of borrowing, since the treatments could in principle shift respondents to different credit sources. In table 6, we examine impacts on sources of borrowing for only those individuals who did any borrowing. (The sample of borrowers does

¹⁵ Results when borrowing is expressed in log (1 plus pesos borrowed) have similar signs but are not statistically significantly different from zero.

TABLE 5
UTILIZATION OF SIMILAR PRODUCTS AND SERVICES

	T1	T2	T3	Mean in Control Group	N	R ²	Joint Tests of Treatment Groups on Outcomes			
							T1 = T2 (p-Value)	T1 = T3 (p-Value)	T2 = T3 (p-Value)	T1 + T2 = T3 (p-Value)
A. Savings										
Total no. of household bank accounts	.091* (.055)	-.013 (.060)	.061 (.055)	.377	1,386	.096	.081	.588	.225	.838
Total savings (P)	817.987 (1,355.118)	-140.497 (1,322.629)	2,834.286 (2,172.257)	1,667	1,248	.038	.544	.474	.246	.513
Log of total household savings	.291 (.254)	.351 (.276)	.408 (.260)	1.309	1,248	.046	.824	.650	.838	.537
B. Borrowing										
Respondent borrowed from any source in past 3 months	-.028 (.033)	-.056 (.034)	-.031 (.033)	.329	1,553	.067	.385	.924	.441	.251
Total amount borrowed in past year (P)	-1,935.530* (1,134.367)	-1,942.959 (1,557.960)	-2,033.035* (1,168.528)	5,724	1,503	.050	.996	.919	.947	.301
Log of total amount borrowed in past year	-.184 (.294)	-.476 (.307)	-.256 (.295)	2.693	1,503	.072	.316	.792	.452	.328

Source. Data from endline survey.

Note. Each row is a separate regression. All regressions include baseline control variables. All financial services data in the table are self-reported. Household bank accounts are inclusive of accounts held by migrant members. Regressions also include indicators for missing baseline covariates. Missing baseline covariates for an observation are set to 0. See app. B for further details on baseline control variables. T1–T3 refer to treatments 1–3, respectively.

* $p < .10$.

TABLE 6
SOURCE OF BORROWING

	T1	T2	T3	Mean in Control Group	N	R ²	Joint Tests of Treatment Groups on Outcomes			
							T1 = T2 (p-Value)	T1 = T3 (p-Value)	T2 = T3 (p-Value)	T1 + T2 = T3 (p-Value)
Formal source	.097* (.054)	.070 (.061)	.100* (.060)	.292	480	.152	.650	.973	.651	.430
Informal source	-.127** (.057)	-.188*** (.065)	-.160*** (.062)	.658	480	.145	.344	.585	.680	.0818
Other source	.008 (.036)	.075 (.047)	-.008 (.036)	.083	480	.060	.145	.636	.0734	.127

Source. Data from endline survey.

Note. Formal sources of credit include banks, microfinance lenders, and private lenders, while informal sources include immediate and extended family, friends, and neighbors. The respondent noted when credit did not come from any of these sources (other). Each row is a separate regression. All regressions include baseline control variables. All financial services data in the table are self-reported. Regressions also include indicators for missing baseline covariates. Missing baseline covariates for an observation are set to 0. See app. B for further details on baseline control variables. T1–T3 refer to treatments 1–3, respectively.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

not appear to be selected on the basis of treatment; as shown above, none of the treatments have a large or statistically significant impact on the extensive margin of borrowing.) Both treatments 1 and 3, which involve financial education, lead to shifts in the composition of borrowing from informal to formal sources of credit. Treatments 1 and 3 lead to shifts away from informal sources (family, friends, and neighbors) of 13–16 percentage points (statistically significant at the 5% and 1% level, respectively) while leading to shifts toward formal sources (banks, microfinance lenders, or other private lenders) of roughly 10 percentage points (statistically significant at the 10% level in both cases).¹⁶

Considered all together, these results are suggestive of the types of constraints operating in financial services markets. First of all, financial education alone (treatment 1)—which simply provided financial education but not any change in access to services—caused an increase in bank account ownership and a reduction in amounts borrowed. Merely providing financial education led households to open more bank accounts and actually caused them to voluntarily reduce amounts borrowed. This suggests that constraints on access to either savings or credit cannot be fully binding.

In addition, any effect of financial education on financial decisions is strongly suggestive of the importance of information constraints in financial services markets, again since the financial education sessions were focused on providing education rather than expanding financial access in any way.

C. Impacts of Financial Education and Financial Access on Other Outcomes

We also estimate impacts of the treatments on a wide variety of outcome variables. Regression specifications are along the lines of equation (1) and thus are intent-to-treat estimates. The outcomes are broadly grouped in eight categories: life satisfaction and mental stress, income, migration and remittances, consumption and expenditure, goals, savings, borrowing and lending, and financial literacy. The full set of outcomes included in the indexes are presented in table B4.

Since we estimate impacts on a large number of outcomes within categories, we expect some of our treatments to show statistically significant impacts just by chance. Hence, following Kling, Liebman, and Katz (2007), for each group of outcomes, we present the impact on an index of all of the outcomes taken together. In creating the index, we define each outcome so that higher values correspond to better outcomes. Then for each outcome, we create a *z*-score by

¹⁶ These shifts are fairly large compared with rates of each type of borrowing in the control group (53.3% of borrowers borrowed from informal sources, and 37.3% borrowed from formal sources).

subtracting the control group mean and dividing by the control group standard deviation. We average z -scores by category and standardize following the same procedure. We estimate treatment effects on these category indexes. In addition, we account for the fact that we are reporting multiple families of outcomes. We correct for the potential issue of simultaneous inference using multiple-inference testing. We calculate q -values using the Benjamini-Hochberg step-up method to control for the false discovery rate and follow the procedure outlined in Anderson (2008), and we test α at all significance levels (1.000, .999, .998, . . . , .000). The q -value is the smallest α at which the null hypothesis is rejected.

We do not find statistically significant impacts of the treatments on any of the groups of outcome variables. Table 7 reports results displaying q -values that correct for presenting results on multiple indexes. We find no statistically significant effects of our interventions on household outcomes: no q -values achieve conventional statistical significance thresholds. We also do not find any evidence that suggests complementarity (or substitution) between financial education and access in terms of their effect on outcomes. As shown in the last row of table 7 (“ $T1 + T2 = T3$ ”), in no case do we reject the hypothesis that the sum of b_1 and b_2 equals b_3 .

V. Conclusion

We implemented a field experiment in which transnational households (households with one or more members overseas) were randomly assigned to a control group, a financial education treatment, a financial access treatment, or a joint treatment that offered both financial education and financial access. To our knowledge, only one other study (Jamison et al. 2014) has independently randomized financial education and financial access, as well as the combination, simultaneously in the same study population. However, our study would be the first to simultaneously offer access to formal credit (group microloans), savings, and insurance products. This innovation allows us to estimate the interaction of the two types of interventions, revealing whether the two are complementary or substitutes and whether this differs by type of financial product offered. In addition, patterns of impacts can help suggest the types of constraints or barriers faced by households in financial services markets.

We find no evidence of any interaction between the financial services and financial access treatments (the treatments are neither complements nor substitutes from the standpoint of generating demand for either financial services or financial education). Our results also suggest that constraints on access to formal financial services are not binding for common services such as savings and credit but do appear to exist for a relatively uncommon or novel product

TABLE 7
IMPACT ON CATEGORICAL INDEXES

	Life Satisfaction Index	Income Index	Migrant Index	Consumption Expenditures Index	Goals Index	Savings Index	Borrow and Lend Index	Financial Literacy Index
T1:								
<i>b</i>	.064	.073	.024	-.054	-.078	.123*	-.056	.067
Standard error	(.069)	(.066)	(.067)	(.063)	(.070)	(.070)	(.069)	(.071)
<i>p</i> -value	.353	.264	.718	.395	.266	.078	.415	.343
<i>q</i> -value	.475	.475	.718	.475	.475	.475	.475	.475
T2:								
<i>b</i>	.056	.038	.004	.036	.205**	.117	-.093	.007
Standard error	(.074)	(.072)	(.076)	(.058)	(.101)	(.075)	(.071)	(.077)
<i>p</i> -value	.451	.597	.957	.538	.043	.121	.189	.928
<i>q</i> -value	.796	.796	.957	.796	.344	.484	.504	.957
T3:								
<i>b</i>	.072	.115*	.090	-.129	.060	.148**	-.044	.136*
Standard error	(.073)	(.068)	(.067)	(.084)	(.080)	(.069)	(.069)	(.073)
<i>p</i> -value	.32	.090	.181	.126	.453	.031	.523	.063
<i>q</i> -value	.427	.240	.290	.252	.518	.240	.523	.240
Mean in control group	0	0	0	0	0	0	0	0
<i>N</i>	1,558	1,560	1,558	1,558	1,531	1,557	1,557	1,560
<i>R</i> ²	.059	.099	.074	.151	.039	.082	.065	.037
T1 = T2 (<i>p</i> -value)	.904	.607	.774	.113	.005	.935	.590	.417
T1 = T3 (<i>p</i> -value)	.907	.529	.285	.358	.057	.709	.861	.331
T2 = T3 (<i>p</i> -value)	.823	.279	.229	.037	.163	.672	.483	.092
T1 + T2 = T3 (<i>p</i> -value)	.636	.969	.530	.268	.577	.362	.284	.555

Source. Data from endline survey.

Note. Each column is a separate regression. To create categorical indexes, for each outcome, we create a z-score by subtracting the control group mean and dividing by the control group standard deviation. Then we average z-scores by category and standardize again following the same procedure. We estimate treatment effects on these category indexes. Simultaneous inference is corrected for using multiple-inference testing. The *q*-values are calculated using the Benjamini-Hochberg step-up method to control for the false discovery rate. We follow the procedure outlined in Anderson (2008) and test α at all significance levels (1.000, .999, .998, . . . , .000). The *q*-value is the smallest α at which the null hypothesis is rejected. T1–T3 refer to treatments 1–3, respectively.

* $p < .10$.

** $p < .05$.

such as insurance. We find that financial education does affect usage of financial services that were not offered in the context of our study, which is likely to reflect that financial education alleviated information constraints of some sort. In general, however, we find no impacts of the interventions on broad measures of well-being and financial behavior when estimates are corrected for multiple-hypothesis testing.

These results are relevant for helping policy makers and NGOs design financial interventions for the households that migrants leave behind in their home areas. Where certain financial services are widespread (such as savings and credit, in our context), interventions providing financial education could be prioritized over financial access interventions. However, for new financial services (such as microinsurance, in our case), financial access interventions would still be helpful in promoting adoption. In addition, our finding that financial education may change certain aspects of financial decision-making points to the continued importance of information constraints, helping justify interventions aimed at alleviating information problems. However, implementers must continue to exercise caution when promoting similar programs, as we found no evidence of impacts on broad measures of household well-being. We also found a general lack of demand for our interventions, given that participants had to be incentivized to attend the financial education program and to avail of any of our products. For those offered financial education, incentives amounted to almost the daily average wage of workers in central Luzon, which can be a concern for NGOs operating on a tight budget.

Our results also point to future directions for research. First, as in all empirical research, it is important for future studies to ask similar questions in different contexts and populations to ascertain the generalizability of the results. For example, similar studies should be conducted in populations of families without migrant workers and in other locales with varying income levels and financial services development. In addition, it would be important for future studies to further probe our results and provide a more nuanced understanding of mechanisms. For example, impacts we found of financial education raise the question of what aspect of financial education is having the impact: Is it advice on budget and planning, facilitation of household goal setting, or more detailed information on how to use specific financial services, such as credit and savings? It may be true that financial education programs that emphasize particular strategies are more effective and lead to complementarities with different types of financial products. Future studies could randomize the inclusion of these specific subcomponents of financial education to tease out which are leading to changed financial behaviors.

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