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## Educational Expectations and Aspirations of Italian Students The Role of Context


#### Abstract

The general aim of this paper is to investigate contextual effects on the individual educational expectations and aspirations of Italian students attending middle school. Educational expectations and aspirations are good predictor of future educational achievement. We consider both secondary school track expectations and college aspirations as indicators of educational preferences in the short and long run, focusing on Italian children attending the last year of primary school ( $8^{\text {th }}$ grade). Our data have been collected during the 2005-2006 school year and they come from ITAGEN survey: the first Italian nation-wide extensive survey on children attending low secondary school. The sample includes both Italian and immigrants' children. Data have been integrated with official information on the presence of foreigners in each school. First, we compare natives' ambitions with those of the children of immigrants, then analyze educational aspirations of natives, looking at the association between expectations and aspirations, familiar socioeconomic status and friendship ties. Second, we investigate if the context is determinant in delineating educational expectations and aspirations. To develop this second aspect we perform multilevel models that take into account both individual and school level variables. We show that attending a school with a high share of foreigners leads Italian students to slightly reduce their own educational aspirations, but has no impact on realistic expectations.


## 1. Introduction

Migration flows represent a challenging issue for education system, especially for the new immigration countries. In the meantime countries of recent migration represent a challenging issue for social scientists, because they have to face rapid changes in all the relevant aspects of social life. One of the main questions that social scientists have to front deals with the growing number of migrants present in the schools and their impact on educational performance of natives.

In this framework, this paper aims to investigate educational aspirations and expectations of Italian students during the 2000s, the decade when Italy definitely changed from country of emigration to country of immigration. Since the ' 90 s, in fact, Italy has started to change its demographic profile receiving thousands of immigrants, but the situation has drastically changed during the new millennium.

Thanks to many economical and territorial factors (first of all the geographical contiguity with East-Europe countries) the foreigners have become a large portion of the population. Regular and irregular migrants in 2008 were more than the $7 \%$ of the whole population. During the recent
years, first generations of new comers have started to have children and migrations have begun to change, with the increase of family reunions. This has lead to an augment of the presence of children of immigrants in the Italian school system.

Even if the number of migrant students in the school system has increased (in the school year 2008-2009 they were more than two thousand with an augment of $17 \%$ with respect to the former school year), the Italian government has not introduced any policy, neither to take care of children of immigrants nor to prepare Italian children to face such a social change. Immigrant pupils, in fact, "typically perform less well than natives at school for several reasons, including difficulties with the language of instruction, less educated parents and problems of integration, they are often concentrated at the bottom of the distribution of academic ability" (Brunello and Rocco 2011), hence teachers have to dedicate more attention to these students. Where the number of immigrant students increases we can easily argue a change in the daily organization of school-life. However the Italian government has not yet taken into account this change that has a clear impact on Italian students. In the meanwhile recent literature has tried to deal with this kind of change. It clearly shows that school context is important to determine educational achievement, considering the changing in the scholastic performances of natives, due to the rising share of immigrants in the schools.

With the first national wide survey on second generations, children of immigrants and natives (ITAGEN, 2005-2006), we look at the impact of social context on Italian students' ambition.

Performing multilevel models, we test whether interethnic friendships and the share of migrants in the schools have an impact on educational achievement of natives. Educational aspirations and expectations are considered both as good predictors of future attainment and as a signal of changing in educational ambitions, over being a challenging issue in the recent literature on education. This paper offers the chance to propose new policies perspective referred to the Italian case, as well as to open an exciting debate on the way of dealing with the presence of newcomers in the countries of new migration.

In this paper, we consider both secondary school track expectations and college aspirations as indicators of educational preferences in the short and long run, focusing on Italian children attending the last year of middle school (8th grade).

We organize the paper as follow. First, we describe Italian context and Italian school system. Then, after a brief review of the recent literature on the theme, we explore determinants of educational expectations and aspirations. After defining differences between natives and immigrants' children ambitions, we concentrate our attention on natives looking at the association between short and long run ambitions and socioeconomic background, zone of residence and other structural aspects. Next, as first step in the consideration of context, we analyze to what extent educational expectations and aspirations are influenced by the perceived relevance of friendship ties. In particular, we are interested in evaluating if the individual aspirations of Italian children are affected by the presence in the school of a growing number of interethnic friendship ties. Third, the last part of the paper will be devoted to our core aim: we introduce in our models the key variable concerning the share of foreigners present in the schools, and we test if attending a school with a high concentration of immigrant's children reduces the aspirations of natives.

## 2. After 2000, the Italian school system

On $1^{\text {st }}$ January 2009 there were 3,891,295 of regular immigrants living in Italy. They compose the $6.5 \%$ of the population. If we consider non-regular immigrants this percentage come close to the $8 \%$ (data from Istat and Ocse). Migrants came to Italy primarily for two reasons: to find a job and for familiar reunification. The percentage of high skilled newcomers is definitely exiguous, because the Italian government does not offer concrete incentives for high skilled immigration. For this reason, the mass of migrants is mainly composed of low skilled workers. Hence, they tend to be allocated in the part of the country where there is more request of unskilled labor. The presence reaches it maximum levels in the North-East of Italy ( $9.1 \%$, Istat data 2009), while in the South the value is around $2 \%$. Another evidence regarding immigrants in Italy is given by the extreme fragmentation of their provenience (Dalla-Zuanna et al. 2009). They come from many different countries and there is no sign (except for some cases in the city of Milan, the economic capital of Italy) of ethnic segregations. Main countries of provenience are: Romania, Albania, Morocco, China and Ukraine. Immigrants from these countries constitute the $50 \%$ of total arrivals in 2008 ( 1,966 thousand cases). The immigration flows have started to reach a consistent number during the past 20 years, hence during 2000s there has been a development on the number of second generation children: children of immigrants born in the host countries. These children, joint with children of the newcomers born abroad but arrived at school age or before, have been included in the Italian educational system.

Currently Italian school organization is going through a period of reforms. A first reform involving first cycle and preschool has been realized between 2003 and 2005. A second wave of reforms has been developed during the last years, including reforms on secondary school. The actual state of Italian education system plans:

- Preschool (duration: 3 years, not compulsory)
- First cycle: Scuola primaria (Primary school, duration 5 years) and Scuola secondaria di primo grado (Middle school, duration 3 years)
- Second cycle: High secondary school (duration 3-5 years)
- University (duration 3+2 years)

Scuola dell'infanzia (Preschool) is a first non-compulsory moment. Here Italian and foreign children aged 3-5 are involved in activities able to develop their education and affective, cognitive, moral and social abilities. After this first step, children are included in the first compulsory cycle. (Source: Miur)

The first cycle consists of two paths: Scuola primaria (Primary school) and Scuola secondaria di primo grado (Middle school). Primary school promotes respect of individual differences, personality development and allows to acquire and develop basic knowledge and skills. It encourages the learning of expressive mediums, including literacy and at least one EU language (English) in addition to the Italian language. It aims to introduce the basis of the use of scientific methods in the study of the natural world, its phenomena and its laws. It enhances social skills and
orientation in space and time, and educates young people to the basic principles of civil coexistence (Law 53/2003).

We want to emphasize that one of the declared goals of middle school is to increase social interaction of students, as well as those of enhancing the ability of independent study. It organizes and enhances knowledge and skills, also related to traditional cultural and social cultural and scientific evolution, also through literacy and in-depth information of technology. Moreover, it develops progressively skills and ability to choose the appropriate attitudes and vocations of students, providing suitable tools for the prosecution of education and training. The study of a second European Union language provides advices for the subsequent choice of education and training.

The first cycle of education culminates in a state exam. Passing this examination is entitled to access to the second cycle. This second segment of education is actually divided into different training: Licei (High Schools), licei artistici e istituti d'arte (Art Schools), istituti tecnici (technical institutes), istituti profesionali (Vocational tracks).

Italian school system is compulsory untill students are 16 years old and it is free. It also includes private schools, but they included in 2008/2009 just the 6.8 percent of students attending secondary school (official Miur data).

The choice of secondary school (usually when pupils are 14 years old) is a turning point in students' life. Even if access to university is guarantee for all tracks, while on the one hand choosing licei ensures access to university, technical institutes provides expertise directly spendable on labor-market even as ensuring access to tertiary education. The third path, vocational training, is usually shorter than others (2-3 years instead of 5 years) and it reduces the chances to access to tertiary education (Checchi Flabbi 2006).

Foreign students in the Italian school system in the scholastic year 2008-2009 were $7 \%$ of the whole scholastic population ( 629.360 units of 8.945 .978 ) (Miur data). The percentage was higher ( 8.3 and $8 \%$ ) if considering primary school and middle school. The share of foreigners is not equally distributed in the schools. Most of the foreign pupils are concentrated in the Northern regions: Lombardy in 2008-2009 was the region with the highest number of foreigners. $2.8 \%$ of the schools in the Italian soil have a percentage of foreigners that overcomes $30 \%$. Almost half of the schools ( $47.5 \%$ ) have from 0 to $10 \%$ of foreigners, while in the $26.2 \%$ of schools there are no foreigners at all. Schools with most of $10 \%$ of foreign students belong to Middle school and Primary school cycles.

Graph 1. Italian schools for share of foreign students and for school level (school year 2008-2009)


Source: Istat

Despite a reduction of Italian population, due to negative fertility trends, the number of students attending middle school has been substantially stable during the past years. This trend is possible, thanks to an increase in the number of students with foreign origins (graph 1).

Graph 2. Number of students and presence of immigrants in Italian middle school


[^0]The presence of foreigners (and second generations) in the schools, lead to some new and challenging questions that social scientists can not ignore. Therefore, we implement our analyses looking at the effects of the presence of foreign students on Italians’ educational aspirations and expectations of pupils attending middle school.

## 3. Literature and hypotheses

The concentration of immigrants in the schools is often perceived as negative both for natives' and for immigrants' performances. Literature has substantially pointed out two factors that affect educational performances depending on the number of immigrant students present in the schools: learning opportunities due to school characteristics and peers effects (Cebolla-Boado and Medina 2010).
Sociological, economic and demographic literature has been more and more focused on school characteristics that shape individual educational performances. According to this perspective, the segregation of immigrants' children affects both immigrants' children and natives' performances. The lower levels of educational attainment of immigrant students are not due to socioeconomic or socio-cultural factors but to their segregation into the less academic parts of the education system. In most countries immigrant students are not evenly distributed across schools. Furthermore, immigrant students may be concentrated in the more vocational, less academic courses and programs.

Immigrant families, moreover, tend to be clustered in particularly deprived areas, because of their reduced economic possibilities. Immigrants usually live in specific neighborhoods where the cost of life (mainly housing prices) is lower (Rocco and Brunello 2011). In these neighborhoods the concentration of migrant students in schools becomes higher than elsewhere. These schools may be performing poorly because they have difficulties in attracting and retaining appropriate teachers or parents have less time and resources to contribute to the school performances of children. Attending schools in deprived environments, students have to deal with two aspects: on the one hand they have lower and poorer materials, on the other hand they might have lower human resources(Cebolla Boado 2007). In the first case the association is clear: in deprived neighborhood the allocation of economical resources will be less complete and efficient than in schools in richest context. In the second case there are some aspects intervening shaping the quality of teachers. They may tend to adapt their demands to the average level of the student-body, in other words, forcing teachers to set different thresholds for evaluating who passes and who fails (Duru-Bellat and Mingat, 1997 in Cebolla Boado 2007). Having a higher proportion of students with non-native background clearly leads to the presence of a larger number of students with less language proficiency (Fekjær and Birkelund 2007). This can lead to a less competitive and motivating learning environment, since immigrant pupils typically perform less well than natives at school for several reasons: "difficulties with the language of instruction, less educated parents and problems of integration" (Rocco and Brunello 2011), that lead migrants to be concentrated at the bottom of the distribution of academic ability. Immigrants students are, moreover peers with a "different culture, a different way to interact with others and, most often, limited language proficiency"(ibidem). Consequently teachers adjust the level of their standards to the level of these students, and, moreover, to spend more time working with the students who need more help instead of equally
distributing time among pupils (Fekjær and Birkelund 2007). This is particularly true for the Italian school system, where there is no distribution on the basis of cognitive abilities and children are randomly assigned to classes. Italian schools system, furthermore, do not plan any policy to deal with the increasing number of migrants in schools and classes.

Lastly, some authors emphasize that, as a consequence of the reduction of standards, teacher may be less prone to recommend higher educational track to students attending classes with low attainment performances (Fekjær and Birkelund 2007). While in other countries (Germany for example) the teachers are asked to indicate the future academic choice of students, this is not the case of Italy. However, students during the last year of Middle school receive an individual evaluation and recommendation regarding the imminent choice of secondary school.

The second aspect that seems to affect educational performances is given by microinteractions among peers. "Peers affect academic motivation, engagement and achievement through information exchange, modeling and reinforcement of peers norms and values" (Ryan 2000, in Fekjær and Birkelund 2007). This approach is based on the assumption that immigrants' children are less incline to high aspirations and have more negative attitudes and performances than natives. The interaction between natives and immigrants acts as "disincentives to investments in education" (Cebolla- Boado 2007).

Some authors focus deeply on peers effect. The main idea is that «predictions of the overall effect of schooling systems seem to depend on the social interaction between high- and low-ability students and resulting peers effect»(Entorf and Lauk 2008). On the one hand, groups composed by ability can enhance performances of individuals. On the other hand, heterogeneous classrooms composed joining different levels of abilities might rise efficiency, because less talented students have to face with higher ability peers and they benefit from the social interaction (ibidem). This aspect is strictly connected with the idea of "endogenous effect" proposed by Mansky (1993). The author states that the prevalence of any behavior in some reference group influences member of other groups. For instance, educational attainment may vary with the average level of achievement of the students in the same peer- group (Cebolla- Boado 2007).

For the sub mentioned reasons the existence of a negative correlation between the concentration of immigrants and the school attainment of students is a well-documented empirical conclusion in the American and European sociology of education (Felouzis, 2003; Portes and Hao, 2004; Fekjær and Birkelund 2007; Szulkin and Jonsson, 2007; Cebolla-Boado-Medina 2010).

Moreover, given its importance for individual students' achievements, it is not surprising that there is a rapidly growing literature on peer effects and social interaction in schooling. Some authors focus their attention on the duality native-immigrants' children (Hoxby 2000; CebollaBoado 2007; Entorf and Lauk 2008).

During the last decade the attention has been more and more focused on the effects of the share of migrants present in the schools on the educational attainment of natives (Borjas 2004; Lavy et al. 2009; Gould et al. 2009; Rocco and Brunello 2011). In some cases (Szulkin and Jonsson 2005; Fekjaer and Birkelund 2011) authors develop an analysis able to define threshold effects of ethnic concentration, establishing the amount of migrants able to shape natives' performances (in the case of Sweden, studied by Szulkin and Jonsson, this threshold was fixed at 40\%).

To the best of our knowledge, nothing has been made since now to understand the link between school context and educational expectations and aspirations. We start our study proposing a descriptive analysis of the differential between natives and immigrants' children expectations and aspirations. Then, we will look more precisely at natives' ambitions: are gender, family composition and socioeconomic status associated with Italians' educational expectations and aspirations? Later on we will test if the context has some connection with educational ambitions, looking both at social interactions and to school context. In the first case we will consider friendship ties as proxy of social interactions, in the second case we hypothesize that attending a school with an higher concentration of immigrant's children can be associated with a reduction on natives' expectations and aspirations.

## 4. Data

Data were drawn from Itagen survey, a survey of students living in Italy and attending middle school during the 2005-2006 school year (Casacchia et al., 2008; Barban and Dalla Zuanna, 2010; Dalla Zuanna et al., 2009; Barban and White 2011; Minello and Barban 2011). Data have been integrated with official statistics concerning the presence of foreign students in Italian milled schools during the school-year 2004-2005.

Itagen survey is the first nation-wide extensive survey that aims to collect data on both natives and children with at least one foreign-born parent. It focuses primarily on the determinants of social integration containing a complete series of information about school environment. Data were collected through a questionnaire filled out by the students under the supervision of a researcher and their teacher. Itagen baseline questionnaire focuses primarily on the characteristics of the family, the migratory process, the use of the time by children, opinions and aspirations to the future. The questionnaire was in part inspired by the Children of Immigrants Longitudinal Study (CILS), a large scale longitudinal investigation of the assimilation process into American society of a sample of "new" second generation teenagers.

Schools were randomly chosen among those with a foreign student body of at least $+10 \%$ in the north of Italy and $+3 \%$ in the south. In each school researchers interviewed all immigrants' children and one class for each cycle ( $6^{\text {th }}, 7^{\text {th }}$ and $8^{\text {th }}$ degree). The sample used in this paper consists of children attending $8^{\text {th }}$ grade. It is composed by 3991 natives and 2612 children with at least one foreign parent, called "immigrants' children". The subjects lived in 10 regions (Northern and Central regions: Lombardy, Veneto, Emilia-Romagna, Tuscany, Marches and Lazio; Southern regions: Campania, Apulia, Calabria and Sicily), and attended 251 junior high schools. Most part of the interviewees were born in 1993/1994.

We integrated Itagen data with the number of foreign children involved in each school of the sample during the school year 2004-2005. Official data were drawn from Ministry of education data and they were used to identify schools eligible for the sample. Using this official information, we calculated the share of foreign students present in each school.

Itagen data have some weaknesses with respect to our purposes. One relevant limit refers to the selection of our sample. Schools have been identified stratifying the presence of immigrants in the schools. Therefore, we have to acknowledge that our results do not refer to the whole Italian
context. In particular we have to point out that school with more than $3 \%$ of foreign students in the South are the $9.5 \%$ of the whole population and schools with more than $10 \%$ in the centre and north of Italy correspond to the $27 \%$ of the whole schools. Hence, our results can be extended to context of really high migration.

Another limit of data concerns the fact that both educational background and work position of parents have been asked directly to children. These points lead to an high number of missing values. However, our results correspond to recent literature on the theme of educational aspirations and expectations (but more in general with literature on educational outcomes), with higher levels of human capital and socioeconomic position corresponding to higher educational ambitions. Therefore we can be optimistic on the effective correspondence between registered socioeconomic and educational position of parents.

## 5. Method and variables

Since we decide to focus on scholastic context, we identify the characteristics and conditions at individual and school level that are supposed to promote or reduce educational expectations and aspirations. As previously explained, there is a large body of research that has recently attempted to identify a variety of school factors that influence individual educational performances. We decide to focus on two aspects. The first one has the aims of capturing micro interactions which contribute to peers effects, the second one deals with school composition, considering the presence of foreigners in schools. This approach, to our knowledge, has never been applied in the study of educational aspirations and expectations (a part from first attempt by Wells in 2008).

Our measure of aspirations and expectations is based on students plans for the future, which result from various inputs, including both concrete and abstract attitudes about education. Recently literature has become more and more precise in distinguishing the concepts of expectations and aspirations. On the one hand educational expectations are more realistic in capturing concrete plans for the future (Feliciano 2006), and correspond to "the educational and occupational levels that children [of immigrants] realistically expect to achieve" (Portes et al. 2010, p. 779). On the other hand educational aspirations "capture general goals or ambitions for the future" (Feliciano 2006) and correspond to "the level of education that respondents would ideally like to achieve" (Portes et al. 2010, p. 779). To sum up: while "expectations refer to what individuals think will happen, aspirations refer to what they hope will happen" (Jacob and Wilder 2010).

In our paper we clearly distinguish between expectations and aspirations.
We measure the firsts considering whether students want or not attend licei. Licei can be considered as the highest level of secondary education in Italy, since it gives no technical skills to spend in the labor market. Pupils attending licei are more prone to go to university than students attending
technical or vocational tracks. To confirm this tendency, in 2008-2009 school year, $70 \%$ of students graduated in licei enrolled at university, while just $40 \%$ of students of technical and $15 \%$ of students from vocational school (Almadiploma data). Children attending $8^{\text {th }}$ grade are really close to the real choice of secondary track and we decided to distinguish between high or low expectations depending on the willingness or not to choose licei.
We also include in our analyses educational aspirations, measured through students wish to attend university.

Our dependent variables are two dummy obtained merging together possible answer to the following questions:

Table. 1 Dependent variables

| Which secondary school would you <br> like to attend? | Expectations | Do you think you'll go to college? | Aspirations |
| :--- | :--- | :--- | :--- |
| $1\|\ldots\|$ None | Low | $1\|\ldots\|$ Yes | High |
| $2\left\|\_\right\|$Vocational or technical school |  | $2 \mid \ldots$ No |  |
| $3 \mid \_$High school | High | $3\|\ldots\|$ I don't know | Low |
| $4 \mid$ I don't know |  |  |  |

We use multilevel method to study the impact of context on children of immigrants ambitions. Multilevel models represent a feasible approach to take into consideration heterogeneity within school, since our core aim is to understand if context is determinant to form educational aspirations.

We include in our analyses both individual and school level variables. Second level variables have the aim to describe school context.

Our first hypothesis is related to the relevance of micro-interactions in the school. Hence we identified some variables able to capture the relevance of friendship based on the dimension of social interaction. Table 2 presents the list of variable used to identify the presence of social networks in the schools. Since the different nature of variables, it has not been possible to develop a factor analysis. This is the reason why we decided to consider every single variable as representative of one of the aspects concerning the relevance and presence of friends to capture social interaction. We therefore indentify the share of Italian students with immigrant friends as a good descriptor of social interactions between natives and immigrants' children with the aim of identifying context with high or low levels of integration among students.

Table. 2 List of variables used to measure social interaction dimension of social capital for children

| Friendship |  |  |
| :---: | :---: | :---: |
| Social Interaction |  |  |
| Contacts with friends | Do you have immigrant friends? | $\begin{aligned} & \hline 1\|\ldots\| Y e s \\ & 2\left\|\_\right\| N o \end{aligned}$ |
|  | Do you have more Italian or foreign friends? | 1\|__| More Italian friends <br> 2\|__| More foreign friends <br> 3\|__| More or less the same number |
|  | How often do you meet Italian friends?* |  |
|  | How often do you meet immigrant friends?* | $\begin{array}{l\|l} 1\|\ldots\| & \text { Always } \\ 2 \mid \quad \text { Often } \\ 3\|\ldots\| & \text { Rarely } \\ 4 \mid \quad \text { Never } \\ \hline \end{array}$ |
|  | Are your school friends important to you?** | 1\|__| Not very $2\left\|\_\right\|$Pretty important 3\|__| Very important |
| Form of interaction |  |  |

* recoded as binary response: "always or often", "rarely or never"
** recoded as binary response: "not very or pretty important", "very important"
At school level we also consider a variable able to define the share of foreign children present in the schools. We use official data from the Italian Ministry of Education (dated 2004-2005 and previously used to define the sample of the survey) and we introduce a continuous variable concerning the presence of immigrants in our multilevel models.

Individual level variables are relevant first to describe Italians expectations and aspirations, second because it is necessary to control for individual variables to identify the net effect of school variance on educational ambitions.

At individual level main variables concern parent human capital, demographic characteristics (sex, number of siblings and geographic area of residence) and social capital. Parents education level has been defined using a dominance approach, considering the highest education level obtained by one of the parents. In case of missing data concerning one of the two parents, we considered the one present in the dataset. This information has been collected, as all the others, asking to pupils, but due to the difficulty of the question, the number of missing value in this case is extremely high, almost the $10,8 \%$ of respondents. Parents education has been measured asking the age of parents at the end of their educational career and it has been recoded in four categories: high (if he/she has studied till he/she was more than 20 years old), medium (15-19), low (less than 15) and unknown.

A standardized measure of socio-economical status (ISEI scale) has been used to determine socio economic condition of each child. After coding jobs using Istat 2001 codification, we associated ISEI code to each work. As for educational level we used a dominance approach, commonly used in literature, to identify the highest level of job between mother and father and to
have less missing values as possible ( $6.6 \%$ of missing cases). Unfortunately we don't have any information whether parents are self employed or salaried, this is the technical reason why we used ISEI scale, that confirms to be suitable for our models.

## 6. Descriptive analyses

Before looking at school context, we have to define some aspects which are determinant to face our hypotheses. It is clear that a prerequisite for negative peer-group and school effect is that "minority youth have lower educational aspirations and reveal more negative attitudes to school than others"(Fekjaer and Birkelund 2007). Literature shows that this is not always the case (Portes and Rumbaut 2001). Hence, before starting our analysis, we need to clarify if immigrants' children educational ambitions are lower than those of Italian.
Moreover, literature has identified some aspects able to shape educational expectations and aspirations. We want to understand if migration status, gender and cultural capital of parents are able to shape educational ambitions of Italian children.

### 6.1 Comparison between educational aspirations of natives attending $8^{\text {th }}$ degree in Italy and those of children of immigrants

Since the increasing presence of foreign students in all the school systems of developed countries, recent literature is getting more and more interested in ethnic differences in educational expectations and aspirations. Already in their 1996 articles, Portes and Rumbaut suggest that "broader cultural or social factors" affect group performance, arguing that grouplevel premigration educational status influences educational expectations among the second generation. They suggest first that there are differences in educational aspirations and expectations between natives and immigrants' children, second that these differences are shaped by national-origin groups.
But since the dissimilarity between natives and children of immigrants is a defined evidence, the direction of the variation is still uncertain. Portes and Rumbaut (2001) clearly identified "nationality or ethnicity as a strong and significant predictor of virtually every adaptation outcome" even after controlling for many individual-level factors.

First descriptive statistics clearly show that natives have higher aspirations both in short and long terms. Almost half of the population of natives, declare the desire to attend licei and university, compared to one quarter of immigrants' children who have high expectations. Since the percentage of immigrants' children who desire to attend university is higher than that of those who want to attend licei, we can suppose that they do not consider (and probably do not know) that attending licei is the easiest way to go on studying after compulsory school in Italy. Moreover the percentage of Italians is similar for short and long term ambitions. This can let us to two hypothesis: first, immigrant children can not be conscious of the Italian school system, second, they can allow themselves to think about their un-concrete aspirations in an optimistic way, looking at the far future.

Table 3 Descriptive statistics: distribution of secondary school and college aspirations by migration status (data: ITAGEN)

|  | Short term educational expectations | Long term educational aspirations |  |
| :--- | :--- | :--- | :--- |
|  | High aspirations (Licei) | High aspirations (University) | N |
| Natives | 47.6 | 49.7 | 4,093 |
| Immigrants' children | 25.9 | 36.8 | 2,725 |

In the first model (tab.4) we test if differences between natives and immigrants' children persist controlling for covariates. We can clearly show that this is true for short- term aspirations. In fact, also introducing for other covariates natives express an odds ratio of 1.86 (statistically significance $<0.01$ ) of having high expectations if compared to children of immigrants. Looking at long- term ambitions, we can see that, despite descriptive analyses showed an evident difference between natives and immigrants' children, this dissimilarity is captured by others covariates. This let us suppose that part of differentials are due to the unequal class stratification of immigrants and natives. It let also think that both Italians and immigrants children, allow themselves to be optimistic if they think to their future without the limits of real educational chances. This aspect increases our interest in considering long term aspirations. The aim of the paper is not only to look at concrete educational chances of students, but to look at aspirations as orientation for the future, distinguishing between abstract and concrete aspirations (Mickelson 1990). We decide to measure educational ambitions considering both concrete and abstract attitudes. While we can clearly consider our students realistic if they think to the secondary school choice (the questionnaire has been submitted few months before their choice), we just have to take in account that referring to long- term aspirations, they are expressing abstract goals.

Table 4. Logistic regression models: educational ambitions of children attending $8^{\text {th }}$ grade in Italy (data: ITAGEN)

|  | Which school will you choose after junior high school? | Do you think you'll go to college? |
| :---: | :---: | :---: |
|  | ref: Low expectations | ref: Low aspirations |
| Ref. Immigrants' children |  |  |
| Natives | 1.86*** | 1.11 |
| Sex |  |  |
| Female | 3.33*** | 1.98*** |
| Ses |  |  |
|  | 1.04*** | 1.03*** |
| Parents' education level Ref. High |  |  |
| Medium | $0.54 * * *$ | 0.47 *** |
| Low | 0.30*** | 0.26*** |
| Unknown | 0.34*** | 0.20*** |

Number of siblings
Ref. 0

| 1 | 0.84 | 0.87 |
| :--- | :--- | :--- |
| 2 | $0.71^{* *}$ | $0.70^{* *}$ |
| 3 | 0.81 | 0.77 |
| More than 4 | $0.44^{* * *}$ | $0.56^{* * *}$ |

Zone of residence
Ref. North

| Centre | 1.14 | 1.05 |
| :--- | :--- | :--- |
| South | $1.70^{* * *}$ | $1.83^{* * *}$ |


| N | 5,561 | 5,561 |
| :--- | ---: | ---: |
| Pseudo R2 | 0.16 | 0.13 |

Notes:
***<0.01 **<0.05 *<0.1
Analyses are weighted and presented as odds ratios.

### 6.2 Differences in natives' aspirations considering sex and familiar background

Literature identifies some aspects which are determinant in shaping educational expectations and aspirations: socioeconomic status and gender.

Looking at socioeconomic status, the dominant approach in literature is called "status attainment model", and it has been developed on the basis of mentioned theoretical definitions since the late 1950s and through the 1960s (Sewell et al. 1969, 1970; Duncan and Duncan 1969; Duncan et al. 1972; Horan 1978). Authors looked at variations in educational (and occupational) aspirations (the division between aspirations and expectations was not already defined), on the basis of individual differences in terms of belonging social class. The idea was that aspirations reflect socioeconomic inequities and derive from parental human capital (level of instruction) and economic resources. The direction of the impact of parental educational attainment and income on
educational ambition is clear: at higher SES corresponds higher educational expectations and aspirations. We can mention numerous recent and past examples in literature (Sewell 1971; Duncan et al. 1972; Alexander and Eck land 1974; Duncan, Featherman and Duncan, 1972; Kao and Tienda, 1998; Sewell, Haller, and Ohlendorf, 1970; Sewell, Haller, and Portes, 1969; St Hilaire 2002; Luciano 2006; Portes et al 2010).

Considering gender differences, while in the past there were no clear distinction between male and female aspirations and expectations (Kao and Tienda 1998), recent literature confirms that females have superior educational ambitions than males (Fernàndez-Kelly and Konczal, 2005; Feliciano and Rumbaut, 2005, Portes et al. 2010).

After looking at the difference between natives and children of immigrants, we now focus our attention on the first group. For this reason, the sample has been reduced to 3,991 cases, including only the Italian students. Looking at descriptive statistics we can clearly highlights some aspects: both gender and educational status of parents are determinant to describe educational expectations and aspirations of Italian students. Females denote higher levels of educational ambition both in short- and long- term. About $60 \%$ of females desire to attend licei versus less than $40 \%$ of males. The gap is sensibly reduced if we look at long term ambitions. If we consider educational status of parents we can clearly reveal that: first, there is a high discrepancy between children with high skilled parents and low skilled parents (more than $70 \%$ of preference for licei in the first case versus about $30 \%$ in the second), and that differences maintains their homogeneity between short and long term ambition. Moreover, referring to this second aspect, as expected, preferences are moderately higher if we look at long term ambitions: the ambition to attend university is clearly higher for children whose parents have higher educational background.

Table 5 Descriptive statistics: distribution of secondary school and college ambitions by sex and by educational status of parents (data: ITAGEN)

|  | Short term educational <br> expectations | Long term educational <br> aspirations |  |
| :--- | :--- | :--- | :--- |
| Gender | High aspirations (Licei) | High aspirations (University) | N |
| Male | 34.4 | 42.4 | 2,031 |
| Female | 58.8 | 56.6 | 1,960 |
|  |  |  |  |
| Educational status of parents |  |  |  |
| High | 66.5 | 72.3 | 1,109 |
| Medium | 46.4 | 48.7 | 1,512 |
| Low | 29.0 | 32.5 | 938 |
| Missing | 32.2 | 29.6 | 432 |

Introducing other covariates and performing a logistic model, we can clearly observe that sex and parental background remain relevant to define aspirations. Odds ratios show an extreme discrepancy between male and female expectations and aspirations, especially in short term ambitions. Females are more ambitious than males in terms of educational goals. Not only parents' educational level makes the difference, but also parents' socioeconomic status. As higher is the
socioeconomic status, as superior is the odds to have high educational ambitions. At the same time, as lower is the educational background of parents, as lower are the educational aspirations of children. If we look at Italian social mobility, these results are not surprising. Recent researches in Italy clearly show that the familiar background is the most determinant aspect to determine social mobility both in education and in the job market. A child of low skilled parents in Italy will hardly reach high social position.

Table 6. Logistic regression models: educational ambitions of children of immigrants (data: ITAGEN) Ref. Low aspirations

|  | Short term expectations | Long term aspirations |
| :--- | :--- | :--- |
|  | ref: Low expectations | ref: Low aspirations |
| Sex |  |  |
| Female | $3.44^{* * *}$ | $1.95^{* * *}$ |
| Ses | $1.04^{* * *}$ | $1.03^{* * *}$ |
| Parents' education level |  |  |
| Ref. High |  |  |
| Medium |  | $0.50^{* * *}$ |
| Low | $0.52^{* * *}$ | $0.25^{* * *}$ |
| Unknown | $0.29^{* * *}$ |  |
| Number of siblings | $0.34^{* * *}$ |  |
| Ref. 0 | 0.83 |  |
| 1 |  | $0.68^{* * *}$ |
| 2 | 0.84 | 0.79 |
| 3 | $0.73 * *$ | $0.59^{* *}$ |
| More than 4 | $0.91^{* * *}$ |  |
| Zone of residence | $0.54^{* * *}$ |  |
| Ref. North |  | 1.09 |
| Centre | 1.12 | $1.73^{* * *}$ |
| South | $1.70^{* * *}$ | 3,728 |
| N | 3,728 | 0.13 |
| Pseudo R2 | 0.17 | $* * *<0.01 * *<0.05 *<0.1$ |
| Notes: |  |  |
| Analyses are weighted and presented as odds ratios |  |  |

To conclude this descriptive part, we can already propose some considerations. First we observe that while natives have higher expectations than immigrants' children, differences are not present if we refer to aspirations. In the second case we refer to abstract attitudes, when are "popularly held beliefs about education, including the promise of education as a means of socioeconomic mobility" (Wells 2008). Concrete attitudes, instead, "reflect actual experiences of a particular group, including employment obstacles" (Wells 2008). Hence immigrants children have realistic perception of the limits of their imminent choice, while they tend to be more optimistic (and unrealistic) looking at far future. We can hypothesize that part of this ambivalence (having same long term aspirations than Italians without correspondence of effective short term expectations) can be due to a lack of knowledge of the Italian school system. Despite students potentially can proceed to university after each of the tracks proposed by the system, in reality most of the students attending university come from licei, a choice made by few immigrant students.

Moreover, since differences remain after controlling for other covariates, differentials are due to the unequal class stratification of immigrants and natives and it has to be underlined that it clearly depends from migration backgrounds. Previous analyses (Minello and Barban 2011), in fact, show that part of the differences between natives and migrants is captured by the length of residence in the host country: second generations have the same educational ambitions than natives, while recent immigrants have extremely lower ambitions than natives.

We than focused our attention on natives. We observe that sex and parental background remain relevant to define aspirations even controlling for other covariates. Odds ratios show an extreme discrepancy between male and female expectations. Females are more ambitious than males in terms of educational goals. Not only parents' educational level makes the difference, but also parents' socioeconomic status. As higher is the socioeconomic status, as superior is the odds to have high educational expectations and aspirations. At the same time, as lower is the educational background of parents, as lower are the educational expectations and aspirations of children. If we look at the levels of Italian social mobility, these results are not surprising. Recent researches in Italy clearly show that the familiar background (human capital) is a relevant aspect to determine social mobility both in education and in the job market.

## 7. Results

## The relevance of school context in educational aspirations

Recent studies on educational aspirations and attainment focus on the relevance of school context in defining students' educational performances. In our paper we investigate school context looking at two different aspects: first of all we will look at social interactions among schoolmates, second we will look at the presence of immigrants in the school. Since as demonstrated in the descriptive analysis, the children of immigrants have lower ambitions than their native peers, we will consider two aspects: are school where a high percentage of Italian have a lot of immigrant's friends less competitive in term of educational expectations and aspirations? And then, is the share of immigrants present in the schools associated with educational ambitions? Before facing these two aspects, we need to demonstrate the relevance of friendship ties in shaping educational ambitions.

Some surveys make at disposition of researchers data about friends' attainment and expectations, with the aim of revealing social networks. Unfortunately it is not the case of Itagen data. But Itagen survey has among other aims, that of investigating relevance and frequency of friendship ties. That's why, through our analyses we can determine if friendship ties (one of the components of school context) is associated with aspirations.

Subsequently the research question is: is friendship relevant in defining educational aspirations? We can deal with this general research question, answering the following specific doubts: are children who give high relevance to friendship more ambitious? does the frequency of meeting with friends influence educational aspirations? Moreover, Itagen data offer some information about the relationship between Italian and children of immigrants' students. We can
therefore answer to the following question, which introduces us to the analysis of context: are the friendship ties with children of immigrants associated with educational ambitions?

Table 7 Results of variables concerning friendship ties in short and long term ambitions

|  | Short term expectations | Long term aspirations |
| :--- | :--- | :--- |
|  | ref: Low expectations | ref: Low aspirations |
|  | High expectations | High aspirations |
| Class mates are really important | $1.15^{* * *}$ | $1.22^{* * *}$ |
| Having immigrant friends | 0.90 | $0.73^{* *}$ |
| Having more Italian friends | 1.12 | 0.95 |
| Having more immigrant friends | 1.32 | 0.71 |
| Meeting often Italian friends out of school | $1.13^{* *}$ | 1.07 |
| Meeting often immigrant friends out of school | 0.99 | 1.04 |

Notes:
Models control for sex, migration status, SES, education level of parents, zone of residence and number of siblings
Analyses are weighted and presented as odds ratios
$* * *<0.01 * *<0.05 *<0.1$

Models in table 7 demonstrate that children who give high relevance to friendship are more ambitious both in short and long run. Thinking that friends are important, can be interpreted as a sign of good social interactions. Children who give relevance to friendship are supposed to be involved in fulfilling relationships. Having immigrant friends, on the contrary, reduces aspirations, while meeting often Italian friends out of school enhances secondary school expectations. The frequency of meeting friends and the prevalence of immigrant or Italian friends are not statistically significant. However, we can clearly say that friendship interactions are relevant in defining educational ambitions.

Since we demonstrated that having immigrant friends is relevant in determining individual educational aspirations, we consider friendship with migrants, to define school level variable that allow us to investigate the impact of context in defining ambitions. We define a variable able to capture the share of Italian students in each school having immigrant friends. Are context with higher level of integration and interactions between natives and immigrants favorable to high educational ambitions
of natives?
The variable presents values that vary between 30 and $100 \%$ of students in each school having immigrants friends.

We performed two models. The first is an empty model, while in the second we control for characteristics at individual level. Our first relevant result deals with short term expectations. The null model, in fact demonstrates that there is a "school-effect": being nested in a school with an higher percentage of students having immigrant friends seems to enhance natives expectations. However, this feasible but statistically significant effect, completely disappears once we control for individual variables. In the case of long term aspirations there is definitely no effect both in short and long term ambitions. This is a first evidence that let us suppose that in terms of educational ambitions, individual characteristics are more relevant than contextual characteristics referred to the presence of immigrants' children.

Table 8. Multilevel logit regression models: educational expectations and aspirations of Italian pupils (Data: ITAGEN)

|  | Expectations |  |  | Aspirations |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 |  | Model 1 | Model 2 |
| SECOND LEVEL VARIABLE <br> \% of natives with immigrant friends | 1.01*** | 1.00 | SECOND LEVEL VARIABLE <br> \% of natives with immigrant friends | 1.00 | 0.99 |
| Sex |  |  | Sex |  |  |
| Female |  | $3.29 * * *$ | Female |  | 2.01*** |
| Parents' education level Ref. High |  |  | Parents' education level Ref. High |  |  |
| Medium |  | 0.82*** | Medium |  | 0.82*** |
| Low |  | 0.36*** | Low |  | 0.25*** |
| Unknown |  | 0.84*** | Unknown |  | 0.77*** |
| Socioeconomic status |  | 1.03 *** | Socioeconomic status |  | 1.03*** |
| Number of siblings |  |  | Number of siblings |  |  |
| Ref. 0 |  |  | Ref. 0 |  |  |
| 1 |  | 0.96 | 1 |  | 0.94 |
| 2 |  | 0.97 | 2 |  | 0.93 |
| 3 |  | 0.98 | 3 |  | 0.96 |
| More than 4 |  | 0.87 *** | More than 4 |  | 0.93** |
| II level variance | 0.318 (.062) | 1.198(.080) | II level variance | 0.246(0.052) | 0.167 (.048) |
| Number of observations | 3635 | 3635 | Number of observations | 3635 | 3635 |
| Number of groups | 177 | 177 | Number of groups | 177 | 177 |
| LR test | 95.34*** | 29.35*** | LR test | 72.03*** | 20.46*** |

We decide to deepen the knowledge of the impact of context, looking at the pure presence of migrants in the schools. This measure first is another proxy of interactions (having a lot of migrants in the school facilitates friendships and intercultural exchanges), but it is also a way to capture school characteristics.

In this part of the paper, in fact, we will test an hypothesis that has been analyzed in recent literature about educational achievement. At our knowledge, it has not been experienced yet regarding educational expectations and aspirations. We want to understand if being involved in a school with higher percentage of foreign students decreases the individual expectations and aspirations of students.

Despite random assignation of students in the Italian school system, schools with higher share of foreigners are supposed to be placed in areas with a lower cost of life: immigrants are usually less skilled and less paid, so they are supposed to live in areas with lower rentals, and where the chance of finding unskilled jobs is higher.

We performed three multilevel logistic models: the first one is an empty model, then models without introducing individual level variables, and then we introduced in the model our main dependent variable.

From null models we can clearly understand the relevance of school level in influencing educational ambition. Moreover, the variance partition coefficient (VPC) is equal to 0,09 for educational expectations and 0.07 for aspirations. It means that only $9 \%$ in the first case and $7 \%$ in the second of the residual variation in the propensity to have high educational ambitions is attributable to unobserved community characteristics. But, if we introduce variables already mentioned in the previous analyses we can clearly observe that part of the variance is due by demographic variables. Gender is confirmed to play a relevant role to determine educational ambitions.

Trying to verify our core hypothesis, we introduced in the model a second level variable able to capture the percentage of foreign students present in the school. Data come from official statistics. In case of missing variable (due to the absence of official data regarding the school), we calculated the mean presence of foreign students of the province where the school is placed. Surprisingly, there is no evidence of an association of the presence of higher share of foreign students, with higher individual educational expectations. In contrast, when the percentage of foreign school increases, there is a (low but statistically significant) decrease of individual aspirations.

Table 9. Multilevel logit regression models: educational expectations and aspirations of Italian pupils (Data: ITAGEN )

|  |  | Expectations |  |  | Aspirations |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Model 1 <br> (empty) | Model 2 <br> (I level variables) |  |  | $\begin{aligned} & \hline \text { Model 1 } \\ & \text { (empty) } \end{aligned}$ |  | Model 3 <br> (II level variable) |
| SECOND LEVEL VARIABLE <br> $\%$ of foreign students |  | 0.99 |  |  | SECOND LEVEL VARIABLE <br> $\%$ of foreign students |  |  | 0,98*** |
| Sex |  |  |  |  | Sex |  |  |  |
| Female |  | 3.31 *** |  | $3.30 * * *$ | Female |  | $2.00^{* * *}$ | 1.99 *** |
| Parents' education level |  |  |  |  | Parents' education level |  |  |  |
| Ref. High |  |  |  |  | Ref. High |  |  |  |
| Medium |  |  | 0.84*** | 0.84*** | Medium |  | 0.82*** | 0.82*** |
| Low |  |  | 0.31 *** | 0.31*** | Low |  | 0.26*** | 0.26*** |
| Unknown |  |  | 0.86*** | 0.86*** | Unknown |  | 0.77*** | 0.77*** |
| Socioeconomic status |  |  | 1.03*** | 1.03*** | Socioeconomic status |  | 1.03*** | 1.03*** |
| Number of siblings |  |  |  |  | Number of siblings |  |  |  |
| Ref. 0 |  |  |  |  | Ref. 0 |  |  |  |
| 1 |  |  | 0.94 | 0.94 | 1 |  | 0.96 | 0.95 |
| 2 |  |  | 0.93 | 0.93 | 2 |  | 0.91 | 0.91 |
| 3 |  |  | 0.96 | 0.96 | 3 |  | 0.95 | 0.94 |
| More than 4 |  |  | 0.86*** | 0.86*** | More than 4 |  | 0.93* | 0.92** |
| II level variance | 0.356 (.065) | 0.201 (.053 |  | 0.198(.053) | II level variance | $\begin{aligned} & 0.253 \\ & (0.051) \end{aligned}$ | $\begin{aligned} & 0.173 \\ & (.048) \end{aligned}$ | $\begin{aligned} & 0.147 \\ & (.045) \end{aligned}$ |
| Number of observations | 3985 | 3728 |  | 3722 | Number of observations | 3985 | 3728 | 3722 |
| Number of groups | 247 | 243 |  | 241 | Number of groups | 247 | 243 | 241 |
| LR test | 112.16.*** | 31.24*** |  | 30.66*** | LR test | 75.46*** | 28.30*** | 20.46*** |

While this second result is coherent with literature on achievement, we tried to have some more information about the results concerning expectations.

The graph shows the percentage of Italian students with high educational aspirations present in the school and the share of foreigners. Without considering outliers (that have not been included in the multilevel analyses), we can point out some considerations:

1. Most part of our sample includes school with less than $20 \%$ of foreign students

This statement needs some specifications: first, data about the presence of foreigners have been collected in 2004-2005, when the presence of foreigners in the schools was not as substantial as it is nowadays. Second, we have to highlight that for sampling reasons, we can clearly states that schools with less than $10 \%$ of students are in the southern part of Italy, the one with a less developed emigrational tradition.
2. The graph confirms results of previous analyses: also in this case, there is no evident correlation between share of foreigners and percentage of students with high ambitions.

Schools with less than $20 \%$ of students, can have from $10 \%$ to $80 \%$ of students with high educational expectations. Schools with more than $20 \%$ of students seem to have less ambitious students, but the number of cases in our sample, do not give us the chance to investigate this aspect.

Graph 3. Schools by percentage of native students with high educational ambitions and share of foreign students


Data: ITAGEN

## 8. Discussion

Our analyses have been developed with the aim of presenting actual condition of educational aspirations and expectations of Italian students and understanding if the growing presence of children of immigrants in the schools has an impact on educational ambitions.

It is noteworthy to say that we cannot affirm that all the correlations we find necessarily imply causal relations. Our paper has a clear descriptive goal since we don't have the chance to control for variables able to capture endogenous and exogenous aspects (above all, we don't have any information about students' ability) that can guarantee a causal approach.

We explore the association between social interactions among natives and immigrants and the share of foreign students in the schools and educational aspirations and expectations. Our results, on the one side confirm that relevance of friendship ties is a clear indicator of high educational ambitions. Moreover schools where native students have interactions with foreigners present enhance individual ambitions, if we don't control for personal characteristics. Our models, in fact, clearly show that individual characteristics (mainly gender and socio-cultural familiar
background) affect educational ambitions. Italian females are more ambitious than males and as higher is the human capital of parents, as higher is the chance of having a child with academic aspirations and expectations.

Following recent literature on the impact of the presence of immigrant students in the schools on educational attainment, we expected to find that high share of immigrants would have reduced individual aspirations and expectations. Our results, on the one side confirms this association if we consider university aspirations, on the other side is not present if we look at educational expectations. Hence, if on the one hand we can claim that the presence of foreigners represses the desire of academic career, on the other hand we observe that it has no association with high school level expectations.

Our results give a clear sign of the inappropriateness of the tendencies to define the presence of foreign students as a depressing factor for natives. On the contrary schools with high level of integration, in terms of interactions among students, offer a rich and ambitious environments for natives, despite the relevance of individual social position. To analyze the reduction of educational aspirations in context where the share of immigrants is higher, we have to consider that these areas can be characterized by lower levels of socioeconomic conditions, where the choice of academic career cannot be considered as the best one.

As we pointed out in the analyses, it could be interesting to look at the same hypotheses having more recent data, where schools have higher number of foreign students, since the threshold to see a real effect, seems to be fixed at $20 \%$.

Our outcomes first give us some indication about the relevance of school context, second they let us to propose some considerations about policies that implement social networks in schools through activities (sports and hobbies) that stimulate the interactions between peers. This is particularly relevant since one of the official and declared aims of middle school in Italy is to increase social interaction of students. It has, moreover, the goal of developing progressively skills and ability to choose the appropriate attitudes and vocations of students, providing suitable tools for the prosecution of education and training (source Miur). We, hence, would like to stress the necessity to reach a good integration among natives and immigrant students, since, as we demonstrated before, one of the variables that we highlighted as associated to high educational ambition is connected with friendship networks.

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## Appendix

Table A. Logit regression models: short-term educational aspirations of Italian students (data: ITAGEN) Ref. Low aspirations

|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sex |  |  |  |  |  |
| Ref. male |  |  |  |  |  |
| Female | $3.42 * * *$ | $3.44 * * *$ | 3.46*** | $3.43 * * *$ | $3.48 * * *$ |
| Zone of residence |  |  |  |  |  |
| Ref. North |  |  |  |  |  |
| Centre | 1.17 | 1.16 | 1.15 | 1.16 | 1.18 |
| South | $1.71 * * *$ | 1.70 *** | 1.69*** | 1.70 *** | 1.73*** |
| Socioeconomic status | $1.04 * * *$ | $1.04 * * *$ | 1.04*** | $1.04 * * *$ | $1.04^{* * *}$ |
| Parents' education level |  |  |  |  |  |
| Ref. High |  |  |  |  |  |
| Medium | 0.53** | 0.53** | 0.53** | 0.53** | 0.53** |
| Low | 0.31 *** | 0.31 *** | $0.31 * * *$ | 0.31 *** | 0.30 *** |
| Unknown | 0.37 *** | 0.36 *** | 0.36*** | 0.36 *** | 0.36 *** |
| Number of siblings Ref. 0 |  |  |  |  |  |
| 1 | 0.88 | 0.88 | 0.88 | 0.88 | 0.89 |
| 2 | 0.81 | 0.81 | 0.81 | 0.81 | 0.83 |
| 3 | 0.82 | 0.83 | 0.84 | 0.82 | 0.85 |
| More than 3 | 0.56** | 0.55** | 0.57** | 0.56** | 0.57** |
| Having immigrant friends |  |  |  |  |  |
| Yes | 0.90 |  |  |  |  |
| Having Italian and immigrant friends |  |  |  |  |  |
| Ref. same number |  |  |  |  |  |
| More Italians |  | 1.09 |  |  |  |
| More immigrants |  | 1.44 |  |  |  |
| Ref. rarely/never |  |  |  |  |  |
| Often/Always |  |  | 1.09 |  |  |
| Ref. rarely/never |  |  |  |  |  |
| Often/Always |  |  |  | 0.99 |  |
| Importance of friends |  |  |  |  |  |
| Ref. friends are not important |  |  |  |  |  |
| Friends are important |  |  |  |  | $1.13 * * *$ |

Notes: Analyses are weighted and presented as odds ratios. Significance: $* * *<0.01 * *<0.05 *<0.1$

Table B. Logit regression models: long-term educational aspirations of Italian students (data: ITAGEN) Ref. Low aspirations

|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sex |  |  |  |  |  |
| Ref. male |  |  |  |  |  |
| Female | 1.88*** | 1.89*** | 1.90 *** | $1.91 * * *$ | $1.92 * * *$ |
| Zone of residence |  |  |  |  |  |
| Ref. North |  |  |  |  |  |
| Centre | 1.08 | 1.07 | 1.06 | 1.06 | 1.09 |
| South | 1.62*** | 1.59*** | 1.58*** | 1.60 *** | $1.64 * * *$ |
| Socioeconomic status |  |  |  |  |  |
|  | $1.03 * * *$ | $1.03 * * *$ | $1.03 * * *$ | $1.03 * * *$ | $1.03 * * *$ |
| Parents' education level |  |  |  |  |  |
| Ref. High |  |  |  |  |  |
| Medium | $0.47 * * *$ | 0.47 *** | $0.47 * * *$ | 0.47*** | 0.47*** |
| Low | 0.26*** | 0.25 *** | 0.25 *** | 0.26 *** | 0.25 *** |
| Unknown | 0.22*** | 0.21 *** | 0.22 *** | 0.22 *** | 0.22 *** |
| Number of siblings |  |  |  |  |  |
| Ref. 0 |  |  |  |  |  |
| 1 | 0.85 | 0.86 | 0.86 | 0.87 | 0.88 |
| 2 | 0.66*** | 0.66 *** | 0.66*** | 0.66*** | 0.68** |
| 3 | 0.72 | 0.73 | 0.73 | 0.74 | 0.76 |
| More than 3 | 0.65** | 0.66** | 0.66** | 0.65* | 0.68 |
| Having immigrant friends |  |  |  |  |  |
| Yes | 0.73** |  |  |  |  |
| Having Italian and immigrant friends |  |  |  |  |  |
| Ref. same number |  |  |  |  |  |
| More Italians |  | 0.92 |  |  |  |
| More immigrants |  | 0.68 |  |  |  |
| Meeting Italian friends out of school |  |  |  |  |  |
| Ref. rarely/never |  |  |  |  |  |
| Often/Always |  |  | 1.05 |  |  |
| Meeting migrant friends out of school |  |  |  |  |  |
| Ref. rarely/never |  |  |  |  |  |
| Often/Always |  |  |  | 1.05 |  |
| Importance of friends |  |  |  |  |  |
| Ref. friends are not important |  |  |  |  |  |
| Friends are important |  |  |  |  | 1.19 |

Note: Analyses are weighted and presented as odds ratios. Significance: $* * *<0.01 * *<0.05 *<0.1$


[^0]:    Source: Miur

