A.3. Randomization

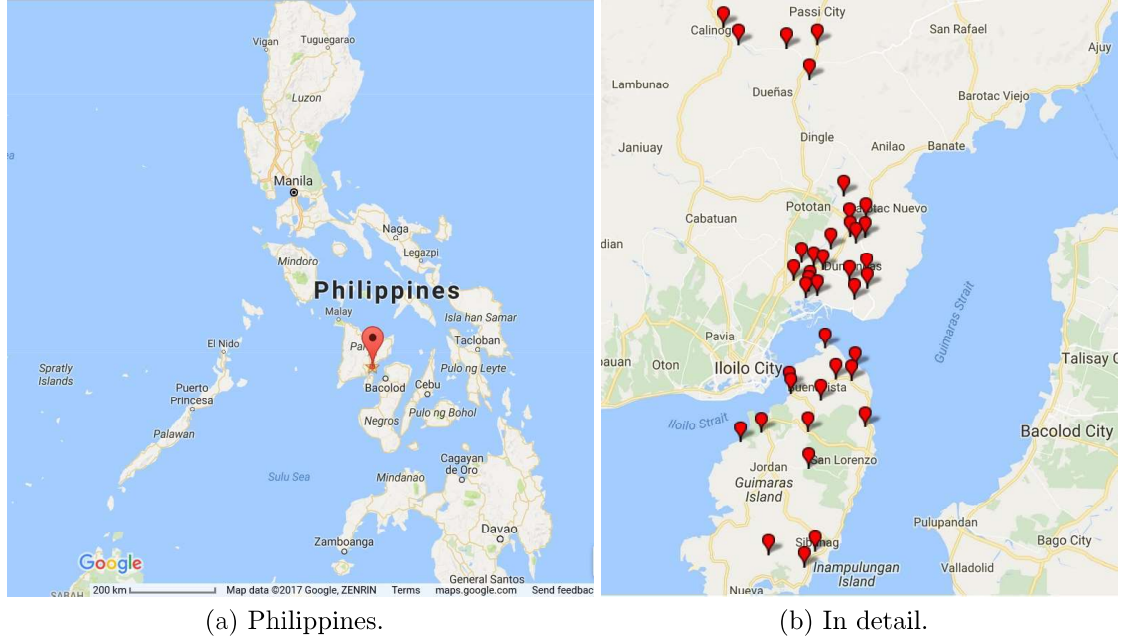|	
(a) Philippines.	(b) In detail.

Figure 7: Location of experimental sessions.

Subjects participating in the study are mostly clients of NWTF (Negros Women for Tomorrow Foundation). NWTF is organized into branches according to the Philippine provinces. Our study recruited participants from the three branches in Capiz, Iloilo and Guimaras. Figure 7 locates the experimental sessions within the Philippines (7a) and in detail around Iloilo City (7b). Clients in the three NWTF branches were distributed across 175 centers, located in 155 different villages, called "barangays".

The randomization procedure had two steps. In the first step, an average of three centers were grouped together in a bin, based on geographical proximity. The grouping made the recruitment and the logistics of the experimental sessions easier and more efficient. Safety concerns led us to exclude some barangays, particularly in the Capiz branch. Bins had on average 90 clients. Each of the 60 bins was then randomly allocated to one of four treatment arms, following the between-subject 2×2 design with two institutions and the two orders of the C and NC blocks. In a second step, 20-30 clients were randomly selected from each bin for the experimental session. Given this, we refer to the session as the randomization unit.

In order to have the information required for the randomization procedure, recruiters surveyed the barangays and collected data about the facilities and resources available. The survey, implemented with tablets, enabled the collection of geographical reference data of the barangays and municipalities as well as pictures of the

facilities. Recruiters also gathered information about the barangay head and the possibility to acquire permission to hold the sessions in the barangay. The selection of the barangay in which the session was to be held depended on the meeting hall facilities, the proximity to the municipality, and the accessibility.

In order to improve precision of our estimates, a rerandomization procedure based on a set of covariates was implemented, following Morgan and Rubin (2012). The procedure uses available data to check for covariate-balance across treatment groups. If a lack of balance is present, then rerandomization can help to ensure balance. This procedure used NWTF administrative data on loan size, savings and other funds balances, as well as an urban area indicator, the population size of the bins' barangays, and the average distance from the bin to the municipality.

To establish the rerandomization criteria, the Mahalanobis distance M was utilized:

$$M = (\bar{X}_T - \bar{X}_C) \left[cov(\bar{X}_T - \bar{X}_C) \right]^{-1} (\bar{X}_T - \bar{X}_C), \tag{15}$$

where $\bar{X}_T - \bar{X}_C$ is the k-dimensional vector of the difference in covariate means between the treatment groups and $cov(x)$ is the sample covariate matrix of x. A randomization is acceptable whenever M is below a certain threshold.

The additional sample referenced in section 5.3 results from a survey mapping of four villages to gather full network information on the inhabitants for another research project. In these villages, 77 participants were randomly selected from the village household list and 79 participants were randomly selected from the NWTF client pool. The entire mapping effort involved 156 participants, who were all allocated to the NWTF treatment.