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Does Cooperation among Institutions Foster Migrants Inclusion?

Evidence from a Case-Study on Financial Literacy in Italy*

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Abstract

We investigate an Italian case study (project “Welcome-ED”) of cooperation between private institutions and local migrant centers - administratively defined as cooperatives, non-profit associations, and public educational centers - to promote the inclusion of migrants through the provision of a financial literacy course. We find that the course has effectively improved migrants’ financial literacy and it also mitigates initial differences in knowledge due to individual characteristics. Moreover, we find heterogeneous effects among different local center types with stronger improving effects for individuals coming from cooperatives and non-profit associations. This result strengthens the importance of the cooperation between private institutions, cooperatives, and local associations to achieve inclusion policy goals.

Keywords: migrants, institutions, cooperatives, non-profit, financial literacy.

JEL Classification: D14, L30, J15, P13

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1 Introduction

The integration of migrants is a priority for the economy and the society of the country of destination. However, the limited economic and social integration of migrants dominates the scenario in all European countries (Tintori *et al.*, 2018; Laurentsyeva and Venturini, 2017). Many actors are partners in this process: public institutions, generally providing basic services, and private actors that are usually born with the scope of supporting migrants' specific needs to approach life in another country. In this framework, integration policies become effective if they are tailored to the specific needs of the group of migrants which differ in terms of age, gender, years since migration, level of education, and linguistic and cultural distances, just to mention the main drivers of integration (Strøm *et al.*, 2018; Venturini and Villosio, 2018). Therefore, one of the main challenges of these policies is to reach individuals both in terms of the extensive margin (i.e., number of beneficiaries and ethnic heterogeneity) and the intensive margin (i.e., tailoring partners and activities on migrants' specific needs).

For these reasons, we provide evidence of the role played by the cooperation between different types of institutions to foster migrants' inclusion by analysing an Italian case-study, project "Welcome-ED, that promoted a course of financial literacy for migrants.¹

The role of economic and financial literacy is recognized both nationally and internationally as an important determinant of investment decisions (Calvet *et al.*, 2009; Van Rooij *et al.*, 2011) and savings (Lusardi and Mitchell, 2007; Van Rooij *et al.*, 2012), and more generally for various economic decisions that are faced on a daily basis (Lusardi and Mitchell, 2014; Calcagno and Monticone, 2015). For this reason, more recently, the focus on the importance of financial education has been directed towards migrants in order to analyze its impact in terms of integration, inclusion and the potential role played for economic development (Gibson *et al.*, 2012; Karunaratne and Gibson, 2014). Several studies have analyzed the effect of better financial education on

¹Following UN definition, migrants is a foreign citizen who plans to stay more than 12 months. More details at: <https://www.un.org/en/fight-racism/vulnerable-groups/migrants>.

savings management by households receiving remittances (Doi *et al.*, 2014; Atkinson and Messy, 2015), or even how financial inclusion policies can help migrants meet their financial needs and not be excessively affected by the crisis in the destination countries (De Matteis, 2015).

Additionally, the multilevel governance of the migration phenomenon and the integration policies is fundamental (Van Breugel and Scholten, 2020). Usually, these policies have to cope with a very differentiated phenomenon that deals with different cultural backgrounds and that makes their implementation to be very complex (Caponio, 2021). In this respect, different models can be implemented (more or less centralized, Geddes (2021)) but their efficacy relies on the ability to adjust the different and changing demands with a tailored supply of services to reduce the cultural distance and favor inclusion (Scholten *et al.*, 2015; Levy *et al.*, 2020; Belabas *et al.*, 2020).

The “Welcome-ED” project is designed to contribute to this debate and it stems from an initiative proposed in collaboration between the Municipality of Turin, an Italian provincial capital in the Piedmont region in the north of Italy, and the Turin Museum of Savings (MdR).² Furthermore, it takes root in the cooperation between the MdR and other local migration center realities (LC hereafter): namely, cooperatives, non-profit associations, and provincial centers for adult education (CPIA). Cooperatives and non-profit associations belong to the third sectors (Bacchiega and Borzaga, 2003; Borzaga and Galera, 2012; Borzaga, 1996, 1991; Borzaga *et al.*, 2022; Sabatini *et al.*, 2014) and are present at the municipality level, whereas CPIA are part of the public institutions supporting the integration of migrants by providing educational services.³ The main objective of the project is to spread financial education to groups of migrants

²The Turin Museum of Saving is financed by Intesa San Paolo Bank and it was born from the idea of creating a unique, innovative, entertaining location, dedicated to families, adults and children, where it is possible to approach the concepts of saving and investment with a clear and simple language, in order to improve financial literacy. More details at: <https://www.museodelrisparmio.it/home-en/>.

³The number of local migration centers involved in the project “Welcome-ED” is representative for the Turin urban area without taking into account religion centers and other realities not working with migrants. More details (in Italian) are available at: <http://www.comune.torino.it/cooperazioneinternazionale/link/associazioni.shtml> and <http://www.comune.torino.it/circ8/cm/pages/ServeBLOB.php/L/IT/IDPagina/4666>.

from various nationalities around the world in order to promote and foster the inclusion of these individuals in the society of arrival. For this scope, the cooperation and so the project “Welcome-ED” is divided into two main parts. First, local centers work as aggregation poles for migrants by promoting the initiative and then LC administrate the first questionnaire to various group of migrants in order to retrieve background information and evaluate the initial level of financial literacy; finally, LC organize a meeting at the MdR to accompany migrants to attend the second part of the activity. Second, once at the MdR, migrants are involved in a short course on financial literacy made by professionals of the MdR that also administrate a second questionnaire to evaluate the knowledge acquired during the course. Finally, MdR offered to migrants a free guided tour of the museum.

We analyze the effect of this cooperation on migrants’ financial literacy that we consider a powerful tool for inclusion.⁴ We divide the analysis into three main steps. First, we investigate the role played by individual characteristics on the initial and final levels of financial literacy, separately. We find that gender, ethnicity, and the short time from arrival in Italy are negative factors for the initial level of knowledge; on contrary, being married to an Italian spouse, having a university degree, and having past training experience in financial literacy are positive factors. However, we also find that these effects are mitigated by the implementation of the course: negative effects almost disappear and only having a higher level of education plays a positive role. Second, we estimate a single-difference equation in which we investigate before-and-after changes in migrants’ financial literacy. We find a strong positive effect both on the overall level of knowledge that on each evaluated topic covered by the course.⁵ However, the limit of this analysis is that the “Welcome-ED” design implies all participants be treated in order to not exclude any migrant from the participation of the financial literacy course.

⁴One caveat is that we are not able to directly measure the migrants’ inclusion, we consider the level of financial literacy as a proxy of inclusion since we believe it represents a powerful tool for its improvement.

⁵Initial and final questionnaires include four evaluation questions on different financial literacy arguments. Therefore, we build a total score measure as well as single question probability of success.

An improving design would have randomly assigned both questionnaires before the course to the control group and it would have proposed the post-course questionnaire only to the treated group. For this reason, in the third part of our empirical strategy, we try to simulate this improving design by ex-post randomization of treated and control groups inspired by Young (2019) and Dell and Olken (2020). From the estimation of 1,000 randomized models, we find that results are always positive and statistically significant and are not dispersed from the averages of the 1,000 coefficients. We believe this provides substantial evidence of the effectiveness of the financial literacy course.

Finally, we also examine the potential heterogeneous effect among migrants from different local realities in order to see who benefited more from the project. We find that the financial literacy course has stronger effects on migrants coming from cooperatives and non-profit associations than on those coming from CPIA. Specifically, the effect is double for migrants coming from cooperatives and it triplicates for those coming from non-profit associations. These results are mainly due to the composition of migrants—in terms of nationalities and inclusion needs—that participate in the activities promoted by these local center types. We investigate this channel in a second heterogeneity analysis by local center types and migrants’ geographical areas of origin. We show that stronger effects observed for cooperatives and non-profit associations are mainly explained by the type of migrants they are able to reach (i.e., the majority of African migrants). More precisely, these results point out that the main driver of the different performance among migrants belonging to different local centers relies on the different national composition of the migrants supported by the different local realities, and also in their different seniority in the country of destination (43% of migrants from CPIA arrived in Italy less than 2 years ago; Cooperatives 19% and non-profit 30%). This implies that it is not the different administrative nature of the local migrant centers that determine the results but the different recruitment of their members which determines their intervention at different stages of the migration project. Therefore, what we learn in this context is that projects that cooperate also with non-profit associations and cooperatives are able

to reach individuals potentially more fragile who can benefit more from the project.

Our work speaks with the financial education literature providing further insight into the financial literacy of migrants. Moreover, it also contributes to the governance economic literature explaining how local projects should be articulated and integrated with local realities also operating in the third sectors to be more effective. In this context, our findings are relevant to inform policymakers who want to design projects for migrants' inclusion. Our results stress the importance of financial literacy for migrants as a powerful tool to promote inclusion. Furthermore, we also highlight the importance of cooperation between private institutions, public institutions, cooperatives, and non-profit associations as a fundamental ingredient to increase the effectiveness of this kind of project and enlarge the population of individuals who can potentially benefit more from these initiatives.

The remainder of the paper is structured as follows. Section 2 explains the project “Welcome-ED” in details and describes collected data. Section 3 shows the econometric models involved in the analysis. Section 4 shows and describes the results. Finally, section 5 provides conclusive remarks.

2 Italian Case-Study

2.1 The project “Welcome-ED”

The “Welcome-ED” project stems from an initiative proposed in collaboration between the Turin Museum of Savings and the Municipality of Turin and it was officially activated starting from September 2017. The main objective of the project is to spread financial education to groups of migrants from various nationalities around the world in order to promote and foster the inclusion of these individuals in the society of arrival.

In particular, a training module focusing general concepts on the importance of savings and planning, short-run and long-run goal differences, as well as a guided compilation of a financial plan (e.g., *Mikebo*), has been designed and provided to migrant

participants.⁶ Moreover, one of the most important features of this project is the cooperation with local realities of local centers: cooperatives, non-profit associations, and provincial centers for adult education (CPIA). This cooperation allowed the dissemination of these training courses to groups of migrants present in the territory of the province of Turin.⁷ In order to evaluate the effectiveness of the training courses offered by the project, two questionnaires were administered to assess the level of knowledge on the topics covered: a "pre-module", also containing background information (education and work) and demographic characteristics, and a "post-module" exclusively for evaluation. The first questionnaire was administered to groups of migrants directly by the local centers (i.e., cooperatives, non-profit associations, and CPIA), before the training course. This questionnaire collects the main demographic characteristics of individuals (i.e., age, sex, length of stay in Italy, marital status, number of children, etc.) and identifies both the level of education and the working condition. In addition, respondents were asked if they had previously attended other financial education courses and their savings and/or investment decisions were investigated (e.g., level of savings and remittances, placement of savings). The last section of the questionnaire includes four questions to assess the level of knowledge on the topics covered by the training module. These four questions—with marginal changes—were asked again after the financial literacy course by "Welcome-ED" project staff at the Turin Museum of Savings where the course took place. In the [Appendix](#) we show and describe the evaluation questions included in the questionnaires.

The limit of this procedure is the lack of an ex-ante proper construction of the control group: this design implies all participants be treated, and it has been adopted by the

⁶The original intent of the project "Welcome-ED" was to provide a second module dealing with the issues of interest-bearing savings, analyzing the concept of risk and the differences between the main financial products, in addition to introducing the basic elements on the functioning of insurance and pension systems. However, there were no migrants with this slightly more advanced level of specific knowledge. Therefore, the project and the analysis of results focus on the first module.

⁷The project "Welcome-ED" relied on the cooperation of the following local centers. Cooperatives: Logos Eta Beta, Logos III, Orso; non-profit Associations: Abele, Alma, Articolo 10, Articolo 10 Colasanto, La Contrada, Tampep; CPIA: 3-Braccini, 3-Chieri, Chille, Ruggirello.

project “Welcome-ED” in order to not exclude any migrant from the participation of the financial literacy course. An improving design would have randomly assigned both questionnaires before the course to the control group and it would have proposed the post-course questionnaire only to the treated group. For this reason, in our empirical strategy, we try to simulate this improving design by ex-post randomizations of treatment and control groups.

2.2 Data

The initiative involved 153 migrants who participated entirely in the project and on which the analysis is carried out. Table 1 reports summary statistics on the characteristics of the sample. Respondents come from various geographic areas of the world, including Eastern Europe, South America, Asia, North Africa and Sub-Saharan Africa. The sample is very heterogeneous in terms of ethnicity and cultural factors, however, these characteristics are more homogeneous within the groups defined by the local centers that cooperated in the project. The sample is mainly composed of females (i.e., almost 70 percent) and of individuals aged between 18 and 35 years old; 27.5 percent is aged from 36 to 50 years old, and 8.5 percent is above 50 years old. The majority of migrants come from Sub-Saharan Africa and North Africa—63 percent of the sample—whereas 13.7 percent of participants are native to South America and, finally, a smaller percentage is from countries in Asia and Eastern Europe. Furthermore, about half of the sample has been in Italy for less than 5 years: specifically, 32 percent of migrants arrived in Italy less than 2 years ago, 23.5 percent between 2 and 5 years, and 41.2 percent arrived in Italy more than 5 years ago. When we look at the marital and family status of participants in the project “Welcome-ED, we find that 43.8 percent are married but only 3.9 percent with an Italian spouse; almost 42 percent have no children, 22.2 percent have one child, and 35.9 percent have two or more children. Moreover, it is important to notice that 48.4 percent of respondents declare staying in Italy with their family. Regarding the level of education, 9.2 percent have an education equal to

or below an elementary school diploma, while almost 42 percent of migrants declared to have a level of education comparable to a middle school diploma; 23.5 percent have a high school certificate, and only 8.5 percent have a university degree or a higher education level. Within the questionnaire, migrants were asked if they had ever taken other financial training courses in the past and only 10.5 percent answered positively to this question. Finally, the interview collected information on the employment status of migrants as well as their saving attitudes. We observe that only 9.2 percent are employed at the time of the interview even though 28.8 percent declare to save and 31.4 percent send remittances to their country of origin; this mild inconsistency in percentages might capture job instability of migrants over time. We also find that 11.8 percent borrowed money in the past 12 months as private loans or mortgages, whereas a larger share (i.e., 26.1 percent) claimed to have borrowed money unconventionally from friends, relatives or acquaintances. The borrowing status can also partially explain the differences between the share of employed workers and those who save and send remittances.

One of the most important features of the project “Welcome-ED” was the cooperation with local centers which are the places where migrants found help and useful services. In this context, this cooperation involved 14 local centers: 3 cooperatives, 7 non-profit associations, and 4 CPIA. More in detail, 20.3 percent of migrants were involved in the project by cooperatives, 49.7 percent by non-profit associations, and 30 percent by CPIA. All the participants answered a set of four questions to evaluate their knowledge of financial literacy topics, each question was marked 1 point if the answer was correct. Therefore, the maximum score is equal to 4: for the sake of simplicity, we call the “initial score” the outcome obtained before the course attendance, and we refer to the “final score” for the result obtained in the four questions after the financial literacy course.⁸ We find an average initial score equal to 1.4 and an average final score equal to 2.6; the difference in mean represents the first descriptive evidence of the positive effect of the course on migrants’ financial literacy.

⁸In the manuscript, we refer simply to the “score” when we use panel data with both periods.

Table 1: Summary Statistics

	Mean	SD	Min	Max	N
Financial Literacy Knowledge:					
Initial Score	1.444	1.322	0.000	4.000	153
Final Score	2.569	1.191	0.000	4.000	153
Demographics:					
Female	0.699	0.460	0.000	1.000	153
Age Class: 18-35	0.641	0.481	1.000	1.000	153
Age Class: 36-50	0.275	0.448	0.000	1.000	153
Age Class: over 50	0.085	0.280	0.000	1.000	153
Geographical Origin:					
Est-Europe	0.092	0.289	0.000	1.000	153
Asia	0.052	0.223	0.000	1.000	153
South America	0.137	0.345	0.000	1.000	153
Africa	0.634	0.483	0.000	1.000	153
Time since in Italy:					
Less than 2 years	0.320	0.468	0.000	1.000	153
Between 2 and 5 years	0.235	0.426	0.000	1.000	153
More than 5 years	0.412	0.494	0.000	1.000	153
Family Status:					
Married	0.438	0.498	0.000	1.000	153
Italian Spouse	0.039	0.195	0.000	1.000	153
N. of Children	1.111	1.133	0.000	3.000	153
One Child	0.222	0.417	0.000	1.000	153
Two or More Children	0.359	0.481	0.000	1.000	153
Family is in Italy	0.484	0.501	0.000	1.000	153
Education:					
Elementary School Diploma	0.092	0.289	0.000	1.000	153
Mid-School Diploma	0.418	0.495	0.000	1.000	153
High-School Diploma	0.235	0.426	0.000	1.000	153
University Degree or Higher	0.085	0.280	0.000	1.000	153
Fin-Lit Courses in the Past	0.105	0.307	0.000	1.000	153
Employment and Savings Attitudes:					
Works	0.092	0.289	0.000	1.000	153
Saves	0.288	0.454	0.000	1.000	153
Send Remittances	0.314	0.466	0.000	1.000	153
Borrower	0.118	0.323	0.000	1.000	153
Unconventional Borrower (from relative/friends)	0.261	0.441	0.000	1.000	153
Local Center Type:					
Non-profit Association	0.497	0.502	0.000	1.000	153
Cooperative	0.203	0.403	0.000	1.000	153
CPIA	0.301	0.460	0.000	1.000	153

Note: Table reports summary statistics of 153 individuals (migrants) coming from 4 main geographical areas and belonging to 14 different local centers that are of 3 main types (i.e., non-profit associations, cooperatives, and CPIA). These data were collected in the questionnaire conducted before the financial literacy course. The Initial Score shows the results obtained in the four financial literacy questions proposed before the course, whereas the Final Score reports the result obtained after the course attendance.

3 Empirical Strategy

In order to estimate the effect of the financial literacy course on migrants’ knowledge, we provide three different econometric analyses: first, we investigate the role played by individual characteristics on the initial level of knowledge (pre-course) and on the post-course level, independently; second, we estimate a single difference equation in which we evaluate the average change in financial literacy knowledge before and after the course; finally, we develop a random inference analysis by building 1,000 randomized ex-post treatment and control groups to provide further empirical evidence on the sizeable and economic impact of the effects. Hereafter, we report detailed explanations of the aforementioned econometric models.

3.1 Multivariate Analysis of Individual Characteristics

We estimate the following equation to investigate the role played by individual characteristics on the initial and final (i.e., post-course) levels of migrants’ knowledge:

$$Y_i^T = \alpha_0 + \alpha_1 Demo_i + \alpha_2 Geo_i + \alpha_3 Fam_i + \alpha_4 Edu_i + \alpha_5 Emp_i + \alpha_6 S_i + \delta_{LC} + \varepsilon_i^T \quad (1)$$

where Y_i^T represents the knowledge outcome obtained from the evaluation questionnaires reported in the [Appendix](#) that varies at the individual level i . Specifically, Y_i^T can be either the “initial” or the “final” score, or the probability of success to each single question in both post and pre-course questionnaires defined by the up-script T . Moreover, the vector $Demo_i$ includes dummy variables for female and age classes of 18-35 and 36-50 years old, since we use the age class of people older than 50 years old as a reference group. Vector Geo_i includes dummy variables controlling for individuals coming from Asia, South America, and Africa: we use people from Est-Europe as the excluded category. Vector Fam_i comprises a battery of indicator variables for the time passed since the first arrival in Italy (we used more than 5 years as excluded category), the marital status, Italian spouse, and family residing in Italy; finally, it also includes

a count variable for the number of children. Edu_i incorporates indicator variables for the following education levels: mid-school diploma, high-school diploma, and university degree or higher education.⁹ Vectors Emp_i and S_i enter binary variables that take a value of one if the migrant works, saves money, sends remittances, has borrowed money (e.g., loan/mortgage) in the past 12 months, has borrowed money unconventionally (i.e., from relatives or friends) in the past 12 months. Finally, we include local center (LC) fixed effects (δ_{LC}) to control non-parametrically for potential heterogeneous trends in education across the different local centers that are also aggregation centers for migrants. We adopt a two-way clustering of standard errors at the country and local center levels (Cameron *et al.*, 2011; Cameron and Miller, 2015), based on the assumption that unobserved components of the outcomes are correlated across units within clusters (Abadie *et al.*, 2022). The initial and final knowledge levels are scrutinized independently by two different estimations reported in tables 2 and 3, respectively.

3.2 Single-Difference Analysis

We start this analysis by stacking information obtained after the financial literacy course to those retrieved before its implementation. We construct an indicator variable called $Ttime_t$ that takes a value of one when $t = 2$ (i.e., in the post-course period), and we estimate the following equation:

$$Y_{i,t} = \beta_0 + \beta_1 Ttime_t + \theta X_i + \delta_{LC} + \mu_{i,t} \quad (2)$$

where $Y_{i,t}$ are our outcomes of interest (i.e., score and single question probability of success) that vary at the individual and time levels, described by subscripts i and t . In this framework, time is made of two periods: period $t = 1$ for the pre-course, period $t = 2$ for the post-course. For the sake of simplicity, the matrix X_i includes all the vectors of individual characteristics described in section 3.1 and included in the equation 1. Therefore, the coefficient β_1 shows the single-difference effect of the course

⁹In this case, we use elementary or lower education levels as a reference group.

on all migrants since in this context all individuals are considered as treated in period $t = 2$ (i.e., there is no control group so far). The results of this analysis is reported in table 4. Additionally, in tables 5 and 6, we use equation 2 to investigate potential heterogeneous effects on split samples based on the three different types of local centers (i.e., Cooperatives, non-profit Associations, and CPIAs) and the different distributions of nationalities among them.

3.3 Random Inference Analysis

In order to cope with the lack of proper construction of an ex-ante control group, we implement ex-post randomization of the treatment and control groups in the spirit of Young (2019); Dell and Olken (2020) and we impose the level of knowledge of individuals in the control group to be constant over time (e.g., the naïve method in Hyndman and Athanasopoulos (2018)).¹⁰ This implies the assumption that individuals do not exert extra efforts during the time between the two questionnaires to improve their knowledge on financial literacy topics, we believe this is reasonable since the interval of time between the collection of the initial and the final levels of knowledge is on average relatively small.¹¹ Therefore, it is reasonable to assume that nothing would change in the absence of the treatment (i.e., financial literacy course). According to this assumption, we build 1,000 ex-post control groups by randomly drawing the 50% of migrants to each specific local center in order to guarantee their representation.¹²

¹⁰Young (2019); Dell and Olken (2020) propose a random inference test to validate results by comparing fictitious counterfactual coefficients to the actual one (e.g., placebo tests). In general, one of the main purposes of such analyses is to show a lack of statistical significance and/or a lack of power of fictitious counterfactuals. We follow this reasoning with a symmetric approach by randomizing ex-post the treatment and control groups and testing the hypothesis of positiveness and statistical insignificance of the results that better fits our scope.

¹¹On average, the time interval between the two questionnaires is approximately 8 days, and the 75 percent of the sample answered both questionnaires in the same day.

¹²It is important to say that each local center—as part of their cooperation activity—scheduled the appointment with the Museum of Savings to let the migrants attend the financial literacy course. For this reason, it is reasonable to divide migrants of each local center into treatment and control groups since it provides a more realistic simulation of the alternative improving design.

Finally, we estimate the following equation on the 1,000 different samples:

$$Y_{i,t} = \gamma_0 + \gamma_1 Tgroup_i + \gamma_2 Ttime_t + \beta_3 Treatment_{i,t} + \theta X_i + \delta_{LC} + \eta_{i,t} \quad (3)$$

where $Tgroup_i$ identifies migrants in the treatment group based on the ex-post randomization, $Ttime_t$ indicates the time of the treatment (i.e., $t = 2$), and $Treatment_{i,t}$ is made by multiplying $Tgroup_i$ and $Ttime_t$ and it represents our coefficient of interest. The matrix X_i includes all the vectors of individual characteristics described in section 3.1, and standard errors are two-way clustered at the country and local center levels. In Figures 1 and 2, we plot the distribution of the 1,000 estimated β_3 -coefficients on score and single question outcomes, respectively, and we compute the p-value as the fraction of positive coefficients that are not statistically and significantly different from zero.

The equation 3 is a classical difference-in-differences equation: one caveat is that it is technically similar to the estimation of a single-difference model since we imposed individuals' knowledge level into the control group (C) to be constant over time (i.e., $\Delta \bar{Y}_C = (\bar{Y}_{C,2} - \bar{Y}_{C,1}) = 0$). However, the inclusion of the control group provides more precision in the computation of the standard errors and therefore of the p-value of the random inference analysis. Furthermore, equation 3 is representative of an improving design that would have randomly assigned both questionnaires before the course to the control group and it would have proposed the post-course questionnaire only to the treated group in order to estimate a difference-in-differences model.

For this reason, we expect that on average the results of the 1,000 of the equation 3 will converge in magnitude to the results obtained with the single-difference model. However, with this random inference analysis we are able to compute p-values more accurately and show to what extent coefficients can be dispersed from the average in order to understand whether or not there is a sizable and economic impact of the effects.

4 Results

4.1 The Effect of Individual Characteristics

In Table 2, we show results of the equation 1 estimation on the knowledge of financial literacy concepts measured before the course implementation. Specifically, in the first column, we show the role played by individual characteristics on the initial score, whereas in the remaining columns we present the impact of the course on the probability of success on each of the single evaluation questions. We find that females are less prepared than males but what seems to have a greater impact is the geographical provenience: migrants coming from Asia and Africa are those who performed worst when compared to the average score of individuals from East Europe (i.e., the excluded category). This results in minus 1 to 1.5 points on the initial score and minus 25 to 75 percentage points in the probability of success for every single question. The linguistic distance between the country of origin and that of destination, Italy in this case, is a barrier both for the performance of the test and more generally for the learning of financial concepts, and therefore to financial inclusion (Strøm *et al.*, 2018). Another important role is played by the time passed since the arrival in Italy: we find that migrants who arrived in Italy less than 5 years ago performed worst with respect to those who arrived in Italy more than 5 years ago (i.e., the excluded category). Specifically, looking at the impact on the initial score, migrants who arrived between 2 and 5 years ago are penalized by 0.36 points whereas migrants who arrived in Italy less than 2 years ago obtained an average initial score of 0.72 points lower. On contrary, what play a positive role is being married with an Italian spouse: the intuition here is that migrants with a higher level of predetermined inclusion are also those with a higher financial literacy. Moreover, we find a positive impact of the initial score and all other questions for participant with a university degree or for those who have attended other financial literacy courses in the past. We do not find any other statistically significant effect for the remaining individual characteristics included in the equation 1.

Table 2: Multivariate Analysis - Pre-course

	(1) Initial Score	(2) Q1	(3) Q2	(4) Q3	(5) Q4
Demographics:					
Female	-0.636*** (0.198)	-0.235* (0.114)	-0.166 (0.141)	-0.239** (0.091)	0.005 (0.114)
Age Class 18-35	-0.350 (0.413)	-0.188 (0.186)	-0.076 (0.156)	-0.183 (0.209)	0.098 (0.097)
Age Class 36-50	-0.734 (0.486)	-0.326* (0.161)	-0.097 (0.184)	-0.268 (0.233)	-0.043 (0.111)
Geographical Origin:					
Asia	-0.939** (0.408)	-0.243* (0.117)	-0.017 (0.210)	-0.650*** (0.204)	-0.029 (0.238)
South America	-0.559 (0.397)	-0.187 (0.205)	-0.093 (0.168)	-0.286+ (0.183)	0.007 (0.127)
Africa	-1.453*** (0.255)	-0.254+ (0.161)	-0.277** (0.118)	-0.781*** (0.143)	-0.140 (0.110)
Time since in Italy:					
Less than 2 years	-0.722*** (0.235)	-0.354** (0.131)	0.030 (0.178)	-0.113 (0.082)	-0.285** (0.121)
Between 2 and 5 years	-0.364* (0.200)	-0.312*** (0.096)	0.130 (0.098)	-0.024 (0.069)	-0.157+ (0.100)
Family Status:					
Married	-0.240 (0.266)	-0.048 (0.094)	-0.021 (0.126)	-0.248* (0.126)	0.077 (0.066)
Italian Spouse	0.643** (0.289)	0.078 (0.246)	0.224+ (0.127)	0.478* (0.223)	-0.137 (0.169)
N. of Children	0.066 (0.099)	0.028 (0.040)	-0.006 (0.033)	0.060 (0.054)	-0.015 (0.045)
Family is in Italy	0.349 (0.498)	0.119 (0.200)	0.068 (0.148)	0.166 (0.146)	-0.005 (0.104)
Education:					
Mid-School Diploma	0.302 (0.236)	0.149* (0.078)	0.002 (0.160)	0.087 (0.131)	0.064 (0.068)
High-School Diploma	-0.055 (0.173)	-0.118 (0.118)	0.037 (0.139)	0.032 (0.148)	-0.006 (0.079)
University Degree or Higher	0.787+ (0.513)	0.325 (0.221)	0.258 (0.270)	-0.044 (0.257)	0.248 (0.168)
Fin-Lit Courses in the Past	0.846** (0.388)	0.197 (0.139)	0.236 (0.159)	0.275** (0.101)	0.139 (0.165)
Employment and Savings Attitudes:					
Works	-0.418 (0.282)	-0.163 (0.113)	-0.011 (0.104)	-0.060 (0.087)	-0.185 (0.133)
Saves	0.091 (0.363)	-0.037 (0.123)	0.071 (0.128)	-0.051 (0.137)	0.109 (0.100)
Sends Remittances	-0.208 (0.144)	-0.018 (0.070)	0.003 (0.113)	-0.104+ (0.063)	-0.089 (0.085)
Borrower	0.380 (0.421)	0.099 (0.165)	0.225 (0.174)	-0.018 (0.180)	0.073 (0.188)
Unconventional Borrower (from relative/friends)	0.067 (0.450)	-0.032 (0.075)	0.036 (0.175)	0.153 (0.128)	-0.089 (0.156)
Observations	153	153	153	153	153
R-squared	0.521	0.441	0.314	0.394	0.500
Adjusted R-squared	0.367	0.261	0.0938	0.199	0.339
Local Center FE	YES	YES	YES	YES	YES
Cluster SE at Country and LC Levels	YES	YES	YES	YES	YES

Note: Table reports an OLS multivariate regression analyses on outcomes collected before the financial literacy course. Omitted categories: people belonging to the age-class over 50 years old, Est-Europe geographical area of origin, migrants resident in Italy from more than 5 years, people with an elementary school diploma. The Initial Score measures the results obtained in the four financial literacy questions proposed before the course. Regressions include local center fixed effects, and individual controls described in equation 1. Standard errors are two-way clustered at the Country and local center levels. *** p<0.01, ** p<0.05, * p<0.1, + p<0.15

Table 3: Multivariate Analysis - Post-course

	(1) Final Score	(2) Q1	(3) Q2	(4) Q3	(5) Q4
Demographics:					
Female	-0.286 (0.313)	-0.184** (0.083)	-0.129 (0.123)	-0.024 (0.098)	0.051 (0.142)
Age Class 18-35	-0.336 (0.330)	-0.091 (0.184)	0.008 (0.259)	-0.175 (0.180)	-0.077 (0.124)
Age Class 36-50	-0.309 (0.262)	-0.136 (0.208)	-0.069 (0.181)	-0.153 (0.127)	0.049 (0.115)
Geographical Origin:					
Asia	-0.051 (0.308)	0.017 (0.124)	0.043 (0.169)	-0.040 (0.142)	-0.071 (0.238)
South America	-0.052 (0.187)	-0.256* (0.134)	0.134 (0.147)	0.051 (0.102)	0.020 (0.195)
Africa	-0.772** (0.311)	-0.199 (0.135)	0.006 (0.085)	-0.312* (0.158)	-0.268 (0.198)
Time since in Italy:					
Less than 2 years	0.122 (0.316)	0.203+ (0.123)	-0.132+ (0.076)	0.116 (0.147)	-0.065 (0.149)
Between 2 and 5 years	0.001 (0.312)	0.212* (0.107)	-0.147+ (0.092)	-0.056 (0.138)	-0.009 (0.155)
Family Status:					
Married	-0.272 (0.338)	-0.034 (0.169)	-0.170 (0.162)	-0.054 (0.119)	-0.013 (0.177)
Italian Spouse	-0.056 (0.711)	0.025 (0.251)	-0.196 (0.201)	0.038 (0.327)	0.077 (0.212)
N. of Children	0.060 (0.104)	0.040 (0.050)	0.026 (0.056)	0.018 (0.077)	-0.024 (0.041)
Family is in Italy	0.282 (0.382)	0.003 (0.100)	0.249* (0.117)	-0.069 (0.170)	0.099 (0.132)
Education:					
Mid-School Diploma	0.414+ (0.258)	0.153 (0.116)	0.091 (0.126)	0.099 (0.111)	0.070 (0.118)
High-School Diploma	0.147 (0.217)	0.178* (0.100)	0.043 (0.114)	0.054 (0.136)	-0.128 (0.139)
University Degree or Higher	1.018** (0.359)	0.350*** (0.115)	0.398** (0.166)	0.299 (0.244)	-0.028 (0.228)
Fin-Lit Courses in the Past	0.286 (0.329)	0.145 (0.125)	-0.095 (0.101)	0.062 (0.212)	0.173 (0.187)
Employment and Savings Attitudes:					
Works	0.278* (0.134)	0.123 (0.145)	0.141 (0.106)	0.027 (0.097)	-0.014 (0.168)
Saves	-0.002 (0.290)	0.060 (0.122)	-0.068 (0.077)	-0.065 (0.128)	0.071 (0.182)
Sends Remittances	-0.038 (0.274)	-0.138+ (0.088)	-0.061 (0.079)	0.063 (0.139)	0.098 (0.124)
Borrower	0.584 (0.441)	0.237* (0.128)	0.099 (0.207)	0.139 (0.186)	0.110 (0.108)
Unconventional Borrower (from relative/friends)	0.244 (0.291)	0.085 (0.149)	-0.045 (0.148)	0.084 (0.111)	0.120 (0.135)
Observations	153	153	153	153	153
R-squared	0.482	0.317	0.331	0.356	0.278
Adjusted R-squared	0.315	0.0973	0.115	0.149	0.045
Local Center FE	YES	YES	YES	YES	YES
Cluster SE at Country and LC Levels	YES	YES	YES	YES	YES

Note: Table reports an OLS multivariate regression analyses on outcomes collected after the financial literacy course. Omitted categories: people belonging to the age-class over 50 years old, Est-Europe geographical area of origin, migrants resident in Italy from more than 5 years, people with an elementary school diploma. The Final Score measures the results obtained in the four financial literacy questions proposed after the course. Regressions include local center fixed effects, and individual controls described in equation 1. Standard errors are two-way clustered at the Country and local center levels. *** p<0.01, ** p<0.05, * p<0.1, + p<0.15

In Table 3, we show results on the financial literacy outcomes measured after the course attendance. We find that the majority of the negative effects have been mitigated by the administration of the course: the only negative persistent effect is observed for migrants coming from African countries. We also find a positive and statistically significant impact for university graduates; this feature has probably helped in the learning process of financial topics during the course.

According to these results, we notice that individual characteristics played a significant role in the initial financial literacy level, especially those characteristics related to a predetermined level of inclusion (e.g., time from arrival, Italian spouse, country of origin); however, the effect of individual characteristics seems to be irrelevant (apart from few exceptions) after the course attendance. This provides the first empirical evidence of the effect of the financial literacy course.

4.2 The Effect of the Financial Literacy Course

In Table 4, we show the results obtained by estimating the equation 2. In this context, the treatment dummy reports the estimated single-difference effect of the course on all migrants. We find that on average the course improved the score by 1.12 points and the probability of success for every single question by 20 to 36 percentage points. Having attended other financial literacy courses in the past or being in possession of a university degree are helping factors, whereas females and migrants from African countries are those with more difficulties. These results provide evidence of the positive and significant effect of the financial literacy course on migrants' knowledge: the course improved individual outcomes in all single questions and therefore on the total score. However, the limit of this analysis is that it lacks a control group since all individuals are considered treated after the course. For this reason, in figures 1 and 2 we plot results of 1,000 coefficient estimates of the equation 3 (i.e., coefficient β_3) based on 1,000 randomized ex-post treatment and control groups.

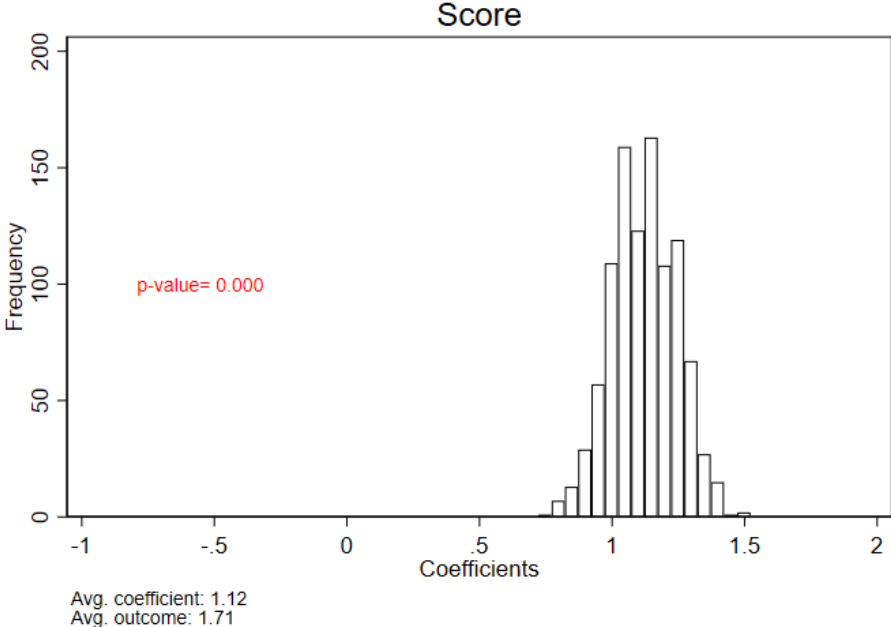
Table 4: Single Difference - Multivariate Analysis

	(1) Score	(2) Q1	(3) Q2	(4) Q3	(5) Q4
Treatment Dummy	1.124*** (0.264)	0.294*** (0.088)	0.359*** (0.075)	0.196*** (0.061)	0.275** (0.118)
Demographics:					
Female	-0.461** (0.172)	-0.210*** (0.059)	-0.147 (0.100)	-0.131* (0.061)	0.028 (0.101)
Age Class 18-35	-0.343+ (0.218)	-0.140 (0.127)	-0.034 (0.154)	-0.179* (0.093)	0.010 (0.078)
Age Class 36-50	-0.521** (0.225)	-0.231** (0.098)	-0.083 (0.129)	-0.210* (0.099)	0.003 (0.087)
Geographical Origin:					
Asia	-0.495+ (0.280)	-0.113 (0.110)	0.013 (0.111)	-0.345** (0.148)	-0.050 (0.073)
South America	-0.305 (0.229)	-0.222* (0.118)	0.020 (0.108)	-0.117+ (0.076)	0.014 (0.085)
Africa	-1.113*** (0.190)	-0.227* (0.124)	-0.135*** (0.043)	-0.546*** (0.132)	-0.204** (0.092)
Time since in Italy:					
Less than 2 years	-0.300* (0.150)	-0.075 (0.062)	-0.051 (0.105)	0.001 (0.056)	-0.175** (0.080)
Between 2 and 5 years	-0.181 (0.157)	-0.050 (0.082)	-0.008 (0.054)	-0.040 (0.081)	-0.083 (0.091)
Family Status:					
Married	-0.256 (0.248)	-0.041 (0.078)	-0.096 (0.104)	-0.151+ (0.094)	0.032 (0.086)
Italian Spouse	0.294 (0.461)	0.052 (0.169)	0.014 (0.117)	0.258 (0.256)	-0.030 (0.172)
N. of Children	0.063 (0.053)	0.034 (0.032)	0.010 (0.026)	0.039 (0.037)	-0.019 (0.032)
Family is in Italy	0.316 (0.321)	0.061 (0.098)	0.159+ (0.103)	0.049 (0.123)	0.047 (0.079)
Education:					
Mid-School Diploma	0.358+ (0.215)	0.151+ (0.087)	0.047 (0.085)	0.093 (0.078)	0.067 (0.055)
High-School Diploma	0.046 (0.150)	0.030 (0.093)	0.040 (0.057)	0.043 (0.104)	-0.067 (0.061)
University Degree or Higher	0.903** (0.389)	0.338** (0.131)	0.328** (0.121)	0.128 (0.160)	0.110 (0.171)
Fin-Lit Courses in the Past	0.566*** (0.171)	0.171** (0.060)	0.071 (0.078)	0.168* (0.089)	0.156+ (0.100)
Employment and Savings Attitudes:					
Works	-0.070 (0.172)	-0.020 (0.091)	0.065 (0.068)	-0.016 (0.058)	-0.099 (0.107)
Saves	0.045 (0.241)	0.011 (0.111)	0.001 (0.077)	-0.058 (0.102)	0.090 (0.099)
Sends Remittances	-0.123 (0.169)	-0.078 (0.053)	-0.029 (0.059)	-0.020 (0.085)	0.004 (0.059)
Borrower	0.482+ (0.311)	0.168 (0.134)	0.162 (0.133)	0.061 (0.128)	0.092 (0.102)
Unconventional Borrower (from relative/friends)	0.156 (0.180)	0.027 (0.061)	-0.005 (0.144)	0.118 (0.080)	0.016 (0.035)
Observations	306	306	306	306	306
R-squared	0.481	0.298	0.304	0.288	0.285
Adjusted R-squared	0.407	0.198	0.204	0.187	0.183
Local Center FE	YES	YES	YES	YES	YES
Cluster SE at Country and LC Levels	YES	YES	YES	YES	YES

Note: Table reports an OLS single-difference multivariate regression analyses, comparing periods before and after the financial literacy course (treatment dummy). Omitted categories: people belonging to the age-class over 50 years old, Est-Europe geographical area of origin, migrants resident in Italy from more than 5 years, people with an elementary school diploma. The Score outcome measures the results obtained in the four financial literacy questions before and after the course (treatment). Regressions include local center fixed effects, and individual controls described in equation 2. Standard errors are two-way clustered at the Country and local center levels. *** p<0.01, ** p<0.05, * p<0.1, + p<0.15

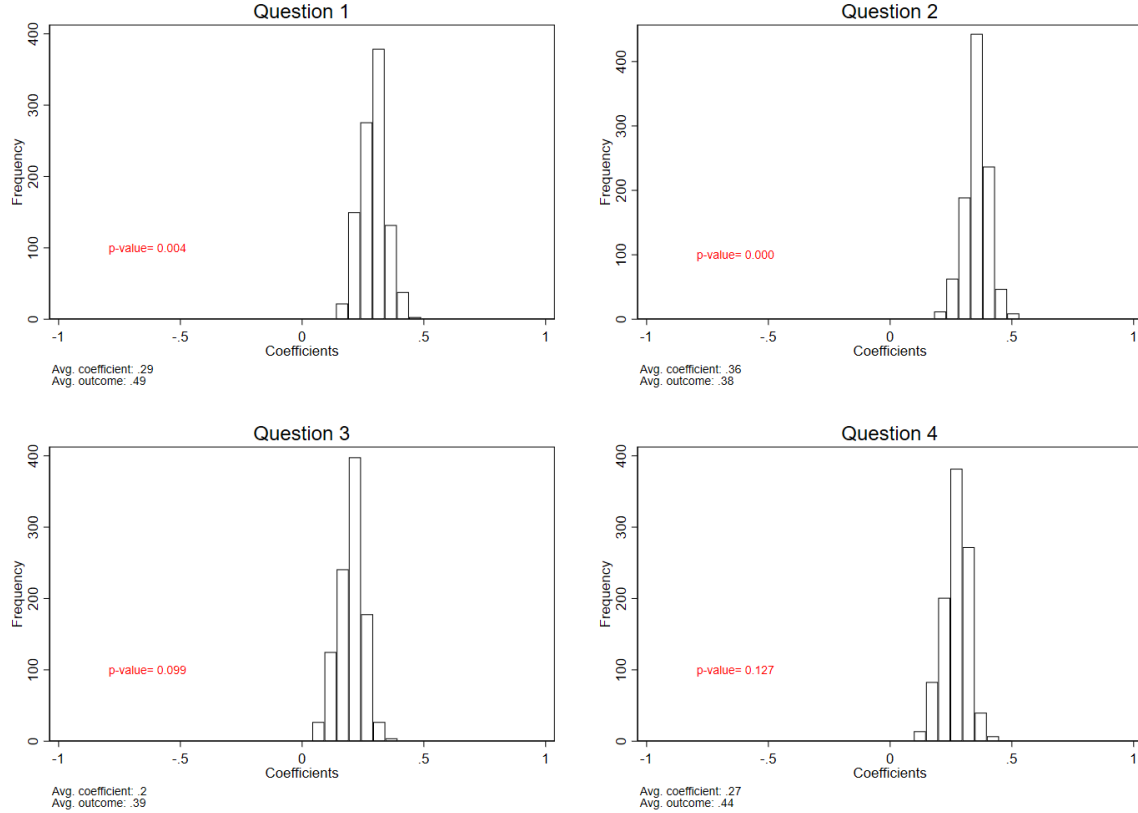
Specifically, figure 1 shows the results on the total score, while figure 2 investigates the effect of the financial literacy course on the single questions. What we observe in both figures is that results are always positive and statistically significant with the exception of the results showed for the question 4 that provides a more noisier result. Moreover, we find—as expected—that on average the results converge in magnitude to the results showed with the single-difference analysis. Most importantly, we also observe that these results are not particularly dispersed from the average, providing empirical evidence of the sizable economic impact of the effects. We believe this provides substantial evidence of the effectiveness of the financial literacy course.

Figure 1: Random Inference Analysis - Score



Note: The graph shows the frequency of 1,000 coefficients based on randomized ex-post control groups for which the outcome is imposed to be constant in the two periods (before and after the financial literacy course). The regression analysis is based on equation 3 and it includes individual controls and local center fixed effects. Standard errors are two-way clustered at the Country and local center levels. The p-value is measured as the fraction of positive coefficients that are not statistically and significantly different from zero.

Figure 2: Random Inference Analysis - Single Questions



Note: The graphs show the frequency of 1,000 coefficients based on randomized ex-post control groups for which the outcome is imposed to be constant in the two periods (before and after the financial literacy course). The regression analysis is based on equation 3 and it includes individual controls and local center fixed effects. Standard errors are two-way clustered at the Country and local center levels. The p-value is measured as the fraction of positive coefficients that are not statistically and significantly different from zero.

4.3 Heterogeneity Analysis

One of the most important features of the project “Welcome-ED” is the cooperation between the Turin Museum of Savings and local centers: namely, cooperatives, non-profit associations, and CPIA. For this reason, in Table 5, we show results of the estimated equation 2 on split samples based on these three different local center types. The main idea of this analysis is to examine the potential heterogeneous effect among

migrants from different local realities in order to see who benefited more from the project. We find stronger effects on migrants coming from cooperatives and non-profit associations than on those from CPIA. Specifically, migrants from CPIA increase their score by 0.5 points for the effect of the course—a result that is barely significant—whereas the effect doubles for migrants involved by cooperatives and it triplicates for those brought in by non-profit associations, also with a stronger statistical significance.

Table 5: Single Difference - Multivariate Analysis - Heterogeneity

Dependent Variable: Score	(1) Cooperatives	(2) Non-profit	(3) CPIA
Treatment Dummy	1.097** (0.112)	1.513** (0.428)	0.500* (0.207)
Observations	62	152	92
R-squared	0.630	0.536	0.678
Adjusted R-squared	0.373	0.417	0.549
Individual Controls	YES	YES	YES
Local Center FE	YES	YES	YES
Cluster SE at Country and LC Levels	YES	YES	YES

Note: Table reports an OLS single-difference multivariate regression analyses on split samples based on the type of local center (i.e., cooperatives, non-profit associations, CPIAs). Omitted categories: people belonging to the age-class over 50 years old, Est-Europe geographical area of origin, migrants resident in Italy from more than 5 years, people with an elementary school diploma. The Score outcome measures the results obtained in the four financial literacy questions before and after the course (treatment). Regressions include local center fixed effects, and individual controls described in equation 2. Standard errors are two-way clustered at the Country and local center levels. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, + $p < 0.15$

We further investigate these results by looking at the effect on split samples based on the composition of migrants in terms of geographical areas of origin within each local center type. Table 6 shows these results. We find that the stronger effects observed for cooperatives and non-profit associations are mainly explained by the fact that these local centers are able to reach the majority of individuals coming from African countries, and within the same national group in cooperatives and non-profit the smaller share of recently arrived explain the lower effect of the course. These migrants are those who may potentially benefit more from this initiative given the higher cost of inclusion they

face in terms of cultural and language distance from the destination country (i.e., Italy). Furthermore, these results point out that the main driver of the different performance among migrants belonging to different local centers relies on the different national composition of the migrants supported by the different local realities, and also in their different seniority in the country of destination. This implies that it is not the different administrative nature of the local migrant centers that determine the results but the different recruitment of their members which determines their intervention at different stages of the migration project.

Table 6: Single Difference - Multivariate Analysis - Heterogeneity 2

Dependent Variable: Score	(1) East Europe	(2) South America	(3) Asia	(4) North Africa	(5) South-Eastern Africa	(6) West Africa
Panel A: CPIA						
Treatment Dummy	-0.091 (0.436)	0.643* (0.327)	1.143* (0.508)	0.250 (0.629)	- -	0.375 (0.431)
Observations	22	28	14	8	-	16
R-squared	0.688	0.616	0.774	0.759	-	0.481
Adjusted R-squared	0.345	0.352	0.510	0.439	-	0.027
Panel B: Non-profit Associations						
Treatment Dummy	- -	0.333 (0.715)	- -	1.071*** (0.269)	1.538*** (0.462)	2.360*** (0.255)
Observations	-	12	-	56	26	50
R-squared	-	0.635	-	0.568	0.634	0.815
Adjusted R-squared	-	0.197	-	0.340	0.237	0.687
Panel C: Cooperatives						
Treatment Dummy	- -	- -	- -	- -	- -	1.150*** (0.095)
Observations	-	-	-	-	-	40
R-squared	-	-	-	-	-	0.540
Adjusted R-squared	-	-	-	-	-	0.104
Individual Controls	YES	YES	YES	YES	YES	YES
Cultural Center FE	YES	YES	YES	YES	YES	YES
Cluster SE at Country and LC levels	NO	NO	NO	NO	NO	NO

Note: Table reports an OLS single-difference multivariate regression analyses on split samples based on the type of local center (i.e., cooperatives, non-profit associations, CPIAs) and nationalities. Omitted categories: people belonging to the age-class over 50 years old, Est-Europe geographical area of origin, migrants resident in Italy from more than 5 years, people with an elementary school diploma. The Score outcome measures the results obtained in the four financial literacy questions before and after the course (treatment). Regressions include local center fixed effects, and individual controls described in equation 2. Results are not reported when the number of observations is not sufficient for the estimation. Standard error are not clustered in this context because of the small number of observations imposed by the split sample analysis. *** p<0.01, ** p<0.05, * p<0.1, + p<0.15

Therefore, what we learn from these results is that projects that cooperate also with non-profit associations and cooperatives are able to reach individuals potentially more fragile who can benefit more from the initiatives; this of course does not mean that other realities should be excluded but policy aiming at fostering migrant inclusion should absolutely take into account the cooperation with alternative local realities than only public ones.

5 Concluding Remarks

We investigate an Italian case-study on the cooperation between the Turin Museum of Savings (a private institution) and local migration centers divided into public education centers (i.e., CPIA), cooperatives, and non-profit associations which, moved by the mutual goal of migrants' inclusion, have worked in the project "Welcome-ED" for the financial literacy of migrants.

We provide evidence that the cooperation was effective and that on average migrants increased their financial literacy, a result that can promote the inclusion of these individuals. We find that the financial literacy course has increased migrants' knowledge and we show that it has mitigated the initial role played by migrants' individual characteristics. Moreover, when we study potential heterogeneous effects across local migration center types, we find that migrants involved in the project by cooperatives and non-profit associations are those who have benefited more. However, our results also stress that the different local migration centers are not responsible for the different results. On contrary, they are testifying their efficacy even if their different composition points out that they are engaged in different phases of the migrant integration process.

Our findings are relevant to inform policymakers who want to design projects for migrants' inclusion. Our results are also directly relevant for the various bodies and financial institutions experimenting financial training courses¹³ reporting success and implementation criticalities (Seshan and Yang, 2014), because we highlight the impor-

¹³Among the main realities, those proposed by: ILO, HELVETAS, OECD.

tance of cooperation between private institutions, public ones, cooperatives, and non-profit associations as a fundamental ingredient to increase the effectiveness of these kind of projects and enlarge the population of individuals who can potentially benefit more from the initiative.

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Appendix Welcome-ED Evaluation Questionnaires

In the project “Welcome-ED”, apart from the questionnaire that retrieves demographic and socio-economic characteristics of the participants, two evaluation questionnaires have been made to retrieve information on migrants’ knowledge of the following financial literacy topics before and after the implementation of the course: savings, financial plans, differences between short-run and long-run investments, and how to solve inter-temporal budget constraint issues.¹⁴ In particular, the following questions have been made before the start of the course; the symbol [✓] marks correct answers:

Pre-Q1: What needs to be done in order to save money?

- a. Having a checking account
- b. Pay with electronic cards and not with cash
- c. Spend less than you earn [✓]

Pre-Q2: Why is it useful to make a financial plan?

- a. To understand what expenses I can bear [✓]
- b. Because we need a reminder
- c. To compare the prices of the things I buy

Pre-Q3: Buying a home is usually a:

- a. short-term goal
- b. medium-term goal
- c. long-term goal [✓]

Pre-Q4: To buy a new phone that costs 150 euros, if I earn 800 euros a month and spend 780 euros a month and I already have 50 euros aside, how much time do I need?

- a. 4 months
- b. 5 months [✓]
- c. 6 months

¹⁴Questionnaires have been surveyed in Italian and are reported here in English for simplicity. Originally, the questionnaire questions include a fourth possible choice asserting “I don’t know”. That choice was included in the questionnaire to make the migrants more comfortable to answer without feeling the judgment-pressure of making mistakes. However, for the scope of the analysis we consider the “I don’t know” choice as zero. For this reason, and for simplicity, we do not report the this alternative option in the questionnaire description provided in the [Appendix](#).

Finally, the following questions have been asked after the implementation of the financial literacy course:¹⁵

Post-Q1: Saving is possible if:

- a. you buy in a trusted store
- b. you shop without borrowing
- c. you put away a part of your income without consuming it all today [✓]

Post-Q2: Building a financial plan serves to:

- a. determine the time it takes to reach a goal [✓]
- b. compare income and expenses with those of friends
- c. reconstruct all the expenses made during the month

Post-Q3: How long does a long-term time horizon correspond to?

- a. Less than 1 year
- b. Less than 5 years
- c. more than 5 years [✓]

Post-Q4: If a phone costs 300 euros, and I make 1000 a month, I spend 950 and I have already saved 100 euros, how many months does it take to buy it?

- a. 4 months [✓]
- b. 5 months
- c. 6 months

¹⁵In the questionnaire proposed at the end of the course, the order of the questions was inverted. For the sake of simplicity, here the questions are reported according to the financial literacy concepts covered by the questions asked before the course.