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Does migrants' consumption of cultural goods impact their economic integration? Disclosing the culture-to-market pathway

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Does migrants' consumption of cultural goods impact their economic integration? Disclosing the culture-to-market pathway

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Abstract

The consumption of cultural goods can play a crucial role in the social and economic integration of immigrants into their destination country. In this paper, we investigate the effect of the cultural national program, *IoStudio*, designed to enhance the consumption of cultural goods - by providing free or discount access - among upper secondary students in Italy, on post-secondary investment in education and early labor market conditions among young immigrants. Using data from a unique survey conducted by the Institute for Multiethnic Studies (ISMU) on a representative sample of the entire immigrant population in the Italian Lombardy region and employing a difference-in-differences estimator, we find that the *IoStudio* policy has positive effects on investment in post-secondary education. Additionally, young foreigners exposed to the policy exhibit higher earnings, at least in the short run, when they enter the labour market. We claim that cultural consumption by immigrants is a relevant concern, deserving close attention in terms of increasing social capital and labour market inclusion.

JEL Code: Z11, J61, J62, I26

Keywords: Cultural participation, migrants, integration, Italy

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1 Introduction

There is an increasing concern in Europe over the economic integration of migrants. Higher unemployment rates and lower wages than those of natives with similar characteristics (Eurostat, 2023) fuel fear. In the short run, fear of a wider use of the welfare state, in the long run, fear of poor cultural integration. These concerns trigger restrictive immigration policies. The debate on more efficient integration policies is highly fragmented. Experiences are designed to the specific needs of specific communities and do not provide a structured vision. They focus on the creation of skills to fit local labour market demand and in promoting basic linguistic skills, with very limited results. Migrants remain concentrated in segmented labour markets where the soft skills required are very limited. It has indeed become clear that the enhancement of soft skills is passing throught social integration (Dustmann 1996, De Palo et al. 2007, Laurentsyeva and Venturini 2017, Piracha et al. 2023) and that cultural integration plays more than a marginal role both in the short and in the long run. Hence, understanding the impact of policies that may affect cultural inclusion becomes crucial.

In this paper we investigate the effects of the introduction of a national cultural project “IoStudio-La carta dello studente” ("IStudy - The Student Card") in Italy, which aims to promote cultural consumption among upper secondary students by granting free or discounted access to cultural goods. We focus on the effect on early labour market conditions and post-secondary investment in education for a sample of young immigrants in Lombardy, an Italian region with the largest number of foreigners.

We try to bridge two different strands of literature: on the one hand the traditional labour economics literature, which tries to understand the dynamics of the integration of migrants into the labour market; on the other hand, the cultural economics literature, which investigates the effect of the passive or active participation in the consumption of cultural goods on the

behaviour of people in the labour market.

Since the seminal papers by Barry Chiswich (1978, 1991), Chiswich and Miller (2005), Dustmann and Van Soest (2002), and Dustmann and Fabbri (2003) on the relevance of language proficiency in migrants' integration, policies have increasingly emphasized the need for language training programs to foster and support migrants' inclusion. The duration of stay in the destination country by the migrants lays a positive role in economic integration because it contributes to the knowledge of the language and of the culture of destination country which is crucial for determining workers' productivity. The research on linguistic distance which groups countries according to different linguistic roots has been widely used also in other fields such as trade (Adsera and Pytlikova,[1] 2005, Melitz and Toubal 2014)[2], migration choice (Belot and Ederveen, 2012, Lanati and Venturini 2021, De Santis et al. 2021) and prosperity (Alesina et al. 2016), with important results on the economic integration of foreigners.

Recent papers (in the Italian case Strom et al. 2018; Venturini and Villosio 2018; Ghio et al. 2023) have shown that linguistic distance negatively affects immigrants who live in ethnic enclaves in the hosting countries and who access only segmented labour markets where the soft skills in demand are limited. However, those papers do not disentangle the effect of language skills from the pure cultural assimilation. The two are related but not necessarily correlated. Only recent papers (Rapoport et al. (2021), Piracha et al. (2023), Olcina et al. (2024)) try to fill this gap in the literature by looking closely at the relationship between cultural assimilation and linguistic distance. [3]

At the same time, research on the passive and active consumption of cultural goods has shifted from analyzing the motivations behind the consumption of cultural goods (Ateca-Amestoy

[1]The linguistic index is elaborated using linguistic roots

[2]The linguistic distance index is based on the use of similar words

[3]Pichara et al. (2023) measure social integration using 3 parameters: ability in speaking the target language, happiness of living in the destination country and size of the ethnic community.

2008, and Ateca-Amestoy et al. 2019, Hallmann et al. 2017) to examining the effects of cultural goods and activities on people's behavior, specifically their well-being (McCarthy et al. 2004, Wheatley and Bickerton 2019).

While the research on the positive effects on health constitutes the more established body of this research extension - see the WHO survey for example (Fancourt and Finn 2019)- many other research projects and experiments analyse the physiological and psychological effects of the consumption of cultural goods. The former, that is to say projects focused on the physiological effects of cultural consumption, explore the reduction of cortisol (viz. reduction of stress) and increase in endorphins which improve the well-being of people with many positive effects on the abilities of persons involved in cultural activities. The latter, that is to say studies focused on the psychological effects of cultural consumption, discloses an increase in self-esteem, self-efficacy and social-relational capacity increasing the happiness of the participants in cultural activities, their ability to solve problems and their ability to connect with the "others". This is becoming so relevant that both the European Commission and public institutions now tend to consider "cultural policies" part of the "welfare policies" and cultural investments as part of the welfare investments.

In migration studies, a very disregarded subject is the study of migrants'cultural consumption, their tastes and preferences and how they are associated to socio economic integration process. This is probably related to the different conceptual views in social science where for a long time the heart of the debate was on assimilation and multiculturalism, while cultural integration was considered a long term phenomenon with an inter-generational dynamic focusing on the differences between first and second generation migrants (Katz-Gerro et al 2009, Novak-Leonard 2015). A relevant exception is the research by Bertacchini et al. (2022) which explores the driver of cultural participation of foreigners in Italy using the national survey car-

ried out in 2011-12 by the Italian National Institute of Statistics (ISTAT). Their results point out that more integrated migrants are more active consumers of cultural goods and that the variability is only partially explained by differences in cultural traits peculiar to each migrant community. There is room for "acculturation policies" (Berry 2005) to favour the leisure activities and culture participation and to promote the effects obtained by the consumption of cultural goods which enhance the knowledge of the culture of the destination society and the creation of social capital. The "acculturation process" promotes soft skills which make the hard skills of the foreigners more marketable [4]. "Acculturation" thus becomes an important driver not only of cultural integration but also of the economic integration. While many researchers find a positive link between the consumption of cultural goods and physiological (Grossi et al. 2012), or/and psychological indicators (Zentner and Herola 2010) no research to our knowledge has investigated the link with the labour market performance, even though they all suggest this possibility.

Our contribution thus aims to reverse the causal relationship between economic integration and cultural integration. While in the past the direction of research moved from economic integration to cultural integration, we now assess the effect of enhancing the cultural integration on economic integration. In this way we stress the role played by the knowledge of the mainstream culture prevailing in the destination country and the "cultural" soft skills for success in the labour market. Cultural integration may foster the economic integration and enrich the set of tools of policy makers to improve the economic well-being of immigrants. "Acculturation" thus becomes an important driver not only of cultural integration but also of the economic integration.

In our study, we consider a recent cultural policy addressing students enrolled in upper

[4]From a different angle, the present research is applying the approach by Guiso, et al. (2006) of "Does culture affect economic outcomes?"

secondary education to study the effect of the consumption of cultural goods on subsequent labor and post-secondary educational outcomes. Starting from the school year 2008/2009, the Italian Ministry of Education initiated the distribution of a student card to all upper secondary school students, as part of the *IoStudio-la carta dello studente* project (*translation IStudy - The Student Card*). The primary aim of this initiative was to provide easier access to cultural activities and services aimed at enhancing and expanding students' cultural interests. Among its benefits, the card offered free access to national museums, libraries, as well as discount rates for cinemas, concerts, and theatres, thus encouraging the consumption of cultural goods.

In order to test the effect of this policy on our outcomes of interest, we use repeated cross-sectional data from the survey run by the Institute for Multiethnic Studies (ISMU) on a representative sample of the immigrant population in the Lombardy region. Data include detailed information on labour market outcomes, educational status and several individual characteristics, like age and year of arrival in Italy. Exploiting the timing of the policy and the eligibility of immigrants to receive the *IoStudio* card, we apply a difference-in-differences (diff-in-diff) strategy to investigate whether foreign students who were card holders during high-school show improved educational and labor market outcomes after graduation.

Findings show that the *IoStudio* policy increased the probability of attending post-secondary education, and of earning higher wages for employed individuals (at least in the short run). Due to data limitations, we are unable to test for the direct effects of the introduction of the card on the consumption of cultural goods at the time of the distribution, nor do we have information on the actual utilization of the card that was delivered by the government to all students enrolled in an upper-secondary education program. To ensure that our findings are attributable to the implementation of the policy, we conduct placebo tests regarding the timing of the policy and the identification of the treated group to exclude confounding effects such as attending Italian

schools or the 2009 economic crisis. These tests provide reassurance and support our main results, which suggest that the consumption of cultural goods may have had important effects on the labour market integration of immigrants.

We claim that active participation in cultural events and passive consumption of cultural goods, can induce relevant effects on migrants soft skills, subsequently leading to significant positive effects in the labor market.

The paper is structured as follows. In Section 2 we briefly discuss the policy background related to the introduction of the Student Card. Next, we present the data used in our analysis. In Section 3 we describe our empirical strategy. In Section 4 we comment on the empirical baseline results and conduct various robustness checks. Section 5 presents our conclusions.

2 Background and Data

2.1 Policy Background

Starting with the school year 2008/2009, the Italian Ministry of Education (MIUR) launched the national project *IoStudio-La carta dello studente* (*IStudy - The Student Card*) under the High Patronage of the President of the Republic. With this project, the MIUR automatically issued an identification card called the "student card" to all students attending upper secondary schools. Each school had to distribute to each student this card which certified the student's status and provided easier access to cultural activities and services that could be beneficial for student's life (the card provided, for example, free access to some museums, libraries, and discounts for cinema, concert, and theatre).[5] The validity of the card expired right after getting high-school diploma and could not be renewed.

[5]The card had to be distributed to students by the end of October 2008.

After an experimental period, the 04/02/2010 decree (D.M. n.20) stated the requirements for associations, and private operators to become partners in the *IoStudio* initiative. A national list of suppliers and service providers offering benefits and discounts reserved for students in possession of the Student Card has been established. The list of suppliers should operate in the following areas: cinema, theater, music and dance, circus performances, museums and art galleries, archaeological and naturalistic areas, architectural assets of cultural and artistic interest bookstores, libraries, archives, video libraries, youth hostels, fair trade, foreign language courses and cultural exchanges abroad, transportation and mobility, information technology and telecommunications, sports facilities, educational materials and services of social interest. Suppliers were incentivized to join the program as it provided free access to an online platform for promoting their discounts, thereby increasing their visibility. Beginning with the 2013/2014 school year, the Student Card was introduced with the added functionality of being utilized as a rechargeable prepaid card. Starting from the 2020/2021 school year, in compliance with the regulations concerning the protection of personal data, the student card is no longer automatic but is issued upon request by families. Overall, the card facilitates access to cultural goods and services. Thanks to the *IoStudio* card, high-school students can benefit from Italy's first private-public partnership network which offers discounts and cultural advantages, including discounts for cinema, museums, books, school materials, audio-visual resources, telecommunications and internet services, technology, travel, study holidays. This might be particularly relevant to incentivize consumption of cultural goods and services for students of low socio-economic status.

2.2 Data

The main source of data for our analysis is an annual survey carried by the Foundation for Initiatives and Studies on Multi-Ethnicity (ISMU) from 2001 to 2016. The aim of this survey is to document the living and working conditions of a representative sample of both documented and undocumented immigrants in the Lombardy region, which is one of largest, most populated, wealthiest Italian regions, and accounts for 23% of the entire migrant population legally residing in Italy in 2005.[6] The survey was administered to a minimum of 3500 and a maximum of 9000 individuals in each wave. It provides several information on migrants' socio-demographic characteristics, such as age, sex, civil status, country of origin, legal status, type of residence permit, year of arrival in Italy and in Lombardy, province of residence, religion, education status, and indicators of living conditions, such as housing. It also contains detailed information on labour market conditions such as employment status, types of contracts and a self-reported measure of personal net monthly labour income for employed respondents. The sampling scheme and the questionnaire has been considered particularly suited to survey immigrants to elicit truthful reporting of legal status along with other individual characteristics, including employment status and income. The survey design employs the Centre Sampling (CS) method, a technique well-suited for studying immigrant populations due to their tendency to cluster in specific geographic areas. The process begins with identifying key "centres" where the target population commonly gathers, including ethnic shops, cultural and social clubs, places of worship, healthcare facilities, job centers, and open meeting areas. A subset of these locations is then randomly selected, and immigrants visiting them are invited to participate in interviews. During each interview, respondents report how frequently they visit other identified meeting points, allowing for the computation of ex post selection probabilities,

[6]For a description of the migration phenomenon in Lombardia see Maiarino S., Terzara L., (eds) Il fenomeno migratorio in Lombardia: uno sguardo di lungo periodo, Rubbertino editore 2023.

which are then incorporated into the sample. The collected sample provides reliable estimates of the size of the immigrant population (regular and irregular) in the Lombardy region.[7] For this reason, the ISMU survey has been extensively used in previous studies on migration (see, for example, Dustmann et al. 2017; Adamopoulou and Kaya, 2020; Berlanda et al., 2024).

We use waves from 2004 to 2015 to obtain a data set which is balanced in terms of pre- and post-treatment periods and we select a sub-sample of individuals aged 19-23 with upper secondary education completed legally residing in Italy.[8] Furthermore, since linguistic proximity plays a key role in promoting the economic and social integration of immigrants in the destination country (e.g., Strom et al., 2018), our empirical analysis also includes a measure of linguistic proximity, taken from Adsera et al. (2015), between the Italian language and the language spoken by the majority in the immigrants' country of origin. [9]

To evaluate the effect of the *IoStudio* policy on post-secondary education and early labour market conditions among individuals of the same age group, we can leverage on the timing of the policy implementation (school year 2008/2009) and on the fact that only individuals that attended high-school in Italy could have been exposed to the program to set up a diff-in-diffs analysis.[10] The timing of the policy allows us to compare eligible individuals' outcomes before and after the policy introduction, while the eligibility criterion allows us to distinguish between treatment and control group.

[7] For further information, please refer to Baio et al. (2011). As written in the methodological note of the survey "Starting from the representative sample by CS method, the stock of immigrants can be estimated reconciling the CS weighted data with the population registry data, augmenting the number of registered immigrants by the proportion of sample respondents declaring (irrespective of their legal status) to not be listed in the population registry". This suggests that, despite the number of observations changes across survey years due to variations in the number of interviewers and visited centres, the use of sample weights ensures representative estimates that remain comparable across survey waves.

[8] To assess the representativeness of our sample in relation to the young immigrant population, we computed yearly descriptive statistics using the ISMU survey and the official registry of immigrants residing in Lombardy provided by the Italian National Institute of Statistics (ISTAT). The comparison of columns 1 and 2 of Table A1 confirms that the ISMU survey represents the immigrant population aged 19–23.

[9] Adsera et al. (2015) developed a measure to assess linguistic proximity between two languages based on information from Ethnologue (Lewis, 2009).

[10] Note that we are considering students potentially enrolled in the first university cycle which is the equivalent of a Bachelor's degree (Laurea triennale) and lasts 3 years.

In our analysis we define as the treatment group all individuals who have attended at least one year of upper secondary education in Italy, i.e. individuals who declare to have an high-school degree and arrived in Italy when they were at most 18 or 17 years old, depending on the typical age of completion of upper secondary school in their home country.[11] These are individuals who are eligible for the policy, i.e. individuals that could have been exposed for at least one year to the *IoStudio card* policy. In addition, to ensure more comparability between the treatment and control groups before the policy was implemented, we consider as treated only immigrants who arrived in Italy when they were older than 13 years old, i.e. the average age to be admitted to high-school in Italy.[12] Conversely, we define as the control group all individuals with upper secondary education completed who arrived in Italy at the age of 19 and more, i.e. individuals who plausibly attended high school abroad and therefore not eligible for the policy.[13]

In our diff-in-diff strategy, we test the effect of past exposure to the *Iostudio* program (that happened when individuals were at high school) on post-secondary education enrollment and early labour market outcomes at the time of the interview, when the card has already expired. Furthermore, we assume the policy is effective if individuals have been exposed to it for at least one year.[14]

[11] In Italy, students finish high school at 19 years old. However, immigrants might finish high school at 18 years old in their home country since educational systems vary across countries. To avoid any mismatch in the assignment, we drop immigrants arrived at 18 years old from those countries. We collect information on eligible age for completing secondary school in each country from the Scholaro database `https://www.scholaro.com/db/Countries`

[12] Further, since undocumented migrants are distributed differently across groups, (eligible group 10% and not-eligible group 40%), we exclude undocumented immigrants from the sample to improve the reliability of outcomes' comparison between groups. We can imagine that a greater presence of undocumented immigrants would lead to worst educational and labor market outcomes than the group with less undocumented immigrants. Sticking with all regular immigrants is less likely to have unreliable comparisons once assumed that on average all the documented immigrants have the same opportunity in both the educational and labor markets within their own group (eligible or not-eligible). Table A2 presents the distribution of eligible and non-eligible individuals for each year.

[13] Data does not allow to know whether respondents have been awarded an high school degree in Italy or abroad. However, in case they earn a high school degree after 19 years old, our estimates will be biased towards zero.

[14] Lacking information on the actual card usage, we assume a positive probability that individuals who received

Table 1 shows the summary statistics for some individual characteristics for the whole sample and for the treated and control group both before and after the treatment. We include also a test for pre-treament differences between the eligible and not-eligible groups. We do not observe a statistical difference on the mean of treated and control group for the most of the socio-demographic characteristics. However, the difference between means of treated and control groups is statistically different with respect to: Catholics, Europe dummy, age, age squared, family and student visa. In our empirical analysis, we control for all these observable characteristics to account for the potential selection bias between the control and the treated groups.

For the outcome variables (post-secondary education enrollment, employment, labor force participation[15] and log wage), we proxy a statistical test for the parallel trend assumption using placebo exercises as explained in section 3.

3 Empirical Strategy

We estimate the following empirical model:

$$y_{it} = \alpha_i + \delta_t + \beta D_{it} + \varepsilon_{it} \tag{1}$$

y_{it} is the outcome of interest of individual i at time t, α_i is a dummy equal to one if an immigrant has attended the high schools in Italy, δ_t is a set of time dummies, D_{it} is a dummy equal to one if the individual i is in the eligible group and the policy has been implemented ($t > 2009$). Although the policy was implemented in the 2008–2009 school year, we define the post-treatment period starting in 2010, because in Italy, students finish high school in July.

the card also use it.

[15] We classify individuals as part of the labor force if they are either employed or unemployed at the time of the survey.

Therefore, the first treated cohort of individuals with high school completed should consist of students who graduated in July 2009. In our sample, this corresponds to individuals aged 19-20 interviewed in 2010, given that the ISMU survey has been conducted between May and June 2009.[16] Further, in order to ensure that on average the cohorts of eligible individuals finished high school after the introduction of the policy in the post treatment period, we define eligible individuals as follows: individuals aged 19-20 at the time of the survey for the year 2010; aged 19-21 for the year 2011; aged 19-22 for the year 2012; aged 19-23 for the years 2013-2015. To ensure the comparability of eligible individuals in the pre and post treatment period, in a symmetric way, we consider individuals aged 19-23 for the years 2004-2006, aged 19-22 for the year 2007, aged 19-21 for the year 2008, aged 19-20 for the year 2009 in the pre treatment period. We define in the same way the age of the individuals in the control group.

Finally, ε_{it} is the error term with bootstrap standard errors clustered at the province level to account for possible correlation across individuals belonging to the same province.[17] Our parameter of interest β measures the effect of receiving the *IoStudio* card on labor market and educational outcomes. Equation (1) defines the benchmark empirical specification for the empirical analysis. We then include the following individuals controls: a gender dummy; a Muslim and a Catholic dummy to control for the religion of the respondent; area-of-origin dummies (Asia, North Africa, Sub-Saharan Africa, South America, and Europe as the reference group); age, age squared, visa-type dummies and linguistic proximity. Finally, we include province fixed effects to control for time invariant characteristics of the area of residence of the respondent.

[16] Note that even if students finish high school when 19 years old, it is possible to have graduated individuals aged 19 in 2010, as they might turn 20 after the date of the interview.

[17] Given the small number of clusters (we have 11 clusters), we used the Wild bootstrap approach for correcting the standard errors with a limited number of clusters (Cameron and Miller, 2015). Wild-bootstrapped p-values are calculated with the *boottest* Stata command, using the standard number of bootstrapping repetitions (999 repetitions) and the default Rademacher weights.

To identify the effect of the policy in a diff-in-diff setting, we assume: i) stable unit treatment value assumption (SUTVA), i.e. there are no spillover effects of the policy from treated migrants to untreated migrants; ii) the selection bias between eligible and not-eligible foreigners is constant over time (parallel trend assumption). The SUTVA assumption allows us to identify the average treatment effect on treated. This assumption relies on the design of the experiment and cannot be tested.[18] The parallel trend assumption allows to identify the change in the average outcomes of interest following the participation in the *IoStudio* program, and it is testable using a placebo approach.[19] In sub-section 4.2.1, we will perform several placebo tests to validate our empirical strategy.

4 Results

4.1 Baseline Results

Table 2 shows the effects of the *IoStudio* policy on labor market outcomes and education. The even and the odd columns display the effect of the policy without and with controls for individual characteristics, respectively. Columns (1)-(2) and (3)-(4) show the estimates on the overall sample and on the younger than -21-years-old sub-sample, respectively, to analyze the effect of the policy both in the medium and in the short run, i.e. when individuals have just finished high-school. Panel A shows a negative and slightly significant effect of the policy on the labor force participation only in Column (2). However, the low significance might stem from the

[18] For instance, possible spill-over effects could happen if individuals in the control group were encouraged by younger treated acquaintances to go with them to cultural events at the time they were exposed to the *IoStudio* program. We think that this is unlikely to be systematic, as untreated individuals would not have any personal discount for cultural events and/or activities. However, in the hypothetical case of spill-over effects, our results would display a lower bound as the effect of the *IoStudio* program on our outcomes of interest would go in the same direction for both treated and untreated individuals.

[19] An event study showing the null effect of the policy before 2010 would be an alternative way to test for parallel trend assumption. However, an event study is quite demanding for our small sample since we have only 923 and 363 observations for 12 years. An event study will create tiny groups, around 38 obs per group-year, such that the consistency of the group mean is very likely not to hold.

small number of observations since point estimates do not vary a lot across specifications in the overall sample, while the effect is very noisy in below-21 sample.

Panel B shows that immigrants are less likely to be employed after sharing the policy. The negative effect may derive either from an increase in educational enrollment or in the reservation wage of immigrants following the policy. The consumption of cultural goods could increase the awareness of the average wage in the hosting local labor market and the aspirations of better jobs leading immigrants to experience longer unemployment spells before accepting a job offer. Yet, Panel C displays a positive and meaningful effect of the policy on wages for employed immigrants younger than 21 years old, while there is no effect on the overall sample. In particular, among young cohorts, *IoStudio* program increases the average wage of treated individuals by 67% , shifting from 786 euro per month to 1312 euro per month.[20] Although findings might be quite impressive, the effect is more likely to stem from an increase in monthly hours worked or in the likelihood of being hired in jobs with a higher entry wage rather than an actual increase in the wage premium in the same occupations. The heterogeneity in the estimates between the overall sample and the below-21 sample might indicate that the *IoStudio* card has short run effects on wages. Immigrants, in particular, benefit from the increased non-cognitive skills gained through card usage when they enter the labor market. However, when we consider the effect of the policy on investment in education, we find a positive and statistically significant effect of the policy on the likelihood of being enrolled in post-secondary education for the overall sample (Col. 1 and col. 2, Panel D). Our results suggest that post-secondary education enrollment among treated cohorts increases by around .12 p. p. following the policy implementation. Given that the initial post-secondary education enrollment gap between eligible and not eligible groups is null from Table 1, the *IoStudio* program leads to a post-secondary education

[20]The change, 67%, has been calculated using the following formula $e^{\beta} - 1$, where β is the estimated coefficient in Column (4). The change in euro, 1312, has been calculated as the initial average wage, 786, plus the 67% of the initial average wage, 526.

enrollment gap between treated and control by around 12 individuals per 1,000 high-school graduates. When we restrict the sample to individuals aged 19-20, coefficients are around zero and not statistically significant. This could derive from the decision of delaying post-secondary educational investment after high school. [21]

Overall, our results suggest that the policy encourages educational investment. However, immigrants may delay their decision to enroll in post-secondary education, opting to enter the labor market first and benefit from higher wages due to the "acculturation" policy.

4.2 Robustness Checks

4.2.1 Placebo Tests

In order to check the validity of our results, we perform several tests. First, our results are based on the so-called parallel trend assumption, which assumes that the outcomes of treated and control groups do not diverge in the pre-treatment period. This implies that the returns of graduating in Italy would increase at the same rate as those of graduating abroad in the absence of the policy (even if their levels may differ). To ensure that our data support this assumption and that the post treatment dummy for the eligible group is not capturing a divergent trend in the average outcomes between eligible and not-eligible group, which would have occurred anyway, regardless of the policy, we consider a placebo date. This test is important, for instance, to rule out that our results would depend on a widening disparity in educational quality between host and origin countries. In that case the gap of the labor and educational outcomes between eligible and non-eligible groups would increase over time independently of the introduction of the *IoStudio* policy. We then perform a placebo test on a pre-policy period when the treatment is off. More specifically, we move the beginning of the policy in 2006 and select a time span from

[21] The 2011 AlmaLaurea report shows that around 37.4% of immigrants enroll at university two or more years after finishing the Italian high-school diploma (AlmaLaurea – Profilo dei Laureati 2020. Rapporto 2021).

2001 to 2008 to check whether the difference between group-specific labor market outcomes is not statistically significant before the true beginning of the policy. A non-significant effect is reassuring regarding the parallel trends in labor market and education outcomes of the eligible and non-eligible groups before the policy's implementation.

Another concern is that our treatment variable, D_{it}, proxies the 2009-2010 European debt crisis. Our estimates may show the effect of the 2009-2010 European debt crisis, contemporaneous to the beginning of the *IoStudio* program, if the crisis have had heterogeneous effects between the outcomes of the eligible group and the outcomes of the non-eligible group (for instance, the drop in the number of firms may push eligible migrants to enroll at university, while the number of non-eligible migrants with a student visa does not increase at the same rate following the crisis). To rule out this concern, we perform a placebo exercise that compares the outcomes of the never-treated eligible cohorts, immigrants arrived in high-school age but awarded the high school diploma before the beginning of the policy, with not-eligible immigrants of the same cohorts. [22] This exercise tests whether the post-2009 labor and educational outcomes of eligible immigrants are not meaningfully different from the post-2009 outcomes of not-eligible when eligible immigrants are not treated.

Table 3 and Table 4 show the placebo tests for the policy timing and the cohorts, respectively. The tests are performed on four outcomes: labor force participation, employment, wage and enrollment in post-secondary education. Column (1) and (2) show the estimates on the overall sample without and with controls, respectively. Column (3) and (4) show the estimates on the subsample of individuals younger than 21 years old without and with controls, respectively. Placebo tests display non-significant difference between outcomes of the two groups

[22] We consider individuals aged 24-28 for the years 2013-2015; aged 24-27 for the year 2012; aged 24-26 for the year 2011, aged 24-25 for the year 2010. In a symmetric way, we consider individuals aged 24-28 for the years 2004-2006, aged 24-27 for the year 2007, aged 24-26 for the year 2008, aged 24-25 for the year 2009. We define in the same way the age of the individuals in the control group.

when the policy starts in 2006 and when we select older cohorts of eligible and not-eligible individuals.

Finally, our last concern is that the characteristics of individuals in both groups change over time and the potential effect may reflect the change of individual characteristics within groups rather than the effect of the policy. To test whether the average characteristics of the two groups do not vary before and after the treatment, we perform a pre-post analysis on the joint distribution of individual time-invariant characteristics.[23] First, we predict the labor market outcomes by regressing all the individual characteristics on the labor market outcomes. Then, since the predicted values proxy the joint distribution of individual characteristics of both eligible and not-eligible individuals, we regress the predicted values on a the post dummy for both the treatment and control group to evaluate whether the joint distribution of characteristics is different before and after the beginning of the program. Since time-invariant individual characteristics should proxy the selection bias of both groups, this exercise tests whether the selection bias varies over time.

Table 5 and Table 6 show any change in the joint distribution of individual characteristics following the treatment for both treated (Panel A) and control (Panel B) group on the overall sample and the below-21-years-old subsample, respectively. Only the eligible in the below-21 subsample group shows a meaningful negative effect in the likelihood of enrolling at university. However, a negative selection between the pre- and post eligible group, if any, leads only to a lower bound of the effect of the *IoStudio* policy on the probability of being enrolled in post-secondary education.

[23]The time-invariant individual characterstics are the following: female dummy, catholic dummy, muslim dummy, Asian dummy, North African dummy, Sub-Saharan dummy, Latin American dummy, age, age squared and province fixed effects.

4.2.2 Year at Arrival

In our main analysis, we consider immigrants older than 13 years old and younger than 19 years old at arrival. However, the decision of both thresholds is reasonable but arbitrary. To test whether the threshold selection affects the estimates, we replicate the same analysis using different thresholds.

Figure 1 and Figure 2 show estimates of the *IoStudio* policy on labor force participation, employment, wage, and enrollment in post-secondary education for three different lower- and upper-bound thresholds, respectively. Sub figures (a) and (b) show the estimates without adjusting for covariates, for the the overall sample and the below-21 sample, respectively. Sub figures (c) and (d) show the estimates adjusted for covariates, for the overall sample and of the below-21 sample, reflectively. Point estimates are quite stable across specifications indicating that including or excluding individuals at margin does not affect the estimates. Only the wage and education effects are less precisely estimated when we narrow the sample only to immigrants arrived older than 15 years old and younger than 17 years old, respectively. However, point estimates for both effects are quite stable indicating that the small sample size leads to a lack of statistical power.

5 Conclusions

This paper investigates the effects of the introduction of a national cultural program which promotes the consumption of cultural goods on post-secondary investment in education and on early labour market outcomes on a sample of young immigrants in the Italian Lombardy region. This research question is particularly relevant as the consumption of cultural goods might improve both the "acculturation of foreigners", namely the knowledge of the culture

of the destination country accelerating the accumulation of soft skills which make foreigners' hard skills more marketable, and social integration with more frequent interactions between immigrants and natives. This in turn could have positive effects on educational investment decisions and labour market outcomes. Using a diff-in-diff strategy, our results show that the *IoStudio* policy has positive effects on investment in post-secondary education in the large sample and a negative effect on employment. In addition, young foreigners exposed to student card display higher entry wages. These results suggest that the policy could have a positive effect on educational investment, but immigrants might delay their decision to enroll in post-secondary education.

IoStudio policy aims at increasing the consumption of country-specific cultural goods and so it has an indirect effect of increasing the probability of having social interactions between immigrants and natives. The increase in social interaction may improve the non-cognitive skills of immigrants in the host country, fostering both economic and social integration. The positive effect on wages (at least in the short run) and on investment in education (in the medium run) is a signal of the change in the set of potential earnings of immigrants following the treatment. Whether the change in earnings and in the probability of enrolling in post-secondary education goes through both the increase in non-cognitive skills and social assimilation is an open question since we cannot disentangle the two. However, as far as we know, this paper provides the first set of results on the assimilation of young immigrants thanks to a national cultural program and provide an initial evidence that cultural policies not only should be considered welfare policies but also employment inclusion policies due to their positive effects on the acquisition of social capital.

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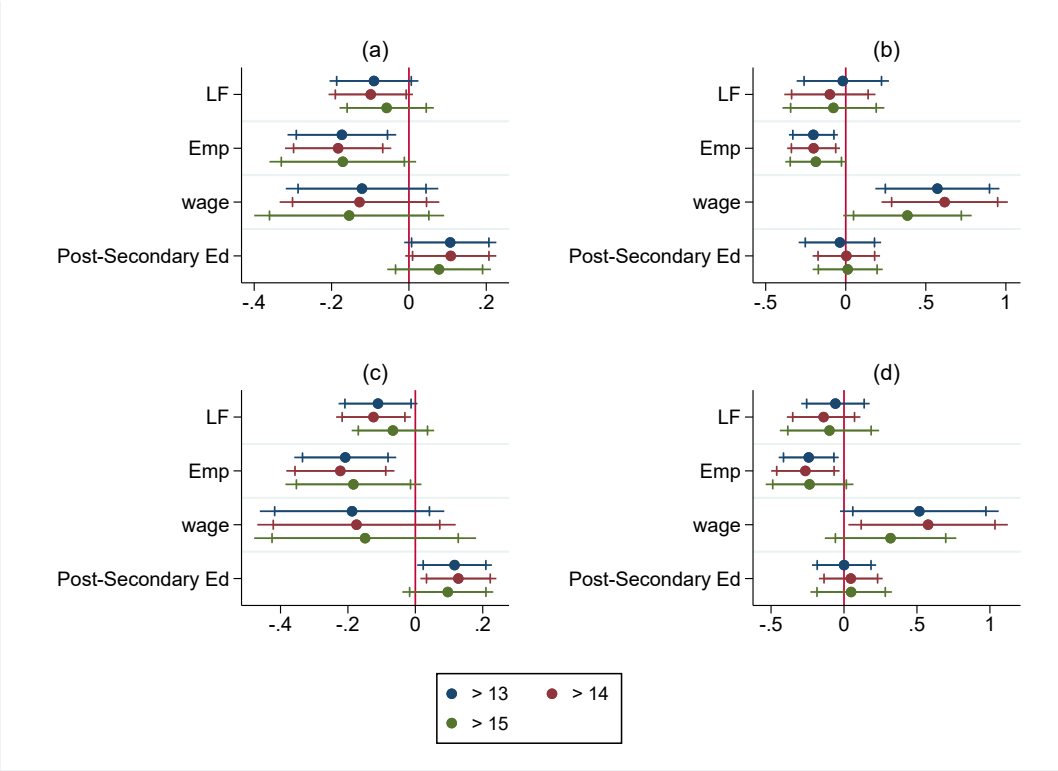
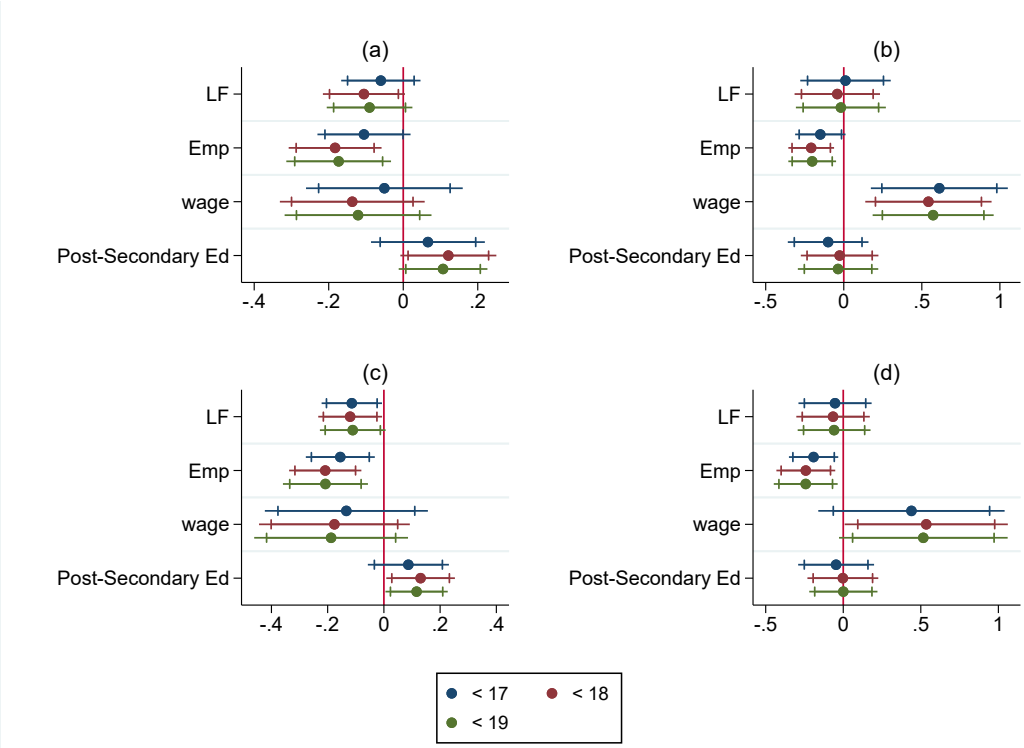
6 Tables and Figures

Figure 1: The effect of "Iostudio" policy by different age-at-arrival lower-bound thresholds



Notes: The Figure shows the estimates with a sample of older 13 (blue), 14 (red) and 15 (green) years-old immigrants at the arrival in Italy. Subfigure (a) shows the estimates of the overall sample without adjusting for covariates. Subfigure (b) shows the estimates of the below-21 sample without adjusting for covariates. Subfigure (c) shows the estimates of the overall sample adjusted for covariates. Subfigure (d) shows the estimates of the below-21 sample adjusted for covariates. All specifications are weighted using survey weights at provincial level. Vertical coloured lines indicate a confidence interval at 90%, while lines indicate a confidence interval at 95%. Standard errors are cluster at provincial level to compute confidence intervals using bootstrap.

Figure 2: The effect of "Iostudio" policy by different age-at-arrival upper-bound thresholds



Notes: The Figure shows the estimates with a sample of older 13 (blue), 14 (red) and 15 (green) years-old immigrants at the arrival in Italy. Subfigure (a) shows the estimates of the overall sample without adjusting for covariates. Subfigure (b) shows the estimates of the below-21 sample without adjusting for covariates. Subfigure (c) shows the estimates of the overall sample adjusted for covariates. Subfigure (d) shows the estimates of the below-21 sample adjusted for covariates. All specifications are weighted using survey weights at provincial level. Vertical colored lines indicate a confidence interval at 90%, while lines indicate a confidence interval at 95%. Standard errors are cluster at provincial level to compute confidence intervals using bootstrap.

Table 1: Summary Statistics

	Overall		Eligible		Not Eligible		Pre Diff
	Pre	Post	Pre	Post	Pre	Post	P-value
Employment	0.542	0.371	0.621	0.384	0.434	0.347	0.000***
	(0.499)	(0.484)	(0.486)	(0.488)	(0.497)	(0.478)	
Wage (log)	6.675	6.738	6.728	6.741	6.579	6.733	0.030**
	(0.627)	(0.475)	(0.599)	(0.474)	(0.666)	(0.483)	
Labor Force	0.673	0.675	0.728	0.687	0.598	0.652	0.002***
	(0.470)	(0.469)	(0.446)	(0.465)	(0.491)	(0.478)	
Not-Employed	0.108	0.199	0.077	0.167	0.150	0.258	0.017**
	(0.310)	(0.400)	(0.267)	(0.374)	(0.358)	(0.439)	
Unemployment	0.155	0.304	0.104	0.268	0.235	0.364	0.002***
	(0.362)	(0.461)	(0.305)	(0.444)	(0.425)	(0.484)	
Enrolled to Post-secondary	0.217	0.325	0.208	0.348	0.229	0.282	0.586
	(0.412)	(0.469)	(0.407)	(0.477)	(0.421)	(0.452)	
Females	0.532	0.538	0.513	0.510	0.556	0.589	0.325
	(0.499)	(0.499)	(0.501)	(0.501)	(0.498)	(0.494)	
Muslims	0.352	0.322	0.352	0.338	0.352	0.290	0.999
	(0.478)	(0.468)	(0.478)	(0.474)	(0.479)	(0.456)	
Catholics	0.386	0.219	0.352	0.242	0.433	0.176	0.042**
	(0.487)	(0.414)	(0.478)	(0.429)	(0.497)	(0.382)	
Europe	0.362	0.442	0.317	0.436	0.422	0.453	0.014**
	(0.481)	(0.497)	(0.466)	(0.497)	(0.495)	(0.500)	
Asia	0.198	0.188	0.209	0.151	0.185	0.256	0.489
	(0.399)	(0.391)	(0.407)	(0.359)	(0.389)	(0.438)	
North Africa	0.164	0.121	0.163	0.135	0.165	0.095	0.961
	(0.370)	(0.327)	(0.370)	(0.343)	(0.372)	(0.294)	
Sub-Saharan Africa	0.116	0.098	0.139	0.090	0.086	0.112	0.051*
	(0.321)	(0.297)	(0.346)	(0.286)	(0.280)	(0.317)	
South America	0.160	0.151	0.172	0.187	0.143	0.084	0.363
	(0.367)	(0.359)	(0.378)	(0.391)	(0.351)	(0.278)	
Age	21.109	20.913	20.717	20.744	21.644	21.228	0.000***
	(1.337)	(1.306)	(1.284)	(1.343)	(1.220)	(1.176)	
Age Squared	447.379	439.048	430.856	432.111	469.936	452.006	0.000***
	(56.375)	(54.984)	(53.573)	(56.501)	(52.223)	(49.701)	
Family Visa	0.393	0.459	0.458	0.493	0.305	0.396	0.000***
	(0.489)	(0.499)	(0.499)	(0.501)	(0.461)	(0.491)	
Work Visa	0.389	0.152	0.416	0.161	0.352	0.135	0.094*
	(0.488)	(0.359)	(0.494)	(0.368)	(0.479)	(0.343)	
Student Visa	0.143	0.078	0.066	0.056	0.249	0.119	0.000***
	(0.350)	(0.268)	(0.248)	(0.230)	(0.433)	(0.324)	
Linguistic Proximity	0.184	0.231	0.180	0.248	0.189	0.200	0.702
(Adsera et al. ,2015)	(0.252)	(0.258)	(0.252)	(0.269)	(0.253)	(0.234)	
Observations	561	362	319	226	242	136	561

Notes: The time span is between 2004 and 2015. The first two columns show the descriptive statistics for the overall sample. The second and the third columns show the descriptive statistics for the eligible migrants, respectively. The fourth and the fifth columns show the descriptive statistics for the not-eligible migrants, respectively. The last column shows the t-stat stemming from the difference between the characteristics of the two groups before the treatment. The "Pre" columns show the means before 2010, while the "Post" columns show the means starting from 2010. All estimates are computed using survey weights at provincial level. * p<0.10, ** p<0.05, *** p<0.01

Table 2: The Effects of "Iostudio" Policy

	Full Sample		Age<21	
	(1)	(2)	(3)	(4)
Panel A: Labor Force Participation				
D(Year>2009 & Age at Arrival <19)	-0.090	-0.111	-0.018	-0.059
	[0.144]	[0.091]	[0.916]	[0.582]
N	923	923	363	363
Panel B: Employment				
D(Year>2009 & Age at Arrival <19)	-0.173	-0.208	-0.202	-0.242
	[0.025]	[0.019]	[0.065]	[0.058]
N	923	923	363	363
Panel C: Wage (log)				
D(Year>2009 & Age at Arrival <19)	-0.121	-0.188	0.572	0.516
	[0.358]	[0.254]	[0.018]	[0.050]
N	443	443	134	134
Panel D: Post-secondary Education Enrollment				
D(Year>2009 & Age at Arrival <19)	0.107	0.116	-0.037	0.001
	[0.079]	[0.032]	[0.753]	[0.995]
N	923	923	363	363
Covariates	X	$\surd$	X	$\surd$

Notes: The time span is between 2004 and 2015. All regressions include year and eligible fixed effects. A migrant is eligible if he or she has arrived in Italy before being 19 years old. Column (1) and (2) show the results using the entire sample, while column (3) and (4) show the results using only the below-21-years-old immigrants. The specification in columns (2) and (4) include the following covariates: gender dummy, muslim dummy, catholic dummy, area-of-origin dummies, age, age squared, province dummies, visa-type dummies and linguistic proximity. All specifications are weighted using survey weights at provincial level. P-values using bootstrapped cluster standard errors at provincial level reported in squared brackets.

Table 3: The Placebo Effect of "Iostudio" Policy using a Different Time Span

	Full Sample		Age<21	
	(1)	(2)	(3)	(4)
Panel A: Labor Force Participation				
D(Year>2006 & Age at Arrival <19)	-0.101	-0.002	-0.385	-0.405
	[0.705]	[0.988]	[0.371]	[0.496]
N	206	206	103	103
Panel B: Employment				
D(Year>2006 & Age at Arrival <19)	0.211	0.171	0.031	-0.292
	[0.193]	[0.310]	[0.810]	[0.406]
N	206	206	103	103
Panel C: Wage (log)				
D(Year>2006 & Age at Arrival <19)	-0.172	-0.061	-0.147	-0.223
	[0.228]	[0.397]	[0.706]	[0.758]
N	117	117	56	56
Panel D: Post-secondary Education Enrollment				
D(Year>2006 & Age at Arrival <19)	-0.013	-0.092	0.323	0.293
	[0.937]	[0.667]	[0.399]	[0.749]
N	206	206	103	103
Covariates	X	√	X	√

Notes: The time span is between 2004 and 2009. All regressions include year and eligible fixed effects. A migrant is eligible if he or she has arrived in Italy before being 19 years old. Column (1) and (2) show the results using the entire sample, while column (3) and (4) show the results using only the below-21-years-old immigrants. The specification in columns (2) and (4) include the following covariates: gender dummy, muslim dummy, catholic dummy, area-of-origin dummies, age, age squared, province dummies, visa-type dummies and linguistic proximity. All specifications are weighted using survey weights at provincial level. P-values using bootstrapped cluster standard errors at provincial level reported in squared brackets.

Table 4: The Placebo Effect of "Iostudio" Policy using the not-treated cohorts

	Full Sample		Age<21	
	(1)	(2)	(3)	(4)
Panel A: Labor Force Participation				
D(Year>2009 & Age at Arrival <19)	-0.037	-0.076	-0.086	-0.089
	[0.526]	[0.416]	[0.378]	[0.608]
N	2704	2704	1159	1159
Panel B: Employment				
D(Year>2009 & Age at Arrival <19)	-0.037	-0.075	-0.131	-0.121
	[0.343]	[0.215]	[0.286]	[0.415]
N	2704	2704	1159	1159
Panel C: Wage (log)				
D(Year>2009 & Age at Arrival <19)	0.016	-0.008	0.029	0.078
	[0.807]	[0.907]	[0.731]	[0.548]
N	1835	1835	724	724
Panel D: Post-secondary Education Enrollment				
D(Year>2009 & Age at Arrival <19)	0.035	0.037	0.021	0.027
	[0.563]	[0.758]	[0.584]	[0.768]
N	2704	2704	1159	1159
Covariates	X	$\surd$	X	$\surd$

Notes: The time span is between 2004 and 2015. All regressions include year and eligible fixed effects. A migrant is eligible if he or she has arrived in Italy before being 19 years old. Column (1) and (2) show the results using the entire sample, while column (3) and (4) show the results using only the below-21-years-old immigrants. The specification in columns (2) and (4) include the following covariates: gender dummy, muslim dummy, catholic dummy, area-of-origin dummies, age, age squared, province dummies, visa-type dummies and linguistic proximity. All specifications are weighted using survey weights at provincial level. P-values using bootstrapped cluster standard errors at provincial level reported in squared brackets.

Table 5: Test on the joint distribution of individual characteristics

	Pr(E)	Wage (log)	Pr(LF)	Pr(Post-secondary)
Panel A: Not-Eligible Group				
D(Year>2009)	0.012	0.066	0.045	0.007
	[0.684]	[0.274]	[0.317]	[0.787]
N	378	172	378	378
Panel B: Eligible Group				
D(Year>2009)	-0.007	-0.008	0.010	-0.005
	[0.771]	[0.857]	[0.665]	[0.791]
N	545	291	545	545

Notes: The dependent variables are the fitted value of the following outcome: employment, wage, labour force,not employed, unemployment, post-secondary enrollment, respectively. The control variables are: female dummy, catholic dummy, muslim dummy, Asian dummy, North African dummy, Sub-Saharan dummy, Latin American dummy, age, age squared, province dummies and linguistic proximity. All specifications are weighted using survey weights at provincial level. * p<0.10, ** p<0.05, *** p<0.01

Table 6: Test on the joint distribution of individual characteristics on the Below-21 years old subsample

	Pr(E)	Wage (log)	Pr(LF)	Pr(Post-secondary)
Panel A: Not-Eligible Group				
D(Year>2009)	0.003	-0.217	0.015	0.007
	[0.964]	[0.109]	[0.897]	[0.934]
N	94	22	94	94
Panel B: Eligible Group				
D(Year>2009)	0.016	0.058	0.052	-0.043
	[0.577]	[0.470]	[0.224]	[0.140]
N	269	114	269	269

Notes: The subsample considers only the immigrants younger than 21 years old. The dependent variables are the fitted value of the following outcome: employment, wage, labour force,not employed, unemployment, post-secondary enrollment, respectively. The control variables are: female dummy, catholic dummy, muslim dummy, Asian dummy, North African dummy, Sub-Saharan dummy, Latin American dummy, age, age squared, province dummies and linguistic proximity. All specifications are weighted using survey weights at provincial level. * p<0.10, ** p<0.05, *** p<0.01

A Appendix

A.1 Representativeness of the sample

Table A1: Representativeness of the ISMU survey for Immigrants between 19 and 23 years old

Year (%)	ISMU	ISTAT
2004	7.68	7.39
2005	7.24	7.06
2006	8.57	6.73
2007	8.02	6.77
2008	9.13	7.72
2009	8.83	8.39
2010	11.46	8.80
2011	9.98	8.94
2012	8.69	8.87
2013	9.34	8.50
2014	9.45	8.22
2015	10.47	7.84

Notes: We compute the share of individuals between 19 and 23 years old including at the numerator only adults older than 18 years old.

A.2 Distribution of Eligible and Not-Eligible Individuals by Year

Table A2: Distribution of eligible and not eligible by year

Year	Not Eligible	Eligible
2004	78	62
2005	46	65
2006	67	75
2007	30	57
2008	9	28
2009	12	32
2010	14	37
2011	25	47
2012	40	49
2013	20	32
2014	24	33
2015	13	28

Notes: The eligible groups is defined as all immigrants arrived in Italy between 14 and 19 years old holding an high-school diploma with the exception of countries in which high-school finishes at the age of 18 years old, while not-eligible group is defined as all the immigrants arrived in Italy older than 19 years old. In the analysis, we look at both groups when they are between 19 and 23 years old.