

Pre-analysis plan

Long-run effects of enhanced pre-departure training for permanent migrants from the Philippines to the US

28 July 2016

1 Introduction

This pre-analysis plan (PAP) outlines the analysis of the longer-run effects of enhanced pre-departure orientation seminars (PDOS) for permanent migrants from the Philippines to the US. It builds on our previous PAPs, which focused on the analysis of the short- and medium-run effects based on data collected in survey waves 2 and 3 (wave 1 is the baseline survey). The previous PAPs were archived with 3ie on 17 September 2014 and 19 July 2015.

This PAP focuses on longer-run outcomes for which data will be collected in survey wave 4 (the endline survey). It has been archived before the start of fieldwork in July 2016. The PAP concentrates on the effects of the enhanced PDOS modules on socio-economic integration and well-being in the destination country. It also looks at diaspora engagement and potential spillover effects on family members who stay behind in the Philippines.

The hypotheses we present below are at the center of our research interest. These results have a confirmatory character and the analysis will therefore be conducted with special scrutiny. In addition to the confirmatory analysis, we will also use the data for exploratory analysis that is not detailed out beforehand. The exploratory analysis allows for more surprise findings and gives a chance to explore research questions that only become evident once the data is available. Due to the exploratory nature we will treat these findings differently and will give less weight to them.

2 Overview of the study design

The first PAP provides a detailed overview of the study design. This section therefore only offers a summary of the most important aspects of the study design.

Interventions

Every permanent Filipino migrant is legally required to attend a brief pre-departure training, which is conducted by the Commission on Filipinos Overseas (CFO). The training covers various topics, but has a strong focus on travel regulations and immigration procedures. CFO, the key government agency tasked to manage permanent migration from the Philippines, has been pilot-testing an enhanced pre-departure training to foster the development benefits of migration for migrants, their families, and the Philippines at large. In particular, the enhanced training aims to foster socio-economic integration and increase migrants' engagement in diaspora activities that contribute to development in the Philippines. The enhanced training has first been implemented for migrants to the US, who constitute by far the most important group of permanent migrants from the Philippines.

This study uses a randomized control trial to evaluate the effects of the enhanced training. It surveys 1,273 permanent migrants and their families in the Philippines over a period of two years after the training takes place.

We test two versions of the enhanced pre-departure training. The core version (henceforth “**enhanced PDOS without employment module**”) consists of the following components:

Settlement module: This is the broadest of all modules and covers general issues related to migration and to migration to the US in particular. The module addresses topics such as cultural differences and culture shock, rights and obligations of US permanent residents, important things to take care of after arrival (social security, health insurance, driver's license, etc.) as well as information about housing and education.

Financial literacy module: This module is based on the fact that migrants often experience a substantial increase in income when starting a job abroad. The module teaches basic rules of thumb on opening a bank account, financial planning, savings, sending remittances including an overview of the advantages, disadvantages, and cost of remittance channels, making a joint financial plan with the family in the Philippines on the amount and use of remittances.

(Filipino) associations in the US: Filipino associations, but also non-Filipino associations such as neighborhood associations, may be an important provider of post-arrival support for migrants. The module informs migrants about the potential benefits of associations for expanding their social network, which may ultimately help them to integrate into the US and find a decent job. Upon arrival in the US, a sub-group of migrants from the treatment group has received further encouragement via email to get in touch with a Filipino association. Migrants from the control group have received neither an encouragement to reach out to associations nor an email encouragement to do so.

Diaspora engagement: This module aims to strengthen the links between Filipino migrants and the Philippines. It covers Filipino culture and values, overseas voting rights, the right to

re-acquire Filipino citizenship and government programs such as BalinkBayan and LINKAPIL, which help migrants to stay in touch with their home country and give migrants the possibility to contribute to development causes in the Philippines.

The second version contains all the modules mentioned above plus an additional module that covers employment-related topics (henceforth “**enhanced PDOS with employment module**”):

Employment module: The employment module aims to help migrants to find a decent job in the US, which typically constitutes the biggest challenge for Philippine migrants upon arrival in the US. The module informs about the US labor market and addresses important issues such as the recognition of certificates and diplomas, job search strategies, how to prepare a CV and cover letter and behave in a job interview.

We use the term “**enhanced PDOS**” to refer to either version of the enhanced PDOS (without and with the employment module). All migrants in the enhanced PDOS also receive a comprehensive handbook that covers the above topics in great detail. The handbook is an important part of the treatment as it provides migrants with the possibility to look up the information covered in the PDOS when they actually need it. There are two versions of the handbook, one without and one with a chapter corresponding to the employment module.

The third intervention is an email intervention (henceforth “**association email**”). About one month after arrival in the US, selected migrants have received an email encouragement to reach out to migrant associations in the US. The email contains contact information of migrant associations that are located in the same US state the migrant has moved to. A second email with the same content has been sent about two months after arrival in the US. This intervention is randomized among migrants who receive a version of the enhanced PDOS.

Randomization

In order to establish causality, prospective migrants have been randomly assigned to different versions of the pre-departure training. Pre-departure training is mandatory for all migrants. Hence, non-compliance with the treatment is of no concern. Spillover effects and control group contamination may arise if prospective migrants in the treatment group share information with migrants in the control group. To avoid such effects, randomization takes place at the session level. There is one session per weekday. Hence, treatment and control trainings are scheduled on different days of the week to minimize the possibility of interaction between the two groups.

Depending on which day prospective migrants register for their pre-departure training, they attend one of the following three versions of the pre-departure training.

- 1) Standard PDOS. This is the control condition. Migrants attend the mandatory standard pre-departure training as provided by CFO in the past.
- 2) Enhanced PDOS without employment module. As detailed above, this core version of the enhanced PDOS contains new modules on settlement, financial literacy, associations in the US, and diaspora engagement.

- 3) Enhanced PDOS with employment module. This version of the enhanced PDOS contains all the modules mentioned in 2) plus an additional module that covers employment-related topics.

Randomization of the enhanced PDOS modules takes place at the session level. 40% of all sessions are assigned to the control group, and 30% to the enhanced PDOS without employment and 30% to the enhanced PDOS with employment.

Table 1: Sample size for group-level intervention

	Share (of total sample)	Observations (approximately)
Control	40%	508
Enhanced PDOS without employment module	30%	381
Enhanced PDOS with employment module	30%	381

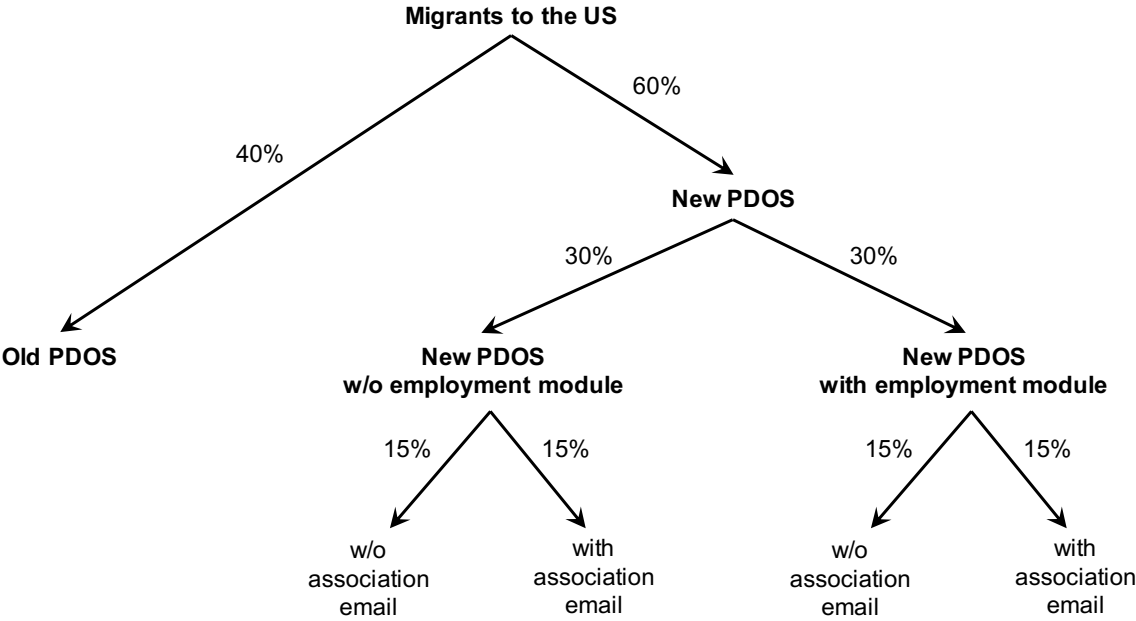
Randomization of the associations email takes place at the individual level and only among those migrants who are assigned to one of the enhanced PDOS. This group is furthermore restricted to migrants who a) provided a valid email address and b) migrated to a US state with active and CFO-approved Filipino diaspora associations. Among these, 50% were randomly assigned to the treatment group.

Table 2: Sample size for email intervention

	Share (of total sample)	Observations (approximately)
Control	22%	280
Associations email	22%	280

Figure 1 summarizes the treatment arms of the study.

Figure 1: Treatment arms



Data

The measurement of all outcomes of interest is based on surveys conducted with migrants and their families remaining in the Philippines. All survey instruments are extensively pretested before the start of fieldwork. In total, there are four rounds of data collection. All of them are computer-assisted to facilitate tracking over time and improve accuracy through automated routing and error checks.

The analysis laid out in this PAP is based on data that will be collected in survey wave 4 (the endline survey). Interviews will take place about two years after the departure of each migrant. Migrants will be interviewed at their destination in the US on the phone. In case a migrant cannot be reached for the interview even after several attempts, a knowledgeable family member in the Philippines will be interviewed instead to provide proxy information about the most important indicators. While these indicators are likely to be measured with some error, the proxy interviews help to keep attrition as low as possible.

Around the same time (two years after the departure of each migrant), interviews with the family members remaining in the Philippines will take place. These interviews will be conducted face-to-face.

3 Hypotheses

The enhanced PDOS aims to affect various outcome dimensions. We will collect rich data that will allow us to test a number of hypotheses. The analysis does not only seek to understand the effects on different outcome dimensions but also the causal chain that leads to these effects. The very idea of the PDOS is that migrants make suboptimal choices because they do not have sufficient information before they leave. The causal chain that we have in mind is that changes in knowledge (or knowledge of where to find relevant information) lead to changes in behaviors, which lead to changes in outcomes.

We can group our hypotheses along different outcome domains:

- 1) Formal settlement
- 2) Employment and use of welfare programs
- 3) Social networks and Filipino diaspora engagement
- 4) Individual well-being
- 5) Finances
- 6) Spillovers on households in the Philippines

Within each domain we test whether a specific treatment has an effect on a specific outcome. To decrease the number of hypotheses to be tested and increase statistical power, we will condense the information from different outcome indicators in the same domain. If possible, we create meaningful indicators based on various questions in the questionnaire. If the creation of such indicators is not possible, we construct standardized treatment effects as suggested by Kling et al. (2007) and employed by Finkelstein et al. (2010) and Almeida et al. (2012) (see description in Section 4: Power calculations and multiple hypotheses testing).

Impact on outcomes

Hypothesis domain 1: Formal settlement

Hypothesis 1.1: Being exposed to the **enhanced PDOS** helps migrants to settle administrative matters in the destination country more quickly.

Indicators:

- Number of administrative matters settled
 - Sum of answers with “yes” on questions Q7, Q8, Q9, Q10 (answer categories 1 and 2), Q11 (having a social security number, health insurance, driver’s license, bank account, credit card)
 - Any item for which more than 95% of the control group answer with “yes” will be removed from the indicator.
 - With the exception of health insurance, these questions are only asked in wave 4 if the respondent answered with “no” for the respective item in previous waves. “yes” responses will then be used from survey waves 2 and 3.

Specific controls from baseline survey:

- Has bank account in the Philippines (169)

We estimate a standardized treatment effect for this outcome domain.

Hypothesis domain 2: Employment and use of welfare programs

Hypothesis 2.1: Being exposed to the **enhanced PDOS** has a positive effect on employment outcomes.

Hypothesis 2.2: Being exposed to the **enhanced PDOS with employment module** has an even more positive effect on employment outcomes.

Indicators:

- Individual has paid employment (Q12)
- The logarithmic transformation of individual monthly income (Q17)
 - Will be coded as zero for individuals who are not working
 - For zero income we will use $\log(1)$

Specific controls from baseline survey:

- Has applied to have qualifications recognized (150)
- Number of correct answers regarding resume content (152)
- Self-assessed probability to have a job after one year (144) (coded as 100 for those who already had a job before departure)
- Employment plans (138)

We estimate a standardized treatment effect for these outcomes.

The main sample for this analysis includes all individuals, irrespective of whether or not they stated in the baseline interview that they already had a job waiting for them in the US. However, for better comparability with the short-run effects of the enhanced PDOS, we also conduct the analysis for the sample of individuals who did not have a job in the US before their departure.

Employment status and income are the main indicators for this outcome domain as they are observed for all migrants, including for those who are not working. In addition, we also explore a) whether income and occupational quality are higher for those who are working and b) whether the reservation wage is different for those who are not working.

The outcomes used for those who are working are:

- The logarithmic transformation of individual monthly income (Q17)
- Qualifications and skill match of current job (Q18)
- Satisfaction with current job (Q21)
- Is currently not looking for a new job (Q23)

We will estimate a standardized treatment effect for these outcomes.

The outcome used for those who are not working is:

- The logarithmic transformation of reservation wage (Q24)
 - Reservation wages higher than USD 10,000 are set to missing

Specific controls from baseline survey:

- Has applied to have qualifications recognized (150)
- Number of correct answers regarding resume content (152)
- Self-assessed probability to have a job after one year (144) (coded as 100 for those who already had a job before departure)
- Employment plans (138)

As these outcomes are only available for those who are working / not working, which may itself be an outcome of treatment status, they will be separated from the analysis above.

By improving employment outcomes, the enhanced PDOS may potentially reduce the use of social security benefits and welfare programs. We explore this hypothesis using the following indicator:

- Use of welfare programs
 - Indicator variable equal to one if there is any “yes” answer to Q61a-f
 - Any item for which more than 80% of the control group answer with “yes” will be removed from the indicator.

Specific controls from baseline survey:

- Has applied to have qualifications recognized (150)
- Number of correct answers regarding resume content (152)
- Self-assessed probability to have a job after one year (144) (coded as 100 for those who already had a job before departure)
- Employment plans (138)

Hypothesis domain 3: Social networks and Filipino diaspora engagement

Hypothesis 3.1: Encouraging migrants in the **enhanced PDOS** to reach out to Filipino and Non-Filipino organizations in the United States increases the size and type of the social network.

Hypothesis 3.2: Providing migrants with encouragement to reach out to Filipino organizations and providing them with specific contact information through the **association email** further increases the size and type of the social network.

Indicators of network size:

- Number of new people with Filipino background the migrant knows on a personal basis (Q47)
- Number of new people with Non-Filipino background the migrant knows on a personal basis (Q48)
- Number of close friends in the US (Q54)

Indicators of network type:

- Highest educational attainment of closest (Q56) and second-closest new contact (Q59)
- Non-Filipino ethnicity of closest (Q55) and second-closest new contact (Q58)
- Visited people of US origin in their home (Q50)
- Received visitors of US origin (Q51)
- Frequency of everyday favors from non-Filipino individuals (Q46)

We will estimate a standardized treatment effect for the size and type of the social network.

Specific controls from baseline survey:

- Knows Filipino association in the US (135)
- Wants to join Filipino association in the US (136)
- Wants to join other club/association in the US (137)
- Number of people known in the US (116/117)

Hypothesis 3.3: Encouraging migrants in the **enhanced PDOS** to reach out to Filipino and organizations in the United States increases their engagement in matters related to the Philippines.

Hypothesis 3.4: Providing migrants with encouragement to reach out to Filipino organizations and providing them with specific contact information through the **association email** further increases their engagement in matters related to the Philippines.

Indicators of Filipino diaspora engagement:

- Donated money to cause in the Philippines (Q73)
- The logarithmic transformation of amount of donations (Q73a)
 - Will be coded as zero for individuals who have not donated
- Choice of location of one USD donation for Red Cross (Q3c)
- Registered as overseas voter for the 2016 Philippine national elections (Q74)
- Voted in 2016 Philippine national elections (Q75)
 - If more than 95% of the treatment and control group answer with “no”, this indicator will not be used

We will estimate a standardized treatment effect for these outcomes related to Filipino diaspora engagement.

Specific controls from baseline survey:

- Knows Filipino association in the US (135)
- Wants to join Filipino association in the US (136)
- Wants to join other club/association in the US (137)
- Number of people known in the US (116/117)
- Hypothetical amount donated to good cause in the Philippines (207)
- Hypothetical amount donated to good cause in the US (208)

Hypothesis domain 4: Individual well-being

Hypothesis 4.1: Being exposed to the **enhanced PDOS** has a positive effect on individual well-being.

Indicators:

- Mental health measured by the MHI-5 index developed by Veit and Ware (1983).
 - This index has also been used in a study on migrant well-being by Stillman et al. (2012).
 - The MHI-5 is based on five items and ranges from 5 to 25. Higher scores indicate better mental health. The MHI-5 is the sum of responses to Q33 a-e with reverse coding of a and b.
- Migrant specific well-being
 - This is a self-developed variant of the MHI score to measure well-being related to migration. The score is the sum of responses on two questions (33 g and h) and ranges from 2 to 10. Higher scores indicate better migrant specific well-being.
- General life satisfaction (Q34)
- Would recommend the US to other Filipinos as a place to live (Q35)
- Self-assessed level of integration into the US society (Q36)

In this domain, we estimate a standardized treatment effect to obtain the overall effect on well-being.

Specific controls from the baseline survey:

- MHI-5 index from baseline survey (210)

Hypothesis domain 5: Finances

Hypothesis 5.1: Being exposed to the **enhanced PDOS** has a positive effect on financial decision-making.

Indicators:

- Answer “yes” to having any personal savings (Q80)
- Fees paid per USD remitted
 - Calculated as Q85/Q84
 - Missing values treated as “missing”
- Differences in opinion between migrant and family over the use of remittances (Q88)
 - Missing values treated as “missing”
 - “No” treated as beneficial outcome
 - Will be compared to response to equivalent question from household survey

We estimate a standardized treatment effect for this outcome domain.

Specific controls from the baseline survey:

- Has bank account in the Philippines (169)
- Satisfaction with personal savings (174)
- Has outstanding debt of more than PHP 20,000 (181)
- Have there been differences in opinion between you and the household over the use of remittances? (190)

Hypothesis domain 6: Spillovers on households in the Philippines

Hypothesis 6.1: The **enhanced PDOS** indirectly affects households of migrants in the Philippines through changes in remittance flows or different feedback from the migrant about adjusting to life in the US.

Indicators:

- The logarithmic transformation of the amount or remittances sent last time (Q84)
 - Missing values treated as “missing”
- Perceived situation of the migrant in the US²
 - Sum of responses to various domains divided by the number of valid responses
- (Intention to) travel to the US
 - Indicator variable equal to one if household member has travelled to the US in the last twelve months or is planning to do so in the next twelve months
- Intention of remaining household members to emigrate to the US
- Perception that it would be good for young household members to live in the US
- Perceived ease of making the transition from the Philippines to the US, adjusting to life and finding a job in the US oneself
- Perceived effect of migrant’s emigration on the household
 - Index equal to the sum of answers “better” to various domains divided by the number of valid responses

We will not estimate a standardized treatment effect for this outcome domain. The single indicators cover many different dimensions and for some indicators it is hard to define what a beneficial outcome is. It is therefore difficult to aggregate them in an index and estimate a standardized treatment effect. As a result, we refrain from estimating the overall effect of the enhanced PDOS on this outcome domain and use the single indicators instead.

Specific controls from the baseline household survey:

- Respondent’s age (14), squared age, gender (13), education (20), relationship to household head (11), relationship to migrant (12), migration intention (23), having a job or business (24), enrolled in an educational institution (42), personal migration experience (54), indicator variable equal to one if any remaining member of the

² At the time of writing, the final household questionnaire is not yet available. We can therefore not indicate the question number.

household has personal migration experience (54), number of household members, number of bedrooms (74), indicator variable equal to one if household is located in National Capital Region (1)

Mechanisms

Any effects of the enhanced PDOS on the various outcome domains must result from a change in behavior induced by the enhanced PDOS. The second set of hypotheses investigates whether such changes in behavior can be observed in order to learn more about the mechanisms behind potential effects on the outcomes.

Hypothesis M.1: Being exposed to the **enhanced PDOS with employment module** induces migrants to have their skills recognized

Indicators:

- Migrant has initiated the process of having his/her qualifications recognized (Q25)
- Migrant has his/her qualifications successfully recognized (Q27)
 - Indicator variable equal to one if Q27=1 (partially recognized) or Q27=2 (fully recognized)

Specific controls from baseline survey:

- Has applied to have qualifications recognized (150)
- Number of correct answers regarding resume content (152)
- Employment plans (138)

Hypothesis M.2.1: Being exposed to the **enhanced PDOS** affects the way migrants establish networks.

Hypothesis M.2.2: Receiving the **associations email** further changes the way migrants establish networks.

Indicators:

- Contact with a non-Filipino organization in the United States
 - Sum of “yes”-responses to questions Q45 a-d
- Contact with a Filipino association in the United States (Q44)

Specific controls from baseline survey:

- Knows Filipino association in the US (135)
- Wants to join Filipino association in the US (136)
- Wants to join other club/association in the US (137)
- Number of people known in the US (116/117)

Impact heterogeneity

Hypothesis Het.1: Treatment effects differ for individuals with lower education.

Relevant characteristic:

- Education (college graduate or higher)

Hypothesis Het.2: Are treatment effects different for men and women? We have no prior about the relationship by sex and will test whether effects are different for women and men.

Relevant characteristic:

- Gender

Hypothesis Het.3: Treatment effects differ by initial network size in the US

Relevant characteristic:

- Number of non-family contacts in the US (split at the median)

4 Estimation

Estimation of main effects

For outcomes where no pre-treatment measurements are available, we estimate the following equation:

$$Y_{i,t=3} = \beta_0 + \beta_1 T_i + \beta_3 P_{i,t=4} + X'_S \theta + \varepsilon_i \quad (1)$$

$Y_{i,t=4}$ is the outcome measured in wave 4 and $P_{i,t=3}$ is an indicator whether this outcome is collected in a proxy interview with a family member in the Philippines. T_i is an indicator for being exposed to either version of the enhanced PDOS and β_1 will thus provide the treatment effect of interest. Note that a subsample of treated observations also receives the associations email intervention. β_1 therefore captures the overall effect. Equation (3) below estimates the separate effect of the email interventions. X'_S is a vector of pre-treatment covariates that are expected to be strongly correlated with the outcome. Its inclusion in the model should reduce the error variance and improve balance. The vector includes age, squared age, gender, education, time since arrival in the US (log days), an indicator whether the person migrates alone or with family members, indicators for migrants going to Hawaii and California, an indicator for frequent internet use, self-assessed English skills, and an indicator whether a person already has a job waiting in the US. In hypothesis domain 6 (Spillovers on households in the Philippines), we also control for the same vector of pre-treatment covariates. Hypothesis-specific control variables are indicated at the respective hypothesis description.

Hypotheses that specifically test the effect of the employment module are estimated with the following equation:

$$Y_{i,t=4} = \beta_0 + \beta_1 T_i + \beta_2 TE_i + \beta_3 P_{i,t=4} + X'_S \theta + \varepsilon_i \quad (2)$$

T_i is an indicator for being exposed to either version of the enhanced PDOS. TE_i is an indicator for being exposed to the enhanced PDOS with employment module. β_2 captures the additional effect of the employment module. $\beta_1 + \beta_2$ capture the total effect of the enhanced PDOS including the employment module.

Finally, to test the effect of the associations email, we estimate the following equation for the sample of migrants who a) provide a valid email address and b) migrate to a US state with active and CFO-approved Filipino diaspora associations:

$$Y_{i,t=4} = \beta_0 + \beta_1 T_i + \beta_2 AE_i + \beta_3 P_{i,t=4} + X'_S \theta + \varepsilon_i \quad (3)$$

AE_i is an indicator whether an individual received the associations email. β_2 captures the additional effect of the associations email. $\beta_1 + \beta_2$ capture the total effect of the enhanced PDOS including the associations email.

Depending on the frequency of proxy interviews with family members, we also estimate all equations only for the sample of migrants who were interviewed directly.

Calculation of standard errors

As we do not expect intra-class correlation in the outcomes (see our explanation in the first PAP), we use heteroscedasticity robust Huber-White standard errors. We also check robustness using standard errors clustered at the session level.

Estimation of heterogeneous impacts

We estimate heterogeneous treatment effects by interacting the treatment status with the variable of interest.

Power calculations and multiple hypotheses testing

Our power calculations are based on the assumption of no intra-class correlations (see our explanation in the first PAP). We assume attrition in the fourth wave to be 30 percent of the baseline sample. Initial sample sizes in the various treatment arms are displayed in Tables 1 and 2. For the enhanced PDOS we conduct the power calculations for the comparison of one version of the enhanced PDOS vs. the control group. We conduct our power calculations for significance levels of 10 and 5 percent.

For a continuous variable we are able to detect an effect of the new PDOS in the order of 0.2 standard deviations with a power of 0.8 at the 10% significance level (with a power of 0.7 at the 5% significance level). Effects of 0.5 standard deviations or larger can be detected with a power of almost one at all significance level (see Cohen, 1988 for a discussion on effect sizes). For some variables we collect pre-treatment information at baseline, e.g. for measures of subjective well-being. Including these pre-treatment measures in the estimation reduces error variance and therefore increases statistical power. For subjective well-being Ehrhardt et al. (2000) suggest a year-to-year correlation of about 0.5. Using pre-treatment information increases statistical power to detect an effect of 0.2 standard deviations considerably from 0.8 to 0.89 at the 10% significance level.

For variables without pre-treatment information (which are usually not defined for non-migrants), we include a set of covariates that are likely predictors of the outcome to increase statistical power.

Due to the smaller sample size, power to detect effects for the email intervention is somewhat lower for small effects. For medium and large effects, however, power is still close to one.

Table 4: Power calculations (assumed attrition of 30%)

Enhanced PDOS intervention (Control group size 508 and treatment group size 381)				
	10% significance level		5% significance level	
	Normal	With pre-treatment	Normal	With pre-treatment
0.2 st.dev.	0.80	0.89	0.70	0.81
0.5 st.dev.	1.00	1.00	1.00	1.00
0.8 st.dev.	1.00	1.00	1.00	1.00

Associations email intervention (Control and treatment group size 280)				
	10% significance level		5% significance level	
	Normal	With pre-treatment	Normal	With pre-treatment
0.2 st.dev.	0.63	0.74	0.51	0.63
0.5 st.dev.	1.00	1.00	1.00	1.00
0.8 st.dev.	1.00	1.00	1.00	1.00

To account for problems with multiple hypothesis testing we follow the approaches by Finkelstein et al. (2010) and Almeida et al. (2012). As described above, we group our outcomes into domains and estimate the effects on an overall index or we estimate standardized treatment effects within each domain.

To estimate the standardized treatment effects, we follow the procedure of Kling et al. (2007). We normalize each outcome within a domain by subtracting the mean of the control group and dividing by the standard deviation of the control group. Let Y_k be the k th of K outcomes, let μ_k be the control group mean, and let σ_k be the control group standard deviation. The normalized outcome is $Y_k^* = (Y_k - \mu_k)/\sigma_k$. The summary index is $Y^* = 1/K \sum_K Y_k^*$. We reverse the signs for adverse outcomes, so that a higher value indicates a more beneficial outcome. These estimates show us whether there is an overall effect of an intervention on the outcome domain under consideration.

We also look at the effects on individual outcome indicators to examine which dimensions are driving a potential overall effect. We will treat the results with extra care if we do not find an overall effect but an effect on an individual outcome indicator. In order to account for multiple hypotheses testing, we will apply the Westfall and Young step-down resampling methods for the hypotheses tests for the effects on individual indicators.

For the investigation of heterogeneous treatment effects we will follow the recommendations of Fink et al. (2010) and employ the Benjamin and Hochberg step-down procedure. We will only investigate treatment effect heterogeneity for the overall effects and not for the individual indicators to reduce the number of hypotheses.

Strategies to deal with attrition

As detailed in the first PAP, we employ several strategies to minimize attrition. Nevertheless, selective attrition remains a serious concern. In a first step we will estimate whether attrition itself is a function of one of the interventions. We will do so by using an indicator whether a migrant could be re-contacted as outcome in equation (1). If an F-test of joint significance of all treatment indicators does not reject the null of no effects at the 5% level, we will conduct the analysis without adjustments for attrition and assume that attrition is random conditional on the covariates included in equation (1). If we find a significant relationship between treatment status and attrition, we will construct non-parametric bounds on our treatment estimates as suggested by Behaghel et al. (2015). For this purpose, we will collect information on all contact attempts. In addition and apart from the above, we will explore the possibility to use outcomes collected in waves 3 or 2 if an outcome could not be collected in wave 4 and if we have reason to assume that this outcome is relatively stable over time.

5 Literature

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6 Appendix

In addition to the analysis outlined above, we also use data collection for survey wave 4 to analyze how migration experience affects the boundaries of altruism. This appendix briefly describes the analysis. We implement a small intervention in the survey. We give respondents the opportunity to donate the 10 USD token they are granted for participating in the survey to the Red Cross. What we vary by respondent is the geographical destination of the donation. We create the following five options:

- 1) The International Red Cross
- 2) The Red Cross in the United States
- 3) The Red Cross chapter closest to the home town of the migrant in the United States
- 4) The Red Cross in the Philippines
- 5) The Red Cross chapter closest to the home town of the migrant in the Philippines

Each migrant is given only one of the five options and we randomize the option that a particular migrant is given. Randomization is implemented as blocked randomization based on characteristics from the baseline survey. This randomization allows us to investigate the share of tokens donated by geographical destination.

We use this information to test the following hypotheses:

Hypothesis A.1: The propensity to donate is higher if the respondent is presented with a group of potential recipients that is geographically closer to her home town in the Philippines or her home town in the US. The propensity to donate is highest if hometown is mentioned (options 3 and 5), lowest without specific recipients (option 1), and in between these two if country is mentioned (options 2 and 4).

Hypothesis A.2: The propensity to donate changes if the respondent is presented potential recipients in the US (options 2 and 3) relative to potential recipients in the Philippines (options 4 and 5).

Hypothesis A.3: Being exposed to the **enhanced PDOS** changes the overall propensity to donate.

Hypothesis A.4: The effect of the **enhanced PDOS** on the propensity to donate differs across the different options.

Indicator:

- Decision to donate the token (Q97)