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The Educational Gap of Second-Generation Migrants

The Italian Case

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Abstract

The integration of migrants' children in host societies has become one of the main challenges for Italy. Schools and educational institutions play a central role in this process as they provide a fundamental basis for human capital accumulation and integration of new migrant generation. In recent years, the exponential growth of Italy's second-generation migrants has increasingly shown the divergence of educational performances. Although the literature on the educational gap between second-generation migrants and natives has grown apace, the second-generation educational outcome in Italy remains a rather unexplored subject particularly at a regional level. Focusing on educational achievements and attainments, using a quantitative method for the year 2015, the research addresses this absence. The dissertation will provide a better understanding of the differences in educational outcomes of Italians and second-generation migrants by looking at grades in school and future path choices within the regional North/South divide in the country.

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1 Introduction

Migrants' integration and that of their children in the country of destination is one of the main challenges facing European countries. With population ageing, the inclusion of second-generation migrants is not only central to their chances of individual success but also a key factor in the very process of social cohesion and welfare (Ambrosini, 2011). Rumbaut (1997) distinguishes migrant's children in: a) second-generation, as those who were born in the receiving context by one or both foreign parents; b) generation 1.75, defined as young children arriving in the host country between 0 and 5 years; c) generation 1.5, minors emigrated between 6 and 12, and, finally, d) generation 1.25, young immigrants among 13 and 17 years old. Following this definition, this work will examine second-generation migrants intended as the first generation born, raised, and socialized in the host society. However, only children of both foreign parents will be considered second-generation migrants in strict sense whereas children of one foreign born and one native parent will be categorised as "mixed" generation. This division stem from the need to distinguish children with a whole migrant background and non-Italian citizenship from the rest of the student population. Furthermore, different studies in Italy have demonstrated that children of mixed parents have educational achievements undistinguishable from Italians and often even outperform them (Mussino and Strozza, 2012). Hence, mixed generation will be considered as an intermediate reference category positioned between natives and second-generation migrants, being the educational gap of non-citizens/Italians the aim of the study

Numerous elements can influence the destinies of second-generation migrants. The policies adopted in the receiving context, institutions, the structure of the labour market, and the school system, are all relevant factors for understanding the integration path of children of migrants. The study will try to examine those relative to the educational system. Indeed, schools and other educational institutions play a central role in the process of second-generation migrants' integration as they provide a fundamental basis for human capital accumulation and for equalizing the chances of social mobility and success in the labour market. Despite the spread of universalistic and meritocratic principles of social selection, opportunities for success are still strongly influenced by second-generation's take-off conditions (Alba and Nee, 1997; Portes et al. 2009).

Since the 2000s the exponential growth of Italy's second-generation migrants has changed schools' compositions. Today 9.2 per cent of students come from a migrant family; of these, 55.3 per cent were born in Italy itself (Italy's Department of Education, University, and Research [MIUR], 2017). Although school attainment and achievements are regarded as most significant measures for assessing the level of integration, the study of second-generation migrants' educational outcome is still a rather unexplored subject usually missing also at a comparative regional level. The aim of this study is precisely that of narrowing the gap by exploring what drives differences in educational outcomes of native Italians and second-generation migrants by adding an Italian geographical perspective. With geographical approach is meant to explore the regional variations of Italy's North, Center and South. The country, in fact, has great regional variations, with a developed and rich North and a more backward South while the Center is positioned in an intermediate level. The aim is also to examine whether the well-known North/South divide generates a gap not only between Italians and second-generation migrants but also within second-generation migrants living in the North or South with respect to school outcomes.

In the case of Italy, efforts to study differences in educational achievements and attainments between second-generation migrant students and Italians have been very little, and literature is very scarce since it has only become a relevant topic recently and because data on second-generation migrants is often missing (Azzolini, 2011). This study precisely aims to analyse how the educational gap of Italian students and second-generation migrants can be associated to their integration process in the country, as well as how socioeconomic background, parent's language fluency, socialization and North/South divide can impact their outcomes.

1.1 Aim and Research Questions

The aim of this research is to detect different educational outcomes of second-generation migrants and natives in Italy for the year 2015. Therefore, the work will be led by two sets of research questions:

R.Q. 1 Are there any differences in achievements between Italians and second-generation migrants?

R.Q. 1. a Is there any difference in achievements within second generation migrants in the North, Center and South of Italy?

R.Q.2 Do second generation migrants prefer educational rather than occupational paths compared to Italians?

R.Q. 2. a Does living in Italy's South boosts second generation migrants' choices towards educational paths compared to those in the North?

1.2 Outline of the Thesis

After this first introductory section, it will be given briefly a background on the theories of second-generation migrants in the past century, then the theoretical framework of migrant's integration related to educational outcomes for second-generation migrants and native students will be explored for the European context. A third section states the research hypothesis and a fourth section will explain the data used for the analysis with descriptive statistics for the sample. The fifth section explains the methodology that will be employed, and a sixth section reveals the empirical analysis results, including limitations and discussion. The final section, seventh, reveals conclusions and main contribution including lines for future research on the topic.

2 Theory

The assimilation of immigrants has received wide attention in social and economic research. Assimilation is defined as the process by which different minority cultural groups become more and more alike to the majority host society. When full assimilation is complete, there is no distinguishable difference between the formerly diverse migrants. However, immigrant groups' adaptations into dominant culture may differ from each other for a number of causes, containing the social and economic structure of the society they move in. There are different theories related to outcomes of adaptation of immigrants and their children. In order to articulate the issues concerning the assimilation processes of first- and second-generation migrants, the straight-line theory and the segmented assimilation theory, with their variants, will be reviewed in the following section.

Theories on migrant assimilation started to develop and concentrate mainly among classical migration countries, most notably in the U.S., Canada and Australia. The theory of a linear assimilation was developed by the sociologists of the Chicago School at the turn of the twentieth century (Park and Burgess 1925 in Waters et al., 2010) and considers assimilation as a top-down process. The experience of the first European migrants was explored in order to study the process by which they assimilated into mainstream society, and what obstacles might impede the process. Key aspect is that the descendants of immigrants and the natives become gradually more similar with the passing of time and of generations. This theory of straight line assimilation proposes that migrants and especially their children, will absorb not only the social aspect of acculturation, but also acquire economic success. Second-generation migrants experience, in general, better conditions than first-generation migrants and their values become more similar to those of natives. Furthermore, they face less sociocultural conflicts than their parents and will be more malleable to new lifestyles and language acquisition. This theory of straight line assimilation appeared during a period of economic optimism and was encouraged for the assimilation of immigrants into the affluent melting pot (Ziyanak, 2015).

More recent north American studies suggest two main lines of research for the integration of immigrants and their children's. The first theory could be considered as a legacy of the linear assimilation theory with the addition of accounting for a greater heterogeneous population due to the different migrants'

flows to the U.S. The point of arrival of this “revisited” theory remains that of full assimilation and intergenerational mobility of immigrants even though the path can differ between ethnic groups in the timing and level of integration (Alba and Nee, 1997; Perlmann and Waldinger, 1997). Compared with the first-generation, second and subsequent generations migrants become gradually more exposed to values, culture and language of the mainstream population and consequently also their chances of upward socioeconomic conditions enhance (Alba and Nee 1997). The cultural norms and values of parents will diminish as second-generation migrants interact with U.S. native peers. Even specific characteristic like for example, rates of high school dropout, will become close to natives over time (Waldinger and Perlmann, 1998). Most researchers adopting the straight line theory conjecture that becoming Americanized over generations is a prerequisite for educational and economic success (Rong and Brown, 2002).

However, this theory has been significantly attacked because of its failure to portray a realistic picture of immigrants’ conditions and by distorting what might happen over time to different cohorts and ethnic groups. Conversely, over ethnic groups and generations, some experience a rapid process of socioeconomic integration, but others suffered downward mobility (Gans, 1992; Portes and Zhou, 1993). The second generation’s poverty educational gap and joblessness have not ended. Although, second-generation may have become more culturally American as a result of them learning about the ethics and value codes of the destination society this does not mean that their social mobility has upgraded (Gans, 1992; Rumbaut, 1997). According to Rumbaut (1997), in the area of health, educational and economic success, second generation, especially Mexican’s immigrants, are doing worse than their parent’s. Chiswick and DebBurman (2004) suggest that children of non-white immigrants’ experience discrimination and persistent lack of opportunity no matter how they are assimilated into the host society.

The persistence of ethnic differences through generations undoubtedly represents a strong criticism to the linear assimilation theory (Portes et al., 2009). In reality, immigrants face a pluralistic and fragmented environment that leads to what has been called as segmented assimilation theory (Portes and Zhou, 1993). The central question is no longer whether the second generations will adapt in the U.S. socioeconomic context, but rather to which segment of society they will be assimilated to (Portes et al., 2009, Portes and Zhou, 1993). This approach foresees that immigrants’ children will follow different levels of mobility depending on their ethnic group of reference. The results of this process will be on one side, a hierarchy based on ethnicity that limits the social and occupational mobility of certain groups; on the other a persistent disparity between groups and within generations in levels of income and education. These

ethnic benchmarks will develop into three main paths (Portes et al., 2009). The first will be “full acculturation” and consequent upward social and economic mobility (i.e. the case of European descendants); “Selective acculturation” considers that certain migrants groups will maintain their cultural norms but assimilate to the native middle-class --mainly through education (i.e. Chinese); Finally, “dissonant acculturation” results when immigrant’ children adopt Americans values but are unable to gain higher economic mobility (i.e. Mexicans).

This downward mobility happens when migrant’s children are not capable of achieving higher education and refuse to engage in the same low skills earning jobs of their parent’s (Portes and Zhou, 1993; Portes et al., 2009). Hence the authors suggest that the only way out of this “ethnic poverty trap” is through a University degree. While differences in educational attainment among turn-of-the-century European immigrants and Americans have disappeared, the future of non-European immigrant groups in the U.S. remains uncertain and different authors feare that the success of second-generation Europeans cannot be replicated (Borjas 1994 and 2001; Massey 1995; Alba et al. 2001).

What is interesting to extrapolate from these theories is that educational attainment becomes a thermometer of the degree of integration of the second-generation migrants. Therefore, education is not only a determinant of the degree of migrant’s assimilation but also of the institutional and economic context of the destination country. Before further examining the literature on educational gap, is worth mentioning that for European scholars the term assimilation has fallen into disuse and the word integration is used instead. Furthermore, while for north American literature, the two words, assimilation and integration, are often used as mutually exchangeable in Europe they have two distinctive meaning. The World Commission on International Migration of the United Nations define integration as a “*long and multidimensional process that requires commitment, from both migrants and members of the receiving society, in order to achieve adaptation and reciprocal respect, so that the interactions between natives and immigrants are peaceful and positive*” (GCIM, 2005, p.44). This perspective implies that the latest arrivals are no longer encompassed, as a one-way process, to the mainstream society. What destination societies experience today is a dynamic process of mutual exchange, acceptance and adaptation of migrants’ integration. The following section will analyse the educational outcome of second-generation migrants in Europe by focusing on the main drivers of their integrational success.

2.1 Previous Research

Also, in Europe, scholars of migration studies widely agree that educational outcomes are a critical intervening variable for the integration of foreigners to new destination societies (Hout and Diprete 2005; Breen and Lujikx 2004). Although migrants generally have a lower socioeconomic status, if their descendants obtain upper-secondary qualifications, their life chances are much more likely to converge with those of the natives (Luthura 2010). With educational achievement, the chances of access to middle and upper classes also increase while the risks of occupying disadvantaged positions reduce. The educational attainment of the children of immigrants is, therefore, a key indicator of future success. Furthermore, school favours the integration not only of students but also of their parents, who often begin to establish social relations in the community where they live precisely through educational institutions (Giovannini, 1998). However, most research reports poor educational outcomes amongst immigrants and their children (Kalter et al. 2007; Gang and Zimmerman 2000; Worbs 2003; Fertig and Schmidt 2001). On the one hand, many researchers argue that the children of immigrants perform poorly because their parents are low skilled and economically disadvantaged (Granato 2004; Kalter et al. 2007), and that after controlling for the social background of immigrant children, very little ethnic inequality remains. On the other hand, other scholars argue that migrant specific disadvantages such as discrimination (Gomolla and Radtke 2002; Education Report 2006), school segregation (Stanat 2006; Kristen 2002), and language ability (Kristen and Granato, 2007), are mainly responsible for inequality in educational attainment even after controlling for socioeconomic background.

Despite the spread of universalistic and meritocratic principles of social selection, the opportunities for success is continually influenced by second-generation migrants starting conditions. The literature finds some fairly stable patterns that help to explain the disadvantages between second-generation migrants and natives. First, the family's economic starting condition is one of the most important intervening determinants when it comes to education outcome. Another important variable is linked to the additional effects of parents' educational level, but also the host language knowledge or growing up in a segregated neighbourhood exert additional effects on second generation educational gap. In addition, other factors such as institution, aspiration and school system interfere with the mobility of migrants. As a result, educational inequality is a widespread phenomenon, characterizing numerous European countries throughout the developed world.

2.1.1 Structural and Cultural Explanations

For various European countries and migrant group, structural (social) and cultural (educational) explanations are considered the two main staple explanatory variables of disparities in school attainment among second-generation migrants and natives. Research has consistently shown that parents' unfavourable condition is determined by two main factors: economic status and educational background (OECD, 2018). This first-generation disadvantage has intergenerational effects on their children school performances (Schnepf, 2007).

The literature explains that most of this disadvantage is explained by the economic well-being of first-generation immigrants (Brinbaum and Cebolla-Boado, 2007). Such results are found for Italians in Belgium (Phalet et al. 2007), Portuguese and North Africans in France (Brinbaum and Cebolla-Boado, 2007; Brinbaum and Lutz, 2017), Turks in Germany (Kristen and Granato, 2007) and Moroccan's and Turks in the Netherlands (Driessen and Smit (2007). In Britain, on the other hand, Indian and Chinese second generation are actually doing better than native peers with similar starting conditions (Rothon 2007).

Also, the general level of education of parents has a major impact on their children results as second-generation migrants perform worse than natives' when their parents have educational levels below natives' average (Dustmann et al. 2012). In a cross-country study of ten high immigration countries (also non- EU) Schnepf (2007) confirms that mother and father educational level has long lasting effects on their descendants. However, quite the contrary, Brinbaum and Lutz (2017) find that native's educational background in France has a stronger influence on child attainment whereas immigrant's education is less influential on school outcomes. Using OECD's PISA data also Dronkers and Fleischmann (2013) find that educational attainment among second-generation immigrants in Europe is not determined by educational level gaps between parents and natives. Particularly in France, parental education and background seem to have a moderate effect only on second generation males with Islamic origins (Silberman et al., 2007; Dronkers and Fleischmann, 2013). Interestingly, the gap between second generation and natives reduces in those countries where immigrants are highly selected, like in the UK or Germany, as immigrant's and native's attainments are more similar whereas in countries with low

entrance barriers, like Spain or Italy, second-generation migrants tend to do substantially worse than natives' peers (Dustmann et al. 2012).

In line with the American literature, children of migrants with larger availability of structural and cultural resources are generally doing better at school. Probably the most important argument connecting social and educational background with children's school performance refers to differences systematically affecting economic and cultural resources.

2.1.2 Aspiration

Disadvantaged starting conditions can, however, be compensated by what the literature refers to as aspiration. Regardless of their education levels and financial resources, immigrant parents and their offspring often show higher educational aspirations than their native peers (Brinbaum and Cebolla-Boado, 2007). Brinbaum and Lutz, (2017) find that in France, North-African families express higher aspirations and attainments than natives with a similar background. This is found also in the UK where migrants groups with high personal or family aspirations overtake native peers during compulsory education (Dustmann and Theodoropoulos, 2010; Rothon 2007). Furthermore, children's academic success in countries like France and Germany may represent an opportunity for redemption, a form of compensation for the costs of migration or even the primary goal of migratory projects (Kristen et al., 2008; Vallet and Caille, 1999). Finally, attitudes towards investment in education may be stressed only in specific migrant groups. In Italy, the importance placed on education varies among nationalities and cultures; financial solidarity towards children is particularly high among Chinese, Maghrebi and Filipino migrants (Albertini et al., 2018).

However, is also important to highlight that better educational outcomes, extended studies and greater economic support could often also signal higher discrimination and selectivity for the immigrant population in the labour market (Lang and Manove, 2006). Rather than educational aspiration, second-generation migrants could instead be more aware of the higher difficulties they will encounter, compared to the white native population and need to obtain a formal degree to show their potential to future employers (as the case for women and ethnic minorities).

2.1.3 Language Fluency

Immigrant students face multiple sources of disadvantage that affect their academic performance and their general well-being. Also, *language is considered a risk factor when considering the academic resilience of immigrant students*. Fluency in the language spoken in the host country represents a further explanatory source when examining the migrant-native educational gap. Language proficiency refers both to the child's and parent's knowledge of the host country language. Hence, language barriers can amplify the effects of other disadvantages, such as lack of parental support or studying in a disadvantaged school (OECD, 2018).

In the UK, France, the Netherlands and Sweden, language skills seem to be one of the most significant barriers for immigrants first and second-generation migrants in order to reach similar achievement scores than natives (Schnepf, 2007). Van Our and Veenman, (2003) find that in the Netherlands language proficiency of the first generation has a positive effect on the educational attainments of the son, although not for the daughter. Furthermore, the case of Germany and Italy highlight to the fact that the lack of linguistic competence implies not only that parents will have difficulties on communicating with school teachers but also that they will have a restricted knowledge of the school system and hence greater propensity to enrol their children in specific school programs (Kristen and Granato, 2007; Azzolini and Vergolini, 2014). Thus, parent's language fluency, especially when children are still young, relevantly affects the understanding of the educational system and knowledge about grades/prerequisites necessary to assure the best option for their offspring's. Limited transferability of origin-specific educational resources may further harm first-generation's ability to confront school careers or educational investments.

The positive effects of language proficiency go beyond school success and encompass the social integration of migrants (Isphording and Otten 2014). Students who are fluent in the host-community language can participate actively in the social life of their school and develop a sense of belonging at their school community and beyond (Ambrosini, 2011). Children with an immigrant background with language difficulties are found to be more likely to be bullied, discriminated against and are more likely to suffer emotional problems (OECD, 2018).

Educational performance is also positively associated with the convergence of languages spoken at home and school. Although Second-generation immigrant schooling has taken place only within the host

country the language spoken at home has a great impact on explaining differences between immigrant and natives' children (OECD, 2018, 2006). For Turkish immigrants' in Europe, poor school results are widely explained by the fact that they interact in another language with their parents at home (Dustmann et al. 2012).

2.1.4 Tracking

Tracking is when all students are faced with a choice between different school branches. These diversified curricula are generally divided in academic or vocational path. Students are recommended from teachers, parents or self-sorted into these specialized tracks. This choice is crucial for subsequent individuals' attainments, as the type of education acquired affects skills development and versatility and future chances of enrolling into University (van de Werfhorst and Mijs, 2010). Educational researchers argue that the system of early differentiation by skill level has a negative impact on the school performance of children who come to school with language and social deficits, a high proportion of whom come from families with a migration background. Early division may not provide these children with necessary basic skills before they are separated into better or weaker school systems (Dustmann, 2004). Thus, hierarchical educational system per se represents a further barrier to equality of opportunities for children with a migration background.

While in the US context tracking is mainly ability grouping within a fully comprehensive schooling structure, in countries, like Germany, Austria, Italy and the Netherlands the school system divides students not necessarily according to their achievements and general intelligence. The more diversified and early the tracking is and, the earlier the gap between the second generation and native take place. In Belgium and Sweden, the real disadvantage of the second-generation students in terms of their underrepresentation in academic tracks starts in the upper secondary level while in Germany, Austria, and the Netherlands, the gap started to unfold very early in lower secondary school (Baysu et al., 2018). The early selection of tracks leads to a more considerable disadvantage in education attainments of second-generation migrants since the impact of family background is reinforced. Migrant parents' have higher economic uncertainty and are less confident about the economic support they can provide to their children future choices (Crul, 2015; Brunello and Cecchi, 2007). Furthermore, immigrants are less aware of the different paths available in the school system and to what kind of skills they give access or restrict (Crul and Vermeulen, 2003; Dustmann et al. 2012).

2.1.5 Socialization and Segregation

Studies support the view that there are additional effects of socialization and segregation on educational achievement. Also, often, both variables go together. Growing up in a poor and ethnically segregated neighbourhood boosts the influence of school performance (Schnepf, 2007). Second-generation migrants who live in segregated areas frequently attend schools and meet peers from the same disadvantaged area. A high degree of segregation exerts a negative impact on migrant students' attainment particularly in France, the Netherlands and Switzerland (Schnepf, 2007). Peer effects are also an important explanatory variable for educational assimilation. In Spain, integrated adolescents, who frequently interact with natives identify themselves more with the host culture and do better at school (Álvarez et al., 2015). Socialization may protect immigrant adolescents from stressful experiences of discrimination and may facilitate school success in particular (Ambrosini, 2011).

In Italy, the outcomes of immigrant students are significantly lower than those of their Italian peers. First and second-generation migrants find similar obstacles of other European countries related to their economic conditions, language fluency difficulties, barriers related to the school system, which is highly curricular but also specific country characteristic constraints (Mantovani et al., 2018). At a regional level, Italy presents marked fractures regarding educational outcomes. In the North West and North East regions, migrant students achieve higher results than the national average; in the Center, the values tend to be more similar to the average value and in the South, the situation appears more problematic since in no case are there performances above average (Bertolini et al., 2015). However, the majority of studies regarding country educational gaps, examine first and second-generation migrants together (Azzolini, 2014; Mantovani, 2018; Di Bartolomeo, 2011). The trend in weaker academic performance is confirmed by standardised test scores achieved in national and international studies, even after controlling for socio-economic and cultural background students with a migrant background perform worst especially in the Italian test (Azzolini, 2014). According to these studies, children of immigrants display higher dropout risks (Canino, 2010) and a higher probability of enrolling in vocational schools, while they are less often found in academic schools. Additionally, there is some evidence that the second generation performs better than the first generation but not equally as Italians (Azzolini et al., 2012).

2.3 The southern question and migration in Italy

When considering the educational inequality in Italy, two important country-specific features are important to bear in mind: The North/South divide and its recent history of immigration country.

The origins and the historical evolution of the gap in economic performance and living standards between Italy's North and South remains an unsettled issue among researchers. Until recently, mainstream Italian economic historians inferred the existence of a sizeable gap at the moment of the unification of the country in 1861, on the basis of anecdotal evidence that documented the backwardness of the South (Federico et al., 2017). In recent years, a number of historians disagree on the timing of the North/South divergence (Daniele and Malanima, 2007, 2011; Vecchi, 2011). They argue that the roots of Italian economic dualism have been a gradual process that boomed after the Second World War, with the extraordinary economic success of Northern regions.

The most recent economic history literature on the so-called *questione meridionale* (“the southern question”) has moved toward a comprehensive and systematic quantitative appraisal of the dimensions of economic performance and living standards. According to Daniele and Malanima (2007, 2011), at the time of Italy's unification, the level of GDP per capita was similar all over the country, and the North/South gap remained narrow for at least 20 years. In contrast, Felice (2014) estimated that the gap between the North-Centre and the South of the country was already 18% in 1871, and thus probably also in 1861, growing little by 1911. Evidence about other dimensions of living standards, such as life expectancies, literacy rates, and heights has supported this interpretation. Felice and Vasta (2015) bear out the key role played by human capital as a fundamental cause of long-run economic growth given that in the South 85.6% of the population was illiterate at the time of unification.

Regardless of when the gap arose, its effects are undoubtedly recognizable today. If we consider the Italian GDP per capita, in the North corresponds to more than 40,000 euros per year, the Center around 35,000 euros while the South struggles to reach 29,000 euros (Istat, 2018). Essentially the divide between the North and South of Italy is the same as that between the United Kingdom and South Korea (World Bank, 2017). However, the southern question is not limited only to different economic condition, as the gap extends its effect to many other aspects of life, including social and welfare issues (Vecchi, 2017).

Turning to the second peculiarity of the Italian case, in sharp contrast with its history of emigration, towards the end of the 20th century, the country has transformed into a new immigrant-receiving destination. This new immigration phase accelerated at the beginning of the 1990s, when Italy experienced a rise in the number of migrants as part of the worlds’ South-North migration trend, with immigrants coming primarily from sub-Saharan and North Africa (Colombo and Sciortino 2004). After the fall of the “Iron Curtain,” East-West migration from Central and Eastern Europe also accounted for

a large part of the positive net immigration. As a result of this process, the presence of immigrants in the country has skyrocketed, increasing from 0.6 million in 1991 to over 5 million in 2018 (Istat, 2019).

Italy represents an interesting case also for its wide range of source countries. Until the 1990s, Moroccans represented the main group of immigrants but were later overtaken by immigration from Eastern Europe (Romania, Albania, Ukraine, and Poland) (Istat, 2019). More recently also flows from Asia (China, the Philippines, and India) has increased sharply (Istat, 2019). Regarding the human capital of migrants, Italy has been generally characterized by a labour demand that is primarily oriented toward unskilled workers (Azzolini et al, 2011). These factors have attracted a large number of labour migrants who are disproportionately concentrated in unskilled jobs with low salaries, although some—especially those from Eastern Europe—hold high educational qualifications (Fullin and Reyneri, 2011).

As a consequence of this migration stream, the number of students with a migrant background has also raised. From 2000 onwards, the presences of student with a migration background have increased by over 600,000, to 826,000 attendance in 2016/17 meaning that the student population has gone from 2 foreigners every 100 native students to about 9 per 100 in 2016-2017 (Ismu, 2019). However, the annual increase has been significantly reduced in the time frame considered, with the highest peaks (more than 70,000 presences) recorded from 2006 to 2008 and, on the contrary, the lowest increase was in the years 2015/16 (Ismu, 2019). The multicultural evolution of the Italian school can be traced by looking at symbolic years. The 1988/89 outline the passage from an initial phase characterized by the arrival of immigrants ‘child in schools; the 2006/07 was a period of great growth, and finally a more recent stabilization of presences in 2015 (Ismu, 2019).

As far as the different school levels, the primary school welcomes the majority of members with non-Italian citizenship, followed by secondary schools of second and first degree while the last position is occupied by nursery schools (Miur, 2019). Concerning the country of origin, Romania, Albania and Morocco continue to represent the most numerous communities in schools. In 2017 Romanians are almost 20% of non-Italian students, followed by the Albanians (13.6%) and by Moroccans (12.3%) (Ismu, 2019). Among the top 10 citizenships, also Asia (China, Philippines, India, Pakistan) is confirmed to have a large student population followed by other East European countries as Moldavia and Ukraine (Ismu, 2019). The growth of those born in Italy continues to exceed the 500.000 units and in the last four years, second-generation migrants represent 60.9% of the total non-Italian school population and

6.35% of the whole student population (Miur, 2018). Between 2007/8 and 2016/17, those born in Italy have constantly been growing across all school years. However, among high school foreign students, second-generation migrants in the year 2017 are still a minority (Ismu, 2019).

Table 1. Students with Italian migrant background in school for the years 2012/2013 to 2016/17

Academic year	Italians	First gen.	Second gen.	Italians%	First gen. %	Second gen. %
2012/2013	8.156,723	415.298	371.332	91.2%	4.64%	4.15%
2013/2014	8.117,175	387.381	415.672	91.0%	4.34%	4.66%
2014/2015	8.071,594	363.779	450.429	90.8%	4.09%	5.07%
2015/2016	8.012,042	336.329	478.522	90.7%	3.81%	5.42%
2016/2017	7.915,737	323.128	502.963	90.6%	3.70%	5.75%

Source: author’s own calculations. Data: Italian Ministry of Education, University and Research (MIUR), 2018 last data available

Before examining the Italian school system is useful to clarify whom is considered, according to the Italian law, a foreigner or a national. Regarding the acquisition of citizenship, law 91/1992 establish that Italians are those citizens whose parents or father/mother are Italian citizens (*ius sanguinis*). A migrant child who is born in Italy can become an Italian citizen at age 18. However, he has only a time window of one year to request for naturalization and he has to demonstrate that he has resided legally and continuously in the country.

2.4 The Italian Educational System

Today’s the Italian education system is made up of primary education (from age 6 to 11), lower secondary education (age 11 to 14), upper secondary education (age 14 to 19) and tertiary education. Compulsory schooling, up to age 16, is free and accessible to all, regardless of citizenship and legal status, has a comprehensive, non-selective nature, and features a largely common curriculum across the nation (Azzolini, 2011).

After completing lower secondary education, all students are faced with the “mandatory” choice between four school branches: (1) general schools (*licei*), which are academically oriented, and include both scientific as well as classical and socio-pedagogical curricula; (2) technical schools (*istituti tecnici*), which combine general and vocational education and include business and Technological paths; (3) vocational schools (*istituti professionali*), providing some general education, but mainly vocationally oriented; and, finally, (4) Vocational training courses (*formazione professionale*), providing a fully work-oriented instruction (MIUR, 2019). While the first three options are administered at the national level,

vocational training courses are offered by regional authorities. Most importantly, the first three options last five years, and allow students who successfully pass a final state exam (*esame di maturità*) to continue into tertiary education. Instead, vocational training courses last three-four years and do not allow a direct transition to university. However, students of vocational training courses may continue for two additional years and attain the upper secondary diploma. All students with the diploma are eligible for higher education, and there are generally no restrictions based on prior performance. However, transition rates to university vary greatly between tracks, with students from general schools having the highest chances of continuation and those from vocational schools the lowest (Miur, 2017).

3 Hypothesis

The theories on educational gap discussed above for the European context, have highlighted aspects that may have had a significant impact on the propensity of second-generation integrational success. Together with the previous literature they allow us to formulate a list of hypotheses which we can test using econometric analysis. The lack of socioeconomic stability, language fluency, tracking barriers and socialization difficulties suggest that second-generation migrants incur in higher risks of gaining a less adequate education compared to native peers.

Hypothesis 1: Second generation migrants in Italy will have worse achievements than Italians both in Math and Italian.

Hypothesis 2: Second generation migrants in the South have lower grades than second generation in the North of Italy

Hypothesis 3: Second generation opt for educational tracks more often than Italians both in lower secondary and upper secondary schools.

Hypothesis 4: given the restricted Italian labour market in the South, second generation will prefer academic tracks (or university) rather than vocational schools (or work) compared to their second-generation peers in the North.

4 Data

4.1 Source Material

The Italian National Institute of Statistics (ISTAT) carried out the survey between March and June 2015 on the “Integration of second generations” with the collaboration of the Ministry of Education, University and Research (MIUR). The survey is based on a sample of state public low and upper secondary schools (*Scuola secondaria di primo grado* and *Scuola secondaria di secondo grado*) with at least 5 foreign students. The schools were extracted on the basis of the data provided by MIUR and include 1.419 institutions spread across the country. In addition, cross-checks were carried out with the municipal registries that made it possible to identify inaccuracies and missed updates of school, with the consequent revision of the sample. As the main objective was the study of the integration of people with a migration background it was necessary, for an overall understanding of the phenomenon, to involve Italian students as well (as a control group).

The main informative contents of the investigation are (both foreign and Italian):

- migratory history (if migrants)
- knowledge and use of the Italian language (for foreigners)
- school, teachers and classmates
- free time and friends
- family and home

The Cawi technique was adopted, an online oriented survey methodology based on the possibility of compiling and sending the questionnaire. The survey took place during school hours in the classrooms with the presence of a municipal supervisor who had the function of introducing the investigation and solving any problems but did not administer the interview.

From 68.127 interviews, the data used in this study was restricted to include only students with Italian citizenship and students born in Italy from foreign parents but without Italian nationality. Hence, being

the focus of the study educational gap of second-generation students, the first generation was excluded. The sample includes 45.442 (of which 8,686 second gen.) of these 23.490 are enrolled in lower secondary school and 21.952 in upper secondary school.

4.2 Selection of variables

To address the research questions, I use a conceptual framework derived from a holistic review of the literature. Four intervening variables are considered as main explanatory factors driving the native/migrant gap up:

a. Sociodemographic background, implying economic conditions and parents' level of education.

Specifically, I am going to use *Sex*, which takes the value of 1 for women. Parents' education level, which is a categorical variable.

b. Language fluency impacts educational performance. Also, the language spoken at home seems to be positively associated with school outcomes.

c. Countries highly differentiated in specific tracks, like the case of Italy, the educational gap between second-generation migrants and natives seems to widen.

d. Socialization with native peers is an important determinant of second-generation migrant's wellbeing, sense of belonging and overall education performance.

Educational achievements and educational attainments are the outcome variables in this study. For educational achievements the dependent variables are measured through *grades in Math* and *grades in Italian*, both are continuous and go from 1 to 10 (where 6 is pass and 10 is excellent).

The educational attainments are categorical variables and stem from an expectation of what students believe will do in the future. For lower secondary school the students had to answer to "What kind of school will you attend after completing your degree?" with possible tracking answer diversified in "liceo" value 1, "Istituto tecnico" value 2, and "Corso professionale" value 3. It is important to remind that students making these choice are still in mandatory school for another two academic years. For attainments in upper secondary school, all students answered to the question "What will you do after high school" with a three-option answer "Work" value 1, "Go to University" value 2 and "Don't know"

value 3. It was decided to keep the option “I don't know” as a legitimate answer to the question on the students' future. Indecision about what kind of choice to make shows a valid and interesting trend. The answer is not a result of misunderstanding but the objective status of the respondent. Furthermore, being the “I don't know” answer relatively high especially for second-generation students, dropping it would not have provided a representative vision of the sample.

Regarding immigrant status, the variable *Students* was recoded from the questions: “Where you born in Italy?” which offers the alternatives Yes or No; “What is your citizenships?” to which pupils could write the nationality and two sets of question “Was your mother/father born in Italy?” with a Yes or No answer. *Students* take values of 0 for Italians, 1 for second-generation migrants and 2 for Mix (considered those who have one Italian born parent).

For sociodemographic the study uses the variables *sex* (female/male), *mother/father education* -which goes from “no education” to “tertiary education”, *number of siblings* rated from “1” to “2 or more”. We further control for the type of community in which the school is located (from rural areas to large cities), *region* (North, Center, South) and *economic perception* (divided from “Very poor” to “Very rich”) which were used as proxies of socioeconomic background. All variables, except *sex*, are categorical. The variables selected are a good approximation of the economic status of children's' (Merus et al., 2016). Furthermore, Lien and others (2001) report that adolescents are reliable referees of parental education and are a useful source when it comes to state the economic conditions of their families.

For *language*, mother was the reference when selecting the variables as questions to the father were asked only to a restricted sample of second generation/mix students. The questions “Is your mother's country of origin language Italian?” (with a Yes or No answer) and “in which language does your mother speak to you at home?”. Language spoken at home is a dummy variable which was grouped in “Italian” with value 1 and “Other” value 0.

Socialization variables include two different questions asked only to students without Italian citizenship. The first “The nationality of your friends outside school is” with possible answer “Italians”, “different”, “same nationality”. The second questions regard “What is the Nationality of your friends in general?” with the same options for answer. The difference between the two variables is that the first questions is concerned with second generation migrants' relations outside school, so from which nationality are their

friends, whereas the second question investigates the social relations of second-generation migrants in general including peers from the same school.

The dependent variables attainments (expected choices for lower and upper secondary school) contain no missing values whereas the dependent variables achievements (grades in Math/Italian) has less than 2% of missing answers that were listwise deleted. The same was done to our control variables, all cases with any missing values were removed (missing values did not exceed 5% of the sample).

5 Methods

This study analysis the relationship between grades and characteristics of students and its background, as well as with attainments expectations. In order to properly analyse the determinants of educational performance, two main econometric methods will be used. One for educational achievements using OLS regression and one for educational attainments involving a logit model.

For the achievement's analysis, two dependent variable are going to be used. One related to “grades in math” and the other to “grades in Italian”. The relationship proposed explaining this grades can be expressed as the following:

$$V = f(\textit{immigrant status, family backgroun, school characteristics, socialization, inherent student characteristics})$$

Where V represents the dependent variable of grades. In order to explore this relationship with the available data, an econometric model will be performed. Since both of these variables are continues, standard OLS regressions represent the best way to analyse the data. In specific the models will be estimated following the equation:

$$Vi = \beta_0 + \beta_1\textit{student status} + \beta_2F + \beta_3S + \beta_4Z + \varepsilon$$

The models will be conducted for grades in math and grades in Italian and different sets of controls will be included in the models. In the equation, Vi represents grades in math (or Italian) β_0 is the constant, β_2F is family background, β_3S is school characteristic, β_4Z is socialization and ε is the error. The basic model will only include a constant and the student status. A second one will add sociodemographic characteristics; a third will include year fixed effects while a forth one employs an interaction between

region (North, Center, South) and student status; finally, a fifth model will include family language characteristics and the last one will be restricted only to student with a migration background and socialization variables will be added as controls.

In the case of attainments, the dependent variables will be expected school selection for lower secondary and intention after graduating for upper secondary students. The relationship can be expressed as:

$$A = f(\text{grades, immigrant status, family background, school characteristics, socialization, inherent student characteristics})$$

Where A is the dependent variable for attainment. Because of the nature of these depend variables (categorical) an unordered logit model will be conducted instead, where the probability of choosing “liceo” will be the baseline for lower upper schools and “work” for upper secondary school. Similarly, to the achievement models the basic model will only include attainments and student status. A second model will again add sociodemographic characteristics; a third will include year fixed effects while a forth will add an interaction between region (North, Center, South) and student status; finally a fifth model will include family language characteristics and the last one will be restricted only to student with a migration background and socialization variables will be added as controls.

$$p(x) = \ln\left(\frac{p(x)}{1-p(x)}\right) = \beta_0 + \beta_1 \text{student status} + \beta_2 F + \beta_3 S + \beta_4 Z + \beta_5 G + \varepsilon$$

Where p(x) represents the probability that the dependent variable is equal to one of the categories and ln means natural logarithm. Also, $\beta_5 G$ represents the grades for Italian and math.

5.1 Descriptive analysis

Descriptive statistics of our dependent variable and selected independent variables are displayed in the following section. Table 2 displays the variables for *Students, Gender, School, Region, Town* and *economic conditions* for Italian/Second-generation migrants and mixed students. Italian represent the majority of students in school with 73% followed by second generation migrants 19% and last mixed students 7.5%. *Gender* is almost equally redistributed within student's immigrant background. In lower secondary school 68% of enrollers are Italian and 24% second-generation migrants whereas in upper secondary school their proportion reduces to almost 14%, Italians grow to 78% and mixed generation remain almost constant throughout lower and upper secondary school to almost 8%. From a regional distribution, of 8,686 second-generation migrants almost 11% resides in the northern regions while center and southern regions have around 4%. The majority of students leave in small towns both Italians, second generation migrants and mixed youths. The economic condition of students is skewed to middle income for Italians, second-generation migrants and mixed.

Table 2. Socio-demographic characteristics by Italian, Second-generation or Mix status

	Italian	Second gen.	Mix	Total
Male	17,202	4,391	1,702	23,295
	37.85%	9.66%	3.75%	51.26%
Female	16,115	4,295	1,737	22,147
	35.46%	9.45%	3.82%	48.74%
Students	33,317	8,686	3,439	45,442
	73.32%	19.11%	7.57%	100%
Low Secondary School				
Total	16,110	5,640	1,740	23,490
	68.58%	24.01%	7.41%	100 %
Upper Secondary School				
Total	17,207	3,046	1,699	21,952
	78.38%	13.88%	7.74%	100 %
Region				
North	17,529	4,977	1,826	24,332
	38.57%	10.95%	4.02%	53.55%
Center	7,312	2,089	774	10,175
	16.09%	4.60%	1.70%	22.39%
South	8,476	1,620	839	10,935
	18.65%	3.56%	1.85%	24.06%
Total	33,317	8,686	3,439	45,442
	73.32%	19.11%	7.57%	100 %
City/ Town				
Small Town	24,932	6,108	2,594	33,634

	74.13%	18.16%	7.71%	100%
Big City	8,385	2,578	845	11,808
	71.01%	21.83%	7.16%	100%
Total	33,317	8,686	3,439	45,442
	73.32%	19.11%	7.57%	100%
Family economic condition				
Very Rich	560	107	70	737
	75.98%	14.52%	9.50%	100%
Rich	5,928	1,111	571	7,610
	77.90%	14.60%	7.50%	100%
Middle	25,340	6,873	2,593	34,806
	72.80%	19.75%	7.45%	100%
Poor	1,356	540	184	2,080
	65.19%	25.96%	8.85%	100%
Very Poor	133	55	21	209
	63.64%	26.32%	10.05%	100%
Total	33,317	8,686	3,439	45,442
	73.32%	19.11%	7.57%	100%

Turning to country of origin of second-generation migrants, table 3, the larger groups are from Eastern Europe (Romania, Albania, Ukraine and Moldova) followed by Asia (China, Philippine and India); North Africa (mainly Morocco and Egypt); Latin America (Ecuador and Peru).

Table 3. Nationality of Second-generation students

Citizenship	Freq.	Percent
Italian	35,886	80.43%
Eastern EU	2,655	5.95%
Asia	1,629	3.65%
North Africa	1,045	2.34%
Latin America	449	1.01%
Other	2,952	6.62%
Total	44,616	100%

Regarding grades, students obtain slightly higher votes in math than Italian, although in both grades the majority of students pass (from grade 6) as shown in table 4 for grades in Math and Italian.

Table 4. Grades in Math and Italian

Grade Math	Freq.	Percent
1	10	0.02%
2	33	0.07%
3	104	0.23%
4	732	1.64%

Grade Italian	Freq.	Percent
1	19	0.04%
2	122	0.27%
3	486	1.07%
4	2,343	5.16%

5	4,098	9.19%
6	13,552	30.37%
7	14,891	33.38%
8	8,434	18.90%
9	2,478	5.55%
10	284	0.64%
Total	44,616	100%

5	6,594	14.51%
6	12,292	27.05%
7	10,803	23.77%
8	7,599	16.72%
9	3,759	8.27%
10	601	1.32%
Total	45,442	100%

Table 5 displays descriptive statistics for student’s future choices in lower and upper secondary school. While the majority of lower secondary students, almost 60%, seem more likely to opt for academic tracks (*liceo*) in upper middle secondary school the choice between working (43.16%) and going to university (44.84%) it is not as well defined and a high percentage of students seems undecided about their future.

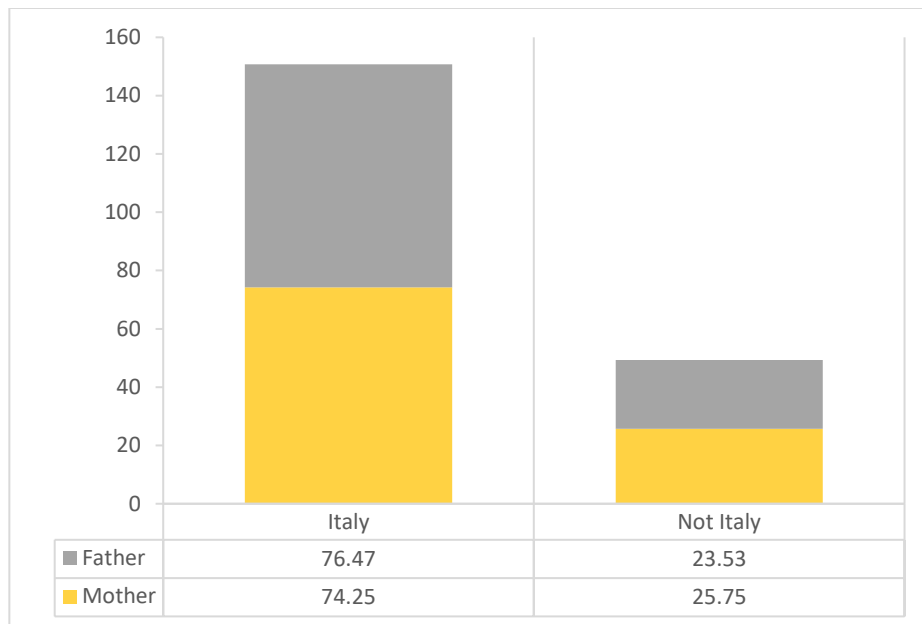
Table 5. School Expected Choices for Lower Secondary and Upper Secondary School

Lower Secondary Tracking Choices	Total
Academic Track	11,852 59.88%
Technical Track	7,038 35.56%
Vocational School	902 4.56%
Total	19,792 100%

Upper Secondary Expectations	Total
Work	8,979 43.16%
University	9,329 44.84%
Don't know	2,498 12.01%
Total	20,806 100%

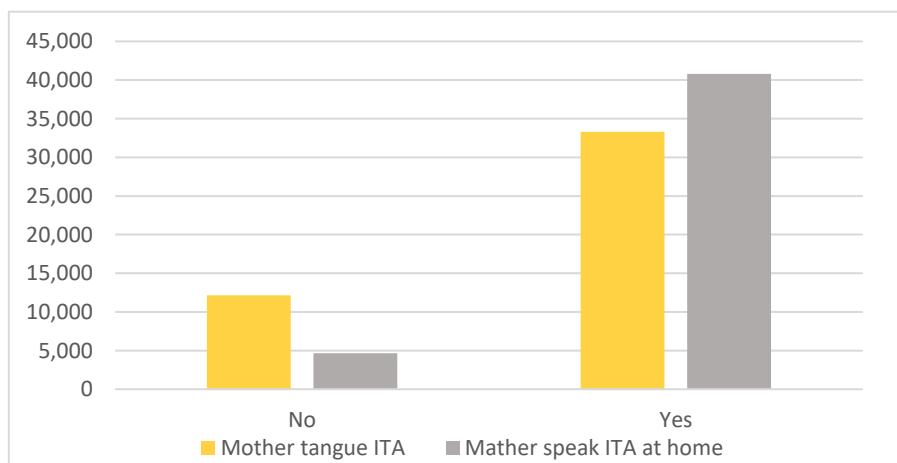
If we consider whether parents were born in Italy or not, those with a foreigner mother (25,75%) are slightly more than those with a father born outside Italy as shown in figure 1. However, the distribution is almost equally partitioned.

Figure 1. Students with a father/mother born in Italy or outside the country



Furthermore, in figure 2, the number of mothers who speak Italian at home with their children is higher than the percentage of mothers that are Italian native speakers meaning that some mothers speak in Italian to their children even when Italian is not their first language.

Figure 2. Language used by the mother



If we look at second-generation migrants' relationships in school and outside school (table 6), we see that the majority of non-Italian students have Italian friends. Outside of school peers second generation

have more than 86% national friends and including their classmates 80% of their relations are still with Italians.

Table 6. Second generation migrants' friends per nationality

Friends outside school	Freq.	Percent
Italians	6,069	86.53%
Migrants with same nationality	467	6.66%
Migrants of different nationality	478	6.81%
Total	8,534	100%

Your friends are:	Freq.	Percent
Italians	6,829	80.02%
Migrants with same nationality	1,213	14.21%
Migrants of different nationality	492	5.77%
Total	8,534	100%

6 Empirical Analysis

6.1 Results

Results for the achievements regressions are shown in table 7. In model 1, the basic model used as a reference for the other results, the categories of the variable *immigrant background* display significant and negative coefficient, which means that on average second-generation migrants and mixed students have lower grades in math than Italians. However, the coefficient for second-generation has a larger magnitude than the one for mix, meaning that the second generation is the one with the lowest grades on average. Hence, second-generation migrants score -0.372 compared to Italian student in math. The inclusion of *sociodemographic* variables (model 2) does not change the significance of the coefficients for immigrant background, not even with the inclusion of fixed effects (model 3).

When region and immigrant background are interacted (model 4) the coefficient for the interaction is significant for second generation and South, as well as for mixed and South, and it has a positive sign. However, the coefficient for being in the South compared to living in the North is negative, significant and larger than the interaction coefficient which means that living in the South of Italy exerts an overall negative effect both for second-generation migrants but also for mixed students compared to mixed students or second-generation migrants in the North. In the case of model 5, which includes language controls for the mother, it is found that coefficients for immigrant background remain significant. Finally, for the socialization model (model 6), the coefficient for mix is not significant which means that between mixed students and second generation migrants there are no statistical differences in average grade in math, while the coefficients for socialization variables are significant and negative for the students whose friends are of their same nationality in comparison to students whose friends are Italians.

Control variables have a significant effect when added. Mother education (also father) has a negative and significant effect on grades in math when she has an elementary or lower secondary degree in comparison to upper secondary education whereas the effect becomes positive and significant if she has a university degree in comparison to upper secondary education. Also, having more than two siblings has a negative effect on grades in math compared with students without any brother or sister. Furthermore, there is a positive and statistically significant economic background gradient for grades in math: compared to

students who originate from a middle-income family, students which come from a privileged family have higher grades while students from a poor or very poor social status have lower grades. Females students have better grades than boys. Having a mother whose native language is Italian has a positive and significant effect on math grades compared to having a mother whose mother tongue is different from Italian thus whether the mother speaks Italian at home has a moderately significant effect on grades. Finally, having friends from the same country of origin has a negative effect on grades if compared to having Italian friends for second generation students which are the only one investigated regarding these variables. Furthermore, R^2 are relatively low compared to the other models.

Table. 7 Regression results for achievements in Math (Italians, Second-generation and Mix)

Variables	Dependent variable: Grades in Math					
	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant background (Ref. Italians)						
Second Gen.	-0.372*** (0.014)	-0.279*** (0.014)	-0.322*** (0.014)	-0.350*** (0.018)	-0.267*** (0.024)	
Mix	-0.097*** (0.020)	-0.106*** (0.020)	-0.099*** (0.019)	-0.124*** (0.027)	-0.062*** (0.023)	-0.065 (0.075)
Region (Ref. North)						
Center		-0.101*** (0.013)	-0.110*** (0.013)	-0.110*** (0.015)	-0.110*** (0.013)	-0.089*** (0.033)
South		-0.291*** (0.013)	-0.319*** (0.013)	-0.346*** (0.015)	-0.322*** (0.013)	-0.199*** (0.038)
Second Gen. & Center				0.000 (0.033)		
Second Gen. & South				0.142*** (0.036)		
Mix & Center				-0.003 (0.049)		
Mix & South				0.104** (0.047)		
Siblings (Ref. 0)						
1		-0.000 (0.014)	-0.010 (0.013)	-0.009 (0.013)	-0.010 (0.013)	-0.010 (0.039)
2 or more		-0.116*** (0.016)	-0.127*** (0.015)	-0.124*** (0.015)	-0.126*** (0.015)	-0.135*** (0.041)
Mother edu. (Ref. upper secondary)						
No education		-0.337*** (0.055)	-0.454*** (0.054)	-0.453*** (0.054)	-0.455*** (0.054)	-0.353*** (0.115)
Elementary		-0.366*** (0.038)	-0.407*** (0.037)	-0.403*** (0.037)	-0.408*** (0.037)	-0.361*** (0.087)

Variables	Dependent variable: Grades in Math					
	(1)	(2)	(3)	(4)	(5)	(6)
Lower secondary		-0.233*** (0.015)	-0.234*** (0.015)	-0.233*** (0.015)	-0.235*** (0.015)	-0.153*** (0.044)
Tertiary		0.127***	0.074***	0.074***	0.074***	0.001

		(0.017)	(0.017)	(0.017)	(0.017)	(0.053)
Father edu. (Ref. upper secondary)						
No education		-0.182*** (0.055)	-0.307*** (0.053)	-0.307*** (0.053)	-0.306*** (0.053)	-0.175 (0.121)
Elementary		-0.252*** (0.033)	-0.255*** (0.032)	-0.255*** (0.032)	-0.253*** (0.032)	-0.019 (0.078)
Lower secondary		-0.202*** (0.015)	-0.206*** (0.014)	-0.205*** (0.014)	-0.206*** (0.014)	-0.152*** (0.044)
Tertiary		0.139*** (0.018)	0.097*** (0.017)	0.098*** (0.017)	0.097*** (0.0017)	-0.051 (0.050)
Income (Ref. middle)						
Very rich		0.137*** (0.044)	0.101** (0.043)	0.100** (0.043)	0.100** (0.043)	0.111 (0.134)
Rich		0.139*** (0.014)	0.099*** (0.014)	0.099*** (0.014)	0.099*** (0.014)	0.106*** (0.040)
Poor		-0.187*** (0.026)	-0.149*** (0.026)	-0.148*** (0.026)	-0.148*** (0.026)	-0.072 (0.064)
Very poor		-0.230** (0.091)	-0.150* (0.088)	-0.151* (0.088)	-0.146* (0.088)	-0.227 (0.205)
Female		0.368*** (0.010)	0.361*** (0.010)	0.361*** (0.010)	0.362*** (0.010)	0.382*** (0.027)
Big Town		-0.252*** (0.012)	-0.178*** (0.012)	-0.178*** (0.012)	-0.179*** (0.012)	-0.141*** (0.032)
Mother language ITA					0.074*** (0.023)	0.213*** (0.079)
Mother speaks ITA at home					0.037* (0.022)	0.013 (0.029)
Friends nationality outside school peers (Ref. Italians)						
Same nationality						-0.237*** (0.064)
Migrants from different nationality						-0.033 (0.064)
Friends nationality (Ref. Italians)						
Migrants of same nationality						-0.109** (0.050)
Migrants of different nationality						-0.080 (0.074)
Fixed effects			YES	YES	YES	YES
Constant	6.846*** (0.006)	6.978*** (0.017)	6.687*** (0.020)	6.692*** (0.020)	6.616*** (0.029)	6.368*** (0.058)
Observations	44,616	42,071	42,071	42,071	42,071	5,836
R-squared	0.016	0.105	0.154	0.154	0.154	0.100

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Results for the achievements regressions in Italian are shown in table 8. As with achievements in Math, (model 1) the categories of the variable *immigrant background* have a significant and negative coefficient also in grades in Italian. However, the coefficient for second-generation has a lower magnitude than in the case of Math. The inclusion of sociodemographic variables (model 2) does not change the

significance of the coefficients for immigrant background, not even with the inclusion of fixed effects (model 3).

Once again when region and immigrant background are interacted (model 4) the coefficient for the interaction is significant and positive for second-generation migrants and South, as well as for mixed students and South but also for second-generation and Center. However, as with grades in Math, the coefficients for Center and South are significant, negative and larger than the interactions for region and immigrant background so being in the South or in the Center continues to exert a negative effects on grades in Italian especially for second generation migrants which is not overcome by the positive sign of the interaction for second-generation and Center and second-generation and South. Coefficients for immigrant background also remain significant in model 5, when language controls for the mother are included. Finally, for the socialization model (model 6), there are some differences compared to the achievements in Math since it is found that students that have immigrant friends from different nationality have lower grades on average in Italian in comparison to students with Italian friends outside of school.

The control variables for mother education and father education continue to be negative and significant also for grades in Italian when comparing upper secondary education to elementary and lower secondary education, whereas the effect becomes positive and significant when upper secondary education is compared to holding a university degree. Again, having more than two siblings has a negative effect on grades in Italian compared with students with no siblings. Furthermore, economic background has a significant effect on grades in Italian. If students come from a wealthy family compared to those with a middle-income family, they will achieve higher grades, however, the effect becomes negative when students have a disadvantaged economic status. Females students achieve better grades than boys also in Italian. Furthermore, having a native Italian mother has a positive and significant effect on grades in Italian compared to having a mother whose mother tongue is different from Italian. However, whether the mother speaks Italian at home with the children has also a positive and significant effect on achievements in Italian, whereas the same was not true for grades in math. Finally, having friends from a different country of origin has a negative effect on grades if compared to having Italian friends for second-generation migrants.

Table. 8 Regression results for achievements in Italian (Italians, Second-generation and Mix)

Dependent variable: Grades in Italian						
Variables	(1)	(2)	(3)	(4)	(5)	(6)

Immigrant background (Ref. Italians)						
Second Gen.	-0.278*** (0.017)	-0.210*** (0.019)	-0.274*** (0.018)	-0.358*** (0.024)	-0.242*** (0.031)	
Mix	-0.118*** (0.026)	-0.114*** (0.026)	-0.105*** (0.025)	-0.143*** (0.034)	-0.067** (0.029)	-0.121 (0.099)
Region (Ref. North)						
Center		-0.154*** (0.017)	-0.167*** (0.017)	-0.192*** (0.019)	-0.164*** (0.017)	-0.027 (0.043)
South		-0.338*** (0.017)	-0.379*** (0.017)	-0.428*** (0.019)	-0.378*** (0.017)	-0.146*** (0.050)
Second Gen. & Center				0.133*** (0.043)		
Second Gen. & South				0.267*** (0.047)		
Mix & Center				0.010 (0.063)		
Mix & South				0.143** (0.061)		
Siblings (Ref. 0)						
1		0.067*** (0.018)	0.050*** (0.017)	0.051*** (0.017)	0.049*** (0.017)	-0.055 (0.052)
2 or more		-0.063*** (0.020)	-0.081*** (0.020)	-0.077*** (0.020)	-0.083*** (0.020)	-0.242*** (0.054)
Mother edu. (Ref. upper secondary)						
No education		-0.415*** (0.057)	-0.617*** (0.056)	-0.616*** (0.056)	-0.621*** (0.056)	-0.421*** (0.122)
Elementary		-0.330*** (0.047)	-0.390*** (0.046)	-0.383*** (0.046)	-0.395*** (0.046)	-0.294*** (0.108)
Lower secondary		-0.213*** (0.019)	-0.213*** (0.018)	-0.211*** (0.018)	-0.216*** (0.018)	-0.060 (0.055)
Tertiary		0.195*** (0.021)	0.109*** (0.021)	0.109*** (0.021)	0.108*** (0.021)	0.075 (0.064)
Father edu. (Ref. upper secondary)						
No education		-0.074 (0.057)	-0.250*** (0.056)	-0.250*** (0.056)	-0.249*** (0.056)	-0.107 (0.133)
Elementary		-0.294*** (0.041)	-0.293*** (0.040)	-0.293*** (0.040)	-0.295*** (0.040)	0.184* (0.099)
Lower secondary		-0.206*** (0.018)	-0.210*** (0.018)	-0.209*** (0.018)	-0.210*** (0.018)	-0.031 (0.056)
Dependent variable: Grades in Italian						
Variables	(1)	(2)	(3)	(4)	(5)	(6)
Tertiary		0.158*** (0.023)	0.094*** (0.022)	0.095*** (0.022)	0.095*** (0.022)	-0.040 (0.065)
Income (Ref. middle)						
Very rich		0.065 (0.057)	0.012 (0.055)	0.009 (0.055)	0.009 (0.055)	0.330* (0.176)
Rich		0.124*** (0.018)	0.067*** (0.018)	0.066*** (0.018)	0.067*** (0.018)	0.072 (0.053)
Poor		-0.280*** (0.034)	-0.220*** (0.033)	-0.219*** (0.033)	-0.220*** (0.033)	-0.287*** (0.085)

Very poor		-0.282** (0.118)	-0.174 (0.114)	-0.179 (0.114)	-0.171 (0.114)	-0.274 (0.270)
Female		0.230*** (0.014)	0.221*** (0.013)	0.221*** (0.013)	0.222*** (0.013)	0.217*** (0.036)
Big Town		-0.238*** (0.016)	-0.135*** (0.016)	-0.134*** (0.016)	-0.134*** (0.016)	0.008 (0.042)
Mother language ITA					0.088*** (0.030)	-0.023 (0.104)
Mother speaks ITA at home					0.140*** (0.028)	0.080** (0.038)
Friends nationality outside school peers (Ref. Italians)						
Migrants of same nationality						-0.162* (0.084)
Migrants of different nationality						-0.166** (0.084)
Friends nationality (Ref. Italians)						
Same nationality						0.057 (0.066)
Migrants of different nationality						-0.059 (0.098)
Fixed effects			YES	YES	YES	YES
Constant	6.652*** (0.008)	6.797*** (0.022)	6.490*** (0.026)	6.506*** (0.026)	6.403*** (0.038)	6.169*** (0.076)
Observations	44,618	42,072	42,072	42,072	42,072	5,840
R-squared	0.006	0.059	0.115	0.116	0.116	0.053

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 9 presents the coefficients for the variables of interest in the different models, while the Table A1 in the Appendix shows the full outcome of the regressions. For expectations in lower secondary school the basic model (model 1) we can see that, in comparison to Italians, the second-generation students have a higher probability of choosing technical schools rather than academic tracks, as well as of choosing vocational schools than academic tracks, with a substantially higher magnitude for vocational tracks. For mix students, neither of the results are significant. When sociodemographic controls are added Centre and South (model 2) are less likely than North to enrol to academic schools and the magnitude is stronger for vocational schools in the Center. The significance of technical schools remains, but it changes signs, becoming negative meaning that compared to Italians now second-generation students have lower probabilities of choosing a technical path than of choosing an academic one; and vocational schools are no more significant even when adding fixed effects (model 3). The interactions are not significant meaning that there is no difference in being a second generation from the South, Centre or North (model 4). With language and socialization controls (model 5 and model 6) the probability of choosing academic

path over technical school (or vocational path) is no more significant. The controls for parents' education show that when mother and father educational attainment is below upper secondary school, the probability of choosing technical/vocational schools over academic track are positive while they become negative for tertiary education of the mother and father. Regarding grades, the higher the grades are, in Italian or math, the more likely students from lower secondary school will opt for an academic track.

Table 9. Expected Attainments for Lower Secondary Students (Italians, Second-generation and Mix)

Variables	Reference academic track (lower secondary school students)											
	(1)		(2)		(3)		(4)		(5)		(6)	
	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools
Immigrants background (Ref. Italians)												
Second Gen.	0.098*** (0.036)	0.629*** (0.075)	-0.324*** (0.059)	-0.010 (0.126)	-0.299*** (0.060)	-0.025 (0.127)	-0.270*** (0.080)	0.046 (0.160)	-0.165 (0.109)	0.076 (0.245)		
Mix	-0.072 (0.059)	0.158 (0.134)	-0.126 (0.085)	-0.099 (0.209)	-0.114 (0.086)	-0.102 (0.209)	-0.165 (0.124)	-0.042 (0.271)	-0.016 (0.102)	0.014 (0.243)	0.283 (0.317)	1.220** (0.496)
Siblings (Ref. 0)												
1			0.168*** (0.057)	0.094 (0.146)	0.170*** (0.058)	0.097 (0.146)	0.167*** (0.058)	0.091 (0.146)	0.169*** (0.058)	0.096 (0.146)	-0.212 (0.169)	0.914* (0.467)
2 or more			0.113* (0.066)	0.248 (0.156)	0.126* (0.067)	0.251 (0.156)	0.121* (0.067)	0.239 (0.157)	0.126* (0.067)	0.242 (0.157)	-0.040 (0.174)	0.646 (0.479)
Mother edu. (Ref. upper secondary)												
No education			0.142 (0.158)	0.778*** (0.300)	0.270* (0.162)	0.797*** (0.298)	0.266 (0.162)	0.787*** (0.298)	0.266 (0.162)	0.789*** (0.299)	0.288 (0.362)	-0.343 (0.680)
Elementary			0.485*** (0.135)	1.129*** (0.244)	0.488*** (0.138)	1.124*** (0.246)	0.488*** (0.138)	1.118*** (0.246)	0.485*** (0.138)	1.115*** (0.246)	0.688** (0.299)	0.846 (0.529)
Lower secondary			0.317*** (0.056)	0.625*** (0.135)	0.329*** (0.057)	0.627*** (0.135)	0.330*** (0.057)	0.628*** (0.135)	0.328*** (0.057)	0.621*** (0.135)	0.561*** (0.149)	0.277 (0.322)
Tertiary			-0.404*** (0.062)	-0.369** (0.187)	-0.337*** (0.063)	-0.365* (0.188)	-0.333*** (0.063)	-0.357* (0.188)	-0.337*** (0.063)	-0.366* (0.188)	-0.088 (0.183)	-0.486 (0.456)
Father edu. (Ref. upper secondary)												
No education			-0.327** (0.158)	0.363 (0.303)	-0.152 (0.163)	0.376 (0.302)	-0.143 (0.163)	0.386 (0.302)	-0.147 (0.163)	0.393 (0.303)	0.016 (0.379)	1.344** (0.670)
Elementary			0.275** (0.121)	0.584** (0.239)	0.250** (0.123)	0.577** (0.241)	0.253** (0.123)	0.580** (0.241)	0.251** (0.123)	0.575** (0.241)	-0.205 (0.262)	0.410 (0.499)
Lower secondary			0.277*** (0.053)	0.505*** (0.133)	0.271*** (0.054)	0.510*** (0.134)	0.271*** (0.054)	0.509*** (0.134)	0.272*** (0.054)	0.518*** (0.134)	0.023 (0.150)	0.258 (0.326)
Tertiary			-0.492*** (0.066)	-0.380* (0.197)	-0.453*** (0.067)	-0.379* (0.197)	-0.454*** (0.068)	-0.379* (0.198)	-0.452*** (0.068)	-0.365* (0.198)	-0.085 (0.179)	-0.301 (0.442)

Reference academic track (upper secondary school students)												
Variables	(1)		(2)		(3)		(4)		(5)		(6)	
	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools
Income (Ref. middle)												
Very rich			-0.292*	-0.047	-0.289*	-0.050	-0.289*	-0.051	-0.295*	-0.068	-1.277**	-14.314
			(0.169)	(0.407)	(0.173)	(0.409)	(0.173)	(0.409)	(0.173)	(0.409)	(0.584)	(775.490)
Rich			-0.196***	0.138	-0.190***	0.128	-0.190***	0.126	-0.191***	0.133	-0.010	0.559*
			(0.055)	(0.134)	(0.055)	(0.134)	(0.055)	(0.134)	(0.055)	(0.134)	(0.159)	(0.291)
Poor			0.115	0.032	0.088	0.034	0.090	0.036	0.088	0.027	0.461	0.442
			(0.123)	(0.278)	(0.125)	(0.278)	(0.126)	(0.278)	(0.126)	(0.279)	(0.286)	(0.593)
Very poor			-0.016	0.886	-0.086	0.862	-0.091	0.856	-0.066	0.893	-0.305	-14.306
			(0.518)	(0.684)	(0.521)	(0.684)	(0.519)	(0.683)	(0.521)	(0.688)	(1.012)	(2,495.003)
Grades in math			-0.456***	-0.481***	-0.479***	-0.481***	-0.479***	-0.480***	-0.480***	-0.479***	-0.407***	-0.488***
			(0.027)	(0.063)	(0.027)	(0.063)	(0.027)	(0.063)	(0.027)	(0.063)	(0.069)	(0.143)
Grades in Italian			-0.227***	-0.444***	-0.197***	-0.448***	-0.196***	-0.446***	-0.197***	-0.451***	-0.171***	-0.448***
			(0.021)	(0.052)	(0.022)	(0.052)	(0.022)	(0.052)	(0.022)	(0.052)	(0.053)	(0.117)
Region (Ref. North)												
Center			-0.312***	-0.822***	-0.291***	-0.827***	-0.295***	-0.796***	-0.291***	-0.822***	-0.198	-1.092***
			(0.055)	(0.148)	(0.056)	(0.148)	(0.065)	(0.184)	(0.056)	(0.149)	(0.134)	(0.329)
South			-0.620***	-0.817***	-0.565***	-0.832***	-0.554***	-0.770***	-0.573***	-0.835***	-0.685***	-1.218***
			(0.054)	(0.127)	(0.054)	(0.128)	(0.061)	(0.148)	(0.055)	(0.129)	(0.159)	(0.379)
Female			-0.996***	-0.647***	-1.037***	-0.653***	-1.037***	-0.654***	-1.036***	-0.651***	-1.219***	-0.990***
			(0.044)	(0.107)	(0.045)	(0.107)	(0.045)	(0.107)	(0.045)	(0.107)	(0.119)	(0.253)
Big Town			-0.386***	-0.380***	-0.417***	-0.376***	-0.415***	-0.377***	-0.419***	-0.376***	-0.292**	-0.198
			(0.057)	(0.139)	(0.058)	(0.140)	(0.058)	(0.140)	(0.058)	(0.140)	(0.147)	(0.304)
Fixed Effects					YES	YES	YES	YES	YES	YES	YES	YES
Constant	-0.538***	-2.760***	5.081***	3.774***	5.432***	3.810***	5.427***	3.777***	5.257***	3.540***	4.823***	3.648***
	(0.018)	(0.045)	(0.180)	(0.424)	(0.185)	(0.428)	(0.185)	(0.429)	(0.207)	(0.484)	(0.457)	(1.021)
Observations	19,792	19,792	12,232	12,232	12,232	12,232	12,232	12,232	12,232	12,232	1,808	1,808

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0

Table 10 shows the outcome of the significant coefficients for the regression while the full table is presented extensively in Table A2 of the Appendix. In the expectation model for upper secondary school students (table 10), the basic model (model 1) is positive and significant for second-generation which means that they have higher probability of ending up in university rather than to work in comparison to Italians. However, they are also more likely than Italian of not knowing what they will do in the future. For the mix generation, it does not seem to be any differences in comparison to Italians in any of the six models. Furthermore, when adding more controls across the six models, the magnitude for second-generation and university increases. Controls for regions (model 2) show that in the North students are more indecisive about the future than those in the South also when fixed effects are added (model 3). As for track expectation in lower secondary school, parents' education in upper secondary school has a significant and negative effect on choosing to continue the studies in comparison to work and a significant and positive effect on selecting university over work when the mother or the father have higher education. Furthermore, the extremes income levels are negative and significant for university, meaning that very rich and very poor students would prefer to work rather than to study although the magnitude for very rich decreases when additional control variables are added. Also, achievements in math and Italian show a positive and significant effect on choosing university instead of working. Female is also significant for university in comparison to work but also regarding indecision and work. Living in a big town has a positive effect on opting for university other than working as to not knowing about the future in comparison to work and this effect is significant across all the models.

In the interaction model (model 4) the second generations are more likely to go to university than to work in comparison to Italians. However, those in the South are less likely to choose university instead of working than second generation migrants in the North and the same happens for those in the Center. Again, for mixed students, there is no differences in comparison to Italian students.

Table 10. Expected Attainments for Upper Secondary Students (Italians, Second-generation and Mix)

Variables	Reference work (upper secondary school students)											
	(1)		(2)		(3)		(4)		(5)		(6)	
	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know
Immigrant background (Ref. Italians)												
Second Gen.	0.324*** (0.044)	0.381*** (0.064)	0.649*** (0.059)	0.331*** (0.085)	0.703*** (0.060)	0.316*** (0.086)	0.851*** (0.079)	0.283** (0.112)	0.696*** (0.092)	0.222* (0.131)		
Mix	-0.035 (0.056)	-0.052 (0.087)	-0.037 (0.069)	-0.089 (0.102)	-0.023 (0.069)	-0.091 (0.103)	0.005 (0.094)	-0.099 (0.137)	-0.042 (0.080)	-0.135 (0.119)	-0.412 (0.327)	-0.396 (0.529)
Siblings (Ref. 0)												
1			-0.050 (0.045)	-0.000 (0.066)	-0.033 (0.045)	-0.005 (0.066)	-0.036 (0.045)	-0.004 (0.066)	-0.032 (0.045)	-0.005 (0.066)	-0.188 (0.181)	0.378 (0.282)
2 or more			-0.246*** (0.054)	-0.160** (0.079)	-0.220*** (0.054)	-0.167** (0.080)	-0.224*** (0.054)	-0.162** (0.080)	-0.218*** (0.054)	-0.173** (0.080)	-0.492*** (0.187)	-0.270 (0.298)
Mother edu (Ref upper secondary)												
No education			-1.112*** (0.278)	-0.379 (0.315)	-1.071*** (0.279)	-0.389 (0.314)	-1.061*** (0.280)	-0.387 (0.314)	-1.067*** (0.279)	-0.394 (0.314)	-0.817 (0.543)	-0.612 (0.776)
Elementary			-0.889*** (0.125)	-0.254 (0.160)	-0.913*** (0.126)	-0.241 (0.160)	-0.922*** (0.126)	-0.233 (0.160)	-0.907*** (0.126)	-0.247 (0.160)	-0.861*** (0.330)	0.602 (0.386)
Lower secondary			-0.601*** (0.043)	-0.359*** (0.063)	-0.607*** (0.043)	-0.357*** (0.063)	-0.608*** (0.043)	-0.355*** (0.063)	-0.606*** (0.043)	-0.357*** (0.063)	-0.244 (0.150)	-0.086 (0.222)
Tertiary			0.390*** (0.057)	0.204** (0.085)	0.410*** (0.057)	0.200** (0.085)	0.408*** (0.057)	0.204** (0.085)	0.410*** (0.057)	0.199** (0.085)	0.251 (0.199)	0.075 (0.301)
Father edu. (Ref. upper secondary)												
No education			-0.991*** (0.276)	-0.102 (0.304)	-0.965*** (0.277)	-0.115 (0.302)	-0.970*** (0.278)	-0.113 (0.302)	-0.959*** (0.277)	-0.115 (0.302)	-1.051* (0.629)	-0.627 (0.897)
Elementary			-0.533*** (0.095)	-0.352*** (0.136)	-0.561*** (0.096)	-0.345** (0.137)	-0.560*** (0.096)	-0.344** (0.137)	-0.560*** (0.096)	-0.349** (0.137)	-0.355 (0.262)	-0.775* (0.426)
Lower secondary			-0.495*** (0.042)	-0.246*** (0.061)	-0.500*** (0.042)	-0.246*** (0.061)	-0.502*** (0.042)	-0.247*** (0.061)	-0.499*** (0.042)	-0.245*** (0.061)	-0.236 (0.152)	-0.082 (0.218)
Tertiary			0.559*** (0.061)	0.120 (0.095)	0.562*** (0.062)	0.118 (0.095)	0.560*** (0.062)	0.119 (0.095)	0.562*** (0.062)	0.117 (0.095)	0.398* (0.208)	0.090 (0.315)
	Reference work (upper secondary school students)											
	(1)		(2)		(3)		(4)		(5)		(6)	

Variables	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know
Income (Ref. middle)												
Very rich			-0.489*** (0.186)	0.058 (0.239)	-0.460** (0.185)	0.049 (0.239)	-0.461** (0.186)	0.046 (0.239)	-0.461** (0.185)	0.050 (0.239)	1.973** (0.993)	-12.486 (1,126.712)
Rich			0.216*** (0.053)	-0.191** (0.085)	0.244*** (0.053)	-0.199** (0.085)	0.246*** (0.053)	-0.202** (0.085)	0.244*** (0.053)	-0.198** (0.085)	-0.059 (0.210)	-0.049 (0.323)
Poor			-0.396*** (0.085)	-0.061 (0.111)	-0.422*** (0.085)	-0.046 (0.111)	-0.422*** (0.085)	-0.044 (0.111)	-0.420*** (0.085)	-0.048 (0.111)	-0.363 (0.255)	-0.242 (0.380)
Very poor			-0.862*** (0.316)	-0.220 (0.395)	-0.895*** (0.319)	-0.228 (0.395)	-0.892*** (0.320)	-0.229 (0.396)	-0.900*** (0.319)	-0.230 (0.395)	-0.159 (0.890)	1.281 (0.880)
Grades in math			0.370*** (0.020)	0.065** (0.029)	0.360*** (0.020)	0.069** (0.029)	0.360*** (0.020)	0.069** (0.029)	0.360*** (0.020)	0.069** (0.029)	0.224*** (0.067)	0.088 (0.098)
Grades in Italian			0.190*** (0.014)	0.020 (0.021)	0.188*** (0.014)	0.021 (0.021)	0.189*** (0.014)	0.020 (0.021)	0.189*** (0.014)	0.021 (0.021)	0.197*** (0.047)	0.028 (0.068)
Region (Ref. North)												
Center			-0.075 (0.046)	-0.086 (0.065)	-0.077* (0.046)	-0.088 (0.065)	-0.010 (0.051)	-0.075 (0.073)	-0.078* (0.046)	-0.084 (0.066)	-0.534*** (0.152)	-0.065 (0.217)
South			-0.054 (0.049)	-0.443*** (0.076)	-0.049 (0.049)	-0.444*** (0.076)	-0.026 (0.053)	-0.500*** (0.083)	-0.051 (0.049)	-0.437*** (0.076)	-0.498*** (0.176)	-0.096 (0.262)
Female			0.920*** (0.037)	0.513*** (0.054)	0.920*** (0.037)	0.512*** (0.054)	0.921*** (0.037)	0.513*** (0.054)	0.920*** (0.037)	0.511*** (0.054)	1.084*** (0.127)	0.758*** (0.188)
Big Town			0.206*** (0.042)	0.175*** (0.060)	0.198*** (0.042)	0.181*** (0.060)	0.196*** (0.042)	0.181*** (0.060)	0.197*** (0.042)	0.184*** (0.060)	0.361** (0.141)	0.285 (0.205)
Second Gen. & Center							-0.398*** (0.143)	0.007 (0.198)				
Second Gen. & South							-0.314** (0.155)	0.249 (0.227)				
Mix & Center							-0.251 (0.168)	-0.230 (0.252)				
Mix & South							0.141 (0.174)	0.324 (0.265)				

Reference work (upper secondary school students)

	(1)		(2)		(3)		(4)		(5)		(6)	
Variables	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know

Fixed Effects					YES	YES	YES	YES	YES	YES	YES	YES
Constant	-0.003 (0.017)	-1.328*** (0.026)	-3.703*** (0.143)	-1.779*** (0.199)	-3.426*** (0.153)	-2.025*** (0.220)	-3.446*** (0.153)	-2.020*** (0.220)	-3.383*** (0.171)	-1.950*** (0.246)	-1.423*** (0.546)	-2.355*** (0.838)
Observations	20,806	20,806	17,145	17,145	17,145	17,145	17,145	17,145	17,145	17,145	1,627	1,627

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.

6.2 Limitation

Before going to the contribution section and contrast results to the hypotheses, it is necessary to assess the study limitations. These are first, data limitations. The survey investigates the student population in Italy for the year 2015. Hence, neither Italian students nor second generation migrants could be considered as representative samples of the whole youth population. In addition, due to the small size of the samples regarding source countries, it was not possible to compare second-generation migrants within the groups in the North, Center or South of Italy. Furthermore, longitudinal studies could be very useful in order to detect the effects of educational differences in the long term.

Is important to highlight that the variables grade in Math and grades in Italian result from teachers' evaluation of the student outcomes. Knowledge of Math and Italian are not extrapolated from standardized tests, such as PISA tests; hence personal tastes or divergences in grading scales among schools and across the territory could interfere with the outcome.

Also, language spoken at home is not fully representative of parent's language fluency. Students were not asked whether parents speak fluent Italian or not, but only if the parents are Italian mother tongue and if they speak Italian at home with their children. Hence, it could also happen that even knowing the language the mother, for example, decides not to speak Italian with her children because she wants them to learn a second language and or to maintain their cultural ties. Furthermore, it was decided not to run results for the language of the father because the sample was restricted only to students with a non-Italian father.

Even the socialization variable, is limited only to second generations migrants and hence must be interpreted with caution. It was, however, considered a useful integration to the model in order to test whether the second generations migrants interacted with Italian peers inside and outside school and if those who had Italian friends had better or worst educational outcomes.

Furthermore, even though expectations (for lower and upper secondary student's choices) can be considered as reliable inclinations towards choices, they do not represent attainments in the strict sense of the term. We do not know for example, what will be the rate of drop out in the transition from lower to secondary school and we cannot detect whether future aspiration will reflect actual decisions. In addition, a wide percentage

of students was inclined to answer “don't know” when asked about predictions after completing upper secondary school. This element could have an important impact on my results especially for the second-generation which are those statistically more undecided.

Finally, regarding second-generation students, no information about parents' years in the country was provided. Comparison between second generation migrants with parents arriving just before their birth or parents settled years before could have a major effect on migrants' socioeconomic background, as well as on their integration.

6.3 Discussion

Four main models were performed, two for achievements and two for attainments, in order to test the research hypotheses. In this section, each of the hypotheses will be analysed in light of the results and compared to what theory tested for second-generation migrants. It must be stressed, though, that these results are for second-generation migrants in comparison to Italian students and that the literature on second generation migrants, especially regarding regional differences in Italy, is still rather thin.

The first hypothesis stated that second generation migrants will have lower grades in Italian and math compared to Italian students. With the result and literature in mind, this hypothesis was confirmed since it was found that across all the models, even when controls and fixed effects are added, the second-generation still performs worse than Italians peers in school. However, from the results, it appears that they obtain worse grades in math rather than Italian meaning that language proficiency cannot be considered the main feature that brings their achievements down. Several studies show that second-generation migrants achieve at school but also in standardized tests (PISA, INVALSI), lower results in Italian and mathematics compared to Italian students, and this even with equal social and economic conditions (Invalsi, 2018; Miur, 2015; Schnell and Azzolini, 2015). The phenomenon, which is not unique to Italy, is likely a result of two factors: the efficiency and degree of inclusiveness of the school system and specific characteristics of the immigrant population, which vary greatly from North, Center and South but also from one region to another (Bertolini et al., 2015).

The second hypotheses start to deal with the regional integration of second-generation migrants and state that second generation migrants in the South will obtain lower achievements than second-generation

migrants in the North, which was also confirmed. To have lower grades are, although, all the student population coming from southern regions. At this point it becomes necessary to bring back the background of the southern question. Second-generation migrants have the double disadvantage of being in the south and having a migrant background. could be understood in light of the strong territorial differences that characterize the Italian education system. The European Commission (2018) trace this North/South differences to the teacher/student ratio by class, the "quality" of the teachers, their lower salary, the availability of infrastructure and above all, the economic resources imbued by the central state. Since the economic crisis of 2008, there has been a considerable reduction in educational expenditures across all Italian regions, which was overcome by local regional investments. However, only Northern and some Central regions managed to invest in education, while due to the lack of financial resources in the southern regions, the gap has widened.

In addition, to these structural factors, individual and family characteristics contribute to the lower grade of southern students. In particular, Bratti and co-authors, (2007) point out that about $\frac{3}{4}$ of the territorial differences in educational achievements found is attributable to context factors such as worst employment of parents (especially immigrants) and socio-economic levels of the southern territories. With this background frame in mind, we can now understand the double disadvantage for second-generation migrants of being in the South and having a migrant history.

Hypothesis 3 and 4 are related to expected attainments. The third hypothesis specifies that second generation migrants will be more inclined to choose over Italians academic tracks over professional one. Regarding choices in lower secondary school the hypothesis is confirmed when control variables are added while for upper secondary school the assumption is always true. Hence, in general, second-generation migrants opt for a more academic career than Italians. This implies that lower secondary school students' second-generation migrants prefer to continue their studies instead of going to vocational school and upper secondary second-generation migrants prefer University over work in comparison to Italians. The literature for students with a migration background in Italy, however, finds opposite results (Mantovani et al., 2018; Azzolini and Vergolini, 2014). As stated in the limitations, second-generation migrants have also higher propensity of not knowing what they will do. Expected choices not always coincide with reality, especially for those that come from more disadvantaged conditions, hence, real outcomes on educational attainments could be distorted. Nevertheless, European and U.S. literature points to the fact that migrants and their children often have higher aspiration than natives (Portes et al., 2009; Brinbaum and Lutz, 2017; Rothon,

2007). Higher education levels not only give access to better paid jobs but is also viewed as a form of social redemption, thus moderating the integration difficulties of migrants.

Finally, to further test this third hypothesis, the fourth one stated that second generation migrants from the South will opt more for academic tracks and university compared to the second-generation migrants living in the North. However, this last assumption was not confirmed from the results. In the North second-generation students prefer university to working compared to second generation in the South whereas for lower secondary school, choices on what type of school to enrol to were not statistically relevant. This results could be interpreted in two different ways. First, it could be that second-generation migrants in the South choose to work over university because they plan to look for job opportunities in the North (or outside Italy). Second, top universities in Italy are located mainly in northern and central regions hence, second-generation migrants from the South are more likely incapable of affording a transfer. Furthermore, scholarships are often financed at a regional level with the South having a lower amount of positions (Miur, 2018). In addition, not being recognized as Italian citizens they have restricted opportunities of gaining scholarships and have to compete with all foreigners coming to study in Italy (Miur, 2018).

7 Conclusion

This study was conducted with the aim of investigating the underlying disparities in educational outcome between natives and second-generation migrants in the Italian society. More precisely, two main research questions were examined, and four hypotheses were tested. Hence, it is now possible to look back to what the aim of the study was and how the results can be evaluated. In this study, we looked at the role of socioeconomic resources available to immigrant parents, their language use at home and the importance of socialization on school performance in the macro framework of the North/South divide. In these final considerations, the results are evaluated in light of previous studies on the phenomenon of educational gaps in order to assess the proposed econometric models. A brief section about policy implications of the results and suggestions for future research on this field conclude this section.

The aim of this study was to detect whether there were any differences in the educational outcomes of second-generation migrants and Italians. In particular, how achievements and attainments differentiate not only between Italians and second-generation migrants in the North or South but also within the second-generation group at a regional level. Considering the results from the models, it is possible to reply that there are differences in school grades and future attainments between Italians and second-generation migrants. Overall the study presents revealing findings for the second-generation migrants in the North and South of Italy, as no other empirical analysis had been dealing with educational achievements and attainments only for second-generation migrants. Also, the results of the logistic regression models show that overall having a migrant background exerts a positive effect on educational ambitions of the second-generation students. Since these choices are based also on previous school results, which are for second-generation migrants on average lower both in Math and Italian than those of natives, it is interesting to underline that lower achievement does not undermine their degree of desired education. However, perhaps, discrimination in the labour market could also drive minorities to opt for higher education levels as a form of redemption and as a way of ensuring a job in the future.

Considering the scarce research done in this field, detecting disparities of second-generation migrants in the framework of different regional development can be of great use and reference for future research. It is, however, important to note that because of the design of the model and data, these results cannot be

generalized for all second-generation migrants in Italy. Nonetheless, they can be used as input for future research, especially now that the percentage of migrants and their children is growing every year. In light of the results for this sample for the year 2015, in relation to public policies, to improve the educational outcome of second-generation migrants, the key may be in better access to information about school tracks to migrants' parents. Especially, language support in Southern regions since these factors seem to have a great impact on educational choices for most groups of immigrants. Furthermore, generous naturalization policies have proven to be beneficial for immigrants, enabling social recognition and economic stability (Helgertz et al., 2014).

Several lines of future research can be drawn after this study. An important limitation remains that of data sample, as for this type of studies longitudinal data would be more appropriate. One interesting study could be a more in-depth analysis of the different country of origin of second-generation groups in order to detect whether some specific groups are doing better or worse than natives and migrants peers in general as immigrants' population in Italy is very diverse. Another suggested line is using other dependent variables, like standardized tests for achievements and actual attainments level, as these variables are not subjective to teachers' assessments and expected future education choices. Finally, exploring parents' years in the country, even if second-generation migrants are born in Italy or intermarriage developments among first- and second-generation migrants (Dribe and Lundh, 2008) could reveal new interesting aspects of integration and educational outcomes also for the Italian context.

References

- Alba R. and Nee V., (1997). *Rethinking assimilation theory for a new era of immigration*, in *International Migration review*, 31(4).
- Albertini M, Gasperoni G and Mantovani D (2018) Whom to help and why? Family norms on financial support for adult children among immigrants, *Journal of Ethnic and Migration Studies* doi.org/10.1080/1369183X.2018.1485206.
- Alegre A. M. and Ferrer–Esteban G. (2013). How Do School Regimes Tackle Ethnic Segregation: Some Insights Supported in PISA 2006, in *Quality and Inequality of Education*, (ed) J Dronkers, 163-204, Berlin: Springer.
- Álvarez, I., Schneider, B. & Villalobos, C. (2015). School Adjustment and Friendship Quality of First- and Second-Generation Adolescent Immigrants to Spain as a Function of Acculturation. *Journal of Adolescent Research*, 1-28. doi:10.1177/0743558415592179.
- Ambrosini M. (2011). *Sociologia delle migrazioni*, Bologna: Il Mulino.
- Azzolini, D., & Barone, C. (2013). Do they progress or do they lag behind? Educational attainment of immigrants' children in Italy: The role played by generational status, country of origin and social class. *Research in Social Stratification and Mobility*, 31, 82-96. doi:10.1016/j.rssm.2012.11.002.
- Azzolini, D., & Vergolini, L. (2014). Tracking, inequality and education policy. Looking for a recipe for the Italian case. *Scuola Democratica*, 2, 1-11. doi:10.12828/77685.
- Baysu G., Alanya A. and de Valk H. (2018). School trajectories of the second generation of Turkish immigrants in Sweden, Belgium, Netherlands, Austria, and Germany: The role of school systems, *International Journal of Comparative Sociology*, 59(5-6) 451–479.
- Bertolini P., Lalla M., and Pagliacci F. (2015). School enrolment of first- and second- generation immigrant students in Italy: A geographical analysis, *Papers in Regional Science*, 94(1), 141- 159.
- Borjas B.J., Bronars S.G. and Trejo S.J. (1992). Assimilation and the Earnings of Young Internal Migrants, *The Review of Economics and Statistics*, Vol. 74, No. 1, pp. 170-175.
- Bratti, M., D. Checchi and A. Filippin (2007). Territorial Differences in Italian Students' Mathematical Competences: Evidence from PISA, *Giornale degli Economisti e Annali di Economia*, 66(3), pp. 299-335.
- Brinbaum Y. and Cebolla-Boado H. (2007). The school careers of ethnic minority youth in France: Success or disillusion?. *Ethnicities* 7:(3),445-474.

- Brinbaum Y., and Lutz A. (2017), Examining educational inequalities in two national systems: a comparison of the North African second generation in France and the Mexican second generation in the United States, *Journal of Ethnic and Migration Studies*, 43:15, 2591-2615.
- Brunello G., and Checchi D., (2007). Does school tracking affect equality of opportunity? New international evidence. *Economic Policy*, (22)52, 781-861.
- Chiswick B.R, (1999), *Are immigrants favourably self selected?*, American economic review 89(2).
- Chiswick B. R., and DebBurman N., (2004), Educational attainment: analysis by immigrant generation, *Economics of Education Review*, 23, 361–379.
- Colombo, A., and Sciortino, G. (2004). Italian Immigration: The Origins, Nature and Evolution of Italy's Migratory Systems. *Journal of Modern Italian Studies*, 9, 49-70.
- Crul M., (2015), Is Education the Pathway to Success? A Comparison of Second Generation Turkish Professionals in Sweden, France, Germany and The Netherlands, *European Journal of Education*, (50) 3, 325-339.
- Crul M., Vermeulen H. (2003). The second generation in Europe. *Int. Migr. Rev.* 37:965–86.
- Daniele, V., and Malanima P. (2007). Il prodotto delle regioni e il divario Nord-Sud in Italia (1861-2004), *Rivista di Politica Economica* 97: 267-315.
- Daniele, V. & Malanima, P. (2011). *Il divario Nord-Sud in Italia, 1861–2011*, Rubettino: Soveria Mannelli.
- Di Bartolomeo, A. (2011). Explaining the gap in educational achievement between second-generation immigrants and natives: the Italian case, *Journal of Modern Italian Studies*, 16:4, 437-449.
- Dribe, M. and C. Lundh (2008). Intermarriage and Immigrant Integration in Sweden: An Exploratory Analysis. *Acta Sociologica* 51:329-354.
- Dronkers J., and Fleischmann F. (2013). The educational attainment of second generation immigrants from different countries of origin in the EU member states, in *Quality and Inequality of Education*, (ed.) J Dronkers, 163-204, Berlin: Springer.
- Driessen, G. and Smit, F. (2007). Effects of immigrant parents' participation in society on their children's school performance. *Acta Sociologica*, 50, 39–56.
- Duncan O.D., and Lieberman S. (1959). Ethnic Segregation and Assimilation, *American Journal of Sociology*, Vol. 64, No. 4, pp. 364-374.
- Dustmann C. (1996). The Social Assimilation of Immigrants, *Journal of Population Economics*, 9, 37–54.
- Dustmann, C. (2004) 'Parental background, secondary school track choice, and wages', *Oxford Economic Papers*, 56(2): 209-30.
- Dustmann C., Frattini T., Lanzara G., Algan Y. (2012), Educational achievement of second-generation immigrants: an international comparison, *Economic Policy*. 27(69):143-185.

- Dustmann, C. and N. Theodoropoulos (2010). Ethnic minority immigrants and their children in Britain, *Oxford Economic Papers*, 62(2), 209-233.
- European Commission (2018). *Relazione di monitoraggio del settore dell'istruzione e della formazione in Italia*, report-2018-italy_it.pdf
- Evans M.D.R. (1987). Language Skill, Language Usage and Opportunity: Immigrants in the Australian Labour Market, *The Journal of the British Sociological Association*, 21, 253-274.
- Federico, G., Nuvolari, A., Vasta, M. (2017). *The Origins of the Italian Regional Divide. Evidence from Real Wages 1861-1913*, CEPR, Discussion Paper n. 12358.
- Felice, E (2014), Il Mezzogiorno fra storia e pubblicistica. Una replica a Daniele-Malanima, *Rivista di Storia Economica* 32(2), 197-242.
- Felice, E., and Vasta M. (2015), Passive modernization? The new human development index and its component in Italy's regions (1871-2007), *European Review of Economic History* 19: 44-66.
- Fullin, G., and Reyneri, E. (2011). Low Unemployment and Bad Jobs for New Immigrants in Italy. *International Migration*, 49, 118-147.
- GCIM. (2005). *Migration in an Inter-connected World: New Directions for Action*. Global Commission on International Migration.
- Gang I, Zimmerman C. (2000). Is child like parent? Educational attainment and ethnic origin, *Journal of Human Resources*, 35, 550-69.
- Gans, H. (1992). Second generation declines: Scenarios for the economic and ethnic future of Post-1965 American immigrant. *Ethnic and Racial Studies*, 15:173-192.
- Helgertz, J., Bevelander, P. and Tegunimataka, A (2014). Naturalization and Earnings: A Denmark-Sweden Comparison, *European Journal of Population*, 30(3).
- Isphording, I.E. and S. Otten (2014), Linguistic barriers in the destination language acquisition of immigrants", *Journal of Economic Behavior and Organization*, 105, 30-50.
- Kristen C., Granato N. (2007), The educational attainment of the second generation in Germany. *Ethnicities* 7:343-66.
- Kao G and Tienda M (1995) Optimism and achievement: The educational performance of immigrant youth. *Social Science Quarterly* 76(1): 1-19.
- Lang, K. & Manove, M. (2011), 'Education and Labor Market Discrimination,' *American Economic Review*, 101: 1467-96.
- Lien, N., Friestad, C., & Klepp, K. I. (2001). Adolescents' proxy reports of parents' socioeconomic status: how valid are they? *Journal of Epidemiology and Community Health*, 55, 731e737

- Luthra R., Soehl T., Waldinger R., (2017), Reconceptualizing Context: A Multilevel Model of the Context of Reception and Second-Generation Educational Attainment, *International Migration Review*, In press. <https://doi.org/10.1111/imre.12315>.
- Mantovani D., Gasperoni G. and Albertini M. (2018). Higher education beliefs and intentions among immigrant-origin students in Italy, *Ethnicities*, 18(4), 603–626.
- Meurs, D., Puhani P.A. and von Haaren, F. (2016). Number of Siblings and Educational Choices of Immigrant Children: Evidence from First- and Second-Generation Immigrants, *Review of the Economics of the Household*.
- Mussino E., and Strozza S. (2012). The Delayed School Progress of the Children of Immigrants in Lower-Secondary Education in Italy, *Journal of Ethnic and Migration Studies*, 38(1), 41-57.
- OECD (2006). Where Immigrant Students Succeed: A comparative Review of Performance and Engagement in PISA 2003, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264249509-en>.
- Pásztor A. (2016), Divergent pathways: the road to higher education for second-generation Turks in Austria, *Race Ethnicity and Education*, 19:4, 880-900.
- Perlmann J., Waldinger R. (1997). Second Generation Decline? Children of Immigrants, Past and Present: A Reconsideration, *International Migration Review* 31, 893-922.
- Perlman J., (1988), *Ethnic differences: schooling and social structure among the Irish, Jews and Blacks in an American city, 1988-1935*, New York, Cambridge University press.
- Phalet K, Deboosere P, Bastiaenssen V. 2007. Old and new inequalities in educational attainment: ethnic minorities in the Belgian Census 1991–2001. *Ethnicities* 7:390–415
- Portes A. and MacLeod, (1996), *Educational progress of children of immigrants: the role of class, ethnicity and school context*, *Sociology of education*, 69(Oct.), 255-75.
- Portes, A., & Rumbaut, R. G. (2001). *Legacies: The story of the immigrant second generation*. Berkeley: University of California Press.
- Portes, A., Fernandez-Kelly, P., Haller, W. (2009): The Adaptation of the Immigrant Second Generation in America: Theoretical Overview and Recent Evidence. *Journal of Ethnic and Migration Studies*, 35(7): 1077-1104.
- Rothon C. 2007. Can achievement differentials be explained by social class alone? An examination of minority ethnic educational performance in England and Wales at the end of compulsory schooling. *Ethnicities* 7:306–22.
- Rumbaut, R. (1997). Assimilation and its discontents: Between rhetoric and reality. *International Migration Review*, 31(4):923-960.
- Schnepf, S.V. (2007). 'Immigrants' educational disadvantage: an examination across ten countries and three surveys', *Journal of Population Economics*, 20(3), 527-545.

- Vallet LA and Caille JP (1999) Migration and integration in France: Academic careers of immigrants' children in lower and upper secondary school. In: Paper presented at the ESF conference on 'migration and inter-ethnic relations in Europe', Obernai, 23–28 September.
- Van de Werfhorst, H.G. and Mijs, J.J.B. (2010). Achievement Inequality and the Institutional Structure of Educational Systems: A Comparative Perspective, *Annual Review of Sociology*, 36, 407-28.
- Van Ours, J.C., and J. Veenman (2003). "The educational attainment of second generation immigrants in The Netherlands", *Journal of Population Economics*, 16(4), 739-753.
- Vecchi, G. (2012). Sviluppo economico, benessere e disuguaglianza: Italia, 1861-2011, *Rivista di storia economica*, 177-196.
- Vecchi, G. (2017). *Measuring Wellbeing. A History of Italian Living Standards*, Oxford University Press.
- Waters M., Tran C., Kasinitz P., Mollenkopf, J.; (2010) Segmented assimilation revisited: types of acculturation and socioeconomic mobility in young adulthood, *Ethnic & Racial Studies*, 33(7), 1168-1193.
- Wuttke, J. (2007). Uncertainties and bias in PISA. In S.T. Hopmann, G. Brinek, & M. Retzl (Eds.), *PISA zufolge PISA*, 241-263, Vienna, Austria: LIT.
- Ziyanak S. (2015). Critically Assessing Classic Assimilation Theory and Alternative Perspectives for Immigrants and the Second Generation in the United States, *Race, Gender & Class*, 22 (1-2), 143-149.

Table A1. Expected Attainments for Lower Secondary School (Italians, Second-generation and Mix)

Variables	Reference academic track (lower secondary school students)											
	(1)		(2)		(3)		(4)		(5)		(6)	
	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools
Immigrants background (Ref. Italians)												
Second Gen.	0.098*** (0.036)	0.629*** (0.075)	-0.324*** (0.059)	-0.010 (0.126)	-0.299*** (0.060)	-0.025 (0.127)	-0.270*** (0.080)	0.046 (0.160)	-0.165 (0.109)	0.076 (0.245)		
Mix	-0.072 (0.059)	0.158 (0.134)	-0.126 (0.085)	-0.099 (0.209)	-0.114 (0.086)	-0.102 (0.209)	-0.165 (0.124)	-0.042 (0.271)	-0.016 (0.102)	0.014 (0.243)	0.283 (0.317)	1.220** (0.496)
Siblings (Ref. 0)												
1			0.168*** (0.057)	0.094 (0.146)	0.170*** (0.058)	0.097 (0.146)	0.167*** (0.058)	0.091 (0.146)	0.169*** (0.058)	0.096 (0.146)	-0.212 (0.169)	0.914* (0.467)
2 or more			0.113* (0.066)	0.248 (0.156)	0.126* (0.067)	0.251 (0.156)	0.121* (0.067)	0.239 (0.157)	0.126* (0.067)	0.242 (0.157)	-0.040 (0.174)	0.646 (0.479)
Mother edu. (Ref. upper secondary)												
No education			0.142 (0.158)	0.778*** (0.300)	0.270* (0.162)	0.797*** (0.298)	0.266 (0.162)	0.787*** (0.298)	0.266 (0.162)	0.789*** (0.299)	0.288 (0.362)	-0.343 (0.680)
Elementary			0.485*** (0.135)	1.129*** (0.244)	0.488*** (0.138)	1.124*** (0.246)	0.488*** (0.138)	1.118*** (0.246)	0.485*** (0.138)	1.115*** (0.246)	0.688** (0.299)	0.846 (0.529)
Lower secondary			0.317*** (0.056)	0.625*** (0.135)	0.329*** (0.057)	0.627*** (0.135)	0.330*** (0.057)	0.628*** (0.135)	0.328*** (0.057)	0.621*** (0.135)	0.561*** (0.149)	0.277 (0.322)
Tertiary			-0.404*** (0.062)	-0.369** (0.187)	-0.337*** (0.063)	-0.365* (0.188)	-0.333*** (0.063)	-0.357* (0.188)	-0.337*** (0.063)	-0.366* (0.188)	-0.088 (0.183)	-0.486 (0.456)
Father edu. (Ref. upper secondary)												
No education			-0.327** (0.158)	0.363 (0.303)	-0.152 (0.163)	0.376 (0.302)	-0.143 (0.163)	0.386 (0.302)	-0.147 (0.163)	0.393 (0.303)	0.016 (0.379)	1.344** (0.670)
Elementary			0.275** (0.121)	0.584** (0.239)	0.250** (0.123)	0.577** (0.241)	0.253** (0.123)	0.580** (0.241)	0.251** (0.123)	0.575** (0.241)	-0.205 (0.262)	0.410 (0.499)
Lower secondary			0.277*** (0.053)	0.505*** (0.133)	0.271*** (0.054)	0.510*** (0.134)	0.271*** (0.054)	0.509*** (0.134)	0.272*** (0.054)	0.518*** (0.134)	0.023 (0.150)	0.258 (0.326)
Tertiary			-0.492*** (0.066)	-0.380* (0.197)	-0.453*** (0.067)	-0.379* (0.197)	-0.454*** (0.068)	-0.379* (0.198)	-0.452*** (0.068)	-0.365* (0.198)	-0.085 (0.179)	-0.301 (0.442)

Reference academic track (lower secondary school students)

(1)

(2)

(3)

(4)

(5)

(6)

Variables	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools
Income (Ref. middle)												
Very rich			-0.196*** (0.055)	0.138 (0.134)	-0.190*** (0.055)	0.128 (0.134)	-0.190*** (0.055)	0.126 (0.134)	-0.191*** (0.055)	0.133 (0.134)	-0.010 (0.159)	0.559* (0.291)
Rich			0.115 (0.123)	0.032 (0.278)	0.088 (0.125)	0.034 (0.278)	0.090 (0.126)	0.036 (0.278)	0.088 (0.126)	0.027 (0.279)	0.461 (0.286)	0.442 (0.593)
Poor			-0.016 (0.518)	0.886 (0.684)	-0.086 (0.521)	0.862 (0.684)	-0.091 (0.519)	0.856 (0.683)	-0.066 (0.521)	0.893 (0.688)	-0.305 (1.012)	-14.306 (2,495.003)
Very poor												
Grades in math			-0.456*** (0.027)	-0.481*** (0.063)	-0.479*** (0.027)	-0.481*** (0.063)	-0.479*** (0.027)	-0.480*** (0.063)	-0.480*** (0.027)	-0.479*** (0.063)	-0.407*** (0.069)	-0.488*** (0.143)
Grades in Italian			-0.227*** (0.021)	-0.444*** (0.052)	-0.197*** (0.022)	-0.448*** (0.052)	-0.196*** (0.022)	-0.446*** (0.052)	-0.197*** (0.022)	-0.451*** (0.052)	-0.171*** (0.053)	-0.448*** (0.117)
Region (Ref.North)												
Center			-0.312*** (0.055)	-0.822*** (0.148)	-0.291*** (0.056)	-0.827*** (0.148)	-0.295*** (0.065)	-0.796*** (0.184)	-0.291*** (0.056)	-0.822*** (0.149)	-0.198 (0.134)	-1.092*** (0.329)
South			-0.620*** (0.054)	-0.817*** (0.127)	-0.565*** (0.054)	-0.832*** (0.128)	-0.554*** (0.061)	-0.770*** (0.148)	-0.573*** (0.055)	-0.835*** (0.129)	-0.685*** (0.159)	-1.218*** (0.379)
Female			-0.996*** (0.044)	-0.647*** (0.107)	-1.037*** (0.045)	-0.653*** (0.107)	-1.037*** (0.045)	-0.654*** (0.107)	-1.036*** (0.045)	-0.651*** (0.107)	-1.219*** (0.119)	-0.990*** (0.253)
Big Town			-0.386*** (0.057)	-0.380*** (0.139)	-0.417*** (0.058)	-0.376*** (0.140)	-0.415*** (0.058)	-0.377*** (0.140)	-0.419*** (0.058)	-0.376*** (0.140)	-0.292** (0.147)	-0.198 (0.304)
Second Gen. & Center							0.037 (0.138)	-0.004 (0.323)				
Second Gen. & South							-0.196 (0.152)	-0.364 (0.335)				
Mix & Center							-0.070 (0.235)	-0.597 (0.787)				
Mix & South							0.193 (0.194)	-0.006 (0.460)				
Mother language ITA									0.192* (0.104)	0.279 (0.241)	-0.519 (0.362)	-0.772 (0.822)
Mother speaks ITA at home									0.129 (0.095)	0.418** (0.191)	0.040 (0.123)	0.215 (0.252)

Reference academic track (lower secondary school students)

Variables	(1)		(2)		(3)		(4)		(5)		(6)	
	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools	Technical Schools	Vocational Schools

Friends nationality outside school peers (Ref. Italians)													
Same nationality											0.168 (0.281)	0.684 (0.480)	
Migrants different nationality											0.207 (0.292)	0.113 (0.597)	
Friends nationality (Ref. Italians)													
Same nationality											0.573*** (0.203)	0.438 (0.429)	
Migrants different nationality											-0.481 (0.348)	-0.191 (0.642)	
Fixed Effects					YES	YES	YES	YES	YES	YES	YES	YES	
Constant	-0.538*** (0.018)	-2.760*** (0.045)	5.081*** (0.180)	3.774*** (0.424)	5.432*** (0.185)	3.810*** (0.428)	5.427*** (0.185)	3.777*** (0.429)	5.257*** (0.207)	3.540*** (0.484)	4.823*** (0.457)	3.648*** (1.021)	
Observations	19,792	19,792	12,232	12,232	12,232	12,232	12,232	12,232	12,232	12,232	1,808	1,808	

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2. Expected Attainments for Lower Secondary School (Italians, Second-generation and Mix)

Variables	Work (upper secondary school students)											
	(1)		(2)		(3)		(4)		(5)		(6)	
	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know

Immigrant background (Ref. Italians)												
Second Gen.	0.324*** (0.044)	0.381*** (0.064)	0.649*** (0.059)	0.331*** (0.085)	0.703*** (0.060)	0.316*** (0.086)	0.851*** (0.079)	0.283** (0.112)	0.696*** (0.092)	0.222* (0.131)		
Mix	-0.035 (0.056)	-0.052 (0.087)	-0.037 (0.069)	-0.089 (0.102)	-0.023 (0.069)	-0.091 (0.103)	0.005 (0.094)	-0.099 (0.137)	-0.042 (0.080)	-0.135 (0.119)	-0.412 (0.327)	-0.396 (0.529)
Siblings (Ref. 0)												
1			-0.050 (0.045)	-0.000 (0.066)	-0.033 (0.045)	-0.005 (0.066)	-0.036 (0.045)	-0.004 (0.066)	-0.032 (0.045)	-0.005 (0.066)	-0.188 (0.181)	0.378 (0.282)
2 or more			-0.246*** (0.054)	-0.160** (0.079)	-0.220*** (0.054)	-0.167** (0.080)	-0.224*** (0.054)	-0.162** (0.080)	-0.218*** (0.054)	-0.173** (0.080)	-0.492*** (0.187)	-0.270 (0.298)
Mother edu.(Ref upper secondary)												
No education			-1.112*** (0.278)	-0.379 (0.315)	-1.071*** (0.279)	-0.389 (0.314)	-1.061*** (0.280)	-0.387 (0.314)	-1.067*** (0.279)	-0.394 (0.314)	-0.817 (0.543)	-0.612 (0.776)
Elementary			-0.889*** (0.125)	-0.254 (0.160)	-0.913*** (0.126)	-0.241 (0.160)	-0.922*** (0.126)	-0.233 (0.160)	-0.907*** (0.126)	-0.247 (0.160)	-0.861*** (0.330)	0.602 (0.386)
Lower secondary			-0.601*** (0.043)	-0.359*** (0.063)	-0.607*** (0.043)	-0.357*** (0.063)	-0.608*** (0.043)	-0.355*** (0.063)	-0.606*** (0.043)	-0.357*** (0.063)	-0.244 (0.150)	-0.086 (0.222)
Tertiary			0.390*** (0.057)	0.204** (0.085)	0.410*** (0.057)	0.200** (0.085)	0.408*** (0.057)	0.204** (0.085)	0.410*** (0.057)	0.199** (0.085)	0.251 (0.199)	0.075 (0.301)
Father edu. (Ref. upp secondary)												
No education			-0.991*** (0.276)	-0.102 (0.304)	-0.965*** (0.277)	-0.115 (0.302)	-0.970*** (0.278)	-0.113 (0.302)	-0.959*** (0.277)	-0.115 (0.302)	-1.051* (0.629)	-0.627 (0.897)
Elementary			-0.533*** (0.095)	-0.352*** (0.136)	-0.561*** (0.096)	-0.345** (0.137)	-0.560*** (0.096)	-0.344** (0.137)	-0.560*** (0.096)	-0.349** (0.137)	-0.355 (0.262)	-0.775* (0.426)
Lower secondary			-0.495*** (0.042)	-0.246*** (0.061)	-0.500*** (0.042)	-0.246*** (0.061)	-0.502*** (0.042)	-0.247*** (0.061)	-0.499*** (0.042)	-0.245*** (0.061)	-0.236 (0.152)	-0.082 (0.218)
Tertiary			0.559*** (0.061)	0.120 (0.095)	0.562*** (0.062)	0.118 (0.095)	0.560*** (0.062)	0.119 (0.095)	0.562*** (0.062)	0.117 (0.095)	0.398* (0.208)	0.090 (0.315)

Work (upper secondary school students)

Variables	(1)		(2)		(3)		(4)		(5)		(6)	
	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know
Income (Ref. middle)												
Very rich			-0.489***	0.058	-0.460**	0.049	-0.461**	0.046	-0.461**	0.050	1.973**	-12.486

		(0.186)	(0.239)	(0.185)	(0.239)	(0.186)	(0.239)	(0.185)	(0.239)	(0.993)	(1,126.712)
Rich		0.216*** (0.053)	-0.191** (0.085)	0.244*** (0.053)	-0.199** (0.085)	0.246*** (0.053)	-0.202** (0.085)	0.244*** (0.053)	-0.198** (0.085)	-0.059 (0.210)	-0.049 (0.323)
Poor		-0.396*** (0.085)	-0.061 (0.111)	-0.422*** (0.085)	-0.046 (0.111)	-0.422*** (0.085)	-0.044 (0.111)	-0.420*** (0.085)	-0.048 (0.111)	-0.363 (0.255)	-0.242 (0.380)
Very poor		-0.862*** (0.316)	-0.220 (0.395)	-0.895*** (0.319)	-0.228 (0.395)	-0.892*** (0.320)	-0.229 (0.396)	-0.900*** (0.319)	-0.230 (0.395)	-0.159 (0.890)	1.281 (0.880)
Grades in Math		0.370*** (0.020)	0.065** (0.029)	0.360*** (0.020)	0.069** (0.029)	0.360*** (0.020)	0.069** (0.029)	0.360*** (0.020)	0.069** (0.029)	0.224*** (0.067)	0.088 (0.098)
Grades in Italian		0.190*** (0.014)	0.020 (0.021)	0.188*** (0.014)	0.021 (0.021)	0.189*** (0.014)	0.020 (0.021)	0.189*** (0.014)	0.021 (0.021)	0.197*** (0.047)	0.028 (0.068)
Region (Ref. North Center		-0.075 (0.046)	-0.086 (0.065)	-0.077* (0.046)	-0.088 (0.065)	-0.010 (0.051)	-0.075 (0.073)	-0.078* (0.046)	-0.084 (0.066)	-0.534*** (0.152)	-0.065 (0.217)
South		-0.054 (0.049)	-0.443*** (0.076)	-0.049 (0.049)	-0.444*** (0.076)	-0.026 (0.053)	-0.500*** (0.083)	-0.051 (0.049)	-0.437*** (0.076)	-0.498*** (0.176)	-0.096 (0.262)
Female		0.920*** (0.037)	0.513*** (0.054)	0.920*** (0.037)	0.512*** (0.054)	0.921*** (0.037)	0.513*** (0.054)	0.920*** (0.037)	0.511*** (0.054)	1.084*** (0.127)	0.758*** (0.188)
Big Town		0.206*** (0.042)	0.175*** (0.060)	0.198*** (0.042)	0.181*** (0.060)	0.196*** (0.042)	0.181*** (0.060)	0.197*** (0.042)	0.184*** (0.060)	0.361** (0.141)	0.285 (0.205)
Second Gen. & Center						-0.398*** (0.143)	0.007 (0.198)				
Second Gen. & South						-0.314** (0.155)	0.249 (0.227)				
Mix & Center						-0.251 (0.168)	-0.230 (0.252)				
Mix & South						0.141 (0.174)	0.324 (0.265)				

Work (upper secondary school students)

Variables	(1)		(2)		(3)		(4)		(5)		(6)	
	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know	University	Don't know
Mother language ITA									-0.046 (0.082)	-0.081 (0.118)	-0.123 (0.317)	-0.861 (0.646)
Mother speaks ITA at home									-0.098 (0.090)	0.058 (0.127)	-0.189 (0.131)	-0.191 (0.194)
Friends nationality outside school peers												

(Ref. Italians)												
Same nationality									-0.775*** (0.292)			
Migrants different nationality									-0.590* (0.301)			
Friends nationality (Ref. Italians)												
Same nationality									0.003 (0.240)			
Migrants different nationality									-0.289 (0.364)			
Fixed Effects					YES	YES	YES	YES	YES	YES	YES	YES
Constant	-0.003 (0.017)	-1.328*** (0.026)	-3.703*** (0.143)	-1.779*** (0.199)	-3.426*** (0.153)	-2.025*** (0.220)	-3.446*** (0.153)	-2.020*** (0.220)	-3.383*** (0.171)	-1.950*** (0.246)	-1.423*** (0.546)	-2.355*** (0.838)
Observations	20,806	20,806	17,145	17,145	17,145	17,145	17,145	17,145	17,145	17,145	1,627	1,627

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1